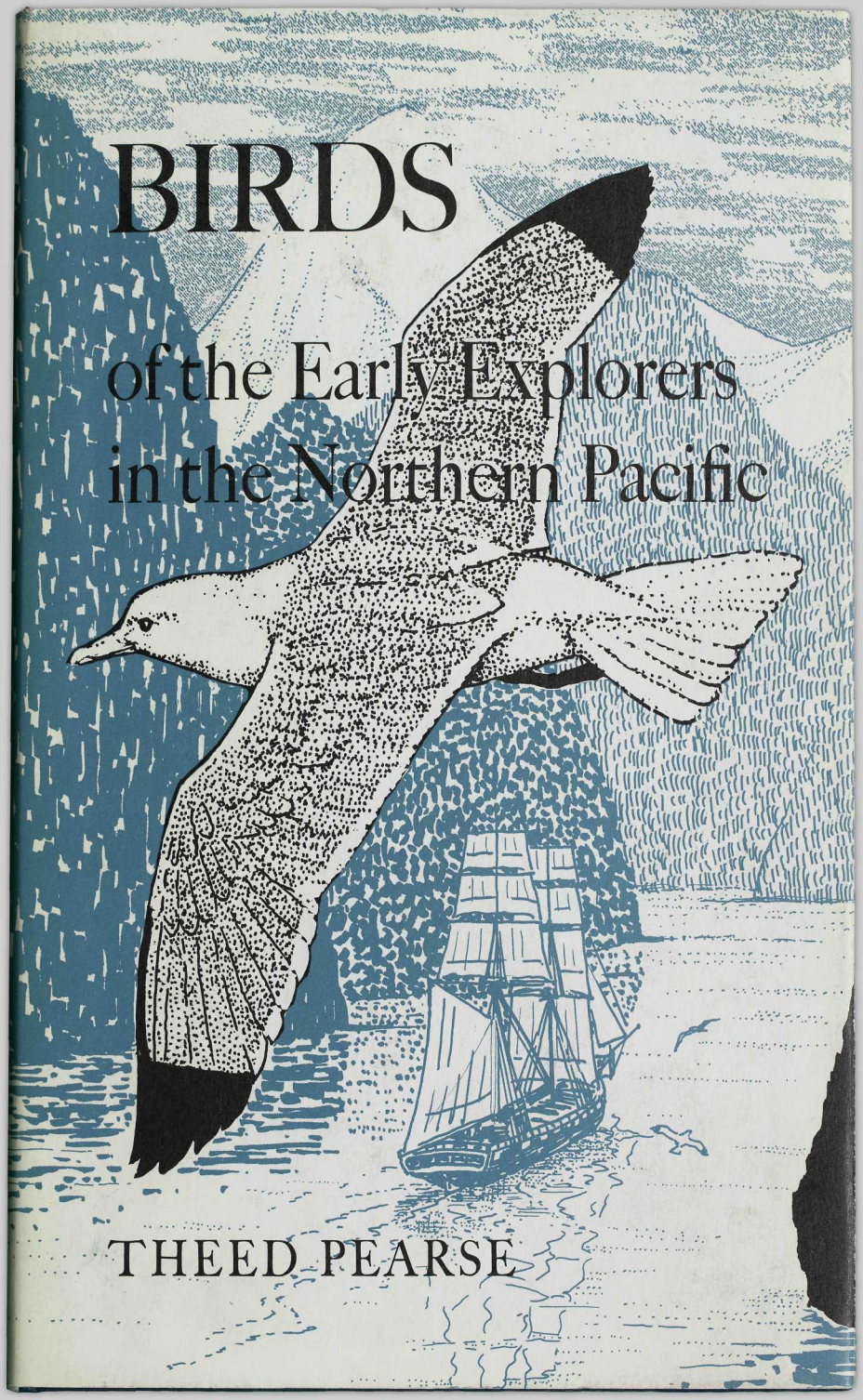
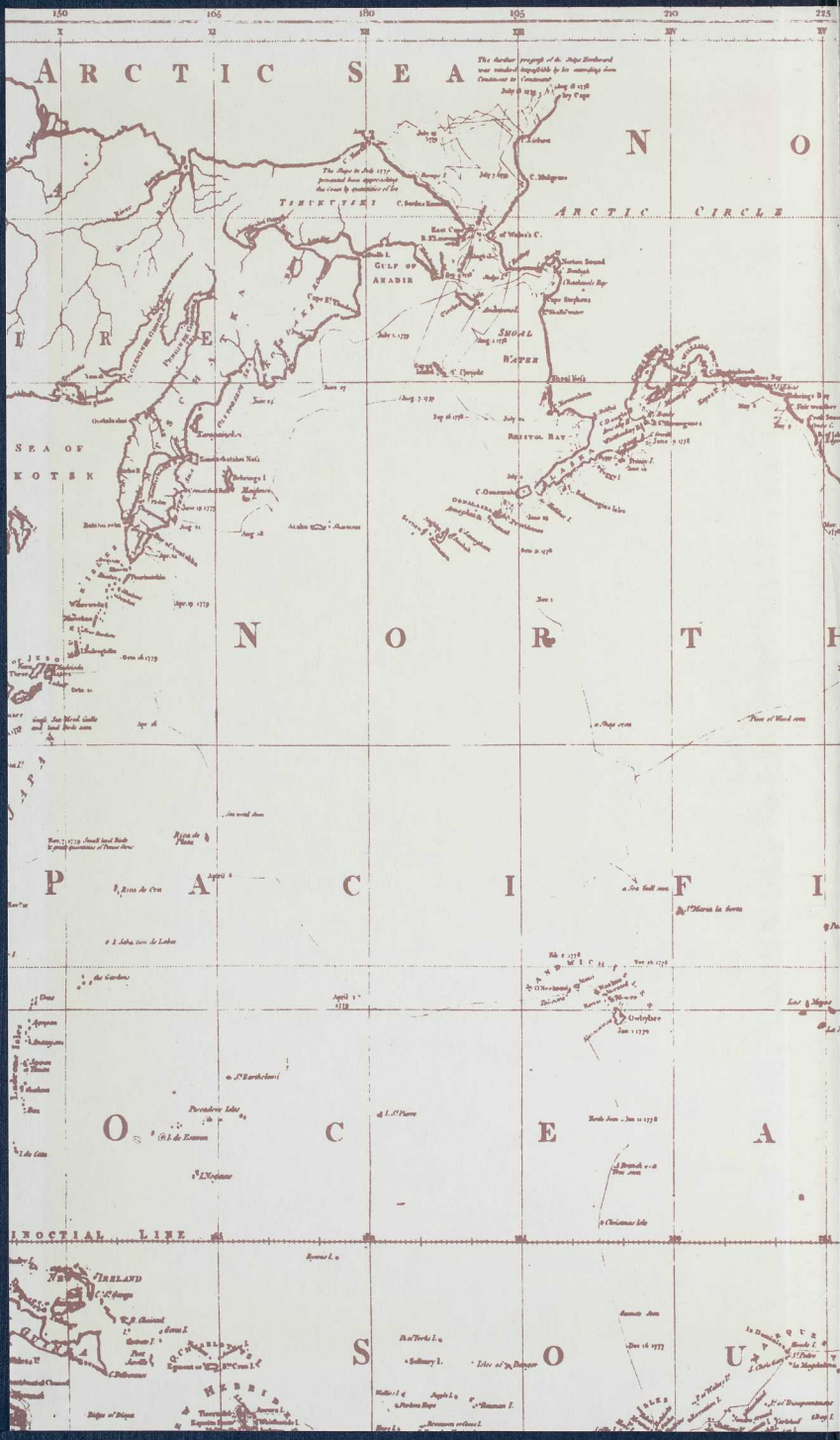
BIRDS

of the Early Explorers in the Northern Pacific



THEED PEARSE


ARCTIC SEA
NO
ARCTIC CIRCLE
TSCHUKTSKI
GULF OF ANADIR
SHOAL WATER
BRISTOL BAY
SEA OF KOTSK
NORTH
PACIFIC
OCEAN
EQUINOCTIAL LINE
NEW IRELAND
SOUTH

BAFFINS BAY
BAFFINS STRAITS
CUMBERLAND ISLE
DAVIS STRAIT
ISLE OF GOOD FORTUNE
HUDSONS STRAITS
HUDSONS BAY
LABRADOR
OR
ESKIMAUX
NEW BRITAIN
NEW SOUTH WALES
JAMES BAY
NORTHERN INDIANS
COPPER INDIANS
NEW MEXICO
LOUISIANA
GULF OF MEXICO
Bay of Campeche
CARIBBEAN SEA
TIERRA FIRMA
NEW GRANADA
GALLAPAGOS ISL.
COUNTRY OF AMAZONS
SOUTH AMERICA
ATLANTIC OCEAN
PENSILVANIA
NORTH CAROLINA
SOUTH CAROLINA
GEORGIA
Bermudas
Rocks seen when the Bermudas
Lake known by the Spaniards
270
285
300

Duplicate Dec 1968

THE LIBRARY

THE UNIVERSITY OF
BRITISH COLUMBIA
The F. W. Howay
and R. L. Reid
Collection of Canadiana

750

BIRDS OF THE EARLY EXPLORERS
IN THE NORTHERN PACIFIC

BIRDS

of the Early Explorers in the Northern Pacific

THEED PEARSE

PUBLISHED BY THEED PEARSE
"The Close"
Comox, British Columbia, Canada

Copyright © 1968
by Theed Pearse
Comox, B.C.

Printed in Canada

This book is sponsored by the Centennial Commission

as a

CENTENNIAL OF CANADIAN CONFEDERATION PROJECT

under the

Publications Assistance Programme

Foreword

Birds have an almost magical quality about them which endears them to nature lovers everywhere. They are by far the most popular group of living creatures judging by the numbers of persons who enjoy watching them.

But this is not their only value. One suspects that man first looked upon birds with interest as a potential source of food and indeed they undoubtedly served in this capacity to an important degree in the early history of mankind and they still do. In time, however, an appreciation developed for their aesthetic qualities as well and this interest has also broadened and become widespread. More recently birds have received a great deal of attention by biologists and many studies of scientific value have been made in most phases of their natural history.

Much yet remains to be discovered and I feel certain that investigators in the future will continue to devote much time adding to technical knowledge concerning these fascinating animals.

Undoubtedly birds were of considerable interest to the men aboard the first vessels to venture along our coast more than two hundred years ago. The presence of birds often meant proximity to land and of course they must have been a very welcome addition to an otherwise exceedingly monotonous diet. But to men like Webber and Ellis both of whom had training as naturalists it must have been a tremendously exciting experience to see and sometimes to actually hold a bird entirely new to them and probably new to science.

For gathering together these early records and for giving us a glimpse or two of these venturesome times we are indeed indebted to Mr. Theed Pearse, the dean of British Columbia's amateur ornithologists, who has devoted many years of an unusually long life to this task.

G. Clifford Carl.

Table of Contents

7 Foreword by G. Clifford Carl

11 Introduction and Explanatory

15 Climate and Topography

18 Range of Species Referred to in Narratives

20 Hypothetical Identity

RUSSIAN EXPLORERS

28 *Chapter I*

Vitus Bering, Sven Waxell, Georg Wilhelm Steller, A. J. Cherikoff, J. Von Stachlin, Gaivrila Sarytchew

50 *Chapter II*

S. P. Krashnaminnikov

69 *Chapter III*

Martin Sauer, Carl Heinrich Merck, Carl Krebs, J. Von Stachlin, Urey Lisiansky, N. J. Korobitsyn, Gabriel Ivan Davidoff, A. J. Von Krusenstern, John D'Wolf

96 *Chapter IV*

J. H. Langsdorff, Peter Dobell, Otto Von Kotzibue, Ferdinand von Wrangell, N. Novikoff, Stephen Glotoff, Frederic Lutke

124 *Chapter V*

William Coxe

SPANISH EXPLORERS

127 *Chapter VI*

Fray Junipero Serra, Juan Perez, Don Francisco Antonio Mourelle, Don Juan Pantoja y Arriaga, Bruno Haceta, Juan Francisco de la Bodega y Quadra, Estevan Josef Martinez, Alexandro Malaspina, Tomas de Suria, James Colnett, Manuel Quimper, Jacinto Caamino, Don Joseph Mozino Suarez de Figuaro

ENGLISH EXPLORERS

151 *Chapter VII*
James Cook, James Burney, George Gilbert, William W. Ellis, John W. Webber, George William Anderson, Charles Clerke

213 *Chapter VIII*
William Robert Broughton, James Strange, Nathaniel Porlock and George Dixon, John Meares

221 *Chapter IX*
George Vancouver, Archibald Menzies, John Dundas Cochrane, Alexander Mackenzie, David Douglas, John Scouler, John Wark

239 *Chapter X*
Frederick Beechey (*Blossom* Expedition) Nicholas Aylward Vigors

FRENCH EXPLORERS

247 *Chapter XI*
John Francis Galaup de la Perouse

UNITED STATES EXPLORERS

252 *Chapter XII*
Robert Gray, Robert Haswell, John Hoskins, John Boit, Joseph Ingraham, John Jewitt, James Hanna

NOTES ON CONTEMPORARY WORKS

262 *Chapter XIII*
Pennant, Latham, Martyn

264 *Appendix*
F. H. von Kittlitz

275 *Acknowledgments*

Illustrations following page 196

Introduction and Explanatory

Birds of the Early Explorers in the Northern Pacific does not profess to be a scientic study; all it purports to do is to bring together, in one volume, all remarks that refer to the birdlife by the early explorers during a given period and over a limited part of the North Pacific Ocean, together with comments, as far as possible, connecting the observations with present day nomenclature. First, as to the period covered: From the earliest exploration to 1830; this date being chosen as by then all serious exploration had ended; moreover it covers two important publications issued, or in process of in the decade ending then, Pennant's *Arctic Zoology* and Latham's *Synopsis of Birds,* referred to as A.Z. and Syn., respectively, both of which include the ornithological results of the Cook Expedition.

The Area, so referred to throughout, is enclosed by the following boundaries; from the Strait of Juan de Fuca to the Southern extremity of Kamchatka; along the Eastern coast of that country to Avatcha (Petropavalosk), from there to Bering Straits, and so much of the Arctic Ocean (Frozen Sea) as was reached by any expedition; thence, taking in the Aleutian and other islands to the mainland of North America to the Strait of Juan de Fuca.

This deliniation will be generally adhered to, but is elastic and will take in Narratives of Expeditions that started outside and finished within The Area. Practically all Expeditions inland originated from the ships owing to the generally rugged nature of the foreshore or having to face a dense forest, and, in the earlier days, often hostile natives.

Though The Area covers thousands of square miles, by far the greater part is sea, quite unknown; though, in any case, would not have contributed much information as birds shun these great boundless expanses of water.

Avatcha Bay was chosen for the starting point for most of the Russian Expeditions, being the centre of the Russian settlement in Kamchatka, with a good harbour.

There are only two authorities that deal with Kamchatkan birds, Krashnaminnikov's *History of Kamchatka,* and Stellar's notes. The latter are now non-existent; the History devoted a chapter to Birds and has recently been issued in a revised edition.

The coast of N.E. Siberia, land of the Chuchkis, is not included in The Area. This was terra incognita in those days, with nothing to attract explorers; Cook did sail along the coast but has little to say about it except being rugged and sparsely populated by a hostile people.

The result of rumours of there being land to the East of Kamchatka, on reaching the Russian Government, resulted in the Bering Expeditions, the second of which confirmed the rumours and did some exploring.

The first Spanish Expedition to explore northward was that of Perez in 1774, and from then on various exploratory and or trading undertakings from Spain, Britain, etc., appeared on the scene, though Russia remained dominant in The Area until she sold out to the U.S.A. in 1867, and contributed more than any country to the early knowledge of the resources and other information about The Area.

Naturally, as the news got about of the trading opportunities in the north and other nations became interested, La Perouse represented France; Gray, the U.S.A.; and Cook, Vancouver and others, Britain; it was not long before the country was suffering from the white man's burden, which resulted in the extinction of the Spectacled Cormorant (*Phalocrocoras perspicillatus*), a flightless bird found only on Bering Island, and Steller's Seacow (*Hydrodamilis gigas*), and the extermination of the sea-otters (*Enhydra lutris*).

Fortunately the more important Narratives, Russian and Spanish, have English translations, which are used throughout. The Russians did not take care of the original notes, and among those lost, are Steller's descriptions of the birds of the Northern Pacific. Some translations start with a revision in the form of a preface and may include notes on birdlife identification. Few narratives have illustrations.

All references to birdlife will be included, even when so indefinite as "gulls," "ducks," etc., as such observations at least show the writer noticed birds about and even might have assisted in furthering the sending of later expeditions with naturalists on the staff.

Any notes by the translator, or comments of any kind, will be included. Those by the present writer will be shown in square brackets.

As far as has been possible all existing observations, on the birdlife of The Area, will be shown—some probably were missed as it was quite impossible to do more than skim through the welter of material that might contain observations (so much with no results). All the important observations have been dealt with.

Generally speaking the aborigines recognized very few birds, only those that were important as, food, clothing, personal adornment or ceremonial purposes. According to the various vocabularies, when included with the Narratives, food, dress and ceremonials of the tribes varied.

In the northern part of The Area aborigines would appear to have been of Esquimou ethnological origin; further south, along the American coast, there must have been quite a considerable Indian population, later to be seriously reduced by diseases introduced by the white man. Smallpox resulted in the wiping out of whole settlements.

All these people lived off the land or the sea and so must have caused considerable pressure on the bird population; in the Narratives various devices for capture are described and there is also quite frequent mention of the scarcity and shyness of birds, particularly ducks and other sea birds presumably as the result of persecution. Then, too, the primitive clothing was of bird skins and so quantities of sea birds and eggs as food must have been taken. One reads of boat loads of eggs.

Frequently the identification of the birds mentioned in the Narratives is difficult; in many instances the author (and translator) would only have been interested in birds as being part of the general picture and many probably did not realize they were seeing or discussing birds never seen before. The rather natural result was they compared them with birds of their native country or that had been noticed previously on the voyage; a small brown bird would necessarily be a sparrow, and so forth. In other cases they simply lumped all species in groups according to general appearance, applied a name known in the homeland, or seen elsewhere during the voyage.

There is always the doubt whether the translator correctly interpreted the name; original descriptions are, generally, sketchy and some could refer to more than one species; when a translation of a translation is used this question doubly arises. A common name used today may, nearly two hundred years ago have been applied to a different species or may not now be recognized at all. There was no recognized general system of nomenclature in use and in any case, how many sailors would have known of its existence. Though the Linnean System was available it would have been unknown to practically all Narrators and was not made use of in A.Z. or Syn. Though both the authors gave references. Often locality and time of year help towards identification, but always "presumable."

The Fifth Edition (1957) of the American Ornithological Union (A.O.U.) will be followed, as far as possible, both as to scientific and common names. No attempt will be made to deal with subspecies except to include those added by commentators where helpful for identification. In any case adding subspecies could only be on the assumption that the bird described "should" have been found at the site of the recording according to today's taxonomy.

The use of general group names has been mentioned and in the hope of assisting in arriving at what species "might" have been included, there follows a list of possibilities for the different latitudes; this is taken from the A.O.U.

Climate and Topography

Climate directly or indirectly is the deciding factor governing bird-life, on it the presence of the required food is dependent; so some idea of the varying conditions found in The Area should be realized to understand the reason for the occurrence of birds that, elsewhere, are not found in winter in such high latitudes, as well as for other species being, more or less, indigenous.

The Area covers, from north to south, 60° of latitude and thousands of miles of coastline, when the innumerable islands and inlets are included, so great differences in climate and topography exist. In the south, it approaches the Upper Sonoran Zone while the northern parts have a summer of a few weeks and during the remainder of the year are practically birdless.

The main feature affecting the climate all along the North American coast as far as Kodiak Island and part of the Aleutian chain of islands, is the so-called Japanese Current, which results in temperatures that make available wintering quarters much farther north than in corresponding latitudes in other parts of the Northern Hemisphere. Where the warm air from the Japanese Current, comes up against the snow-covered mountains, the result is a heavy precipitation. Precipitation also varies greatly. In the north and south it is light, but in between it is heavy.

Some of the Narratives include a table showing monthly weather conditions. At Nootka, Vancouver Island, there has been little, if any, change. The changes that have occurred in the birdlife could be the result of human interference, particularly clearing of land for farming and the removal of many square miles of primaeval forest, both thereby providing a habitat for many more species than would have been found when the coniferous forest extended from the coastline, back. A good example of how changes have affected the birdlife is provided by the Western Bluebird (*Sialia mexicana*) which is never mentioned in the early Narratives, but is now found north of the 40th parallel; such a conspicuous bird, if present, must have been mentioned in some of the Narratives.

The bluebird is also an example of the necessity of suitable breeding places if a species is to increase or even maintain its number; on the mountains of the Eastern slope of Vancouver Island considerable

logging operations have taken place during the past fifty years; in earlier years it was customary to leave the snags standing, thereby providing nesting facilities for not only the bluebird, but also the Lewis Woodpecker (*Asyndesmus lewisi*). Now it is compulsory to cut down all snags as being a fire menace, consequently available nesting sites are no more, nor are the birds there. Though along much of the coast the forest comes down to the shoreline (or did), on the Charlottes the north end of Vancouver Island, the northern portion of The Area and on Kodiak Island, there are extensive areas of tundra that still provide nesting grounds for the Sandhill Crane (*Grus canadensis*), Trumpeter Swan (*Olor buccinator*), the dark race of the Canada Goose (*Branta canadensis fulva*) and other species, particularly Waders, some being migrants from Asia. It was only natural that such favourable conditions would result in a considerable population of wildfowl which would have attracted the nomad tribes both in Kamchatka and on the American side as these lived off the land, with birds as a considerable percentage of their diet and clothing.

The object of most of the Expeditions was exploratory or to survey the coast, and therefore carried out from the sea. Where landings were made, except at the aboriginal settlements, it would have been to face the, more or less, impenetrable forest or cliffs, except in the tundra country. As well as tundra for nesting, there would be extensive sands provided feeding grounds for Waders, and also extensive deltas, such as the Yukon and Kuskowyn Rivers, which today provide wonderful nesting grounds for wildfowl.

Places along the rugged shore, particularly the islands, provided nesting grounds for innumerable and varying species of Alcids and gulls. Here, also, would be found the predators taking advantage of an easy source of food. An instance is the number of nesting pairs of Peregrine Falcons (*Falco peregrinus*) that today nest on Langara Island, B.C., where they have an almost unlimited food supply in the nesting Ancient Murrelets (*Synthliboramphus antiquus*).

Probably the bird population is greater today than in the days during native occupation. None of the tribes practiced any form of agriculture and lived off the land. Today their numbers are a fraction of the early days. The exceptions to increases are probably, like elsewhere, in the reduced number of predators; eagles, for instance, on which for several years there was a bounty imposed by the U.S.A., and

of course, if a Peregrine is seen near a white man's habitation, out comes the gun.

The composition of groups of birds ("ducks," etc.), obviously cannot be arrived at; in the hope of assistance the following list gives the possible species that could be found in the different latitudes within the area. This is from the A.O.U.

Range of Species Referred to in Narratives

Ranges do not necessarily mean that conditions were similar 150–200 years ago, before the white man had inflicted his frequent devastating influences on the birdlife by not only extirpation (Spectacled Cormorant, *Phalocrocoras perspicillatus*) but also by destroying their habitat or food supply.

Details of identity will be discussed in the review of the respective Narratives.

Most of the exploration and travelling took place during the summer months when birds would be in full nuptial plumage, though there are some Narratives that include wintering in The Area. Summer was the only time of year that permitted exploration, a time when vast concentrations of various sea birds (mainly Alcids) would be found. Few Narrators refer to the changed conditions when the nesting season was over and these rookeries would be deserted. An account of these fascinating scenes is to be found in *Birds of Alaska* (Gabrielson and Lincoln, 1959).

Nearly two hundred years can show changes in the bird life, particularly where affected by settlement. Today the native population is greatly reduced and except on southern Vancouvern Island the white population has not come up to the early days. An instance given as the result of the Broughton Expedition at the end of the 18th century when it is stated that, at Clayoquot (west coast of Vancouver Island) there were five Indian settlements, each with a population of 1500 and one with as many as 2500 (perhaps the figures were stretched). Today instead of thousands, the native population must be reckoned in hundreds.

One direct result of the arrival of the white man was the already referred to extermination of the flightless Spectacled Cormorant (*P. perspicillatus*), found only on Bering Island, and later of the Eskimo Curlew (*Numenius borealis*) of which a few "may" exist today. Even so, most of the more northern parts of The Area must still be as they were when the early explorers arrived. There may have been some moderation in the climate, which would provide more open water and

therefore additional feeding grounds further north for some species. Probably the number of most species has increased.

So far as names are concerned identification is frequently difficult. Dictionaries, if giving the name (not often), do not always agree in interpretation. Then names in common use two hundred years ago may have become obsolete, or be applied today to a different species. No doubt causes of the use of inclusive names arose owing to many of the species being unknown to the writer who then applied the name of a bird already known to him. Some of the translators appear to have recognized this difficulty in identification and gave the name as in the original Russian.

Sometimes the locality or context gives a clue. Where there is nothing to help, the original name, appearing in the translation, will be shown. The order and nomenclature will conform with A.O.U.

Hypothetical Identity

DIOMEDEIDAE (Albatrosses)

During the period under review, both the Short-tailed (*Diomedea albatrus*) and the Black-footed (*D. nigripes*) would have been common. The former must be the Albatross described sometimes as the Wandering (*D. exulans*).

PROCELLARIIDAE (Shearwaters, Fulmars, Petrels)

Shearwaters are mentioned by name, but must frequently have been included under "Petrels"; in fact any of the tube-nosed birds, at times, must, have been included under this name. The common shearwaters would be the Pink-footed (*Puffinus creatopus*) and the Sooty (*P. griseus*), both summer visitors south to north of The Area.

Fulmars: Only one species (*Fulmaris glacialis*) but is seldom referred to specifically; often must have been included under the name "Petrel" or "Gull"; a numerous resident in Northern waters.

The only true Petrels, the Leach's (*Oceanodroma leucorhoa*), and the Fork-tailed (*O. furcata*) are generally recognizably described, but also might be included in the general name; sometimes distinguished as "small."

PHALACROCORACIDAE (Cormorants)

In the older records Cormorants are sometimes referred to under Pelican or Pelacanus. Double-crested (*Phalacrocorax auritus*), in summer in all The Area north to southwest Alaska; winter in southern parts of The Area. Pelagic (*P. pelagicus*), frequently called the Shag (*P. aristotelis*) of the Old World (which does not occur) would be the bird generally referred to as Cormorant or Pelecanus.

Red-faced (*P. urile*): More of an Asiatic bird, but is found in the Pribilofs and the Aleutians winter and summer. Sometimes mention of the distinguishing character, the red face, makes identification easy.

Spectacled (*P. perspicillatus*): This would be the Cormorant of Bering Island, now extinct, referred to by Steller.

ANATIDAE (Swans, Geese, Ducks)

Swans: The Whistling (*Olor columbianus*) nests in the far north and winters south of The Area.

The Trumpeter (*Olor buccinator*) probably in the early days nested far more south, resident birds are joined in winter by birds from further north. Winters in southern portion of The Area. Swans referred to during summer months were probably this species. The Whistling (*Olor columbianus*) breeds in the far north and may also south in winter.

Geese: Generally would apply to the Canada (*Branta* sp.). Of the numerous species listed in A.O.U., it is impossible to say which race is referred to. The western race, *Branta canadensis fulva* still nests as far south as Vancouver Island and is resident. Other species would be seen on migration. The Black Brant (*Branta nigricans*) winters off Vancouver Island. The name "Brant" is frequently used as representing geese, generally.

There is a description of a goose that clearly must have been the Snow Goose (*Chen hyperborea*). As a migrant, it is today common. Most winter south of The Area. Another goose seldom mentioned, is the White-fronted (*Anser albifrons*), nesting in the north and occasionally wintering in the southern portion of The Area.

The Emperor (*Philacte canagica*) is The Goose of the North and is described from there. In winter it moves south as forced by ice conditions. Geese probably have suffered more than any family by the intrusion of the white man.

Ducks: Mallard (*Anas platyrhynchos*) must have been one of the commonest ducks as it nests as far north as Western Alaska.

Pintail (*Anas acuta*): Nesting range from Arctic lakes and Northern Siberia, winters from southern half of British Columbia, seldom mentioned specifically, but must have been numerous in northern parts.

Green-winged Teal (*Anas carolinensis*) would be the species when "teal" referred to; No. Central Alaska, south; some winter in the southern part of The Area.

Widgeon (*Mareca americana*): Seldom mentioned, though they must have been numerous.

These are all fresh-water ducks, and during the summer would be nesting inland, consequently might not be included as "ducks."

Greater Scaup (*Aythya marila*) and Lesser Scaup (*A. affinis*): These are likely to be included on migration, but are inland nesters, though in winter frequent the sea more than fresh water; the first winters south from the Aleutians and is one of the commonest ducks

off the coasts of the more southern part of The Area. *Affinis* is a more inland bird on migration, but is found on the coast in the southern part of The Area in winter.

Common Goldeneye (*Bucephala clangula*): Nests as far north as Kotzibue Sound; wintering in protected waters all down the coast of The Area.

Barrow's Goldeneye (*Bucephala islandica*) is a more southern species, nesting from Southern Alaska to Vancouver Island. In winter the same.

Bufflehead (*Bucephala albeola*): Breeds from south coastal Alaska to interior of British Columbia. Winters on coast throughout this range.

Few of the foregoing are specifically mentioned but all could be "ducks." These are mostly found in the vicinity of the shore.

Old Squaw (*Clangula hyemalis*): Should have been well known from its note, though Steller suggests it was a new bird for him, and gives a full account, especially of the note. It nests in Arctic Alaska, winters south where there is open water.

Harlequin (*Histrionicus histrionicus*): Nests widely through The Area, wintering off the coast of Kamchatka and from the Aleutian Islands, south. This may be the mountain duck of Cook and others.

Scoters: Probably the commonest ducks seen were one or the other of the Scoters. The White-winged (*Melanitta deglandi*), does not go so far north (nesting), but otherwise is numerous on and along the coast of The Area. The Surf (*Menanitta perspicillata*) would be more numerous and is found in summer further north and, in winter, from the Aleutians. Common Scoter (*Oidemia nigra*) is the commonest in northern waters and is found nesting in the Aleutian Islands; winters southward generally down the coast.

Mergansers: Are occasionally distinguished from the other ducks. The Common (*Mergus merganser*) does not range so far north as the Red-breasted (*Mergus serrator*). The former is resident. Both would be found dispersed along the coast. There is a description that fits the male of the first.

JAEGERS AND SKUAS

Except on one occasion when the long tail feathers are mentioned (*Stercorarius longicaudus*), there is no indication of species; all three would be found nesting in the far north, are circumpolar and migratory.

The name Arctic Gull is generally applied and could include, as well as the foregoing, the Pomarine (*S. pomarinus*), and the Parasitic (*S. parasiticus*), the last probably the commonest. The early writers misinterpreted the method of obtaining food.

GULLS

The common resident gull of the far north would be the Glaucous (*Larus hyperboreus*), often referred to as white; in winter some found in south of The Area.

Glaucous-winged Gull (*Larus glaucescens*): The commonest large gull all down the coast from south-eastern Alaska.

Herring (*Larus argentatus*): Another "large" gull that is found up the coast as far as Alaska; nests mainly inland. In winter its place is taken by *L. a. thayeri*, today one of the common gulls of the garbage dumps and canneries throughout The Area. *Thayeri* was not recognized specially and if referred to would be a Herring (*L. argentatus*).

California Gull (*L. californicus*): To be found as a migrant in the southern part, spring and fall. Few winter in southern part of The Area.

Ring-billed (*L. delawarensis*): The same, but only sparsely represented, not in winter.

Mew (*L. canus*) found nesting in N. Alaska; a common bird in summer and in winter; nests from Alaska (inland).

Bonaparte's (*L. philadelphia*): A numerous migrant, nesting from Alaska (inland); winters south of The Area.

The Kittiwakes are the northern small gull. The Black-legged (*Rissa tridactyla*) nests far to the north and winters down the coast. This is more of a bird of the open sea than the majority of the gulls and so no doubt would be one of the "gulls." In the Ellis painting, the colour of the legs is black.

The Red-legged (*Rissa brevirostris*) stays more in the Arctic regions.

Sabine's (*Xema sabini*) nests in the far north from northern Alaska; migrates off shore; is clearly referred to and would have been well in the path of ships sailing up or down the coast.

There are one or two other species found in the north, but too rare to be included.

TERNS

In the southern portion would likely to be the Common Tern (*Sterna hirundo*), rarely the Arctic (*Sterna paradisaea*), the latter and the Aleutian (*Sterna aleutica*) ranging from N. Alaska; the last winters in the north-western Pacific, but the other two go south.

HERONS AND CRANES

"Crane," at times, is more likely to refer to the Great Blue Heron (*Ardea herodias*) which is found as more or less resident from S.E. Alaska. The Sandhill (*Grus canadensis*) winters south, but nests in The Area as far north as northern Alaska. "Cranes" seen at sea would probably be the latter, as it moves in flocks and is noisy.

CHARADRIIDAE

(Curlew, Plovers, Turnstones, Surfbirds)

A Curlew is mentioned in various Narratives, but would not be the Long-billed (*Numenius americanus*) which does not reach the west coast; most probable the Whimbrel (*Numenius phaeopus*), but in those days the Esquimaux (*N. borealis*), now extinct, would have been numerous. It is possible that any long-billed large wader was so described and would include Godwits, the Bar-tailed (*Limosa lapponica*) and Hudsonian (*L. haemastica*).

Plovers are frequently mentioned. They might be either the Golden (*Pluvialis dominica*), or the Black-bellied (*Squatarola squatarola*), both as migrants. The Killdeer (*Charadrius vociferus*) also is referred to as a plover; a common summer resident, some winter in southern parts of The Area.

SCOLOPACIDAE (Snipes, Sandpipers)

The name "Snipe" is constantly used, and if at times may have been the Common (*Capella gallinago*), is often used to cover small waders; which have been seen migrating north to nest, or returning to winter south of The Area. The only regular wintering Sandpipers are the Dunlin (*Erolia alpina*) in the southern portion; the Rock (*Erolia ptilocnemis*), resident on the Aleutian Islands and found south in winter down the coast of The Area.

PHALAROPODIDAE (Phalaropes)

The two species are seen as migrants at sea. Both are circumpolar, and winter at sea south of The Area. They are mentioned in various

narratives and in a list provided by Pennant for the Cook Narrative. A Blue Petrel is included and may refer to *Phalaropus fulicarius*; the Northern (*Lobipes lobatus*) may be the one described as brown.

ALCIDAE (Auks and Murres)

This group, in summer, is by far the most numerous. One reads of them in blackening the sky and the sea being covered. Unfortunately, details are generally wanting for the smaller species. All of them would be found nesting and, in winter, at sea.

In Murres: The Common (*Uria aalge*) is resident as far north as conditions permit. The Thick-billed (*Uria lomvia*) is a more northern species. The Pigeon Guillemot (*Cepphus columba*) nests as far as the Southern boundary of The Area. The differences between summer and winter plumage and between adults and juveniles were not realized and would be treated as two species. The Marbled Murrelet (*Brachyramphus marmoratum*), especially referred to in the Cook Narrative as a new species, is resident to north Unalaska. It is possible that a skin from the Vienna Museum, kindly shewn to the present writer in 1954, is that of the bird referred in the Cook Narrative. See Pearse "The Type of the Marbled Murrelet" (Murrelet Vol. 36, No. 2 - May to August, 1953).

Ancient Murrelet (*Synthliboramphus antiquus*) is likely to be the most numerous species in the references in Cook to the sea being covered with countless birds.

Cassin's Auklet (*Ptychoramphus aleutica*) nests in Shumagin Islands and winters mainly south of The Area.

Parakeet Auklet (*Cyclorrhynchus psittaacula*) is more of an Asiatic bird and does not range so far north as appears in Cook's Narratives. Doubtful in winter.

Crested Auklet (*Aethia cristatella*) nests in the Aleutians; winters north; is specifically referred to in Cook's Narratives.

Least Auklet (*Aethia pusilla*): Similar habits and must have been included under general terms; breeds in Alaska; winters at sea, as conditions permit.

Whiskered Auklet (*Aethia pygmaea*): Same remarks apply.

Rhinoceros Auklet (*Cerorhinca monocerata*) nests from south-eastern Alaska; winters in southern part of breeding range.

Horned Puffin (*Fratercula corniculata*): Found in the northern part of The Area, wintering in nesting area and in open waters.

Tufted Puffin (*Lunda cirrhata*): Clearly described by Cook and others. Nests Kotzebue Sound, southern Vancouver Island. Resident where weather conditions permit.

HAWKS (Cathartidae and Accipitridae)

Vultures: There are not many references and when mentioned probably referred to the Californian (*Gymnogyps californianus*). It is doubtful if the Turkey Buzzard (*Cathartes aura*) had penetrated as far north and its larger relative would have kept it away. Of the true hawks there is little to assist in identification. Probably the ill-named Sparrow Hawk (*Falco sparverius*) was the one seen most often; it would be around the Indian settlements.

Of the Accipitridae, the Goshawk (*Accipiter gentilis*), the Cooper's (*A. cooperii*), and Sharp-shinned (*A. striatus*), should be represented. Perhaps the Red-tailed (*Buteo jamaicensis*), in the southern parts, would have been more numerous. They were not then considered predators to be shot on sight, as happens today. Falcon (*Falco rusticolus*) is mentioned in *History of Kamchatka*, and the Peregrine (*Falco peregrinus*) must be implied in some descriptions.

OWLS (Strigidae)

The Horned (*Bubo virginianus*) is represented in Indian carvings, and must have been generally present. The Boreal (*Aegolius funereus*) and the Screech (*Otus asio*) range from Northern Alaska. The Short-eared (*Asio flammeus*) might have been seen, as it breeds in Northern Alaska. It is suggested that this was the owl that came on board when the Cook Expedition was in the Arctic then on its way south.

WOODPECKERS (Picidae)

The Red-shafted Flicker (*Colaptes cafer*) is resident from south eastern Alaska, and no doubt the woodpecker generally referred to. The Yellow-shafted (*C. auratus*) probably was not seen in The Area.

Yellow-bellied Sapsucker (*Sphyrapicus varius*): S.E. Alaska, south; resident.

Hairy (*Dendrocopus villosus*).

Downy (*Dendrocopus pubescens*): Limit of trees in southern Alaska — mainly resident. The red feathers on head sought by natives as ornaments.

Larks: The Skylark (*Alauda arvensis*) would not be seen. Ref-

erences would be to the Horned (*Eremophila alpestris*), a migrant. It nests on Vancouver Island.

Swallows: Violet-green (*Tachycineta thalassina*); common in the southern portion.

Tree (*Iridoprocne bicolor*) ranges further north. The same applies to the Bank (*Riparia riparia*). The Rough-winged (*Stelgidopteryx ruficollis*) would only be seen in the extreme southern part.

The Barn Swallows (*Hirundo rustica*) migrates to Alaska.

Cliff (*Petrochelidon pyrronota*) reaches Alaska; a colony nester, and would have been dependent on suitable sites for nesting. Any of these could be swallows."

Chapter I

Russian Explorers

The credit for the discovery of Alaska and the islands off the coast must go to the Russians as a result of the second Bering Expedition in 1741 and which remained under Russian dominance (more or less) until she sold out to the U.S.A. for a sum that, in the light of present days, was absurdly low.

The Russians had already taken possession of Kamchatka and it was from Avatcha Bay (now Petropavalosk) that all expeditions sailed; it is an excellent harbour and the only one on the peninsula of Kamchatka within The Area.

Before the actual discovery of Alaska, there had been rumours of land East of Kamchatka and some early explorers claimed to have actually seen land, though not necessarily Alaska.

These rumours, coming to the notice of Czar Peter the Great resulted in The Bering Expeditions; the second of which, actually discovered Alaska and also did some exploration of the coastline.

The coastline, according to U.S.A. surveys, reaches 4,750 miles taking in the neighbouring islands of any size. As seen from the sea, Alaska has a very rugged coast; many islands are extinct or active volcanoes, and the others very rocky and quite uninhabitable.

In climate there are great variations; to the South where the Japanese Current Kuro Shewo reaches, it is comparatively mild but, elsewhere the winters are long and severe. The effect of the Kuro Shewo provides open water much further north than elsewhere at the same latitude. This must affect the bird life, as enabling some species to remain further north in winter. The temperature in the Gulf of Alaska varies little between winter and summer.

It was these tales, brought back, by the second Bering Expedition, of the riches — furs obtainable for mere trifles — that started a rush something like the gold rushes of later years. Here, however, there was a serious obstacle to be overcome — miles of open sea. Few ships were available for transportation (they were all busy trading) and at Avatchka Bay there was little suitable material for building boats. This did not deter the more adventurous who set about constructing

boats out of what material there was; many unfitted to face an open sea were never heard of again.

With all this persecution it was only natural the supply of fur diminished; moreover the natives began to realize their value and trifles, like beads, were unacceptable. Then too, the trading vessels were now in competition so the returns became less. The sea otter (*Enhydra lutris*) the most valuable fur, became practically exterminated, though fortunately, a few remained on inaccessible islands on which U.S.A. authorities have kept a strict watch and so have considerably increased the numbers. With the loss of fur, Alaska offered few inducements except as a Russian settlement. Kodiak, on the island of the same name, became their headquarters, from where exploratory expeditions started.

Russia was not alone in claiming Alaska, as the Spaniards were active in exploring up the coast, claiming all as theirs, under an edict of an earlier Pope who donated all the Pacific to them (it is not clear by what right this vast area was obtained). There was rivalry between the two nations but no clashes and after a time the Spaniards did not pursue their efforts; the climate would not have been to their liking and the country, outside of fur, was unattractive. Baranoff, when governor at Kodiak was interested in extending Russian territory south but possible trouble with the Spaniards caused him to give up the idea.

All dates in the Russian narratives are, presumably, according to the Gregorian Calendar, which was official until comparatively recently. This calendar reckons dates 10 days later than the Julian calendar used by other writers. Ten days is a serious period in the Arctic summer and could represent the difference between arrival and commencement of nesting.

VITUS BERING

Vitus Bering was a Dane who had joined the Russian Navy. He undertook various exploratory expeditions to Siberia and in 1729 made an abortive attempt to find land to the east of Kamchatka. There are no notes on the bird life in Bering's Journals covering this voyage.

The second Expedition consisted of two vessels, the *St. Peter*, commanded by Bering, and the *St. Paul* by Lieutenant A. J. Cherikoff, which sailed from Petropavalosk, Avatcha Bay then known as Harbour

of St. Peter and St. Paul, 4 June, 1741. The history of this Expedition was a sad one, though the *St. Paul* did carry out its object and reached the Aleutian Islands; both vessels were wrecked, the *St. Paul* when exploring the Aleutians, and the *St. Peter* on the island named after Bering, and it was only a remnant of the crews that managed to get back to Petropavalosk. Though the *St. Paul* was wrecked, the crews managed to build a boat which got away in time to reach Petropavalosk before winter set in.

On this second voyage Bering had with him the naturalist, G. W. Steller, whose Journal is reviewed later, and Lieutenant Waxell, who also contributed bird notes.

Though the *St. Paul* discovered several of the Aleutian Islands, including Kodiak, scurvy claimed the lives of several of the crew — conditions with the *St. Peter* were worse: wrecked on Bering Island too late in the season to get away before winter set in and with it scurvy which took the lives of the commander Bering and several members of the crew. In the spring a boat was built out of the wreck and the sorry remnant ultimately reached Petropavalosk.

The two vessels got parted soon after the start and never saw one another again, though at times no great distance apart, so that there are two distinct accounts of the experiences, Waxell with the *St. Peter*, and Cherikoff, the commander of the *St. Paul*, and, of course, Steller's Journal.

Bering, himself, kept no notes on the birds, or, if he did, they have been lost. There are none in his Journal.

SVEN WAXELL

Sven Waxell (1701-1762) was a Swede and first saw service in the Baltic with the English Navy in 1725; later he joined the Russian Navy and volunteered for Bering's Second Expedition. After Bering's death he took over command of the *St. Peter*. He was the author of "An Extract both from mine and other officers' Journals kept during the recent Kamschatka Expedition which was sent out from St. Petersburg in the year 1733 in which the purposes of this expedition, its prosecution. new discoveries, unfortunate happenings and ending are set forth briefly; which can be elaborated more clearly, more circumstantically and also in more detail by a pen more able than mine without

any change in the matter or subject itself by Sven Waxell, Captain in the Fleet of Russia."

This was translated from Johan Skalberg's Danish version — Vitus Bering Eventyrlige opdager foerd 1733-1743, by M. A. Michael.

The first note on the birdlife was made after the *St. Paul* had lost contact with the *St. Peter* some 50 degrees east of Avatcha:

"Straight ahead of us, and at some considerable distance we caught sight of something black on the water. It was thickly covered with an incredible mass of sea birds of all kinds. We could not conceive what it was — In the end we realized it must be a dead whale."

He refers to sea lion caps worn by the natives, set round with various feathers, most of them, naturally "hawks" feathers. [The translator must have inserted the "H".] He also refers to the collection of "gulls eggs" and those of many kinds of ducks of which there are [such] vast numbers that "the natives' boats often return with a full load." The eggs are preserved in vessels by covering with fish oil. Advantage was taken by the crew of the *St. Paul* to obtain a supply for the ship which were treated in the same way and lasted till November without any going bad.

He explains: "I am not in a position to describe the different kinds of ducks, gulls and other sea birds which we saw on Bering Island. We had no opportunity of examining them closely, for we neither shot not caught any. I will just mention the coal black gulls which are unknown to us in Europe. Full grown they are so large that when the wings are stretched out as in flight, they measure 7-8 feet from tip to tip. They are very cruel to smaller gulls, killing them with a single peck if they can reach them, and then devouring them. Of land birds there were tremendous numbers of ptarmigan or kurapasche, as they are called in Russia. We threw sticks at them and sometimes killed three or four at a throw, while those that had not been hit flew off and quickly settled again, for at the beginning they were not in the least shy and we were able to throw our sticks five or six times at the same flock. Gradually they became frightened and were not so easy to approach. The kurapasche are snow white in winter, but just before spring they get some brown feathers and in the summer are quite variegated. We also shot some of the large black eagles and ate them. They have white heads."

The coal-black gull must have referred to the Black-footed Albatross (*Diomedea nigripes*); the first year young of which are "sooty black"

(Gabrielson and Lincoln *Birds of Alaska*); there is no gull that could be so described or that has this wing spread. An Albatross should not be accused of killing small gulls; it is a fish-eater and scavenger and would only be found so far north in summer. A.O.U. includes Bering Island within range of the Rock Ptarmigan (*Lagopus mutus*). This remark about the changing plumage shows that Waxell was observant and adds weight to his notes. The Eagle was probably Steller's Sea Eagle (*Haliateetus pelagicus*).

Waxell discusses how these animals [and birds] could have reached Bering Island and assumed that "once in the spring, after an exceptionally hard winter, some of these creatures must have gone out to the ice in search of food . . . when the ice may have broken away from the land they might easily land on the ice and the animals been thus carried off on a large ice floe on which they may well have made the trip to Bering Island either from Kamchatka, Anadyroski, the Chutki Peninsular or perhaps even from North America. Being on an island they can in time have developed and increased to the great numbers of all kinds that are to be found there now."

In an Appendix describing Kamchatka he mentions that "In early spring and in the autumn the air was filled with wheeling flocks of migrant birds; ducks, geese and swans of many kinds, plovers and curlews. [The plovers would be either the Black-bellied (*Squatarola squatarola*) or Golden (*Pluvialis dominica*), the curlews, probably Whimbrel (*Numenius phaetopus*).]

Later on he says: "All over the tundra are to be found moribund patches, dead but for the plover and curlew that haunt it with their ghostly cries."

"In the spring time the Kahchadals go along the coast in their boats searching for sea bird eggs in holes in the rocks. There are gulls' and those of many kinds of ducks. There are vast numbers of these birds here and so the native boats often return with full loads. At home in their dwelling places the eggs are put into vessels and fish fat is poured over them until it covers the eggs completely. By this method the eggs can be kept for a whole year without there being the least danger they will go bad. We were able to prove the truth of this on our voyage to America, on which we took a supply of eggs preserved in this way. We benefited greatly by them and although they had been collected in April and May we did not find a single one that was rotten, but enjoyed them all until our supply became exhausted in November."

In winter: "Numbers of swans and geese spend the winter in Kamschatka. In spring they migrate to the north but during the winter considerable numbers fall prey to the natives who hunt them assiduously. Winters are too severe for there to be much open water except on the sea." He adds that swans and geese are used for food.

GEORG WILHELM STELLER

Georg Wilhelm Steller was born in Germany in 1709, and attended several universities in that country, gaining many honours, specializing in Botany and Medicine. For lack of opportunities in his native country, in 1734 he went to St. Petersburg, and, to all intents, became a Russian for the rest of his life. In 1737 he was appointed Adjunct of the Academy of Sciences at St. Petersburg and sent to Kamchatka, but, owing to the time entailed in getting there, did not arrive until the latter part of 1740. Steller's real object in going to Kamchatka was to get in touch with Bering in the hope of taking part in his second voyage in search of North America. In this he succeeded, actually at the invitation of Bering, and joined the personnel of the *St. Peter* as mineralologist.

From his Diary it would look as though Steller was not an easy man to get along with; there are frequent mention of disagreements with Bering and the other officers, but, to his credit, he was more often right than wrong and had his advice been taken, the deaths from scurvy would have been fewer, and probably the *St. Peter* would not have been wrecked. By observing rules of health, Steller kept free of scurvy and was able to help out when so many were stricken.

Wherever and whenever it was possible, Steller pursued his study of the natural history of the places visited; even during the unhappy days spent on Bering Island, his diary records exploration of the island which enabled him to bring back a collection of the plants.

Nor did the unhappy experiences during the Bering Expedition lessen his zeal for exploration. After the sorry remnant of the Expedition got back to Avatcha Bay, as soon as possible, he was off again, his travels taking him to Siberia and the north Kurile Islands. A matter to his credit was his complaint to authorities in St. Petersburg of the conditions in Kamchatka, especially in the treatment of the natives which was not popular with the local officials there and led to his

recall, and, later, arrest. However, this was soon cleared up, but only for him to be arrested again and ordered to St. Petersburg and again to be exonerated. This time it was too late, as he died during the journey.

The foregoing is a very sketchy account of his life-history, and though he may well be called the Father of Ornithology in the Northern Pacific, this was a secondary interest; unquestionably he was the father of Botany there.

So far as records of his labours are concerned, they have suffered from loss and neglect; he wrote a history of the birds of Kamchatka, but, if in existence, it must be buried in the archives at St. Petersburg and the same applies to many of his pamphlets, though some were published; these mainly deal with his favourite subject, botany.

Apart from the many plants that he described, he will always be remembered as the discoverer of the now extinct Steller's Sea-cow (*Hydromalis gigas*), Steller's Eider (*Polysticta stelleri*), the Spectacled Cormorant (*Phalacrocorax spectabilis*), also extinct, and the well-known Steller's Jay (*Cyanocitta stelleri*). It would seem Steller sent 12 drawings of American and Asiatic birds to St. Petersburg Academy, five of which are known to have arrived, but none could be located in 1917.

The first appearance of Steller's Journal was a translation into German by the well-known Russian naturalist, Peter Simon Pallas, published in 1743, who stated it had been communicated to him by a mutual friend. The first complete English translation was made by F. A. Golder, and published in 1925 by the American Geographical Society. "Research Series No. 2 — W. L. G. Jeorg, Editor — Bering's Voyages" — "An account of the efforts of the Russians to Determine the relation of Asia and America — Volume II — Steller's Journal — translated and in part annotated by Leonard Stejneger." Permission to quote which gratefully acknowledged. Dr. Leonard Stejneger later published (1936) *Georg Wilhelm Steller. The Pioneer of Alaskan Natural Histroy.* As well there are extracts from Steller's Journal of Bering's Voyage from Kamchatka, translated by Rev. William Coxe, in his *Account of Russian Discoveries between Asia and America* (1803).

As Stejneger was one of the leading ornithologists of his time, as well as having travelled in the northern sea, little comment will be called for; unfortunately space does not permit setting out the very interesting notes in both Stejneger's and Golder's works.

Though Steller's main interest may have been natural history, he did not neglect his duties as mineralologist as there are many references to minerals. The Journal is very discursive and treats of the personal relations with other members of the staff (not always to his credit) and other aspects of the voyage.

The Expedition started from Avatcha Bay on 4th June, 1741 (all dates are presumed to be Georgian according to the Calendar). The first note when leaving Avatcha Bay is of "An insular mountain of stone called Staritschkow after the name of bird that frequents it in great abundance. About the size of a pigeon, with bluish bill, and small feathers, of a bristling kind; head of purple colour having a circle of white feathers in the middle, which are thinner and longer than the rest. Its neck is black above, with white spots underneath. Body white, short, large feathers of wings, blackish and the rest of blue, its sides and tail black; its feet red and trebly indigitated with a web between each, and its claws black. On little islands of Kamchatka they are found in vast numbers and caught by the Kamschadals [possibly Crested Auklet (*Aethia cristatella*)] also with great facility. Besides these birds also sea-parrots, mews and urilas the latter of which paid us a visit of curiosity and then disappeared."

On 12th June at long. 174° W. and lat. 46° N. "We saw gulls, the large gulls (*Diomedia exulans*) and the ducks called rock ducks in Kamchatka (*Anas histrionica*) all birds which are never seen in the open sea or far from land."

Stejneger points out that scientific names were added by Pallas and do not necessarily correctly represent the bird referred to, and that there are other differences between Pallas Edition and the Original MS such as, where it is stated Steller said the Albatross was never seen in the open sea, a mistake which he certainly would not have made, though he was mistaken in identifying the Albatross as *Diomedia exulans* (the Wandering Albatross) a bird of the Southern Oceans; the bird seen may have been the somewhat similar Short-tailed (*D. albatross*) or the Laysan (*D. immutabilis*) often called Steller's Albatross.

The association of the Albatross and Harlequin is not apt, the former a frequenter of the open ocean, the other of inshore waters. Another variation is the omission of *Aeanas Turneri,* which appears in the MS, and which Stejneger considered a misspelling for *Sterna Turneri,* a name no longer used. Turner was the first author (in 1544) to apply the name to a tern, and *Sterna Turneri,* a hundred years

after, became a generic denomination for terns in general (Newton Dict. of Birds, London 1893-1896, p. 955, footnote 2). The terns were probably *Sterna paradisea*.

"At different times we saw sitting on the water large flocks of gulls particularly in June [which] always keep close to the coast where the fishes approach the land and ascend the streams from the sea in the greatest number; others afford them the most abundant food supply. We saw these gulls always fly in a northerly or north-westerly direction until lost to our view."

On 15th July an indistinct view of islands off the coast of North America was obtained and the next day Mt. St. Elias came into view. Later a landing was made on Kayak Island (Cook's Kayes Island) where Steller sent his Cossack to do some collecting. He writes:

"Of birds I saw only two familiar species, the raven and the magpie; however of strange and unknown ones I noted more than ten different kinds, all of which were easily distinguished from the European and Siberian by their very particular bright coloring. Good luck, thanks to my huntsman, placed in my hands a single specimen, of which I remember to have seen a likeness painted in lively colours in the newest account of the birds and plants of the Carolinas published in French and English, the name of the author of which, however, does not occur to me now. This bird proved to me that we were really in America." This is mentioned in Rev. Wm. Coxe's work reviewed later.

[One of them was the Jay named after Steller (*Cyanocitta stelleri*), of which apparently a drawing or painting was sent to St. Petersburg, but since lost. The work referred to was Mark Catesby *The Natural History of Carolina, Florida and the Bahamas Isles.* Plate 15 — Vol. I, Eng. Ed., and shows the North American Bluejay (*Cyanocita cristata*). Stejneger points out this to refute Pallas' statement that there was no proof of the American origin of Steller's bird.]

Off the Shumagin Islands, 28th August [according to Coxe, discussed later], Steller mentions seeing a Black Gull; which Stejneger considers referred to a young gull (*Larus*) in the dark plumage. This might well have been a Black-footed Albatross (*D. nigripes*).

A summary of the birds of Nagai Island:

"All sorts of water birds in abundance were seen, such as swans two kinds of urili (Pelicani), auks (Torda), ducks, snipes, sandpipers, various kinds of gulls, divers, among them a very remarkable and

unknown species, Greenland pigeons, sea parrots (*Alca arctica*) and michagatkas (*Alca cirrhata*)."

There are some differences from Coxe in this extract. Swans (*Olor columbianus*); the Greenland pigeon would be the pigeon Guillemot (*Cepphus columba*), which should have been frequently seen though possibly this may have been the first time seen in summer plumage, so different from the winter.

"Of land birds — only ravens, flycatchers (*Grisola*), snowbirds (*Emberiza nivalis*), willow ptarmigan (*Tetrao lagopus*), and no others whatsoever."

Stejneger suggests Steller mistook the Dwarf Hermit Thrush (*Hylocichla guttata*) for a flycatcher, which Pallas, with a specimen before him, described as *Muscicapa guttata*. No Old World flycatchers would be found there and no American species range so far north. The Snowbird, the Snow Bunting (*Plectrophenax nivalis*), and for the Ptarmigan, Stejneger suggests the race *Lagopus lagopus alexandrae* (Grinnell). Steller was of the opinion that the islands (Shumagin) might only be occupied by the natives in the summer when the attraction was the large number of birds and birds eggs which, like the Kamschadals, they gathered from the cliffs.

On the 6th September, after leaving the Shumagin Islands:

"When out at sea about half a mile, we were especially astonished at the untold number of seabirds which we saw on the northern side of the island. I noted here, besides the urili (*Pelecani*), auks, sea parrots, gulls, glupyshi (*Procellari glacialis*), and Greenland sea pigeons, an entirely black snipe, with a red bill and feet, which constantly moved the head like Ray's redshank; further a very beautiful black-and-white pied diver, never before seen; not to speak of other wonderful and hitherto unknown birds."

Stejneger explains Glupyshi, the Russian for fool, stupid fellow, as the name for the Fulmar (*Fulmaris glacialis*) in Kamchatka; the black snipe *Haematopus bachmani* [Black Oystercatcher]; the black and white diver he suggests may have been *Synthliboramphus antiquus* (Gmelin) [the Ancient Murrelet]; this bird might give the impression of being black and white when seen at a distance; Steller apparently did not secure a specimen.

On 10th September, as some of the evidence of being near land, Steller refers to "noticing sea parrots the John of Ghent (Pelecan, Bassanus) and other gulls flying constantly from north and west to

the south." The original manuscript reads according to Stejneger "anates articas Glasi Larum Joh. v Rent Dictum. Laros Wagel Anglis dictos."*

Stejneger has a lengthy note on identification and suggests that sea parrots were the Horned Puffin (*Fratercula corniculata*), and the John of Ghent the Pacific Fulmar (*Fulmaris glacialis*) or the young of the Glaucous-winged gull (*Larus glaucescens*).

Steller also mentions "river gulls" as being seen. What species would be included under this description is difficult to say.

There is a lengthy discussion in Golder II, p. 108, regarding identity of "river gulls." Stejneger points out that no fresh-water gulls would be found and suggests it was the Red-legged Kittiwake (*Rissa brevirostris*), but neither of the Kittiwakes could be described as a "river gull"; it is suggested the birds were the Black-headed (*L. ridibundus*), East Asiatic race which nests in Kamchatka (A.O.U.).

On the 15th Steller records an Owl appeared about the ship.

Stejneger and Golder point out that Steller used the word Sych, which is a term for owls in general; he suggests it was a Short-eared (*Asio flammeus*); that it was seen in the daytime points to this species. As the Expedition was a considerable way from land, the bird must have been a migrant from America to Asia.

On the 17th he records that "during the entire day birds were flying from the North to the West" and the next day at sunset "large flocks of small snipes [sandpipers] and other land birds flying from north to west."

These observations point to there being a line of migration from the Arctic Ocean to the Asian side via Bering Straits, as well as down the American coast.

In the neighbourhood of Kiska Island on 28th October: "A small species of diver known as starik flew on board our vessel during the night; these birds habitually pass the night on the rocks and fly against everything they see only dimly near at hand, like owls in the daytime. Because of this, large numbers of them around Avatcha are caught alive with the hands by merely sitting down near them covered

---

* What Joh. v. Rent stands for is a puzzle: The Wagel answers to Pennants (Arctic Zoology) No. 453, which, in the supplement (No. 526), he describes as "only a young Herring gull not arrived at its full plumage." The breeding range of *L. argentatus* only extends to Southern Alaska (A.O.U.).

Both Newton and Oxford Dict. give Wagel as the immature *Larus marinus* (Great Black-backed Gull), which does not occur in the Pacific.

with a mantle or kuklanka (a fur coat of the Kamchadals) under which they gather as if in a ready nest."

Stejneger and Golder point out that starik is Russian for old man and that the bird would be the Ancient Murrelet (*Synthliboramphus antiquus*), which has scattered fine white plumes on the head and neck in the summer, though the 28th October is much too late for these nuptial plumes to be still retained. Doubtless the name Starik would be applied at any time of year. The fact of the bird being described as a night-flier and method of capture is evidence of the bird being the Ancient Murrelet. This account of the method of capture is quite a classic, being mentioned in various early narratives.

This is the last observation on the birdlife before the wreck of the *St. Peter* on Bering Island, and though Steller kept his Diary written up and, whenever possible, was exploring the island and making collections of plants, the only mention of a bird is of the capture of ptarmigans for food. The ptarmigans of Bering Island are described by Stejneger as a new species peculiar to that Island, under the name of *Lagopus ridgwayi* (Stejneger).

Other observations referring to ptarmigan are, "half a dozen seen in early November," after the wreck on Bering Island, and that the next day "a blue fox took away 2 ptarmigan right before our eyes." "The foxes were a sore trouble and so tame that nothing could be kept from them." As there are other mention of ptarmigans, the birds appear to have been fairly numerous.

Stejneger devotes a chapter to Steller's Discoveries on Bering Island and, under Ornithology, he lists: *Nannus pallescens* ("diminutive brown wren"); the Black Raven (*Corvus behringianus*); Little Sandpipers (*Erolia ptilocnemis quarta*) [Rock Sandpiper]; Harlequin Duck; the bright eider, later named by Pallas, *Anas stelleri;* the now extinct Spectacled Cormorant (*Phalacrocorax perspicillatus*); Ptarmigan (*Lagopus ridgwayi*); Red-footed black guillemot or avistum, *Cepphus columba*; Arra or guillemot (*Uria arra*); Red-throated loon (*Gavia stellata*); Red-billed white-breasted auk (*Cyclorhamphus psittaculus*) [Parakeet Auklet]; Crested sea parrot [Tufted Puffin]; Geese (*Branta hutchinsi*); Mallards (*A. platyrynchos*); Pintails (*Anas acuta*); Shovellers (*Spatula clypeata*); and Teals (*Nettion crecca*); Lapland longspurs; snow buntings (*Plectrophenax nivalis*); Skylark (*Alauda arvensis*). [The last must be doubtful, though included in other narratives; probably the Horned Lark (*Eremophila sp.*).]

Steller notes that the Aleutians make use of a dead falcon as a symbol of friendship; tying the wings to a piece of wood, spruce painted red, which is first shewn and then, with a laugh, thrown towards the vessel also tying the eviscerated body to a stick with gifts placed between the claws.

There is an Appendix which gives a general description of Bering Island, but, the source referring to Birds and Fishes is doubtful and may have been added at a later date. That part referring to the bird-life is very limited:

"The sea birds and the migratory birds that I had an opportunity to observe are almost the same as those one meets with on the Eastern coast of Kamchatka. However a special kind of large raven with a callow white ring about the eyes and red skin about the beak, which is never seen in Kamchatka occurs there but only on the rocks near Steller's Cave. [Could be the only description of a living Spectacled Cormorant (*P. perspicillatus*).]

Of rarer birds not seen on the Siberian coast I have met with a special sea eagle with white head and tail [Bald Eagle (*Haliaeetus leucocephalus*)], and the white sea raven (*Pelec. Bassanus*). It is impossible to reach the latter because it only alights singly on the cliffs facing the sea; the former nests on the highest rocks, and at the beginning of June they have young ones that are completely covered with white down." P. Bassanus is unidentifiable (Golder) unless a juvenile Eagle.

SPECTACLED CORMORANT

There have been several articles on the Spectacled Cormorant, the most recent that of Leonard Stejneger and Frederick A. Lucas (Smithsonian Institution — U.S. Nat. Mus.: Contribution to the History of Pallas Cormorant). From proceedings of U.S. Nat. Mus. Vol. XII, pages 83 - 94 — Washington 1889.

According to this article, the conditions under which this bird lived and its extermination parallel those of the Great Auk (*Plautus impennis*) on the Atlantic side of the North American continent. Larger than that bird, Steller gives the weight as 12 to 14 pounds; flightless and defenceless, it stood no chance when hungry, ship wrecked crews on passing vessels were looking for food. Further, Steller states it was easily caught and that its meat was more palatable than that of other sea birds. It could be that humanity was not entirely

responsible for its disappearance, as Steller refers to the quantity of foxes that were on the island and which, undoubtedly, must have destroyed many young birds. One wonders how they reached so isolated an island, an ice floe would seem the only answer [as suggested in the Waxell Narrative].

In Steller's time, the bird must have have been quite numerous, but must have quickly decreased, as its extermination took place 150 years, or so, ago. Today there are only four specimens in existence, and none of its eggs, also some paintings and a number of bones. It might be mentioned that Steller's Sea-Cow, or Manatee, suffered the same fate through similar causes.

Stejneger reproduces an illustration by Joseph Wolf, which must have been taken from one of the few existing specimens; this shows the bird half sideways, in summer plumage, a white tuft of feathers between leg and wing, similar to that found in the breeding plumage of the Pelagic (*P. pelagicus*) ; on head, and a short way down the neck, white filaceous feathers. A large bird over 10 lbs. in weight with general plumage dark (black) ; tail rounded. The "spectacles" are not very apparent, an area of dark feathers round the eye.

The following are footnotes in the Appendix:

1. Mr. Steller has made the following scale of its cry

A - an - gitche A - an - gitche

For further account of this bird, I must refer the Reader to Krascheninicoff, Vol. II, part 4.

2. Anas picta, capite pulchre fasciata. Stell [?Harlequin Duck].
3. Falco leucocephalus [Bald Eagle].
4. Vultur albiulla [Gray Sea Eagle].

[The 3 and 4 could refer to the Bald (*H. leucocephalus*) or Steller's Sea-eagle (*H. pelagicus*). (Stejneger identifies as the former). The other eagles mentioned may be varying plumage of the same species, according to age, a cause of confusion with these early writers.]

The foregoing was not part of Steller's Journal and its source is not known; the wording suggests that it was written concurrently and by someone who knew the avifauna. Moreover it was here that was introduced the large sea raven, the now extinct Spectacled Cormorant (*P. perspicillatus*), and, most possibly, Steller's Sea Eagle (*H. pelagicus*). The description of the young must refer to the same Eagle. This limited list may be owing to Steller's intention (carried

out) of writing a book that would include a fuller account of the birds seen; unfortunately non-existent now.

To conclude, the following is an account of Steller as related by Gmelin's biographer, Robert Gradmann:

"A foolhardy 'go-getter', impulsive and full of life, but also passionately in love with Science; tough and indefatigable, unassuming as a child and frugal to a degree; blessed with an indestructible humour which nothing could overcome and which rose more triumphantly the more hopeless and miserable the outward circumstances might appear."

A. J. CHERIKOFF

Commander Alexie J. Cherikoff, sometimes spelt Tchirikov, was in command of the *St. Paul*, the other vessel of Bering's Second Expedition. After losing contact with the *St. Peter*, he carried on according to the arranged plan for exploration and sighted the North American Coast on 16th July, 1741; a boat was sent off to make a landing but neither it nor any of its occupants were seen again, presumably captured by the natives. Later, landings were made at various places in the Gulf of Alaska. Ultimately the *St. Paul* suffered the fate of so many other vessels exploring in the Northern Pacific and was wrecked — fortunately not too late in the year to prevent Cherikoff from utilizing the remains to build a boat in which the remnant of his crew were able to journey to Petropavalosk, arriving there in October, 1741.

Cherikoff must have been a very competent commander and keen on exploration as his unhappy experience in Alaska did not deter him from later undertaking further exploration in Siberia, etc. It is unfair that his name should be subordinated to Bering's, as he, much more, carried out the plans for the Expedition.

Cherikoff's first note on bird life is dated 14th July, 1741, when approaching North America, lat. 55.09°, "Large number of ducks and gulls."

Then on the 16th when near (the present) Prince of Wales Island: "An endless flight of large flocks of birds passed the ship; the same species as are found in Kamsatska and known as aru and urile." [Editor's note: murre and cormorant.]

On July 20th he recorded "one shore duck." This "one duck" appears later, so the bird must have been an unusual species for "one" to be worth recording.

Under the date of 3rd August, lat. 54.37°, "Many flocks of gulls flew over us, also red-billed ducks and another species with white bellies and white under the wings; Sandpipers (Kuliki) came on board."

The red-billed ducks would be the Red-breasted Merganser (*Mergus serrator*) and the others possibly one or the other of the Goldeneye (*Bucephala clangula*, or *B. islandica*).

On 13th August there is the record of "One shore duck that lives on rocks"; here the added habitat suggests the Harlequin (*Histrionicus histrionicus*). This must have been Cherikoff's first noticing the bird as it must have been quite common.

On 16th August, lat. 52.37°, "Three shore gulls which looked like sea terns." There seems no reason why they should not have been terns, either Arctic (*Sterna paradisaea*) or Aleutian (*S. aleutica*).

21st, "two shore gulls" are mentioned, Lat. 51°.

On 22nd August. "a large white gull" and on 28th, "about ten white" ones. [The Glaucous (*Larus hyperboreus*).]

This special recording of white gulls is puzzling; (they are referred to 9 times during the month of August) as this gull (Glaucous, *L. hyperboreus*) must have been the commonest gull during this period of the voyage when in high latitudes.

31st August, in the vicinity of Fox Islands, the red-billed duck (Red-breasted Merganser) is again mentioned.

4th Sept. (52.21°, lat.), a dead whale is recorded "on which were many seabirds called fulmars." [Editor's footnote, *Procellaria glacialis*, glupischa; Stejneger.]

Few writers recognized the Fulmar and, though it would be quite common, it must have been frequently included in the general term "gull."

"At this place many white backed ducks, also another kind with a red crooked bill and many different kinds of gulls."

The white backed duck suggests one of the Eiders; here the only sea bird that could be said to have a crooked bill would be the small Auklet, the Parakeet (*Cyclorrhynchus psittacula*), to which the term "duck" could hardly be applied. Possibly faulty translation, the description "duck" was used in a very loose way either by Cherikoff or the translator.

There are few later entries; Cherikoff, as well as many of his crew suffered badly from scurvy.

When off the Kenai Peninsula there is a reference to seeing gulls and ducks "that we did not see on our outward voyage, when we were a considerable distance from land except when we ran into a little floating grass." [Could the ducks be Black Brant (*Branta nigricans*) feeding on eel grass (*Zostera marina*) ?]

"We observed one bird a day not counting grey gulls and another kind of small bird that looks like the kestrel of the steppes which we always saw far out."

"Grey gulls" would, undoubtedly, refer to birds of the year, probably migrating south; the Kestrel (*Falco spavarius*) would, if seen, be on migration but it could be that Cherikoff was confusing this with the Fork-tailed Petrel (*Oceanodroma furcata*) as he does not mention seeing "petrels."

In the spring following his return, Cherikoff commanded an Expedition to search for the sister ship, *St. Peter*, coupled with the idea of finding more about the North American continent, but this time his health, and the poor equipment, caused him to return without accomplishing his object. There are no bird observations in the record of this voyage.

J. VON STACHLIN

Account of the New Northern Archipelago lately discovered by the Russians in seas of Kamschatka and Anadir. Translated from the German 1774 in person by the Professor of Natural History, Gmelin, with two assistants. Refers to islands first discovered by Bering and Tschirikoff between 50° and 56° N. The island of Kahana (Olutorskia group). [Kormandorski group.] The inhabitants wear skins of sea fowl especially a kind of black duck called Arkea and Toporka. There is a note — "most of them are a kind of sea fowl (called Tublani) which are caught in great numbers a hundred different ways; they are of a very beautiful red colour almost as large as a goose." [There must be a mistake in the translation as there is no such thing as a "red duck" in the Arctic. It is suggested the bird was the King Eider (*Somateria spectabilis*).]

At Kodiak: "They have on this island all sorts of storks, ducks,

ravens, magpies, etc., but no particular kinds [species] have been observed. [The stork, possibly the Heron (*Ardea herodias*) as "Crane" is referred to later.]

"Men wear skins of Uril and Argen" — a note: "The uril (*Corvus aquaticus*) is a kind of water raven, not unlike the Crane, it is esteemed as a dainty. [This might be the Spectacled Cormorant (*Phalocrocorax perspicillatus*).] The Argen, *Colymbus articus* (Lumme dictus wormis), a large sort of black and white duck which are found in innumerable numbers on rocky islands" (see Krashnaminnikoff — Description of Kamchatka — Vol. I — 324 and 300).

GAIVRILA SARYTCHEW

Account of the Voyage of Discovery to the North-east of Siberia, the Frozen Sea, and the North East Sea, by Gaivrila Sarytchew, Russian Imperial Major-General to the Expedition.

Translated from the Russian, London. 1806.

Though these notes do not actually refer to any part of The Area, they would be equally applicable. Sarytchew was a lieutenant with the Expedition.

Neighbourhood of Ochotsk, Kamchatka: "Birds of passage are very numerous here in spring and winter and at the close of April and May geese and storks resort to the meadows in immense flocks and the bays are covered with ducks of every description. In June they leave these parts and are succeeded by snipes; but in July and August there is no other bird to be seen except sea-ducks called Aurpane which assemble here in vast quantities. This being their time of moulting, they are unable to fly, and fall an easy prey to the inhabitants, who surround them in their canoes* and driving them into the shallow parts of the water, jump in, and either kill or catch them alive in their hands. They then string them by means of an iron or bone skewer on a long cord that hangs at their backs, which frequently affords an opportunity from those following to practice a theft on their neighbours, while safer in the pursuit, by cutting off their ducks and stringing them to their own.

"The Tunganese have a method of catching these birds by means

* This canoe is called od nod crewka, probably from being constructed from out of one tree only.

of an artificial hen-duck, which, when stuck on a long pole, tipped with a sharp iron, and presented to the males, attracts them all towards it, and brings them within reach of the fowler. In lakes and standing waters, the ducks are likewise caught by snares, two different ways. They have a method of confining the creatures within a certain space by means of twigs, leaving openings only where the snares are fixed, by which the ducks are caught when they attempt to get out. By another method they decoy the ducks with spawn of fish into snares that are concealed under water.

"Among the birds which frequent forests and fields are white-tailed eagles, woodcock and partridges. In the winter there is a remarkable bird called a water sparrow which makes its appearance on the open banks of the river. It is the size of a thrush, and has a black plumage; but although there is no web on its feet, it often dives, and continues some minutes under the water; yet it has not been observed to swim on the surface. [Water Ouzel (*Cinclus mexicanus*).] There are no common sparrows here; and the crows are perfectly black. The mews are of five different sorts; namely the semisashnnjaa, the grey and white spotted, the goworuschka, mortyschka, the rasboinika.

"The first is unusually large, its outstretched wings with feet and head, comprehending an extent of 7 fathoms and is so ravenous as to eat till it cannot move. The grey with the white spots are like ours in Europe and resemble the goworuschka, except that they are rather smaller. The latter derive their name from sitting on the water and continually screaming mortysahka, the smallest kind has short red feet and a forked tail. The last described are black, of a middle size and two long feathers in their tail. They never catch fish themselves but plunder them from others; from which they have received their appellations."

Later he refers to:

"The lakes of these parts [still on Sea of Okotsk] abound with wild geese of a large species, and a grey colour called gumaniken; it being their season for moulting, they cannot easily escape our pursuit. The Kosaks here catch them with great facility by driving them in vast flocks to the most distant shallow spots they can find, where they knock them down with clubs, and throw them into pits dug for that purpose. Here they lie for years without suffering the slightest change; for the earth with which the geese are covered does not thaw even in summer to the depth of half a yard."

On journey from Sredke Kolyinsk 24th September there is mention "the lakes abound with geese, ducks and other species of wild fowl in summer and in winter their habitations are encompassed in immense flocks of woodcock."

"Thus disposed, we reached Sredke Kolyinsk in twenty days. The only circumstance worthy of note which occurred in this interval was an aerial combat betwixt an eagle and two hawks, which was both an extraordinary and interesting spectacle. The two hawks first took a sweep in the air above the eagle; one of them then darted down with the intent of commencing the attack, but intimidated by the display of the eagle's talons turned off and shot past him. The other in the meantime seized the moment in which the eagle was off his guard to give him a blow so violent that we distinctly heard the sound of it; which was repeated by the first hawk before the eagle could place himself in a state of defence. Feeling his inferiority against two such powerful enemies, the eagle retired from the contest and descending in haste, was closely pursued by the two hawks until he had alighted."

At this place "our hunters had shot two woodcock besides finding a nest full of eggs, which afforded us a comfortable supper. [Evidently here and elsewhere, woodcock refers to the Ruffed Grouse (*Bonasa umbellus*).] We did not observe many birds on shore, but the few we saw were chiefly white-headed eagles, and some small birds of the finch species; with whose red feathers the Aleutians adorn themselves." [possibly Pine Grosbeaks (*Pinicola enucleator*).]

July 24th — Schumagin Islands — "Fowl of various descriptions hovered over the sea but particularly a sort of divers, which were to be seen in immense flocks. We shot one of them, but found its flesh more fat than savory. This bird, which is a native of the frozen ocean, is about the size of a common duck, with white body, an ash-coloured back, head and neck, a white and round tail, a cylindrical pale green bill, red legs, and webbed feet. It lives on the fat of dead whales, is very bold, and often lights on the vessels."

He adds that "there were numerous whales that left their fat behind on the water which was very acceptable to the mews and divers."

Island of St. Matthew — nearby was a little island called Pinnacle — "in the afternoon (of the 14th) Mr. Billings, Mr. Merk and myself went on shore; and on approaching the island, we were accom-

panied by a great number of seabirds, constantly hovering around us, and causing so great a noise, that we could scarcely distinguish a word that was spoken."

Winter Quarters — At the close of December "six or seven shooters were daily sent out after wild fowl. On lucky days they usually brought from six to seven birds of different sorts, as urilas, sea ducks, mews, wild geese, and occasionally a woodcock, or some other land bird."

Included was the description of Unalaska.

"Among the birds are eagles, with white heads and tails, hawks, woodcocks, and many kinds of small birds, some of which sing very well. Sea fowl of different kinds are also numerous, as urilas, owls, etc., which frequent the ledges of the rocks, and are caught in their nests by the inhabitants, who convert their skins into garments. The urilas are about the size of a wild goose, have long necks, sharp beaks and black feathers, with the beautiful green ring round their necks. The breast and necks of the males are frequently variegated by a mixture of white feathers. Their legs are so near the tail, that when they sit on the rocks, they appear to be standing; their bodies and necks being almost perpendicular (Cormorant sp.). The owls are about the size of a duck, their breasts are white and the rest of their feathers black. [Clearly owls must be a mistake, the description could refer to Murre (*Uria* sps.).] The Toparkas are nearly of the same size, their feathers being grey, their beaks red, broad flat and prominent; their eyes are shaded with a row of white feathers, arched like eyebrows [Tufted Puffin (*Lunda cirrhata*)]. The skins of these birds are much valued for their firmness and are mostly made into garments for men. Their beaks are used by the women for the decoration of their clothes. There are no birds so difficult to shoot as these, from the extreme closeness of their plumage, which repels the shot; besides which they frequently plunge into the water and when they swim, clap their wings as in flight. Two sorts of geese also occasionally visit the island; the first which come from the southern countries in the middle of April, and reside on the lakes during the summer, are of a moderate size, with grey plumage, and the head and neck black; in September and October they disappear again, and are succeeded by others of a similar size, with an ash-coloured plumage speckled with white. These latter come hither from the north, live the whole winter on the cliffs, that are often under water, and feed on the seaweeds that abound in these parts. [The first would be the Canada (*Branta* sp.) and per-

haps the other the Black Brant (*B. nigricans*) though living on cliffs is not at all its habitat.]

"In April, at the commencement of spring, they fly to other northern climate, where they probably breed. Yet we saw none of them in the country of the Tsckukshens whence I should draw the conclusion that they make the shore of North America their summer residence."

Chapter II

S. P. KRASHNAMINNIKOV

Stepan Petrovitch Krashnaminnikov (the spelling of the name varies) was a Russian born in Moscow in 1713 and became a student at the academy of Sciences at St. Petersburg. He must have earned a considerable reputation there as he was sent in charge of his first Expedition when he was only 20; this was to prepare the way for the three naturalists who were to accompany Bering's Second Voyage, Gmelin, Mueller and Steller.

Krashnaminnikov's *History of Kamchatka* was the first book to deal with the country's history and resources scientifically and is quite frequently referred to by subsequent writers as an authority. Being of a general nature, it deals just as much with the small part coming within The Area (southern extremity to Avatcha Bay) as the whole country, and for this reason alone, is part of the history of The Area.

In preparation for this undertaking, Krashnaminnikov chartered a vessel at Okotsk, the *Fortuna*, leaving there July 1737, and then sailed north from Avatcha Bay. The voyage ended in disaster, the vessel being wrecked at the mouth of the Bolshaya River, and Krashnaminnikov found himself stranded with the loss of most of his belongings and no means of getting away. These troubles did not stop Krashnaminnikov from carrying out his instructions and making notes of the wildlife, observing the natives and collecting specimens, the last ultimately being sent to St. Petersburg and became incorporated with Steller's own collections.

Krashnaminnikov remained at Bolsheretsk until 1740 when a Russian vessel took the party back to Okotsk; this delay being caused by lack of communication between the two places, which was practically nil. At Okotsk he continued his researches and collections, all of which were sent back to the Academy.

At the time of Krashnaminnikov's return to Petropavolosk, Bering was getting ready for his second Expedition to America with which Krashnaminnikov was to have sailed; his name was included in Bering's list of the personnel as adjunct (assistant) to the big-wigs, Gmelin, Mueller and Steller. When the first two threw up their jobs,

doubtless owing to their realizing the dangers the Expedition would encounter, if it ever returned at all, Gmelin recommended that Krashnaminnikov should be appointed as adjunct to Steller. who had already been appointed Naturalist to the Expedition. This did not suit Steller, who, knowing Krashnaminnikov's capabilities, no doubt was jealous lest the latter might tend to over-shadow his own results and so manoeuvred, successfully, to have the appointment cancelled thereby, quite likely, saving Krashnaminnikov from the fate of so many members of the Expedition, death from scurvy.

The preparations for the Expedition had by now moved to Petropavalosk (then known as the harbour of St. Peter and St. Paul) on Avatcha Bay; here Krashnaminnikov continued his researches and sent specimens back to St. Petersburg again to be credited to Steller. Steller was very jealous of losing credit for any natural history discoveries and was not content with annexing the specimens, but gave Krashnaminnikov no credit for novelties, nor connected his name in any nomenclature. He managed to stop Krashnaminnikov accompanying the Expedition. Steller's attitude did not hinder other recognition of his merit as he was advanced in 1745 to be an adjunct and had risen to be head of the Natural History Branch of Sciences of the Academy at St. Petersburg.

After the close of the Bering Expedition, Krashnaminnikov continued collecting natural history objects in various parts of Kamchatka and the Kurile Islands on behalf of Gmelin.

As is pointed out in the original translation "The knowledge he had gained well-qualified Krashnaminnikov to write 'The History of Kamschatka and the Kurile Islands with countries adjacent,' based on observations of the author and his companions, especially George Steller." The first edition was published shortly after Krashnaminnikov's death in 1755; a second followed the next year. The Imperial Academy of Sciences in St. Petersburg included Krashnaminnikov's work in a series "Complete works of scientific voyages in Russia."

The first translation of the History was in German, which, in turn, was translated into English by James Grieve and published in 1764; this has a very informative Preface, much of which must have been gained from the translator's own knowledge or provided by others. This may have suffered from the double translation. Furthermore, in a Preface it is stated that "the second part, containing the natural history has been greatly contracted from the design of offering the

reader nothing but what was really useful, curious or entertaining; and in order to make it complete instructive, many notes have been adjoined," and, further on that "the Russian edition received all Steller's papers and it was thought proper to join these two works." Adding, "It is to be wished that such writers as have hitherto given us accounts of the new discovered countries, had taken the same pains to inform themselves as this writer has." Grieve later refers to Krashnaminnikov as "one of those few whom personal merit alone, and no advantages of birth or fortune, contributed to raise."

Krashnaminnikov did not live to see the publication of *The History*, dying in the 42nd year of his age when the last sheets of his book were printing off. The book must have enjoyed considerable popularity, as the second edition followed the next year.

In the Grieve translation it is noted that there was a provision in the Instructions "That all Krashnaminnikov's notes were to be handed over to the Naturalist with [Bering] Expedition," who, of course, was Steller, adding that "he [Steller] then incorporated the specimens with his own collections and made use of them." Doubtless this provision was inserted at the instigation of Steller, who was of a dominating nature. He also pointed out "the knowledge he had gained well qualified Krashnaminnikov to write 'The History of Kamschatka ——— and the Kurile Islands with countries adjacent based on observations of the author and his companions especially George Steller'."

So it stood until 1949 when Academy of Sciences — Institute of Geography Geographic Society at Leningrad, U.S.S.R., published a completely revised edition including material not to be found in the early editions. This edition, so far, has not been translated into English and I wish to express my sincere thanks to Professor A. I. Ivanov of the Academy for providing me with a translation of the part dealing with Birds, including Professor Leo S. Berg's annotations, the latter having been shortened by omitting data on distribution, synonyms, etc. There are differences in phraseology and sequences between this and the Grieve translation, but the material is generally much the same. Naturally, this last translation must take precedence of early ones and will be set out in full. To distinguish the footnotes, those added by Krashnaminnikov (or Grieve) are indicated on each page by one or more asterisks and the annotations by Professor Berg by numbers. Marked differences between the 1949 edition and Grieve translation

will be indicated. No doubt there could be a different interpretation of some names and some of those of Krashnaminnikov in the early edition may today apply to a different species.

The notes on the birds are all in one chapter and are divided into Sea fowl; Fresh water fowl; and, Those which frequent woods and forests. There are no references to earlier works, nor dates or localities.

The following is Professor Berg's translation in part and notations:

CHAPTER 10

ON BIRDS

Birds are extremely abundant in Kamchatka, but the inhabitants use them less than roots and fish, for they are not only unskillful bird-catchers, but also especially handicapped by fishery the neglect of which would do the same harm in this country as that of crops by peasants in the harvest-time.

The birds are especially common on lakes near the Nizhne Kamchatkan ostrog (i.e., fort) of which where there are plenty as it has been said above.

We will here divide these birds into three articles: in the first article we will say about the sea birds, in the second — about river birds, or birds living near fresh water or marshes, and in the third — about inhabitants of forests and fields.

ARTICLE I

ON SEA BIRDS

The sea birds live along the Eastern Sea (=Bering Sea) coast, and not along the Penzhinsky Sea (=Sea of Okhotsk) shores due to the Eastern Sea shores being more mountainous and therefore more convenient for nidification and more safe.

The Ipatka*[1] is the bird known to the natural history writers and called by them *Anas arctica*, i.e., Northern Duck. It lives along the Kamchatkan coast as well as along the Kuril Islands, and moreover in the Penzhina Bay nearly up to Okhotsk. It is nearly of the same size as the common duck or a little smaller. Its head and neck are

---

* Alca rostris sulcis quatuor, oculorum regione temporibusque albis. Linn. F. Svec. 5,42.

1 Ipatka — *Fratercula corniculata* (Naumann).
Krashnaminnikov confuses it (and it is quite pardonable) with the Atlantic Puffin (*Fratercula arctica*, L.). L. Berg.

blackish dove-coloured. The back is black. The belly and all the under part of its body are white. The beak is red, flattened laterally, broader at its base, narrowed and pointed at the end. On each side of the beak there run three grooves. The feet of this bird are red with three toes connected with a web. The claws are short, black and crooked. The flesh of this bird when cooked is tough. Eggs are like hen eggs. It builds its nest on cliffs and in clefts, lining them with grass. It pecks painfully.

They catch ducks with nets in the following manner: In a wood that happens to stand between two lakes or between a lake and a river, they cut a strait passage through which the ducks fly during the summer; here, in the harvest, when the fishery is over the natives fasten to long poles several nets, which in the evenings they raise as high as the ducks are used to mount; round the nets a string is drawn, by which they can reef them together, as soon as they find the ducks entangled; but they sometimes fly with such force and in such numbers, that they break through. They likewise catch them in small rivers with nets stretched across the stream; but this is not a method peculiar to Kamchatka.

To this class belong the gagari, or columbus, of which there are four species, three of which are large and the other small. In a footnote 1. Colymbus maximus Gesn. Stell. 2. Colymbus articus lumme dictus Worm. 3. Colymbus macula sub mente castanea Stell. 4. Colymbus sive podiceps cinereus ejusdem, three of which are large and the other small; the first of largest has a tail; the second a clay coloured spot upon its neck, a little above the crop; the third is called by Wurmius, the northern lumme and Marfilius calls the fourth the lumme. The natives pretend to foretell the change of weather by their and flying; for they think the wind must always blow from that point towards which they fly, however they are frequently deceived in their judgment. Kamchadalians and Kurilians wear beaks of these birds strung on leather straps and decorated with dyed seal wool as a kind of necklace. The native shaman-woman (=witch or sorceress) put these necklaces on them as an amulet bringing them luck.

The other kind of these birds* is called Mychagatka[1] and at Okhotak the Iglyma. This bird is identical with the above mentioned

---

* Alca monochroa sulcis tribus, cirro duplici utrinque dependante Anas arctica cirrata Stell. crn. inst.

1 Mychagatka — Toporok or Toporik, Tufted Puffin (*Lunda cirrhata* Pallas). Leo Berg.

one, save that it is black all over and has on its head two yellowish-white tufts hanging down from their ears nearly to the neck like tresses [locks of hair]. As far as it is known from descriptions this bird was recorded nowhere else in the World. Described by Pallas in 1769. [*Lunda cirrhata.*]

The birds of both these kinds were sent in numbers by Steller, as well as by me to the Emperor Kunstkammer, where they are being kept in safety up to now.

Among the birds brought by Steller there is the third kind ** of these birds[2] which is living in Angermania on the Bonden Is., and on the Karolina Islands in Gotland (= in Sweden). This is smaller than the former birds and is very similar in coloration with Ipatka, differing only in its beak and feet, which are black, and in two white stripes on its forehead, each running from the eye to the beak.

Aru or karu***[3] belongs to the Loon's genus. It is larger than a duck. Its head, neck and beak are black. The belly is white. The beak is long, straight, black and pointed. The feet are blackish-red with three toes connected with web. They live on rocky islets in unbelievable numbers. The natives kill them not only for their flesh which is tough and unpalatable, but mainly for their skins. They use the skins of them, as well as other sea birds to make fur coats. Their eggs are esteemed as the very palatable. [Grieve identified as "apparently *Uria lomvia.*]

The Grieve translation reads:

Two kinds of tchaiki or cormorants which are hardly observed anywhere else; about the bigness of a goose; the bill long, strait, black and sharp on edges, four nostrils such as other cormorants have, two near forehead as are found in other birds, which are thought to prognosticate storms and are thence named Procellaria; head of middlish size; eyes black; tails eight inches; legs covered with hair to the knees, below bare; three toes of bluish color and web-footed; wings extend more than fathom, sometimes speckled; they appear often near the shore but cannot stand on land their feet being so near the tail they are not able to balance their bodies; fly slow even when hungry

** Alca sulcis rostri quator, linea utrinque alba a rostro ad oculus Linn. F. S. p. 43.

*** Lomvia Hoieri.

2 According to the opinion of L. A. Portenko it is the Horned Puffin in the winter plumage, i.e. without the horny sheath on its beak.

3 Aru or Karu — Brunnich's Murre — *Uria lomvia arra.* [A.O.U. does not recognize this form and further it was an Atlantic bird (Birds of North and Middle America, Part VIII, p. 727, 1919).]

but when full of meat cannot raise themselves from the ground; and having eaten too much, ease their stomachs by throwing it up; have a wide throat and swallow fish whole. Their flesh is very tough and sinewy therefore the natives seldom eat it but, in great necessity; killing them principally for the sake of their bladders which they use instead of corks to their nets. The way of catching them is singular, being angled for as fishes are, in the following manner: they fasten a thick iron or wooden hook to a long rope or strap, baiting the hook with a whole fish, the point of which comes out near the back fin, and then throw it into the sea, this the cormorants observing, gather about it in flocks and quarrel among themselves who shall have the prize until the strongest obtains it and swallows it; then being drawn on shore, they take out the hook and bait by putting their hands into its throat. Sometimes they fasten a live cormorant, which they call a decoy, to the rope and that it may not swallow the bait, tie down its bill with a cord the others seeing the decoy swim so near the shore, come with greater security to the bait. The Kamtschadales make needle cases and combs, to comb their nettles, of the bones of their wings.

Besides the above named tchaiki, or cormorant, there is another species which haunt the rivers; they are called robbers, because they take the prey from the small birds their tail is forked like that of a swallow. [(*Stercorarius longicaudus*).]

The fowl urile plentiful, called by writers sea raven, bigness common goose, long neck, small head, bluish black except on its thighs where they are white in tufts, also some long white feathers like hair here and there upon its neck, has red membrane round eyes, strait bill black above reddish below, feet black webbed. When swimming holds up head, flying stretches it out like a Crane. [Apparently the Pelagic Cormorant (*P. pelagicus*) spring plumage.]

Continuing with 1949 Edition:

Gulls are especially abundant on these seas; their loud cries are very troublesome to inhabitants of the seaside. Among them there are two kinds nowhere observed in other places, which differ each to other only in their plumage, for the one is black, and the other white[1].

They are in size like a large goose. The beak straight, crooked at

---

1 Two kinds of gulls — this is the Short-tailed Albatross — *Diomedea albatrus*, described by P. S. Pallas in 1769 from Kamchatka. The white ones — are adult birds, and the black — young ones. A. Sevastyanov in his comments to the third edition of Krashnaminnikov's book published in 1818 (vol. I, p. 464) pointed out that "two kinds of gulls" are not gulls at all, but one species of the genus *Diomedea*.

the end, reddish, and nearly 3 vershoks (vershok is equal to 4.49 cm) or more in length, very sharp at the edges. Of nostrils they have four, namely, two identical with those of other gulls, and two more tube-like situated near the front like in the sea-birds for forecasting weather, which are called by nowaday authors as procellaria. Heads in them of moderate size. Eyes black. The neck short. The tail of 5 vershoks in length. Legs feathered up to knee, and the rest is naked, bluish with three toes connected by the web of the same colour, claws short and straight. The expanded wings are broader than one sazhen (7 feet). Among these birds there are also mottled ones, but they considered as juveniles.

They live along the sea-shores, especially when fishes, they feed on, are going upstream out of the sea in rivers. On the shore they cannot stand in upright posture for their legs, like in loons, are so close to the tail, and due to this reason they cannot keep their body in balance. When in flight they are heavy and hungry. Being gorged they are unable to take wing. Being overeated they vomit to facilitate themself. Their throat is so wide that they can swallow a large fish whole. Their flesh is very tough and stringy, hence the Kamchadalians don't use such a meal unless being compelled to do so by hunger. They catch these birds only for making bladders they attach to their nets instead of floats.

Their manner of catching those birds is very singular and funny, for they angle for them like fish. A stout iron or wooden hook is attached to a long strap or rope, and a fish, preferably some kind of salmon called the "malma" is hooked on as a bait, so as to pierce the fish with the sharp point of the hook near the dorsal fin. The baited hook they throw into the sea. The gulls seeing the floating food rush at it in large flocks and fight each other until the strongest has seized it. Now the hunter pulling the rope to the shore takes the gull from water and putting his hand into its throat gets the bait with the hook out. To increase chances of such "fishery" they attach to the same rope a living gull called there a "decoy-bird." The gulls seeing the bird swimming near the shore rush at this spot. In order to prevent bait from being swallowed by the decoy-bird, they bind its beak with a string.

Kamchadalians use their wing bones for making of needlecases and combs for combing of nettle and tonshichu (= a kind of grass used as a tinder).

Besides the above-mentioned gulls there are also other kinds of

them, namely gray gulls haunting along the rivers too.[1] Martyshki[2] and Razboiniki[3] with the long tail forked like in swallows which usually take food from small gulls and due to this habit received their name (Razboinik = robber).

Procellaria[4], or birds forecasting weather are of size of a swallow, plumage is black, tips of wings are white. The beak and feet are black. They frequent the neighbourhood of islands. Before the bad weather they fly forth and back close to the surface of water and sometimes even on board of the vessel; so seafarers know a storm is coming.

The Stariks[5] and the Fulmars belong to this kind of birds because their beaks and nostrils are like those of Procellaria. The Starik is is about the size of a pigeon. Their beaks are bluish* and feathered up to the nostrils with blackish-dove bristle-like plumelets. The head is also blackish-dove with sparse white plumelets thinner and longer than the others. These plumelets go round the head top. The upper part of the neck is black, but lower down black-white mottled. The belly white. The wings short. The large wing feathers blackish, but the others blue. Body sides and the tail black. The legs and feet red with three toes connected by red web. This kind of bird frequents the neighbourhood of rocky islets where they breed and find the shelter at night. Kamchadalians and Kurilians catch them much easier than large gulls mentioned above. Putting on their fur coats called "kukhlianka" they sit down in suitable places and let the empty sleeves of the coat lie loose on the ground. Then they wait the falling of dusk. When the birds come in darkness from the open sea they look for a shelter, and a lot of them dive into the sleeves.

Among the Steller's specimens there are black Stariks** with cinnabar red beak and white crooked tuft on the right side of the beak.[6] Steller has seen in America the third kind of these birds. They have been white mottled with black.[7]

---

1 The Gray Gulls — the Mew Gull (*Larus canus major* Midd.) and probably also the Black-headed Gull (*Larus ridibundus* L.). Both are common along the Kamchatka River and on shores of the Avatcha Bay.

2 Martyshki — Sterna. [Tern]

3 Razboiniki — 3 species of the genus *Stercorarius*. [Jaeger]

4 Procellaria — birds of the order Procellariformes, namely the Leach Storm Petrel (*Oceanodroma leucorhea* Vieill.). The second species — the Fork-tailed Storm Petrel (*O. furcata* Gm.) is rather a rare visitor to the Kamchatka shores.

5 Starik — the Ancient Murrelet, *Synthliboramphus antiquus*. L.B.

* Mergulus marinus niger ventre albo, plumis angustis auritus Stell.

**Mergulus marinus alter totus niger cristatus, rostro rubro Stell.

6 Stariks with black plumage — the Whiskered Auklet, *Aethia pygmaea*.

7 "the third kind" is the Least Auklet, *Aethia pusilla*.

Fulmars of a size of common river gulls live on high and inaccessible parts of the rocky islands at the sea. They are grey, white[1], or black[2]. They are called "Glupyshi" (= silly), maybe because they often fly on board of vessels.

As Steller says, on the fourth and fifth islands of Kuril they are caught in great numbers and after that dried in the open air.

Their fat is pressed out through the skin, and comes out so freely as blubber-oil out of the barrel with a peg. They use it for lighting instead of other kinds of fat.

He (i.e. Steller) writes that in the strait between Kamchatka and America and on the islands in this strait they are in such a number that the whole rocky islands swarm with them. He has seen specimens as large as a big eagle or goose. Their beak is [crooked] and yellowish, and eyes as large as in an owl. They are as black as umber with white spots all over the body. About 200 versts (old Russian versta was equal to 1065 meters) from the shore in the open sea Steller happened to see a great number of those birds on a whale carcass; they were feeding on its flesh and living there like on an island. Crossing the Penzhinski Sea (= the Sea of Okhotsk) I have observed a great number of both black and white glumpyshs (= fulmars), but they did not come so near our vessel that I could make out their distinctive marks.

The Kaiover*, or Kayur[3] is a bird belonging to the same kind. They are black with red beaks and feet. They build their nests on high rocks in the open sea and are very cunning. The kosaks call them "Izvozchiks" (= cabman) for they whistle like Russian cabmen do. But I hadn't opportunity to observe them. [Pigeon guillemot (*Cephus columba*).]

The Uri** [4][Urile] is a bird which is common in Kamchatka. It belongs to the genus Cormorant whch are called by some authors "water crow." They are of the same size as a goose of moderate size. Their neck is long and the head as small as of Goosander. [No reference to Goosander in Grieve translation.] Plumage of the body is bluish-black with the exception of thighs which are white and fluffy. There are on the neck some long white hair-like feathers. They have

---

1 *Fulmarus glacialis rodgersi* Cassin — *F. g. glupischa* Stejneger.
2 The Short-tailed Shearwater, *Puffinus tenuirostris*.
* Columba Groenlandica Batauorum Stell. orn.
**Corvus quaticus maximus cristatus periophthalmis cinnabarinis postea candidis Stell.
3 The Pigeon Guillemot, *Cepphus columba*.
4 The Red-faced Cormorant, *Phalacrocorax urile*.

round the eye a red membrane like in the Capercaille. The beak is straight with the upper side black and reddish the lower one. Feet are black with four webbed toes.

They swim with raised neck like Golden-eyes, and when on wing keep it stretched like cranes do. Their flight is rapid, but heavy. They feed on fish which they swallow whole. At night they stay in rows on cliffs at the very brink and when half awake not infrequently fall down into the water where they become the easy prey of polar foxes. The latter look for them and patiently await their chance on these spots.

They lay eggs in July. Their eggs are green of the same size as hen eggs, but unpalatable and need a long time to become hard-boiled. The Kamchadalians however climbed up to the cliffs to get them despite that they break their necks rather often. [Vast numbers about Kolima and other rivers and the best down is from these places.]

Natives catch these birds [when moulting] with nets throwing them from above on the sitting birds, or spreading nets in water near the shore, and birds entangle their legs in them. In the evenings they catch them with a help of noose attached to the long pole; stealing up to birds they easily catch one bird after another, for the sight of the noose does not frighten the birds. The funniest thing is that if the hunter failed to clap the loop precisely on the bird at once, the bird doesn't fly away but only shakes its head. So in the short time they capture all the birds sitting on the cliff, and so one may understand the degree of foolishness of this bird.

Their flesh is tough and stringy, but not unpalatable, for the Kamchadalians cook it well; they roast the bird whole with feathers and guts in a hot burnt pit; when the meat is ready they peel the skin.

The inhabitants assert that urils are dumb, for as natives explain it, they have bartered their tongues to wild sheep in exchange for the above mentioned white feathers they have on the neck and legs. However it is not true: These birds do cry both in mornings and evenings. Steller says that their cry somewhat resembles, when heard from afar, a blast of the trumpet, and when near — the sound of the Nuremberg trumpeters blowing the trumpets. [1st Edition describes this bird under Kaiover or kaior, black, bill and feet red, builds its nest which is very curious, upon rocks in the sea, whistles very loud for which reason the Cossacks call it wosnik or pool boy. I never saw this bird. Footnote — Columba groenlandica Batavorum, Stell.]

ARTICLE 2

On birds living preferably near fresh waters.

The principal bird of this article is the swan[1] which is so abundant in Kamchatka both in the summer and winter that even the poorest native provides it for his feast dinner. The natives chase moulting swans with dogs and kill them with sticks; in the winter they hunt swans on the rivers which have not frozen up.

There are seven kinds of geese there: large gray gumennik[2], the short-necked[3], gray and mottled kazarkas[4], white-necked[5], white[6], and nemck[7].

They arrive in May and leave in November according to Steller's statement, who adds that they migrate from America since he has observed them flying by the Bering Island in flocks eastwards in autumn and westwards in spring. However in Kamchatka the large grey goose, gumenniks and kazarkas prevail, and especially rare are white goose. Contrary to that, the latter species are so abundant along the coast of the Northern Sea near the Kolyma and other rivers that the local hunters kill them in great quantities and the best down comes to Yakutsk from these locality. Natives catch them at the moulting-time in a funny way. They build huts with front and back entrances in the places where the birds use to gather. In the evening the hunter puts on a white shirt of a fur coat, sneaks up to the resting flock and then crawls to the hut. The geese follow him even into the hut. Meanwhile the hunter passes the hut through, shuts the doors, and kills all the birds having crowded in.

The eighth species of goose has been noticed by Steller in July at the Bering Island.[8] They have been of size of Kazarka, the back, neck and belly in them white, wings black, nape bluish, cheeks greenish-white; eyes black with yellowish ring, near the beak black stripes, the beak reddish with a boss like that of a Chinese goose: the boss is featherless, yellowish with a bluish-black feathered stripe in the middle of it. According the natives information these geese haunt also near the First Kurile Island, but never have been seen on land.

---

1 The Whooper Swan, *Olor cygnus*.
2 The middendorff's Bean Goose, *Anser fabalis sibiricus*.
3 It is impossible to identify this name.
4 Grey Kazarka — the White-fronted Goose, *Anser albifrons*.
According to the opinion of L. A. Portenko "Mottled Kazarka" is an adult White-fronted Goose.
5 The Emperor Goose, *Anser canagica*.
6 The lesser Snow Goose, *Anser coerulescens*.
7 The Lawrence's Brent Goose, *Branta bernicla nigricans*.
8 *Somateria spectabilis* [King Eider]

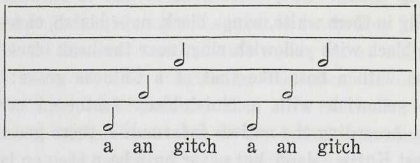
In Kamchatka [in the north sea about Kolima and other rivers] the moulting geese are hunted in different ways [Grieve: when they cast their feathers]: sometimes chased in boats, sometimes hunt with dogs, but more often trapped in pits. The latter are dug near the lakes where moulting geese live at that time and covered with a thin layer of grass. When walking along the shores the geese fall through into the pits and cannot escape, for the pits are made so narrow that the birds' wings remain in an upraised state. [Grieve does not include this par.] They are caught also with duck nets described below.

Another method of capture described in first translation: "The natives build huts with two doors, near places where geese commonly sit at night. The fowler putting a white shirt on — creeps to the hut, going through and observing the geese following, runs round to other door behind and encloses all the geese." ["Shirt" rather modernizes the description. Probably was a coat made of bird skins.]

There are different kinds of ducks in Kamchatka, namely Selezen[2], wostrokhvost[3], chernet[4], plutonosy[5], sviyaz[6], krokhal[7], lutok[8], gogol[9], chirok[10], turpan[11], and "stone ducks[12]."

Of these species, Mallards, Teals, Mergansers, and Goldeneyes winter on springs, but the other like geese arrive in spring and leave in autumn.

The "Savki", or "Morskie vostrokhvotsy" (= Sea Pintails) belong to the genus of birds which are called by authors *Anas caudacuta* s. Harelda Islandica. They live at sea bays near mouths of large rivers. They cry with a very odd voice consisting of six tones set by Steller to music:



2 *Anas platyrhyncha* [Mallard]
3 *Dafila acuta* [Pintail]
4 *Anas clypeata* [Shoveller]
5 *Anas penelope* [Widgeon (European)]
6 *Mergus merganser* and *M. serrator* [American and Red-breasted Mergansers]
7 *Mergus albellus* [Hooded Merganser]
8 *Bucephala clangula* [Old Squaw]
9 *Anas crecca* [Common Teal]
10 *Oidemia fusca deglandi* or *O. f. stejnegeri* [White-winged Scoter]
11 *Anas niger* [Common Scoter]
12 *Histrionicus histrionicus* [Harlequin]

They swim always in flocks, and their cries sound as a pleasant song. The labyrinth or lower part of the throat of this bird as Mr. Steller says is like a sipovka (= reed-pipe) : There are three glottis covered from inside by a thin membrane, and this is the reason of different cries they utter. The Kamchadalians call these ducks "aanguitch" after their cry. The same name they give to the [church] sextons, for they sing also like those ducks in different tones of voice, and ring the church bell in evenings and mornings, the habits which closely resemble that of the aanguitch.

The scoter [the turpan *Anas niger* Willoughby in Grieve] is known by authors as the Black Duck*. It is not so numerous in Kamchatka as near Okhotsk where it is hunted in great number in the time of equinox. In the time of flow [of the tide] Tunguses or Lamutes gather together about fifty in number or more, and put to sea on boats. Then they round the flock up and drive it to the mouth of the Okhota River. At the ebb-tide when the bay became dry both Tunguses and the inhabitants of Okhotsk fall upon the birds with sticks and kill them in such quantities that everyone gets more than 20-30 birds.

The stone ducks** (= the Harlequin) had not been observed in other parts; in summer they live at river back-waters. Drakes of this genus are very beautiful. Its head is velvety black, near the beak there are two white spots, from which run backwards two white stripes passing the eyes and ending with two clayish stripes on the back of the head. Near the ear they have a white speck of a silver kopek in size. Its beak like in other ducks is broad and flattened, and of a bluish colour. The lower part of the neck is blackish-dove. The collar on the crop is white edged with black; it is narrow but broadens to the back. The belly as well as the back are bluish in front and blackish to the tail. The wings have a broad white stripe transversal edged with black.

Sides of the body under the wings are clay-coloured. Wing feathers are blackish with exception of six ones (beginning from the 15th) which are black and glossy like velvet, and two innermost which are white with a black edging. Nearly all the wing feathers of the second row are blackish, and the feathers of the third row are dove with exception of two feathers tipped with white. The tail is black and pointed. Legs are pale. Its weight is about two pounds (old Russian pound is equal 409 gramms). [Insert by translator Berg.] The female

---

* *Anas niger* Willough orn. [Common Scoter]

** *Anas picte* capite pulchre fasciato Stell. orn.

is not so beautiful. Its plumage is blackish, each feather has yellowish point with a narrow white edge. The head is black, and the temples speckled white. The female is less than one-and-half pound in weight.

In autumn on rivers there are females only, and no drakes. They are very stupid, and it is not difficult to catch them on suitable places, for seeing the man they don't fly away, but dive. In so far as rivers are very shallow and clear they are distinct swimming in water and can be easily stubbed with poles. When I was coming up the Bystraya River to the Verkhne-Kamchatski ostrog from the Bolsheretsk town I hunted myself in that manner.

Ducks are caught mostly with duck nets which take much labour. In spots where are forests between lakes being at the short distance one from another the inhabitants cut their way in a straight line through the forest along the usual migration route [flight line] of birds during summer. In autumn when fishery is over, the Kamchadalians bind some nets together, tie up both ends to long poles and hoist it up in the evening just to see the level at which the ducks take short flights. Through [the] nets they pass the bow-string so that the nets could be drawn together or stretched with a pull. The strings are held by a group of Kamchadalians which draw the nets together when the ducks in their flight collide with the latter. [Douglas and Vancouver referred to these nets.] Sometimes the ducks come at the nets in such a manner and force that they break through. In the same manner the nets are got across the narrow rivers to catch the Harlequin Ducks and some others, along the Bystraya River in particular. However, this manner of the bird-catching is common not only in Kamchatka, but almost throughout all Siberia.

To the same genus of birds belong also loons, four kinds of which are known*, three large and one small.

Of the large loons there is one kind with a tail[5], the other has on the neck above the crop a clay-coloured spot[6], the third the author Wormy calls a northern loon[7] or lumme, and the fourth kind called by Marsily a minor loon[8].

---

*1 Colymbus maximus Gesn. Stell. orn. [Common or Yellow-billed Loon]
2 Colymbus arcticus Lumme dictus Worm. [Arctic Loon]
3 Colymbus macula sub mento castanea Stell. [Red-throated Loon]
4 Colymbus siue podicipes cinereus ejusd. [Red-necked Grebe (Podiceps grisegena).]
5 Gavia adamsi [Yellow-billed Loon]
6 Gavia stellata [Red-throated Loon]
7 Gavia arctica viridigularis [Arctic Loon]
8 Podiceps griseigena holboelli [Red-necked Grebe]

The Kamchadalians are weather-wise thanks to the cry of those birds and their manner of flight, for they believe that the wind will come from the quarter which the birds face in flight. Their weather forecast does not always come true, often it is quite the opposite.

There has been observed in Kamchatka near the Kozyrevskaya River a nest of the Sterkh[1], as Steller says, but nobody has seen this bird there.

Of small aquatic birds there are plenty of Greenshank[2], different kinds of waders, plovers[3], and "Tartar magpies."[4] [Editions read: "Here also are found great numbers of small birds such as plovers and snipes of different sorts which are caught with snails and gins."] The small ones are caught with clapnets near the seashore. The lapwings and ruffs have not been found in Kamchatka.

ARTICLE III

On birds living on the dry land

The principle of birds of this article are eagles, four kinds of which are found in Kamchatka. 1. The Black Eagle[5] having the head, tail and legs [feet] white. They are seldom seen in Kamchatka, but are very common on the islands between Kamchatka and America, according to Steller, who adds that these birds build their nest on high cliffs; the nests are built of dry branches and in size are about seven feet in diameter and one-and-half foot in thickness. They lay two eggs at the beginning of June. The young ones are snow-white. He remarks that he met with a great danger while observing them on Bering Island, the parents trying to attack him. Though he did not any harm to nestlings, the eagles so fiercely leapt on him that he nearly failed to chase them away [with] his stick. After that they left however their nest and have built another in one other place.

2. The White Eagle called by Tunguses "yelo," we had an opportunity to see this bird in Nerchinski[6], but it was not white, but gray. However Steller believes that the name of "yelo" means a white eagle, adding that such an eagle frequents only the neighbourhood of Khari-

---

1 Grus leucogeranus Pall. This bird does not breed in Kamchatka.

2 It is not Green-shank, i.e., Tringa totanus, but T. nebularia.

3 Charadrius mongolus.

4 Haematopus ostralegus osculans [Oystercatcher]

5 Haliaeetus albicilla washingtoniensis, or H. pelagicus.
There is a great mix-up in old ornithological literature, and it is impossible to say with certainty what species was called "the Black Eagle."

6 It is impossible to say what bird was named "White Eagle."

uzov River, that falls in the Penzhinsk (Sea of Okhotsk) Sea. [It is not white, but grey.]

3. The black-white mottled eagle[2].

4. The dark-clay coloured eagle having the extremities of wings and the tail speckled with oval spots. Both [the last two] of these kinds are there in great numbers.

The Kamchadalians eat eagles and esteem their flesh very good eating.

Of the other birds of prey which are abundant there are the Ospreys, the white Gyrfalcons[3], falcons[4], goshawks[5], "kopchiks"[6], eagle-owls[7], owls[8], "lun"[9], and most of all the raven[10], carrion-crows[11], magpies[12], which differ in no respect from ours, "ronzhi"[13], pied woodpeckers[14], and green woodpeckers[15], which have been described by no one till now, for it is impossible to kill or catch them because they do not for one moment stay on the same place.

Besides there are, and in no small numbers, the cuckooes[16], aquatic sparrows[17], black grouses[18], capercaillies[19], partridges[20], thrushes[21], crossbills[22], pine-grosbeaks[23], skylarks[24], swallows[25], linnets[26], and white wagtails[27], the arrival of which is watched by Kamchadalians in

---

2 and 3 Probably it is a young Haliaeetus albicilla.

4 Falco gyrfalco grebnitskii.

5 Falco peregrinus.

6 Accipiter gentilis albidus [Goshawk]

7 "Kopchik" or "Kobchik" is a Russian name of Falco vespertinus, which does not occur in Kamchatka. Probably it is F. subbuteo [Hobby]

8 It can be either Surnia ulula [Hawk Owl], very common in Kamchatka, or Asio flammea [Short-eared Owl]

9 "Lun" — means Circus [Harrier] (very rare bird of Kamchatka), or Nyctea scandiaca — very common winter visitor of that country. [Snowy Owl]

10 Corvus corax principalis [Raven]

11 C. corone orientalis [Crow]

12 Pica pica kamtschatica [Magpie]

13 "Ronzha" is a Russian name of Perisoreus infaustus. Probably S. Krashnaminnikov used this name for Nucifraga [Nutcracker] for Perisoreus is absent in Kamchatka.

14 Dendrocopos major, D. leucotos, D minor and P. tridactylus. [Hairy Woodpecker, Downy Woodpecker and Northern Three-toed Woodpecker]

15 Neither Picus viridis, nor P. canus have ever been found in Kamchatka.

16 Cuculus canorus and C. optatus [Cuckoo]

17 Since Krashnaminnikov only S. Bergman in 1921 saw Cinclus pallasi in Kamchatka [Dipper]

18 and 19 Males and females of Tetrao urogalloides kamtschaticus [Capercaillie]

20 Lagopus lagopus and L. mutus [Willow and Rock Ptarmigan]

21 Turdus obscurus and T. eunomus.

22 Loxia curvirosta [Crossbill]

23 Pinicola enucleator kamtschatkensis [Pine Grosbeak]

24 Alauda arvensis pekinensis [Common Lark]

25 Hirundo rustica tyttleri and Riparia riparia ijimae [Barn and Bank Swallows]

26 Acanthis flammea [Common Redpoll]

27 Motacilla alba lugens [White Wagtail]

spring with great impatience for they count a new year from their arrival.

In the earlier Edition there also appears in the list of Kamchatkan birds: "*Sita Europa* Nuthatch winters also in the birch forests and a species of tit" with description and Sketch No. 3 *Parus atricapillus kamtchatkensis* [*turneri*?], and states that the 3 Woodpeckers (No. 14 in list) also winters there. Then there is a marginal note "on the calm sea near Yavenskof were a few small ice floes, on them not rarely *Anas hyemalis* [Old Squaw] along the beach at the base of the promontory single *Emberiza nivalis*" [Snow Bunting].

In conclusion of this chapter we have added a list of some plants, beasts, fishes, and birds, with their names in the English, Russian, Kamchatka, Koratski and Kuritisky languages.

[In the following is the list of the birds.]

Great Sea Cormorant	Boloshoi tchaika
Swan	Lebed
Geese	Goussed
A drake	celesha
Stone ducks	Kammenia utki
Widgeons	Gargari, Ashoai
Eagles	Orle
Hawkes	Saholi
Partridges	Kuropatki
Crows	Veronni
Magpies	Saroki
Ravens	Voronitcherni
Swallows	Loflochkl
Larks	Javeronki
Cuckows	Kokaiske
Snipes	Kuliki

It is an interesting fact that in the early edition used in the present and in the Provincial Archives, Victoria, British Columbia, is the actual copy that belonged to Thomas Pennant, whose *Arctic Zoology* (1785) was used as a guide by some of the early explorers who, with Latham, were the leading British ornithologists of the latter part of the eighteenth century. Pennant's Book-plate is on the fly-sheet and at the end, and, presumably in his writing, there is the following list of Kamchatka birds; there is no reference to the

History of Kamchatka or his own *Arctic Zoology*. The list was apparently taken from Steller's publication.

The following is the list referred to:

From Act. nov. Petrop 4 by Steller

Kamchatka Birds

See Hist. Kam. — 152

1. Guillemot lomvia.
2. Greenland dove Cajour Penan.
3. Wild goose.
4. Anas fuligul prima Gem.
5. An. nigra ventre fusco capite coloribus pucher pineto 6 eggs.
6. Velvet duck a rostra gibboso nigeo rubro et luteo.
7. Ana arctica Cirrhata 1 white egg.
8. Shag graculus palmipes.
9. Anas caudata acuta herelda.
10. Colymbus stellatus caudatus 2 eggs brown and spotted with black.
11. Pica marina 2 eggs.
12. Larus in ins Kurillicus Jet dict.
13. Larus supine ex albo-cinereo et varus albus ped flave.
14. Mergus marinus Starik dict.
15. Larus cinereus mex. roei?
16. Larus ejusden species.
17. Motacilla vulgaris.
18. Hirundo subtus castana coloris.
19. Cinclus The Stint 4 eggs.
20. Raven sacred Muller IV.

Chapter III

MARTIN SAUER

THE (FIRST) BLOSSOM EXPEDITION

Details of this expedition (1785-1794) appear in Martin Sauer's "An account of a geographical and astronomical expedition to the northern parts of Russia for ascertaining the degrees of latitude and longitude . . . of the whole coast of the Toulksi to East Cape and of the islands of the Eastern Coast stretching to the American coast. Performed by command of her Imperial Majesty Catherine the Second—by Commodore Joseph Billings in the years 1785 to 1794, the whole narrated from the original papers by Martin Sauer, Secretary of the Expedition" — London, 1802.

The work is dedicated to Sir Joseph Banks. Sauer accompanied the expedition, as Private Secretary and translator, at the request of both Pallas and Billings.

The Expedition, under Commander Joseph Billings, was the result of discussions by the Rev. William Coxe with officials, including Dr. Pallas, concerning conditions at the Russian colonies in the far East, which, coming to the notice of the Czarine Catherine II prompted her to outfit the Billings' expedition the preparation of which, she had as guide Dr. Pallas. As the Expedition was equipped regardless of expense it was possible to spend a longer time than other similar expeditions of the Northern Pacific Area. The choice of Commander Billings to command was, no doubt, owing to experience gained during the exploration of the northern seas with Captain Cook; the Russian settlements had been in existence for some years.

In his Introduction, Sauer states, in a footnote, that "my narrative is taken from the journal written for Captain Billings which I copied from the ship's journal kept by the Master Balakoff and his mates. I am apprehensive that some of the bearings are not perfectly correct."

[Also are included "his own notes on small pieces of paper made during the voyage faithfully transcribed and supplemented by his memory." The narrative was subsequently translated into French in 1802 and German in 1863.]

Set out in the Preface (or Frontispiece) were the official instruction which included:

"To ascertain the degrees of latitude and longitude of the islands in the Eastern Ocean, stretching to the American Coast."

Also Instructions for the naturalist Mr. Patrin who was to have accompanied the Expedition but whose place was taken by Dr. Merck. These instructions included:

"To collect birds and cause to be stuffed or otherwise preserved all extraordinary birds observing as closely as possible their habits, food, propagation, sounds, migrations and habitations, as well as mode of catching them, with the instruments and stratagemes made use of for that purpose. You will also collect as many birds' eggs as possible. Quadrupeds and birds of different genders and areas are to be stuffed." [Sauer refers to A.Z. as an authority.]

While the two ships for the Expedition were being built and outfitted at Avatcha Bay, Sauer recorded nothing regarding the bird life except the following very interesting observations:

"In spring of year, a flight of crows were fighting in the air and making a dreadful noise. One of them was killed by the rest and fell upon the deck of this ship. The whole swarm immediately descended and entirely devoured the vanquished bird, leaving no other vestiges than the feathers behind." [The "crows" may have been Rooks (*Corvus frugelicus*) as similar incidents have been reported in England for that bird.] Sauer adds that the incident was supposed to be a bad omen and foretell the loss of the ship, which actually happened to one of the two ships at launching causing delay until one to take its place was built.

During the winter of 1789-90, spent at Avatcha Bay, there are the following notes:

On 23rd March: "Geese were observed flying to the North." On the 26th "ducks" and on the 29th March "swans were noted going in the same direction. The end of the month we obtained abundant supplies [wild fowl] among which we saw and then observed a small sized goose quite white." [Snow Goose (*Chen hyperboreus*).]

1st May: "Some hands were sent to shoot birds and hares and which were in great plenty and not very shy."

In the 17th May, the vessels were launched and the *Pallas* went aground and was burnt to prevent the necessity of having to record the blunder in launching. This threw out plans for any lengthy exploration and, instead, an exploratory expedition went north in

Siberia. This Expedition returned to Avatcha Bay for the winter. There are no records of bird life applicable to The Area.

The following spring, the expedition left Avatcha Bay. June 8th in the harbour of St. Peter and St. Paul gulls, crows and magpies were feeding on herring spawn. [His is the only mention of the magpie (*Pica pica*) in Kamchatka, or of birds feeding on herring spawn which they certainly do further south and when there is a school of herring present, birds of many species are in hundreds, even thousands.]

10th June: "The hunters whom we had sent to the island Kekalga [possibly Kavalga, Andreanof Islands] brought us a variety of sea fowl, and a particular sort of black headed goose, which Dr. Merck called Canadian." [Probably were Black Brant (*Branta nigricans*).]

11th August: "In harbour of St. Peter and St. Paul, I observed a number of swallows flying about, apparently much frightened. They were red-breasted, [*Hirundo rustica*], a species never remembered to have been seen here. The inhabitants predicted some remarkable event." The next morning there was an earthquake!

The expedition returned to Avatcha Bay for the winter.

Though outside The Area the following is worth mention:

Sauer describes the Yakuti as a very superstitious people "objects of veneration were eagles, swans etc; Ravens, crows are ominous, if they perch near their huts, they dread some misfortune which is only averted by shooting [bow and arrow] the bird. Eagles and large birds of prey are — foreboders of good luck."

There is a description of the country at Avatcha Bay: "The plains of Avatcha extend 18 miles from East to West and 35 miles from North to South — marshy grounds the resort of myriads of waterfowl swans and geese, an amazing variety of snipe [Waders]. The river Avatcha runs in several branches through this plain." Sauer gave the population of Kamchatka as 2,740.

The next spring by the end of April, 1790, the harbour at Avatcha Bay was free of ice. On 9th May, the voyage north started.

11th May at 51.°18 — 161.°58 — "During the day we saw several flights of ducks, numberless auks and sea parrots."

On 23rd May: "Jaegers (Hunters) were sent out in boats during the calm to shoot birds some of which we found good eating at Shumagin Islands."

16th June: "Several ducks and small birds flying to the eastward; position then 50°50 — 169°.5."

From here the expedition sailed to Oonalaska leaving there on 13th June for Kodiak and 6th July went on to Prince William Sound from there returned to Avatcha Bay for the winter.

The next year, the Harbour was clear of ice by 1st May and the Expedition left Avatcha Bay on 9th May for North America. The first day out "several flights of ducks, numberless gulls, auks and sea parrots were seen."

"At Trinity Islands the birds that I observed hereabouts were such as I saw at Oonalaska and about Shumagin's Islands. Wild geese; different kinds of gulls; the crested and tufted auk; blue petrel, of a rusty dark brown, very like the swallow; the foolish and black guillemot; divers; and a great variety of ducks, the flesh of which are eaten by the natives, the skins used for dresses and the bills particularly of the sea parrot, employed for ornament."

"Also a few partridges teals, (*tfhirok*), cormorants (*urile*), auks (*ari*), sea parrots (*toporki*) and gulls (*tshaiki*). A very large species of the gull kind was killed by a party collecting drift wood in the beginning of April. They had retired to a cave — when this bird, pursued by an eagle, took refuge among them. The wing had three joints, one more than I ever saw in any other bird. The Russians call Semi Sazshenoi (seven fathoms) from the extreme length of their expanded wings. They are frequently seen but the natives have never found their nests or eggs. When picked it appeared like a large turkey and, to our depraved tastes, was not inferior in quality when dressed. Eagles are numerous, as also the glupysh, which I take to be Pennant's foolish guillemot."

[From wing spread, could only have been an Albatross, either short-tailed (*Diomedia albatrus*) or Black-footed (*D. nigripes*).]

In October the Expedition returned for the winter to the harbour of St. Peter and St. Paul (Avatcha Bay) and there is a remark on the abundance of waterfowl. Also an account of method of capture of the Turpan by the natives and the bird described.

"In the early morning canoes go out and return driving before them an immense number of the sea-duck called Turpan. When in the Bay surrounded by more than 200 canoes drawn up in regular line forming a crescent. Thus enclosed the tide left them in about six inches of water and all canoes were aground. At a signal, men, women

and children plunged into the water some armed with bludgeons, others with strings and nets. While one knocked on the head all that came in his or her way, others of the party strung or netted them. The noise with that of the supplications of the ducks and the noise of myriad gulls hovering about form the strangest medley of sound. Women caught by far the greater quantity and the whole number amounted to 6500."

"The Turpan is as large as a domestic duck. The neck short, the bill black, short and narrow, with a callous knob on the nostril. The feathers black, with grey spots. [Possibly White-winged Scoter (*Melanita fusca*).] They moult all the quill feathers at once consequently cannot fly; being driven therefore into shallow water they are prevented from effecting their escape and become an easy prey. They taste very fishy — when salted and dried they are esteemed excellent wet, with a dram, before dinner." [The origin of the cocktail!]

In 1792, the bay was clear of ice by the end of April and on 18th May "the Kamtshadals were out among the rocky islands seeking eggs and brought us a very comfortable supply as also sea fowl." [This is a very early date for the rock-nesting birds to have eggs even according to the Julian calendar — 11 days. Sauer does not state which calendar he used but almost certainly it would have been the Julian. Perhaps the reference is to eggs of one of the Eiders particularly as the nest observation is at Kanaga Island [Andreanot Group] in mid June.] "The only island we observed the Eider duck and it was about the lakes here in great plenty."

[This note about the Eider is rather inexplicable as "eiders" are, and must have been, one of the commonest ducks. One only has to look at varying plumages shown in Peter Scott's illustration in the 1964 New Dict. Birds — p. 100, to realize how often "ducks" could have included this family.]

"The birds I observed were — two species of geese; one termed by the Russian hunters, laidenoi. These appear on the 21st August, 2 days after our arrival, and winter here. The head, neck and breast are white, it has a large black spot on the throat; back, wings and tail, ash-colour; the extremity of the feathers barred with a black streak edged with white; bill and legs yellow; claws black [White-fronted goose (*A. albifrons*)]. They remain here until 18th April, and on the 19th the other species arrived, which I have described at Kodiak, where we obtained some. These depart about the 30th of

August. Towards the end of September a few of the Snow buntings came, but only stayed a few days."

"The saka (*saska*), a kind of duck very frequent in Kamchatka, made its appearance at the beginning of October, and wintered. The 12th November we saw the turpan of Ocholsk, but these stayed only a few days, and were in very poor condition. There is also a species of bunting with a red head and breast; but of these I saw only 2 or 3; they are much sought after by the natives who ornament the strings to their darts and dressed with red feathers [Probably Pine-Grosbeaks (*Pinicola enucleator*)]; also a bird as small as a wren, which emits a delightful note [Winter wren (*Troglodytes troglodytes*)] these and the saska are the only melodious birds on the island [Oonalaska]. Here are also a few partridges. [The partridges perhaps Ptarmigan (Sp.) in summer plumage.]

APPENDIX No. VII

A bird of the auk kind caught at Oonalaska.

"Bill orange colour, very little curved; both mandibles tipped and edged with black; the nostrils long and narrow, running parallel with the mouth; an elevation upon the nostrils of a light green colour edged with black. The feathers commence at the base of the bill, and are of a dark ash, which is the colour of the head and neck. From the upper part of the eye, along the head to the back of the neck, is a row of fine white satin feathers; and another row, broader and shorter, leads from the corner of the mouth. The eye of a pale yellow, the pupil being small and of a very dark blue. The back, scapulars, coverts of the wing and tail are dark, with a paler edging, primaries something lighter; throat a light colour; breast and belly a dirty white; the fore part of the legs of a vivid colour; the hind part, web and claws, black with 3 toes. It resides about the rocks and coast of Kamchatka and upon all the Aleutian Islands and is about the size of a blackbird."

[The "fine satin feathers" suggest the Crested Auklet (*Aethia cristatella*).]

The Expedition left Avatcha Bay on 29th May, 1792. On the way at Baranoff (Bering Island):

"Many sorts of marine birds kept hovering around us and one of them of the duck species lit on the vessel." [One wonders what species of duck would be so rash!]

4th June, near or at Oonalaska:

"Our hunters had shot two woodcocks besides finding a nest full of eggs, which afforded us a comfortable supper." [As the woodcock even if it could have been there would only lay 4 eggs, and so not provide a meal for many, the bird would have been the Ruffed Grouse (*Bonasa umbellus*), which lays a hat-full.]

"We did not observe many birds on shore, the few we saw were chiefly white headed eagles and some small birds of the finch tribe; with whose red feathers the Aleutians adorn themselves." [Probably Pine Grosbeaks(*P. enucleator*).]

10th June, Kakalya Island:

"The hunters brought a variety of seafowl and a particular sort of black-headed geese which Dr. Merke called Canadian." [Evidently the goose was not one of the Canadas, so probably a Black Brant; at this date these birds would be on their way north.]

24th June at the Shumagin Islands on the way to Kodiak Island:

"Fowl of various description hovered over the sea but particularly a sort of diver, seen in immense flocks. We shot one but found its flesh more fat than savory. This bird which is a native of the Frozen Sea is about the size of a common duck, with a white body, an ash-coloured back, head and neck, a white round tail, a cylindrical pale-green bill, red legs and webbed feet. It lives on the fat of dead whales and is very bold and often alights on the ships."

[The description does not seem to fit any bird to be seen there — the Fulmar (*Fulmaris glacialis*) would be seen in "immense flocks," but has not red feet; this seems the nearest even if not a diver. Another possible would be Red-throated Diver (*P. stelleri*), but it has not red feet nor does the description of the bill fit and there is no mention of the red throat.]

CARL HEINRICH MERCK

THE BILLINGS' EXPEDITION

The material for this section is taken from an Article by Dr. Erwin Stresemann of Berlin, one of the leading ornithologists of the present day — "1948 — Dr. C. H. Merck's ornithologische Aufreichnungen wahrend der Billingsschen Expedition von Ikhotsk nach Alaska (1787-1791). Zool. Jarh (syst. (78910, 97-132)." This is more than a

review of Merck's Diary, it includes what is known about Merck, also discusses the taxonomy and nomenclature of species Merck referred to. As the Article runs to several thousand words, it has been necessary to limit the present review strictly to references to birds noted when Merck was in The Area, except where details assist in identification. Unfortunately, and for the same reason, the discussions on taxonomy and nomenclature have also to be left out, as well as the accounts of Merck's journeys in Siberia, and letters written to Peter S. Pallas, the head of the Natural History Department of the Imperial Academy of Science, St. Petersburg. The scientific names as appearing in the Stresemann Article will be shown.

Dr. Carl Heinrich Merck (1767-99) was born at Darmstadt (Germany), his father being Court physician, a profession Merck followed and, on qualifying, became physician-in-ordinary to the grandchildren of the Empress Catherine, who later was responsible for the Billings' Expedition. On giving up this post he joined the staff of a hospital at Irkutsk (Siberia).

When the chief naturalist with the Billings' Expedition threw up his job, Billings, the commander, evidently knowing something of Merck's qualifications, sought him out and the result was his appointment as chief-naturalist, a position that well suited him as giving scope to his desires for exploration in the Arctic. Merck remained with the Expedition until it completed its work and returned with the other personnel to St. Petersburg to assist in sorting out details. Then, after visiting his native country, he returned to St. Petersburg for the remainder of his life. Sarytchew, in his account of the Billings' Expedition, describes Merck as "a man combining an almost purile timidity with extraordinary intelligence."

For 135 years Merck's Journal was lost and presumed destroyed; it was first found in the possession of a firm of book dealers in Berlin, probably having remained unnoticed among old papers in possession of descendants of Pallas. After passing through the hands of various other book-dealers it ended, and remains, in the custody of the Merck archives in Darmstadt. The original was not available to Dr. Stresemann, but, fortunately, a photocopy was discovered at the Berlin Museum of Ethnology, as well as copies of the letters written to Pallas. The Journal is not limited to Merck's ornithological experiences, but shows he had encyclopaedic interests, Anthropology and particularly ethnology, which takes up more than half the Journal.

Merck's method when dealing with the bird species was to record those well known, except the very common which are not included, under current scientific names, often adding some details. Descriptions of new species were accompanied by illustrations, not reproduced in the Stresemann Article and apparently non-existent today.

Descriptions of more than twenty forms of birds, published by Pallas in his Zoogeography, as new species, are based on Merck's study skins, but, as Dr. Stresemann points out, a systematist, proceeding along modern lines, would have described at least twenty species and twenty-seven subspecies. [This would include results from expeditions outside The Area.]

The present review consists of extracts from the Stresemann Article which does not always indicate which were as in the original or had been reduced to a narrative form. Personal remarks will, as elsewhere be shewn in square brackets.

Merck's nomenclature follows Linnaeus to which Stresemann added more up-to-date names, not always agreeing with A.O.U.; in such cases connecting reference to A.O.U. will be added, where possible.

Before the commencement of the Journal Merck was corresponding with Pallas and, as pointing to his knowledge and interest in ornithology, he remarks in his report on the spring trip in 1789 to Tauisk, that: "All local birds, which I found to be undescribed in Muller's German edition of Linne's 'Natural System', I provided with the needed description and had them sketched from life, because form as well as the coloration of the bill and feet suffer in the preparation of skins." Carl Krebs acted as his assistant.

The specimens collected by Merck and Krebs all went to the St. Petersburg Academy of Science but, in time, were so dispersed (and neglected) that by 1831 there were only pitiful remains which have long ago disappeared.

The Journal starts out August 26, 1789 from Okhotsk and ends on August 4, 1791, following the landing in St. Lawrence Bay. It seems a continuation of the letters written to Pallas dealing with the earlier expeditions in Siberia.

Dr. Stresemann credits Merck with procurring, on these earlier excursions outside The Area, the types of *Anthus cervinus* [Red-throated Pipit]; *Calcarius lapponicus* [Lapland Longspur]; *Surnia ulula* [Hawk Owl]; *Charadrius hiaticula* [Ringed Plover]; *Phalaropus*

lobatus [Northern Phalarope]; and *Phalaropus fulicarius* [Red Phalarope], and from Tauisk, the Giant Sea Eagle [*Haliaeetus pelagicus*] or Steller's Sea Eagle. All are listed in A.O.U.

From Merck's Journal one gathers that the first vessel was built at and left Okhotsk about 18th August, 1790; there are two observations from there that are worth inclusion:

9th August—"The swallows left Okhotsk one wishes they were just arriving"; the other, that "the meat of the Dipper (*Cinclus pallasi* Teminck E.S.) is much prized for its taste." [It would certainly only be a taste as the bird is little larger than the House Sparrow (*Passer domesticus*).]

On the 22nd August, during the voyage to Petropavalosk from Okhotsk, fulmars (*Fulmaris glacialis*) were plentiful and "we caught by hand three owls which alighted on the deck and were so emaciated as to keep their feet with difficulty, they had accompanied the ship individually before the storm." Assuming them to be Strigiformes, possibly migrating Short-eared (*Asio flammeus*).

The first entry after leaving Petropavalosk is dated 25th September recording the capture of a M. hippolais (*Phylloscupus borealis* E.S.) [Willow Warbler]. The next day "single gulls, owls and several wagtails [either *Motacilla alba* or *M. flava* both of which breed in Kamchatka and Alaska, A.O.U.] stayed around the vessel."

On 27th "single cormorants" (*Phalacrocorax pelagicus*), [here the similar *P. urile*, the Red-faced, would be common; Merck does not mention the bird specifically], also "swan and geese to the south."

[To have "owls" included with sea birds is, at first sight, perplexing, but an explanation may be found in Appendix I of Sarytchew's account of the voyage where he describes "owls," "as about the size of a duck, their breasts are whiter and the rest of their feathers black," a description, together with that given of their habits, must refer to the Murre (*Uria* sp.).]

On 28th Merck records they passed between the second and third inlets (of the Kuriles E.S.); so the Expedition must have explored south before turning north. The Kuriles are outside The Area.

There are some general notes dated 6 December, 1789 referring to the country around Petropavalosk:

"Sitta europaea, Nuthatch, winters also in the birch forests and species of tit (descr. and Sketch 3) (*Parus atricapillus kamschatkensis*). End of January 1790: Around Bolsheresk still wintering in

the dense birch woods are P. medius (*Dryobates major kamchatkensis*), P. minor, and P. tridactylus." [Woodpeckers, respectively Hairy, Downy and Arctic Three-toed.]

(Marginal comments entered later) "on the calm sea near Yavenskoi, few small ice floes, on them not rarely *Anas hyemalis* [Old Squaw]; along the beach at the base of the promontory single *Emberiza nivalis*" [Snow Bunting]. "On Kamchatka swans arrive in September for the winter and depart from April to May." "Barn Swallows start to arrive at the beginning of June and generally leave around the middle of August." Merck points out "that the rivers have always some spots of open water, and thaw out in mid-January with easterly winds or storms. The water fowl thus is scattered and hence cannot be caught with snare nets so well as before. Others (*ducks*) wintering on the ice floes are *Anas clangula* [Old Squaw], *A. crecca* [European Teal], *A. boschas* [Mallard], *M. merganser* [Common Merganser], (Marginal comment: The remaining ducks, which do not winter here, arrive toward the end of April and leave in late September)."

"Of the eagles around here, the one described from Tauisk, *Haliaeetus pelagicus* [Steller's Sea Eagle], in addition F. ossifragus and (*Haliaeetus albicilla*) [Gray Sea Eagle]. A variety of fulvis (*Aquila chrysaetus*, Sketch 6:), [Golden Eagle], and the white falocn (*Falco rusticolus grebnitzkii*), which swoops singly over rivers — chasing after ducks and grouse." [Gyrfalcon]. Sketch 4. Marginal note: "Another [Gryfalcon] shot in fall of 1790 in port of (Petropavalosk)."

There is a sketch (5) of *Surnia ulula* [Hawk Owl] found "in the mountains around here throughout year; feed on mice and small birds." "The black crows together with single magpies are found throughout the year." "Along the open spots of the rivers an endemic snipe species (*Capella solitaria*) winters, (marginal note: Gorostell on the Kamchatka River — they stay around springs)."

[The Black Crows might refer to the Raven (*Corvus corax*) a bird not mentioned by Merck though it should have been quite common. The Magpies would be the Black-billed (*Pica pica*).]

On the 26th of March "the large gulls (*Larus argentatus vegae*?) that had been noted at Tauisk began to pass over from S.W. to N.E. Around April, flocks of (*Anas spectabilis*) [King Eider] passed over in the same direction, a few individuals also alighting on the beach. To Kamchatkanese "Muthu."

"On April 10 the first larks made their entrance around here.

Ph. carbo (*Phalacrocorax pelagicus*) is seen together with *Anas spectabilis*. [P. carbo in present taxonomy would be the Great Cormorant of the Atlantic and found in the Pacific. *A. spectabilis*, the King Eider (*Somateria spectabilis*).] Local people catch them with covering nets, which are let down from the cliffs by straps. Up to 50 are caught in one night, for they sleep together on the precipitous cliffs: the male weighs 6 Russian pounds."

"On April 4 and some days before geese passed over from S—slightly W toward N—slightly E."

"April 18, mouth of the Bystraya; abundant fowl of ducks, larks, and wagtails enjoyed the first sign of spring."

[Larks probably Horned (*Erymophila alpestris*) and Wagtails one or both the white and/or yellow (*Motacilla alba* and *M. flava*).]

6. Voyage from Kamchatka to Alaska and back.

"May 9th, 1790 the voyage from Petropavalosk to America begins. April 14th, a small sea bird appears, the birds fly close to the surface (Descr. *Oceanodroma leucorrhoa*) [Leach's Petrel]. On April 16, wandering flocks of phalaropes fulicarius. (Descr. *Phalaropus fulicarius*). April 19, singly, the small gull of the islet near Tauisk (*Rissa tridactyla*?). April 23, a flock of phalaropes with feet adapted for swimming (Descr. prob. *Phalaropus lobatus*). April 25, Diomedea (*albatrus*), snowy white, back and wings (tending) toward brown almost black. On the Andreanov Islands they are used for making of short pullover-jackets with sleeves to the elbows for which—five skins being necessary.—The younger ones, as those around Tauisk, are not usable but are edible. The islanders proceed on their hunt in calm weather, as the albatross cannot easily take to flight. They (the hunters) proceed for the birds head-on, because the albatross must rise against the wind. Here was collected a species of auk differing from the bundle of feathers at Tauisk, somewhat smaller in size (Descr. *Aethia pygmaea*)."

"Unalaska: I observed the following birds here: Falco (*H. leucocephalus*) it is not rare about the rocky shores. On a cliff I found a nest made of brush and pieces of wood containing two juveniles with down.

"On the cliffs as well as islets small oyster catchers are met; some closely bunched together" (Description *Haematopus ostralegus backmanni*).

Marginal note from Krebs Journal winter 1791-92, "The Unalaskan

thrush present throughout winter, begins to sing gradually towards the end of March; nests in grass; lays 4–5 eggs, to the Aleuts 'Tchikiyah-kokh' and 'Kater'."

As Merck refers here and elsewhere to small oyster-catcher, it is suggested these were not *Haematopus bachmanni* but were Black Turnstones (*Arenaria melanocephela*) a species that must have been numerous.

"Around the steep shores not infrequently a species of bunting is noted; their skins used by Aleutian women for its pale red feathers in sewing material."

Marginal note, Krebs Journal: "To the Aleuts 'Ullughyshak' and 'Kogholang'. Present winter and summer (*Leucosticte tephrocotis griseonucha*). Krebs also mentions a small rocky islet that lies in the sea at the entrance of the channel that separates Unalaska from the main island. It is characterized by a flat mossy surface and a pond around which many water fowl and seabirds brood their eggs; it is therefore called Egg Islet. Cormorants (*Phalacrocorax*); the large gull of Tauisk; guillemot (*Uria*); Alca (*Lunda*) cirrhata; A. arctica (*Fratercula corniculata* E.S.) [Horned Puffin]; a variety of C. grylle (*Cepphus columba*), also often nesting here Anas (*Branta*) canadensis."

Added from Krebs Journal: "They (the natives) recognize among the geese the migrants 'which arrive around April 14' — 'lack' of the Aleut proleaya; 'tundreayya' of the game hunters; among these the forms mentioned as well as Casarca and gunmaniki, now rare.

"Secondly are the 'gamphang' of the Aleuts, arriving in the fall remain the winter and leave in spring (end of April—Krebs). 'Laidennye' of the game hunters (Anser canagianus, E.S.) [Emperor Goose]; the Aleuts also catch them with snares."

"In the bays singly *Anas histrionicus* (addition from Krebs' Journal): "then *Mergus serrator* [Red-breasted Merganser] and possibly a variety of the *M. cucullatus* (male of M. serrator). [*M. cuculatus* the Hooded Merganser would be very doubtful A.O.U.]

"June 18th from Unalaska onward to the east, June 22, Albatross and several Auks passed overhead, in the evenings close to the surface. Early in the morning several flocks covered the sea in spots.

"June 23rd: During the calm we sent out one hunter and two Aleuts in their three-seater boat, who brought back several individuals of 'Albatross' which covered the surface of the sea some distance

from the boat in abundant flocks along with the individuals of the auk species. The meat of the former has but slight fishy taste and is fat (exact description [is of] *Puffinus tenuirostris*). [Slender-billed Shearwater.] The species is called 'Ayudan' by the Aleuts."

Evidently Merck used the name "Albatross" here, and probably elsewhere, to include the Shearwaters; abundant flocks do not suggest the Albatross.

June 25th: Merck spent one half hour on a small islet (of the Endokean Islands)—"Our stay marked by the observation of numerous sea birds. The Canadian goose mentioned now had goslings. Yevrashkem (ground squirrel) (*Citellus parryi*) in burrows. Among 'storm birds' mostly the one mentioned (*Puffinus tenuirostris*), but also individuals (*Oceanodroma furcata*)—a whitish below, paler above; little and big gulls as on Taleck [Tauisk?] Oyster-catchers (*Haematopus ostralegus bachmanni*) fly about the boulders and alight on them."

The Bay of Kodiak was reached on 29th June; among several birds there are:

"1. A rare species of Colymbus with a hump (Descr. *Cerorhinca monocerata*) [Rhinoceros Auklet] but we only got one of these, which a native of the island had on the front of his boat. In spite of all our searches we were unable to obtain more of these. [The scarcity may have been owing to it being north of its regular range.]

"2. *Falco leucocephalus* [Bald Eagle] to the islanders 'Kumagyk'.

"3. Cormorants; as on Unalaska and the rocky smaller islets, a second species with two blue tufts pressed inward posteriorly, located on the back of the head as well as the nape of the neck; bill at angle of mouth—blue; behind angle of mouth—red, little yellow (*Phalacrocorax bicristatus*). Both species were called 'Ayashuck' by natives."

Marginal note, from Krebs' Journal: "Further differences between *Ph. pelagicacus* and *Ph. bicristatus* In the former the feathers extend down to the bill, in the latter bare skin here being devoid of tubercles. (Furthermore in *bicristatus* tufts higher up sticking out more; darker in colour and especially along the back sides a shinier red-purple. Their bill is thicker at the base, a little more slender at the tip (etc.)."

4. The variety of C. grylle (*Cepphus columba*) mentioned is known to the natives as "Chuak." [Possibly "variety" would be summer plumage.]

5, 6. Two species of bunting. The first with a yellow crown. The bunting with black center of crown in Pennant (type of Emberiza coronata Pallas = *Zonotrichia atricapilla Gmelin*); the second (descr. sketch 42: *Emberiza chrysops* Pallas = *Passerculus sandwichensis Gmelin*). [Respectively, the Golden-crowned and Savannah Sparrow.]

7. A small Motacilla, a saturated sulphur-yellow with black crown (etc., type of Motacilla pileolata=*Wilsonia pusilla pileolata* Pallas). [Recorded previously from Cook Expedition; Wilson's Warbler.]

The Expedition left Kodiak Bay 6th July.

12th July: A storm bird was brought us by Americans [natives]; in the latter [bird], bill yellow, with some blackish, white below, of the same size as one mentioned above (viz.), *Puffinus tenuirostris*. [This is the only "white below" Shearwater that could occur and suggests other Shearwaters mentioned being different and probably Sooty (*P. griseus*).]

20th July: Landed in the Prince William Sound on a small wooded islet of the bay. The period of molt was not quite over in the birds. We saw:

1. Alcedo Alcyon L. [Belted Kingfisher.]

2. A species of Corvus, Steller's crow of Pennant.

3. The Unalaska thrush (*Turdus*) Pennant (probably the type for Muscicapa guttata Pallas=*Hylocichla guttata* (Pallas)). [Hermit thrush.]

4. A colymbus species smaller than the marbled diver in Pennant (descr. *Brachyramphus marmoratum* Gmelin). [By this date would be losing summer plumage, hence distinction so might have been *marmoratum*.]

5. Tringa lobata [Northern Phalarope].

6. A small snipe, vide insertion B: Tringa pallida (Descr. *Heteroscelus incanus*) [Wandering Tattler] and Tringa punctata (Descrip. ? *Tringa flavipes*) [Lesser Yellow-legs].

7. *Turdus canadensis* (Pennant) (only bill and feet described, probably Turdus auroreus Pallas = *Ixoreus naevius*) (Gmelin). [Varied Thrush previously referred to, and painted by Ellis.]

Left Prince William Sound 30 July. October 7th (on lat. of Bering Island) a plover with yellow spots (*Pleuvialis dominicus fulvus*), around the vessel. [The race *fulva* of the Golden Plover is distinct from the nominate race *Pleuvialis dominica* and is undoubtedly the

race illustrated by Ellis.] Otherwise aside from Petrels which first appeared around Kamchatka and Unalaska (*Oceanodroma leucorrhoa*), single Diomedea and gulls, guillemots, and cormorants. October 13th back again in Petropavalosk.

Merck spent the winter 1790–91 at Bolsheretsk on the sea of Okhotsk, returning to Petropavalosk on the 26th of April. He noted the following species 2nd January 1791:

Loxia sibirica (supposed to be Loxia enucleator) a flock in the forest. Ptarmigan fly among low trees of alder and willows. April sees the return of meadow lark (*Alauda arvensis*). The larger bunting seen on the Kooyma (Descr. Sketch 30): *Calcarius lapponicus coloratus;* then a variety of *Motacilla alba* (Descr.). — Just received from a Kamchatkan Strix nyctea [Snowy Owl]. — April 26th, in the birch forest of Koriatskoa Ostroshik, capercaillie are not uncommon, as they can find food among the buds and tender tips of twigs. He noted that it was still possible to walk and travel across the snow, which formerly, was higher than the huts.

On his return to Petropavalosk 28th April, he was given the following birds:

1. A duck, A. stelleri in Pennant. It appears only in the spring and fall around Avatcha Bay [Steller's Eider].

2. *Tringa morinella*? [Ruddy Turnstone].

3. *Tringa striata*?

4. *Larus ridibundus* [Black-headed gull] here as around Bolcheretskoi.

5, 6. Two bunting species (one of these *Calcarius lapponicus*, descr.) [Lapland Longspur.]

[Numbers 2 and 4 are not to be found at Petropavalosk in winter. Dr. Stresemann puts a query mark after 2 and 3 and might have done the same to 4.]

8. Voyage Kamchatka, Unalaska, and Chuckchee Coast.

May 22nd, 1791. "Small storm birds" [either Fork-tailed or Leach's Petrel]. A small gull in size to the one last mentioned (*Larus ridibundus*); its feet red, head, neck, tail, under surface, white, from wings across back greyish; primaries with black tips (*Rissa brevirostris*) [Red-legged Kittiwake].

June 12th, went to other side of Tanaga Islet [Andreanof Islands], which extends from the southern half of our bay. The island is flattened on this side; the mountains are low and green with projecting boulders

in spots and pools among them. The beach is largely surrounded by cliffs; sandy inlets are but few. There are hot springs.

1. On the sandy shores, on the ocean near the beach and on the cliffs Anas mollissima. Five green eggs are laid [the Eider, Western race *M. V. nigra*].

2. "Storm birds" noted on p. 56 [of Journal] *Puffinus tenuirostris*, few in number. [Slender-billed Shearwater.]

3. Small auk (*Aethia pygmaea*) of p. 42. Their bill a blood-red whitish at the tip and around the base of the mandible, as around the angle of the mouth; blackish around the narial cover, in front and more blackish toward the nostrils. [Whiskered Auklet.]

4. The former variety of C. grylle (*Cepphus columba*).

5. A gull (descr.? *Rissa tridactyla pollicaris juv.*) [Early for juv. Red-legged Kittiwake].

6. The former smallish oystercatcher (*Haematopus ortralegus bachmani*) on the cliffs above the beach; their flesh is tough and unpalatable; the iris is lemon-yellow; their feet whitish to flesh colour toward the toes.

7. The bunting of p. 53 [Journal] (*Leucosticte tephrocotis griseonucha*) [Gray-crowned Leucosticte].

8. A small Motacilla: the wren (*Troglodytes troglodytes tanagensis*). [Winter Wren.]

9. A smallish T. lobata, as in Tauisk, or T. fulicaria; their eggs sea-green, spotted with dark umber-brown from the blunt and toward the pointed, and spots reduced to smaller dots. [The two species are quite different in breeding plumage; here it would be *T. lobata.*]

On 25th June — arrived in Bay of Unalaska. Among the birds we found:

1. A smallish gull frequent in the bay (Descr. *Rissa tridactyla pollicaris ad.*) [Black-legged Kitiiwake].

2. T. alpina "Tillgniak" of Aleuts (Descr. *Erolia maritima couesi*) E. S. [Dunlin].

3. A bunting, "Chachtuk" of the Aleuts, the bunting of Unalaska of Pennant (Descr. *Passerculus sandwichensis*) [Savannah Sparrow].

4. On the boulders of the lower mountains *Emberizia nivalis* nesting. [Snow Bunting.]

5. A. Motacilla (Descr. prob. *Anthus spinoletta rubenscens*).

Merck gives the Aleutic names of birds of Unalaska: Eagle—Tyglak; Raven—Kalkahayak; Cormorant—Agayok; gull—Shlukak;

guillemot — (*Uria*) Ullotkhok; puffin (*Fratercula*) — Ukhchuk; the Canada goose (*Branta canadensis*) Lack: Diomedea—Agligak; swan (*Cygnus columbianus*) Kohlkik, were supposed to have been here, but left because of the shooting: the oyster-catcher (*Haematopus*) — Kuik.

8th of July to sea again: Towards evening the sea was covered with entire flocks of seabirds species mentioned (*Puffinus tenuirostris*).

14th July (Hall Island): This islet, parts with very low mountains, some covered in spots with snow: Guillemot coming here (*Uria*) [Murre], as also are comorants; puffins singly; here distant from all land, a small auk(let) without crest appeared in flocks — its bill blood coloured in front and black behind with rounded hump on middle of bill in front of forehead; it was black above; its breast spotted lengthwise, otherwise white below (*Aethia pusilia*) [Least Auklet]. Also seen *Tringa lobata* [Northern Phalarope] noted first in the Arctic Ocean" (Discr. sketch 40: *Phalaropus fulicarus*). [The description is of one species of Phalarope and sketch of another.]

Hall Island is between St. Laurence Island and the Pribilofs when the Expedition was getting toward home and the journal ends here.

Dr. Stesemann has added as a summary a very full "Annotated List of Avian species cited in Merck's Journal"; he points out that "Pallas in his Zoographia Russo Asiatic drew upon the journal and birds collected, of which 16 specimens were in the Berlin Zoological Museum and 5 in Leipzig."

CARL KREBS

Unfortunately very little is known about Carl Krebs; what little there is, is found in a few entries in Merck's Journal and one or two references to him in Sauer's account of the Billings' Expedition; his name does not appear in the list of personnel of the Expedition, as do those of Merck and his assistants. Krebs must have joined the Expedition as Merck's assistant, prior to 18th January, 1790 as the following appears in Merck's Journal under that date and shows that he, then, must have been with Merck for sometime:

"I instructed Mr. Merck [evidently a mistake for Krebs] on

information he would later need, and his comments remain, partly in his journal or in reports, others I will include here referring to his collections and citing them with the initial K." [Which he did not do.]

Krebs did not return to St. Petersburg with the other members of the Expedition but stayed for 2–3 years in Kamchatka collecting for Pallas. After which he went to St. Petersburg and died there shortly after Merck.

Evidently Merck relied very much on Krebs for his knowledge of the birdlife [also ethnology and other information]; in a letter to Pallas, 4th July, 1792 he wrote he was then expecting Krebs "to be back this fall bringing with him everything that will have been collected." Actually he returned in August, 1793, having been in Alaska for two years. His specimens were "adopted" by Merck and added to his own collection with no references to Krebs; the only credits given are those in Merck's Journal, already referred to.

There can be no doubt Krebs was a competent naturalist, confirmed by his later employment by Pallas. Perhaps his Journal may, like Merck's, ultimately turn up.

The specimens collected by Krebs that were included in Merck's collection sent to the St. Petersburg Academy of Sciences shared their fate. All of Merck's collections were dispersed (and neglected) so that by 1831 there were only pitiful remains which have long ago disappeared or disintegrated.

The only direct observation appears as an insert taken from Krebs' Journal, in the Merck Journal:

"Winter of 1791-92, the following auks are found on the low lying rocky beaches and cliffs of Unalaska (1) *Aethia cristella* with sketch [Crested Auklet]; (2) *Aethia pusilla* [Least Auklet]; (3) The 'Kneit' on Alaska; (4) *Aethia pygmaea* the kunnikok of Unalaska." [All these species spend the winter at sea; *A. pygmaea* seems doubtful as A.O.U. gives its range as "Kormandorski and Near Islands in Aleutian chain, possibly eastward to Unalaska; wintering in breeding range." Obviously at the extremity of its northern range, it would be quite uncommon.]

J. VON STACHLIN

Account of the new Northern Archepelago lately discovered by the Russians in seas of Kamschalka and Anadir. Translated from the German in 1774.

Refers to islands first discovered by Bering and Tsehirikoff between 50 and 56° N. The island of Kahana (Gultorskia group).

The inhabitants wear skins of sea fowl especially a kind of black duck called Arkea and Torporka. There is a note — "most of them are a kind of sea fowl (called Tublani) which are caught in great numbers in a hundred different ways; they are of a very beautiful red colour almost as large as a goose." [There must be a mistake in the translation as there is no such thing as a Red duck in the Arctic. It is suggested the bird was the King Eider (*Somaria spectabitis*).] "At Kodiak they have on this island all sorts of storks ducks, ravens, magpies, etc., but no particular kinds have been observed. [kinds perhaps a mis-translation for species. The stork is possibly the Heron (*Ardea herodias*) as "Crane" is referred later in following note which reads:] "Men wear skins of Uril and Argen."

"The uril (*Corus aquaticus*) is a kind of water raven, not unlike the Crane, it is esteemed as a dainty. The Argen Colymbus articus (*Lunme dictus wormis*) a large sort of black and white duck which are found in innumerable numbers on rocky islands." Description by Kraschinimikoff Vol. I—324 and 300.

UREY LISIANSKY

The acount of the Voyage of Urey Lisiansky was published in London in 1814 under the title:

"Voyage round the world in the years 1803-6 by order of Alexander First, Emperor of Russia, in the ship Neva. By Urey Lisiansky, Captain Russian Navy."

Lisiansky was in command of the *Neva*, one of two vessels sent on a trading mission by the Russian American Company to Asia, nominally under Krusenstern with whom Lisiansky had served in the American War of Independence, but who, though getting the Expedition going, did not accompany it. The Expedition sailed from Kronstadt, reaching Petropavalosk 13th July, 1804 and from there to Sitka,

which had been destroyed by natives (Kolosh). After assisting in the re-settlement of Sitka, the *Neva* sailed for Kodiak Island; from there Lisiansky inspected the various settlements on the Aleutian Islands; leaving for Canton on 1st September.

Though the Expedition was in the interest of trade, Lisiansky showed considerable interest in the bird life.

There is a description of the island of Cadiak (Kodiak), and he tells of a tame eagle, doubtless a Bald (*Haliaeetus leucocephalus*):

"In the evening I was amused by a tame eagle which flew into the barabara [house] and at sunset placed itself by the fireside as if it had been one of the family. After warming itself and deliberately adjusting its feathers, it fell asleep. This bird, they say is so sagacious that it will recognize at sea the bidarkas [canoes] belonging to its master, and on seeing them returning from fishing, will follow them home. The people of Cadiak keep tame eagles for the sake of their feathers, which they use for arrows."

He then gives a description of the bird life:

"The feathered tribe is very numerous; it is composed of eagles, partridges, plovers, crows, magpies, cranes, sea-parrots, fen ducks and many other waterfowl; several species of duck fly away in the spring and are replaced by geese and swans, which remain, in some places, the whole of summer. There are three kinds of small birds, one of which, of a dark grey colour, regularly sings its song preparatory to bad weather."

Probably the partridge was the Ruffed Grouse (*Bonasa umbellus*) plover could be either, or both, the Golden (*P. fulva*) or the Black-belied (*Squatarola squatarola*); sea-parrot, likely to refer to the Horned Puffin (*Fratercula corniculata*); fen ducks, a description that is found only in the present narrative, no doubt was a general one for fresh-water ducks. The dark grey bird might have been a Northern Shrike (*Lanius excubator*), but the connection with bad weather seems unfair in either case. Here, Swans in summer would be the Trumpeter (*Olor buccinator*).

Lisiansky refers to Langsdorff rather depreciatingly and contradicts his statement about cruelty of Russian overseers to natives, adding a footnote "would this apply to Langsdorff's natural history of Kodiak owing to short time there and ignorance of language of natives and Russians." This latter suggestion must be incorrect and points to animosity or jealousy.

He described:

"The catching of birds called coreel or sea-raven from the skin of which handsome warm gowns are made, is also a business of importance. It was done by a net, the lower part of which is stretched on a pole 14 feet in length, while a string is passed through loop holes in the upper part, and fastened to the extremities of the pole. These birds always keep on high and steep rocks and precipices. The sportsman getting as near as he can to the birds, throws the net over them and when by fluttering they are sufficiently entangled, he draws the net to a bag by means of the string and sometimes takes a whole flight at once. The length of the net is about 8 feet, the breadth 14 only." Sea raven is a name for the Cormorant (*spec.?*), but is is difficult to realize these birds allowing such a net to be thrown over them; as the skins were used for clothing they might have been Murres.

"16th September, 1805. At sunrise a number of small birds were seen flying about the ship. They were white with patches of black on the back and wings. We had seen several of them the day before, but at a very great distance."

The description suggests the Snow Bunting (*Plectrophenax nivalis*) still in the summer plumage. One cannot understand it being possible to define the markings of so small a bird "at a very great distance."

N. J. KOROBITSYN

Korobitsyn was a clerk in the office of the Russian-American Company, 1795-1807, and accompanied the Expedition on the *Neva*, commanded by Lisiansky. What few notes there are of birds seen were taken from his Journal as it appears in Andreyev's work.

He mentions the use of "dove-coloured" bird-skins as used by the Kodiak inhabitants for making women's clothes [probably one of the Alcids, though none could be described as "dove-coloured"].

On 2nd October, lat. 50° [near Kodiak Island]:

"During the night the sailors captured a bluish-grey bird on the mizen yard, the size of a small sea gull and very much like it in build. It was hardly able to stand up and sat all the time. We kept it till morning and then released it." [Possibly a tern that had failed to migrate with the others and was too weak to stand, or owing to its short legs appeared to suffer in this way.]

On the 5th of October their vessel grounded on an apparently unnamed island in Lt. 26.5° N., long. 173.29° (Russian), lat. 50, long. 142 (British) apparently near Kodiak Island where Korobitsyn gave the following account of the birdlife:

"It abounds in many varieties of birds that resemble sea-gulls, ducks and snipe, but [? some] are very different from them. They are so tame that they will alight on your head or shoulders and when they sit on the ground, you can catch as many of them as you wish with your bare hands just as you would chickens. Their nests are scattered throughout the island in holes dug in the sand. For this reason it is quite a nuisance to walk around on the island, since at almost every step your leg is likely to sink into a bird's nest halfway up to your knees or even higher."

The reference to nests in burrows suggests one of the small auklets. There is no indication which species were so absurdly tame, but one cannot imagine a duck or snipe sandpiper alighting on the head.

GABRIEL IVAN DAVIDOFF

What is known about Davidoff is derived from "Preliminary information regarding the life of Kostoff and Gabriel Ivan Davidoff and their travels in North-west America" by Vice Admiral Sesxhov translated into English by Michael E. Affonin, Seattle, Wash., U.S.A. in 1932-33.

Davidoff was quite an outstanding character; he was in the Russian Navy but temporarily in the employ of the Russia America Company. He was only eighteen when he joined Kostoff for an Expedition to Kodiak; thereby grasping a long hoped for chance of exploring that island and studying its natural history.

The Expedition arrived there in October, 1802, and remained there until returning.

That the Expedition should have attracted the attention of a Russian Vice Admiral, points to it having been somewhat out of the ordinary; though probably it was the notes on navigation that interested him rather than those on natural history; fortunately, he did include some notes on the birdlife. Though Kostoff is included in the title, it was Davidoff's Diary that provided the material.

The Diary is more a series of observations made at odd intervals, not dated, nor with exact localities given; The first reads:

"The Bald Eagle lives in Alaska and the islands of this region. The natives hunt it only for the feathers, which they use for their arrows. The bird eats only fish. The flesh is tough but the natives eat it sometimes. The Magpie instead of having white spots as in Russia has blue spots and a beautiful tail. It is seen around the vicinity of Sitka." [The Magpie would be the Black-billed (*Pica pica*) but it certainly has not the blue spots on the tail.]

"Partridges are plentiful around Kodiak and the flesh is delicious. In winter they are white." [Obviously the Ptarmigan is referred to *Lagopus sp.*]

"I have seen skylarks in Kodiak." [The Skylark (*Alauda arvensis*) has not been recorded from Alaska (A.O.U.), but as in other instances the name might have been applied to the Horned Lark (*Eremophila sp.*) or other small brown ground bird.]

"There are many Cranes on Kodiak in summer. They are very wary." [*Grus canadensis.*]

"There are two kinds of snipe here, one not very large and speckled — a beautiful bird. The other is black with white legs, red bill and red over the eyes. The first named live on the shore; the second live on rocks in the sea. As soon as he sees a hunter, he flies away over his head screeching all the time, alarming all animals in the vicinity. For this reason hunters shoot them whenever they can. The eggs of this black snipe are about the size of a hen's egg and are rather good." [The first might be the Sanderling (*Crocethia alba*), which in summer plumage is one of the most beautiful of the small sandpipers. The other must refer to the Black Oyster-catcher (*Haematopus bachmani*).]

"In summer time hummingbirds visit Kodiak. I also saw one on Bering Island." [Probably the Rufous (*Selaphorus rufus*) though A.O.U. lists the Ruby-throated (*Archilochus colubris*) as "casual" in Alaska.]

"Herons are found everywhere in Alaska. At Sitka I tried to eat one and found it fairly good." [Great Blue (*Ardea herodius*).]

"Swans are common on Kodiak while migrating. Occasionally a few pair remain all summer. On Chugat Bay they are plentiful. The natives kill them to get skins for Parkas and they eat the meat." [Swans here might be either Whistling (*O. columbianus*) or the Trumpter (*Olor bucinator*) which nest there.]

"There are two varieties of Geese in Alaska. One kind lives along the shore, the other is found in the interior. The eggs are larger than

those of the domestic variety. This bird seldom nests on Kodiak, yet a few remain through the winter." [The first might have been the Black Brant (*Branta nigricans*) south of its present breeding range (A.O.U.), and the other the Canada (*Branta canadensis*).]

"There are wild ducks in great numbers around Kodiak in the fall and winter. In spring most of them go for nesting to the north-west of the Alaska Peninsular and near Sitka. Some nest at Kodiak. These are called river ducks and their meat is better than that of the sea ducks. There are many varieties of ducks each one has its own particular habits and location. They are taken by gun, bow and arrow and net." [River ducks would be what are now known as dabbling ducks, such as Mallard, Pintail, while the "sea ducks" would mainly be Scoters.]

"A waterfowl called urile is hunted extensively. It is black and, at certain seasons, has round its neck and on its breast long hair-like feathers resembling fur. This is much prized for making parkas. This bird lives in the rocks and sea cliffs on the coast." [The Pelagic Cormorant (*Phalacrocorax pelagicus*).]

"The Albatross is never seen in a sheltered bay always in the open sea. They call it the 'fifty-foot sea gull'. The young are greyish black in colour, becoming white when grown up. It is not known where this bird nests." [Davidoff was one of the first writers to realize that the plumage of adults and juveniles differed, and that it did not nest in the north. The description suggests the Short-tailed (*Diodemea albatrus*).]

"Petrels are found far from land. There are many around the Alaskan Peninsula. There are several kinds. The white are not plentiful. In the Ocean is a bird called sea pirate. The sole occupation of this bird is following petrels and taking from them food they catch." [It is obvious Davidoff used the name "Petrel" indiscriminately.]

"The natives describe a beautiful bird, not very large, with long legs and webbed feet, which runs on the surface of the water." [Fork-tailed Petrel (*O. furcata*).]

Included is a description of the natives of Kodiak Island and a calendar in which, as is pointed out, the highlights for each month are emphasized, April, the month of Crow laying eggs, May waterfowl laying; (the other names have no application to birds).

Animals are also decribed with habits and method for hunting.

A. J. VON KRUSENSTERN

A. J. Von Krusenstern was the first of the Russian adventurers to circumnavigate the globe, and related his experiences in a "Voyage round the world 1803-1806 under the command of Captain A. J. Von Krusenstern." This was translated from the original German by Richard Belgrave Hoppner and published in London in 1813. In the translator's Preface it is stated that the various papers on Natural History were not included as D. Llansdorf, one of the naturalists, was about to publish a particular account.

There are few remarks on the bird life at Petropavalosk (Harbour of St. Peter and St. Paul) in his description of the country: "There is no scarcity of wild ducks and geese, both excellent in their way. In the month of July and August you may procure a hundred of the former in the course of an hour. At this season of the year they [the geese] shed their feathers and as they cannot fly, they are easily brought down from the rocks by a long pole with a hook at the end." ["Wild ducks" cannot be connected with this method of capture. The paragraph is mixed up, generally; perhaps suffered in translation.]

"Owing to deficiency of gunpowder few of the inhabitants can provide their table with — ducks and geese."

"We shot several birds in the bay [Avatcha] which with a little sauce, afford very excellent dish but the inhabitants have no sauce and did not think it worth expenditure of powder and shot. They brought as many as we could make use of." [The "inhabitants" depended on hunger for their sauce! One pities the poor inhabitants lacking the sauce! These would be in the golden years for wildfowl; no firearms.]

[The method of capture of birds on rocks cannot refer to "ducks," probably cormorants.]

In his description of Kodiak Island (1805). "The island was extraordinarily rich in birds. Eagles, partridges [ptarmigan], cranes, also artica [Horned Puffin], plungrons [divers], woodcocks [if a woodcock would be European (*Scolopax rusticola*)], river and sea-ducks, crows and magpies, geese and swans flew about here in abundance."

JOHN D'WOLF

A Voyage to the North Pacific and a Journey through Siberia more than half a century ago.

By Captain John D'Wolf
Cambridge [England] 1861

This account takes in the later part of Krusenstern's Voyage and has little to say about the birdlife; it is written more as a general narrative of events and was not published for several years after that voyage had ended.

It was during the voyage, at Kodiak, that he and Langsdorff met and where D'Wolf earlier had brought the *Juno*, a vessel purchased for trading purposes with the natives.

There is only one note on the bird life; when becalmed for 10 days off the islands of Atter [Attu] the most westerly of the Aleutians:

"Our life was alleviated by the numerous great variety of sea-birds, which were constantly flying around us and furnished endless sport with the musket, and here I felt [spell] bound [at] the marvellous skill, or good luck of the Doctor [Langsdorff] as he killed a whole flock of four wild geese at one shot."

Chapter IV

G. H. LANGSDORFF

George Heinrich Langsdorff was a Dane and held a degree of Doctor of Medicine and Surgery from Gothenburg (1797). He accompanied Prince Christian of Waldeck to Lisbon when the latter was in command of the Portuguese Army; later he practiced in Lisbon; then was Surgeon Major to the English auxiliary troops there, and during this time he then made collections of natural history and objects which went to Gothenburg.

Langsdorff's great wish was to see the bird life of the Arctic and as soon as he heard of the proposed Krusenstern Expedition, he sought a position as Naturalist, only to find that his friend, the well-known naturalist, Dr. Tilesius, had been appointed. This, however, did not stop him, and with this friend's assistance and that of Captain Krusenstern, as well as his own perseverence, he managed to get appointed as Assistant Naturalist, and sailed with the Expedition from Denmark.

The account of his experiences are set out in "Voyages and travels in various parts of the world during the years 1803-1807, containing a voyage to the Aleutian Islands and Northwest coast of America." In the title page he describes himself (*inter alia*) as Arctic Counsellor to Her Majesty, the Empress of Russia. This narrative was translated from the Russian into English by Anna Plumptre and published in 1814.

In his Introduction, Langsdorff states that plants, animals, and other objects of Natural History were not included; that these he intended publishing separately. If he did, none have survived to the present.

That he was a real born-naturalist is indicated by the statement that, "Even in my early days I had been much fascinated with the study of Natural History." Notwithstanding, it is evident Langsdorff relied, to some extent, on the experiences of Sauer (Billings' Expedition) and Davidoff, both of whom are referred to in his Introduction.

The Expedition to the North consisted of two vessels, Langsdorff being attached to the *Maria*, a vessel of only 150 tons burthen. The Expedition sailed from Avatcha Bay 13th June, 1805.

Langsdorff's Narrative can be divided into two parts: The first

covering the voyage from Europe to Japan, and from there to Avatcha Bay, where the Expedition completed refitting. The other part deals with the voyages to Alaska.

The first observation was at sea.

15th June: "Scarcely had a day passed since our departure from Kamchatka that we were not surrounded by a vast number of sea fowl, among which I particularly remarked the diomedia exulans, or albatross, the alca cirrhata or tufted auk, several species of pelicans and of larus or gulls."

"During our short stay [Islands of St. Paul and St. George] I observed the following birds among those that make their nests there. The Alca cirrhata, or tufted auk; the alca artica or puffin, the alca pygmaea or pigmy auk, sterna hirundo or sea swallow, several species of larus, or sea-mews, and procellaria or petrels; and the colymbus or guillemot; these last were in immense numbers. I saw besides the pelicanus urile, and some others of the same genus. It would no doubt have been easy during a longer stay and by a closer examination to have found many other rare and curious objects."

The Russians did not wish to leave the island, having all they wanted "while for dainties we have the sea birds and their eggs."

Langsdorff's nomenclature, both as to scientific and common names is sometimes confusing: when referring to the Albatross, it is always the Wandering (*Diomedea exulans*) which does not come north of the equator. No doubt the bird was the Short-tailed (*D. albatrus*), which, in his time, must have been numerous; off Kamchatka it could be the Laysan (*Diomedea immutabilis*). The puffin, which he lists as Alca artica, the Old World bird, not found in the Pacific must have been the Horned (*A. corniculata*).

Langsdorff, or the translator, may have used the name Albatross in an indescriminate or comprehensive way, even to include fulmars, a species scarcely ever listed by narrators, though it must have been most numerous. Probably it frequently figured under "gulls."

The other species would be Arctic (*Sterna paradisaea*) or Aleutian tern (*Sterna aleutica*). The Petrels here would probably be the Fork-tailed (*Oceanodroma furcata*). Evidently more than one Cormorant was seen and would be, as well as the Pelagic (*Phalacrocorax pelagicus*), the Red-faced (*P. urile*).

The next day "the number of birds had decreased very much." [Probably owing to movement of feed.]

From St. Paul they went to St. George; On firing a cannon to notify inhabitants, "an innumerable flight of birds of various kinds rose terrified all along the coast. I can assert that without any exaggeration, literally a thick cloud spread itself around us, and the sea as far as our horizon reached was absolutely blackened by the animals."

Langsdorff adds: "The Russian fur-hunters profit exceedingly by this circumstance — nothing affords them so great a supply of food as the eggs of these birds, and that for a very great part of the year. The whole hunting party is busied in spring for days and even weeks, in the dangerous task of collecting them. They climb up the steep cliffs to the height of 30 or 40 toises with baskets and take the eggs from the nests; When a sufficient number is collected, they are washed quite clean and dried in the air, then put into casks, and the vessels being filled up with oil carefully purified, they are put by for use. In this manner they are kept for the greatest part of the year, and eat as sweet and fresh as if they were newly laid. The eggs of the Colymbus or Guillemot are preferred above all others as the largest and best flavoured."

There is a footnote concerning a similar method of preserving the eggs, in practice in England, but using lime-water.

On 29th June they saw the hills of Fox Island (Aleutians), where they were becalmed, and use was made to "kill some petrels (*Procellaria nigra*, [Blackfooted albatross (*D. nigripes*)], which were swimming in abundance upon the water and so tame that they came within an oar's length of us. These birds afforded us an excellent repast, though they have a very fishy or oily taste."

"The 3rd July, in the morning, we saw a vast number of sea birds about the ship, most of which belonged to the Colymbus, Larus and Pelican species." Later the same day there is mention of "numberless flights of sea birds."

On 2nd July: "This island, St. Paul, small and inconsiderable as it is, is the rendezvous of many millions of sea birds, which assemble from every part of the widely-extended ocean between Asia and America to lay their eggs and hatch their young. Except for the flesh of sea bears (walrus), nothing affords them [natives] so great a supply of food as the eggs of these birds, and that for a great part of the year."

Oonalaska — In Description: "Wild geese and ducks come in such abundance in spring and autumn that large quantities of them

are salted and smoked for winter food. But the Aleutians appear to prefer the fat of the sea dog [Walrus] or whale very much to salted or smoked goose. Some of the neighbouring rocks serve as the rendezvous of a great number of sea fowl of the Colymbus, Larus, Alca and Pelecanus species, with many others. The eggs of these birds are collected, as in the Island of St. Paul, and preserved in the same way for winter store.

"Birds of passage, with sea and marsh birds, are to be found in great abundance, and it is very probable that on a longer stay, and with more accurate investigation, many new species of birds might have been discovered."

From Oonalaska, Langsdorff and others of the staff walked across the island to meet the ship, and he noted: "I scarcely saw any land birds the whole way."

22nd July: "Reached the neighbourhood of Egg Island — so called from the number of sea fowl that come there to make their nests." There is mention of use of beaks of sea parrots, strung on a wooden cross, which produce an effect resembling very much the Spanish castagnettes. Probably those of Puffins (*Lunda cirrhata* and *Alca arctica*).

July at Kodiak Island: "I scarcely saw any land or singing birds, but marsh and water-fowl are everywhere in greatest abundance. Swans, geese, ducks, cranes, herons, auks, guillemots, plovers and many others come in innumerable flocks; both in spring and autumn; and the magpie which among us is very shy and timid, is here as familiar as a sparrow, perching often up the house tops." Langsdorff states that almost all of these islands lying to the south of Alaska are the resort of immense numbers of sea fowl.

This record of the Black-billed Magpie (*Pica pica*) on Kodiak Island is interesting as A.O.U. refers to a recent spread north in Manitoba and gives its present range as "resident from Southern Alaska Peninsula and central coast Alaska," so it might then have been a recent arrival. It will be noticed that Langsdorff does not muddle up Cranes and Herons as was a commonplace habit, but it seems far north for the Great Blue Heron (*Ardea herodias*); though A.O.U. includes the race *fannini* for S.E. Alaska. The Expedition left Kodiak Island 20th August.

Langsdorff noted that at Kodiak the general garment worn was similar to that of other Aleutians made of skin of sea fowl, particularly

Alca arctica, A. cirrhata, Pelecannus urile. Kodiak is too far south and east for the Red-faced Cormorant but it could include the Pelagic (*P. pelagicus*) and the Double-crested (*P. auritus*), whose breeding range reaches there (A.O.U.).

At Silcha [Sitka], Langsdorff refers to the bad treatment of the natives by the Russians "who fed sumptiously upon wild ducks, geese, etc., captured by the natives, but who were given none." No doubt the Russians did abuse the natives, but the foregoing seems extravagant as they would have equal opportunities to obtain similar food; moreover, they knew how to "live off the land." He also complains that he did not receive the assistance in his investigations promised by the Russian government. There is no indication as to what form this help was to take, but from now on he would appear to have carried on independently.

In a letter to the Arctic Counsellor, Professor Blumenbach of Gottingen, dated February, 1806 and headed New Archangel, [Norfolk Sound on the N.W. coast of America], Langsdorff gives an account of the bird life and the letter is practically his Journal for the time spent there. After describing the discomforts, the climate (not so ungenial as might be expected) and physical features, he discusses the bird life.

"In my numerous shooting parties, the following birds fell more particularly under my observation:

"*Anas histrionica* [Harlequin]. This beautiful species of duck first appeared about the end of September and stayed in the Sound all the winter: They are very rapid in their flight, extremely shy, and are seldom seen in companies of more than four or at the utmost six."

"*Anas perspicillata.* These ducks [Surf Scoter (*Melanitta perspicillata*)], which are very rare in Europe, are also not to be seen until the end of September. They come then in great abundance and large flocks. They fly in the evening out to sea, and in the morning send one or more of the most experienced to reconnoitre the part where they wish to pass the day, lest any snares should be laid for them. One or two of the flock also remain upon the surface of the water all day, as a sort of guard, while the greater number dive in search of food."

"*Anas glacialis* [Old Squaw (*Clangula hyemalis*)]. This species is not common in Norfolk Sound, but abounding much at Kodiak. It

breeds chiefly on that island, and on the peninsula of Alaska. The harmonious trumpet-like noise of this bird distinguishes it from every other species of duck. It dives very deep under the water and lives principally on shell fish. It draws in a large provision of air in diving, a small part of which it exhales from time to time, so that in calm weather, by the little bubbles which ascend from this emission of air, its course under the water may be easily tracked; it swims very fast making long strokes."

"*Anas bucephala*: [Common Goldeneye (*Bucephala clangula*)]. This is, according to my opinion, one and the same duck with the *Anas albeola* Buffle-head (*Bucephala albeola*) and *Anas rustica* in Gmelin's System Naturae; it appeared in Norfolk Sound early in October.

"Besides these, I saw great numbers of the following birds:

Anas boschas [Mallard]

Anas marila [Greater Scaup]

Anas crecca [Common Teal — but would be the Green-winged (*Anas carolinensis*)]

Anas fusca [Surf Scoter] with several other sorts of duck.

Colymbus auritus [Horned Grebe]

Colymbus arcticus [Arctic Loon]

Colymbus grille [Guillemot sp.]

Mergus serrator [Red-breasted Merganser]

Mergus merganser [Common Merganser]

Pelicanus urile [Red-faced Cormorant]

Pelicanus graculus [Pelagic Cormorant]

Larus glaucus [Glaucous Gull]

Larus marinus [Not found in the Pacific. May refer to the Herring (*Larus argentatus*)]

Alcedo alcyon [Belted Kingfisher]

Corvus stelleri [Steller's Jay]

Corvus corax [Raven]

Tetrao lagopus — The black bridle from the nose to the eyes was scarcely distinguishable. [Ptarmigan sp.]

Ampelus garrulus [Bohemian Waxwing]

Sylvia troglodytes [Winter Wren]

Strix nyctea [Snowy Owl]

Strix passerina [Ridgeway — Birds of North and Middle America Part VI gives this as a synonym or more than one species

including Richardson, now Boreal (*Aegoleus funereus*) (p. 626)]

Turdus naevius [Varied Thrush]

"Of the *Diomidea exulans* or albatross I saw some of a dark brown, others almost entirely white; the former I conjecture to be the young, the latter the old birds. They commonly appear in those northern parts in the greatest numbers about March and April, the time when the shoals of herring chiefly come; they are particularly fond of this fish. The Aleutians call this bird aglica; their nests are not known by any of these northern nations. They have very great strength in their large bills, and make a noise not unlike the bleating of a goat or sheep. It is probable from hence that they are called by the French moutons du cap.

"In February one of them was brought to me, upon which I could not discover the slightest wound. On enquiring how it was caught, I was answered, by hand. Upon further investigation into the matter I was assured by the Aleutians unanimously that in the calms which commonly succeed to a violent gale of wind, they cannot fly; if pursued by land they will run into the water, endeavouring to escape by swimming, but it is then easy to follow them with the bardarkas [canoes], when they may be taken with the hand, or killed by a spear or the stroke of an oar. They are commonly very lean when they first appear in the spring, but after banqueting a short time upon the herrings, grow fat, and are very good eating.

"The bird was often seen by us, and has been seen also by many other seamen in the South Seas and between the tropics; the inference to be drawn from this circumstance, and from the fact that they are not known to make their nests anywhere excepting about Cape Horn, appears to be that they fly from the most southern regions of the globe to the most northerly. It is not, therefore, difficult to comprehend that a bird which never rests upon the waves of the sea during a storm, but skims their surface only as defying them, and delights in the most tempestuous winds, which chooses the frightful regions of Cape Horn as its favourite abode, which can bear the temperature of every climate, from the South pole through the hottest zone of the earth to the North pole — it seems easily to be comprehended, I say, that such a bird whose gigantic wings spread out to a breadth of 10 or twelve feet, should not be able to fly in a calm."

[Though Langsdorff's identification of the Albatross as *D. exulans*

was incorrect, he was one of the first to realize the difference between the adult and juvenile plumages, and also that the birds were not on their way to nesting grounds, as is stated in Latham's *History of Birds* published several years after the translation of Langsdorff's Narrative had appeared. Probably the birds were the Short-tailed (*D. albatrus*), plentiful in those days.]

"*Falco leucocephalus* [Bald Eagle]. This beautiful eagle, with a white head and a white tail, is to be found here in the greatest numbers in spring, during the herring season, but in autumn it appears to migrate more to the south; single ones are, however, to be seen occasionally the whole year round. Though its favourite food is fish, it will also prey upon ducks, geese, and young sea lions. The flesh is eatable; in the first year that the Russians were here they killed and ate about two hundred. I have sometimes, when pressed by hunger, eaten them myself, and found them not ill flavoured. The entrails must be carefully thrown away; the liver is considered as very pernicious. It is even said by some to be poisonous."

"These birds make their nests at Norfolk Sound, upon high trees, but at Oonalaska among the rocks; they are formed of twigs lined within with down feathers. The same birds appear to come to the same nest for several years successively. The eggs are about the size of a hen's egg. The Kaluschians make great use of the feathers of these eagles in their ornaments. On solemn occasions, and at their dances, they cover their heads with the down feathers so that they look as if they were powdered after the European fashion, and they hold a wing or tail of the bird in their hands for a fan. The wing bones, particularly radius and ulna, are used in illness as tubes for sucking up fluids."

"The *Haematopus ostralegus*, or Oyster-catcher, is not so common here at Oonalaska as on some of the other Aleutian Islands. Its plumage is in all periods of its life, and at all seasons of the year, entirely black; excepting this I see no specific difference between the bird here and in Europe."

(Footnote) "This bird [*H. ostralegus*] is common on many parts of the coasts both of Asia and America; it is about the size of a crow, and has very red feet, whence it has acquired the name haematopus, blood foot. It feeds on many kinds of shell-fish, but particularly on oysters, which it opens with great dexterity, and it has a way of indicating to other waterfowl by a particular cry where the prey is to be found."

This chapter is "signed" by Langsdorff and presumably is the finish of the letter.

The 25th February, 1792, winter quarters at Norfolk Sound were left "with joy," Langsdorff going so far as to say he felt as if he breathed more freely when they lost sight of Mt. Edgecumbe.

On voyage south [to San Francisco] near Cape Disappointment, 14th March. "Among the number of birds now about us, were, besides geese and ducks, pelicans, petrels, albatrosses and sea mews . . . " Langsdorff was about the only one to refer to the difference between the Julian and Gregorian calendars, 11 days, but does not state which he used (presumably Russian).

Mount St. Helens, Washington, was seen and The Area was left behind.

The date must be wrong to include "albatrosses."

Langsdorff realized that the climate on the Eastern side of the Alaskan archipelago was more severe than that on the corresponding western side.

Langsdorff did not enjoy himself at Sitka, very poor quarters and lack of food except when dining with the Russians. "If, however, I am disposed to eat at any other time, I find myself under the necessity of shooting crows or asking for muscles or else begging a piece of fat of whale or sea dog."

"My principal occupation, as soon as I had settled myself, was to shoot water fowl, in which I have found the double advantage that the flesh has served me for food, and that the skins are preserved as objects of Natural History."

The following year Langsdorff joined an expedition to Sitka, commanded by Baron Von Rosanoff and left San Francisco on 10th May.

The first part of the journey provides no remarks except "we scarcely saw a bird" until 26th May when he mentions "Petrels" — probably Sooty Shearwaters (*Puffinus griseus*), and also states:

"In this voyage, quite out at sea, I saw the following birds: *Alca arctica, A. cirrhata, Procellaria furcata, Procellaria glacialis, Procellaria aequinoctialis,* and *Diomedea exulans.* At the distance of between 20 and 30 sea miles from the coast were the following: *Pelecanus violaceus, Colymbus grylle, Colymbus troile, Larus fuscus* and *Sterna hirundo.*"

Species referred to in the first part of the paragraph would be: Northern Horned Puffin (*Fratercula corniculata*); Crested Auklet

(*Aethia cristatella*); Fork-tailed Petrel (*Oceanodroma furcata*); *P. glacialis* possibly Fulmar (*Fulmaris glacialis*); *P. aequinoctrates;* any albatross seen would not be *D. exulans,* too far north, and, as in so many other instances, the mistake would have occurred owing to its similarity to the (then) common Short-tailed (*D. albatrus*).

Of the birds 20–30 miles from land: Pelagic Cormorant; Black Guillemot; Pigeon (*Cephas columba*); Murre (*Uria sp.*); *L. fuscus,* the Lesser Black-backed Gull of Europe, not found in America, possibly the Herring (*L. argentatus*), and common tern.

At Sitka he was joined by D'Wolf and they started North (24th July).

Two days before reaching Oonalaska he noted *Colymbus troile, Procellaria furcata, P. glacialis, P. nigra, Puffinus griseus,* with "several sorts of *Larus* flew daily about the ship in great numbers." [*P. nigra* is a bird of the south; "*nigra*" might refer to young Black-footed Albatrosses.] "The sort of *alca,* very common in many parts of these regions, known by the vulgar name of sea-parrot, was seldom to be seen. Perhaps it rather frequents the southern coasts of the islands. On the other hand, we saw here a greater abundance than anywhere else and a particular sort of sea-mew called by Linnaeus, *Larus parasiticus,* which never catches fish for itself, but watches for others of the species and when it sees them catch one, pursues and takes it from them. We had daily opportunities of seeing this tyranny practiced and were not a little surprised at observing that the other sea mews, far from appearing to shun their persecutors, were always in company with them." [The Arctic Gull of other writers; one of the *Stercorariidae.*]

They were unable to return to Avatcha Bay; weather conditions compelled them to winter in Prince William Sound.

In his account of Kamchatka:

"The quantity of sea birds good to eat is no less astonishing. The sea parrots, *Alca cirrhata* and *A. arctica,* come in such enormous flights to the coast in spring at the breeding time that they may be taken by hand out of the holes in the rocks where they sit, and might be salted for winter stores. The eggs of many sorts of *Alca, Larus, Colymbus,* and others, are scattered about in such myriads that whole boats full of them might be collected and preserved in train-oil for the winter as at the islands of St. George and St. Paul.

"Upon the greater part of the rivers in Kamchatka, such numbers

of wild geese and ducks come in spring and autumn that thousands might easily be taken with nets. They are, notwithstanding, things very rarely seen at the table of a Kamschale — for why? — they have neither nets, powder, or time to go in pursuit of them. The young wild ducks upon Avatcha River are caught in considerable numbers by spiking them with a sort of three-pronged fork, they might be taken by thousands with nets.

"The following are among the principal kinds of birds which I observed here [Avatcha Bay]:

[List from Sitka referred to, but not shown in draft.]

Anas segetum	*Anas crecca*	*Mergus*
Anas clangula	*Alca arctica*	*Pelecanus graculus*
Anas glacialis	*Alca cirrhata*	*Pelecanus urile*
Anas boschas	*Colymbus septrionalis*	*Tetrao lagopus*
Anas acuta	*Colymbus troile*	*Tetrao tetrae*
		Tetrao urogallus

Several sorts of *Larus* are likewise to be seen with a number of marsh-birds, singing-birds, and birds of prey, the natural history of which deserves to be more accurately known."

This list is similar to that from Sitka but with fewer species and the last paragraph is new.

The species not hitherto mentioned are: *Anas segetum* [White-fronted Goose], *Anas acuta,* Pintail; *Colymbus septrionalis* [Red-throated Loon], *Tetrao lagopus,* Ptarmigan (sp.); *Tetrao tetrae,* [Ptarmigan?]; *Tetrao urogallus* would today represent the Capercallie of North European countries, may have been the Blue Grouse (*Dendragapus obscurus*); *T. urogalius* is mentioned by other writers.

There are no further notes except:

On a boat trip to the Kaluschians [not Aleutians] there is mentions of shootings, "a wild duck (*A. histrionicus*), some sea mews and a large white headed eagle, the first of which was put in a kettle and formed the meal though fishy and lean."

On 8th March, sailed south for Sitka. Next day — "only single petrels, albatrosses and sea mews." It would be much too early in the year to see any albatrosses so far north, which again suggests that Langsdorff, or his translator, used the name "Albatross" indiscriminately.

On March 10th — "We made war upon a number of storm birds, *Procellaris griseus,* which had been flying about us for some time."

"Storm bird" usually refers to small petrels, but *P. griseus* is the Sooty Shearwater and as the date would be too early for any to have arrived from the Southern hemisphere, he must have referred to some other species, possibly the dark phase of the Fulmar (*Fulmaris glacialis*), a species Langsdorff does not list, and is very seldom specifically referred to in the various Narratives, but must have been very common.

PETER DOBELL

The account of "Travels in Kamchatka and Siberia" was translated into English and published in London in 1830; Dobell describes himself as "counsellor of the Court of His Majesty The Emperor of Russia."

Dobell reached Petropavalosk (Harbour of St. Peter and St. Paul) 21st August, 1812, where, under date of 25th August, in an account of "produce of the chase to enable the reader to form a judgement of the Kamchatka living and economy," he mentions shooting "large numbers of geese, ducks, teal and a few swans and pheasants." Swans, probably the Whistling (*Olor columbianus*); pheasants is a name sometimes applied to one or other of the grouse.

"On the return to Petropavalosk I could not resist the temptation to shoot some geese and ducks for we saw immense flocks all around. This was near about the season of their departure for warmer climate, they therefore collected in large flocks about the meadows and dykes where there is a plentiful stock of food. In the course of one hour, without moving from the spot where the Kamschadales placed me I killed eight geese and fourteen ducks." The date was 20th September.

He refers to the edible qualities of one of the fresh-water ducks, "There is a very fine flavoured species of wild duck, called by the natives gogols which are found here the winter through and as they live on the root of an aquatic herb common in those rivers Tehappina and Tolbachick, their flesh is extremely delicious. Their plumage is black and white, are very broad over the chest, make a whistling noise as the fly through the air are in size like a wigeon. The rivers they inhabit run through some very fine forests of larch and spruce and afford them a calm winter's retreat. These however are not only places in Kamchatka where waterfowl are found during the winter. At Malka,

at Koraikee, at the lakes of Paratoonka and some other places, there are warm springs where duck and mallard, teal, sheldrake and swans [gather]. The wild geese and indeed all the waterfowl are extremely fat and I imagine this is caused by their feeding on the white root of an aquatic herb a species of waterlily, called by the natives the goose seranna."

The duck making a whistling noise and description suggests the Common Golden-eye (*Bucephala clangula*). Dobell appreciated the edible qualities of this duck more highly than it ranks on the Pacific Coast today.

The Sheldrake would not be found there, and as in other cases may have been one of the male of Mergansers (*Mergus merganser*) or the Red-breasted (*M. serrator*). Speaking generally of the food resources of Kamchatka Dobell includes partridges, to which there is a footnote.

Later on "two ducks were presented to me as large as Muscovy ducks and resembling them in plumage as well as in taste; being much finer than the ordinary wild ducks." Karaikees catch a great many of them with nets, which they let fall over the precipices and cliffs along the sea coast, where these ducks sit in the cavities of the rocks. As the net falling down frightens them, they fly against it and are caught in the meshes sometimes to the number of 20 or 30 at a time. The description of method of capture is found in Krashnaminnikov's *History of Kamchatka.*

The remainder of Dobell's travels was outside The Area.

OTTO VON KOTZIBUE

Otto von Kotzibue was in the employ of the Russian-American Company which was more or less controlled by the Government; previously he had been with Krusenstern on the Expedition to Sitka (1803).

On his first Expedition, Kotzibue sailed from Europe, reaching Petropavalosk in June, 1816. Later he proceeded north exploring the coast of Kamchatka, touching at St. Laurence Island and then through Bering Straits to the Sound that bears his name, here he was only able to reach a point a few miles further north before being stopped by ice conditions. While at Kotzibue Sound he did considerable ex-

ploration before going South for the winter. Though it would seem he had with him naturalists, there are few records of their experiences, but they must have done good work as large collections (2,400 specimens) of natural history objects were collected and sent back to St. Petersburg. Of these, birds only contributed 165 specimens.

In the second Expedition he was accompanied by, as naturalist, Dr. Eschscholtz, and another, Lenz.

Kotzibue wrote separate accounts of the two voyages, both of which have been translated into English.

(1) A voyage of discovery into the South Seas and Bering's Straits for the purpose of exploring a North-east Passage, undertaken in the years 1815-1816. Translated by Lt. E. Lloyd and published in London in 1821.

(2) A New Voyage Round the World in the years 1823-1826.

On the first voyage, the first of his observations while the ship was at Petropavalosk shows that Swallows (*Hirundo rustica*) had the same habit then as now, of seeking protection from humanity, "A pair of swallows built a nest close to Kotzibue's cabin, regarded by the sailors as a good omen. Hatched and fed young but on ship sailing hovered over it still fetching food for young from shore till distance too great. The struggle between the instincts of self-preservation and parental love then became perceptible. They flew around the vessel then vanished for awhile, then suddenly returned to their hungry family and stretching their open beaks towards them [the young birds, presumably], seemed to lament that no food was to be found. This alternate disappearing and returning continued some time and terminated in the parents returning no more the sailors then took on themselves the care of the orphans. They removed them from the nest where the parents warmth was necessary to another lined with cotton and fixed it in a warm place, and fed them with flies, which seemed to please their palates very well. The system at first appeared to have perfectly succeeded and we were in hopes of carrying them safely to America; when, in and on the eight day, to the general sorrow, not one of our nurslings remained alive. They, however afforded an additional proof of how kindly the common people of Russia are interested in all that is helpless."

Later he states: "The Swallows brought us no good fortune."

Regarding the avifauna of Kamchatka, Kotzibue has this to say: "The forests of Kamchatka are not enlivened by singing birds, indeed

land birds are all scarce but there are infinite numbers of waterfowl of many species. Immense flocks of them are to be seen upon the lakes, morasses and even the sea itself in the vicinity of the shore."

"This country likewise affords woodcocks, snipes and two sorts of grouse, or moor game. Swans (*Olor columbianus*) are also said to be in great plenty; and, in their entertainments, generally to make a part of the repast, though I do not remember to have seen one on any occasion."

It will be noticed that Kotzibue, in the last paragraph, includes "woodcocks and two sorts of grouse, or moor game." The grouse were probably the Ruffed (*B. umbellus*), and the Blue (*Dendragapus obscurus*), and Ptarmigan (*Lagopus sp.*). Witherby, et. al., IV p. 190 does not include, as far East as Kamchatka, in the range of the Woodcock (*Scolopax rusticola*).

In Kotzibue's description of Sitka during their stay, March to the middle of August, 1825:

"There is no great variety of birds native to this coast; but the beautiful white-headed eagle and several sorts of pretty humming birds migrate from warmer climates to build their nests in Sitka. It is extraordinary that these tender little creatures, always inhabiting hot countries, should venture thus far northward."

This proves that the Hummingbird (*S. rufus*) was already there so far north and did not follow the white man. The only one of the species to be found there would be the Rufous (*Selasphorus rufus*) and probably, like others, Kotzibue took the male, female and young to be different species. A.O.U. gives *S. rufus* a range from South Eastern Alaska.

In an Appendix appears "Review of the Zoological collection of Dr. Eschscholtz, Professor at the University of Dorpat at the island of Sitcha" (Sitka, Kodiak Island): "Of birds we remarked: *Aquila leucocephala, Astur, Corvus corone,* and *Stelleri,* and some varieties of the species *Turdus* [Thrush], *Sylvia* [Warbler], *Troglodytes* [Wren], *Parus* [Chickadee], *Alecedo* [Kingfisher], *Picus* [Woodpecker], *Ardea* [Heron], *Haemotopus* [Oystercatcher], *Scolopax* [Snipe], *Charadrius* [Wader], *Anas* [Duck], and *Colymbus* [Diver]. *Trochilus rufus* [Rufous Hummingbird] is not only often found here, but also under 60° lat. A small shoal of *Procellaria furcata* [Fork-tailed Petrel] was also driven into the Bay by stormy weather."

When the Bald Eagle, or just Eagle, or *A. leucocephalus,* is listed

there is always the question whether the name refers to the Bald (*leucocephalus*) or Steller's Sea Eagle (*Halaeetus stelleri*), particularly in Kamchatka. Astur must refer to the Goshawk (*Accipiter gentilis*), but *C. corone* is really the name of the Hooded Crow which would not be present, and might refer to the Raven (*C. corax*). It is unfortunate that Kotzibue only gives the name of the genus in other cases.

On an island near Chamisso [Bay], Kotzibue Sound, (named after one of the naturalists with the first Expedition), visited on 2nd August Kotzibue noted it was "inhabited by numerous puffins" and that "many egg shells which we found on our way were an indication that foxes destroyed the nests."

To impress the natives Kotzibue "shot a snipe" which "thoroughly frightened them."

On his way South for the winter, on 28th August off the Tschukutskoi [Chukchee Sea Coast] Kotzibue mentions one or two mammals adding — "There appeared to be no land birds, as we did not see a single one" [probably on short excursions along the shore; he does not refer to water birds].

In his remarks on Kamchatka, Kotzibue wrote: "Many land birds have spread over to Oonalaska from the nearest coast, of which the white headed American eagle is prominent. With respect to the albatross, *Diomedea exulans*, we have to correct a very common error which has gained credit under the authority of Pallas. The Albatross does not visit the north as a transitory guest from the southern hemisphere merely to appease its hunger for a short time and then to return at the breeding season to its southern home. The Albatross builds its nest of feathers, on the highest summits of the Aleutian Islands, namely, on Umnack and Tschatirech subpotschnie ostroff, (The Island of the Four Peaks). It lays two very large eggs of a bluish colour and hatches them in the summer season. The black variety mentioned by authors is the young one. The Aleutians ascend these summits towards August, and take the eggs from the nest; they also throw darts, made for the purpose, at the sitting birds, and are particularly eager after their fat, with which they abound at this season."

Kotzibue would have seen the Wandering Albatross (*D. exulans*) when south of the equator where it nests and is only found north as far as the equator. No Albatross nests in the North Pacific. The

"black variety" could refer to the Black-footed (*D. nigripes*), today still fairly common, or to the Short-tailed (*D. albatrus*) in juvenile plumage. Possibly this statement about nesting of *D. exulans* may have provided the ground for Latham's statement in the *History of Birds* that the Wandering Albatross nests in the Arctic.

There is the following footnote:

Unica Septroneum visitans Diomedea Alaskans, hieman antarticam fugens, per immensum oceanum ad notre litora, aestiva abundantia piscium ana gronorum allicitur, nec tamen apud nos generat, sed ad aestatum antarticam prolificandi gratia ilus dene abet. — Ref. Zoogr, Ross Vol. I, Page 297 and Vol. II, Page 308.

FERDINAND VON WRANGELL

Baron Ferdinand von Wrangell was an Admiral in the Russian Navy, and head of the Russian-American Company in Alaska. During his period of office he initiated several voyages of discovery in that country, the account of his two most important appears in "Voyages from Asia to America, etc." translated from the High Dutch of S. Mueller of the Royal Academy of Sciences at St. Petersburg, from the original.

The first Expedition was to North-eastern Siberia and not within The Area, but the following is worth referring to, as showing the vast quantity of wildfowl there were in those early days. Wrangell states "twenty years ago several thousand were sometimes killed in one day at the mouth of the Kolyma River, now it is called a good season when one thousand geese, five thousand ducks and two hundred swans are killed at the mouth."

It is not apparent how these figures were arrived at and must have been an absurd exaggeration, but they do suggest a great abundance; this would be during migration. He also refers to great numbers of geese being killed when moulting. There are also some interesting dates on fall migration but none applicable to The Area.

An account of his next Expedition appears in "Narrative of an Expedition to the Polar Sea in the years 1823-1827, commanded by Lieut., now Admiral Ferdinand von Wrangell of the Russian Imperial Navy," translated and edited by Major Edward Sabine, R.A., F.R.S., London 1840. [This does not agree with Bancroft Hist. p. 549, in which Wrangell's Expeditions were all in America. It is not clear as to which Expedition these remarks apply to, if the first, none would be within The Area.]

There is mention of the quantities of geese killed:

9th July: "Went inland to kill some of the numerous wild geese which breed on the small lakes. We soon shot 17, which our guides accounted a good number, according to the present standard. Formerly many more geese were killed. For some years past they seem to have resorted in preference to the shores of the Indigirka, where many thousands are killed every summer. They are sometimes driven in flocks into a large empty hut, or knocked down with sticks in the open plain. A good deal of experience and skill are necessary on the part of the fowler, as though moulting birds cannot fly, they run extremely fast. When in danger they cower on the ground, stretch out their necks like the ostrich between the little moss hillocks. They lie in this way so motionless that an inexperienced person passes them by, supposing them to be already killed. They usually form large flocks, each of which has a leader, whom they never quit except in great danger. The natives distinguish four kinds of geese; the white goose [Lesser Snow (*Chen hyperborea*)] which used to frequent the shores in great numbers, but seems to have disappeared; the proper wild grey-goose, (*gumennik*) which is the largest of its kind [*Branta canadensis*] and the kosarka and piskun which are much smaller. The piskun is not larger than a tame duck. [Cackling (*B. minima*).]

Wrangell records the position as 69.36° lat. and 164.32° long.

At a stopping place 2-3 days later there is mention of small lakes "where large flocks of wild geese are always assembled by the 10th of July. About 1st August swans usually arrive for their moulting season on a neighbour part of coast."

Even allowing for the difference in time between the Gregorian and Julian Calendars (11 days later), it seems much too early for migrating swans to be seen; perhaps they were Trumpeters (*Olor buccinator*) and had nested; the next entry also suggests this.

19th July: "Shot a fat wild swan."

There are further entries during July and August referring to the killing of geese, including at lakes where they nested.

On 2nd August they "came across a large flock of geese which were later than the rest in moulting and succeeded in knocking down several and the chase was continued by one member of the Expedition." There is no indication what species the geese were. Geese are unable to fly during the moult of wing feathers. When at Baranoff Rock there was a large flock that "covered the small river and filled the air with

their low cries and gained the sea ice over which they ran with incredible swiftness."

On 19th August they surrounded a lake and bludgeoned 75.

By 31st August he noted the geese had completed their moult, "flew over our heads in large flights to the southward, we could not shoot one but killed 9 pairs of swans, which were now in full moult; these birds do not keep together in flocks but are usually seen in pairs or at most in parties of four." [Trumpeter Swan (*O. buccinator*).]

And yet with this abundance of food, at times the Expedition ran short, which could be accounted for by the enormous appetites of his guides "each of whom eat daily 60 fish or more," while Wrangell found 10 of the same size quite sufficient. There is no indication of the species which had been netted; Wrangell's 10 for a meal does not point to the fish being of a large kind, there would be many species of which 60 for a meal would not be excessive.

Wrangell sent an Expedition, under Andrei Glazanov, to explore south from Norton Sound to Cook Inlet, about which there was an unpublished account (in Russian)and an article by James W. Vansbone (Pacific Northwest Quarterly, vol. 50, No. 2, p. 37, April, 1959), but with no reference to the wildlife except the killing of the occasional grouse to save them from starvation, which suggests wildlife was not plentiful, at least during winter.

N. NOVIKOFF

Novikoff was the author of *Russian Voyages round the World* to which an Introduction was added by the translator M. A. Sargayev and subsequently translated into English by Ernst and Mira Lesser.

Novikoff's observations of his own on the bird life are limited to notes appearing in his description of the Andreanof Islands where he refers to the reports of the Cossacks M. Lazarev and F. Vastulinsky.

"The natives used birdskins made from the skins of sea birds called ember geese and auks which may be found there in countless numbers and which have their nests among the stones. They snare birds intended for parkas with clap-nets made of whale bone."

[No doubt, here "auks" is a very inclusive description: according to Newton Dictionary "Ember goose" is a name applied to the Great Northern diver, otherwise the Common Loon (*Gavia immer*). But

here it would be too far north and would be the Yellow-billed (*Gavia adamsi*) or the Arctic (*G. arctica*).]

STEPHEN GLOTOFF

Stephen Glotoff, a Russian merchant, traded into Alaska in the middle of the 18th Century; in his journeys he was accompanied by Save Pomeroff.

There is a reference to the voyages in Coxe's "Account of Russian Discoveries between Asia and America" reviewed later. In a reprint from the Spchukin Coll. Vol. V — 172-173 his voyage is discussed: "1762 Exploration of the Cossack G. T. Pomeroff and the Foreman G. S. Glotoff, concerning the islands discovered by them" [in Alaska]; later, 1852, in publication of the Council of learned Societies "Russian discoveries in the Pacific and North America in the 18th and 19th Centuries." The last was edited by A. L. Andreanof and translated into English by Carl Ginsburg, United States Department of State.

The first attempt to reach Alaska was a failure, the Expedition only got as far as the Bering Islands before being stopped by ice conditions. They wintered on Medina, one of the Group.

Evidently they found conditions to their liking as they stayed there until the following August when they returned to Bolsheretsk. As the Expedition must have depended on local resources for food, there can be little doubt they contributed largely to the extermination of the flightless Spectacled Cormorant (*Phalacrocorax penicillatus*) and Steller's Sea Cow (*Hydroamolis stelleri*).

The following year a further attempt to reach Alaska was successful and the Expedition arrived at Unmak, one of the Aleutian Islands. Glotoff has the following to say about the bird life.

"The birds on those two islands (Unmak and Oonalaska) include the following sea birds — Cormorants, auks, grebes, winter ducks, sandpipers, golden eyes, drakes, mergansers, teals, also flocks of white geese which hibernate there and fly away in spring until winter sets in again. There are also grey and black geese, which are just birds of passage, and all the year round there are goodly numbers of seagulls and eagles. Sometimes the natives will catch birds with meshes, but they do more of their bird catching with snares which are set

in many places and which people here call "selki" (nets). The natives remove birds skins together with the down and make themselves parkas out of them, and tinder from the down."

This list must have been made up by the translator; there can be little question that some of the names included never appeared in the original — Grebes would not likely have been distinguished from "Divers" which are not included, probably the latter would be a more correct interpretation, nor could "Golden eyes" (assuming it refers to *Bucephala clangula*) likely to be seen; early explorers or writers may have included the bird under the general term of ducks; the same applies to the Merganser. White geese would be the Lesser Snow (*Chen hyperboreus*) but there is the unfortunate statement these hibernate, it could be a misinterpretation for winter as this goose winters from Vancouver Island south.

FREDERIC LUTKE

Webster's Biographical Dictionary describes:

Lutke, Count Fedor Petrovich, 1797-1882. Russian naval officer and navigator; explored coasts of Kamchatka and Novaya Zemlya (1821-25); commanded (1826-28) Russian voyage around world, exploring coasts of Siberia and Alaska; admiral (1855).

Details are found in *Voyage autour du monde . . .*, Paris, 1836. Vol. III, Part 12. "Zoological observations made during the expedition of the corvette *Le Seniavine*, by F. H. de Kittlitz . . . From Valparaiso to Sitka. 15th April to 24th June [1827]." The first observation of interest is on Lutke's way north.

"This time the northern hemisphere appeared to us more lively; dolphins were seen more frequently and there were more stormy petrels, of which we did not see any a short time before; in the distance were observed large flocks of birds, which I believe were petrels."

"The rather large flocks of albatross which we saw from time to time reminded us of the peculiar way in which birds are distributed. In the Pacific ocean they are met everywhere in almost equal numbers, while in the Atlantic ocean they are seen only in the southern part, but in large flocks." [These numbers do not apply today.]

Nevo-Arkhangelsk. From 24th June to 31st July: "Entering the Gulf of Sitkha, we saw puffins in rather large number; but because of the distance we could not distinguish the particular species. The

summer was too far advanced for the hunt to be fruitful, most of the birds having withdrawn into their retreats. The sea was completely deserted, although in these parts, in spring and in Autumn, the number of aquatic birds is very great. Now, there were seen here and there together, round the many wooded isles, the *Anas histrionica* [Harlequin] and still more rarely the *Anas fusca* [Surf scoter] as well as a particular species of snipe (*Totanus brevipis* nov. sp.) [Wandering Tattler (*Heteroscelus incanum*)] the *Strepsilar collaris* [Ruddy Turnstone (*Arenaria interpres*)] and three species of Gulls, (two of which were European *Larus tridactylus* [Kittiwake] and *L. Canus* Mew). Further out to sea were sometimes noticed the *Mormon corniculata* [Horned Puffin (*Fratercula corniculata*)] and the *Pelecanus Urile* (Linn.), as well as the black oystercatcher which seemed to me hardly different from that of New Holland, finally the *Diomedea brachvura* (Temm.) and several flights of the *Uria marmorata.*" [Marbled Murrelet (*Brachyramphus marmoratum*).]

"The season promised us more in the woods, at least of small birds; but the thickness of the forests made the hunt laborious, and besides, most of the birds killed could not be found in the underbrush. Here are the specimens which I procured during a sojourn of five weeks: *Trochilus rufus* (Linne) [Rufus Hummingbird (*Selasphorus rufus*)], *Turdus migratorius, T. naevius* and *T. minor,* [Robin, Varied Thrush and probably Hermit (*Hylochichla guttata*)], *Sylvicola Celata,* [Orange-crowned Warbler] *S. regulus m.* (nov. sp.) [Ruby-crowned Kinglet (*Regulus calendula*)], *Muscicapa cucullata* (Swainson), [Townsend's Solitaire (*Myndesus townsendi*)], a little wren, which I later lost. Lastly the birds also commonly found in Europe: *Regulus ignicapillus,* [Golden-crowned Kinglet (*Regulus satrapa*)], *Troglodytes parvulus* [Winter Wren] *Certhia familiaris* [Brown Creeper] and *Loxia curvirostra* [Red Crossbill]. Here are encountered also in equal numbers of American forms of the genus *Emperiza* [Bunting], which has been wrongly classed with the *Fringilla* [Finches], or else has been divided into several genuses, such as *Passedina Zonotrichia,* etc. I found four species of them: *Emberiza mitrita* (an varietas Fringillae hyemalis Linne? [*Junco oreganus,* (Oregon Junco)], *Emberiza melodia* (Wilson) [Song Sparrow (*Melospiza melodia*)], *Emberiza rufina* m. (am var. Fring. furae Wils.?) [a race of the Fox Sparrow], *Emberiza glacialis,* m. (nov. sp.) [Snow Bunting (*Plectrophenax nivalis*]; the first is the common bird here, together with the second which prefers

places covered with shrubby trees, it enlivens these areas; only the 4th species appears to be rare. Besides, these birds do not sing pleasantly. In the forests, on the top of the tallest trees, there is to be seen a sort of little Titmouse which I have called *Parus Sitchensis,* and which is very similar to the *Parus Sibiricus* (Linn.) [Black-capped Chickadee (*P. atricapillus*)]. The *Corvus Stelleri* [Steller Jay] is common along the edge of the wood, and the *Corvus corax* [Raven], (at least I have not found any difference from this), is found in quantity along the sea shore and near the habitations. On the shore are also seen numbers of the *Corvus ossifragus* (Wils.) [Fish Crow — at Sitka the Crow would be the Common (*Corvus brachyrhynchos*)] and some *Ardea Herodias* (Wils.) [Great Blue Heron]. Two swallows, which it appears are distributed throughout the whole of North America, *Hirundo bicolor* [Tree Swallow (*Iridoprocne bicolor*)] and *H. rufa* (Vieillot) [Barn (*H. rustica*)], are here common enough, and the *Alcedo alcydon* [Belted Kingfisher] are seen from time to time, singly or in pairs."

"With regard to the shore birds, I found at first only the *Tringa Temminckii* [*Callidris temminckii* is not found in America] in pairs, some *Totanus vociferus,* Wils. Killdeer (now in summer plumage), and on the river banks the *Totanus flavipes,* Wils. [Lesser Yellowlegs]; not far from the shore, the grey sandpiper which I have mentioned above. But towards the end of July, the shore was covered with those grallatores which, for the most part, are found also in Europe, such as: *Tringa minuta* [Least Sandpiper (*Erolia minutilla*)] and *T. callidris* [This is a synonym of several species: the likely bird would seem to be the Sanderling (*Crocethia alba*)], *Charadrius hiaticula* [Ringed Plover], *Ch. melodius,* Wils? [Piping Plover], *Ch. squatarola* [Black-bellied Plover (*Squatarola squatarola*), etc., in company with those already noted above."

"Among the birds of prey, the white-headed eagle is seen frequently, especially towards the wooded portions of the sea coast; then, are also seen two other little [smaller] ernes which appeared to me to be the Falco fulvus [Golden Eagle (*Aquila chrysaetos*)] and the Falco ossibragus of Wils. Bald Eagle (Haliaeetus sephalus); of the tree-creepers [Woodpeckers] I saw only the Picus villosus (*Vielill.*) [Hairy (*Dendrocopos villosus*)], and with regard to the Gallinaces, we were brought only the female of the Tetrao obscurus (Bonaparte)." [Blue Grouse.]

From 31st July to 22nd August: "During the voyage from Stikha to Ounalachka, we saw almost every day some Albatross and species of Petrels, but we had no opportunity of hunting them."

"Near the Aleutian Islands we saw from a distance enormous flocks of birds the size of our domestic pigeons: most of them flew on the surface of the water, and many seemed to fly and swim alternately. They were seen only at many miles distance from the land, and we could not get close enough to them to make out the species to which they belonged; I am tempted to think that they were *Guillemots* (*Uria*), and *Auks* (*Alca*), of which there were an enormous number in these parts, and which at that time had just left their nests situated on the surrounding rocks."

Ounalachka

From 22nd to 31st August: "The coast of Ounalachka did not offer us as many birds as we had hoped; perhaps because the season of incubation was partly over. We saw only a very few Gulls (*Larus tridactylus* [Kittiwake] and *Larus glaucoptorus* nov. sp.) [*L. glaucescens*], but on the other hand, we frequently saw large flocks of *Uria grylle* [Black Guillemot (*Cepphus grylle*)], at this time had finished laying their eggs. With considerable difficulty I procured a very small species of Uria, (Uria canam.) [Ancient Murrelet (*Synthliboramphus antiquum*)] which is very rarely met with and only in the bay of Illuluk [Alaska]. A very numerous bird but was too late to see the swarms at their nesting stations. It is recognized that Ounalachka is very poor in sparrows, because there are hardly any trees; a carpet of vegetation, intermixed with heaps of perpetual snow, covers the whole country."

"Nevertheless there is quite often found in this grass a little bird which perches on the strongest stems; it is the *Fringilla savannah* (Wils.) or rather the *Emberiza chrysops* (Pall.) [Savannah Sparrow, *Passerculus sandwichensis*]. In places where there are isolated rocks, and in general on all the steep slopes, there is frequently found a variety of *Emberiza melodia*, remarkable for its large size, and which, except for this, did not differ at all from the species seen at Sitkha. [Probably a Fox Sparrow (*Passerella iliaca*).] On the mountains, in places scantily covered with vegetation, were numbers of the *Anthus Ludovicianus* or *Anth. Spinoletta* (Bonap.), which is very well illustrated in Richardson's work *Fauna boreali americana*, under the name of *Anthus aquaticus* (Bechstein) Watersprite (*A. spinoletta*); but the most beautiful and most interesting of the sparrows of the

Aleutian Islands is perhaps a *Fringilla* of a chestnut brown, with marking of rose, ash-coloured grey and black, which Pallas cites as a variety of his *Passer arctous*; it does not appear to be rare on the rock summits and on the promontories; provided that these are covered with vegetation; this is not the *Linaria tephracotis* of Richardson, but it is very close to it. A bird which, if it does not belong to our *Fringilla nivalis* [Snow bunting (*Plectophenax nivalis*)], at least greatly resembles it, lives alone on the bare pinnacles of the rocks. Once I saw some swallows, but so far away that I could not be certain whether they belonged to the species which is common in Kamchatka and in Sitkha (*Hirundo rufa,* Vieill. [Barn Swallow]). The same crow which was seen at Sitkha, is also found here on the shore, [probably Raven (*C. corax*)], and the white-headed eagle is seen, for want of the tall trees on the coast of Northwest America, building its eyrie on the summits of the rocky peaks. As I have already said, I found very few wading birds; I saw only three species: The *Totanus brevipes* (See Sitkha), *Tringa maritima* [Rock Sandpiper (*Erolia philoenemis*)] and the *Strepsilas collaris* [Ruddy Turnstone]. On the mountains were seen some flocks of white Hazel-grouse [Ptarmigan] but not having been able to procure any, I cannot decide which species they belong to."

From Ounalachka to Kamtchatka. From 31st August to 25th September: "We had hardly left Ounalachka when we were surrounded by enormous flocks of birds which we greatly surprised by our arrival. These birds appeared to me to be Petrels with a plumage uniformly grey, but their flight was rather more clumsy than that of most of the same species. As the course of the vessel allowed a boat to be launched, they went to look for one of the birds which I had shot from the side of the ship; it was exactly the same Petrel which Dr. Merck had noticed in large numbers in these parts: The *Procellari curilica* (Pennant), and not the *Pr. aequinoctialis* [White-chinned Black Petrel], Pallas thought." [Merck records *Puffinus tenuirostris,* Slender-billed Shearwater.] "Not far from this island [St. George] a very strong wind dashed on board a Guillemot which lived for 24 hours, and thus enriched our collection; the description of the *Uria dubia* (Pallas) [Crested Auklet (*A. cristatella*)] fitted it well enough, and it is under this name that it is to be seen in the Museum of St. Petersburg."

"It was in vain that we tried to land on the island of St. Matthew; when we had to abandon our project, we were so close to land, that we

could easily recognize the birds which in enormous numbers covered the uneven surface of the rocks; the *Uria troile* was seen there in greater numbers, and there were not wanting some species of the genus *Uria* and *Alca*, among which there must have been many new ones. How many interesting objects could we not have found, if it had only been possible to stay there for only an hour! On the occasion of two calm periods during which it was possible to lower a boat, I procured many birds, but nothing new; I noticed only: *Mormon corniculata*, [Horned Puffin (*Fratercula corniculata*)], *Uria troille* [Guillemot] and especially the *Procellaria glacialis*, [Fulmar (*Fulmaris glacialis*)] which often appeared in numbers at some distance from the land. From here to Kamchatka there was nothing worth noting as far as zoology is concerned; except that the approach to the coast was announced by two birds which were no doubt preparing to migrate; one was the *Anthus spinoletta*, Bonap.(?) [Water pipit] and the other a little bird of prey which was shot, but which fell into the sea."

Port of Petropavlovsky. From 25th September to 1st November. We arrived in autumn at the port of Petropavlovsky; this season had already sent on their way most of the birds of passage, which threw over the country a mournful silence. On our arrival, I spent a whole afternoon in the environs of the port, and saw no living creature except a grey wagtail [*Motacilla* sp.] and, at a very great height, a sea-eagle (osprey? buzzard?) (*Falco haliaetus*), and some crows on the shore, which made a discouraging impression on me. The next day, I traversed the surrounding valleys, where grew alder and willow; they were a little more lively. I even saw in quite large numbers a bird which I had not expected to meet in this season; it was, it is true, at the moment of departure; it is that pretty warbler so rare in collections *Motacilla Callippe* (Pall.), which appears to be adapted to Kamchatka; it replaces there our Blue-throated warbler with which it has many points of resemblance. I killed also the *Emberiza rustica* (Pall.) as for the other birds, they are also found in Europe, such as the *Nuciraga carycatuctes* [Bohemian Waxwing (*B. garrula*)], *Fringilla linaria* [Linnet here, could be Redpoll (*Acanthis* sp.)], *Fr. montifingilla* [Brambling], *Pyrrhula vulgaris* [Bullfinch] *P. pyrrula*) and *P. enucleator* [Pine Glosbeak], (This is quite rare here), *Emberiza calcarata* [Lapland Bunting], *Anthus arboreus* [Tree Pipit], *Motacilla boarula* [Yellow Wagtail *M. flava*], *Bombycilla garrula*

[Bohemian Waxwing], then a whitish variety of the *Sitta Europeea* [probably the white-breasted Nuthatch (*S. carolinensis*)], and the *Parus palustris* [Marsh Tit — does not occur on Pacific; would be the Boreal Chickadee (*P. hudsonicus*)], Picus tridactylus, major and minor.

[*P. tridactylus* is a separate species, Northern Three-toed Woodpecker, the reference could be intended to include the Black-backed Three-toed (*P. arcticus*) or it could have been the Hairy (*Dendrocopos villosus*) or the Downy (*D. pubescens*).]

"Shortly after our arrival the frost was sometimes so severe during the night, that in the morning there was ice about a quarter of an inch thick; however this did not prevent a sea-swallow, which is very common here, from looking for food; that is why I named this species *Sterna glacialis*; which I should otherwise have taken for an ordinary sea-swallow *Sterna hirundo;* it is true that soon after it migrated. [Probably *S. aleutica.*] In this season, the environs of the port of Petropavlovsky are very rich in many species of gulls; but it is very difficult to distinguish the species; the most common does not seem to differ from our *Larus argentatus* [probably the race *vega*]; the *Larus ridibundus* [Black-headed] is seen in equal numbers. [The latter here would be the Bonaparte (*L. philadelphia*).] The Larus glaucopterus (? glaucous wing *L. glaucesens*) of Sitkha and Oonalaska is here in very great number, and presents such a difference in the size of the individuals that without doubt I should have made two species, if by chance I had seen only the two extremes. Perhaps there is not even any difference between the *Larus glaucus* (Brunn.), and *Larus leucopterus* (Faber); for my Larus Americo-Kamtchaticus is distinguished from the others only by deep colour of its wing feathers." [Presumably the "wing feathers" refer to the primaries which in the former would be white and the dark suggests the Herring (*L. argentatus*).]

"The *Colymbus arcticus* [Arctic loon (*Gavia arctica*)] showed themselves in the bay; the first was then in full plumage; the *Pelecanus urile* (or the *Phalacrocorax graculus* (Pall.) [Red-faced Cormorant]) is very common on the rocks bordering the shore, and, towards the middle of October, there are also met with in large flocks, the *Anas Stelleri* [Red-throated Loon (*Gavia stellata*)]. In the streams and rivers, I noticed many species of ducks, and during the last days of September, the *Phalaropus hyperboreus* [Northern] showed itself in large numbers."

"Among the shore birds I saw only one species strange to Europe, it is the *Tringa limbata* (Lichtenstein) (n.sp.) [probably misspelt *T. lomatina* — Knot] which is known in New Holland. This bird comes in very small flocks, with the *Fringilla articoa* (Passer arctous. Pall.) [Arctic leucosticte] which arrives at that time from the north. Here are the other Krallatores which I saw that year: *Strepsilas collaris, Charadrius pluvialis* and *squatarola*; *Tringa variabilis* and *minuta*." [These birds would be the Black Turnstone; Golden Plover; Black-bellied Plover; Dunlin; Least Sandpiper.]

Chapter V

WILLIAM COXE

The Reverend William Coxe was born in 1747, attended Cambridge University, and was elected a Fellow in 1768. During his life he was the incumbent of different parishes, finally that of Bemerton, where he died in 1828.

He must have been a great reader and scholar, as he wrote several books of a historical nature. His knowledge of the Russian language must have been extensive to enable him to translate into English the early Russian Narratives, some of which would have been in the old Russian characters. It is to his industry the very existence of some of the original narratives are known today. As a summary of the early Russian Explorations, Coxe's book is unique. Much is taken verbatim from the original document, but there is quite a lot of summarizing. Unfortunately it is evident that Dr. Coxe was not a naturalist, much less ornithologist, and it is likely that often observations on the birds were left out.

Coxe took no part in exploration, though he spent some time in St. Petersburg, where he was in touch with Pallas, the leading ornithologist and naturalist of those days. It was through Pallas that he was able to advise the Czarina Catherine II to undertake the Billings' Expedition round the world, and particularly to investigate conditions in the Northern Pacific. He writes: "The voyage was principally taken at my suggestion with a view to complete the discoveries of Cook and I assisted in drawing up Billings' instructions."

The title of his book was *Account of Russian Discoveries between Asia and America* — by William Coxe, A.M., F.R.S., F.S.A., Rector of Bremerton; of which the 4th edition [used here] was considerably enlarged, the work being published in London in 1803. The book is divided into parts, the first covers 1711 to 1741 and is in a narrative form dealing with the principle events of Bering's Expeditions, including some bird observations by Steller. In his notes on these expeditions, Coxe quotes from Steller's original Journal, now nonexistent.

In his Introduction, Coxe refers to the Steller Jay (*Cyanocitta stelleri*); but without any description, only that Steller's Cossack

"was sent to shoot rare birds"; also "that the common birds of the American coast I perceived only the raven and magpie, but above the foreign and unknown species, which from the brilliance of their plumage were easily distinguished from the feathered tribes of Siberia; one in particular of lively colours, of which I recollect to have seen a figure in a recent account of Carolina. The appearance of this bird convinced me we were on the Coast of America."

Coxe's footnote: "Steller alludes to Catesby's 15th plate which represents the North American Blue Jay, to which Steller's bird bears some resemblance, but is of a different species. Hence, as claimed by Pallas, 'the bird was no proof of their vicinity to the American continent, though no one can doubt that Steller was close to the coast.' Pallas may have been jealous that Steller 'beat him to it,' by his getting to North America, where he, Pallas never went."

Another observation of Steller's on 28th August is of seeing "a black seagull near land," and "The seabirds were two species of swans, pelicans (*Pelecani*), razor-bills (*torda*), ducks, snipes, sandpipers, many sorts of gulls, puffins (*Alca arctica*), Greenland pigeons, divers, and tufted auks (*Alca cirrhata*), among which there is an unknown species. But of land birds I only perceived ravens, flycatchers (*grisola*), snowbirds (*Emberiza nivalis*), and moorhens."

November 10th and 14th: There is mention of moorhens as food. As there would be no moorhen (*Gallinula chloropus*), or bird that resembles it in the Northern Pacific, it is suggested that it referred to one of the Scoters, particularly as "Coot" is a name commonly applied to Scoters in Eastern North America.

Another Russian explorer Coxe referred to was Krenitzen, who, when wintering in the Fox Islands, noted: "Eagles, partridges, ducks, urile [Cormorants] ari [Murres], and gadi."

Coxe relates that on September 17th, 1756 — Two vessels, *Andrean* and *Natalie*, fitted out by Andrean Tolstky, sailed from mouth of Kamchatka River to Bering's Island and wintered there where "The shores during stormy weather are covered with wild geese and ducks."

He also refers to "vast number of foxes" as well; there are other references to expeditions, particularly to Fox Island, but nothing regarding the birds.

Amlak (near Atchu): "Their [the natives] clothes are frequently made of the skins of the *guillemot and puffin, which they catch with springes."

Also there is an account of Korovin's Expedition from Kamchatka in the year 1762 in the *Trinity* which wintered at Unalaska and later was wrecked and crew rescued by Glottoff.

As a hint to present day mothers concerning unruly children, Coxe gives a remedy: "If an infant cries, the mother carries it to the seaside and holds it naked in the water until it is quiet. This custom hardens them against cold."

---

* Colymbus troile: Alca arctica. Springes are snares [This is the only mention of their use for catching seabirds, though referred for catching land birds].

Chapter VI

Spanish Explorers

The Spaniards were not interested in the North; they had ample plunder in present day Mexico where they established themselves firmly, and though they stopped the horrible human sacrifices, they instituted a state of affairs that was little better. They were content to remain where the climate was more like their home (and a country that provided them with all they required for food and loot). All their actions were supposedly done in the name of conversion of the natives to their own religion. The north did not interest them and they never attempted any settlement north of present day California.

There is difficulty in sorting out these Spanish narratives owing to there being accounts of the same expedition by different narrators which, sometimes, appear with other experiences under other titles. As this work does not pretend to be historical, all that is attempted is, to assist in understanding who was the writer and where he went, as well as any remarks on the birdlife.

The late B. A. McKelvie, a well-known authority on the history of early exploration in the North Pacific, discusses the Spanish expeditions to the North Pacific in an article that appeared in *The Colonist*, a daily paper published in Victoria, B.C., from which the following is extracted:

"Russian activities in the North Pacific, and the capture of Canada by Great Britain, caused such concern in Madrid that the government of Spain ordered that active measures must be instituted in New Spain to explore and occupy the northern coasts of western America, to preserve the title bestowed upon that nation by Pope Alexander VI in 1743, of sovereignty of the Pacific littoral."

"In January, 1774, the little ship *Santiago*, commanded by Don Juan Perez, with Don Estevan Martinez as his pilot, set sail from San Blas with instructions to penetrate the unknown waters as far as latitude 65° north." It did not reach this latitude.

From then on quite frequent Spanish Expeditions explored the outer coast, south of the territory held by the Russians, as well as the Strait of Juan de Fuca and the Gulf of Georgia, of which numerous

mementoes remain today in the Spanish names of islands and places visited. These exploratory Expeditions continued as long as Spain maintained her claims to Vancouver Island, and are helpful in realizing conditions. Some expeditions have notes on the birdlife but it was exploration rather than natural history that was the main object of the expeditions. It must have been more to protect her interests that the Spanish Expeditions were sent out.

As pointed out by Mr. Wagner in his historical review (September, 1936) when dealing with the journal of Tomas de Surea, there is a great mass of material relating to this and other voyages unpublished in the collection of the Museo Naval (Madrid).

Thanks to the kindness of Mr. Richard Dillon, Librarian of the Sutro Branch of the California State Library, San Francisco, I was able to look through their collection of Banks literature to ascertain if there were any originals dealing with early exploration in The Area, but the collection consisted almost entirely of correspondence concerning drainage of the fens in England with nothing about the birdlife. The most interesting item was a separate memo, in which Sir Joseph gave an account of how the Ruff (*Philomachus pugnax*) was netted, they being plentiful in England then (1812). The drainage of the fens destroyed the birds habitat.

FRAY JUNIPERO SERRA

Fray Junipero Serra first was in Mexico but was sent to Lower California as a missionary, where he established missions, and later to Upper California to become a leader in the opening of missions. San Juan Capistrano is possibly best known owing to the publicity given the colony of Cliff Swallows (*Petrochelidon pyrrhonota*) that regularly nest there and, according to legend, arrive on 19th of March and leave on 2nd October (St. Joseph's Day).

All records of birdlife were south of The Area:

5th July, lat. 43°: "As the sun went down we saw a bird as large as a hawk; it was said it was a land bird, though from the mast head land could not be seen, we concluded that towards the west in which directions the bird was going, there must be an island." [As four days before, it was stated the ship was many hundreds of leagues from land, even if a mistake, it would be mid-ocean and one cannot under-

stand a hawk, even *Falco peregrinus*, being seen particularly at this time of year, so far from land.]

6th July: "At about 4 o'clock we saw a duck sitting on the water distant about 60 yards from the vessel and this was said to be a sign that land was not very far away. [This also rather upsets the statement "many hundreds of leagues".]

8th July: The position was 44°35.

11th July: "This morning we saw two sea gulls and several other birds." This was at latitude North 46. 32.

There are no notes for The Area.

JUAN PEREZ

Juan Perez was the commander of the first Spanish Expedition and sailed from San Blas, 24th January, 1774; land was sighted on 19th July, 1774, not the North American Continent but the west coast of the Queen Charlotte Islands (Q.C.I.), where a landing was made to replenish the water supply. Perez, however, did not take any steps to claim the country for Spain and the fear of the natives prevented further landings. Adverse winds and weather thwarted his efforts to round Cape North and on 24th July he commenced his return to San Blas.

An account of this voyage, written by Fray Benito de la Sierra and translated by A. J. Baker with an Introduction by H. R. Wagner, was published in the California Historical Society's Quarterly, Vol. IX (1930). There are no notes on the birdlife within The Area.

The following year the Heceta-Quadra Expedition, with Perez as pilot, and Maurelle as second sailing master, made another attempt to reach lat. 65°. Details of this voyage, from Perez Journal, appear in the account of Fray Benito de la Sierra. There is only one reference to the birdlife.

At Trinity [Trinidad] Bay, lat. 43°03: "I saw crows, sparrows and swallows but the men who went up the river said they had seen doves, nightingales and a number of other birds whose names they did not know."

The following are interpretations of some of the Spanish names for birds, as given by the translator:

Gull: *gaviota, bobo, bodoque, engano*; Duck: *anada, pato, mallard,*

anadon; Young duck: *anadino*, and the two following Peruvian names may have been used: *Agachadoza* and *Becardon*, both indicating a snipe including no doubt waders similar in appearance.

Though there are altogether four accounts of the Perez Expeditions to the Queen Charlotte Islands, not one has anything about the birdlife, nor is there any reference to birds in the various log-books.

The second expedition had with it Fray Juan Crispi and Fray Tomas de la Pina who were to act as naturalists, probably in a very broad sense and in any case, they did not carry out their instructions with the same zeal as they did their religious activities.

In Fray Crispi's Diary there is only one observation and that before The Area was reached. Fray Pina is little more informative. These appear in "Diary of Tomas de la Pina kept during the voyage of the Santiago, dated 28th August, 1774." All are before The Area was reached.

11th July: "Sea gulls and several other birds."

12th July: "Saw some ducks."

Unfortunately Fray Pina's interest in ornithology exhausted itself by this effort, as there are no further remarks. Natural history was, evidently, a very secondary matter, and it is probably the foregoing entries were only to indicate, that, birds being seen, suggested land was not far away.

Perez made two other trips to the North but his accounts show no interest in the birdlife.

DON FRANCISCO ANTONIO MOURELLE

The original narrative of Mourelle's voyage is, today, non-existent but, fortunately appears in Daines Barrington's *Miscellanies* which was published in London, in 1781. The Narrative was republished and reviewed by Thomas C. Russell, of San Francisco, California, in 1920 from which the following notes are taken. The title is lengthy and only those items, that can be applied to The Area, are set out.

"Voyage of the Sonora in the second Bucareli Expedition to Explore the Northwest Coast Survey the Port of San Francisco and Found Franciscan Missions and a Presidio and Pueblo at that Port. The Journal kept in 1775 on The Sonora by Don Francisco Antonio Mourelle, the second pilot of the fleet constituting the sea division

of the Expedition. Translated by The Hon. Daines Barrington from the original Spanish manuscript."

In the Russell edition it is stated this is "reprinted line for line and page for page from Barrington's *Miscellanies* published in London in 1781."

The Expedition sailed from San Blas, Mexico, 15th March, 1775. Notes on birdlife are few, the first refer to the early part of the voyage.

It is difficult to follow some of the sequence of the notes, distances are given in leagues but are impossible to connect if a league is taken to be the equivalent of three land miles; in the Encyclopaedia Britannica, 11th Ed. Vol. XVI, p. 329, it is stated that the distance varies with different localities but adds that "the nautical league is equal to three nautical miles." Mourelle could not have intended the distance to be three miles or at times he would have made inconceivable sailing records.

Mourelle's first mention of the birdlife, shortly after the start, refers to "bobos," presumably Boobie's, an indication that the Expedition was then still in the south.

There is a description of the activities of the Indians and a paragraph stating "the only birds we met with on this part of the coast were daws [crows], hawks, very small paroquets [Alcids], ducks and gulls; there were also some parrots with red feet, bills and breasts, like lories both in their heads and flight." There is a similar description of lories! when in The Area; here the reference would appear to have been to off the California coast.

The first reference to birds in The Area appears under date of 13th August; "we conceived ourselves to be in soundings from the colour of the sea; at the same time appeared Orange heads, many flags, many birds, with red feet, breast and beak . . . certain signs of our nearer approach to land."

The orange heads and flags must refer to Kelp (*Macrocystis pyrifera*), later Mourelle gives it a name Zacate del Mar.

"On the 14th and 15th these signs increased when we found ourselves in N. lat. 56.8 and 154 leagues west of the continent and 69 leagues from an island to be found on our chart." [Russell suggests the chart was that of Perez who was on board.]

On the 16th land was seen to the north-west at a distance of six leagues. The time taken compared with distances, make it evident

Mourelle used "league" as representing a considerably shorter distance than three miles. Mourelle refers to the change in colour of the sea as indicating nearness to land but then talks about 30 or 40 leagues — "here you will likewise perceive birds, sea wolves [Russell suggests seals] otters and whales as well" — adding that "under these circumstances you may depend upon seeing land the same day or that following" — again suggesting that "league" must have been much less than 3 miles.

"At the same time you will perceive that the sea is of an iron colour, and looks as if it had small boats with sails upon the surface, whilst resembling lories, with a red head, bill and legs, fly around; their body is black." At this point Mourelle refers to a high mountain at lat. 57.2° which he named St. Jacinthus.

In the attempt to interpret the "lory": in Newton Dictionary it is stated the Portuguese call a parrot "Louro" and sea parrot is a name often applied to puffins; if a puffin it might have been the Tufted (*Lunda cirrhata*) and/or in the north the Horned (*Fratercula corniculata*), but the description, particularly black body and red legs, suggests the Pigeon Guillemot (*Cepphus columba*).

A reference to Mourelle's 1779 voyage appears in Vol. I of the account of La Perouse's *Voyage Round the World*: "The Spaniards saw ducks, gulls, divers, kites, ravens, geese, storks, goldfinches and other little birds unknown to them." No kite is mentioned by Mourelle nor could he have seen it when in The Area, possibly the bird was a Jaeger (*Stercorariidae*): neither would storks occur, probably Sandhill Cranes (*Grus canadensis*).

Mourelle was later an officer on the *Favorita*, which, with the *Princessa*, comprised the Expedition under Ignacio Arteaga in 1779, but he would appear to have lost his interest in any birdlife.

DON JUAN PANTOJA Y ARRIAGA

The following are from H. R. Wagner's "Spanish Explorations in the Straits of Juan de Fuca — Extract of the navigation by the pilot, Don Juan Pantoja y Arriaga in His Majesty's packet boat, *San Carlos*, destined to carry supplies to San Lorenzo de Noca; and of the Expedition in this vessel upon the northern coast of California under the command of 1st. Lieut. Don Francisco Eliza, the commandant of that establishment."

As the title indicates the voyage had two objects but that to Northern California, did not extend into The Area.

The Expedition was nominally under the command of Lieut. Francisco Eliza as stated, but he had nothing to do with the northern portion, this being carried out under Don Ramon Saavedra.

The Expedition left San Blas, February 4th, 1791 and reached Puerto de San Lorenzo de Noca (Nootka) 26th March.

In secret instructions Eliza was "To examine carefully the nature and character of the country, and the quadrupeds, insects, birds, metals, precious stones, plants, vegetables and fruits and the character and number of Indians and strangers." A rather overwhelming programme, particularly as no scientist accompanied the Expedition. Eliza, like other Spanish explorers, did not take these instructions very seriously and his Journal does not record much about the birdlife. He excuses himself by stating that Quimper had recently given descriptions of the fauna.

In Pantoja's notes on Nootka:

"There are eagles of regular size with a white head and tail, hawks, doves, geese, ducks, crows, gulls, woodpeckers, and sparrows. In the summer for a short time swallows and swifts are seen and there are plenty of cranes and bees."

This list is interesting as it includes Swallows and Swifts, the latter are rarely mentioned; probably were the Black (*Cypseloides niger*). Presumably "Bees" is a name applied to the hummingbird, and, if so, could only be the Rufous (*Selasphorus rufus*); the crane would be the Sandhill (*Grus canadensis*).

He noted that "Both shores of the Straits of Juan de Fuca were often in pasture [presumably open country]. On the seeds and abundant fruits, two kinds of doves feed, one of the colour and shape of our domestic pigeon, different unknown little birds and a kind of the colour and shape of a chicken, with golden feathers and a swift flight like that of a partridge. So great is the abundance of these that I have killed some of them. Their flesh does not differ from that of our chicken."

The first "dove" would be the Band-tailed Pigeon (*Columba fasciata*) and, the other the Mourning Dove (*Zenaidura macroura*). The chicken-like bird, the Ruffed Grouse (*Bonasa umbellus*). Grouse and the "two kinds of doves and chicken" are also mentioned from the San Juan Islands where "they [the crew] killed more than 50 of these

birds." He also states "we have also seen a great number of gulls." There are today nesting colonies of Glaucous-winged Gulls (*Larus glaucescens*) on San Juan Islands and elsewhere in the neighbourhood, but the number of grouse has diminished to almost none.

He also gives a list of mammals: "Among these [hills] the sailors and troops saw bears, leopards [cougars], coyotes [not found on the coastal area], wolves, deer, hares, and rabbits."

At the Port of Cordoba [Esquimalt] around 20th May, 1791: "Somewhat more of the same kinds of birds are seen, such as sea gulls, ducks, kingfishers [Belted (*Megaceryle alcyon*) seldom listed] and other small birds," and he noted "there were plots of flat land and the same abundance of pasture, quadrupeds and birds as within the strait itself." [This must refer to the foregoing list.]

He also says "rats were in incredible numbers on the ship." This would be the introduced *Rattus norvegicus,* one of the pests brought by the white man.

When in the Gulf of Georgia Pantoja refers to "flocks of sea gulls that settle on the surface at the entrance of the channel and after allowing themselves to be carried to its end by its rapid course, fly back to their original position."

This would apparently be the Yucalta Rapids on the East side of Stewart Island, one of the passages from the Gulf of Georgia north where the tide at times is very strong. The gulls, no doubt Bonaparte (*Larus philadelphia*) or Mew (*L. canus*).

BRUNO HACETA

The Expedition consisted of two vessels — the *Santiago* commanded by Naval Lieutenant Bruno Heceta with Perez as pilot, the other, the *Sonora,* commanded by Lieutenant Quadra. The instructions were to explore the west coast of North America as far as 65° N. "The account of the Hezeta Expedition to the Northwest coast in 1775" was written by Fray Benito de la Sierra and translated by A. J. Baker with notes by H. R. Wagner. Though there must have been other notes none have been printed.

It was not until mid July that North America was sighted, at Latitude 48° 26, though the Expedition sailed from San Blas in March. Not long after leaving Nootka the *Sonora* had trouble with the natives,

losing several of her crew; this unfortunate occurence alarmed Heceta, who, after a conference with Quadra, decided it was inadvisable to proceed further and turned south on 1st August, 1775 in lat. about 47°.

Quadra was of different metal and decided to do his best to carry out the objects of the Expedition and, though his vessel, the *Sonora,* was ill-fitted for such a voyage her original crew was under. thirty. Quadra resolved at least, to attempt to carry out his instructions. On 13th August he reached lat. 49°05 and ultimately latitude 57°, the highest, up to then, of any Expedition from the South. He returned safely to San Blas but with his crew further reduced by scurvy.

The translation of Heceta's Journal gives no information about birdlife except the mention of seeing *"alcon esparvenio"* [Sparrow Hawk (*Falco sparverius*) near Nootka].

There is a translation (the only one) of Quadra's account of this voyage in Daines Barrington's *Miscellanies* (London 1781), the original being in the Archivo General Seccion Historia in Madrid.

The first reference, after the Expedition reached The Area, was of "many birds" seen apparently in the neighbourhood of the Strait of Juan de Fuca.

On 13th August: "Many birds with red feet, breast and beak." [These may have been the same as Maurelle refers to as "Lories" ???? here the description, except red breast, could refer to the Pigeon Guillemot (*Cepphas columba*).]

There is only one other note, which reads: "The only birds we met with on this part of the coast were daws, hawks, very small peroquets, ducks and gulls."

Daw here must indicate the Northwest Crow (*Corvus caurinus*); the peroquets, one or the other of the small Alcids, so common in these northern latitudes and could be the Parakeet (*Cyclorrhynchus psittacula*).

JUAN FRANCISCO DE LA BODEGA Y QUADRA

EXPEDITION IN THE YEARS 1775 TO 1779
TOWARDS THE WEST COAST OF NORTH AMERICA

(Translated from Annano de la Direcion de Hydrografie Anno III, 1865 Secion Historica Miscelanea).

The first portion takes in the Joint Expedition under Heceta and follows on with Quadra's experiences with his cockle shell, after Heceta had given up.

On the first expedition there is nothing reported concerning the birdlife.

The second expedition which sailed the 19th of March, 1779, consisted of the frigate *Neuestra Senora de los Remedios*, previously *las Favorite*, of 39 cubits keel and 13 beam, stern draught 14 ft. and prow draught 13 ft.

The first note is at the Island of San Fernando, at the end of the Gulf of San Alberto, harbour of Refugio [apparently S.E. point of Montague Island, Alaska, Prince William Sound] in mid June: "The only birds that have been seen are crows, ducks, geese, cranes, linnets and other little birds which we have not been able to recognize."

The linnets were certainly not either the European (*Cardeulis cannabina*), or the American bird that goes by that name [*Carpodacus mexicanus*]; possibly Purple finches, (*Carpodacus purpureus*).

ESTEVAN JOSEF MARTINEZ

Martinez had been with the first Perez Expedition. The title of his record of the voyage: "The Diary of the voyage of Don Estevan Josef Martinez, which I, Ensign of the Royal Navy, am going to make to the port of San Lorenzo de Nuce in command of the frigate *Princessa* and the packet *San Carlos* by order of his excellency Don Manuel Antonio Flores, Viceroy Captain General of New Spain in 1789." The original is in the Huntington Library, California; thanks to the courtesy of the Secretary it has been possible to reproduce the original Spanish names of the birds mentioned, but which, unfortunately, cannot be interpreted in English. There is a translation by H. J. Priestly in Wagner's Spanish Expeditions. The narrative stated: "the notes on birds are contracted."

The list of birds at Nootka under date of 5th May, 1789, are included in Martinez' account of the resources, but whether from his own observations or from a list supplied by Joseph Ingram (Ingraham) is not clear. Regarding this list, Martinez stated: "The pilot of the American frigate, Don Joseph Ingram, had given him an account in English of the —— birds which he had sent to the Viceroy, so that [Martinez] did not transcribe it into his diary because his stay in port would enable him to speak in greater detail." [Needless to add, no such list exists today.]

The Priestly translation is as follows:

"As for land birds, we have seen several different species. The most noticeable are the canary, the blue-titmouse and the sparrow. The first and second have a pleasing song like those of the same birds in Europe. The sparrow resembles that of New Spain. We have obtained several nests, but have not been able to raise any birds. There are turtle-doves, that make delightful eating, different kinds of fresh-water ducks, geese, blackbirds — different from the European variety, but with the same note; gray herons, very large eagles with white head and tail, the feathers of which the chiefs of this part prize very highly, and which are birds of prey, and another kind of eagle, similar to the owl [? Horned Owl (*Bubo virginianus*)]. Two kinds of birds known as humming-birds are also found. Some of these are like those of New Spain, and others smaller — so much so that they look like large flies. There are woodpeckers of a different colour from those seen in warm regions, but of the same size, and there are also many crows. Along the beaches there are seen charranes, which are also water-birds. Among other water fowl seen are gulls, didappers, whimbrels, and black ducks."

The Blue Titmouse (*Parus caeruleus*) is not found in North America: possibly it was the Red-breasted Nuthatch (*Sitta canadensis*) which is of a blue colour on the back and has the habit of running up trees. The sparrow must have been the Song (*Melospiza melodia*). Blackbirds, certainly not the old world *Turdus merula*, possibly the Red-winged Blackbird (*Agelaius phoeniceus*). The only pigeon here would be the Band tailed (*Columba fasciata*) but it would be rather too far north. The Hummingbird would be the Rufus (*Selasphorus rufus*) no doubt each sex was looked upon as a different species. Didapper is a name for the Dipper (*Cinclus mexicanus*).

The Diary contains much information on other subjects. An

interesting list of 33 vessels that had made discoveries to the north of California, commencing with Bering; also a vocabulary of the Nootka language, given him by J. Ingram, containng some 250 words, the birds represented being the Eagle, Aguatini, the Crow, Cooshina, a duck, Zapen and a Gull, Cuini.

He also gives an interesting account of how the name "Nootka" originated:

"— is due to the failure of the English and the natives to make themselves understood by each other. It came about in this way. Captain Cook's men were asking the Indians by means of signs — the name of the place — one of the English sailors made a circle on the ground with his hand, and then rubbed it out. Upon this the Indian answered "Nootak" which means to take away. However the real native name for it is Yucuat, which means therefore."

There is a reference to a most remarkable voyage by one who must have been the youngest explorer to appear in those parts and who is certainly entitled to recognition.

"On 13th October a vessel arrived *The Beautiful* (or Fair) *American* belonging to a trading company in New York with a crew of five men the Captain Thomas Humphrey Metcalfe a youth of eighteen at the most, had left Macao on 5th June crossed open seas to Alaska in forty-two days and reached Nootka without provisions, mast sprung and sails split — covered three thousand leagues of open sea." Meares also refers to this remarkable feat.

Apparently when Martinez wrote, the natives were still using bow and arrow "to hunt all kinds of birds."

Martinez complains of swarms of rats (*Rattus norvegicus*) on board, so may have assisted in their introduction to Vancouver Island.

Martinez concludes:

"This diary is copied literally from one written during my voyage and stay at San Lorenzo de Nuca."

ALEXANDRO MALASPINA

This expedition accomplished considerable exploration in The Area, but for over a century no account of the results was published, another instance of the secrecy regarding the Spanish Expeditions in North America.

In 1885 a full account was published in Madrid by Don Pedro de Novo y Colson, a Lieutenant in the Spanish Royal Navy and Correspondent of the Royal Academy of History. This was translated in 1934 into English by Carl Robinson of Vancouver, B.C. The title being:

"Politico-Scientific voyage round the world by the corvettes, *Descubierta* and *Atravida*, under the command of Naval Captains Don Alexandro Malaspina and Don Jose de Bustemente y Guerra. From 1789-1794."

Wagner in his review states that "A great mass of material relating to this voyage still remains unpublished."

The first publication of a description of the voyage to the northwest coast is found in "Examen historico critico de los visjes y descubzimientos apocrifos del Capitan Lorenzo Ferrer Maldonado de Juan de Fuca y del Almirante Bartoleme de Jonte." This memoir was begun by Martin Fernandez de Navare and concluded, after his death, by his son. It was published in 1849 and is in the collection de Documentos Ineditos para la Historia de Espana.

There is also a collection of Malaspina's letters, translated by W. J. Morse of Boston, U.S.A., but the only one that has even a very indirect reference to birdlife is that by Count Revillagigade "the presence of many naturalists on board with circumstances rendered their presence almost useless." Rather at variance with the statement by Malaspina of 70 cases of specimens that were sent to Madrid and also de Suria's (apparently) numerous illustrations.

Reading the Introduction makes it evident that the translator Colson had considerable knowledge of the places visited by the Expedition and their avifauna, also he points out, the expedition was well supplied with scientists. "The naturalists will have a most essential part in dealing with the local observations but always avoiding those excessive descriptions which pertain rather to the scientific study of Natural History and for that reason should form a separate work." A rather peculiar statement which seems at variance with previous instructions and not borne out by the work that must have been entailed in providing the 70 cases of specimens he later says were sent back to the Academy in Madrid.

Two botanists, Dr. Tadoe Heenke and Luis Nee, with, as chief naturalist, Dr. Antonio Pineda, who died during the voyage, were assigned to study the natural history. [The name of Tomas de Suria

does not appear owing to his joining the Expedition later.] To form an idea of the extent of these studies it is sufficient to say that the Treatise on the Natural History fills 5 volumes of 500 pages, with nearly 40 maps and sketches. To compose and write them, the principal author "had as a guide a plan of instruction that the celebrated naturalist of Modena, Lazaro Spallanzani had sent to Malaspina."

The ship's library contained many scientific works including some on natural history; as well, there were painters and dissectors who were to "preserve, each in his own way, the more rare objects of nature" and "that the plan found in Cook and la Perouse formed the basis for the scientific portion."

Further on "others [of the personnel] at the same time charged themselves with hunting and fishing. Handsome rewards were given to the natives who presented something useful for the collectors or for study. We were thus able to send some seventy cases to the Royal Museum at Madrid with these collections."

Pineda was apparently the leading spirit with the scientists but "If only fate had permitted us to bring Pineda back safely to his country! . . . We shall not defraud his memory of the least detail in the present recompilation of the voyage, in time to come, his zoological discovers . . . being published with all detail, the nation will know the loss it has suffered."

The foregoing would appear to have been taken from a Preface to Malaspina's Journal, but edited and added to by Lieutenant Colson; at times it is difficult to decide where Malaspina ends and Colson begins.

The voyage to North America commenced on 23rd June, 1791, and on the 26th June, in the neighbourhood of Cape Fairweather, the Journal records "Many flocks of curlews flew around us." The probability was that any large wader with a long beak was called a Curlew, the Long-billed (*Numenius americanus*) would not be found there. The likely bird was the Whimbrel (*Numenius phaeopus*). The Spanish name is Corlito, evidently from the birds call.

On 7th July, 1791 at Cape Suckling, latitude 59° approximately near Kay Island. "Very few pardelas, at some distance from the coast, they left immediately we returned to the coast and in their place appeared other species of bird."

In an appendix:

"In the few places, immediate to the shore, free from patches

and broken fragments of ice, there is an abundant flowery vegetation. Nesting in the neighbourhood and taking advantage of this respite from the cold are various partridges or other species of birds." This was in the Prince William Sound area and might refer to the Ruffed Grouse (*B. umbellus*).

These are all the entries directly relating to birds seen; doubtless, Malaspina left this department to the naturalists.

Sometimes it looked as though Malaspina allowed his imagination to run away as when he described a bank on the shore formed of "an infinity of egg shells of sea birds which only lay their eggs on the sea and these appear to be brought by the current from the north and they are in such great numbers that they make a wall of one vara (835 m.m.) in height and eight hand breadths in width. [Clam shells in a midden?] The same locality provided good hunting with partridges somewhat different from those of Spain." Probably the Ruffed rouse (*B. umbellus*) though Malaspina appears to have realized the mistake in calling the birds Partridges.

In an appendix there is a monthly summary of the weather during the year and a half spent at Nootka, which suggests that conditions were much the same as today.

Other interesting items are: Malaspina's estimation of the Indian population at Nootka at 4,000. He also refers to an invasion of mice [on the ship] which destroyed the food stuff [these must have been brought in the ship] and gives a description of "wooden masks with figure of young eagle or parrot in front." [Parrot one of the Alcids, probably a Puffin (*Lunda cirrhata*).]

TOMAS DE SURIA

Tomas de Suria was the official artist with the Malaspina Expedition for, roughly, the last two years, taking the place of two others who had been with the Expedition from the start. He was a resident of Mexico.

Details are from the article Pacific Historical Review (Vol. V, No. 3, September, 1936) by Henry R. Wagner, is entitled "Journal of Tomas de Suria of his voyage with Malaspina to the Northwest Coast of America in 1791" and has already been mentioned.

29th April, de Suria states that he had drawn birds, which were to be sent to Spain.

In the Introduction to his account of his travels Malaspina refers to de Suria:

"In the six months during which we were on the northwest coast of America, we were accompanied by the painter, Tomas Suria of the Mexican Academy," and that "after the return of the Expedition he went back to Mexico City and spent eight months putting his pictures in order."

These pictures are either non-existent or buried in the Madrid archives.

In a letter to the Spanish Admiralty (19th January, 1791), Malaspina described him as "clever in engraving and painting."

All further that is known is that he spent the rest of his life in Mexico City.

JAMES COLNETT

The following information is contained in a personal letter from Mr. Willard Ireland, head of The British Columbia Archives, Victoria, B.C.

"James Colnett made several expeditions to the coast but as far as I know the only one for which there is any published account is the following edited by F. W. Howay and published by the Champlain Society in 1940 'Journal of Captain James Colnett aboard *Argonaut*, April 26th, 1789, to November 3rd, 1791'."

Mr. Ireland looked through the index very carefully and did not think there were any references to ornithology except on p. 52 covering the period, some few days before June 30th, 1789, when the Expedition was approaching the north-west coast of America, "We also saw several birds resembling the Port Egmont Hen, and many others suppos'd not to go far from land." The Port Egmont Hen is identified in a footnote as follows: "called the skua gull by Pennant, it is a fierce ravenous bird something like a hawk but larger. See Dixon's *Voyage* (London) 1789, p. 42."

This would be far too far north for the Skua (*Catharacta skua*), an Antarctic bird, a very rare visitor to The Area. The habits suggest Colnett confused the bird with the Giant Petrel (*Macronectes gigantea*) also a bird of the Southern hemisphere seldom found north of the Equator; the bird most probably was the Short-tailed Albatross

(*Diomedia albatrus*). Newton Dictionary (1896) indentifies the Southern Great Skua, named by sailors, on the Cook Expedition, from the Falkland Islands.

MANUEL QUIMPER

The title of the account of the Expedition gives the details:

"Diary of the voyage which the ensign of the Royal Armada, Don Manuel Quimper is with the favour of Our Lord about to undertake in the sloop under his command, the *Princess Real*, of four cannon and eight swivel guns from the Puerto de Santa Cruz de Noca in lat. 49.35 N. to the Straits of Juan de Fuca, which is in the latitude of 48.20 and in the longitude of 19.30 from the stated meridian."

The *Princess Real* sailed from Nootka, 30th May, 1790, with forty-one of a crew.

There is little about the birdlife in Quimper's Journal. However, in Eliza's account of his voyage, appears the statement that Quimper had written a full account of all the animals that Eliza had seen. This must have disappeared, as Quimper's few notes would not justify such a statement.

15th July mentions bartering venison for ducks from natives.

At Puerto Quadra (Port Discovery, now Port Townsend, Washington), Quimper, in a general description of the Strait of Juan de Fuca mentions, "Geese, Cranes and three kinds of Ducks" and shortly afterwards at Bahia de Nunez Savona [Neah Bay, Washington] he says "The productions are like those of the preceding places Except——— as for birds, the marine ones not being the same."

["Not" in the last paragraph suggests a mistake, the two places are only a few miles apart and the marine avifauna would not differ except that Neah Bay is nearer the entrance to the Strait and has more cliffs.]

19th June: There is a reference to "many high poles with some props at the bottom" which he took to be buoys, but actually would have been poles to carry nets for catching duck; these, or similar ones are later described by Vancouver and Menzies. He states that only three kinds of ducks were seen, which sounds a poor count especially if each sex might have been counted as distinct.

July 15th when in the Gulf of Georgia there is mention of Indians

bringing them "a great number of ducks" and also that they brought 3 large sea otters [*Enhydra lutris*] just caught in the interior of the Strait. They said they were very abundant. [None there for years now.]

25th July: "the Indians brought a great number of ducks."

In his general description of the Strait of Juan de Fuca, he remarks "there were to be seen uncommonly large partridges and quail and other unknown kinds of little birds feeding on the seeds of pine and other trees." Size and connection with pines suggests the Blue Grouse (*Dendragapus obscurus*) but it is almost certain that he did not see any Quail; the name is sometimes applied to the Ruffed Grouse (*B. umbellus*) which certainly would have been present. The unknown little birds may have been Crossbills (*Loxia curvirostra*).

JACINTO CAAMINO

Jacinto Caamino headed two expeditions to explore the Northern Pacific; the first sailed from San Blas in April, 1790 and the second two years later when he commanded the *Aranzazu* and had with him as Naturalist, Jose Maria Malinado a surgeon and anatomist.

The material for this chapter is from the translation by Captain Harold Grenfell, a reprint from the B.C. Historical Quarterly, July, 1938, and the "Translation of Official documents relating to Spanish and Mexican Voyages of Navigation, Exploration and Discovery, made in North America the 18th Century," by Mary Elizabeth Daylton, Works Progress Administration Project No. 2799, Seattle, Wash. The translations do not always agree in the names of birds seen.

1790 EXPEDITION

No scientists accompanied the Expedition and the only reference to the birdlife appears at the end of Caamino's log under "An account of Vegetation and Classes of every Species which is known," under the part "Flying Animals," annotated by C. F. Newcombe of Victoria, B.C.

"During our sojourn we saw eagles with white heads and white tail feathers, all the rest of their body being black, a great number of crows, Sparrow Hawks, geese, sea gulls, ducks of several species, wild pigeons, cranes, blackbirds or thrushes, and some tiny birds, even smaller than sparrows which sang quite well."

As the word "sojourn" is used, it would look as though the list referred only to Nootka where the Expedition stayed from July, 1790 to March, 1791.

When the name "Sparrow Hawk" is used, particularly in English translations, it is doubtful as to the species indicated. In England it would refer to *Accipiter nisus*, a bird whose counterpart in North America would be the Sharp-shinned Hawk (*Accipiter striatus*) and not so likely a bird to be seen, as the American so-called Sparrow Hawk (*F. spaverius*) which frequents open places (today, telegraph poles), and which would often have been seen and is doubtless the bird indicated here and elsewhere.

Why Blackbirds (*Agelaius phoeniceus*) are coupled with so different a species as the Song Thrush (*Turdus ericitorum*) is difficult to follow. Possibly it is a misprint for "and." The Song Thrush (*Turdus ericetorum*) would not be seen; might refer to one of the *Hylocichla* (in summer only).

The tiny birds were perhaps the Winter Wren (*Troglodytes troglodytes*).

1792 EXPEDITION

The Expedition left Nootka on 13th June, 1792, entered Bahia Bucareli at midnight of June 24th and anchored in Puerto San Antonio.

"The botanist Maldinado found the following birds: Falcon Hawks, Sea Petrels, Costal Petrels, Terns, Sea gulls, Woodpeckers of a new species, Scolopoides, Herons and Crows." [This list must have been made between June 28 and July 8, 1792 at Bucareli Bay.]

The Falcon would be the Peregrine (*Falco peregrinus*). Sea Petrels could be either or both the Fork-tailed (*Oceanodroma furcata*) or Leach's (*O. leucorhoa*). Costal petrels is a name sometimes applied to small Sandpipers. Newcombe interprets Scolopoides as Oystercatchers (*Haematopus bachmani*). [See also Thomson A.L. (Ed.) 1964—New Dict. Birds.]

Caamino has notes on the weather, which in August appears to have been generally bad, even for these parts. "It has continued to rain all the month." October, "Winds and incessant rain." It should be added this does not always agree with the verdict of early explorers.

The record of this second voyage contains references to the use of feathers by the Indians in their ceremonial dances, and that one of the chiefs "visited the ship with a retinue of over 40 who were well covered with feathers." This probably refers to their garments.

Feathers would seem to have had some mystic meaning: "On a visit to a chief — an Indian came and sat at my feet and from a small bag of pine bark — full of feathers took out a goodly portion and began to blow so that the feathers would fall on me and those near me."

Caamino describes the coast from Bucarely (Queen Charlotte Islands) to Nootka, the northern part of the Queen Charlotte Islands and of the Mainland as far north as Cook River, but has no notes on the birdlife.

Spanish	*English*
Alcones esperverio	Sparrow Hawks
Procelarias pelagica	[Stormy petrels?]
Ym litoral	[Sandpipers?]
Esternas	Oyster catchers
Gaviotas	Gulls
Carpinteros especie nueva	Woodpeckers — a new variety
Escolopax	Snipes
Caradrios	Linnets
Cuervos	Crows

Spanish from Diaro del ano de 1792 [typewritten transcript] part 2, p. 10. English translation by Harold Grenfell, p. 209.

As no linnets are found on the North American Continent except as the name is applied to the House Finch (*Carpodacus mexicanus*), the small brownish bird could be the Pine Siskin (*Spinus pinus*). Newcombe identifies birds seen at Bucarely Harbour, Prince of Wales Island as *P. pelagicus*, the Stormy Petrel (*O. furcata*), and *P. litorel* as representing "Sandpipers."

DON JOSEPH MOZINO SUAREZ de FIGUARO
(Sutil and Mexicana Expedition)

This Expedition, consisting of the two ships bearing these names and commanded by Cayatano Valdez and Diomisio Alcata Valdez, sailed from Nootka in the spring of 1792.

The account of the voyage was first published in Madrid in 1802 by The Royal Printing House — "Relacon del viage hecho for les Goletas Sutil y Mexicana in elano de 1792 para reconocer el Estracho de Fuca." Translated into English by Cecil Janes in 1930. There is another translation by H. J. Priestly.

This was an exploring expedition to the (present) Gulf of Georgia continuing the work of Eliza in that region. Geographically it will be connected with the Spanish names given to islands, etc. in the Gulf (Valdez, Texada, Quadra, etc.) which have survived to the present day. When in the Gulf they joined up with Captain Vancouver but did not accompany him when he sailed north round Vancouver Island.

In the account of the voyage it is stated that "matters outside the more serious objects of the voyage were left to our countryman Mozino as the source of knowledge and information." However there are some notes on birdlife which most likely were provided by Mozino as some appear in his Noticias de Nutka.

There is a vocabulary added (vocabularies from the same place often differ), including the names of a few birds, and it is interesting to see the connection between the call and the name: Coog-xi-ne for raven, but shorter first syllable for crow, Ca-e-ne; shorter still in the gull, co-ne; the sparrow, Quit-chip, which is a very good imitation of the alarm note of the Song Sparrow (*Melospiza melodia*).

In the description of Nootka: "The land birds . . . . are sparrows with a curved beak, woodpeckers, canaries, grey pigeons, herons, eagles with white heads and necks, crows, and hummingbirds. The aquatic birds are not numerous and there are found only some fresh and salt water ducks, diving birds, curlew and gulls." This list is the same as appears in Mozino's Articles and no doubt was, as other observations, taken from his notes.

No sparrow has a "curved" beak (Spanish — Gorriones de pico curvo). Perhaps it was the Bewick Wren (*Thryomanes bewicki*); any brown bird would be liable to be described as a "sparrow." The Canaries could have been Goldfinches (*Spinus tristis*) or in summer Yellow Warblers (*Dendroica petechia*); grey pigeons, the Band-tailed (*C. fasciata*). Curlew probably the Whimbrel (*Numenius phaeopus*).

At the harbour of Cordoba (Esquimalt, B.C.) on 9th and 10th June, 1792: "Birds were also rather more plentiful. There were special species of gulls, ducks, kingfishers and other birds."

Regarding the natives: "They are fond of the flesh of geese, ducks and other aquatic birds, but it could not be discovered if they employed the flesh of eagles or whether they hunted them solely for the sake of their feathers." There are notes in other narratives of Eagles providing a meal and palatable.

There is also mention of the veneration of the eagle and its effigy.

"Tetacus (Indian) had taken pencil and among other drawings, drew with accuracy eagle flying. Had a very large head and two horns on it." This would apparently be the Horned Owl (*Bubo virginianus*); it is generally the Eagle (*H. leucocephalus*) that is referred to in the myth of carrying a whale.

In June, at the Queen Charlotte Islands there is mention of the absence of birds and their songs. Also, as in Mozino's Articles, of gulls floating down on the tide; with a fuller description of the [Yucalta] Rapids than in Mozino's account: ". . . [we] . . . reckoned the rate [of the tide] at 12 m.p.h. The aspect is a most strange and picturesque one. The waters look like a race from a waterfall, and on them great numbers of fish are constantly jumping. Flocks of seagulls settle on the surface of the entrance of the channel, and after allowing themselves to be carried to its end by the rapid course, fly back to their original position. This not only amused us, but also afforded us a means to guage in some measure the velocity of the current."

This incident is mentioned in Mozino Noticias da Nutka and also by Pantoja. The gulls would be looking for scraps of food brought by the current and probably the Mew (*L. canus*) and Bonaparte (*L. philadelphia*).

The observations close on a very human note: "of the insects the most troublesome are the mosquitos"; also that "rats from European vessels were causing much damage." [Nootka.] The Expedition was back at Nootka on 1st September, 1792.

— — — — — — — — — — —

Don Joseph Mozino Suarez de Figaro was sent as naturalist to join the Sutil and Mexicana Expedition in the exploration of the Gulf of Georgia.

After Mozino's arrival at Nootka it was some four months before the Expedition left, during which time he apparently did some exploring in the neighbourhood and left an interesting account of Nootka, the place and conditions there.

The account of his experiences are found in twelve Articles entitled:

NOTICIAS DE NUTKA

"Of its discovery; situation and natural productions; besides the customs of its inhabitants; government; tribes; chronology; lan-

guage; music; poetry; fishing; hunting; and trade in skins; with the relation of the voyages made by the Europeans, especially the Spanish; and of the convention arranged between them and the English. Added to this, a Dictionary of the language of the Nutkas illustrated with copper-plates [non-existent], by Don Joseph Mariano Mozino Suarez de Figueroa, scientist of the Royal Expedition of New Spain and of the northern limits of California in the year 1793." Translated into English by Ninian Bain, Vancouver, B.C., 1926.

According to Mozino, the Spaniard's name for Nootka was Island of Mazarre "on the East coast lies the harbour of Nutka." As the result of his stay there, he gives a most interesting account of the place and general conditions. He also provided the bird notes appearing in the general narrative of the Expedition.

"In the little climbing I did [at Nootka], I noticed the birds were very scarce. I saw one Carpenter; two Humming birds and the same number of alandes. The others inhabit the shores of the sea from which they draw their subsistence, and even there the species are not many, nor are the individuals abundant of the few there are: The Heron, Crow, Gull, etc."

Carpenter is a Spanish name for woodpecker, probably the Flicker (*Colaptes cafer*). Mozino fell into the common error of assuming the male and female Rufous Hummingbird (*Selasphorus rufus*) as being two species. It is understandable that few birds would be seen when climbing in, presumably, a dense forest.

Mozino gives a general description of the difficulties encountered in getting about: "Only sandy shores of little extent, are found, everywhere brambles, thickets, precipices, large rocks heaped up in disorder covered with pines and cypresses." A description that could be applied to most of the coast and points to the reason why so few exploratory expeditions inland were attempted.

Mozino's list of birds are identical with that appearing in the Narrative of the Sutil and Mexicana Expedition, but as Mozino's entries are dated earlier, August, 1792, probably the other was a copy.

In June of the same year, during their passage through the islands [at the north end of the Gulf of Georgia] he noted the scarcity of birdlife and "misses the pleasure of the song." He also describes actions of the "flocks of gulls floating down the rapids," previously described in the Sutil and Mexicana narrative.

In another of his Articles, Mozino records some interesting

observations showing how birds entered into the life of the natives. "On gala days they throw over the hair many small white feathers which they pluck from Eagles and Herons." "They use the quills of Eagles feathers in war dances." [This would be the Bald Eagle (*H. leucocephalus*), of which he stated elsewhere of it being tamed, and kept to supply these feathers.]

Of food "they like gulls and other aquatic birds, but I have not been able to learn if they make the same use of the Eagle or hunt it only for its feathers."

In religious ceremonies "they scatter feathers to the wind."

"In their dances [they] disguise themselves with wooden masks representing on an enormous scale, the figures of aquatic birds whose movements they try to imitate and also those of the hunter who lies in wait for them."

Article VI he points out: "Hunting provides them with land animals and aquatic birds and that for this purpose they now make use of the gun entirely, and it is very clear that it has replaced the former use of the arrow to their great advantage." [One cannot help doubting this, as it was only during the previous few years, that it could have been possible to acquire guns; not until Europeans would have reached Vancouver Island.]

Chapter VII

English Explorers

JAMES COOK

The Cook Expedition provided the first English descriptions of the Northern Pacific, including the birds of The Area and to Captain James Cook must always belong the credit of being the first to plant his country's flag in what became British North America.

Captain James Cook was born in October, 1728 in Yorkshire, England, in humble circumstances, and it was entirely his own endeavours and innate merit that led up to his brilliant career. In 1755 he joined the Royal Navy, and within ten years was engaged in the survey of the coast of Newfoundland and Labrador. He was next in charge of an expedition to the South Pacific, during which, among other things, he circumnavigated New Zealand and charted the east coast of Australia. This expedition covered four years. Immediately upon his return he was placed in command of an expedition to determine the existence of a supposed continent in the South Pacific. On this voyage he covered more than 20,000 leagues and was absent a thousand days. On his return, Cook was raised to the rank of post-captain and elected a member of the Royal Society by whom he was awarded the Copley Medal, given for the most outstanding paper of the year to come before the Society.

Though Captain Cook had earned a rest for the remainder of his life, he volunteered his services with the contemplated expedition for further exploration in the Pacific, to enquire into the possible existence of the North-west Passage and, generally, to examine into the existence of land on the American side with, of course, the ultimate object of adding to the British Empire. At this time it was not known for certain whether there was a land bridge between the two continents or whether Northern Alaska and the Spanish possessions far to the south were parts of the same continent.

The Expedition sailed on the 25th of June, 1775, the vessels being H.M.S. *Resolution* and *Discovery*. The Cape of Good Hope, Tasmania, New Zealand and islands in the South Pacific were visited before, on

the 7th March, 1778, in Latitude 44° 55, "the long looked for coast of New Albion was seen."

After sighting the North American coast, the expedition worked north and entered the Strait of Juan de Fuca, which, as indicated by his name Cape Flattery, Cook did not consider led anywhere and so he continued north along the west coast of Vancouver Island to Nootka; there he took possession on behalf of Great Britain, actually with the idea that this was a part of the main continental mass. A stay of some weeks was made at Nootka to refit, and then the expedition proceeded north to Sandwich Sound, now Prince William Sound, exploring and mapping. Cook Inlet and Cook River, where some time was spent, are places in these northern waters, that perpetuate Cook's name; others were named after dignitaries in England or members of his staff. It is evident that Cook explored Cook Inlet with the hope that, at last, the legendary north-west passage had been found. When recognizing his mistake he continued along the Alaskan Peninsula with a stop at Unalaska.

Passing through Bering Straits, Captain Cook pushed forward as far as ice conditions permitted, at Latitude 70.41° N. After giving up he headed for the Hawaiian Islands for the winter, preparatory to a second try. It was while there he met his untimely death on 14th February, 1779.

After Cook's death, Captain James Clerke took over the command and, in the following summer, made another attempt but was not able to get as far north as Cook had done.

Captain Clerke, who had been a sick man throughout this voyage, finally succumbed as the ships were approaching Kamchatka on their return. He was succeeded by Captain King (compiler of the third volume of the Narrative) who brought the Expedition back to England the following October. As King survived the return only four years the Expedition cost the lives of all its commanders, as well as that of Dr. Anderson, the naturalist, all at the height of their careers. The enormous extent of the work done by the Expedition in exploration charting, etc., may not appeal so much to the present generation, which thinks in terms of flying time, but today, even with all modern facilities, such undertakings would be a major operation and were accomplished by an Expedition in sailing vessels little larger than some modern fishing boats. Captain Cook must have had a wonderful crew, and there is no doubt he was a wonderful commander; on his voyage

he never lost a man from scurvy, the scourge of early explorers.

The attention of the world was drawn to his undertaking and the narrative soon became a classic. Possibly no work of its kind has ever been produced in so many editions, including French, Italian, Spanish and Dutch.

The lengthy title page of the Official Edition, when boiled down, amounts to: "An account of a voyage to the North Pacific Ocean undertaken for making discoveries in the Northern Hemisphere to determine the Position and Extent of the West side of North America; its distance from Asia and the Practicability of a Northern Passage to Europe." The Narrative was divided into six books each, more or less, representing the different areas visited, and was issued in three volumes of which the first two were written by Captain Cook and the third by Captain King, L.L.F., F.R.S., the successor as leader to Captain Clerke.

Though the introduction states that Captain King wrote the third volume, what this infers is not clear; no diary or other record of his is in existence today, and he must have depended for much of his information, outside of his own knowledge, on the observations of other members of the Expedition, especially W. W. Ellis, who took over after Dr. William Anderson, the Official Naturalist, became incapacitated by the illness, to which he later succumbed.

In the Introduction it is stated that "Captain Cook's Journal is enriched with considerable communications from William Anderson, the official naturalist, and instructions were to make full use of these which were to be distinguished." Presumably the intention was, that the names of discoveries of new and unknown birds should be stated; if so Anderson does not appear to have observed these instructions, at least in the first two volumes, and the third, which should have covered the period spent in The Area, has disappeared. Probably Dr. Anderson was responsible for the notes on birdlife in Cook's Journal until his illness put a stop to further observations.

The Introduction to the Narrative was not written by Captain King, probably by Dr. John Douglas, Bishop of Carlisle, who had edited the Narratives covering earlier voyages. Neither Cook nor King give many sources of information. Acknowledgments were not in fashion then, perhaps a better state of affairs than today when they sometimes seem redundant. Who did the editing does not appear on the title page or elsewhere.

Captain King also had much to do with the first four books of the narrative, representing Cook's Diary, and as it is stated in the Introduction that these were "submitted" to him and so may have suffered changes at his hands.

At the end of Book IV there is a footnote "That here Captain Cook's Diary ends." This was some time before his death. From there on the Narrative must have been that of Captain King with help from other members of the staff.

Set out in the Introduction are the secret instructions given by the Earl of Sandwich, head of the British Admiralty:

"You are to carefully observe the soil and the products thereof; the animals and fowls that inhabit or frequent it, and in case there are any peculiar to such places, to describe them as minutely, and to make accurate drawings of them as you can."

There was delay in the issue of the Official Edition and, in the meantime, W. W. Ellis published his Narrative and Dr. William George Anderson's account of all of Captain Cook's voyages had appeared in Hawkesworth's Voyages.

From the ornithological view, the most important result of the Cook Expedition was the introduction to science of new species of birds found at the different places visited, and it is fortunate the Expedition arrived back soon enough for the inclusion of these novelties in the two works then in the process of publication, Pennant's *Arctic Zoology* and Latham's *Synopsis of Birds* and, later, his *History of Birds*, each of whom gave these novelties an English name generally pointing to some particular feature of the described bird. These works will be referred to respectively, as Pennant's A.Z., and Latham's Syn. and/or Hist.

Another ornithologist who took advantage of these discoveries was J. F. Gmelin (1748-1804) in his revision of the thirteenth edition of Linnaeus' *Systema Naturae* in which he gave scientific names to these discoveries and thereby, as pointed out by Dr. Erwin Stresemann (referred to as E.S.) in "Birds collected in the North Pacific Area during Captain James Cook's last voyage (1776-1779)" "thereby getting credit for providing the first description of birds Gmelin had never seen." (Ibis 91, no. 2 (1949), p. 244). Some of these names are still in use. Later Dr. E. Stresemann added further notes and corrections, Ibis (1953) Vol. 95, p. 371 and Auk (1950) Vol. 57, p. 661. In these articles Dr. Stresemann allocates the birds to the

places where collected or recorded from. There are also lengthy discussions on identity and taxonomy, the latter, unfortunately too long to set out; his notes also bring into discussion the Ellis paintings (see later).

The history of the bird specimens brought back is unfortunate. Some passed into the collections of Sir Joseph Banks, who had been with Cook on a previous voyage. Others went to Sir Ashton Lever's famous "Museum Leverian" in Leicester Square, London. The Banksian collection was bequeathed to the British Museum, but none of the specimens remain in existence today; the contents of the Leverian Museum were disposed of in 1785, through a lottery won by James Parkinson, who exhibited the collection until 1806 when it was disposed of by public auction and the specimens were dispersed, many going to the Vienna Museum. A list of these was published by Pelezin, the Curator of the Museum, "Birds in the Imperial collection of Vienna obtained from Leverian Museum" — Ibis (1873), Vol. III, p. 14. At the time of Pelezin's article, several specimens were in existence, but now, after another ninety years, few are left; one in Vienna is the type specimen of the Marbled Murrelet (*Brachyramphus marmorata*). There are still others in the Berlin Museum.

Captain Cook was not a naturalist, but on all his voyages he had on his staff one or more persons well qualified to act in this capacity. On his last voyage the official naturalist, Dr. William Anderson, had been with him on a previous voyage, and, as artists, W. W. Ellis and J. W. Webber. Anderson was incapacitated by illness and after his death, Ellis provided valuable observations on the birds, he and Webber coloured illustrations of specimens. Cook's log-book contains few references to birds seen and are of very general nature. Evidently he left this branch of investigation to the qualified members of his staff.

During the time the Expedition was putting in the winter and exploring the South Sea Island, there are some observations on birds that winter there, but nest within The Area. At Christmas Island and again at the Sandwich Isles "the torata a sort of whimbrel known by this name at Otaheite." Another record from Christmas Island is of a Golden Plover, illustrated on Plate 66 of the Ellis paintings which, unquestionably represents the Asiatic race — *Pluvialis dominica fulva*. Ellis shows the distinguishing markings, moreover the nominate race does not occur there its migration route being confined, more or

less, to the Atlantic coast of North America in the Fall and Central North America in Spring (A.O.U.).

Just before the North American continent was reached at Latitude 44.29° N. Longitude 288° E. (outside The Area), there are some general observations on the birdlife which do not appear in Cook's Diary, so, presumably, were added by Captain King, a presumption that may apply to other notes.

After leaving their wintering quarters in the Southern Island, for Avatcha Bay, Kamchatka, on 21st April, the first signs of approaching land were observed. "Large flocks of wildfowl resembling ducks." The Bay was reached on 28th April but it was not until the 20th June that the Expedition set sail for the North.

When at Avatcha Bay an excursion was made to the north, outside The Area, which provided an insight to the general avifauna of Kamchatka including mention of the swarms of wildfowl seen.

There is a note on the birds noticed during the voyage to Kamchatka which does not appear in Captain Cook's Diary and therefore must be attributed to Captain King. It is dated March but reads as though intended as a general observation covering birds seen North of the Equator.

"Our seeing so few birds, in comparison of what we met with in the same latitudes to the south of the line is another singular circumstance, which must either proceed from a scarcity of the different sorts, or from a deficiency of places to rest upon. From hence we may conclude, that beyond 40° in the Southern Hemisphere, the species are much more numerous, and the isles where they inhabit also more plentifully scattered about, than anywhere betwen the coast of California and Japan."

"Among the oceanic tribe Albatrosses such as are seen in the high Southern latitudes, but never between the tropics, at least neither have seen nor heard of one being there. And yet it should seem that they do sometimes cross those limits, if not how came they into the two hemispheres? On the other hand, if they cross the line in the Pacific Ocean why should they not do it in the Atlantic? They are numerous in the Southern Atlantic Ocean, but one was never seen in the Northern."

"On the same day two large birds on the water near the ship. One of these was the *Procellaria maxima* and the other, which was a little more than half the size, seemed to be of the Albatross kind — the

upper part of the wings and tip of the tail were black, with the rest white, the bill yellowish. Upon the whole not unlike the seagull though larger."

Captain King would not appear to have recognized that Albatrosses in the Northern Pacific could be different species from those of the South Pacific; the species found north are the Short-tailed (*Diomedea albatrus*) and the Black-footed (*D. nigripes*), with a possible third, the Laysan (*D. immutabilis*), more of an Asian bird and only rarely seen further east. As the adult *D. albatrus* bears some resemblance to species of *Diomedea* found in the South, possibly King mistook the bird seen for one of these; no description is given. In those days *D. albatrus* would have been comparatively common in The Area though now nearly extinct owing to persecution by Japanese feather hunters on its breeding ground.

In the last paragraph, King, somewhat similarly, mixed up north and south, "*Procellaria maxima*", the Giant Petrel (*Macronectes gigantea*) is a rarity north of the Equator, but in its light plumage phase, does bear some resemblance to *D. albatrus* and it is more likely that this was the bird seen and described under the name of Quebrantahuessos a coloquial name (Warham Biology, Auk, 1962, Vol. 79. p. 155–157). The smaller bird might have been the Western Gull (*Larus occidentalis*) which would have been numerous here and North into The Area; it has a very dark mantle.

The unfortunate result of the mistake about the Quebrantahuessos was that the two leading British ornithologists, Thomas Pennant (in the Zoological Supplement to A.Z.), and John Latham in Syn., included the Quebrantahuessos as found in the Northern Pacific; the latter going as far as stating it bred there. Both later realized the mistake, as the bird was not included in later editions.

The first reference to birdlife within The Area, when approaching Nootka, was not auspicious. "We scarcely saw a single duck"; nor when Nootka was reached, did matters improve much.

"Birds in general are not only rare as to the different species but very scarce as to numbers, and these are so shy that in all probability they are continually harassed by the natives, perhaps to eat them as food; certainly to get possession of their feathers, which they use as ornaments. Those which frequent the woods are crows and ravens, not at all different from our English ones; a bluish jay or magpie; common wrens, which are the only singing bird that we heard; the

Canadian or migrating thrush, and a considerable number of brown eagles with white heads and tails; which, though they seem principally to frequent the coast, come into the Sound in bad weather and perch upon the trees. Amongst some other birds, of which the natives either brought fragments or dried skins, we could distinguish a small species of hawk, a heron, and the alcyon or large-crested American kingfisher."

The Crow, North-western (*Corvus caurinus*). The Jay would be Steller's (*Cyanocitta stelleri*); but why "or magpie" as the birds are so entirely different? Moreover, *Pica pica* has never been recorded from the west coast of Vancouver Island [Munro and Cowan (1947), A Review of the Bird Fauna of British Columbia.] The Wren is identified by E.S. as a *Regulus,* but it is suggested it was the Winter Wren (*Troglodytes troglodytes*), which is Holarctic and would be readily recognized as the same seen in England; this identification is strengthened by mention of the song; the two members of genus *Regulus,* the Golden-crowned Kinglet (*R. satrapa*) and the Ruby-crowned (*R. calendula*), that could be there have sweet songs but not so noticeable or well known as *T. troglodytes.*

[Ellis, Pl. 74 illustrates the American Robin, (Canadian Thrush) (*Turdus migratorius*), with the Varied Thrush (*Ixoreus naevius*) on the same plate, from Nootka. The only Eagle to be found there would be the Bald (*Haliaeetus leucocephalus*).]

Continuing the remarks:

"The birds which frequent the waters and shores are not more numerous than the others. The Quebrantahuessos gulls and shags were seen off the coast; and the two last also frequent the Sound. They are of the common sorts; the shag being our cormorant or water crow." [Probably refers to the Pelagic, (*Phalacrocorax pelagicus*).]

"We saw two sorts of wild-ducks; one black with a white head [Surf Scoter (*Melanitta perspicillata*)], which were in considerable flocks; the other, white with a red bill, but of larger size [*Mergus merganser*]; and the great lumme, or diver [*Gavia immer*], found in our northern countries. There were also seen, once or twice, some swans flying across the Sound to the northward; but we knew nothing of their haunts. On the shore, besides the sandpiper described above [?], we found another, about the size of a lark, which bears a great affinity to the burre; and a plover differing very little from our common sea-lark."

"Burre" does not apear in the Oxford Dictionary, but "Purre" does, as being the local name for various species, including the Dunlin (*Erolia alpina*), represented by Ellis (Pl. 61), from St. George's Sound (Nootka). Sea-lark is a name for "smaller members of the *Limicolae*." (Newton Dict. 1896).

That the name sea-lark is still in use is evident from the lines in "In Wild England Today" by C. J. Cornish (1900) — "Listening the while, where on a head of stones — The white breast of the sea-lark twitters sweetly."

The description continues:

"There are also some, which, I believe are not mentioned, or at least vary, very considerably from the accounts given of them by any writers who have treated professionally on this part of natural history. The first two of these are species of woodpeckers. One less than a thrush, of a black colour above, with white spots on the wings, a crimson head, neck and breast, and a yellowish olive-coloured belly; from which last circumstances it might perhaps, not improperly, be called the yellow bellied woodpecker. The other is a larger, and a much more elegant bird, of a dusky colour on the upper part, richly waved with black, except about the head, the belly of a reddish cast, with round black spots; a black spot on the breast; and the underside of wings and tail of a plain scarlet colour, though blackish above, with a crimson streak running from an angle of the mouth, a little down the neck on each side. The third and fourth, are a small bird of the finch kind, about the size of a linnet, of dark dusky colour, whitish below, with a black head and neck and white bill; and a sandpiper of the size of a small pigeon, of a dusky brown colour and white below, except the throat and breast, with a broad band across the wings. There are also humming birds; which yet seem to differ from the numerous sorts of this delicate animal already known, unles they be a mere variety of the *Trochilus colubris* of *Linnaeus*. These, perhaps, inhabit to the Southward, and spread northward as a season advances; because we saw none at first, though, near the time of our departure the natives brought them to the ships in great numbers."

The woodpeckers are, obviously: the first (the race *Ruber*) of the Yellow-bellied Sapsucker (*Sphyrapicus varius*) Webber Pl. 13b, and the other the Red-shafted Flicker (*Colaptes cafer*), Ellis Pl. 19 and Webber Pl. 137. The finch-like bird must have been the Oregon Junco (*Junco oreganus*).

The Sandpiper could be the Black Turnstone (*Arenaria melanocephala*), as this bird shows white on the neck in flight, though white wing bands suggest the Surfbird (*Aphriza virgata*) which has white in the tail: in size and habitat they are similar and both would be found at Nootka, in winter and on migration, see Ellis paintings Pl. 60. *T. columbris* is the Ruby-throated Hummingbird which does not occur on Vancouver Island; the bird must have been the Rufous (*Selasphorus rufus*) which is illustrated by Ellis Pl. 32 from Nootka.

The last paragraph reads:

"The gulls were of the common sort and those which fly in flocks. The shags were large and black, with a white spot behind the wings as they flew. But probably on the large water cormorant. There was also a singly bird seen flying about, to appearance of the gull kind of a snowy white colour with black along part of the upper side of the wings."

The white patch is a mark of the breeding plumage of the Pelagic Cormorant (*Pelagicus*). A white gull suggests the Glaucous (*Larus hyperboreus*), but not the black on the wings. Possibly it was either a Herring (*L. argentatus*) or Thayer (*L. thayeri*) in faded plumage or Sabine (*Zema sabini*).

On the 4th of May in Latitude 58°.53' N., off the Alaskan Corridor:

"This day we saw many gulls and several flocks of birds which had a black ring about the head, the tip of the tail and upper part of the wings with a black band and the rest bluish above and white below. We also saw a brownish duck, with a black or deep blue head and neck, sitting upon the water."

The bird with the black ring on the head is suggestive of the Sabine Gull (*Xema sabini*) which migrates off shore. The black primaries could give the suggestion of the black band, it has black in the tail, and the head is also blackish. The duck does not conform to any species, but as the Expedition was approaching waters where the various Eiders would be found, perhaps it was one of them.

At Kayes Island, near Cape Hinchinbroke, now Kayak Island, on 11th May, latitude 59°.33', longitude 215°.56':

"We saw, flying about the wood, a crow, two or three of the white-headed eagles mentioned at Nootka; and another sort full as large which appeared also of the same colour, or blacker, and had only a white breast. In the passage from the ship to the shore we saw a great many fowls sitting upon the water, or flying about in flocks or pairs; the chief of which were a few quebrantahuessos, divers, ducks, large

petrels, gulls, snags, and burres. The divers were of two sorts, one very large, of a black colour with a white breast and belly. The other smaller with a longer and more pointed bill, which seemed to be the common Guillemot. The ducks were also of two sorts, one brownish with a black or deep blue head and neck, and is perhaps the stone duck described by Steller. The others fly in larger flocks, but are smaller than these, and are of a dirty black colour."

Under the same date he mentions two eagles seen near Cape Suckling.

[The Narrative credits the foregoing to Dr. William Anderson but the inclusion of the Quebrantahuessos must have been the responsibility of Captain King. The Crow the North-western (*C. caurinus*). There is no doubt some of the birds described as Crows were Ravens (*C. corax*) which would be quite common but not listed anywhere. The Eagle, the Bald (*H. leucocephalus*) in pre-adult plumage; were not realized. As no large petrel would be found there, the birds may have been Fulmars (*Fulmaris glacialis*), which would be numerous. The large diver suggests the Common Loon (*G. immer*), or Yellow-billed (*G. adamsi*), and the other, one of the Murres (*Uria*). Stone duck is a name for Steller's Eider (*Polysticta stelleri*). The flocks of dirty black ducks would be immature Scoters (Sp.).]

The Expedition was at Prince William Sound, originally named by Cook, Sandwich Sound, in honour of the Earl of Sandwich, for a week in May.

"Of the birds mentioned at Nootka, we found here only the white headed eagle, the shag, and alcyon or great kingfisher, which had very fine bright colours, and the hummingbird which came frequently and flew about the ship while at anchor; though it can scarcely live here in the winter, which must be very severe. The waterfowl were geese; a small sort of duck, almost like that mentiond at Kerguelen's Land; another sort which none of us knew; and some of the black seapyes, with red bills, which we found at Van Dieman's Land and New Zealandi. Some of the people who went on shore killed a grouse, a snipe and some plover. But, though upon the whole the waterfowl were pretty numerous, especially the ducks and geese, which frequented the shores, they were so shy, that it was scarcely possible to get within shot; so that we obtained a very small supply of them as refreshment. The duck mentioned above is as large as the common wild duck, of a deep black colour with short pointed tail and red feet.

The bill is white tinged with red toward the point, and has a large black spot, almost square, near its base, on each side, where it is also enlarged or distended. And on the forehead is a large triangular white spot, with one still larger on the back part of the neck. The female has much duller colours and none of the ornaments on the bill, except the black spots, which are obscure."

In mid-May, the geese would likely to have been migrating Black Brant (*Branta nigricans*). King omits the description of the Kerguelen duck, but which is found in Dr. W. G. Anderson's narrative, and reads as follows: "about the size of a teal or widgeon, but somewhat different in colour from either. They were in tolerable plenty about the sides of the hills or even lower, and we killed a considerable number which were good, and without the least fishy taste. We met with some of the same sort at the island of Georgia." Not very helpful, but it looks as though it was not a duck, perhaps one of the alcids (Puffin) there is no duck in The Area that has these nesting habits. Seapye being another name for the Oystercatcher; it would be the Black (*Haematopus bachmani*), which is not the same race as that found in Kerguelen.

Grouse is a very indefinite description on the American continent. Here it might indicate the Spruce Grouse (*Canachites canadensis*). Snipe could cover several varieties of small waders, though the Common Snipe (*Capella gallinago*) might be found even so far north (A.O.U.).

Accounts of the "bags" do not give the impression that the members of the Expedition were strong in their shooting. Some plover, perhaps a hot-shot, may have been Golden (*P. d. fulva*). The ducks unquestionably were an adult male and female Surf Scoter (*Melanitta perspicillata*).

"There is likewise a species of diver here which seems peculiar to the place. It is about the size of a partridge; has a short compressed bill; with the head and upper parts of the neck of a brown black, the rest of a deep brown, obscurely waved with black, except the underpart, which is entirely of a blackish cast, very minutely varied with white, the other (perhaps the female) is blacker above and whiter below. A small land bird of the finch kind, about the size of a yellow-hammer, was also found; but it was suspected to be one of those which change their colour, with the season, and with their migrations. At this time it was of dusky brown colour with reddish tail, and the supposed male had a large yellow spot on the crown of the head, with some varied

black on the upper part of the neck; but the last was on the breast of the female."

The diver was the Marbled Murrelet (*Brachyramphus marmoratum*) and may be the actual specimen that was in the Vienna Museum in 1954. The bird of the finch kind would be the Golden-crowned Sparrow (*Zonotrichia atricapilla*), illustrated by Ellis Pl. 81 and 82.

The first week of June was spent at Cook Inlet, but there are no notes on the birds from there. The next observation is dated 18th June when the ships were coasting along the Alaskan Peninsula:

"One of the people in the Discovery shot a very beautiful bird of the auk kind. It is somewhat less than a duck, and of a black colour except the fore part of the head, which is white; and from above and behind each eye arises an elegant yellowish-white crest, revolving backwards as a ram's horn. The bill and feet are red. It is perhaps, the *alca monochroa* of Steller, mentioned in the history of Kamchatka. I think the first of these birds was seen by us, a little to the southward of Cape St. Hermogenes. From that time, we generally saw some of them every day, and sometimes in large rocks. Besides these, we daily saw most of the other sea-birds, that are commonly found in other Northern oceans, such as gulls, shags, puffins, shearwaters, and sometimes ducks, geese and swans."

The bird of "auk kind" was undoubtedly the Tufted Puffin (*Lunda cirrhata*). The bird is resident all along the coast of The Area and also found in Kamchatka. As "Puffins" are also listed, these must have been a different species, most likely the Horned (*Fratercula corniculata*). The Shearwater might have been either the Sooty (*Puffinus griseus*) or the Slender-billed (*P. tenuirostris*).

Off St. Lawrence Island, 4th July: "We were accompanied by various kinds of Sea fowl, and saw several small crested hawks." ["Hawks" a misprint for "auks," probably *Aethia cristatella.*]

Bird notes are few during the next week or two; this may have been due to Dr. Anderson's illness; he died on the 3rd August. The last date in his Journal was 3rd June, and though Ellis was recording observations during this time, Captain King did not make use of them.

Cook's Diary 11th and 13th July mentions "large flocks of birds" at Cape Newenham.

Under 24th July: "Many sea otters and seals about the ship frequently leaping at the gulls, one of which was caught by an otter."

[This is the only time any of the Narratives record otters cap-

turing gulls. If the record is correct, the capture must have been by a seal, of which the Harp (*Phoca groenlandica*) is a general feeder, including vertebrates. The sea otter (*Enhydra lutris*) does not "leap" out of the water and its food consists of crustaceans. It would be difficult to be certain of what took place from a moving vessel and, probably, in a not too calm sea.]

2nd August the Diary mentions "two wild geese," evidently none had been seen recently; possibly these were White-fronted (*Anser albifrons*) which is the first of the family to migrate.

On 5th August on an island, latitude 64°.30', longitude 193°.57' (possibly King Island on Cook Map): "a few plovers and some other small birds were seen." [Plovers might be either Golden (*P. dominica*) or Black-bellied (*S. squatarola*), or might refer to the Surfbird (*Aphriza virgata*) or the Black Turnstone (*Arenaria melanocephala*).]

In Bering Sea (latitude 68°.18'): "Flights of sea birds something like sand larks and others no bigger than hedge sparrows — some shags also seen."

These would refer to small Sandpipers (Peeps). The smallest should be Least (*Erolia minutilla*), though difficult to distinguish in size from some others.

On 16th August the Diary notes "a great many small land birds."

These last notes are particularly interesting as they suggest the existence of a migratory route, when the two continents were joined by land. It could be that most of the birds nesting along the coastal strip of Northern Alaska, even into Canada, take this route, turning south on reaching the short crossing at Bering Straits, thus following this one-time land bridge.

The Expedition reached Icy Cape at 70°.41 the furthest point north on 29th August. when ice conditions forced Captain Cook to give up, but, as his Diary states, with the intention of trying again the following summer. The only bird notes in the Narrative for the time spent in these extreme northern waters is dated 19th August when near the American shore:

"For some days before we had frequently seen flocks of ducks flying to the southward. They were of two sorts, the one much larger than the other. The largest were of a brown colour, and, of the small sort, either the duck or drake was black and white, and the other brown. Some said they saw geese also. Does not this indicate that there must be land to the North, where these birds find shelter, in the

proper season, to breed, and from whence they were now returning to a warmer climate."

[The black and white ducks may have been Common Goldeneye (*Bucephala clangula*), and the large brown ducks Eiders, probably King (*Somateria spectabilis*) juveniles, females or males still in partial eclipse, this Eider would have been one of the commonest ducks.]

On the way south various stops were made, at Gore Island on Cook's Map, but now, apparently, Nunivak Island.

"There were a great many geese and bustards; but so shy that it was not possible to get within musket shot of them. We also met with some snipes and on the high ground were partridges of two kinds."

[Bustard, here and elsewhere, must not be read literally, but as a corrouption of the French outard, and was often applied to the Crane (*Grus canadensis*). Partridge, considering where the Expedition was at the time, was probably, one of the Ptarmigans (*Lagopus*) which at this date would be in varying stages of summer plumage and so may account for "two" kinds.]

The next note, 22nd September, appears in the account of the fauna and flora, and customs of the natives, etc. at the Russian settlement at Oonalaska.

"I think I may venture to assert that sea and water fowls are neither in such numbers, nor in such variety, as with us in the northern part of the Atlantic Ocean. There are some, however, here, that I do not remember to have seen anywhere else particularly the *alca monochroa* of Steller, before mentioned; and a black and white duck, which I conceive to be different from the stone-duck described by Krasheninikoff. Editor's note: Hist. of Kam. Eng. Trans. [1st Ed.] p. 160. All the other birds seen by us are mentioned by this author, except some that we met with near the ice; and most, if not all of these, are described by Martin in his voyage to Greenland. It is a little extraordinary, that penguins, which are common in many parts of the world, should not be found in this area. Albatrosses too are so very scarce that I cannot help thinking this is not their proper climate."

By this date both Albatrosses, Short-tailed (*D. albatrus*) and Black-footed (*D. nigripes*), would have left these northern waters.

"The few land birds that we met with are the same with those in Europe but there may be many others that we had no opportunity of knowing. A very beautiful bird was shot in the woods at Norton

Sound which, I am told, is sometimes found in England and known by the name of chatterer. Our people met with other small birds there, but in no great variety and abundance; such as the woodpecker, the bullfinch, the yellow finch, and a small bird called a tit-mouse."

These observations close with the following pertinent paragraph: "As our excursions and observations were confined wholly to the sea and coast, we could not know much of the animals or vegetables of the country." An observation that would apply not only to the Cook Expedition but, all were faced with the difficulties of an impenetrable forest or so rugged a shore that, if possible to land, exploration was limited to the shoreline.

Species seen at Oonalaska, that have not appeared before, are: The Chatterer, the Bohemian Waxwing (*Bombycilla garrula*); Woodpecker, possibly the Black-backed Three-toed (*Picoides arcticus*); Bullfinch (*Pyrrhula pyrrhula*), a very doubtful record, and, as suggested by Dr. Stresemann, in his notes already referred to, was probably an adult male Pine Grosbeak (*Pinicola enucleator*). The Yellow finch, possibly the Savannah Sparrow (*Passerculus sandwichensis*); the identity of the Titmouse will be discussed under Ellis Paintings No. 94. Stresemann adds, under Norton Sound, the Pacific Crow and the Grey Jay (*Perisoreus canadensis*), a bird not specifically mentioned in any Narratives and unlikely to be seen at sea-level. Apparently there was a specimen in the Leverian Museum. [Norton Sound is considerably north of its range, according to A.O.U.]

The second paragraph bears a strong resemblance to one in the Ellis Narrative at Cape Denbigh, and points to the probability that Ellis provided the basis for King's notes on birds, here and elsewhere.

At the end of the chapter there is a "List of animals found in Kamchatka communicated by Mr. Pennant" to which is added a footnote "That the birds mentioned in this part of the voyage are marked with a double asterisk." The list comprises 101 species, and, as in his Arctic Zoology is split up into Land Birds; Water Fowl; Cloven-footed Water Fowl with pinnated feet and with webbed Feet. Another footnote states "The birds which are not described by Linnaeus, are referred to the History of Birds, now publishing by Mr. Latham, Surgeon in Dartford, Kent." [England.]

The list gives the English names with their Linnaean synonyms but includes many species that never would be seen in Kamchatka, also the double asterisk was applied to only four species: Cinerous

eagle (*Falco ossifragus*); White-headed eagle (*leucocephalus*); Western duck; and Longtailed duck (*Anas glacialis*). The Western duck may have been the Harlequin (*H. histrionicus*). *F. ossifragus* would be Steller's Sea Eagle.

To close Vol. II there is the statement that "Here Captain Cook's Diary ends." Obviously this must have been added by Captain King when editing Captain Cook's earlier notes. Actually there is nothing to indicate that this particular part of the Narrative, Books V and VI, was not written by Captain Cook or to suggest they were the responsibility of Captain King.

Grateful as one must be for Captain King's editing and authorship, it has the disadvantage of saddling his conclusions on to Captain Cook, resulting in the latter appearing as responsible for the notes on the Quebrantahuessos, which raises the question, How far King's editing may have extended to other parts of the Narrative?

The Expedition, as in previous years, spent the winter in the South at the Hawaiian and Sandwich Islands, which had been discovered and named by Cook, and it was when there that Captain Cook was assassinated.

The Expedition, after the death of Captain Cook, was under the command of Captain Clerke and left its winter quarters the middle of March, 1779 reaching Avatcha Bay 20th of April. "During the three preceeding days large flocks of wildfowl of a species resembling ducks were seen, likewise Ravens, eagles and large flights of Greenland pigeons."

As neither ravens nor eagles are birds found far from land, the Expedition must have sailed along the coast of Kamchatka. According to Newton (op. cit) the Greenland Pigeon is the Black guillemot (*Uria grylle*) not found on the Pacific, though the very similar Pigeon Guillemot (*Cepphus columba*) is quite common. The name "Pigeon" must have been applied owing to the similar red colour of legs and feet and perhaps some similarity in flight when disturbed and flying out to sea. Raven was a name frequently applied to the cormorant.

On 30th April, a present of "some fowls of the grouse kind" was received from the Russians, probably Ptarmigan (*Lagopus*), as winter conditions still persisted. On the same day "Our sportsmen met with but bad success; for though the bay swarmed with flocks of ducks of various kinds, and Greenland pigeons, yet they were so shy that they could not come within shot of them."

Evidently Avatcha Bay was a resting place for the thousands of waterfowl on their way to their northern breeding grounds the wariness seems unaccountable as there is little mention of persecution by the natives. However, these were the days of the flint-lock and to get a shot meant a near approach.

The First entry from Kamchatka was headed Bay of Avatcha:

"Left of which an insular mountain of stone called Staritschkow after the name of bird that frequents it in great abundance. About the size of a pigeon, with bluish bill, and small feathers, of a bristling kind; head of purple colour having a circle of white feathers in the middle, which are thinner and longer than the rest. Its neck is black above, with white spots underneath. Body white, short, large feathers of wings, blackish and the rest of blue, its sides and tail black; its feet red and trebly indigitated with a webb between each, and its claws black. On little islands of Kamchatka they are found in vast numbers and caught by the Kamchadals also with great facility. Besides these birds also sea-parrots, mews and uriles the latter of which paid us a visit of curiosity and then disappeared."

The description of the first bird is nearly the same as in Steller and Kraschenimikoff, the Crested Auklet (*Aethia cristatella*).

A page or so later there is the observation that when feeding dogs it is necessary to stand by "to drive away the crows, which are not very shy in this country." [More likely Ravens (*Corvus corax*).]

On leaving the Bay of Avatcha 29th May, 1791 for Bering Island, on the way to the Aleutians:

"Many sorts of marine birds in great abundance, kept hovering around us and one of them, of the duck species, even lit on our vessel."

3rd June at Unalaska:

"Our hunters shot two woodcocks, besides finding a nest full of eggs which afforded us a comfortable supper. We did not observe many birds on shore but the few seen were chiefly white headed eagles and some small birds of the finch species with whose red feathers the Aleutians adorn themselves."

There would seem to be a rather indescriminate use of the names "Woodcocks" and "Grouse"; there can be no doubt but that here they were Grouse (*B. umbellus*); the large number of eggs confirms this, as a Woodcock (*Scolopax rusticola*) only lays 4 eggs. The small birds could be Crossbills (*Loxia curvirostra*) or Pine Grosbeaks (*Pinecola enucleator*).

22nd June, 1779: "The usual dead whale was passed and would appear to have been very dead, as it 'emitted a horrid stench, perceivable at upward of a league's distance it was covered with a great number of sea birds that were feeding on it'."

24th June: "We saw a great number of gulls and were witness to the disgusting mode of feeding of the Arctic gull, which has procured it the name of the parasite, and which if the reader is not already acquainted with it, he will find in the note below: [The note reads] 'The bird which is somewhat larger than the common gull, pursues the latter kind whenever it meets them the gull, after flying for sometime, with loud screams, and evident marks of great terror, drops its dung, which its pursuer immediately darts at, and catches it before it falls into the sea'." Later writers realized that it was a captured fish that was dropped. The comparison with the "common" gull, which here probably was one of the larger species, and not the Mew (*L. canus*) suggests the predator was the Pomarine Jaeger (*Stercroarius pomarinus*), though method of feeding could be applied to any one of the three species to be found there, in summer.

27th June, Latitude 62°.50. "During the last two days we saw numbers of whales, also gulls, sea parrots and albatrosses."

By 7th July further progress was stopped by the ice and after Clerke had tried unsuccessfully to find a way along the edge of the ice next to the shore, he decided attempts were useless.

The second attempt found the ice still impenetrable and Captain Clerke decided any further effort would be useless; he had sailed along the edge of the ice, back and forth between the two continents, his highest point being 69°.27. Captain King records that ice conditions were much worse than the previous year when Captain Cook reached a higher latitude.

On 13th July, Latitude 69°.27: "Several fulmars and arctic gulls" [Jaegers]. On 18th July, "Saw an abundance of sea parrots and the small ice birds."

This is the only mention of "icebird" in the Cook or other Narratives. According to the Oxford Dictionary the name is that of the Little Auk (*Plautus alle*) a bird plentiful off the coasts of Eastern North America but not found in the Pacific where its place is taken by the Least Auklet (*Aethia pusilla*) which is very numerous.

The only other note on the birdlife is included in the account of the resources, etc. of Kamchatka.

"The coast and bays of this country are frequented by almost every kind of Northern seafowl, and amongst the rest are the sea-eagles but not as at Oonalaska, in great numbers [?Steller's Sea Eagle (*H. pelagicus*)]. The rivers inland are stored with numerous flocks of wild ducks of various species; one kind of which, in particular, has a most beautiful plumage, and is called by the natives a-an-gitcha, a word intended to express its cry, which is not less singular than agreeable, consisting of three distinct notes, rising at equal intervals above each other." [Old Squaw (*Clangula hyemalis*).]

"There is another species called the mountain duck Steller says is peculiar to Kamchatka. The drake is covered with plumage of extraordinary beauty. Besides these, we observed a variety of other waterfowl, which from their size, seemed to be of the wild-goose kind. In the woods through which we passed, were seen several eagles of prodigeous size; but of what species they were I cannot pretend to determine. These are said to be of three different sorts; the black eagle, with a white head, tail and legs; of which the eaglets are as white as snow; the white eagle, so called, though, in fact, it is of a light grey; the lead, or stone coloured eagle, which is most common; and probably those I saw were of this sort."

"Of the hawk, falcon and bustard-kind these are of many great numbers. The country likewise affords woodcocks, snipes and two sorts of grouse or moor-game. Swans are also said to be in great plenty; and, in their entertainments, generally to make a part of the repast, though I do not remember to have seen one on any occasion. The vast abundance of wildfowl, with which the country is stored, was manifest from the numerous presents we received from the Toion of St. Peter and St. Paul; which sometimes consisted of twenty brace."

In footnotes to the above (1) set out Steller's musical scale of the call of the Old Squaw (*C. hyemalis*), with a reference to Krasneminikoff. (2) "*Anas picte, capite pulchre fasciato.*" [This must have been the Harlequin (*H. histrionicus*), which, as pointed out in Stejneger (op.cit, p. 283), had been observed by Steller at the mountain torrents in Kamchatka, where it would nest. According to Newton (Dictionary) the name "mountain duck" is applied to various of the Anatidae. (3) and (4) *Falco leucocephalus* the Bald Eagle, but in Kamchatka more likely to be Steller's Sea Eagle (*Haliaeetus pelagicus*) and (4) *Vultur Albiulla* perhaps the Grey Sea Eagle (*L. albiulla*).]

It was the 27th July that Captain Clerke decided against further

attempts to get through the ice; the season then was getting late and his ships had suffered serious damage from ice. The decision to return to Avatcha, as King remarks, "to the joy of everybody."

On the 18th August, just before Avatcha Bay was reached, Captain Clerke, who had been a sick man throughout the voyage, succumbed. Captain King who had been in command at Clerke's request, then headed the expedition.

Before starting for England from Avatcha Bay, 20th September, King says the members of the Expedition were disappointed "in our expectations of shooting wildfowl."

In this closing chapter Captain King points out:

"Not having it in my power to treat these Articles more fully, I conclude them with less regret since the ingenious Mr. Pennant has a work almost ready for publication entitled Arctic Zoology in which the learned will receive full information concerning the animals of this peninsula. This gentleman has very obligingly communicated to me his catalogue of Arctic Animals, with references to his work [Arctic Zoology] and permission to insert it. It will be found at the end of this chapter; I feel myself extremely happy in laying it before the Reader, and thereby presenting him with what could have been furnished from no other quarter, one entire view of Kamchadale zoology."

This paragraph suggests that King lacked knowledge of the bird-life and must have depended on others for most of his information. At another place King also points out how limited the experiences were "owing to most being gained from excursions that generally did not extend inland"; a qualification that could be applied to most other Narratives; a heavy forest and shores exposed to Pacific storms making landings frequently impossible.

There are seven Appendices dealing with various matters connected with the voyage. The first consists of Tables of the route taken with a column for remarks, but only occasionally and, in a general way, it there anything about birds being seen. Another comprises a vocabulary of the Language of Nootka of some five hundred words; included being the names of a few birds and a description of a carved wood vizor "like the head of a Quebrantahuessos." The birds named are: a black linnet [*Junco*], Crow, Sandpiper and Hummingbird. There is no indication by whom this list was prepared.

There is also the Appendix, already referred to by Captain King,

headed "A List of Animals found in Kamchatka communicated by Mr. Pennant"; one hundred species of birds, many of which are not referred to in any of the Narratives of the Cook Expedition, while some could never have been there. There is a footnote to the Blue Petrel. "I never saw this bird but it is mentioned by Mr. Ellis, I had omitted if from my Zoological part." This is the only acknowledgment of Captain King's indebtedness to Ellis. The bird would be the Fork-tailed Petrel (*Oceanodroma furcata*) and must have been frequently seen.

From Petropavalosk the Expedition sailed back to England; this part of the voyage was clearly of so little interest that few pages of the Narrative are devoted to it and no notes on birdlife. On the 22nd August, 1780, "both ships came to an anchor at Stromness" and, on 4th October "arrived safe at the Nore after an absence of 4 years, two months and twenty-two days." It is worth mentioning that though Britain and France were at war, instructions were given that the ships of the Expedition were not to be interfered with.

Though the Expedition did a wonderful job, it cost the lives of many valuable individuals: Cook was assassinated, Clerke succumbed to tuberculosis and King only survived his return to England a few years; in addition there was Dr. William Anderson, who, had he lived, should have made a name for himself as a naturalist.

Recent literature, to deal with the ornithology of Captain Cook's Last Voyage, are the Articles "Birds collected in the North Pacific Area during Captain James Cook's Last Voyage (1778-1780)" Ibis 91 (1949) p.p. 244-255 with further notes and corrections Ibis 95 (1953) p. 371 and also "Birds collected during Captain Cook's Last Expedition (1776-1780)" Auk - 67 (1950) p. 66 by Dr. Edwin Stresemann of Berlin.

As to the specimens brought back by the Cook Expedition there is nothing to indicate the number but this must have been considerable as being sufficient to be put on as an exhibition. The only indication is from the statement that 200 specimens, apparently all birds, were purchased at the auction for the Vienna Museum.

The whole collection appears to have been disposed of by the British Admiralty some of the birds to Sir Joseph Banks and others to Sir Thomas Lever who exhibited them in the Leverian Museum, London, finally disposing of them, as one item, by lottery, won by a Mr. Parkinson who continued possession till 1806 when the whole

collection was auctioned off. The specimens acquired by Sir Joseph Banks were bequeathed to the British Museum.

Naturally, today, few exist, and are in the Vienna or Berlin Museums.

BIRDS COLLECTED IN THE NORTH PACIFIC AREA DURING CAPTAIN JAMES COOK'S LAST VOYAGE (1778 AND 1779)

By Erwin Stresemann

Erwin Stresemann, one of the leading ornithologists of the present day, was born November 22nd, 1889, at Dresden and became a student at the Universities of Jena and Munich. During 1910-12 he was official naturalist with the German Expedition to Bali and the Moluccas. On his return he was appointed Curator of the Bird Department of the Zoological Museum, University of Berlin and remained there from 1922-1961. He is also the author of many works dealing with ornithology including "Aves" (Vol. VII of Kukenthals Handbuch der Zoologie 1927-34). He has been a Professor at Berlin University since 1930 and is a member of the German Academy of Sciences.

Dr. Stresseman's article enables the reader to see at once from what places any particular species was recorded.

The different areas are symbolized alphabetically; several species have a reference to the Ellis paintings though, unfortunately, identities of these paintings was from an article by Dr. Bowdler Sharpe, Head of the Natural History Department, British Museum, "History of coll. contained in the Natural History Department of the British Museum. — Zoology — Birds (Ellis Drawings—London—1906)." Stresemann had not then seen the originals, when after seeing them added to and corrected the list. As to species represented, his conclusions will be found in the chapter discussing the original paintings. The names of the birds are as in Dr. Stresemann's Article hence the trinomials.

A. King George Sound (Nootka) and Bay of Good Hope, 29 March to 26 April, 1778.

1. *Cyanocitta stelleri* (Gmelin) [Steller Jay] Steller's Crow A.Z. No. 139. Syn. I - 386 Type.
2. *Zonotrichia coronata, Emberiza atricapilla* (Gmelin) [Golden-crowned Sparrow] A.Z. 364. Syn. 2:202 No. 49.

3. *Junco oreganus*. Descr. Cook Voy., April, 1778.

4. *Regulus sp.* mentioned by Cook, April, 1778. [As already suggested this probably was the Common Wren (*T. troglodytes*).]

5. *Ixoreus naevius* [Varied Thrush]; (Gmelin) [*Turdus naevius*]. A.Z. 337. Syn. "Spotted Thrush" Syn. 2 (1):27.

6. *Turdus migratorius L.* [American Robin] A.Z. 195. Syn. 2 (1) 26.

7. *Colaptes cafer cafer* (Gmelin) "Golden-winged Woodpecker" [Red-shafted Flicker]. A.Z. 158. Syn. Var. "A" 1 (2) 562 Type.

8. *Sphyrapicus varius ruber* (Gmelin) Red-breasted Woodpecker. [Sapsucker]. A.Z. 166. Syn. 1 (2) 562. Refers to Swarth (Univ. Calif. Publ. Zool.) 10 (1) (1912) 35-38.

9. *Selasphorus rufus* (Gmelin) [Rufous Hummingbird] "Ruffed Honey-sucker." A.Z. 177. Syn. 1 785 Type.

10. *Haliaeetus leucocephalus* (L) [Bald Eagle] April, 1778 "many."

11. *Chen hyperboreus-hyperboreus* [L] [Snow Goose] Blue Geese and Snow Geese on the coast. Desc. Cook April, 1778.

12. *Heteroscelus incanus incanus* (Gmelin) [Wandering Tattler] ex "Boreal Sandpiper" Type. A.Z. striated? 383. Syn. 3 (1) 181. L. III.

13. *Limonites minutilla* (Viellot 1819). "Little Sandpiper." A.Z. 479. Syn. 3 (1) 181. Figured Ellis pl. 60, which according to Sharpe, probably represents *Limonites minutilla*. [There is confusion over numbering of plates which is discussed under Ellis paintings pl. 60.]

14. *Calidris canutus rufa* (Wilson) [Knot]. Specimen in breeding plumage collected. A.Z. 384. Syn. L. III.

15. *Calidris alpina sakhalina* (Viellot 1816) [Dunlin]. A.Z. 391. Variegated Sandpiper. Syn. 3 (1) 181. No. 29.

16. *Tringa sp.* "Green Sandpiper" [Syn.] Var. B. 3 (1) 171. "Indeterminable" [A.Z. 389].

B. Sandwich = Prince William Sound 12 to 20 May, 1778.

1. *Zonotrichia coronata* [Golden-crowned Sparrow]. Illustrated Ellis pl. 81 Sandwich Sound.

2. *Passerculus sandwichensis sandwichensis* (Gmelin) [Savannah Sparrow]. *Emberiza sandwichensis* (Gmelin). 1 (2): 875 1789), ex "Sandwich Bunting," Latham 2 1): 202, and "Unalaska Bunting," Pennant, 2: 363, No. 229. Specimen in Coll. Banks. Descr. Cook Voy. 2: 377. Figured Ellis, pl. 82. Type. Pennant describes two species under the same name; the second is found under No. 232: "With head, upper part of the neck, back, wings, and tail, brown, tinged with red; breast and sides dirty white, clouded; middle of the belly plain dirty white. Inhabits the western side of North America." [Possibly a Hermit Thrush (*Hylocichla guttata*).]

3. *Ceryle alcyon caurina* (Grinnell 1910). [Belted Kingfisher]. Cook 2-397. A.Z. 169. Syn. 1. 637.

4. *Selasphorus rufus* [Rufous Hummingbird].

5. *Aegolius funereus richardsoni* (Bonaparte 1838). [Boreal Owl.] ?A.Z. 117. Syn. I (1) 152.

6. *Oidemia perspicillata* (L). [Surf Scoter]. Cook 2-378. A.Z. 484. Syn. L. III. [The description in A.Z. is of the Common Scoter (*Oidemia nigra*).]

7. *Mergus serrator* (L) [Red-breasted Merganser]. A.Z. 466. Syn. L. III.

8. *Aphriza virgata* [Surf bird] ex "Streaked Sandpiper." A.Z. ? 383. Syn. 3 (1) 180, No. 26.

9. *Haematopus ostralegus bachmani* (Audubon 1838). Cook 2, 378. A.Z. 406. [Black Oystercatcher described as ("Pied") and in A.Z. discusses whether species same as seen in Australasia.] Syn. L. 111.

10. *Brachyramphus marmoratus marmoratus* (Gmelin). [Marbled Murrelet]. Colymbus marmoratus Gmelin, 1 2) 583 (1789), ex "Marbled Guillemot," A.Z. 438. [Further discussed in Cook Narr.] Type.

C. Between Foggy Island and Trinity Island. 18 June, 1778.

Lunda cirrhata (Pallas) [Tufted Puffin]. Cook 2, 411. Syn. 427. [descr. *Fratercula arctica*] L. III.

D. Unalaska. 28 June to 2 July and 3 October to 26 October, 1778.

1. *Passerculus sandwichensis sandwichensis* (Gmelin). [Savannah Sparrow]. E.S. refers to his No. 2 of B. *Embiriza sandwichensis* (Gmelin) ex "Sandwich Bunting" Latham. A.Z. 229 and "Unalaska Bunting" A.Z. No. 229. Cook 2, 177. Syn. II, 202, [No. 47]. Ellis pl. 82. Type.

2. *Melospiza melodia sanaka* McGregor [Song Sparrow]. *Fringilla cinerea* (Gmelin) ex "Cinereous Finch." Type *Ceryle alycon caurina* (Grinnell 1910). Cook 2, 377.

3. *Passerella iliaca unalaschkensis* (Gmelin). [Fox Sparrow]. *Emberiza unalaschkensis*. Gmelin. ex "Unalasha Bunting." A.Z. 232. E.S. questions locality and species.

4. *Calcarius lapponica alascensis* [Longspur] (Ridgway 1898). A.Z. 259. Syn. II. 263.

5. ? *Anthus spinoletta rubenscens* (Tunstall 1771). [Water Pipit]. *Turdus aonalaschkae*. Gmelin. 1 (2) 364. No. 232. ex "Unalashka Thrush." A.Z. and E.S. "Description unsatisfactory, probably applicable to the American Pipit. Another specimen described by Latham, 2 (2) : 447, No. 43, as "Black-jawed Warbler" (Banks Coll; no locality given) and named by Gmelin, *Motacilla nigrirostris*. A.Z. 202. Syn. 2 (1) 23, No. 8.

6. *Troglodytes troglodytes petrophilus* (Oberholser 1919). [Winter Wren]. Syn. II, 506. A.Z. 322. A.Z. 322 describes "Wren" as twice the size of the European Wren (*T. troglodytes*) which suggests the Bewick (*Thryomane bewicki*).

7. *Polysticta stelleri* (Pallas 1769) [Red-throated Loon]. Specimen from the Western side of America. Perhaps obtained off Unalaska in October, 1788. A.Z. 44. Syn. L. III, 508.

8. *Uria lomvia arra* (Pallas 1811) [Guillemot]. A.Z. 436. Syn. L. III. Obviously is of European races A.Z. (Foolish) - 436. Syn. L. III.

9. *Cepphus columba columba* (Pallas 1811). [Pigeon Guillemot]. A.Z. 437. Syn. L. III. Ellis pl. 49.

10. *Synthliboramphus antiquus* (Gmelin). [Ancient Murrelet]. "West of North America. Specimen perhaps obtained near Unalashka". A.Z. 430. Type.

E. Bird Island = Gore Island = St. Matthew Island. 29 July, 1779 (and 23 September, 1778).

1. *Aethia cristatella* (Pallas, 1769). [Crested Auk]. A.Z. 434. Syn. L. III.
2. *Aethia pygmaea* (Gmelin). [Least Auklet]. "Seen in vast multitudes at Bird Island." Type.
3. *Fratercula corniculata* (Naumann 1821). [Horned Puffin]. A.Z. (European) 417. Syn 3 (1) 317, as "Puffin Var. A." in Coll. Banks.

F. Bering Strait. 11-12 August and 3 September, 1778, 5 and 31 July, 1779.

1. *Motacilla flava alascencis* (Ridgway 1903). [Yellow Wagtail]. Motacilla tschutschensis Gmelin, ex "Tchutschi Wagtail." "Taken off the Tchutschi coast, within the Straits of Bering, lat. 66, north." E.S. "Unquestionably a specimen of *Motacilla flava,* a female in first winter plumage, flown on board on migration, most probably 3 September, 1778." A.Z. 280. Syn. II. 600.
2. *Wilsonia pusilla pileolata* (Pallas 1811). [Pileolated Warbler]. According to Sharpe "apparently Wilsonia pusilla." [It seems extraordinary to find a Warbler (even if on migration) so far north but the description leaves little doubt as to identity.] Not recorded in A.Z. or Syn.
3. *Lunda cirrhata* (Pallas 1960). [Tufted Puffin]. "Coast between Asia and America." Specimen in Lev. Mus., is probably the specimen still preserved in the Vienna Museum, see Pelzeln, Ibis, 1873: 46. A.Z. 432. Syn. L. III. 3 (1) 313.

G. North of Bering Strait. August to September, 1778 and July, 1779.

1. *Oenanthe oenanthe oenanthe* (L) [Wheatear]. "Among the ice between Asia and America." Syn. Moor Warbler. Var. A, 2 (2). Ellis pl. 90 (1778) "On the ice."
2. *Cyanecula svecica robusta* (Buturlin). [Blue Throat]. Ellis pl. 89. "On the ice." No other references.
3. *Oceanodroma furcata* (Gmelin) ex "Forktail Petrel," A.Z. 535, No. 463. "Taken on the ice between Asia and America," perhaps on 13 July, 1779 when several Petrels, Puffins, and

Arctic Gulls were seen." Type. [The record of "Petrels" frequently appears in the Ellis Narr.]

4. *Puffinus sp.?* "Amongst the ice." Sharpe: "Is a species of Puffinus." [Ellis painting pl. 40 suggests *Puffinus tenuirostris.*]

5. *Fulmaris glacialis rodgersii* (Coues 1862). [Fulmar]. "Amongst the ice." Perhaps figured Ellis pl. 41 (1779). A.Z. 461. Syn. L. III. [There appears no doubt the painting is of a Fulmar.]

6. *? Tringa flavipes* (Gmelin). [Lesser Yellow-legs]. "Taken in the frozen sea, lat. 69½, long. 191½." A.Z. 477. Syn. L. III. [A.Z. states size of the Greenshank, (*Tringa nebularia*).]

7. *Phalaropus fulicarius L.* ex. "Plain Phalarope." "Frozen sea, about lat. 69½, long. 191." Type. Probably not the specimen figured by Ellis, pl. 63 (1778). A.Z. 415. [The bill is described as slender, dilated at the end, so would be the Northern (*Lobipes lobatus*). The *Phalaropes* are discussed under Ellis pl. 63.]

8. *Lobipes lobatus* (L) [Northern Phalarope]. "Found between Asia and America from lat. 66 to 69." A.Z. ? 415. Syn. Var. A 3 (1): 272. Also represented in colour on frontispiece of Syn. Type.

9. *Pagophila eburnea* (Phipps, 1774) [Sabine Gull]. "Very frequent in frozen sea." [Cook Narr.: there is reference to a gull that, from the description, probably was this species.]

H. Norton Sound. 11 to 16 September, 1778.

E.S. "The place of anchorage was apparently near that of the Russian Settlement St. Michael of later days."

1. *Perisoreus canadensis fumifrons* (Ridgway 1880). [Gray Jay] ex Pacific Crow. Stresemann queries Latham (Syn.) reference to mistaken locality as from "the South Seas but the particular place uncertain." The specimen was in the Leverian Museum and is *The type* of race from Western Alaska. A.Z. ? 139 F. A.O.U. gives N. central Alaska as northern limit. Syn. (1): 383, 112 [This is an extreme instance of specimens and localities getting mixed up. Some of the description suggests this species.]

2. *Pinicola enucleator alascensis* (Ridgway 1898). [Pine Grosbeak]. A.Z. 208. Syn. 2 (1) 112.

3. *Parus cinctus alascensis* (Pracak, 1895). *Parus lathama* Stephens, in Shaw's "General Zoology," 10 (1) : 44 (1817), ex "Siberian Titmouse." "This was brought home in our last circumnavigating ships, but from whence uncertain." Ellis pl. 84 gives the Norton Sound as locality. "Sub nomine Canada Titmouse, taken as high at lat. 64.30 on the Western side of North America." A.Z. 424. Syn. 2(2) : 556. Type.

4. *Picoides tridactylus fasciatus* (Baird 1870) [Northern Three-toed Woodpecker]. A.Z. 163. Syn. L. I. 600, 601.

5. *Ceryle alcyon caurina* (Grinnell, 1910). [Belted Kingfisher].

J. Kamchatka.* 28 April to 4 June, 1779 and 24 August to 9 October, 1779.

* [A footnote to the effect that the source of information about other species, mentioned by Pennant, was *The History of Kamchatka,* also that Pennant obtained information from Pallas.]

1. *Emberiza schoeniclus pyrrhulius* (Swinhoe 1876). [Reed Bunting]. Fringilla nortoniensis Gmelin, ex "Norton Finch," Pennant. "Discovered in Norton Sound." Locality wrong. Pennant's description is of a male in fresh autumn plumage (lacking the outermost pair of tail feathers) of the Kamchatka race of the Reed Bunting. [This species is not listed in A.O.U. but Wetherby et al (op. cit.) states "Arctic ranging to E. Siberia." A.Z. 233 describes "Cinerous" as inhabiting Canada and might be a young male.] Type.

2. *Motacilla alba lugens* (Kittlitz 1883). "Collared Warbler," Latham. This must be the Yellow-headed Wagtail of Pennant as he describes "hind part of neck marked with a black crescent." A.Z. 280 G. Syn. II. 401.

3. *Luscinia svecica robusta* (Buturlin 1907). [Blue Throat]. Motacilla awatcha, Gmein, ex "Awatcha Warbler," Pennant. 2, 422. This is a good description of a Bluethroat female in the first winter plumage. A.Z. 323 E. Syn. II. 144. Type.

4. *Calliope calliope camtschatkensis* (Gmelin). [Unalaskan Thrush]. *Turdus camschatkensis* (Gmelin), ex "Kamtschatka

Thrush." Adult male. A.Z. 202 is the Unalaskan Thrush but 201 is the Little Thrush. Syn. III. 23. Ellis pl. 75. Type.

5. *Sitta europaea albifrons* (Taczanowski 1882). A.Z. 281. (Blue-backed Red-breasted Nuthatch). Syn. II. 446. Figured Ellis Pl. 21.

6. *Picoides tridactylus albidior* (Stejneger 1889). [? Three-toed Woodpecker]. A.Z. 163. Syn. I. 600.

7. *Phalocrocorax pelagicus pelagicus* (Pallas 1811). [Pelagic Cormorant]. Pennant measured a "Corvorant" from Kamchatka probably a specimen taken on Cook's voyage, adding that it cannot have been the species urile (Gmelin). A.Z. 584. B. Syn. L. III. [*P. urile*, today would be the Red-faced.]

8. *Clangula hyemalis* (L.). [Old Squaw]. A.Z. 50. Syn. L. III. Ellis Pl. 33.

9. *Histrionicus histrionicus pacificus* (Brooks 1915). [Harlequin Duck]. A.Z. 490. Syn. L. III. Ellis Pl. 34.

10. *Polysticta stelleri* (Pallas 1769). [Red-throated Loon]. [Perhaps obtained off Unalaska.] A.Z. 443. Syn. L. III. Ellis Pl. 35.

11. ? *Larus argentatus vegae* (Palmen 1887). E.S. refers to Ellis Pl. 52. [but in this the colour of the mantle does not look darker than found on the nominate race]. A.Z. 401. Syn. L. III.

12. *Larus ridibundus sibiricus* (Buturlin 1911). Not shewn; Black headed Gull. A.Z. 533. Syn. L. III. A.Z. 453 also describes the Wagel but in supplement corrects this realizing the bird was an immature Herring Gull.

13. *Rissa tridactyla pollicaris* (Stejneger 1884). "Tarrok Gull." A.Z. 456. Syn. Var. A. 3 (2) 393. There is also a list of birds noted "Off the Coast of Japan."

"A total of more than seventy species has been included in the list of birds that were collected (or observed) by Cook's last expedition within the North Pacific and Arctic areas. This is a fair number all circumstances considered, and many of them have not been heard of again within the next fifty years or more."

JAMES BURNEY
GEORGE GILBERT

Both of these members of the Cook Expedition left Journals but the only references to the birdlife by Burney is in April, 1779 "Many seabirds."

Gilbert, who kept a very complete record of weather etc. has a little more to say:

"Sandwich Sound: Wild ducks and geese seem to be very plentiful here, but are so shy that we shot only a few of them."

On 29th of July at 60½° lat, 187° long. and 112 leagues to the north-west of Cape Newenham, Gilbert mentions an island three leagues by two, entirely barren "frequented only by a great number of sea birds of various kinds."

This may have been Bird Island, near Bering Straits, so named by Captain Cook, though this island would not be this distance from Cape Newenham. There are many islands that could come under the description.

WILLIAM W. ELLIS

The name of William W. Ellis has already been mentioned as one of the artist-naturalists with Captain Cook's last Expedition. What little is known about him has been brought together in a pamphlet by Mr. F. G. Sawyer of the British Museum (Natural History); from which the following is taken.

Ellis was born in England, joined H.M.S. *Discovery* on 22nd March, 1775 as surgeon's second mate and, nominally, held this office until his discharge on 16th February, 1780, though all this time was spent on the *Discovery*, and it would appear he never attempted to practice his pseudo-profession. There is a manuscript note against his name in the Zoology Library copy of Dryander's Cat. bibl. Nat. J. Banks "olim panni lanit mercator adjutor ob. ex casu fortuitor apud Ostendam June 1785"; also in The Gentleman's Magazine "Mr. Ellis, formerly of Cambridge; his death was occasioned by a fall from the main mast of a ship at Ostend when he was on his way to Germany where the Emperor had engaged him on advantageous terms, to undertake a voyage of discovery."

His Narrative and paintings show that Ellis must have had some

previous experience both as an artist and bird-student and the fact that he had obtained the above appointment points to his having made a name for himself.

It seems likely he was appointed to his post with the Cook Expedition on the recommendation of Sir Joseph Banks who was advisor to the Government on matters connected with the Natural History of the Cook Expeditions and evidently knew about Ellis as shewn in a Memo entitled "Argument for making the fur trade," now in the possession of the Sutro Library, San Francisco, California the last paragraph of which reads, "The above wrote before the Public were possessed of any Accounts of Cook's Last Voyage except from the Journals of a Mr. Ellis which preceeded the Government Publication by Dr. Douglas." Sir Joseph was an autocrat and would not have referred to Ellis unless he had acquired some standing.

Ellis did not receive the recognition due to him by either Captain Cook or Captain King, though the latter must have made full use of his knowledge nor did the authors of the then current works on ornithology, Pennant's *Arctic Zoology* and Latham's *Synopsis of Birds.* That his Narrative was appreciated by the public is shown by it going through three editions.

The title of the first edition (1783) is "An authentic Narrative of a voyage performed by Captain Cook and Captain Clerke in His Majesty's ships Resolution and Discovery during the years 1776, 1777, 1778, 1779 and 1780." The title of the later editions was more expansive, adding "in search of the North-west passage between the continents of Asia and America."

In his account of the Cook Expedition there is no reproduction of any of his paintings nor does he refer to their existence; possibly because they were not in his possession, having been handed over to the Admiralty on the conclusion of the voyage, nor is there mention of them in any other Narratives.

To enable his Narrative to be published before the official edition, Ellis must, either have had access to his original Journal, or somehow have been able to refer to it or a copy; he might have taken advantage of the permission given, to retain documents of a personal character from those handed over on the conclusion of the Cook Expedition, though this could hardly apply to so important a document as his Narrative, including as it did, besides the notes on the birdlife, accounts of the geology, customs of the natives, etc.

There is no Introduction, the Narrative starts from the date the Expedition left England. There are few notes on birdlife before The Area was reached. During the time Ellis' position with the Expedition was officially as an artist, he no doubt considered that, other than general remarks, all notes on natural history should be left to Dr. William Anderson, the Official Naturalist. When Dr. Anderson's illness prevented his acting in that capacity, Ellis' notes are much more frequent and, after Anderson's death, Ellis had to take on the whole responsibility.

On 23rd March (the early entries are few before the American Continent was sighted) there is mention of "some Albatrosses and Petrels about us."

Later as the Expedition was approaching the American Coast, possibly near Cape Flattery, Washington State, on 7th March, "a great number of the gull kind were seen" and, on 18th March, "a hawk was flying round the vessel." Otherwise, ornithologically, the journey was most unpromising. On reaching St. George's Sound (Nootka) "we scarce saw a single duck."

On 5th April he mentions gulls seen.

Included in Ellis' description of St. George's Sound he lists the birds as:

"Eagles, hawks, ravens, crows, woodpeckers, crested jays, thrushes, a small beautiful species of humming bird, plovers, ducks, shags and gulls."

This is the same as in Captain Cook's Narrative with the addition of giving a crest to the Jay [*Cyanocitta stelleri*]. There is a native vocabulary at the end of the chapter, which includes — "Eagle, crow, raven, small kind of curlew and humming-bird."

[The small curlew may have been the Whimbrel (*Phalopus numenius*) and the humming-bird, unquestionably the Rufous (*Selasphorus rufus*) which is represented in Pl. 32 of his paintings. No migratory thrush would have arrived; perhaps he referred to the Varied (*Ixoreus naevius*) illustrated on Pl. 74.]

Ellis notes "These people are very ingenious in making calls to imitate the notes of different birds and animals; by which means they take great numbers; they likewise make use of whalebone springs, like those used with us to catch snipes. Among other articles of trade, they frequently brought birds of several kinds for sale, particularly a beautiful species of humming bird and a bird of the snipe kind, and

it is not improbable that some of these are caught in this manner."

In the Sutro Collection there is a memo in Sir Joseph Bank's handwriting describing the method for using "Springes" to catch Ruffs (*Philomachus pugnax*) then numerous in the fens in Lincolnshire, England. The "springes" consisted of loops of fine material [hair] placed on hills where the males assembled for display.

Ellis describes Nootka as affording "excellent shelter for all kinds of waterfowl but they are shy to a degree. The principle land birds we saw were eagles, thrushes, growse [sic], owls, snipes and several smaller kinds."

Shortly after leaving Nootka, on 29th April, "another bird of the snipe kind" was seen, [possibly a Dowitcher (*Limnodromus griseus*)] also "a large flock of geese." [Black Brant (*Branta nigricans*).]

Lat. 58° between Nootka and Sandwich Sound, Ellis noted "Innumerable flocks of gulls and brown petrels" and also "a small flock of plovers on the rocks."

As rocks are not the place to find plover, the birds were probably Black Turnstones (*Arenaria melanocephala*). Ellis, like other writers, would appear to have used the name "petrel" in a comprehensive way and possibly often included Fulmars (*Fulmarus glacialis*) and Shearwaters (Sp.); the last could be his brown petrel. Also "Number of shags, gulls and puffins." [Shags — the Pelagic Cormorant (*P. pelagicus*).]

29th May, Cook's Smokey Cape: "We saw very few birds about it being near the breeding season."

7th June, off the coast of Alaska: "We saw many birds today, such as puffins, guillemots and petrel." Here the "Puffin" could refer to the Horned (*Fratercula corniculata*), the Old World *F. arctica* is not found in the west.

7th June: "We saw a few shearwaters, guillemots and sea parrots but it was the breeding season — birds of all kinds were scarce."

17th June, still along the Alaska coast: "Innumerable flocks of the diver kind" [possibly the Arctic Loon (*Gavia arctica*)].

21st June: "passed a dead whale, upon which a great number of gulls and petrels were but it stank most abominably." [Petrels here would be the Fulmar (*F. glacialis*).]

24th June (shortly after leaving Oonalaska): "Innumerable

flocks of birds passing from the southward to the northward." [It seems late for birds to be migrating north, possibly they were Alcids going on to or from their nests to feeding grounds. Here the Expedition would be surrounded by nesting Alcids as there is probably no place in the world where so many of this family could be seen in the nesting season.]

A later entry speaks of "Rocks swarming with shags and guillemots most of which had young." This was in the neighbourhood of Bristol Bay which Cook's map shows as shoal water and therefore providing good feeding grounds.

25th June: "A great number of gulls about, and some Arctic gulls, which drive the others about at a strange rate while the poor frightened birds void their excrements which the others immediately catch in their beak and swallow, apparently much pleased with the dainty morsel." [This is Ellis' first mention of the Arctic Gull (*Stercorarius sp.*).]

At Providence Bay, end of June: a landing party reported seeing several eagles and "two or three smaller birds one of the nests of which they had found with six eggs in it and had brought it on board." [This nest is figured in Pl. 82 with, perched inside, a Savannah Sparrow (*Passerculus sandwichensis*); probably collected with the nest.]

On the 4th July is the first record of the Albatross. "We saw several Albatrosses and some divers and a few puffins." [This is a contrast to the following year when there are few references to the Albatross, either the Short-tailed (*D. albatrus*) or the Black-footed (*D. nigripes*). The divers probably Loons though former could be here or elsewhere, the Red-necked Grebe (*Podiceps grisegena*).]

5th of July: "Several gulls about entirely white and myriads of small birds of the awk tribe." [The white gulls would be the Glaucous (*L. hyperboreous*).]

6th July: "Saw many flocks of gulls, sea parrots, fulmars, small blue petrels [Fork-tailed (*Oceanodroma furcata*)], guillemots and arctic gulls."

7th July, Bristol Bay: "In the afternoon we saw flocks of ducks, several small birds of the snipe kind and a few brown shearwaters and gulls." [Snipe here and elsewhere very likely included small waders.]

11th July: "We saw several Arctic gulls."

Ellis frequently mentions the Arctic gull, but never with any clue as to which of the *Stercorariidae* (Jaegers) he saw.

13th: "Saw many sea-parrots, gulls and Fulmars."

15th: "A small bird, like a water wagtail flew round the ship." [A.O.U. includes races of the White Wagtail (*Motacilla alba*) and the Yellow (*M. flava*) as nesting within The Area.]

16th July, Lat. 58° 36': "The rocks swarmed with shags and guillemots most of which had young ones."

17th July: "Saw many fulmars, small blue petrels [*O. furcata*] arctic gulls and shearwaters."

23rd July: "We had many puffins, sea parrots, guillemots, arctic and other gulls about us today." As there is a distinction between puffins and sea parrots, the latter might refer to the Parakeet Auklet (*Cyclorrhynchus psittacula*).

Next note is: "There were many albatrosses, sea-parrots about — lat. 52.46°."

26th July: "Within the ice fields we observed many arctic gulls, guillemots and common gulls about." ["Common" here could not refer to *L. canus*, now called Mew, it might have been the Glaucous (*L. hyperboreous*).]

27th July: "There were numberless flocks of guillemots and auks: of the latter there were two species, one with an upright crest upon its head, the other very small; we also saw some puffins and sea parrots." [The Crested (*Aethia cristatella*) and Least Auklet (*A. pusilla*).]

30th July: "We had many guillemots, puffins and gulls about today."

1st August: "Many arctic gulls about" and the next day "many gulls and large flocks of shearwaters about."

14th August: [Now in the Frozen Sea (Arctic Ocean)] "many fulmars about as well as gulls and guillemots."

On 18th August, the day the farthest point north was reached, at Icy Cape, lat. 81.70°, "Three or four Arctic gulls were seen."

On 22nd August: "Many flocks of small land birds flying to the southward and a great number of ducks."

These migrating birds may have followed the Eastern shoreline and continued along it until crossing Bering Straits. At its furthest point North the Expedition was no great distance from the shore and during the next 3 - 4 days would not have changed position to any great extent and thus would be in the track of migrants heading for the Asian coastline.

On 26th "some land birds about the ship" and on 27th: "Many small birds which we supposed to be tringa lobata of Linnaeus." [The Northern Phalarope (*Lobipes lobatus*). The identity of Phalaropes is discussed under Ellis Plate 63.]

28th August: "We saw great numbers of the usual birds and many flocks of small birds of the auk tribe."

[The small Auks, the Least (*A. pusilla*) a very common bird.]

There are further references to migrating birds: on 2nd September and following day: "A variety of seabirds such as shearwaters, fulmars, arctic and other gulls and numbers of scalloped-toed sandpipers [*Phalaropes sp.*]." "Many birds about and a hawk flew by the ship."

On 5th September: "A dead whale was passed on which great numbers of gulls and petrels [Fulmars] were regaling. It stank abominably." [Anyone who has been near a "high" whale will agree.]

On 8th at Gore Island: "The place does not appear to abound with bird-life, only, a few Woodpeckers (*Picus tridactylus*) among the trees and shags upon the shore." [Ellis Plate 29, illustrates this woodpecker though from Norton Sound.]

On 13th September at Cape Denbigh: "Among the land birds which were neither various or numerous we saw; the chatterer, the three toed woodpecker, lesser redpoll, yellow crowned finch, a species of Titmouse, the large American bullfinch and a species of Crane: the latter were generally seen in flocks, flew high, and were so very shy as to elude our utmost vigilance. The water fowl were puffins, shags and a large species of gull totally white which may possibly be the *Larus eburneus* mentioned in Phipps' voyage."*

There follows a full description in Latin.

Reference to white gulls must generally refer to the Glaucous (*L. hyperboreous*) but this bird would seem to have been different. The only other would be the Ivory which A.O.U. lists as wintering South to Northern coasts of North America. The bird may have wandered South with other migrating gulls.

This entry shows the keenness of Ellis as an observer as the larger

---

* The reference is to *A voyage towards the North Pole* by Constantine John Phipps, 1775; the description is "Larus Eburneus, niveus, immaculatus, pedibus plum bro-cinereis. Found on the Coast of Spitzbergen. This beautiful bird is not described by Linnaeus nor, I believe, by any other author; it is nearly related to the Rathshur, described by Marten in his voyage to Spitzbergen but, unless that author is much mistaken in his description, differs essentially from it. Its place in the Systema Naturae seems to be next after the *Larus naevius* where the specific difference given above, which will distinguish it from all the species described by Linnaeus."

size of the Bullfinch is a feature of the race found there. Both the Hoary (*Acanthis hornemanni*) and the Common Redpoll (*A. flammea*) are circumpolar; the finch would be the Golden-crowned Sparrow (*Zonotrichia atricapilla*); it seems late for it to be so far north; the Titmouse the northern race of the Black Capped Chickadee (*Parus atricapilla*); Ellis Pl. 94. The Chatterer also mentioned by Cook and the Bohemian Waxwing (*B. garrula*) Ellis Pl. 20 illustrated the Northern Three-toed Woodpecker (*Picoides tridactylus*).

On the 21st September lat. 62.58° approaching land: "We saw many shags and flocks of geese which except for their wings were entirely white, we also observed two ravens or crows." [The Geese must have been the Lesser Snow (*Chen hyperborea*). It would be rather far north for the crow, probably (*C. corax*) which Ellis never mentions though it must have been frequently seen.]

On 22nd September: "great numbers of gulls about."

On 23rd: "Saw the island we discovered on the 29th July and which, from the amazing flocks of birds, we denominated Bird Island. We this time saw only four or five puffins, as many sea-parrots and a few gulls and fulmars."

In his chapter entitled "Transitions and occurences in the harbour of Samganhoodha." [Aleutian Islands.]

"Of waterfowl they have variety but the land birds are but few: among the former are, the velvet duck, a grey goose with a whitish head, the wings striped, the little brown duck, the painted duck (*Anas histrionica Lin.*), sea parrots, puffins, guillemots and gulls. The latter are eagles, ravens, grouse, plover, sandpipers, finches, water ouzels, swallows and the common wren."

Some species here are not often listed. The velvet duck would be the White-winged Scoter (*Melanitta deglandi*). The grey goose suggests the Emperor (*Philacte canagica*) and the little brown duck the female of *H. histrionicus*. In the land birds, plover might be the Golden (*Pluvialis dominica*). It is rather far north to find the Ouzel (*Cinclus mexicanus*) and none of the swallow tribe would be there so late in the year.

The Expedition spent the winter in the South Sea Islands from where are records of birds that winter there but nest in The Area: "a plover nearly the same as our whistling plover"; the English bird would be the Golden Plover (*Pluvialis apricarius*) practically the same as the American form (*Pluvialis dominica*) but, as the latter does not

migrate to the South Sea Islands but to South America, it would be the Pacific race *fulva* which winters there and is the bird figured by Ellis in Plate 68 with the location as Christmas Island. A curlew is mentioned which must have been the Bristle-thighed (*Numenius tahitiensis*); of which the type is from Tahiti in the Society Islands. Another bird from the Society Islands to provide the type was the Wandering Tattler (*Heteroscelus incanum*).

Another note from the South concerns the Ne-ne, the Hawaiian goose which has only just been saved from extinction: "The natives brought off several geese, which were quite tame: they were not unlike the Chinese geese; they called them Na-na. By what means they procured them we could not learn."

On the 15th of March, 1779, the Expedition left winter quarters for Petropavalosk which was reached the end of April Captain Clerke was now in command.

16th April, at lat. 42°8', before The Area was reached: "We saw several albatrosses and a few fulmars and brown petrels." [It seems early for any Albatross to have reached so far north and assuming "brown petrels" refers to one of the Shearwaters, the same remark applies.]

On 18th April, lat. 46°: "a flock of ducks and many small petrels" and at lat. 50°26', 21st April: "Many gulls and small land bird." On 23rd: "Many flocks of ducks and gulls."

[The reference to "small" petrels suggests that "Petrels" indicated the larger members of this family, such as Fulmars or Shearwaters.]

At Avatcha Bay: [As a change from wildfowl as principle food, on 30th April Ellis mentions receiving "a fine fowl of the grouse family (*Tretrao urogallus*)," a name, according to present day nomenclature, would represent the Capercaillie which does not occur in Eastern Asia (Witherby et al, V - 213): no doubt was a Blue Grouse (*Dendragapus obscurus*).]

At Avatcha Bay: "Though full of ice, prodigeous flocks of ducks of various species and also gulls, sea parrots, Greenland pigeons, ravens and eagles." [Ravens might be Cormorants, as the name was often applied to them. Ellis very seldom uses the name Greenland pigeon, the Black Guillemot (*Cepphus grylle*), but here the Pigeon (*C. columba*). Though Ellis uses the name sea parrot in a very general way, here he was probably referring particularly to the Parakeet

Auklet (*C. psittacula*); the eagle would likely be Steller's Sea-Eagle (*H. pelagicus*).]

Ellis gives a list of birds at Petropavalosk dated 29th May which includes Cuckow, Nightingale and Woodlark. He should have been in England, not at Petropavalosk! Possibly he applied these names to birds that looked similar; there is a race of the Cuckoo (*Cuculus canorus*) found in Kamchatka but of course in summer only.

On 6th June, showing the number of ducks etc.: "The gun room was presented with 20 brace" so it is strange to read that after they left Petropavalosk "fresh food was short, that with respect to fresh provisions was it not for a few cod and now and then a duck or gull, we might as well have been at sea."

[Birds were concentrated on nesting grounds.]

15th June, the last entry for Kamchatka: "We saw a few shearwaters, guillemots and sea-parrots."

On the 16th there was evidence of migration, the lat. as given by Ellis was 69.57° and long. 192.41°: "Several small birds of the water wagtail genus flew around the ship and some perched on the rigging."

Ellis illustrates Pl. 91, a Wagtail with an insert "*Metacilla flava.*" A race of this Yellow Wagtail, *teschutschensis*, nests in Northern Alaska (A.O.U.). One does not associate the Yellow Wagtail with perching on rigging! There is a difference in the lat., in the Narrative with that in the insert on the Plate, where it is given as 66°; possibly the plate does not represent the bird referred to in the Narrative.

On their way to the Frozen Sea, 5th July at the Bay of St. Lawrence, on an island of the same name: "Several large gulls about, entirely white, and myriads of small birds of the auk tribe. The beak was compressed and large in proportion to the bird; its colour dark brown or rather black, the breast whitish and towards the abdomen of a reddish colour. Numbers of fulmars and several Arctic gulls." [The white gulls would be the Glaucous (*L. hyperboreous*). The only bird that seems to answer to the description of the auk is the first year Horned Puffin (*Fratercula corniculata*). Ellis does not often specifically list the Fulmar (*F. glacialis*).]

The main body of the ice had now been reached. On 15th July: "Many arctic gulls, a few guillemots and fulmars." [Probably most of the guillemots recorded from the Frozen Sea were the Thick-billed (*Uria lomvia*).]

On 18th July, still along the main body of ice: "Guillemots and one or two large white gulls which might have been *Larus eburnae* described in Phipps' Voyage to Spitzbergen." [Identity of *L. eburnae* discussed earlier. The description "large" would scarcely apply.]

20th July when near the American shore: "Many puffins and fulmars and more of the former than we had seen in one day."

At lat. 67.59°, the next day: "At 2 in the morning we observed gulls, puffins, and guillemots and in the afternoon we saw several small birds and a large duck, the neck and head, back and wings of which were brown and the belly white." [The duck possibly a male eider (*Somateria mollissima V. nigra*) in partial eclipse plumage.]

When near Cape Upright, 27th July: "There were numberless flocks of guillemots and auks: of the latter there were two species, one with an upright crest upon the head, the other very small." The first suggests the Crested Auklet (*A. cristatella*) and the small one the Least Auklet (*A. pusilla*). Both should have been very numerous and seen often.

The Expedition was now in the Frozen Sea (Arctic Ocean).

1st August: "Many Arctic gulls about and later, same date a shag, apparently quite exhausted with fatigue, perched upon one of the Discovery's anchors."

Next day: "Many gulls and flocks of shearwaters." [These flocks probably included both Sooty (*P. griseus*) and Slenderbill (*P. tenuirostris*), the latter ranges further north.] "We saw many fulmars, gulls and small awks" (neighbourhood of St. Lawrence Is.) latitude 64°.3. "In the afternoon we saw many birds and later, same date, saw a few parrots, gulls and small birds of the awk genus."

As in the Cook Narrative ice conditions were much worse than in the previous year and on the 25th of July, Captain Clerke decided further attempts were useless. Here at the furthest point north: "Many puffins, guillemots and fulmars and more of the former than we had seen in one day." It is surprising that "puffins" should be numerous right off the ice mass; if actually "puffins" they would be the northern species, the Horned (*Fratercula corniculata*).

On 10th August, lat. 65.36°, long. 189.15° between Gore Island and Oonalaska: "Caught a martin which had perched upon the after part of the ship almost a skeleton, quite exhausted with fatigue; a large curlew flew round the ship and we saw an albatross, some fulmars, a small blue petrel and Arctic gulls."

[The Martin, probably Tree Swallow (*Iridoprocne bicolor*), illustrates the dangers entailed by migrating birds, it had most likely been blown out to sea; it nests in North-central Alaska. The Curlew, though called "large" would not have been the Long-billed (*Numenius americanus*), and may have been the next largest, the Bristle-thighed (*N. tahitiensis*) on its way south; it is only within the last two decades that its nesting place in Alaska was discovered by the late Professor Allen.]

13th: "Many Arctic gulls about with a few guillemots."

On 15th when near Bering Island: "Many flocks of gulls, fulmars, guillemots, arctic gulls." Next day shearwaters are mentioned and, as the coast of Kamchatka was reached, albatrosses are recorded which were probably the Laysan (*D. immutabilis*). It will be noticed Ellis has few notes on the albatross being seen compared with his previous voyage north.

On 17th August another wanderer was noticed "a small bird like a water wagtail, which flew round the ship." It could have been either *M. alba* or *M. flava*.

On 27th September: "Saw gulls and fulmars."

On 28th September: "Many of the small species of Auk." [presumably the Least Auklet.] Later the same day there is a very interesting record: "Towards evening one of our people caught a land bird which proved to be the gray-butcher bird." [This would be when about half way between Gore Island and Unalaska. A remarkable record for the Northern Shrike (*Lanius excubitor*) being so far from land and apparently off its course if migrating.] Divers are also noted as moving south. [Here divers must refer to one or other of the *Gavidae*.]

Ellis' Diary practically ends with the return to Petropavalosk, only 20 pages out of six hundred are devoted to the return voyage to England with no bird notes.

The foregoing extracts from Ellis' Journal justify the contention that, according to the standard of his day, he could rank with his contemporary explorer-naturalists, he must have been a keen observer. Besides the record of species of birds seen through his paintings, he assisted in identification and though, in his notes, there may appear unnecessary repetition of species seen especially when the Expedition was trying to find its way through the ice pack, these particular notes are most interesting as indicating what species are frequent there

and about which, Ellis must have had more experience than any explorer not only before but since. It is also worth mentioning again that the very critical Sir Joseph Banks refers to Ellis' Narrative, which shows that at all events, was satisfied of its worth even though neither Pennant or Latham mention Ellis or refer to his Narrative.

THE ELLIS PAINTINGS

The paintings by W. W. Ellis are one of the most interesting outcomes of Captain Cook's Last Voyage. They are now in the British Museum, having been included in the bequest of his collections by Sir Joseph Banks whose connections with the last Expedition of Captain Cook has already been mentioned. How Banks obtained possession of the paintings is not known. Possibly he received them from the Admiralty, who had acquired them as material handed over on the conclusion of the Cook Expedition.

These paintings are referred to in Dr. Stresemann's Article previously mentioned, but then he depended on the Article by Dr. R. Bowdler Sharpe, (op. cit.); hence some corrections in his later notes.

The paintings are also listed in Miss A. Lysaght's "Some Eighteenth Century Bird Paintings in the library of Sir Joseph Banks (1743-1820)." (Bulletin of British Museum (Natural History) Historical series, Vol. 1, No. 6, London 1959), and are referred to in "American Ornithology before Audubon," by Mrs. Elsa G. Allen (Trans. Am. Philosophical Society, Philadelphia, 1951).

Mrs. Allen gives as her opinion that "They are suggestive of the careful work of George Edwards (Natural History of Birds, 1731) and later, unpublished drawings by John Abbott, naturalist of Georgia. They are finely delineated, show considerable detail in the plumage, and the contours are delicately wrought. External parts, such as bills, feet and eyes, which today are not always accurately executed, are drawn with great care." Sharpe (op. cit.) described them as "very passably executed" and Doctor Averil Lysaght as "of considerable charm and delicacy." Having had the pleasure of examining the paintings, I thoroughly concur.

The paintings are discussed in more detail in Dr. Lysaght's article (op. cit.) in which she describes 90 plates, of which 38 could represent birds collected or seen in The Area, though some are questionable.

The paintings are on heavy paper, 12" x 8", the actual picture being 8" x 6"; in only two instances do two species appear on the same plate. Each has a number in the top left hand corner, which apparently was inserted by Ellis but for which there is no apparent reason. Completed paintings are signed and have the words "ad vivum delinqueum et pinxit" or some abbreviation to the same effect. The date and locality are in most cases shown on the back, and were added by Ellis. Very few of the birds are named and, unfortunately, on none is there a scale.

The words "ad vivum" must imply that Ellis handled the particular specimen in the flesh; Sharpe (op. cit.) points out that these early artists were likely to colour only the soft parts at the time, leaving much of the plumage to be filled in later; Ellis would seem to have generally completed his paintings from available specimens. Paintings marked "ad vivum" will be distinguished by an asterisk.

In most cases all commentators agree on identity (Mrs. Allen only refers to them generally). Identification according to the other writers, will be shewn following their initials, R. B. Sharpe, E. Stresemann, and A. Lysaght; references to the contemporary works, Pennant's *Arctic Zoology* (A.Z.) and Latham's *Synopsis of Birds* (Syn.) will be added where possible. Author's comments will be shewn in square brackets. The numbers are those on the originals.

Mrs. Allen considered that thirty-six of the paintings were "apparently" of birds of North America; but of these only thirty would be found in The Area although it is probable that those existing do not represent all that Ellis painted. When all commentators agree on identification only the name of the bird will be given.

In discussing the paintings, it must be borne in mind they are nearly 200 years old and some fading must have taken place though only in a very few instances affecting the identity.

The first six paintings are of mammals or molluscs.

The first bird shewn is a Peregrine Falcon but "off Japan . . "

8—SANDWICH SOUND, N.W. COAST OF AMERICA*

R.B.S. and A.L. *Strix funera.*

E.S. *Aegolius funereus richardsoni.*

R.B.S. and A.L. *Strix funerea.*

[Hawk Owl, *Surnia ulula*; painting unfinished.]

19—KING GEORGE SOUND, 1778*

Pencilled, subsequently on margin *Picus auratus.*

R.B.S. *Colaptes auratus.*

E.S. A.7, Var.; Spec. was in Leverian Mus. TYPE.

A.L. *Colaptes cafer,* North-western Flicker.

[*C. auratus,* the Yellow-shafted would not occur at Nootka; undoubtedly *C. cafer,* (Red-shafted) as the painting well shows.]

20—NORTON SOUND, 1778*

R.B.S. *Picoides americanus* [Northern Three-toed Woodpecker] A.8.

E.S. *P. tridactylus fasciatus* refers to A.Z. II-168.

A.L. Alaskan Three-toed woodpecker.

[*P. americanus* is now the Black-backed Three-toed woodpecker; the painting clearly shows the "ladder back" of *tridactylus.*]

32—KING GEORGE SOUND.

The upper half of the plate:

R.B.S. Rufous Hummingbird, *Selasphorus rufus.*

E.S. Connects with Ruffed Honey Sucker A.Z. II-117. TYPE. Also referred to from Sandwich Sound.

A.L. *S. rufus.*

The lower half see Dr. Lysaght's Note.

33—KAMCHATKA, 1779*

Old Squaw (*Clangula hyemalis*).

Inserted pen and ink sketch of head showing serrations upper and lower mandibles.

R.B.S. *Harelda glacialis* (Linn.)

E.S. *Clangula hyemalis* — Male in summer.

A.L. Described under Long-tailed duck.

[The serrations seem over emphasized. Old Squaw.]

34—KAMCHATKA.

Harlequin Duck (*Histrionicus histrionicus*).

Pencilled in, subsequently, *Anas histrionicus.*

[Male in summer plumage, legs and feet uncoloured.]

35—*Anas stelleri* KAMCHATKA.

Steller's Eider (*Polysticta stelleri*).

[Male in summer.]

36—SANDWICH SOUND, N.W. COAST OF AMERICA.

Red breasted Merganser (*Mergus serrator*).

[Adult female.]

37—COAST BETWEEN ASIA AND AMERICA*

Tufted Puffin (*Lunda cirrhata*).

[E.S. questions the location and suggests the Bering Strait as being referred to in Syn. 3 (1) 313 and probably was one of the specimens in Vienna Museum, referred to by Pelezin (Ibis, 1873-) who gives dates 11/12 August and 2 September, 1778 and 31 July, 1779.

The bird is in full summer plumage. Cook refers to a specimen collected between Foggy and Trinity Islands (west of Kodiak Island) which E.S. considers is the actual bird illustrated, and, from Cook's comments, would appear to have been the first seen (at least in full summer plumage) and so could have appealed to Ellis as a suitable subject for an illustration. Actually birds in full plumage should have been found at suitable localities all along the coast. The "tufts" are a feature of the summer plumage.]

40—AMONGST THE ICE*

R.B.S. A species of *Puffinus*.

E.S. No comments; listed under birds from N. of Bering Strait, Aug. to Sept., 1778, and July, 1779.

Ibis, 1953 identified as *P. tenurostris*.

A.L. *P. tenurostris*.

[Painting shows a very indeterminate light brown bird, paler underneath with darker primaries the upper mandible is decidely hooked and nostrils prominent; legs light-colour, and could represent *P. tenurostris*, the Slender-billed Shearwater.]

41—AMONGST THE ICE, 1779*

Fulmar (*Fulmaris glacialis*).

R.B.S. Apparently a *diomedea* of some sort.

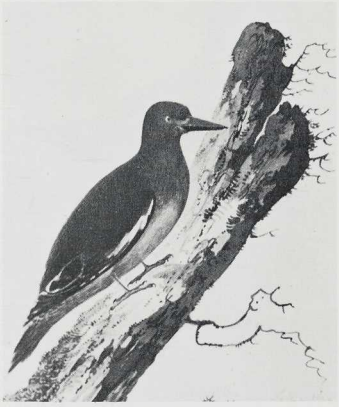
E.S. *Fulmaris glacialis rodgersii* with query.

A.L. Closely resembles the Pacific Fulmar.

[Shown swimming; general appearance is that of a Fulmar in light phase of plumage; white head, neck and underparts, though dark tail and wings brown-grey; which suggest an immature; legs light flesh. The beak, not massive enough for *Diomedea*.]

No. 82
Original signed "W. Ellis ad vivum delint: & pinxt: 1778 Sandwich Sound of Unalaschka." Identified by Stresemann as Aleutian Savannah Sparrow but is more like a female Redwing.

No. 20
American Three-toed Woodpecker by W. W. Ellis, 1778. Norton Sound.



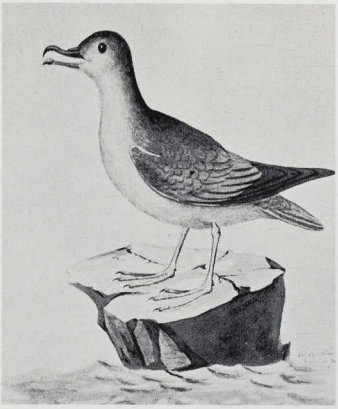
No. 137
Red-breasted Sapsucker. Original signed "Jn. Webber del., 1778. King Georges Sound."

No. 19
Flicker by W. Ellis, 1778.

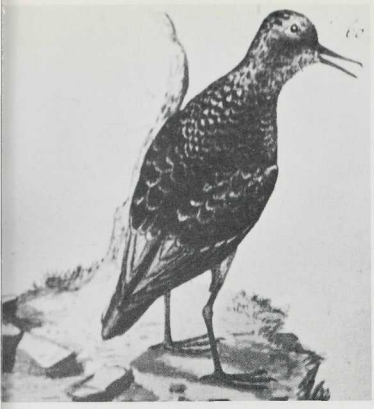
No. 80
Alaska Longspur signed "W. W. Ellis ad viv: delint: et pinxt: 1778. Unalaschka."

No. 110
Bohemian Waxwing by John Webber, 1778.

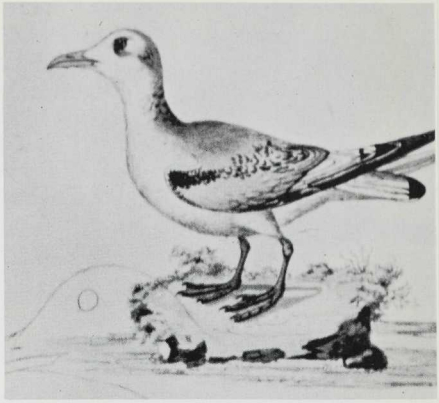
No. 42
Original signed "W. W. Ellis ad viv: delint: et pinxt: 1779. Amongst the ice." Identified as Pacific Fulmar by Lysaght but more likely to have been Black-footed Albatross.



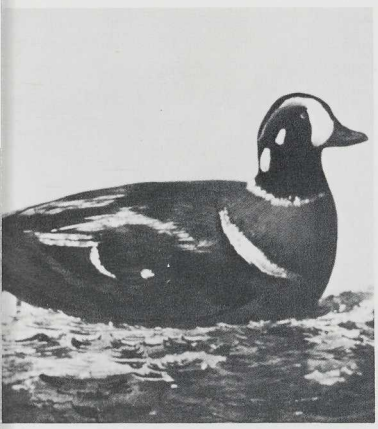
No. 40
Original signed "W. W. Ellis ad vivum delint: et pinxt: Amongst the ice." Identified by Stresemann and Lysaght as Short-tailed Shearwater but is more likely to be Sooty Shearwater.



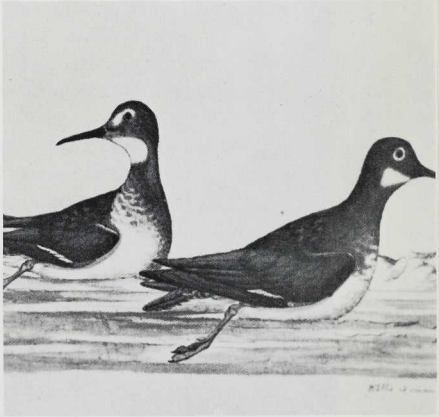
No. 60
Least Sandpiper with sketch of head of Semipalmated Sandpiper. W. Ellis, 1778. "King Georges Sound."



No. 51
Pacific Kittiwake by W. W. Ellis, 1778. "Kamtschatka."

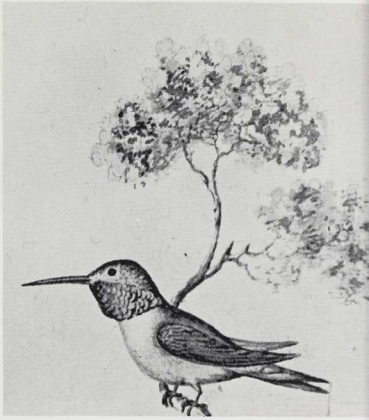


No. 126
"Duck of Analaska" (Harlequin) by John Webber, 1778.

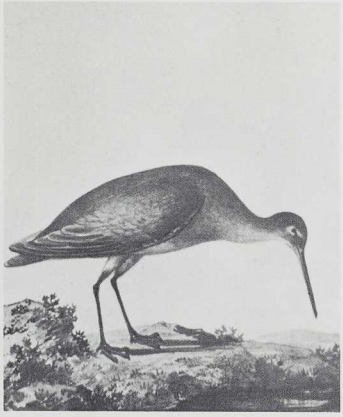


No. 63
Northern Phalarope by W. Ellis, 1778.

No. 105
Alaska Chickadee by John Webber "Sept. 1778." Probably at Norton Sound.



No. 32
Rufous Hummingbird by W. W. Ellis, 1778. "King George's Sound."



No. 117
Wandering Tattler signed "John Webber, 1777. Palmerston Island."

No. 61
Red-backed Sandpiper by W. W. Ellis, 1778. "King George's Sound."

42—AMONGST THE ICE, 1779*

Fulmar (*Fulmaris glacialis*).

R.B.S. A grey *Ossifraga gigantea.*

E.S. Good figure of *F. glacialis rodgersii.*

A.L. Good figure of *F. glacialis rodgersii.*

[It is impossible to follow R.B.S.; the Giant Petrel is a southern ocean bird and would never have been seen in the Arctic. It has been discussed under the name of *Quebrantaheussos* recorded in Cook Narrative.]

49—UNALASKA, 1778*

Pigeon Guillemot (*Cepphus columba*).

[In summer plumage; standing on a rock.]

50—UNALASKA, 1778*

Written in — *Colymbus troile.*

R.B.S. *Uria lomvia* [actually *lomoia,* a misprint].

E.S. Adds race *arra.*

A.L. Pallas Murre or Guillemot (*U. l. arra*).

[*U. l. arra* is the Thick-billed Murre (or Guillemot); the Common Murre (*U. aalge*) would also be found there.]

51—KAMCHATKA, 1778*

This is a gull; there is some faded writing below the painting which could be *Larus tridactylus.* Insert of outline of head.

A.L. connects with Lathams Var.[2] L. Tarrock Gull (*Larus tridactylus*) a name applied to the first year Herring Gull (*argentatus sp.*) (Newton Dict.).

The beak and head look rather long for *L. tridactylus* and the beak is too heavy. If it is *L. tridactylus* it represents the juvenile plumage as the Cook Expedition was there late in the year.

52—KAMCHATKA, 1779*

Below painting a name pencilled in, almost obliterated but could be *Larus canus.* Insert of outline of head.

R.B.S. Apparently *Larus vegae.*

E.S. The same; adding Ibis, (1953) this identification confirmed by dark colour of mantle.

A.L. *Larus marinus schistisagus;* considers too dark for *vegae.*

[As any one of these forms of the Herring Gull (*L. argentatus*)

could occur in Kamchatka, identification seems doubtful. *L. schistisagus* is listed in A.O.U. *L. marinus* does not occur.]

60—KING GEORGE'S SOUND, 1778*

There would appear to be some confusion in the numbers and this plate is not included by Dr. Lysaght. However, the number was entered by Ellis and is quite clear—there is an inset of the outline of the head. The painting represents a rather chunky bird of a uniform dark colour with lighter colouring on edges of feathers, standing on a rock showing the back. The beak is slightly open and shows slight serrations on both mandibles.

The colouring of the bird is so indefinite that I asked Mr. Sawyer, of the Zoological Library, British Museum (Nat. Hist.) to check with the original and he reported "has only two colours, using Ridgway's Colour Standard (1912): Upper and under tail coverts light buff; remainder of the bird sepia with light buff fringes to feathers."

There is no bird that would be seen at the above place that answers this description.

In the Cook Narrative when at King George's Sound in 1778 there is mention of "Plovers" seen on the rocks which it was suggested were Black Turnstones (*Arenaria melanocephala*), a common bird in winter on rocky beaches on Vancouver Island. This Turnstone has a chunky body on fairly stout legs and at rest or moving about looks more or less of a uniform colour (clove-brown to fuscous, Ridgway); the white markings on the back do not show until the bird is in flight. It is suggested that the painting represents the Black Turnstone.

The lower half of Lysaght's No. 32 (The upper half representing a Rufous Hummingbird). Pencilled in is a sketch of the head of a sandpiper which Dr. A. Wetmore of the Smithsonian has identified as that of the Semi-palmated Sandpiper (*Ereunites pusillus*).

R.B.S. Probably *Limonites minutilla* (Viell.).
E.S. *L. minutilla,* Little Sandpiper. Syn. 3, 1-184.
Syn. 3, 1-184 and *Tringilla pusilla* (A.Z.) 479 with query.
A.L. *Erolia minutilla* (Viellot) 1819, Least Sandpiper.

It is suggested that the sketch of the head is that of the Least Sandpiper (*Erolia minutilla*); there is little difference between it and *E. pusillus* except in size and colour of legs. However, *pusillus* is listed as rare on the coast by Munro and Cowan ("Review of the Bird Fauna of B.C." Spec. Pub. No. 2, B.C. Prov. Mus. 1947) and by Godfrey

("Birds of Canada," Bull. 203, Nat. Mus. Canada, 1966) whereas the Least is common on migration. Furthermore as the bird shewn is the Least any insert would likely represent the same species.

61—KING GEORGE'S SOUND, 1778*

R.B.S. *Pelidna americana.*

E.S. *Calidris alplena sakalin.*

ex Variegated Sandpiper — Latham — Syn. 3 (1); 181, No. 29, mentioned in Cook Narr., April, 1778. TYPE.

A.L. *Erolia alpina pacifica.*

[A Dunlin in partial summer plumage, showing some black on the belly; both the painting and insert show the downward curve of the bill. Could be the "Sandpiper" without description mentioned by Cook; particularly as localities for the Red Dunlin (A.Z. II, No. 392) included Natka (sic.).]

62—KING GEORGE'S SOUND.

Pencilled in — *Tringa borealis.*

R.B.S. *Heteroscelus incanus.*

E.S. *H. incannus* ex Boreal Sandpiper Syn. 3 (1); 181; apparently figured in Pl. 62. TYPE.

[Dr. Lysaght agrees with the conclusion I had arrived at, that the painting is of a Surf Bird (*Aphriza virgata*) in winter plumage. The Tattler is uniformly grey, no white at base of tail or on head as in the painting.

Another point is that of date: The Tattler is a late migrant, Wash. State, U.S.A., 1st May (Bent 1929, p. 47); Clayoquot Vancouver Island same date (Munro and Cowan 1947, p. 106), so it is doubtful if it would have reached Nootka before the Expedition left, whereas the Surf Bird could have been seen there all the winter. Another feature to connect with the Surf Bird, is the distinct dip in the line of the culmen.]

63—BETWEEN ASIA AND AMERICA, 1778*

Red necked or Northern Phalarope (*Lobipes lobatus*).

R.B.S. *Phalaropus hyperboreus* (Linn.).

E.S. *P. fulicarius L. Tringa glacialis* Gmelin 1 (2); 675 (1789). "Frozen sea about lat. 69½, long 191. Probably not the specimen in figure by Ellis 63 (1778)." TYPE.

A synonym of *Ph. fulicarius* founded on a specimen in plumage. Also refers to *Lobipes lobatus* (L) Red phalarope Var. A, Latham 3 (1) 272. "Found between Asia and America from lat. 66 to 69." Specimen in Coll. Banks; figured Latham 3; frontispiece.

In A.Z. (11, 415) the Plain Phalarope is described but which E.S. considers, probably not figured in Ellis Pl. 63.

A.L. Red-necked or Northern.

[There is much confusion in the early works over the Phalaropes; A.Z. describes four species and Syn. five whereas there are only two that could be found in The Area. Pennant (A.Z.) distinguishes the two species by the very decided difference in the shape of the bill and, in his description of the Plain, refers to this feature, leaving no doubt that it represents a juvenile *Lobatus*. Of course in the Cook and Ellis Narratives all are only described as "phalaropes."

Plate 63 represents two *Lobatus* both showing the red throat marking. (This distinctive marking is also clearly shewn on the frontispiece illustration in Syn.); the fact of the two being on the one plate and one being brighter in colour, suggests that Ellis realized there was a difference between sexes, though perhaps, not that the female was the brighter bird.

All records from the Arctic; E.S. places them North of Bering Strait, August to September, 1778, and July, 1779, and refers to the Cook record from the Frozen Sea about lat. 69½ and long. 191" though he did not consider Plate 63 represented either of these records.]

66—SANDWICH SOUND*

Surf-bird (*Aphriza virgata*).

R.B.S. *Aphriza virgata* (Gm.).

E.S. Connects with *Tringa virgata* Gmelin I (2); 1789 in winter plumage ex Streaked Sandpiper Syn. 3 (1); 180, No. 26. TYPE.

A.L. *A. virgata* — connects with Latham's Streaked Sandpiper.

68—CHRISTMAS ISLE, 1778*

Golden Plover (*Pluvialis dominica*).

Insert showing head.

R.B.S. *Charadrius dominicus*, P.L.S. Mull.

E.S. and A.L. add race "*fulva*."

[*Fulva* is the Pacific race that winters in the South Sea Islands, (the nominate race goes to South America). The Cook Expedition recorded the Golden Plover from the Friendly Islands (Tonga Is.), identified by Dr. Wm. Anderson, this would be the Pacific Race. The name of island indicates the date.]

74—KING GEORGE'S SOUND, 1778*

[This plate shows two species, the top being the Varied Thrush (*Ixoreus naevius*), the other the American Robin (*Turdus migratorius*).]

E.S. connects the first with Spotted Thrush, Latham 2 (I) 27, [to which it seems to have little resemblance] spec. in Banks Coll., TYPE.

[All commentators agree on the other bird as representing *T. migratorius*.]

80—UNALASKA, 1778*

Alaska Longspur (*Calcarius lapponicus*).

[Male in summer plumage.]

81—SANDWICH SOUND, 1778*

Golden-crowned Sparrow (*Zonotrichia atricapilla*).

82—SANDWICH SOUND, 1778*

Savannah Sparrow (*Passerculus sandwichensis*).

Bird shewn with nest and eggs.

R.B.S. Female of *Z. coronata* with nest and eggs.

E.S. Same but later as *P. passerculus* (Ibis 95 (1953) 371). Connected with Latham Syn. 3 (1), 202 and Unalaska Bunting, A.Z. 2, 363, No. 229; Banks Coll. Cook Voy. 2; 377. (Ibis 1949).

A.L. *P. sandwichensis sandwichensis.*

[There was some confusion over the identity of this bird; originally E.S. followed R.B.S. and designated it as the female *Z. coronata* (Ibis 1949, 244-255). Later, when the present writer pointed that this could not be so, as the sexes are alike, he revised his identification "the so called 'female' from King George Sound" has been the very specimen which was finally named *Emberiza unalaskensis* by Gmelin (the *Passer iliaca* of present day nomenclature "Ibis").

P. iliaca is the family name for the Fox Sparrows and the painting

does not look like any of the sub-species that could be found at Prince George Sound (Nootka).

The painting distinctly shows yellow round the eye, even if faint, which rules out *iliaca* but is a distinctive mark of the Savannah Sparrow (*Passerculus*). A.O.U. lists the sub species *brooksi* as nesting on Vancouver Island.

It is suggested that the bird represented is therefore *Passerculus sandwichensis brooksi.*

The representation of the nest does not help; it appears to have been lifted from the ground, has some small twigs, grass and weeds outside, the inside lined with finer grass. The eggs are white with a greenish tinge and a distinct ring or rusty spots at the larger end and could be those of the Savannah which vary considerably (Reed, North American Birds Eggs, 1904). A.Z. describes two species, Nos. 229 - 232, under the name of Unalaska Bunting a mistake later corrected; the first he describes as "with a yellow line from the bill reaching over each eye." In the other description there is no mention of yellow.]

88—BETWEEN ASIA AND AMERICA, 1778*

Wilson Warbler (*Wilsonia pusilla*).

R.B.S. Apparently *Wilsonia pusilla* (Wils.)

E.S. Refers it to the Western race *pileolata.*

A.L. Refers it to the Northern race.

[As the bird is shewn with pronounced black cap it would be a male in summer plumage.]

89—ON THE ICE.

Bluethroat (*Luscinia suecica*).

R.B.S. *Cyanecula suecica* (Linn.). *Erythacus coerlueculus,* Seebohm.

E.S. *L. suecica robusta* Buterlin, 1907; recorded by Cook Expedition from Kam.

A.L. "an excellent painting."

[A young female Bluethroat in first winter plumage. A.O.U. includes — as breeding on coast of Alaska.]

90—ON THE ICE*

Wheatear (*Oenanthe oenanthe*).

R.B.S. *Saxicola oenanthe* (Seebohm).

E.S. Connects with Moor Warbler Var. A. Latham 2 (2); 458 Among the Ice between Asia and Am.

E.S. European Wheatear.

91—CAUGHT ON BOARD LAT. 66, 1778*

Yellow Wagtail (*Motacilla flava*).

R.B.S. Apparently a young *M. flava.*

E.S. Under Bering Strait: "Taken off the Tehutschi coast female in first winter plumage, flown on board on migration most probably 3 Sept., 1778." TYPE of race *tschuensis.*

A.L. Yellow Wagtail, race uncertain.

[Breeds in N. Alaska—A.O.U.]

94—NORTON SOUND, 1778*

Black-capped Chickadee (*Parus atricapilus*).

R.B.S. *Parus hudsonicus.*

E.S. Discusses question of location and race as the Cook Expedition brought back a specimen with the note "from whence uncertain."

A.L. *P. cinctus alascensis,* Alaskan Chickadee.

Described in A.Z. II, No. 328, and comments — the head in the painting is shown as black, so could have been the bird brought back from there.

[The painting does not show the head a clear black but there is no decided brown, probably a bird of the year.]

JOHN W. WEBBER

John W. Webber was by profession an artist and etcher. He was born in London of Swiss parents and studied at Berne and Paris before going as draughtsman on Captain Cook's last expedition. After the return of the Expedition he was responsible for paintings of English and Continental scenery in oils and water colours. As indicating his proficiency he was elected a member of the Royal Academy in 1791.

From information contained in Vol. 1, S.Z. Dept. of Prints and Drawings, British Museum, the following are related to the Cook Expedition.

In Captain Cook's Diary, 20 May, 1778, there is a note "that Mr. Webber made drawings of everything that was curious." A large folio of "everything that was curious" was issued with the first edition of the Cook Narratives and shows landscapes, natives and other features of places visited but no birds.

Webber's knowledge of German enabled him to act as Cook's interpreter in dealings with the Russians in Alaska.

There are 39 paintings of birds, of which some are of the same species as appear in the Ellis collection. The number of plates appears to have been originally greater as some undoubtedly have been removed, most are signed by Webber; only twelve are of birds found in The Area.

It is only recently that the existence of these paintings has come to light having been discovered by Dr. Lysaght among the collection of manuscripts bequeathed to the British Museum by Sir Joseph Banks. They are discussed by her in her history of early paintings in Bank's collection already referred to. Nothing is known of the history before they came into Bank's possession, presumably they had been handed over, with other material connected with the Cook Expedition, to the British Admiralty and by it, to Banks and were included in the bequest of his collections to the British Museum.

The fact that some of Webber's paintings are of the same species as in the Ellis collection suggests that he may have used the same specimen and, then and there, painted it (there were no refrigerators in those days in which to preserve specimens) or may have made a copy of the Ellis painting. The latter suggestion seems quite likely as in some cases the pose and details are similar; moreover Webber was not an ornithologist and so probably relied on Ellis composition for details; Ellis never mentions him nor does his name appear anywhere while the Expedition was in The Area, except as interpreter.

In the discussion following, the number of any corresponding plate in the Ellis collection, has been added. Having had the pleasure of looking over both collections, I am of the opinion that Webber's are distinctly the better; he introduces some background and his plumages show more detail.

Webber gives the latitude and longitude for some species and for others he gives the locality and date which do not always agree with the Cook and/or Ellis Narratives nor dates on Cook's map. Neither Sharpe nor Stresemann saw the paintings.

The names and numbering are as shown in Dr. Lysaght's pamphlet, hence trinomials.

105—*Parus cinctus alascensis* — Alaska Chickadee.
Taken on the Continent of West Coast of America Lat. 64.30°, Long. 198.30°. September, 1778. [Ellis—94.]

110—*Bombycilla garrulus pallidicepts* — Bohemian Waxwing.
Taken on the Continent of the West Coast of America in Lat. 64.30°, Long. 198.30°, September, 1778. [Recorded Cook Expedition at Norton Sound.]

112—*Erolia acuminata* — Siberian Pectoral Sandpiper or Sharptailed Sandpiper.
1778. Taken between Lat. 69½°, Long. 191.2°.
[This is a difficult bird to identify as the nominate race (*Erolia melanotus*) could also be found there; presumably Dr. Lysaght realized this and so referred the painting to the two species.]

113—*Aphriza virgata* — Surf-bird.
1778.
[Ellis—66, 62.]

114—*Phalaropus fulicarius* — Grey or Red Phalarope.
Insert: Sketch of beak and foot (Latter not at all clear). Taken between Asia and America Lat. 69½°, Long. 191½° East. September, 1778.
[The yellow legs point to *P. fulicarius*; there is considerable grey in the plumage which suggests a transitory condition which agrees with the date. Actually date given is 1788, evidently a mistake for 1778.]
[Ellis Pl. 63.]

115—*Pluvialis dominica dominica* — American Golden Plover, 1777 Sandwich Isles.
[The Sandwich Isles are one of the regular wintering grounds of the Asiatic race (*P. d. fulva*); *P. d. dominica* winters on the South American Continent.]
[Ellis—68.]

117—*Heteroscelus incanus* — Wandering Tattler.
1777, Palmerston Island.
Latham's Ash-coloured Snipe in Banks Coll.
[Ellis—62.]

125—*Melanitta perspicillatus* — Surf Scoter.
"J.W., f. 1778. Coast of America" (D) "J. Webber."
A.L. *Anas perspicillata.*
[Adult male.]

126—*Histrionicus histrionicus pacificus* [Male] Harlequin Duck.
"John Webber" del. 1778."
"That part of the body which is covered by the wings is of a brownish colour resembling that over the eyes but darker. Duck of Analaska. Samganouda Harbour. Isle of Aonashka."
A.L. *Anas histrionica.* Kamchatka.
[Ellis—34.]
[A good representation.]

136—*Colaptes cafer* — North-western Flicker.
"King George's Sound (D) J. Webber *Picus auratus.*"
Dr. Lysaght points out "breast suffused with pink."
[Ellis—19. Looks a copy of Ellis's plate 19.]

137—*Sphyrapicus varius ruber* — Red-breasted Sapsucker.
"J. Webber del." 1778 King George's Sound (d).
Later p. 561 n.s. *Picus erythrocephalus* L.
Dr. Lysaght refers to Swarth's Report on Coll. of birds . . . from Vancouver Island Univ. California. Publ. Zool. 10 (1) 125 and identifies this painting as the race "*ruber.*"

138—*Picoides tridactylus fasciatus* — Alaskan Three-toed Woodpecker; male 1778. Taken on the continent of the west coast of America. Lt. 64° Long. 193.3° Sept., 1778. Norton Sound.
[Ellis—20.]

GEORGE WILLIAM ANDERSON

William Anderson was nominally surgeon on Captain Cook's vessel *Resolution* — nominally, because he was really there as principal Naturalist, possibly it would not have done for any member of the Expedition to be classed as so vague a creature as Official Naturalist. He had been with Cook on his previous voyage, but apart from this, practically nothing is known of his history. In an article by J. J. Keevil, Surgeon Lieutenant R.N., in the Annals of Medical History, November, 1933, he is described as a man of many parts. Besides

natural history, ethnology interested him, and he compiled a dictionary of the Friendly Islands language of nearly 600 words. At Nootka he collected another vocabulary of 250 words which appears in the Official Narrative.

In the article "William Anderson, Ornithologist" (Emu 38, p. 60), Iredale brings together what little is known about Anderson, particularly regarding his observations on the birds of Australasia, and concludes "the two M.S.S. note books [referred to later] stamp Anderson as 'an original observer of the first class and a very able ornithologist'," and points out that Latham, in the *Supplement to Synopsis of Birds* (1787), mentions him on eight occasions.

That Captain Cook had a high opinion of Anderson is clearly shewn by entries in his Journal: "great proficiency in natural history . . . he was as willing as he was well qualified to describe everything in that branch of science worthy of notice." After his death Cook refers to him as "a sensible young man, an agreeable companion, well skilled in his profession and had acquired considerable knowledge in other branches of science."

In the Introduction to the Official Narrative of the Cook Expedition, it is pointed out that the work "is also enriched with considerable communications" from Anderson and refers to his "abilities and great assiduity in observing everything that related to natural history."

Though the notebooks, already mentioned, and the missing third one, are the only known writings of Dr. Anderson, it is suggested that there must also have been some form of a Diary which was handed over with the notebooks at the conclusion of the Cook Expedition and which has fared the same fate as the last notebook. It is also suggested that Anderson only made use of the notebooks to describe species that were new to him.

The following facts lend support to this suggestion:

(1) The use of the word "incognitarium" in the title could indicate that the birds described were previously unknown to Anderson.

(2) Latham in his *History of Birds* refers to certain M.S.S. as being in the possession of Sir Joseph Banks — which could indicate these were in addition to the notebooks.

(3) The reference to a M.S. in a footnote in the Cook Narrative of his last voyage (Vol. 11, p. 154).

The accounts of the birds seen during the voyage are too limited

to represent all the work of a man who was the official naturalist and keenly interested in birdlife.

It is to be hoped, if such a record exists, it, and the missing third notebook, will ultimately turn up.

The two thin notebooks, 8" x 6", are now in the British Museum. All three are mentioned in the records of the Naval Archives in London and are listed under:

Anderson W. Journal of a voyage made in H.M. Resolution, 16th May, 1766 - 13th April, 1777 — Public Records Office Ad. 51/4360 — 203; Second vol. 14th April, 1777 - 2nd September, 1777, 51/4560 — 204; 3rd vol. 3rd September, 1777 to June 1778.

The loss of the third volume is particularly unfortunate in present circumstances, as it must have covered the earliest part of the period when the Cook Expedition was in The Area; the last entry Anderson was able to make, was in June; he died on the 8th August, 1778. It would be from then or sooner that W. W. Ellis would have been responsible for notes on birds.

Captain Cook showed his regard for Anderson by naming an island in the Bering Sea after him, though the name does not appear on present day maps. The title of the first volume is:

Charates breves Avium (in itinere nostro circum orbe visa) adhuc incognitarium annis 1772, 1773, 1774, 1775.

and of the second:

Zoologia nova seu Characteres et Historia Animalium hae tanus incognitarium qui in itinere nostro videbantur — 1775 in Linguis Latinis et Anglicia traditus.

These are chiefly concerned with birds of the Southern hemisphere, particularly Australasia, and among the birds described is the Giant Petrel (*Macronectes gigantea*), the *Quebrantahuessos* of the Cook Narrative, which shows that Anderson was well acquainted with the bird and would have recognized, and mentioned it, had he seen it in northern waters.

Without minimizing Dr. Anderson's reputation, there is no doubt he was responsible for confusing the Black Oyster-catcher (*Haematopus bachmani*) seen at Nootka with the similar species from New Zealand (*Haematopus nigra*); a mistake that was repeated by other narrators.

There is an interesting description of a bird seen when the Cook Expedition was wintering in the South, at Palmerston Island (Cook

Island). "It is nearly as large as the redshank. The bill is straight a little compressed, dusky and longer than the head. The body above is entirely of a black dusky colour, with a whitish line running from each side of the base of the eyes. The large wing feathers brownish with outer ones lighter and white ste[m]. The remotest order of the wing coverts have the points mostly white. The neck below the breast, thighs, underside of the quill feathers, and those of the tail are varied with brown and white, but the last order bluish. The gullet, Belly, and vent white, with the sides of the last a little variegated with black. The feet yellow, or of an orange colour.

"It is found in Palmerston Island, and other tropical countries of the South Sea."

[The description has been identified by Dr. Stresemann as of the Bristle-thighed Curlew (*Numenius tahitiensis*) which winters there and in the Sandwich Islands (Hawaiian). There are, however, several features in the description that do not fit the Curlew: size being the most striking — according to Ridgway's *Birds of North and Middle America*, Part VIII. The male Redshank wing is — 152.9; Curlew 240.3, exposed culmen 42., against 78.7; tarsus 47.6, and 55.2. Then there is a marked difference in colour of legs: the Redshank, in life, are orange-red (pale brownish in skins); Curlew livid bluish and dusky in skins. The Curlew can be described as an all over brown bird, while the Redshank has the underparts white. In any case the Redshank does not occur. It is suggested the description is that of the Wandering Tattler (*Heteroscelus incanum*) which according to A.O.U. winters, among other places, in the Hawaiian Islands (formerly Sandwich Islands and where Cook wintered). The wording of the description is uncertain, the reference to "the last order, bluish" is not clear, but the general colour of the Tattler much more nearly approaches blue than is that of the Curlew. Latham calls it the Ash-coloured Snipe. In Synopsis Vol. III (p. 154).

Extracts from Hawkesworth's *Voyages* (First Edition) published in London in 1783 a second edition appeared in 1794.

Anderson states in his Introduction that some of the notes have "been contracted," which certainly applies to the bird notes as compared with those in the official Narrative. For Kamchatka birds, Anderson used Krashnaminnikov's *History of Kamchatka*. His account is more in a narrative style.

The full title is "The whole of three voyages of Captain Cook

F.R.S., etc., now publishing under the immediate direction of George William Anderson assisted by a principal officer who sailed in the Resolution Sloop and many other Gentlemen of the most distinguished Naval Abilities."

Though sometimes differing in the bird notes from the other Narratives, Anderson's is similar enough to make it unnecessary to do more than draw attention to differences.

In the list of Kamchatka birds, Anderson includes the Wigeon, a species seldom mentioned by early writers, though it must have been one of the commonest of the ducks seen. Cuckows [sic] and pelicans [Cormorants] are listed; the former must be taken as doubtful and then only possible in the summer, a time of year when the Cook Expedition was never there. Other birds listed were "eagles, hawks, swans, geese, ducks, magpies, snipes, partridges, grouse, etc."

"A bird called the red-necked diver is very curious; it has a beautiful spot on the lower part of the neck. Beneath this spot, there are feathers of a brown colour in the middle and edged all round with white; the breast, belly and legs are of a beautiful white."

[This must refer to the Red-throated Loon (*Gavia stellata*), though the description of the legs is rather off-colour, possibly faded.]

Later:

"Sea fowl are very numerous on the coast of the Eastern ocean, as are peacocks, seapies, greenshanks, puffins, etc. Here, too, are the cormorant, sea raven and urile." Peacocks as a sea fowl is inexplicable.

A rather unexpected bird to be noted was the Greenshank (*Tringa nebularius*), a bird not easy to distinguish from some other waders. It would only be found in Kamchatka, if at all, in the summer it is not mentioned in other Narratives and is a very doubtful record. Sea raven and urile are other names for the cormorant, the last probably referring to the Red-faced (*Phalocrocorax urile*).

At Nootka the notes are much as those of Cook and/or Ellis, though Anderson states the Expedition "met with humming-birds different in some respects from the various sorts already known of this delicate little animal." Only Rufous (*Selasphorus rufus*) would be found but each sex may have been counted as a separate species.

Another note that varies: "We found a sandpiper not unlike the burre, [Dunlin (*Erolia alpina*)] a plover resembling our sea lark." [small Limicolae.] Anderson lists Cook's "blue-headed duck" as only seen at Bering Bay while Cook recorded it twice, neither time men-

tioning Bering Bay; unfortunately neither gives any clue as to species. He repeats the mistake over the Oystercatcher (*Haematopus*) which he calls a "black magpie with red bills such as we met at Van Dieman's Land."

He describes the Marbled Murrelet (*Brachyramphus marmoratum*) with a black bill, so agreeing with Ridgway's *Birds of North and Middle America*, Part VIII, p. 746. Anderson's observations on the Tufted Puffin (*Lunda cirrhata*) are quite different from Cook's:

"The first of these birds were seen to the southward of Cape St. Hermogenes, after which we saw them daily and frequently in large flocks." Cook's record is much further north and with no mention of their having seen before though should have been quite common.

Many birds, frequently mentioned by Cook, are left out, such as the Arctic Gull, the description of whose feeding habits should have attracted Anderson's attention. To his credit, he does not mention the *Quebrantahuessos* anywhere. These differences between the official Narrative and Anderson's are the result of a rather hasty run through the latter and must be taken as only applying to the bird notes.

It is somewhat of a puzzle as to how Anderson was able to obtain material for the account ahead of the Official Edition when all papers, in any way connected with the voyage, were handed over to the British Admiralty who consequently must have been agreeable to inclusion of Anderson's contribution to Hawkesworth, perhaps looking on this work as a semi-official publication, and permitting him to see the specimens.

CHARLES CLERKE

Captain Clerke was practically brought up in the British Navy and spent his life in that service. He started as midshipman on the *Dolphin*, and nearly lost his life in an early action when the mizzen mast of the *Dolphin* was shot down and he, with it, went into the sea. From midshipman he rose to Quartermaster and took part in Cook's voyage round the world; promoted later he was appointed as Captain on the *Discovery* under Captain Cook and after the latter's assassination, took over the command.

Captain Clerke does not appear to have kept a diary or record other than his log-book, though evidently he contributed to Captain King's narrative.

The only personal references to birdlife are those in the log-book as follows:

17th April at 43.18 latitude, 163.53 longitude: "During 24 hours we have seen several flocks of wild fowl, many shearwaters and petrels."

April 18th, 46.10 latitude, 164.51 longitude: "We have seen these 24 hours several flocks of wild fowl—many petrels and shearwaters."

April 19th: "We have seen some wild fowl today and many petrels, 48.40 - 165.42."

April 20, 1779, Latitude 49.48: "Saw more wild fowl today. The meeting with these fowl, I believe, is generally supposed an argument for being near Land, but we have no other sign of it and have run these last four days, during which we have seen many flocks of them [at] upwards of 150 leagues." [This last record must be a mistake, the Expedition would not be this distance from shore.]

April 21: "Some flocks of wild fowl and a few albatrosses, 50.25-166.18."

April 22: "We see some wild ducks and large white petrels about."

April 23: "Many flocks of wild fowl about."

April 28, [When attempting to make Avatcha Bay]: "Vast quantities of wild fowl about."

It is interesting to know that shearwaters, probably Dusky (*Puffinus griseus*), were numerous so far north, so early in the year (before The Area was reached there is mention of them); Petrels here were Leach's (*Oceanodroma leucorhoa*). The large white petrels seen on 22nd are a puzzle; the only suggestion is Fulmars (*F. glacialis*) in the light plumage phase. Evidently like most writers, Captain Clerke was impressed by the vast quantities of wildfowl.

As it will be noticed, the notes only cover a period of 10 days in April and would have been written before he was incapacitated by illness; this rather suggests there were some other notes (diary or otherwise) since lost, in which entries were made before and after the 10 days. The notes suggest he was interested in the birdlife.

Chapter VIII

WILLIAM ROBERT BROUGHTON

A voyage of discovery to the North Pacific Ocean Performed in His Majesty's sloop *Providence* and her tender in the years 1795-1798. By William Robert Broughton, London, 1804.

May 11, 1796:

In a description of Nootka, Broughton states: "Wild fowl abound in vast quantities. The *Corvus cristatus* [Steller Jay (*Cyanocitta stelleri*)] which I believe is only found in North America, is also to be met with here." He also mentions "country covered with large trees with a considerable quantity of brushwood growing below," which points to the difficulties of any exploration away from the immediate vicinity of the shoreline.

From Nootka Captain Broughton sailed to the Strait of Juan de Fuca but he records no further notes on birdlife.

JAMES STRANGE

James Strange was in charge of a trading expedition that visited the Northern Pacific during the years 1785-1787.

Perhaps his most important historical act was to be the first to plant the British flag on the Mainland of Western North America; he also named Queen Charlotte Sound.

Though Strange kept a Journal, for some reason, apparently of his family, it was not made public until 1828 when it was published in Madras by A. V. Venkataramm, M.A.L.T., Curator of the Madras Record Office and is entitled "James Strange's Journal and Narrative of the Commercial Expedition from Bombay to the Northwest coast of America." There were two vessels, the *Captain Cook*, 350 tons and *Experiment*, 150 tons, which sailed from North America, January, 1786, to the North.

There are only a few notes: The first, "a quail that had a call like chweek" [which, as no quail would have been there, might have the half grown young of the Ruffed Grouse (*Bonasa umbellus*)].

Under date of 31st August at Prince William Sound:

"We saw many wild ducks, Geese and Partridges of which we shot a brace; and during our stay in Prince William Sound, several of the former, all of which we found Excellent of their kind."

Strange added some names of birds to Cook's vocabulary for Nootka and composed one for Prince William Sound which includes names for the following birds: Goose, wild duck, magpie, kingfisher, and "blew" gull; he also gives the Indian name for the net used in catching birds.

According to Strange the coast between Nootka and Prince William Sound was very thinly populated; in this he does not agree with other narrators.

NATHANIEL PORLOCK AND GEORGE DIXON

Each of these explorers wrote an account of the voyages under the same title: "A voyage round the world but more particularly in 1785, 1786, 1787, and 1788 in the King George and Queen Charlotte — Captains Porlock and Dixon" and which were published in London in 1789.

Captain Nathaniel Porlock's record took the form of a Journal, but the Narrative of Captain George Dixon is derived from extracts from letters written by his supercargo William Beresford during the voyage and was dedicated to Sir Joseph Banks, who may have been interested in the natural history of the voyages.

Both commanders were well fitted for their jobs, having served with Captain Cook. The Expeditions were in the interest of trade being sent by The King George Sound Company of London and sailed the end of August, 1785.

Taking Porlock's account first:

The first voyage did not produce much in the way of notes on the bird life, except to show that Porlock relied on Pennant's *Arctic Zoology* for identification, as, when at 53° N. on 27th November, 1785, he refers to two birds "coming on board which I took to be the Striated Sandpiper of Pennant."

Pennant must have seen the specimen which he describes as follows (*Arctic Zoology* (1786) No. 383): "Base of bill and legs yellow; upper parts of body undulated with dusky and cinerous; front of neck dusky; breast and belly white; primaries and secondaries black, the last tipt with white; tertials white, with a stripe of black; tail black,

the feathers on the sides cinerous, edged with white. Size of a Stare [Starling (*Sturnus vulgaris*)]. Inhabits Sweden, Norway and Iceland. Not frequently in Russia and Siberia; it is conversant, even during winter, in the frosty climate of Greenland . . . flies very swifty along the surface of the water catching insects on the surface . . . Twitters with the note of a Swallow." A footnote refers to Faun. Green 6. No. 73.

The date indicates a winter resident in fairly high latitudes and the only "Sandpiper" of the size, there then would be the Rock (*Erolia ptilocnemis*) to which some of the description could apply — tail black, one rather marked feature.

The Expedition had wintered at the Sandwich Islands and sailed from there directly to their destination, Prince William Sound, so sailing across The Area, whereas most expeditions proceeded coastwise. This resulted in traversing a vast amount of ocean and, as is usual in such cases, no birdlife.

25th April, 1786, Montague Island near Prince William Sound: "There were plenty of wild geese and ducks about but so very shy we could not get within shot of them."

Under 6th May, when at Prince William Sound: "Great numbers of wild geese and ducks were flying about, but they appeared very shy; indeed I did not choose to fire at them, fearing that the report of the firearms might prevent any Indian coming into the harbour."

On 13th May: "Birds much the same as in first bay we anchored in"; presumably referring to some bay in Prince William Sound.

28th June, 40.15 North lat. and 157.55 West long. "we saw a shagg [Cormorant sp.] which bird is never known to fly far from land."

[The following would be off the Queen Charlotte Islands.]

28th June at 55°.8" N., latitude and 134.60" longitude: "On northermost point of bay a remarkable high barren rock covered with innumerable quantity of various kinds of birds."

3rd July, Latitude 40°.4" N.: "Since 29th [June] we had daily seen . . . a great number of petrels and various other birds . . ."

7th July, 1786, 46.11 by 147.8: "Vast numbers of different kinds of birds such as divers, gulls, petrels and albatrosses were constantly about the ship."

When at latitude 59.30 [Port Mulgrave, Queen Charlotte Islands] Porlock mentioned a tuft of white feathers on top of a long pole being used by the Indians as an emblem of peace.

There are some interesting figures on the Indian population in the neighbourhood of Cape St. James, Queen Charlotte Islands, the total being estimated at 1,700.

In his general review of his experiences, Porlock wrote: "I have already enumerated the kinds of birds which have been met with."

There is a List of Plants, Birds and Fossils seen in Cook's River and which he notes are nearly the same all along the Coast of America [evidently referring to his own experiences]. There is also a coloured illustration of the White-winged Crossbill (*Loxia leucoptera*). His list of birds comprises:

White headed eagle [Latham, immature plumage of same].
Crows [*Corvus brachyrhynchos*].
Ravens [*C. corax*].
Common Swallows [presumably refers to Barn (*Hirundo rustica* but uncommon].
The Jay or Steller.
Black Grouse [Blue, (*Dendragapus obscurus*)].
Black sea-pies with red bills [Black Oystercatcher, (*Haematopus bachmani*)].
Kingfisher of a bluish colour, speckled with white [Belted (*Megaceryle alcyon*)].
Snipes [small *limicolae*].
Gray sandpiper [Possibly described by Pennant: the Wandering Tattler (*Heteroscelus incanum*)].
Wild geese and swans.
Shags [probably Pelagic Cormorants (*P. pelagicus*)].
Gulls.
The Razor bill Auk [not found in the Pacific, possibly the Guillemot (*Uria* sp.)].
The little lusk [possibly, a misprint for "Auk"; Oxford Dict., "Lusk" is interpreted as "to be hid", which might be applied to the Least Auklet (*Aethia pusilla*).
The common Shearwater [*Puffinus griseus*].
Numberless brown petrels.
Terns [*Sterna* sp.].

In this work, there is one of the few early references to the contemporary work by John Latham (assuming "Lath" refers to him) as well as references to A.Z. Porlock's reference to these works

points to his interest in bird life, so it is surprising that his notes were so few.

DIXON

The first reference to the birdlife in the Dixon account is dated "At sea, 2nd October (1786), latitude 53°, longitude 134°.

"We saw a species of bird quite different from any we had hitherto seen; his make was long and slender yet his flight was heavy. The tips of his wings were finely variegated — He was nearly the size of a small gull. We likewise saw wild geese of various species in great numbers."

Possibly the bird was a juvenile Sabine Gull (*Xema sabini*) which does not follow the coastline but tends to migrate over the sea. This was the only observation during the first voyage to and from North America.

On the second voyage under date of 25th April, 1787 at Montague Island: "We saw several gulls, divers and various other species of birds."

30th April:

"This bay [Montague Islands] abounds with wild geese and ducks, but they are so very shy, that we could barely come within musket shot of them. There are also great numbers of smaller birds of various kinds, such as sandpipers, snipes, plovers, etc., etc."

The Introduction stated "The work was written by a person on board the Queen Charlotte who has been totally unused to literary pursuits and equally so to a seafaring life" and consisted of extracts from letters.

At Port Mulgrave on 3rd June he writes:

"We found some wild geese and ducks here, and though not so numerous as at Montague Island, they were more easily come by. Captain Dixon frequently went on shore and seldom returned without some game."

When the Expedition was at Norfolk Sound (Letter 83) the northern migration was over; birds referred to, should have been to nest.

"Very few wild geese or ducks seen here and those shy and difficult of approach."

At the end there is an appendix similar to Porlock's dealing with Natural History, but no additional birds are listed.

Dixon points out the mistake over the sex of the white-winged Crossbill in the Porlock illustration as follows:

"A female or young male, superscription being white winged Crossbill from North West coast of America." He draws attention to the differences from Latham's description (*Synopsis of Birds*) as "it [the painting] wants the crimson colour, and the brown bar between the eyes, so that it is certainly a hen, differing from the cock exactly as in the common Crossbill (*Loxia curvirostra*) shot at Montague Island." [Females and young in first year's plumage are similar.]

Another Appendix gives details of route and weather, but there are no further notes on the birdlife.

An account of the Expedition which appears in Hawkesworth "Universal Collection of voyages and travels to all parts of the world," Book II, differs somewhat. At Port Mulgrave [Queen Charlotte Islands, lat. 59.30] "a few wild geese and ducks which the Captain occasionally shot to the great surprise of the inhabitants," and at Norfolk Sound. "Few ducks or geese seen and those shy and difficult of approach."

There is also mention of bird beaks used as rattles to ornament a Chief's coat.

JOHN MEARES

John Meares, an Englishman, was a trader and not much interested in exploration or natural history. He is chiefly remembered for his claims against the Spaniards for depriving him of property on Vancouver Island.

His own account of his voyages was published in London in 1791 under the title "Voyages made in the years 1788 and 1789 from China to the North West Coast of America with an Introductory Narrative of a voyage performed in 1786 from Bengal, in the ship Nootka — published in London in 1789."

On his first voyage to North America, in 1786, Meares reached the Fox Islands (Aleutians) and from here intended to sail south but weather conditions were so bad and as prospects of trading appeared good, he decided to put in the winter in Prince William Sound.

3rd October he noted: "The ducks and geese which had afforded us a constant supply were now forming into flocks and passing away to the southward," and by the 5th November "Not one of the feathered

tribe was to be seen. There were five feet of snow in the woods."

In March they were suffering from want of food. "Fish or fowl was not an offering of the winter here. A crow or a sea gull were rare delicacies and an eagle, one or two of which we killed, when they seemed to be hovering about, as if they would feed upon us, instead of furnishing us with food, was a feast indeed."

One wonders what these birds found to eat, probably dead animals washed up. No doubt the crow was actually a Raven (*Corvus corax*).

However, matters improved in the spring and on 6th May Meares speaks of there being "a great variety of sea fowl and that several flights of ducks and geese passed over." It was not until 17th May that the Sound was clear of ice.

Referring to Prince William Sound generally: "Of geese there were a great quantity in the season, with various other fowls of the aquatic species, but except the crow and the eagle, we saw no birds that were the natives of the woods."

From Prince William Sound Meares worked his way down the coast to Nootka where he arrived 13th May and, here, there is what would seem to be a general note on the birds seen.

"The species of birds which frequent the American shore are very confined: We observed the Crow, the Magpie, the Thrush, the Woodpecker, the Wren, the Kingfisher, the common land-lark, the plover, the hawk, and the white-headed eagle. The wood-pigeon was also sometimes, but very rarely seen.

"The aquatic fowls were far more numerous and consisted of the common sea gulls and shags; many kinds of ducks and divers; the sea-parrot and many others of which we knew not the names."

Here the Crow would be the North-western (*C. caurinus*); the Magpie (*Pica pica*) is not found on Vancouver Island, except as a very rare visitor. The Thrush could be the Swainson (*Hylocichla guttata*); the Wren, the Winter (*Troglodytes troglodytes*). The "common" land-lark was not likely to have been the bird so called today, possibly migrating pipits (*Anthus spinoletta*). The Plover, probably the Killdeer (*Oxyechus vociferus*). The Wood-pigeon undoubtedly was the Band-tailed (*Columba fasciata*). Here the Sea-parrot would be the Tufted Puffin (*Lunda cirrhata*).

The next year Meares made another voyage on the *Iphiginia* under Captain Douglas accompanied by the *Felice*. After wintering in the Sandwich Islands they did not reach the Northwest Coast of

America until July. There are no notes on the bird life except very vague ones in the different log books such as: 1st April: "numerous flocks of birds"; 17th April: "Large flocks of birds."

Meares states the Indian population then to be 60,000 between Nootka, latitude 45° or 46.9° and, northward, to latitude 61° (southern Alaska), as at least 100,000, but does not say how he arrived at these figures; however, they do imply that the Indians were in considerable numbers.

Meares also notes the arrival of probably the youngest explorer to visit the Northern Pacific and who certainly deserves to be included:

"October 1789, 20th arrived Nootka.

"Early American navigators Thomas Humphrey Metcalfe, commanding *The Beautiful American*, youth of 18 years, left Macao 5th June with a crew of 5, crossed to Unalaska in 42 days, reached Nootka without provisions, mast sprung and sails split. Sailed over open seas for more than 3000 leagues."

This is practically identical with the note in Martinez; naturally such a remarkable voyage would account for it being mentioned in the two different narratives.

Chapter IX

GEORGE VANCOUVER

George Vancouver was born in England in 1758 and joined the British Navy at the age of thirteen (they started early in those days). He was with Captain Cook on his second and third voyages and then served in the West Indies until he was given command of an expedition:

"To explore and chart the coast of North America from 30° N. to 60° N. Cook's River (Baja, California to Cook Inlet, Alaska): To ascertain if there was any water communication between Western and Eastern North America: To investigate the Straits of Juan de Fuca and to take over territory Spain was ceding to Great Britain at Nootka."

A formidable programme which was faithfully carried out and so well that some of Vancouver's charts are used today. His name is best associated with Vancouver Island which he demonstrated was not part of the continent of North America. The expedition must have covered thousands of miles in charting the coast taking in the islands and inlets. It also had to be mainly limited to the summer months, as with Cook and other early explorers, in vessels that today would be only considered fit for coastal undertakings. The two vessels were *Discovery*, 340 tons, with a complement of 100 officers and men, and *Chatham*, an armed tender commanded by Captain Broughton of only 135 tons and 45 officers and men.

The Expedtion sailed form Falmouth (England) on 1st April, 1791 and arrived back in October, 1794. Captain Vancouver did not long survive his return, dying in May, 1798 before he had completed the narrative of the voyages which was finished by his brother and Captain Puget, who had been with the expedition. The title is "A Voyage of Discovery to the North Pacific Ocean and Round the World in 1790-5 under Captain George Vancouver."

Vancouver's instructions did not, like those of Captain Cook, include directions for investigating the Natural History but, on the staff, was Dr. Archibald Menzies, as official naturalist.

Before The Area was reached there is an interesting observation under date of 8th of April 1792, that points to the possible cause of confusion in the identity of the *Quebrantahuessos*, mentioned in the Cook Narrative.

"Since our leaving land we had been daily visited by one or two large birds, but not more at a time, which we sometimes took for the Quebrantahuessos and at others for a species of albatross. On Sunday the 8th the weather being perfectly calm Mr. Menzies was so fortunate as to determine this point by killing a brown albatross; of the same sort, I believe, as are found in abundance about Tierra del Fuego, distinguished vulgarly by the name of Mother Carey's geese, on account of the white rump, shape of tail and which resemble the storm petrel, commonly called Mother Carey's chicken. This albatross had also a white mark about an eighth of an inch wide, and 2 inches long, extending in a diagonal direction from the inner corner of its eye towards the neck. From tip to tip of each wing it measured 7 feet." Evidently this was the Black-footed (*Diomedea nigripes*) in Menzies Journal, but is not found at Tierra del Fuego or south of the Equator.

The North American Continent was first sighted on 18th April, 1792 at Lat. 39.27° N., somewhat north of San Francisco and Vancouver examined and charted the coast as far as 55° N., approximately to a line South of the Queen Charlotte Islands. It was when sailing North, on the east side of Vancouver Island, that he found himself in the open ocean and so demonstrated that it was an island and not part of the mainland of North America, as Cook had supposed.

The following year, after wintering in the Hawaiians, Vancouver completed his survey of the Charlottes, and then left The Area to survey the coast of Australia.

Vancouver also examined the southern (Washington State) shore of the Strait of Juan de Fuca, where he noted wild fowl were abundant. He put in several days exploring Admiralty Inlet and remarks on the scarcity of wildlife:

"The brute creation had also (as well as natives) deserted the shores — nor was there an aquatic bird on the whole extent of the Canal, animated nature seemed nearly exhausted, and her awful silence only now and then interrupted by the croaking of a raven, the breathing of a seal or scream of an eagle."

This lack of life was so noticeable that it "gave rise to ridiculous suspicions by the seamen of hearing rattlesnakes and other hideous monsters."

Vancouver concluded this absence of wildlife:

"That part of the brute creation have an aversion to the absence

of the human race; this opinion seemed now in some measure confirmed by the appearance for the first time during the last three days of several species of ducks and other aquatic birds. I do not mean absolutely to infer that it is the affection of the lower orders of the creation to man that draws them to the same spots which human beings prefer, since it is highly probable that such places as afford the most eligible residences in point of sustenance to the human race, in an uncivilized state, may be by the brute creation resorted to for the same purpose."

"Few of the feathered tribe were procured, although on our first arrival, the aquatic birds were so numerous that we expected a profuse supply of wild fowl; but these were all so extremely shy and watchful, that our guns seldom reached them; and, on being fired at, they disappeared."

"About the shores, some species of tern [probably Common Tern (*Sterna hirundo*)]; the common gull [probably Glaucous-Winged (*L. glaucescens*)]; sea pigeon of Newfoundland [Pigeon guillemot (*Cepphus columba*)]; Curlews; Sandlarks [according to Newton Dict. of Birds a name for smaller *limicolae*]; and the Black Oystercatcher "like those in New Holland and New Zealand [a different race]; these were however not so abundant as the others; a spruce partridge [perhaps the Ruffed Goose (*Bonasa umbellus*)]; a little variety of small birds among which the humming bird [*Selasphorus rufus*] bore a great proportion. At the outskirts of the woods and about the water side the white-headed and brown eagle [adult and juvenile Bald eagles]; ravens [*C. corax*]; carrion crows [*C. brachyrhynchos*]; American King's fisher [sic] [*Megaceryle alcyon*], and a very handsome woodpecker, were seen in numbers; and in addition to these on the low projecting points, and open places in the woods, we frequently saw a bird with which we were wholly unacquainted though we considered it to be a species of crane or heron; some of their eggs were found of a bluish cast, considerably larger than that of a turkey, and well tasted. These birds have remarkably long legs and necks, and their bodies seem to equal in size the largest turkey. [They are often referred to, under this name by other narrators.] Their plumage is uniformly of a light brown, and when erect their height on a moderate computation could not be less than four feet. They seemed to prefer open sitautions. and used no endeavours to hide or screen themselves

from our sight, but were too vigilant to allow our sportsmen taking them by surprise. Some blue and some nearly white herons of the common size were also seen."

Several of these birds are included in the Cook and/or Ellis narrative, which may well have been their source, particularly as Vancouver repeats the error about the identity of the Oystercatcher. There are some additions — the Tern, the Common (*Sterna hirundo*); the Curlew, probably the Whimbrel (*Numenius phaeopus*); the "Heron or Crane," probably the latter (*Grus canadensis*) though the description of the egg fits the other. As to the White Heron — this must be a mistake as no such bird could have been seen so far north.

These early explorers must have used the name "Crane" often as applying to the Great Blue Heron (*Ardea herodias*), which is resident in the The Area and ranges to Southeastern Alaska (A.O.U.): the Crane (*Grus canadensis*) is a migrant, nesting (now) as far South as Vancouver Island and has a similar range North (A.O.U.). The description does not fit either, nor do the eggs which were more likely to have been the Crane as it nests on the ground and one would not expect sailors to hunt for heronries. The description of the plumage does not fit either species.

Captain Vancouver had more to say about the natives, chiefly mode of life, and mentions their use of bird skins for clothing, down for ceremonial purposes and, what reads as a peciliar custom, the "plucking of the white feathers from the rump of an eagle as a sign of friendship."

In the neighbourhood of New Dungeness (Port Townsend, Washington State) Vancouver mentions: "two poles on which a human head was stuck"; and "on a long sandy spit where 17 of the long supported poles were seen like those before described on New Dungeness. These poles had frequently presented themselves, though in less numbers than on the present occasion, but though these afforded us an opportunity of examining them they did not contribute the least instruction concerning the purpose for which they were intended. They were uniformly placed in the centre of the low sandy spit, at the distance of about 80 yards from each other, and it would seem that they were required to be of certain heights, although not all equally high. They were in general about six inches in diameter at the bottom, and perfectly straight, and when too short, a piece was added, which was very neatly scarfed on; on the top of each terminating in two

points like a crescent, or rather like the straight spreading horns of an ox. The tallest of these poles I should suppose to be about 100 feet, the shortest not so high by 10 or 15 feet. Between several of them large holes were dug in the ground in which were many stones that had been burnt, which gave these holes a resemblance of the cooking places in the South Sea Islands. There was however no appearance of any recent occupation." [Menzies also describes these or similar poles.]

Leaving the Strait, Vancouver explored the islands in the Gulf of Georgia and then worked his way up the coast examining most of the inlets. Howe Sound he refers to as gloomy with "not a bird nor living creature was to be seen." Seymour Narrows, which has been the scene of several wrecks owing to the strength of the tide, apparently did not seriously trouble Vancouver; he must have taken advantage of slack water and been guided by the natives.

The appearance of the land did not at all appeal to Vancouver, he frequently refers to dreary shores; nor are there any remarks on the birdlife. Much the same conditions were found when sailing South after reaching the open Pacific, his only note was:

"The eagle, crow and raven that occasionally had borne us company in our lonely researches visited not these dreary shores."

This extreme scarcity of birdlife is difficult to follow as the ocean along both inside and outside shores of Vancouver Island is the passage way for gulls and ducks and should have been seen as well as some Alcids.

Kaye's Island otherwise known as Wingham Island "afforded a supply of upwards of sixty dozen eggs of sea fowl consisting chiefly of two kinds of gulls [possibly both Glaucous (*L. hyperboreus*) and Glaucous-winged (*L. glaucescens*)], sea-parrots, shags and curlews [*N. phaeopus*]; no ducks were seen here and only two geese."

On 22nd August, 1792 at Cross Sound there was a sad disappointment. "Some young ducks were caught but very fishy and bad eating."

At Cape Hinchinbroke, Vancouver mentions "the shooting of many wildfowl and that, on most of the rocks where they landed, eggs were procured in great abundance." Here, and probably generally in all the Narratives, the word "wildfowl" must have been used in a wider sense than today and would include aquatic birds such as Murres and Alcids. The reference to eggs at this time of year must be a mistake, as they would have hatched; possibly Vancouver mixed up two places.

At Prince William Sound "a few geese, ducks, goosanders and other aquatic birds procured." This is the only time goosander is mentioned in the early records and would be the Common Merganser (*Mergus merganser*).

On 28th August when at Port Stewart (apparently in Douglas Channel) Vancouver records the shooting of "some ducks and wild geese from a swampy tract at the head — a few Herons too were shot which were found to be very delicate eating and preferred by some to any other game."

This is very complimentary to the Heron (*A. herodias*) which would not rank so high today; possibly the birds were Cranes (*Grus canadensis*), as Menzies lists both, and these would be more palatable! Another entry, 20th September, when at Point Protection (West side of Queen Charlotte Islands) has also to do with food:

"We sometimes deprived gulls and crows of a kind of capelin which were left in some numbers by the high tides, on the beaches, to which our sportsmen added some ducks, geese and other aquatic birds of the latter we had also procured some in Port Stewart . . . The wildfowl were not obtained in such numbers as to serve the ship's company."

The capelin (*Mallotus villosus*) is a small fish that spawns in large numbers on sandy beaches.

12th April, 1794: There is an interesting comment about the effect of weather on migration, "For the first time this season we noticed some flocks of wild geese and could not avoid remarking that they flew to the southward, contrary to what might have been expected from the advanced state and mildness of season, which however on Sunday morning the 13th suffered a very material alteration, the wind came to N.E. and was attended by a sharp frost and very heavy fall of snow." [An interesting instance of reverse migration.]

During the exploration of Cook Inlet in mid May, "some wild geese and ducks were killed" and Vancouver referred to use of birds' skins for clothes.

On 31st May at Port Gravina, Captain Hinchinbrook "shot many wildfowl" and even as late as 9th June at Prince William Sound "our sportsmen procured a few geese, ducks, goosanders and other aquatic birds."

4th June: Johnstone, who was one of Vancouver's officers, "had fared tolerably well on this Expedition, [away from the ship] having

shot many wild fowl and on most of the rocks where they landed eggs had been procurd in great abundance."

5th June, 1793: "Two wild geese and two divers brought to the ship as a present from the Russians."

The next year Captain Vancouver sailed north on 20th May and after a short stay proceeded north to complete his survey of the Queen Charlotte Islands. There is very little regarding the birdlife; the only interesting item is the mention of the Wandering Tattler (*Heteroscelus incanum*) seen 120 leagues from land and with the same description as in Menzies' Diary.

When approaching the North American coast he noted a few small albatrosses and petrels. Neither of the albatrosses to be seen could be called "small," possibly the birds in question were Fulmars (*F. glacialis*).

ARCHIBALD MENZIES

Archibald Menzies (1754-1842) first joined H.M. Navy as a surgeon and was appointed in this capacity as well as naturalist, to accompany Vancouver.

In later life Menzies practised this profession in London and while there, was elected President of the Linnean Society, a fact that, in itself, testified to his high standing in the scientific world.

Menzies already had some previous experience of the Northwest coast of America having been with Captain Colnett, but, if he kept any records of his experiences, they do not exist today. Colnett's Journal contains nothing about birdlife.

Menzies' Journal is now in the British Museum; the following extracts are from a certified copy in the Provincial Archives, Victoria, B.C. There is also an edition covering that portion of the voyage spent in waters adjacent to British Columbia, annotated by the late Dr. C. F. Newcombe, of Victoria, B.C.

The instructions dealing with natural history, given by Sir Joseph Banks, were:

"To investigate the whole of the Natural History of the countries you are to visit. At each place where you land you are to inform yourself as well as you are able what sort of Beasts, Birds, and Fishes likely to prove useful for Food or Commerce, are to be

found and pay particular attention to various ways of catching them in traps or otherwise used by the natives. . . . Keep a journal of all occurences that happen in the execution of your several duties."

Menzies' Journal does not suggest that he kept to these instructions; he was a Botanist first and foremost and other branches of Natural History were more of a side-line. Consequently, his notes on the birdlife are few considering the opportunities afforded.

On the 8th April, 1792, at approximately lat. 36° N. and long 225°:

"On rowing a little way from the ship I shot one of the large dark brown birds which were at different times seen in the course of this passage and found to be a species of Albatross agreeing nearly in its characteristics with *Diomedea fuliginosa* but I was somewhat doubtful of its being the same bird. This bird is about 7 feet between tip of wings moderately extended and 3 feet in length including bill which is 4 in. and of a chocolate colour, upper mandible longer and hooked. The front — a small spot under each eye pointing backwards, the rump crissum, inner half of tail shafts of quills white; rest of head, neck and tail together with upper part of body and wings are of a dark brown but the gullet and belly are of a dusky cinerous colour legs and toes and claws black and the irides dark hazel."

This bird is identified by Dr. Newcombe as the Black-footed Albatross (*Diomedea nigripes*). If so, it would have been a juvenile already showing signs of adult plumage and the white spot under the eye could have been not so much a spot, as an indication, by a few white feathers, of the white band round the face above the beak when adult.

If the Black-footed it should have been plentiful. Perhaps the birds were the first of their kind seen (it is not found in the southern hemisphere) and so warranted special description; it arrives earlier in The Area than the Short-tailed (*D. albatrus*) and would have been frequently listed under the general name of "Albatross."

Though Dr. Newcombe, who annotated Vancouver Island birds in the Narrative, may have been correct in his identification, it should be mentioned that the juvenile, *D. albatrus*, is similar and moreover has a pronounced white spot under the eye, though the description does not agree so well in other details. (Birds of Alaska, op. cit.).

The *Quebrantaheussos* of the Cook Narrative is not mentioned by Menzies or Vancouver.

17th April, 1792: Menzies mentions seeing a number of birds such as Auks, Divers and Shags.

18th April: "We were met by several flights of birds seemingly Puffins going to the southward probably to their breeding haunts; they flew close to the surface of the water, following one another in a line."

1st May, in Strait of Juan de Fuca, rowing along the shore: "Vast flights of waterfowl as Auks, Divers, Ducks and Wild Geese, which were so exceedingly shy that the sportsmen had very little opportunity of showing their dexterity."

7th May: When in Admiralty Inlet there is mention of "a few gigantic cranes of between three or four feet high who strided over the lawn with a lordly step." [*Grus canadensis.*]

8th May: Menzies describes the poles referred to by Vanvouver "Having crossed over the entrance of Johnstone's decoy [Port Townsend] in the middle of which we found 9 or 10 long poles erected in a row at nearly equal distance from one another which was about 90 or 100 yards apart. Each pole was lengthened by two pieces neatly joined together to about 90 feet high terminating with a Trident by leaving the stumps of two opposite branches and the middle piece about a foot long at the extremity of the upper pole. The heel of each was sunk in the ground and was further shored up by four other poles each about 30 feet long which spread out round the bottom and fastened about the middle pole as supporters. What was the intention or meaning of the natives erecting these poles with so much pain and trouble we were at a loss to form the most distant conjecture; we saw some of the same kind erected upon other Beaches since we came into the Straights but nowhere so numerous and regular as here."

[The actual use of the poles was to carry nets suspended between them, to catch flying wildfowl at night but, when the Expedition saw them, there would be no nets in use as the birds would not be flighting. G. D. Sprot "The early Indian Wildfowler of Vancouver Island" (Can. Field Naturalist Vol. XLII - p. 26) gives a good account of their use. There is also a reference to these poles in Newcombe's Appendix and an illustration in Vancouver's Narrative which shows 4 poles in pairs; on one side is a sandy bluff which would keep the birds from flying to this side. The poles are supported by three timbers fastened to the poles roughly about one-third up from the ground and have two points like a crescent which must have been to hold the nets in place from

pole to pole. The height of the suspended net would be according to that of the flighting birds hence lower at each end to catch the birds as they came in low.]

15th May at Admiralty Inlet: "Bird life is very scarce. A few large cranes (*G. canadensis*) that inhabited the inland pastures, some white headed eagles [*H. leucocephalus*] that hovered over the arms of the Inlet and perched [sic] in the trees on both sides watching for fish seemingly their only prey, a few ducks were seen in one or two places on ponds and a kind of small Blackbird with red shoulders (*Oriolus phoenicus*) that hopped amongst the Bullrushes with a few Crows that seemed to accompany the Indians comprehended our ornithological list of this extensive tract." [The Blackbird would be the male Redwing (*Agelaius phoeniceus*).]

When among the southern islands in the Gulf of Georgia on 21st May 1792, they passed:

"A high sandy cliff in which a species of Diver burrowed very numerously like Swallows, we saw more of them in the cliffs of a small island a little further on which was also inhabited by a great number of Crows attending their young, here we landed and shot several of them which were found very good."

[Newcombe identifies the island as Herron and the diver as the Pigeon Guillemot (*Cepphus columba*), but this bird would not be found burrowing in a sandy cliff. Possibly it was the Tufted Puffin (*Lunda cirrhata*) of which a few pairs still nest on some of the islands in the Gulf of Georgia and is a burrower. The Pigeon Guillemot (*C. columba*), is also a dark coloured bird.]

6th June: Strawberry Bay [Lower Gulf of Georgia]: "on a small flat island about the rocks were a number of black sea pies (*Haematopus bachmani*) of which we shot several and found them good eating. Young of a large Crane we got upon another Island which I took to be *Ardea canadensis*. [Great Blue Heron, (*A. herodias*).]

25th June, Malaspine Strait: "few or no birds."

Menzies would apear to have been particularly interested in the gastronomic value of the birds; as well as those already mentioned he also found young Cormorants were "very palatable." The Oystercatcher (*H. bachmani*) would appear to have been more numerous than today. The cormorants were probably both the Double-crested (*Phalacrocorax auritus*) and Pelagic (*P. pelagicus*), both of which (today) nest on islands in the Gulf of Georgia.

There is a reference to a plague of fleas at a deserted Indian village which had apparently forced the natives to leave and drove off Vancouver's party. "It was impossible to get rid of all, though clothes were immersed in sea water, until steeped in boiling water."

As the expedition sailed north through the Gulf of Georgia, at the entrance to present-day Howe Sound, "a few sea pies were shot," but, in mid June, "not a bird nor living creature was to be seen."

There is mention of the natives "plucking white feathers from rump of eagle and blowing them into the air, accompanied by songs and other expressions as tokens of peace."

Squirrel Cove, Cortez Island, at the northern extremity of the Gulf of Georgia, on 2nd July: "We here killed some large grouse which on starting perched in Pine Trees." Obviously the Blue Grouse (*Dendragapus obscurus*).

30th August at Simoon Sound, where Cormorants were nesting: "Shooting parties went after a particular kind of shag (*Pelagicus urile*) that were breeding in the crevices of the rocks and at this time of year were very numerous as the young were beginning to fly — we found them next day very palatable."

[*P. urile* is now the Red-faced Cormorant. The birds referred to would be the Pelagic (*P. pelagicus*).]

On 22nd October, at Lat. 46° off the West Coast of Vancouver Island:

"Two birds apparently owls were seen flying about the ship which were probably drove off land in late gale for we could not suppose a bird so averse to diurnal excursions would take such a distant flight voluntarily." The estimated distance from shore was 16 leagues and the birds were probably migrating Short-eared Owls (*Asio flammeus*).

"A small lark perched in rigging and was picked up much fatigued: the little warbler was taken care of and refreshed in expectation we should soon be able to restore it again to its native forest."

The following year, 1793, when the Expedition sailed north from Nootka to complete the work of charting, there is an interesting note on occurence of the Wandering Tattler (*Heteroscelus incanum*) referred to by Vancouver which reads:

"On the morning of the 9th a species of Sandpiper (*Tringa*) settled in the main chains though we were then about 120 leagues out from the Coast. The upper part of its body was of a dark lead colour, the breast and under parts were whitish speckled with the same colour

as the upper part of the body, its bill was long and black, its legs were of a dirty orange colour and claws black, its orbits were white."

5th June: Menzies accompanied a shooting party but only mentions "shrill notes of a few gulls, the wild croaks of some passing ravens."

On 19th July, 1793 when at the Queen Charlotte Islands near Bank Island:

"We were at this time surrounded by the most numerous flight of Oceanic birds we had yet seen on any part of the Coast, they seemed to be chiefly of the Auk genus with some gulls and Petrels and a considerable space within our sight the surface of the sea and air seemed to be equally swarmed with them."

Probably at the time they were in the neighbourhood of some large nesting colonies of various species of Alcids.

On 28th August at Port Stewart apparently in Douglas Channel, he reports the obtaining of "some ducks and wild geese from a swampy track at the head of the Harbour which at this time afforded them a place of resort and from which our sportsmen seldom returned empty handed. A few Herons too were shot, which were found to be very delicate eating and preferred by some to any other game."

During the time the Vancouver Expedition was in winter quarters in the Hawaiian Islands, Menzies noted birds including species that winter there but nest within The Area: The Curlew, the Bristle-thighed (*Numenius tahitiensis*); the Shoveller (*Spatula clypeata*); [the A.O.U. does not include these islands as wintering]: another is the Doterell but it would not occur, possibly the Ruddy Turnstone (*Arenaria interpres*). From New Zealand he had described two kinds of "Oyster-catchers," one as "wholly black" which he believed "common to many parts of the world in either of the temporate zones." As previously pointed out New Zealand species is a different race.

He also has an interesting remark about the Hawaiian Goose, the Ne-Ne, which has recently been saved from extinction:

"In a desert valley we saw some geese of a size somewhat between our common geese and ducks, were very handsome and had some distant resemblance to the Canada Goose, but quite a new species not yet described."

The following year the first note is recorded from Cook's River [Inlet] in April:

"First time this season we noticed some flocks of wild geese and

could not avoid remarking they all flew to the southward, contrary to what might have been expected from the advanced state and mildness of the season which however on Sunday morning suffered a very material alteration as the wind came to the N.E. and was attended by a sharp frost and very heavy fall of snow." [This suggests that migrating birds have some ability to foretell weather ahead.]

The latter part of May there is mention of "the shooting of some wild geese and ducks" and on 6th June a present of two wild geese and two divers was received from the Russians. The Expedition was now on its way back to England and soon left The Area.

JOHN DUNDAS COCHRANE

"Narrative of a pedestrian Journey through Russia and Siberian Tartary — from the frontiers of China to the Frozen Sea and Kamchatka" performed during the years 1820, 1821, 1822 and 1823 by Captain John Dundas Cochrane, R.N., published in London in 1834.

It is almost impossible to realize anyone undertaking such a journey, and certainly Captain Cochrane deserves a place among the early explorers even if, as he admits in his Introduction, he frequently got lifts and at times made use of dog teams. Then too he was sometimes offered lodging (he does not say how he made out when such was not available); his expenses from from Moscow to Irkulsk, he states "certainly fell short of a guinea." [twenty-one shillings.] Even in the days when "gold was gold" this is incredible; he must have been a good scrounger.

When the public recognized what he had accomplished, his book became very popular and several editions were issued.

Unfortunately, Captain Cochrane did not show much interest in birdlife; the only reference is included in his general description of the country.

"The Kamtschatdales derive also a considerable benefit from the surprising quantities of geese and ducks, swans, snipes and wild duck. They are preserved by dipping them in water, which freezing, they will be as good as long as winter continues; at other times they are salted. The ducks and snipe are most excellent, but the geese and swans are considered venison of the most delicious kind too."

Later on he states, "The natives proceed to the mouth of the

haven [Harbour of St. Peter and St. Paul] and brought in some thousands of eggs, while others were out in shooting parties, sending us in snipes [small sandpipers], wild ducks and partridges" [grouse sp.].

ALEXANDER MACKENZIE

Few of the early explorers could have travelled by land so extensively as Sir Alexander Mackenzie, when in the employment of the Hudson's Bay Company at Fort Chippewyan from where both his exploring trips started. The first was to the mouth of the river that bears his name, and the other to the Pacific Ocean.

On his journey to the Pacific he reached salt water at Bentinck Arm in Deane Channel, where he left his well-known notification "Alexander Mackenzie from Canada by Land the twenty-second day of July, one thousand seven hundred ninety three"; he only recorded "Gulls." Birdlife on the way, to and from the sea, must have been scarce, as the Expedition was frequently short of provisions.

Though not actually within The Area, some of Mackenzie's notes on birds seen on other journeys are worth mentioning: In January, 1793, when wintering on the Peace River at Fort Fork, "The winter had been so mild that Swans and Geese had but lately left us."

On his journey to the Pacific down the Fraser River (south of Prince George), "Swans were seen in great numbers with geese and ducks." The swans were probably Whistling (*Olor columbianus*), on their way to their northern breeding grounds. On 18th June, when following the Fraser, he refers to "a flock of ducks entirely white except the bill and part of the wings," a description that fits the Snow Goose (*Chen hyperborea*), though the date is late for them to be still migrating to their far northern nesting grounds.

Mackenzie was an explorer, not a Naturalist so there are few records of birdlife.

DAVID DOUGLAS

David Douglas was born in Scotland in 1798 and was first apprenticed as a gardener. He obtained an appointment at Glasgow Botanical Gardens and attracted the attention of Dr. Joseph Hooker, Professor of Botany at Glasgow University, who recommended him to Joseph

Sabine, Secretary of the Royal Horticultural Society. This led to his appointment to head the Expedition to the Northwestern Americas.

Though primarily a botanist, Douglas must have had a fair general knowledge of natural history including ornithology. In an article by F. S. Hall, "Studies in History of Ornithology in the State of Washington (1792-1932), with special reference to the discovery of new species" (Murrelet, January, 1934, XV, No. 1 - pl.), he states that Douglas made extensive collections representative of the birdlife of the Columbia River region, to be sent to England. He also quotes Dr. Richardson in his Fauna Borealis — American (Introd. II, p. XIII), "The indefatigable researches of Mr. David Douglas which would have made the birds of the northwest coast equally familiar to Europeans with those of Hudson's Bay, had not his extensive collections gone to decay, through the length of the voyage and other causes beyond his control."

The Expedition was initiated by Hooker, now "Sir Joseph," head of Kew Gardens, London, and sailed on the 25th July, 1824, for Fort Vancouver at the mouth of the Columbia River where Douglas made his headquarters. Dr. John Scouler who accompanied the expedition as Surgeon (Journal reviewed later) was also keenly interested in natural history particularly anatomy.

Douglas' account of his experiences is entitled: "Journal kept by David Douglas during his travels in North America, 1823 - 1827," and was published by the Royal Horticultural Society in London in 1914.

Douglas' original notes made on his trips through Canada from the Columbia River to the Athabasca were lost when he was wrecked on his return trip down the Fraser. Presumably his published account was based on notes made from memory. None have reference to The Area.

Douglas and Scouler (see later) may almost be said to have discovered the California Vulture (*Gymnogyps californianus*) in Washington State and later in The Area. Douglas wrote an article "Observations on the Vulture californianus of Shaw" (Zool. Soc. Journal No. XV: p. 328-336 October, 1828 and January, 1829) but did not connect the bird with The Area. Some late writers however definitely do so: J. K. Lord, "The naturalist in British Columbia (1866)" in an appendix "List of birds with notes of habitat and periods of arrival and departure" refers to the Vulture as "found at the mouth of The Fraser" [River].

Fannin, in "A Preliminary Catalogue of the Collections of Natural History and Ethnology in the Provincial Museum, Victoria, B.C." (1898) reports, "In September, 1889, I saw two of these birds at Burrard Inlet. It is more than probable that they are accidental visitants here." Macoun and Macoun, in "Catalogue of Canadian Birds" (1909) describe *G. californianus* as "a rare visitant to the mouth of the Fraser River, B.C." In Dawson and Bowles, "The Birds of Washington" [State] (1909) the range is given "North to Southern British Columbia."

JOHN SCOULER

Dr. John Scouler, a medical practitioner in England, was the Official Surgeon (nominally) on the *William and Mary*, a friend of David Douglas. Captain Vancouver refers to him as being an accomplished naturalist, though it is evident, from his own observations, that his main interest was anatomy.

The Quarterly of the Oregon Historical Society (Vol. VI - March, 1905 to December, 1905 - Editor Frederick George Young) contains: "Dr. John Scouler's Journal of a Voyage to North Western America 1824, 25, 26."

There are not many references to the birdlife, and these generally refer to the anatomy. Under date of 10th April, before The Area was reached an albatross was dissected and about which Scouler observed: "In plumage and internal organs it differed in no respect from those dissected off Terra del Fuego." As at the time the Expedition would have been well north of the equator any species of Albatross found at Tierra del Fuego, would not be seen; the bird was probably the Short-tailed (*Diomedea albatrus*).

The first bird-note, after The Area was reached, is dated 10th June: "A small species of Alca fell on deck. It appeared to be *Alca alle of* Linnaeus, *uria alle*, Brisson. These birds were by no means scarce about the vessel."

The bird was probably the Least Auklet (*Aethia pusilla*) as *A. alle* is not found in the Western Oceans.

Scouler mentions that at Nootka he received specimens of *Uria troille* [Murre] and *Colymbus cornutus* [Horned Grebe]; the latter species was dissected.

He comments on the abundance of birds at Nootka, probably referring to sea birds. "The Indians leave the coast in October [after the salmon runs] and retreat into the Interior where they kill abundance of birds especially of the duck tribe." [Few ducks would be found there in winter.]

"In the vicinity of their village are many of the poles represented in Captain Vancouver's voyage. . . . I was told by some of the Indians they were for catching birds."

After Scouler's return to Fort Vancouver on 22nd September, he states "Much of my time was employed in procuring and preserving birds; the river was beginning to abound in birds. I obtained specimens of *Pelecanus onocrotalus* [Double-crested Cormorant (*Phalacrocorax auritus*)], the white Pelican (*Pelicanus erythrorhynchus*), *Falco leucocephalus* [Bald Eagle] and a species of Vulture which I think is nondescript. [might be California Condor (*G. californianus*)] My birds were principally obtained from the Indians who would go through any fatigue for a bit of tobacco. I was also sufficient master of the language to explain to them what kind of bird I wanted and I believe, had we stayed longer I might have acquired specimens of every animal in the river [Columbia].

There is also mention of procuring four albatross "which in internal organization differed in no respect from those dissected off Tierra del Fuego." These albatrosses must have been obtained at sea, but there is no suggestion of where, or what species.

Scouler accompanied Douglas to Western America a second time and his experiences are set out in "Second Journey to the North West parts of the Continent of North America during the years 1829, 1830, 1831, 1832, 1833.

There are few notes on the birds which appeared in an Article, Oregon History Journal March (1905 VI).

8th June: "Saw many abatrosses which seem to emigrate to the more northern latitudes during the summer months. The sea everywhere abounds in beautiful *Velella* which seems to be dispersed all over the North Pacific and probably forms the chief support of the *Diomedea* and other sea fowl which live in these latitudes."

9th August: When in the Strait of Juan de Fuca he refers to the poles mentioned by Vancouver and "that the Indians told them they were used for catching birds."

He states that from Tatooch to Point Discovery the country is

heavily populated (Natives) and that "They kill an abundance of birds especially ducks some of which they [the Expedition] received as presents."

He would appear to have visited Point Roberts, B.C. and then returned to the Columbia River from where the Expedition returned to England.

JOHN WARK

John Wark, a clerk in the employ of the Hudson's Bay Co. was sent to Fort George, near the mouth of the Fraser River in British Columbia, to ascertain the possibility of finding a suitable entrance for navigation purposes. Like most Hudson Bay officials he kept a journal and in the one covering this trip there are two notes on birds seen: 13th December, 1824: "Immense flocks of plover were observed about the sand at Point Roberts off Lulu Island, B.C."

20th December, 1824: "In the lowland at the entrance of the river [Fraser] geese, particularly white ones were very numerous and by no means shy, they allowed themselves to be approached easily. Mr. McKay killed three of them."

The plover might have been the Pacific Golden (*Pluvialis dominica fulva*). The white Geese the Lesser Snow (*Chen hwperboreus*). The mouth of the Fraser is still an important wintering ground for this species.

Wark was with the Hudson's Bay Co. for many years, and kept his Journal going, but does not seem to have visited The Area again.

Chapter X

FREDERICK BEECHEY
("Blossom" Expedition)

This was the last of the really exploratory voyages that included the Northern Pacific, which by 1825, had been generally explored in the quest for the unfortunate Sea Otter (*Enhydra lutra*), which by this date been almost exterminated.

Captain Frederick Beechey entered the British Navy at 10 years of age and saw active service during the wars with France and America; he served under Sir John Franklin in Buchan's Arctic Expedition and also accompanied Parry. In 1825 he was appointed to command the *Blossom* to explore Bering Island and the Western Northern Pacific in concert with Franklin and Parry operating from the East, in quest of the supposed Northwest Passage. 71°.25" was his highest point when he was only 146 miles from Franklin to the East. In the course of the voyage he discovered several islands.

His experiences are described in "Narrative of a Voyage to the Pacific and Bering's Strait to co-operate with the Polar Expeditions, 1825-1828" [including 13 coloured plates of birds by Sowerby], published in 1831. Later, he was appointed Rear Admiral and was elected president of the Royal Geographic Society.

In the general introduction Captain Beechey explains that the different branches of Natural History were written up, after the the return of the Expedition, by specialists—N.A. Vigors undertaking the ornithology. Beechey pointed out that "from the nature of the voyage it was not practical to retain [detain] the ship long at any place — sometimes a few days only, therefore it was not possible to collect a series of specimens illustrative of the natural history of any particular place."

According to the instructions from the Admiralty "he is to cause it to be understood that two specimens at least of each article [of natural history] are to be reserved for the public museum [the British], after which the naturalist and officers will be at liberty to collect for themselves. You will pay every attention in your power to the preservation of the various specimens of natural history and on

your arrival in England transmit them to this office. These specimens would be dealt with by various naturalists."

A Mr. Trandescant Lay was appointed as naturalist but was unable to continue in the office owing to illness and a Mr. Collie was appointed in his place, but there is no doubt that Captain Beechey, or one, or more, of his officers must have had some knowledge of the birdlife to enable the inclusion of the notes on birdlife that appear in the Narrative.

According to the Admiralty instructions, the *Blossom* was to be in Bering's Straits in 1826 to meet Franklin, and, in the event of failure, a second attempt was to be made the next year. Beechey was given directions as to exploration in the intervening period, but was not to prolong his stay anywhere that might retard his arrival at Bering's Strait later than 10th July and to remain there until the end of October.

The Introduction further directs that the journals and papers of the officers were to be placed in his (Beechey's) hands "with directions to publish an account of the voyage." The accounts of the collections of natural history were reserved for separate volumes. Beechey also sets out the instruction for Mr. Lay, the Naturalist.

The Expedition reached Petropavalosk 27th June, 1826, and after refitting, sailed North.

In the neighbourhood of Bering Island: "We advanced to the northward attended by a great many birds, nearly all of the same as those which inhabit the Greenland Sea, sheerwaters, lummes, puffins, parasitic gulls, stormy petrels, Dusky Albatross, a larus resembling the Kittiwake, a small dove-coloured tern, and shags."

[Stormy petrels probably Leach's (*Oceanodroma leucorhoa*); the Dusky Albatross, immature of either the Short-tailed (*Diomedea albatrus*) or Black-footed (*D. nigripes*). The larus was probably one of the Kittiwakes, either the Black-legged (*Rissa tridactyla*) or Red-legged (*R. brevirostris*), and the tern, the Arctic (*Sterna paradesea*) or Aleutian (*G. alleutica*).]

Before reaching St. Lawrence Island:

"During the day we saw a great number of whales, seals and birds, but none, I believe, that are not mentioned in Pennant's Arctic Zoology."

Near St. Lawrence Island, July:

"The natives had a great many small birds of *alca crestatella*

strung upon thong of hide, very palatable in a pie." Beechey adds "their presence is a tolerably certain indication of the vicinity of land. They are very numerous and must be easily taken by the natives as they sold seven dozen for a single necklace of blue grass beads."

Chamisso Island in Kotzebue Sound, the place of rendezvous was reached 25th July, "Near on Puffin Island off Chamisso Island. During the period of incubation of the aquatic tribe, every hold and projecting crag on the sides is occupied by them, its shores resound with the chorus of thousands of the feathery tribe, and its surface presents a curiously mottled carpet of brown, black and white."

Of course there was no representative of the Franklin Expedition to meet him but Beechey continued exploration north.

There is a separate account of "Narrative of the Proceedings of the Barge of H.M.S. Blossom to explore the coast North East of Icy Cape." This Expedition reached the furthermost point so far attained by any Expedition. Apparently excursions were made inland, as there is the statement:

"The country abounded in lakes in which were many wild ducks, teal and widgeon." [This is one of the few occasions that the Widgeon is specifically included; here it would be the American (*Mareca americana*).]

"The ship disturbed flocks of lummes [*Gaviidae*] and Dovekies and other aquatic birds."

As previously pointed out Dovekie would refer to the Least Auklet (*A. pusilla*). Newton (Dictionary of Birds) gives the name as being applied to the Black Guillemot (*Cepphus grylle*), but this bird (here *C. columba*) would not be common so far north.

During an expedition at Kotzebue Sound under date of 9th August:

"We saw several ptarmigan, ortolans and a lark." What bird could have been described as an ortolan is a puzzle. The name would appear to be applied to various species (Newton op. cit.) but none of them would be found here. The lark, probably the Horned (*Erymophilla* sp.).

12th August: "A great many birds and two swans [*Olor columbianus*] were purchased from the natives."

At Cape Beaufort [near Cape Lisburne] August 20th: "Immense flocks of Eider ducks, consisting entirely of females and young ones were seen migrating to the southward, and not having the instinct to avoid the ship in time, one immense flock was run completely over

by her. They, however, were more wary when boats were lowered, and successfully avoided our aim to shoot them by diving." There is no indication as to species of Eider, but any of them or other diving ducks would have been able to avoid a sailing vessel; possibly they were moulting birds unable to fly. As Beechey refers to the quantity of wild fowl three times, he must have been impressed by their numbers.

The account mentions that "the natives had some skins of ravens upon which they placed a high price, though being of no use to us they did not find a purchaser. On several occasions the beaks and claws had been attached to ornamental bands for the head and waist and they were evidently considered valuable." [The birds may have been Cormorants. This is the only occasion that the beaks or claws of ravens (or possibly, actually Cormorants) are mentioned as being used for ornaments. Among many tribes the Raven (*C. corax*) was held in veneration.]

At Bering Island there is a combined list of animals and a bird noted as "Moorhen" (*Gallinula chloropus*). It is difficult to suggest what that species actually was, probably one of the Scoters. Beechey might have known that "Coot" was a name commonly used for Scoters in the eastern U.S.A. but this his so-called "Moorhen" was different.

12th August: Mentions Icy Cape as free of ice; both Cook and Clerke found the reverse at about the same date.

1st September: "Several brace of ptarmigan and wild duck were bagged, but game was not so plentiful as might have been expected at this season of the year."

On 3rd October: "There hares and ptarmigan were quite white and birds had quitted their abodes in the rocks to seek a milder climate."

Beechey adds a vocabulary with some birds mentioned, including "Vulture" which must refer to the Turkey (*Cathartes auria*) but would not have been seen so far north; A.O.U. limits breeding to Southern British Columbia.

On the way back, 16th October: After passing King's Island, "Saw some very large flocks of ducks migrating to the southward and fell in with the lummes which had deserted us more than a month before at Chamisso Island."

"As we approached St. Lawrence Island, the little crested auk (*A. cristatella*) flew around us and some land birds took refuge in

our rigging." Here Beechey noted the temperature was 20° higher than the day they left Kotzebue Sound.

The following year Beechey made another attempt to connect with Franklin.

Before reaching Petropavalosk from winter quarters there is an item that points to Beechey's careful observations even if not correct in identification of the Albatross:

"The Brown Albatross and Shearwaters fell off in 40° N. In 41° we saw the wandering albatross and some black divers; some petrels in 45°, puffins, fulmars, petrels, and gannets in 49°, and as we approached Kamchatka, lummes, dovekies, and small tern."

When at Kotsebue Sound, describing methods of capture of birds: "Birds are likewise struck with darts which resemble the *nuguit* of Greenland: They are also caught in whalebone snares and by having their flight arrested by a number of balls attached to thongs about 2 feet in length; [the only mention anywhere of this method of capture] they are sometimes shot with arrows purposely constructed with blunt heads. As an amusement the natives fire at a mark, in this particular case a diver but the bird evaded the arrow by diving."

1st September, 1827, Grantley Harbour, Port Clarance [Seward Peninsula]: "In the lakes, wild ducks and upon the low point of the inner harbour, golden plover, sanderlings and a gull very much resembling the *larus sabinii.*"

Beechey is the only writer to mention, specifically, Sanderlings (*Crocethia alba*). His suggestion of seeing a Sabine Gull (*Xema sabinii*) no doubt was correct; it would be migrating south.

September 29th: "Officers went in pursuit of ptarmigan which were about this time collecting in large flocks previous to their migration."

Left Chamisso 6th October.

At St. Lawrence Island: "Flocks of *alca cristatella* and of eider (*Somateria* sp.) and king ducks (*S. spectabilis*) and several species of phalaropes flew about us."

In referring to several species of Phalaropes: there could have been only two, the Red (*Phalaropus fulicarius*) and the Northern (*Lobipes lobatus*). No doubt, Beechey did not realize the difference in plumages between winter and summer, and juveniles and adults.

At the close of the Narrative Beechey says that the Expedition had sailed 37,000 miles and been away from England 3½ years.

Included in his account is a vocabulary which gives the Esquimo names for Owl, Falcon, Grouse, Snipe, Vulture, Swan, Duck, Puffin, Plover and Pelican [cormorant?].

NICHOLAS AYLWARD VIGORS

Nicholas Aylward Vigors was one of the leading British ornithologists in the eighteen twenties. At this time there was considerable disputation among ornithologists regarding the classification of birds in which Vigors took part but this did not prevent his making use of the Linnaean System.

The account of the voyage is entitled "The Zoology of Captain Beechey's voyage compiled from the collection and notes made by him and the officers and naturalists of the Expedition during a voyage to the Pacific and Behrings Straits, performed in H.M.S. Blossom, under the command of Captain Beechey, R.N.F.R. Soc., in the years 1825, 1826, 1827 and 1828." Published in England in 1839.

In his introduction Vigors points out that "though a great number of birds brought home by Captain Beechey are of considerable interest as being entirely new to science or species that have been rarely found in European Museums, the general observations that result from the collection are not of such importance as, under other circumstances might have been expected, from the zeal, and science of the commander and his officers and also owing to the Expedition only touching at various points and that without making a lengthened stay at any: and the collection consequently consists of species met at detached localities rather than of any extensive series what might serve to illustrate the zoology of a particular spot; under these circumstances the same comprehensive deduction as to geographical distribution of animal life, which affords the chief interest of foreign collections cannot be made from the present collection as would have been the case if the researches of the collectors had been more concentrated. Various difficulties also attended the preservation of the skins when collected; and we have to regret that from the length of time which elapsed before they reached England, so much injury has in many instances accrued to the specimens as to prevent an accurate decision respecting their characters. The number of species described, which is strictly limited to such as from their good condition afford distinctive

characters, will consequently be no adequate criterion of the extent of the subjects actually collected, or of the active exertions of the collectors."

"The most important part of the following observations is that supplied by the officers of the Expedition from their notes on the comparative anatomy of many of the species." No dates and only, infrequently, localities are given.

About 25 pages are devoted to Ornithology but consist of little more than a list of the specimens examined: sometime references are given to other writers besides Linnaeus, Pennant (A.Z.) is also quite frequently given as an authority.

The descriptions are all in Latin, with comments in English, which, in many cases are very sketchy so much so that, without the name having been given, the bird would not be indentifiable. Those species Vigors considered new to science have the letters N.S. added; of these there are 22 but it is not possible to follow why some should have been so designated, having already been mentioned in earlier narratives. The frequent absence of locality adds to the difficulty of identification and also, owing to species, common in The Area, having only California as the locality. The result is that the number of species that can be actually assigned to The Area, is comparatively few:

—*Anas carolinensis* [Green-winged Teal]. Discusses difference between this and European race (*A. crecca*), several specimens in Blossom Collection.

—*Fratercula cirrhata* [Tufted Puffin]. Great abundance Avatcha Bay in July, 1826 and more sparingly at Chamisso Island.

—*Fratercula glacialis* [Horned Puffin]. Collie observation — On rocky ledges of Chamisso Island, at Cape Mulgrave and Cape Lisburn [Queen Charlotte Islands] the young leave the rocks the first days of September.

—*Phalaris cristatella* [Crested Auklet]. Found on St. Lawrence Island in Avatcha Bay in July, 1826.

—*Cerorhinca occidentalis* [Rhinoceros Auklet]. Specimens from St. Lawrence Island, in great abundance, in company with (*P. cristatella*).

—*Larus argentatus* [Herring Gull]. Seen at Behrings Straits.

"The *lestris parasiticus* is also stated by Mr. Collie to have been seen at a distance in Behrings Straits, the two long tail feathers appearing as knobbed. Three or four of these birds were observed at a time

pursuing other gulls, puffins, etc., as they fished in a body or collected other prey and making them drop the food they caught which they seized when falling." [The Mr. Collie, referred to, was one of the collectors with the Expedition. Presumably the reference is to the Parasitic Jaeger (*Stercorarius parasiticus*).]

The Sabine Gull [*Larus sabini*] is mentioned as seen in Bering Straits by Collie. *Diomedia fuliginosa* is another Collie recorded but rather mixed up: "Many flew about the ship off the coast of South America; same species observed in great abundance in Monterey Bay" and also "at sea almost daily from Aleutian Islands to California. A specimen from Monterey extended 7 feet eight inches."

Off the Aleutians it must have been the Short-tailed Albatross (*D. albatrus*) which bears some resemblance to species seen south of the equator; Vigors mentions the Black-footed (*D. nigripes*) which should not be confused with any species from the southern hemisphere.

Chapter XI

French Explorers

JOHN FRANCIS GALAUP DE LA PEROUSE

The French did not have much to do with making early history in the North Pacific possibly being too busily engaged in the Napoleanic wars, but they have the La Perouse expeditions round the world to their credit.

Before John Francis Galaup de la Perouse made his famous voyage round the world he had taken part in several engagements, including the capture and occupation of the Hudson Bay Company's Fork York in Northern Canada. His voyage of discovery, though not as extensive as those of Captain Cook, entitles him to rank with the great explorers of the eighteenth century.

The Expedition had among its objects: "To explore the Coasts of Asia and North America and to attempt to locate the North-west passage."

The account of La Perouse' voyages, so far as obtainable from the details he had sent back to Paris, was published in French soon after it became evident the Expedition must have met with some disaster on its way South, and became as popular in France as Cook's Narrative was in England. It was translated into English and published in London entitled "A voyage round the world performed in the years, 1785, 1786, 1787 and 1788 by the Boussele and Astrolabe under the command of J. F. G. de la Perouse, published by order of the National Assembly under the superintendence of L. A. Milet-Mureau." At the end of the Translation are three coloured illustrations of birds, named as follows: The Blackbird of Port Aux Francais, a pair of California Quail (*Lophortyz californicus*) and a "Promerops."

To deal with these illustrations first: The Blackbird from Port Aux Francais, a place that today may be represented by Lythia Bay, on the East coast of Alaska, does not seem to be any species to be found there or in The Area. The affix "Aux Francais" is one likely to be applied to any new bird seen. There is a footnote — Latham in *History of Birds* suggests the painting represents his Spotted Thrush

(*Turdus naevius*) [the Varied Thrush] but it is difficult to see any resemblance. The description reads:

"Head, back and tail black, behind eye from half way above, a streak of white, the black from corner of eye dwindling to a quite narrow streak that joins the black above — chin and upper throat white — wings three lines of white oblong spots across wings shown half open and spots on extremities of two secondaries. The beak long bending down towards point, full dark eye — tail fairly long and fanned out at end."

The Quail could only be the California (*Lophortyx californicus*) but this bird is a comparatively recent introduction to any place and may have indicated "Grouse" in The Area. "Promerops," according to Newton Dict. (op. cit.) is a name applied to several species but all outside The Area.

There is quite a lengthy Introduction containing, among other things, a chronological list of the navigators who had explored the west coast of North America, with the names of their ships, commencing with Magellan "to whom are owed discoveries in the South Sea." Interesting also is the list of books in the ships library, sixty-five works ranging from distilling to Linnaeus Systema Naturae; the the books on birds included most of the well-known authors at the time, Buffon, Brisson, Pallas. The Author of the Introduction must have drawn on his knowledge of the places visited as there are records that do not appear in the la Perouse Journal, he also added extracts from the account of the voyage of the Spanish explorer Maurelle (q.v.).

It seems worth mentioning that Admiral la Perouse was instrumental in having a monument erected at Avatcha Bay to the memory of Captain Clerke, the successor of Captain Cook, though, at the time, France was a war with Great Britain.

The two vessels *La Bouselle*, commanded by Perouse, and *L'Astrolabe*, sailed from Brest in August, 1785. Accompanying the Expedition were several scientists two of whom were described as naturalists, and apparently were there under the auspices of the French Society of Natural History.

Included in the general instructions were: "To investigate the natural history resources. The Naturalists to make observations peculiar to their studies — and la Perouse to direct their studies and act according to instructions from the French Academy — to take the ornithology of Buffon as their model." It is pointed out that

"more would have been known had the scientists followed the example of their leaders and, during the voyage, had sent in accounts of discoveries already ascertained." As with the Cook Expedition all papers were to be handed over on the conclusion of the voyage, but could not include later records as these would have been lost with the vessels.

The instruction included: "To examine those parts not seen by Cook; to ascertain if any water connection with Hudson's Bay; to pursue search as far as Berrings Bay and Mount St. Elias: visit harbours of Bucarelli and los Remedios, discovered by the Spanish in 1775; Prince William Sound and Cook's Inlet, then to islands of William Sound and Cook's Inlet, then to islands of Shumagin, visit Aleutians. Put in at Port of Avatcha mid September and leave first ten days of October."

The route taken was by Cape Horn to China and Kamchatka and then to the North American Continent where a landfall was made in the neighbourhood of Mount St. Elias (Alaska) in June, 1786. Some exploration was carried out to the north but no serious attempt was made to find the North-west Passage before the expedition sailed to the South Sea Islands for the winter. On the way, calls were made at different places that had been named by Captain Cook, of whom Perouse was a great admirer. There are no observations on avifauna.

The following spring the Expedition returned to Kamchatka (Petropavalosk) and explored the coast of Siberia.

On arrival at Avatcha Bay, September, 1787, Perouse notes "it was there that most land birds were seen which appeared to have been from the South and were driven [there] by the violence of winter."

On the voyage to North America, when the coast was in sight, there is mention of divers and gulls being seen at Port Des Francais. Then under date of July, 1786; "We found birds, in sufficient numbers — There is no great variety but individuals are very numerous. The coppices were full of sparrows (linnets) nightingales, blackbirds and yellow hammers. This was their season of love and to me their song was very delightful. We saw the white headed eagle and crows soaring through the air; we surprised and killed a kingfisher, and we observed a very beautiful blue jay; with some humming birds. The swallow and the black oystercatcher build their nests in the clefts (hollows) of the rock on the sea shore: The gulls, the red footed guillemot, some cormorants and divers of the large and small species, were the only sea birds which we saw."

Other English translations give some of the birds different names. The original reads: "Merles, gelinottes, le corbeau de la grand especo, martin percheur, leuronids dans la creux des rochas sur le bord de la mer, le goeland, le guillemot a pattes rouge, les cormorants, quelques canards et des prongeons de la grande et de la petite espice, auvettes, rossignols."

As with the other early explorers, no doubt Perouse applied names used in his own country, hence some species, difficult to recognize as American, may be named from birds that could be seen in France.

In attempting to interpret the names, I have to thank Dr. E. D. Edthecopar of the Société Ornithologique de France et de Francaise L'Union Fauvettes for his very kind assistance.

"Fauvettes, rossignoles, merles" would represent warblers, nightingales and blackbird; Perouse probably intended "fauvette" to include any small brown bird except Sparrows. A blackbird would be the Red-winged Blackbird (*Agelaius phoeniceus*); Birds of Alaska, (op. cit. p. 739) gives the range as South-eastern Yukon, with specimen collected as far North as Point Barrow. Exactly what bird "gelinotte" stands for is rather a puzzle: in one translation it appears as water-quails, and in others adding "that sing sweetly." The last feature points to the bird being the water-ouzel (*Cinclus mexicanus*). Quail is used at times for the Ruffed Grouse (*Bonasa umbellus*), but they cannot be described as "singing."

The large crow obviously the Raven (*Corvus corax*); Kingfisher the Belted (*Megaceryle alcyon*); the Jay, Steller's (*Cyanocitta stelleri*); "some colubris" must refer to Hummingbirds and so to the Rufous (*Selasphorus rufus*).

The red-footed Guillemot here could be either Black or Pigeon (*Cepphus* sp.). Large gulls would certainly refer to Glaucous-wing (*L. glaucescens*) or Herring (*L. argentatus*), and the small probably the Kittiwake (*Rissa tridactyla*).

According to his records Perouse went two hundred leagues further north than Mount St. Elias to 57.45° N.

At 52.39° lat. and approximately 137° long., he remarks that:

"From 55th to 53rd degrees the sea was covered with a species of diver named by Buffon Macareux in Kamchatka: It is black, its beak and claws are red, and the head are two strips of white strippers, which raise themselves in tufts like those of a cockatoo. We saw some of them to the southward, but they were scarce and appeared to be

mere birds of passage, in some measure wanderers. These birds never go farther than 5 or 6 leagues from the land, and navigators who fall in with them during fog may be assured that they are not more than that distance from the shore; we killed two of them which were stuffed. This bird was unknown previous to the voyage of Behring. Captain Cook also met with it on the coast of Alaska."

There is a footnote "The tufted auk. La Perouse was mistaken in calling it a species of diver, plongeon; Captain Cook met with it on the coast of Alaska."

It is remarkable the prominence early writers give to the Tufted Puffin (*Lunda cirrhata*) as it is common in the northern seas and is found along the coast to the southern boundary of The Area.

The only other observation was when on the way to Monterey, California, on 28th August at Cook's Breaker Point (Nootka), "We were surrounded by little land birds which settled on our rigging, several of which we took, but as they were of a species very common in Europe, they do not deserve particular description."

La Perouse was on his way South when both vessels disappeared; probably they were caught in a hurricane.

Chapter XII

United States Explorers

ROBERT GRAY

The Gray Expeditions were more of a trading than exploring nature but at the same time were officially recognized and were the response of the United States of America to the general scramble to get a footing on the North Pacific and to participate in the profits from trade there. The Gray Expeditions originated at Boston, Mass. and consisted of two vessels, the *Columbia*, first commanded by John Kendrick with Gray second in command, though, later, Gray took over full charge. The second Expedition was commanded by Gray and consisted of one vessel the *Washington*. It was only a matter of weeks between the return of the first and departure of the second expedition. No naturalists were included and any scientific or exploratory work was incidental.

As an explorer Gray must rank with those in command of the early Russian and Spanish Expeditions.

The Gray Expeditions covered many thousands of miles and like others in vessels that, today, would hardly venture out of sight of land; the *Washington* was only 90 tons.

Gray's name, perpetuated in Gray's Harbor in the State of Washington, will always be connected with the discovery of the mouth of the Columbia River, missed by Cook and Vancouver. This provided the U.S.A. with the foundation for her claim to the Oregon Territory as being drained by that river.

The information regarding the Expeditions is from "Voyages of the Columbia to the North-west Coast 1787 - 1790 and 1790 - 1793" edited by Frederic C. Howay and published (1941) by the Massachussets Historical Society.

Unfortunately only a fragment of Gray's Journal remains in existence but to make up for its loss there are accounts by two members of the staff, with remarks on birdlife.

On his first voyage, Gray reached the North American Continent via the Queen Charlotte Islands, which he ascertained consisted of two

main islands, not one as reported by earlier explorers. He wintered at Clayoquot on the west coast of Vancouver Island.

When at Barrel Sound [now Stewart Houston Channel, Moresby Island, Queen Charlotte Islands] he noted, on 12th August, "Geese and Brants in plenty" and shortly afterwards "Geese, ducks, brants, shags, divers and gulls a few of which were procured. Among the woods were seen a few crows and white headed eagles."

The present day application of "Brant" on the North Pacific, would be taken to refer to the Black Brant (*Branta nigricans*) which nests in the far north. The only representative of the Goose family that might, at this date, be present would be the race *fulva* of *Branta canadensis*, a resident on the Queen Charlotte Islands.

Gray describes an interesting custom of the natives (spelling as in original):

"The Indians at Clayuquot after killing the first whale of season, a slave is sacrificed and the corps they lay beside a large piece of the whales headed adorned with eagle feathers — they say it is particularly pleasing to their Deaty to adorn a whale with eagle feathers for they suppose thunder is caused in conflict with that bird and fish that an eagle of enormous size takes the whale high in the air and when it falls causes the noise thunder."

Fortunately to minimize the loss of Gray's Journal there were four members of the staff who kept records of all or parts of the voyages. Robert Haswell, who was with both Expeditions, on the first as third officer and then as a commander of the "snow" *Washington* ["snow," a small sailing vessel resembling a brig]; John Boit, a mate on the second voyage; John Hoskins with the Second Expedition nominally as mate, but more likeily to look after the interests of the owners, and Joseph Ingraham with the first Expedition, first as second mate, later as first officer.

As with other Expeditions when the accounts are by different authors, who were closely associated for a long period, their observations show similarity. None purported to be scientific but are notes of observant men with some interest in the avifauna. All were from the New England States.

ROBERT HASWELL

Robert Haswell's Journal is headed "A voyage round the world on board the ship Columbus — Redivera and Sloop Washington."

The first entry regarding birdlife appears under 16th March, 1789 when the Expedition was at Nootka where the vessels made a long stay:

"In the woods we find several sorts of wookpickers, Robbins and the Virginia red bird, snow birds, yellow birds, long tailed thrush, ground birds, tomtits, s[p]arrows, wrens, parterages, quales, hawks, owls, Eagles of several sorts, Ravens, Crows, Swallows, Doves and Pigeons of water fowl are Geese, Ducks, Brants, two sorts of shags, several sorts of Shrill drake, two sorts of teel, large Loons, several sorts of divers and Gulls, Murs, Marsh larks, kingfishers and swans."

This list must have been intended to be of a general nature and not limited to Nootka and would represent birds seen, there and elsewhere during the winter and early spring. The inclusion of swallows and doves would, then, be very questionable. This, however, is nothing to his including species that have never occurred in The Area, such as Virginia red bird, a name for the Cardinal (*Richmondea cardinalis*) and a long-tailed thrush (*Taxostorna* sp.). "Quales" as used here is puzzling as Haswell includes "parterages" as well both names being applied to the Ruffed Grouse (*B. umbellus*) by various narrators; there were, of course, no real Quail in The Area it was not until the middle of the last century that the California (*Lophortyx californicus*) was introduced on Vancouver Island. The name Snowbird is given the Junco in Eastern America (*Junco hyemalis*) but in The Area it would be *J. oreganus*. The Yellow-bird was probably the Goldfinch (*Spinus tristis*). Marsh Lark: Newton Dict. gives this as a name for the Skylark (*Alauda arvensis*) which was not found in The Area. Perhaps it refers to the Horned Lark.

Haswell like so many others, did not recognize the different age plumages of the Bald Eagle (*Haliaeetus leucocephalus*), the only Eagle to be found there.

Apart from this list there are few notes on birds. What Haswell does say implies that wild fowl were abundant "plenty of foul were shot, geese and ducks in plenty." At Dundas Island he refers to "Turkies" [Cranes (*Grus canadensis*)] seen on the wing; at Queen

Charlotte Islands there is mention of "boild gull eggs". The Expedition put in the winter at Clayoquot.

HASWELL'S SECOND VOYAGE

Haswell was now a mate on and, later, commander of the *Redivera*. He recorded his experiences in "A voyage of discovery in the Ship Columbia Redivera." There are only a few notes concerning the birdlife:

August 19th, 1791: "Geese were very plentiful" [in the neighbourhood of Massett, Queen Charlotte Islands, and would be, at this date, the resident Canada (*B.C. fulva*)].

1st September: [Somewhere off the southern end of Vancouver Island] "Geese were in tolerable abundance." [This date is early for all kinds except *B.C. fulva*, which could have been resident then.]

Then on 12th October, when in winter quarters at Clayoquot, "The natives were bringing a few wild geese and ducks for sale. The fowl indeed were so plentiful that our sportsmen seldom returned without twenty or thirty ducks and geese." [At Tofino adjoining Clayoquot there are extensive feeding grounds.]

Later in the same month he writes that Gray and Boit went out shooting but returned on encountering three canoes of natives, "however they brought two geese" and 20th December he says that "parties were out frequently shooting game." [This abundance is so different from the frequent complaint of scarcity, but then it was the winter when the northern birds were present.]

There is but one "bird" note for the next year, 22nd and 23rd May: "Several geese wer shot and a turkey." According to the latitude given this was somewhere between Prince Rupert and the Queen Charlotte Islands. The Turkey must have been a Sandhill Crane (*G. canadensis*). Haswell also refers to the myth of the eagle and the whale as the source of thunder.

JOHN HOSKINS

John Hoskins was only with Gray's second voyage. He was a friend of the owners, and as he did not appear to have any official position, it suggests he was there to look after their interests; possibly, he may have been instrumental in having the names of two of them, being given to places visited, Bulfinch Sound and Barrel Sound.

There is no title to his notes which open with the statement:

"The following papers being wrote to fill my leisure hours; not with any idea of instructing but in hopes to amuse some of my particular friends."

A rather under-valuation as there is much general information as well as notes on the birdlife.

Before reaching the Northern Pacific Hoskins was making notes about birds seen, catching albatross with hook and line for food and noticing "birds like plovers" migrating.

The first observation when The Area was reached is dated the end of June, 1791 when at Chicklaset or Bulfinch Sound, (now Nasparti Inlet) Vancouver Island:

"Shags, gulls, pigeons, kingfishers and robbins."

Possibly the pigeon may have referred to the Pigeon Guillemot (*C. columba*) also known as the Greenland Pigeon, as the Band-tailed (*Columba fasciata*) does not occur so far north (A.O.U.).

At Barrel Sound, Queen Charlotte Islands, he mentions the existence of a huge rock, with the native name of Congathoity, as being covered with shags and gulls; this might be the same as that described by Captain Cook.

At the Queen Charlotte Islands, in mid July: "A variety of birds such as wild turkies [*Grus canadensis*], Cranes [*Ardea herodias*], geese and ducks; these are in no great abundance, the white headed eagle, herons, a black sea pie with red bill, resembling those seen at the Falkland Islands; shags, gulls, kingfishers, etc., etc."

Seapie is a general name for the Oystercatcher; but those found in The Area, differ specifically from those in the Falkland Islands. In other Narratives the reference is to Kergulan Island which strongly suggests that later writers took advantage of earlier records and treated them as being their own. In Hoskins case the repetition is further evidenced in the mistakes of including impossible birds, such as "Virginia Redbird."

Hoskins' note on the birds seen at Clayoquot is evidently a general resume:

"The feathered tribe are not very numerous nor do they form any great variety — ravens, crows, brown eagles with a white head and tail, herons, robbins, house and bank swallows are most numbers — besides these there are three sorts of woodpeckers, the Virginia red

birds, yellow or bastard canary, snow birds, long-tailed thrushes, ground birds, tomtits, sparrows, wrens, blue jays, partridges, quails, a small species of hawk, owls, pigeons and doves and several sorts of humming birds."

"The waterfowl are plentiful from the last of August until the beginning of March — there are two sorts of geese, the one resembling the common wild goose found on our side of the continent and the other brown and from its tameness was denominated the foolish geese by our sailors — there are also brants, two sorts of ducks, shags, shilldrakes and teels, large loons, several sorts of divers and gulls, seapies, plovers, murrs, marsh lark, peeps, the large crested American kingfishers and a few flocks of swans were once or twice seen. There was also a bird about the size of a hawk with a large crest and of a dark bottle green seen flying about the woods — this bird was scarce and seldom to be seen — we were therefore never able to procure and of course only had a distant sight of them."

Hoskins lists more species than Haswell. New species are: the House Swallow [the Barn (*Hirundo rustica*)], but the Bank (*Riparia riparia*) is most unlikely as it is not found west of the Cascade Mts. (Munro and Cowan, op. cit.); the bird might have been the Rough-winged (*Stelgidopteryx ruficollis*) which is similar in colour. In Woodpeckers the following would be indigenous, Red-shafted Flicker (*Colaptes cafer*) and Hairy and Downy (*Dendrocopus villosus* and *D. pubescens*) or the Yellow-bellied Sapsucker (*Sphryapicus varius*). He falls down over the number of Hummingbirds; probably like others, he took the male and female Rufous (*S. rufus*) to be different species.

In the waterfowl section, the geese would be the same as with Haswell, but whatever the species, today, no goose can be described as a confiding bird. Like Haswell, Hoskins is parsimonious in his list of ducks though definitely distinguishing "ducks" from "teal." The Killdeer (*Charadrius vociferus*) would be the only plover-like bird found on the Queen Charlotte Islands in summer. The bottle-green bird could only have been the Pileated Woodpecker (*Dryocopus pileatus*).

During the cruise north: On 30th July near Banks Island, "We saw waterfowl such as brants, shags, divers, etc., but so amazing shy we could not get a shot at them." On the 12th August "geese and brants were in plenty" and shortly afterwards, at Clarence Sound, "ducks,

divers and gulls and a few white headed eagles." On 20th September, geese are mentioned, and on 16th October, "many geese, ducks and teal."

It would appear that Hoskins did not confine the name "Brant" to present-day usage as no *Branta nigricans*, except the odd left-overs, would be found as far South during the summer months; possibly he was referring to the resident race *fulva* of the Canada goose. Evidently he used the names brant and geese indescriminately.

JOHN BOIT

The following are from the Quarterly of the Oregon Historical Society, Vol. II, No. 4 (December 21).

John Boit, a member of the crew of the *Columbia*, kept a Journal entitled "Remarks on the ship Columbia's voyage from Boston (on a voyage round the Globe)"; it has not been published separately.

Most of the observations on the birdlife were noted when the Gray Expedition was wintering at Clayoquot on Vancouver Island (sometimes spelled Clioquot and otherwise as Coxe's Harbour).

Before Clayoquot was reached, at lat. 46.47°, W. long. 125.60°, on 31st May, 1791:

"Many birds around among the rest some that looked like plover." It seems late for either Golden (*Pluvialis dominica*) or Black-bellied (*Squatarola squatarola*) both of which are migrants.

8th July at Barrel Sound:

"Wild fowl in plenty of which we caught and killed many."

By 20th September the Expedition had reached Clayoquot and "We procured a constant supply of Wild Geese Ducks and Teal. The Ducks and Teal resemble those at home [New England] but the ducks were exactly of the same species with the tame of our Country, [Mallard (*Anas platyrhynchos*)], we see none of any other kind. Now and then we shot a wild turkey." [Sandhill Crane (*Grus canadensis*).]

Boit's account of the Christmas feast:

"They [Gray and his guests] took a walk around the workshops; they was surpriz'd at seeing three tier of wildfowl roasting at one of the houses — indeed we was a little surprized at the novelty of the sight ourselves for at least there was 20 geese roasting at one immense fire; and the Ship's Crew appeared very happy most of them being on shore."

As a contrast there is the observation on the feeding habits of the natives "Tis a general custom to eat their own vermin and they will often make a decent meal!"

JOSEPH INGRAHAM

The name Joseph Ingraham, or Ingram, appears in different narratives but the only account of his experiences is to be found in "Journal of the voyage of the Brigantine Hope from Boston to the Northwest Coast of America, 1790 to 1792, by Joseph Ingraham, Captain of the Hope and formerly mate of the Columbia."

Before reaching The Area, there are notes on birdlife.

When off the Queen Charlotte Islands:

27th June: Several flocks of fowls which flew like ducks but had a red or yellow bill, something like a parrot — by some there are called sea parrots [Tufted Puffin (*Lunda cirrhata*)] — several large grey albatrosses (*D. albatrus*).

A few days later, off Queen Charlottes on the S.E. side of Washington Island:

"Fish and fowl as far as our researches extended seemed scarce, yet no doubt the latter would be a plenty in the winter solstice as there was a plenty a few miles from land. These no doubt seek shelter here in cold and boistrous weather. Land birds were likwise exceedingly scarce."

16th July, Port Ingraham (Graham Island, Queen Charlotte Islands), "an abundance of sea fowls." Also mention of natives bringing "One of those birds for sale which I made mention of seeing in flocks before we arrived at Majus Sound by some termed sea parrots. Its uncommon and curious figure induced me to make a drawing which shall appear in some of the following pages."

This drawing is shown at the end and is unquestionably that of a Tufted Puffin (*Lunda cirrhata*). The details are given as "size of the sea parrot is about that of the common black duck [*Scoter* sp.] the colour is brown above. The eyebrows are long tufts of coarse hair."

This bird was specially remarked on by Cook and is common along the coast of the Northern Pacific. Ingraham notes they were "in flocks" at the Bay of Disappointment.

On 6th August he refers to buying "a goose from native which

had not long been killed." [This note of a single goose suggests geese were not often seen. They would be moulting. The bird would have been *B.C. fulva* and had probably nested near where shot.]

On 14th: "We were fortunate in shooting geese, ducks, etc." [Again "geese" would be *B.C. fulva* as it was too early for migrants to have arrived.]

On his second visit to the Queen Charlotte Islands the only note on the birds was: "Of birds my researches were so narrow and confined that I shall say I observed none but were common on the East side of the continent."

JOHN JEWITT

John Jewitt was English, born in Boston, England, 21st May, 1783. He started his career as a medical student, but threw this up and later joined the *Boston*, the American trading ship that sailed for Nootka on the 3rd September, 1802.

On arrival at Nootka they were received by Maquinna, the Indian chief, in a friendly manner who brought, as a gift, a pair of ducks. But conditions changed; the ship was attacked by natives who massacred the crew, all except Jewitt and Jennings, two seamen, who were held as prisoners.

The account of capture and compulsory detention are entitled: "The adventures of John Jewitt, only survivor of the crew of the ship Boston during a captivity of nearly three years among the Indians of Nootka Sound in Vancouver Island." The copy used here was edited, with the introduction and notes by Robert Brown, Ph.D., M.A., I.L.S., London 1896. Dr. Brown later wrote Articles on British Columbia Birds that appeared in The Ibis.

There is little regarding the birdlife.

During their detention, Jewitt and his co-prisoner were in the habit of going to a small pond for a weekly wash and which "was rendered still more attractive by the great number of birds that frequented it, particularly the humming bird (*Selasphorus rufus*)."

There is an interesting account of the natives' method of capturing geese: After stating that they "had plentiful supply of wild geese which were brought us in great quantities by the natives. Maquina informed me [these] were caught with nets made from bark in the

fresh water of that country. Those who take them make choice for that purpose of a dark and rainy night, and, with their canoes stuck with lighted torches, proceed with as little noise as possible to the place where the geese are collected, who, dazzled by the light, suffer themselves to be approached very near when the net is thrown over them and in this summer from 50 to 60 or even more will sometimes be taken at one time."

JAMES HANNA

The account of the birds is from his Log entitled: "Journal of a Voyage from Macao towards King George Sound [Nootka] in the Sea Otter. Captain Hanna, Commander." It runs from 15th April, 1825 to 9th August, 1825.

This was a trading Expedition. There are some entries on birdlife, most before The Area was reached.

The first entry when approaching The Area: 1st July, lat. 40.20° "We always have numbers of birds of the gull kind and lately a beautiful sort of bird in everything like the Tropical Birds, but the tail is forked like a swallow."

Later, on 6th August, there is a record of "Three beautiful white birds like Tropical Birds."

[The use of the word "Tropical" must have been as an adjective, no "Phaethon" would be found so far north. Only two varieties of sea birds with forked tails would occur at this latitude, the Long-tailed Jaeger (*Stercorarius longicaudus*), and the Terns (*Sterna*) which do look white when on the wing.]

Chapter XIII

Notes on Contemporary Works

PENNANT — LATHAM — MARTYN

There were no authorities dealing with the Birds of The Area until after the return of the Cook Expedition. Shortly after then, the three above writers published the following: *Arctic Zoology* (A.Z.), *Synopsis of Birds* (Syn.) and *New Dictionary of Natural History*, of which the last, published 1785, contains no references to the Cook Expedition, but is worth mentioning as a stupendous work with many coloured illustrations which vary in quality. Those of the *Lepidoptera* are the equal of any later produced but, the animals and birds, are generally poor, particularly owing to there being no scale and being all mixed up; sparrow as large as a horse and so forth. As the dictionary is not referred to by the other two writers and does not take in the Cook Expedition, no further discussion is called for.

Thomas Pennant and John Latham were the two leading ornithologists of their time and published respectively, *Arctic Zoology* (A.Z.) (with supplements) and *Synopsis of Birds* (Syn.). Latham's great work, *History of Birds*, was not completed until after 1830. In A.Z., most species have references to previous writers, sometimes as many as eight including Latham's Syn., and History, when available. Both Latham's works were issued in parts, and were not completed when A.Z. was published.

Pennant was a man of means living in Wales. He did some travelling and published his experiences prior to the issue of A.Z. Latham practiced medicine in Kent, England. Though dealing with the same subject these two were on most friendly terms. Pennant in A.Z. refers to specimens loaned him by Latham.

To readers of that delightful book by Rev. Gilbert White, *Natural History of Selbourne*, Pennant's name will be familiar as the writer of the letters set out discussing various questions of natural history.

Both authors divided birds into two classes: (1) Land birds; (2) Water Birds and these into groups. The first comprising Rapacious; Pies; Gallinaceous; Columbine; Passerine; and the second

Water Birds, the latter being divided into Cloven footed; Pinnated feet and Web-footed. Black and white illustrations of some species are included in A.Z.

The two writers generally agree in description, including that of new species brought back by the Cook Expedition, to which they gave names which in the absence of any standard authority generally indicated some particular feature as "Streaked" sandpiper. Space does not permit an attempt at giving a list of those birds from The Area, described in either work.

Appendix

Memoirs of a Trip to Russian America, 1858 by F. H. von Kittlitz.

Even though this publication does not deal specifically with The Area and is of a later date, it contains so much information on natural history that would have applied equally to The Area it is included here.

For the English translation I am indebted to Miss Joan Drabek of the University of British Columbia, Vancouver, B.C.

"Whoever, on thinking over his past recalls an especially rich period, will naturally feel duty bound to tell the world about it. These memories often have definite historical value. Usually the writer's enthusiasm is transmitted to the reader.

"There is certainly a deep meaning to be found in the allegory which calls the memory, 'the mother of the muses.' This ability to make the past come alive is always the first talent without which no example of art or science is thinkable. Since however, it is so closely related to phantasy, in matters pertaining to science, one always needs more or less outside help in order to keep facts from being mixed up with phantasy. Therefore the following word pictures must not rely entirely on the author's memory. Many written notes must be at his side. If the author has these necessary aids, he must not avoid mentioning the experiences which he had 28 and 30 years previously. He would never dream of not referring to facts which might in some way be instructive to the reader. Whoever suggests quick trips for purposes of natural history, must stop and admit that very seldom has his time really properly used. This problem lies in the nature of the things themselves. If one is too vain not to admit such shortcomings, one runs the risk that future travellers in a similar situation will make the same mistakes."

[His description commences with a general account of the flora]

. . . On them [Baranof and neighbouring islands] not only large blueberry bushes shaped like a shrub and tall lovely fascicles but also many young trunks of trees. Everywhere there was luxuriant growth. Apparently the remains of the previous forest growth had been changed many years before into fertile soil and sheltered the roots of the tall young trunks. They were still covered with bark and their outer form seemed to alter little or not at all. Rich luxuriant moss and multicoloured lichen covered the ground. Especially attractive was a white

flower with purplish black inner petals which grew in shady places. It was supposed to be bunchberry dogwood (*Cornus canadensis* or *Cornus suecica*). Still in bloom at this time were many red flowers of the raspberry bushes whose fruit we saw ripen in July.

The first birds which I saw on these hills and the neighbouring swamps were two families of the genus *Zonotrichia* which belong exactly in the middle between the Finches and the Yellow Hammers. Large numbers are found in North America. We had already seen some interesting South American representatives of this family in the "Bruant de Mexique of Busson" and in my Fringilla fruticeti from Chile.

The first representative of the genus *Zonotrichia* manifested itself to us as the most frequent song bird, the sparrow of this land. One finds it everywhere around the edges of the forests and especially near a settlement. The bird reminded me immediately of *Emberiza hyemalis* from Greenland. The outer tail feathers which are white are in some ways similar to the real yellow hammers. On the male, the head, neck and underparts are dull black, on the female greenish black. Most of the plumage of the young, which we saw on our arrival the last of June, is marked with short black stripes. The bright flesh coloured beak always characterizes this family. For the time being I called them *Fringilla atrata* as did Brandt. (*Fringilla oregona* Townsend: *Struthus oregonus* Bonaparte) [*Junco* sp.]. The fact that many young were fully grown and that the parents were very active indicated that nesting time was due but I found no evidence of a nest. The bird call reminded me somewhat of the titmouse: the monotonous song is not comparable to that of any European bird. It consists only of some soft trills interrupted by short pauses. The male likes to sit high in a tree when he sings. On our arrival we often heard the song but after several days we heard it no longer. This seems to depend upon the whereabouts of the birds. In the rather muscular stomachs I found mostly very small seeds and little pieces of insects.

The second family was somewhat smaller. It must have been very rare in Sitka for I found only two adults on the 25th June and on the 15th July a young one. Otherwise I didn't see any. For the time being I called them *Emberiza gracilis*. The small slender body and the ash grey head with seevral black lines characterize this family. [*Junco hyemalis*.]

Close to the city I found for the first time in a raspberry bush

the bird, which is characteristic of the area bordering the forest, the Jay, *Corvus stelleri*. It enhances the undergrowth by its sudden appearance: it leaves the thicket with a great spring and takes its place on some pleasant spot. When we arrived, there were very few young birds of this family, only later did they appear more plentiful. The adults live in pairs and accompany their young until they are fully grown. They seem to be numerous on Sitka, but inland on the continent and further to the east they are rare.

A third family of the genus *Zonotrichia* lives in the raspberry bushes near the city; however it doesn't seem plentiful in the area and I was only able to find two males during our stay here. The difficulty to classify this bird showed up later on when we compared it to *Fringilla rufa* of Wilson which resembles it. The only thing which distinguishes it from *Fringilla rufa* is the much darker plumage. I called it *Emberiza rufina* and considered it for a long time to be Wilson's bird whose colour had been affected by the climate. In any case it would be interesting to answer the question conclusively by means of determining all its life characteristics. It is probable that it must be considered separately from the other family. Its song is the most attractive of all the birds here although it consists of only one phrase. It ends on a note similar to that of the finch and the timbre of the song is somewhat like the nightingale.

The first day I found a native titmouse, the only subspecies of this genus which we noticed here. They appeared in large numbers near the forest's edge. From their bearing, activity and chirping bird call they reminded us of our *Parus ater*. They also had much in common with the Mésange de Sibérie (*Parus sibiricus* von Kittlitz) which is found more in Sweden and Norway than in Siberia. I named it *Parus sitchensis*. In the last days of June most of his family were fully grown and their plumage could not be differentiated from that of the adults. [Black-capped Chickadee (*P. atricapillus*).]

Between the city and the mouth of the small river close by, which the Russians call Kaloschinskaja Retscha, there is quite a wide sandy bank of the sea which is rather unusual in this area. Directly behind this is the virgin forest. The sea plants are blown up into the shore and are strewn about in large piles. On the right bank of the river beside the mouth is the place which is well known in the colony's history. It still can be seen amidst the undergrowth. In the year 1805 the original settlers after they had destroyed the first settlement of

Russians lived in a strongly fortified camp. The Governor Baranof, the founder of the colony attacked with several boats from the sea and after many days of shooting which caused terrible sufferings, forced the group to surrender. A small monument on the opposite bank of the river shows the grave stone of the Russians who were killed during this battle. At the further end of the flat area, on which the camp had been built, there was a wooden plank which bridged the river and this path continued through the forest into the city. The path was covered with wooden planks because the ground was so uneven. This unevenness was caused by the numerous fallen tree trunks which had been rotting slowly for centuries. When observed from afar it gave the appearance of a highly irregular grill. In the clearings thousands of small plants grew luxuriantly in the shadow of the high trees which were covered with moss and earth moss. Without having seen such a forest, one can hardly imagine the terrible difficulties which a person encounters who walks through it. Already on the first day I tried to walk through the swampy areas of the neighbouring forest clearing. The continuous climbing over the fallen stumps which were more or less rotted, the crawling through the numerous entwined branches and the abysses which were treacherous because they were covered by moss made me so terribly tired that I almost had to lie down in the woods. With the greatest of difficulty I finally arrived in the town that evening and practically crawled to my home. I immediately lay down incapable of moving until the next morning. Never had I dreamed that walking in the woods of Sitka would be so difficult. After that experience I was careful to walk inland on paths which had been used even if the bird catching was better along the forest's edge. That wooden path through the woods which Baranof described in his time stood us in good stead. The glorious wilderness under foot at the base of the steep rising Werstawoi attracted me greatly, especially during the first few days of our stay since the weather was excellent then. Who does not know the attraction that our pine forests hold in the first sunny days of summer even though these forests have been tamed by forestry culture and deprived of their proud beauty? Here the same trees are so much higher not only because of their freedom in nature but also because of the varied forms and colours which enhance the character of these forests. The effect is furthered by the friendly spirit of the northern nature. The huge and fantastic variety of forms which one finds

here is similar to what one finds in tropical forests. The special condition of the climate in this area may have much to do with it, since with so much dampness the difference in the temperature during the seasons is not so high as in other countries in the same latitude. The same principle which applies in the tropics must apply here: the life of the plants is less distributed than in places where there is a greater difference in temperature.

There were small grassy patches and beautiful thickets of wild plants on the banks of the Kaloschen River near its mouth. Among the various flowers in the thickets, the bright yellow *Mimulus guttatus* (monkey flower) and the scarlet red *Aquilegia canadensis* were especially attractive. The sometimes darker sometimes lighter yellow of *Syngenesisten* could be compared to our high *Hieracium* (hawkweed) and *Arnica montana*. A wide-leafed branch of *Rubus nutchanus* lifted majestically its large white petals. In the clearings near the bank *Epilobium latifolium* (red willowweed) grows in thick clusters close to the ground. The rosy red hues of the many exceedingly large flowers and the pleasant blue green leaves make the banks of the river most attractive.

In the same area I saw the lovely purplish black Saranna Lily (*Fritillaria saranna*) whose tubercles are used instead of bread in Kamchatka.

The open swamp area near the small lake has many varied flowers at this season but because they are small they do not make such a marked impression. Among these flowers are the beautiful red and white varieties of *Vaccinium* (berry bushes). Close to the lake I noticed *Ledum* which resembles ours. I also found a *Menyanthes* (bogbean) which was slightly different from our *Menyanthes trifoliata* because of its round leaves. On the lake I saw the wide leaves of *Nymphaea* (waterlily) floating along. These looked very much like our European *Nymphaea lutea*.

Dr. Eschscholtz had described these forests as being very still and lifeless. This wasn't my impression during my stay and I attributed this to the appearance of many birds which stopped there in the summer time. The winter months are the worst time for an ornithologist. Sitka is inhabited by many water birds but even these were missing along the long sea shore in the summer whereas they are supposed to be numerous in the autumn and spring. The large number of forest birds consisted more of individual birds rather than families

and this made bird catching very difficult. Many of the birds which I shot could not be retrieved because contrary to what I had experienced in Brazil the ground here had inaccessible secret recesses. The continuous dampness among the bushes made our hunting so much more difficult for at that time we had very few usable percussion guns. Dr. Mertens had left me one which I badly needed but it was of little use to me since the percussion caps were spoiled and the gun needed new parts which we didn't have with us.

When we arrived here most of the water birds were still in their nesting ground far away so we saw very few on the island and banks of the bay. This forced me to curtail my hunting excursions to the area around the forest's edge. Apparently I should have gone to the area high up in the mountains where rare animals could have been seen but it seemed to me to be much too difficult to undertake such trips.

Especially characteristic of the area around New Archangel is the raven, the bird which plays such an important role in the religious and mythical tales of the Kaloschens. The bird resembles our *Corvus corax* (raven), however it has an unmistakeable song which one often hears in the last days of June. The bird sits along and calmly sings this strange sounding song. Usually one hears him as he sits on a branch near the trunk of a high tree. He inflates his throat which makes the longer throat feathers look like a moustache. The tones produce many contrasts and there are often long irregular pauses. A dull murmur, more like that of a human being alternates with a sound which is similar to that of our hoopoe and then one hears a very high whistle. Sometimes one hears a short phrase which reminds one of the fragments of the song which the young yellow hammers practice and then again single wonderful sighing sounds are heard which are strangely similar to the guttural tones of the natives of the Aleutians. The usual birdcall which one hears when the birds are in flight or when several are together is a deep and light "Krapp" similar to our gully raven. Its best supply of food comes from the refuse from the sea and one finds the bird mostly on the beach. Just like the vulture in hot countries, the raven helps the people by clearing the beach of any unwanted refuse. The Russians call it "the Police." I noticed that the black feathers of the adults were mixed with dark brownish grey ones which gave the black ones something of a violet steelly sheen. The young ones have dark ash-grey underparts, the

long feathers at the throat are missing and the iris of the eyes is not black like the adults but dark grey.

Still another family of ravens lives here: *Corvus ossifragus* Wilson (fish crow) [Probably *C. caurinus*]. They are not numerous in this area. One usually sees them in a closed flock of 20 to 30 plus some on the beach. The flocks like to perch on high trees on the small rocky islands. The call which one hears from individual birds is a loud KRAH, KRAH, KRAH, KRAH. They feed on sea worms and small crabs. From the two species of swallows, which we saw quite frequently near the city, I was only able to get one during the first few days: *Hirundo bicolor* (Vieillot) or *Hirundo viridis* (Wilson). It was a shiny greenish black on top with white underparts and an incomplete darker band across the white breast. The latter was more pronounced on the female than on the male. The young bird is smaller, rather black on top without any sheen. These swallows are similar to our house swallows. They like to fly low over the ground and they move their wings very little. I never saw them sitting on the ground: more often I observed them on a prominent withered branch of a tree.

The other species, probably *Hirunds rufa* (v. Kittlitz) or *Hirundo americana* (Wilson) is similar to our chimney swallow but it has much redder underparts. It differs from the above species not only in colour but also in flight. It moves its pointed wings up and down constantly and it likes to fly close to the ground. I never observed those birds on the branches of the trees; however I often saw them on the ground where they even walked for short distances. The young ones, of which I managed to shoot one on the 27th July, are almost as brightly coloured as the adults.

A fourth species of the genus *Zonotrichia* resembles so closely the song sparrow (*Fringilla melodia* Wilson) that the only differentiating aspects of the somewhat darker plumage and a smaller body. Their habits and resting places are almost exactly the same as the bird species mentioned above; however I noticed that they are more frequent in this area than *Hirundo rufa*. Their very melodic song is similar to that of *H. rufa* except at the beginning of the phrase the melody deviates a little. The male of both species chooses a pleasant spot for singing. Usually one sees the male on a prominent tree trunk or on the top of a fencepost. For the most part one hears only one phrase and then the bird leaves its comfortable place. *H. rufa* usually

repeats its song with irregular pauses in between. The very muscular stomach contained parts of plants, seeds, nuts, etc. and often small stones.

According to Dr. Eschscholtz, the native hummingbird was supposed to be very plentiful in these woods. This species is recognized by its shiny ruby red feathers on the front of the throat and the bright fox colour of the upper body. On the first and second day I searched in vain for them. Only on the third day I noticed on the swamp pines behind the village several of these birds which were easily identified by their shiny red plumage. They usually appeared in pairs, flew not very high over the bushes, and while flying often emited a humming tone which could easily have been mistaken for that of a cricket. I was not able to shoot any of these red hummingbirds due to the difficulties on the ground. Also after a few days I did not see any more of them. I noticed some single hummingbirds which liked to fly very high and in free areas, but they did not have the red plumage nor did they make humming tones and they appeared larger than the red ones. On the first of July I shot one of these high flying hummingbirds. It was a male with fully grown plumage and a white throat without any evidence of longer feathers. The bird seemed a little larger than the red hummingbird of *Trochilus ruber* L., which we had found here dried [Female]. The wings were longer, the feathers on the tail and the pinion feathers were wider and the latter did not have the noticeable spotted white crown. The remaining plumage was greenish gold. Nevertheless it might have been the same bird with different coloured plumage because one could see a fox colour hue underneath the greenish gold. However in the beginning I was quite prepared to accept the idea that there were two species of Hummingbirds in this area. Later I began to doubt this when I found two birds of that species (male and female) greenish gold metallic colour on a white background. But the difference in size between these and the red species was great. Therefore it could not be proven by us whether there were in fact two species or two examples of one species. If the latter is the case, then the greenish gold ones must have new plumage. It is too bad that we did not have an opportunity to observe them further. The natives told us that the ordinary red hummingbirds seemed to be very busy with their broods in the inner parts of the islands and that they would come in large numbers after many weeks.

The inside of the bird was exactly the same as *Thochilus sephanoides* in Chile. [All references must be to the only hummingbird to be found the Rufous (*Selasphorus rufus*).]

In addition to the group of especially lively bird songs is the song of the small robin (*Turdus minor*) which one finds at this season especially around New Archangel. This bird is exactly the same as the song thrush but in miniature. Also the rusty colour under the wings is the same. The song is very simple but pleasant and is heard a great deal at the beginning of July. The call of this bird reminds one of the simple "Woid" and the simple flute-like tone of our *Sylvia fitis*; however the call is somewhat stronger than the latter. Later in July one often sees the bird running along the ground near the beach. It is looking for insects and annelids which it finds in the piles of seaweed which is washed up on the shore. [One of the Thrushes (*Hylocichla guttato*).]

The most common robin of this country is the very evident *Turdus migratorius* L., [Robin] but during the first few days we saw very few of them. In the second half of July they became more and more numerous each day. Already in June we noticed completely grown young ones which one could easily identify by their speckled breasts. One month later the unicoloured feathers were evident. In their large cuticular stomachs I found in the beginning mostly small molluscs, crustacea and annelids: later ripe raspberries appeared to be the main diet.

The varied thrush (*Turdus naevius*) which is drawn in the Atlas by La Peyrouse "Merle du port des Francais," (the copy is somewhat too large) is seen quite often although not in such numbers as the two preceding species. In general they have the same markings as the adults but the colour of the feather is not so pure. The young birds often appear alone among the robins. The call of these birds which one doesn't hear often is similar to the call of the field-fare. Their song which we heard often at the end of June but later not at all had a special tone which could be compared to a bell and generally was very attractive. The form of the tongue was slightly different from the other robins — on both sides it had a sharply filed point and it was narrower. The stomach was relatively small and muscular: in the beginning I found only worms inside; however the bird also eats ripe raspberries, etc.

The North American forests shelter a great variety of species of

small greenish birds which have gold, black and white markings. Their body and habits are in some ways similar to our gold crested wren. At times they seem closer to the titmouse; at times closer to the fly catcher and most of them belong to the well named genus *Sylvicola* (Swanson).

A true gold crested wren which looked like *Regulus ignicapillus* (Ruby crowned Kinglet) is quite common here. However I was only able to get some young ones. One single adult was lost en route home and most of the ones which I shot were lost in the bushes. So although I tried very hard, I was unable to determine this bird. The young ones show the white eye stripe but no sign of a crown.

From the genus *Syvicola* there is in this area a very daintily marked species which I have given the name *Sylvicola regulus* because really, in appearance and habits it is very close to the gold crested wren. The small bird lives only in the high evergreens. It has also the strange habit of the gold crested wren. When it is looking for food and sees some on the branches, it hovers suspended over the branches and its call which one can often hear is just the same as that of *Regulus ignicapillus* except that it is slightly stronger and clearer. Most of the examples of this species which I did not lose were young birds. One sees them sitting close together on the branches like the young gold crested wrens.

The small *Sylvia celata* (orange-crowned warbler) reminds one of our willow wren (bastard nightingale?) in appearance, habits and plumage. They are not numerous in this area and appear alone. Of the three birds of this family which I shot and examined, there was only one with a clearly defined rusty patch on the crown. It was a male. The second had only a trace of this marking and the third, a female, had no marking at all. The top of the crown was the same colour as the neck. The food consisted of small insects: the stomach was small and not muscular. The call of these birds is a soft trilling sound not unlike that of the golden crested wren.

The pileolated warbler (*Muscicapa pusilla* Wilson) lives in a similar way. It is green above with a shiny black cap which is lacking in the young. [All *Wilsonia pusilla.*] Both birds like thick low bushes near the forest's edge.

Dr. Eschscholtz told me about the common wren in this area but I saw very few. I could find no difference between it and our *Troglodytes parvulus,* which is closely related. [actually identical]

The same holds for *Certhia familiaris* (Brown Creeper) of which I saw only one and shot it.

Once I noticed further up the Kaloschen River an ouzel with dark grey plumage. It probably was *Cinclus pallasii* (Water Ouzel) which is well known in North America.

Of the birds of prey, I occasionally saw a native bald-headed eagle without however being able to shoot it. A pair of smaller ones, of which one seemed to be a sea eagle (Wilson) appeared sometimes on high trees near the shore. [possibly Osprey (*Pandion haliaeetus*).] It may be that these birds of prey knew how to hide better than other birds or that I was simply very unlucky, but I was unable to get one for my collection.

I had no luck either in finding birds' nests which must have been around at that time of the year even though the main nesting time was already over and most of the young were grown. I once saw a robin's nest with eggs in it in the hands of young native girls who were just coming out of the woods: it was of little use to me because on the one hand I did not know where it had been located nor was I in a position to determine which of the three species it came from. The construction of the nest looked similar to that of our song-thrush as did the colour of the eggs which were a beautiful turquoise with black spots on the rounded end. The eggs as well as the nest seemed too large to belong to a song-thrush.

Often we would meet the natives on these forest paths. The women would be in small groups in the woods, where they collected food, especially the tasty fruit of *Rubus spectabilis* which ripened in July. The mothers usually carried the youngest children on their backs. The very tightly bound child was fastened to a wooden form which served as a basket and could be hung on the branches of the trees. The children lay in the grass when the mothers were busy nearby. The bottom edge of their clothes which were made of linen or wool were usually so tattered, caused by the rough damp undergrowth that the foreigners were disturbed because these clothes made the women look like beggars. The men, whom we saw, were usually idle and looked as if they were lost in thought. Sometimes we would see them lying in some place completely covered in their woollen blankets."

Acknowledgments

Most of the research for the work was carried out at the Library of the British Columbia Archives, Victoria, B.C., where I had the assistance of the Provincial Archivist, Mr. Willard Ireland, and particularly of Miss Inez Mitchell, Assistant Archivist, whose suggestions were invaluable. The project had been started with very little knowledge of what I was undertaking or of the narratives that might provide material; in fact, without the help of these persons this book could never have been produced.

Thanks are also due to Dr. Dorothy Blakey Smith, also of the British Columbia Archives, especially for help in the translation of the Lutke Narrative, the only one there is.

I wish to express indebtedness also as follows:

To Dr. Averil Lysaght, for permission to use her publication on the Banksian collection of paintings (Ellis and Webber), and to Mr. F. C. Sawyer of the Natural History Department of the Museum, for bringing them to my notice.

To Dr. Irwin Stresemann (Berlin) particularly for providing a copy of the Merk Journal (translated into English by Mr. Glasier).

To Dr. Ian McTaggart Cowan, Dean of Graduate Studies at the University of British Columbia, and Mrs. Anne M. Yandle, the librarian there.

To Professors Ivanoff (Leningrad), Madzazo (Madrid) and Etchopter (Paris) for suggestions on interpretation of names of birds.

To Mr. R. H. Dillon of the Sutro Library for giving me access to the Banksian material there.

To Dr. Alexander Wetmore (Smithsonian) for his helpful suggestions.

To the late Mr. B. A. McKelvie for information regarding the Spanish expeditions.

To the Riveredge Foundation of Calgary, Alberta, for encouragement in the form of a substantial contribution to the cost of publication.

To Dr. Clifford Carl of the British Columbia Provincial Museum for his great kindness in taking over the superintendence of the printing and publishing of the book when, owing to age and infirmities, it became impossible for me to carry on.

THEED PEARSE, Comox, B.C.

Acknowledgments

Most of the research for this work was carried out at the Library of the British Columbia Archives, Victoria, B.C., where I had the assistance of the Provincial Archivist, Mr. William Kaye, and particularly of Miss Jean Mitchell, Assistant Archivist, whose suggestions were invaluable. The project had been started with very little knowledge of what was available on of the narratives that might provide material; in fact, without the help of these persons this book would never have been produced.

Thanks are also due to Dr. Dorothy Blakey Smith, also of the British Columbia Archives, especially for a hand in the translation of Thomas Nuttall's narrative, the quotations from which I wish to express particular appreciation of following:

To Dr. Alwyn T. Lloyd, for permitting me use his translation of the Hanjesian collection of miniatures (Bellin and Walker), and to Mr. G. C. Sawyer of the Natural History Department of the Museum, for furnishing them to me;

To Dr. Irwin Stripeyman (Berlin), particularly for providing a copy of the Moritz Journal translated into English by Mr. Oliver;

To Dr. Ian McLaren (Cowan), Dean of Graduate Studies at the University of British Columbia, and Mrs. Anne M. Smith, the librarian there;

To Professor Lynnel (Langmuir), (Madison, Ontario), and Richard Cardin for suggestions on interpretational course of work;

To Mr. R. H. Dillon of the State Library for giving access to the Beaulieu manuscript there;

To Dr. Alexander Warmore (Publisher) for his helpful suggestions;

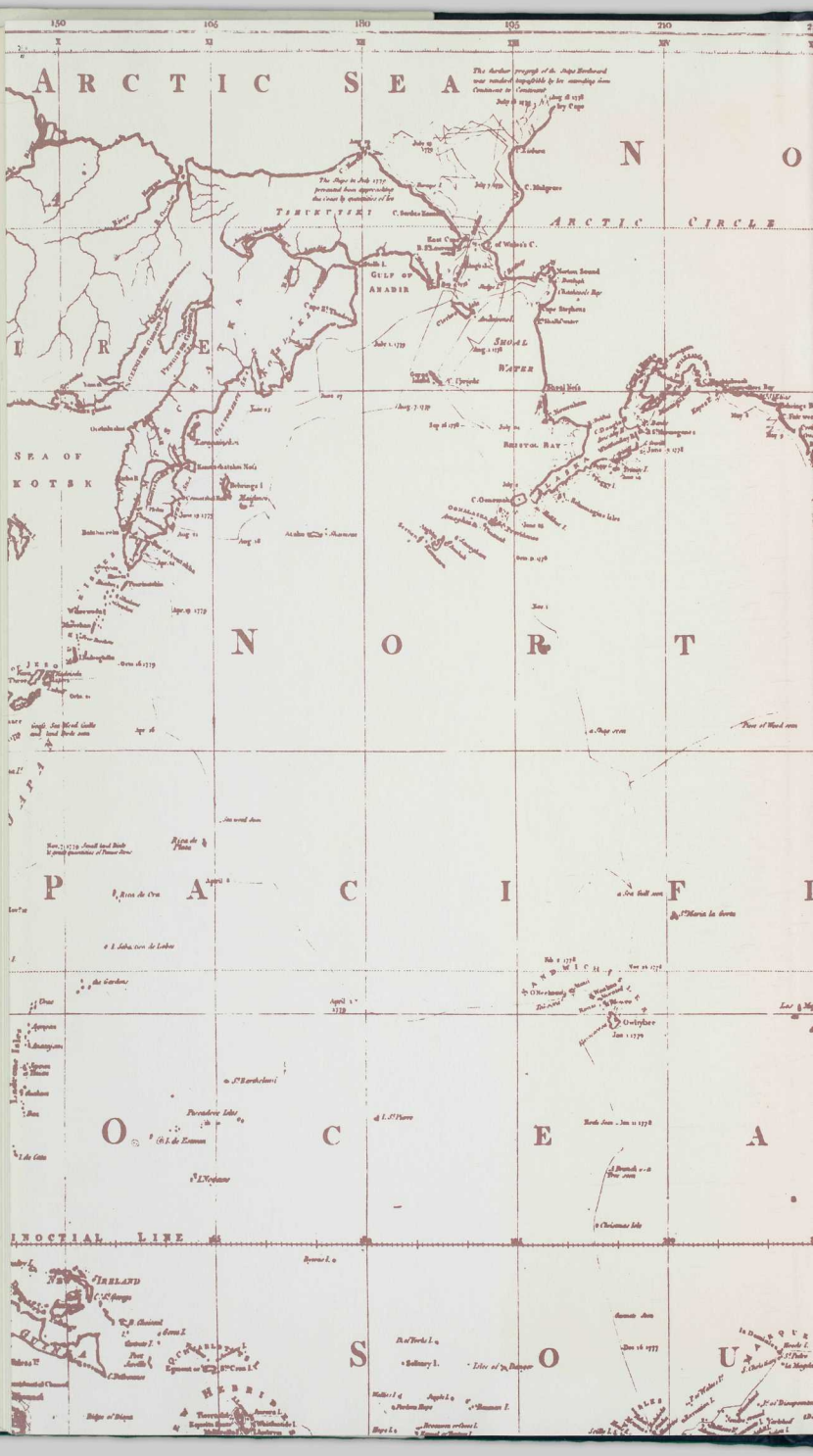
To the late Mr. B. A. McKelvie for information regarding the Spanish expeditions;

To the Rockefeller Foundation of Canada, Alberta, for encouragement in the form of financial contributions toward publication;

To D. E. Clifford Cook of the British Columbia Provincial Museum for his strong interest in tracing down the sources of the writing and publishing of the book when, owing to age and infirmities, it became impossible for me to carry on.

THERON TRAUSE, Comox, B.C.

HB
QL679
P42
1968


ARCTIC SEA
NORTH
PACIFIC
OCEAN
ARCTIC CIRCLE
TSHUKTSKI
GULF OF ANADIR
SHOAL WATER
BRISTOL BAY
SEA OF KOTSK
IRELAND
HEBRIDES
Unalashka
Oonalaska
Kamchatka
Japan
Kurile Isles
Aleutian Isles
Behrings I.
Mednovei
Sandwich Isles
Owhyhee
Easter I.
Marquesas Isles
Society Isles
Friendly Isles
Navigators Isles
Solomon Isles
New Hebrides
New Caledonia
Norfolk I.
Lord Howe I.
Tasmans Isles
Van Diemens Land
New Zealand
Chatham I.
Pitcairns I.
Juan Fernandez
Tristan d'Acunha
Falkland Isles
Tierra del Fuego
Cape Horn
Cape Good Hope
Madagascar
Mauritius
Bourbon
Ceylon
Malabar
Coromandel
Sumatra
Java
Borneo
Celebes
Philippines
Formosa
Cochin China
Tonquin
Siam
Pegu
Ava
Bengal
Hindostan
Persia
Arabia
Abyssinia
Nubia
Egypt
Barbary
Madeira
Canaries
Cape Verde Isles
Azores
Bermudas
Bahamas
Jamaica
Hispaniola
Cuba
Mexico
California
Peru
Chile
Brazil
Guiana
Terra del Fuego

719974

BAFFINS BAY
BAFFIN'S STRAITS
CUMBERLAND ISLE
DAVIS STRAIT
ISLE OF GOOD FORTUNE
HUDSONS STRAITS
HUDSONS BAY
LABRADOR OR ESKIMAUX
NEW BRITAIN
NEW SOUTH WALES
JAMES BAY
NORTHERN INDIANS
COPPER INDIANS
NORTH AMERICA
ATLANTIC OCEAN
NEW MEXICO
GULF OF MEXICO
Bay of Campeche
CARIBBEAN SEA
TIERRA FIRMA
NEW GRANADA
GALLAPAGOS ISLES
SOUTH AMERICA
NORTH CAROLINA
SOUTH CAROLINA
VIRGINIA
PENNSYLVANIA
NEW YORK
LOUISIANA
BAHAMA ISLES
JAMAICA
Bermudas
GREAT PACIFIC SEA

About the Author

Mr. Theed Pearse was born in Bedford, England on October 26, 1871. Before he was 17 he was articled to his father who was practising law at Bedford at that time. He remained in the law business until 1906 when he sold out and joined a venture in Virginia, U.S.A., which "turned out to be a fizzle."

After this unhappy experience he joined a brother engaged in fruit farming in Nova Scotia, but after one season they both decided to move west to British Columbia where they arrived in 1909. The brother moved on but Theed was so taken with the Pacific coast that he remained behind first in Vancouver then in the Courtenay-Comox area where he again practised law.

In 1941 he retired to devote the rest of his long life to his all-absorbing hobby, bird study.

Much of his time was spent in observing birds in the field and in carrying on an active programme of banding involving both gulls and songbirds. The results have appeared in an impressive series of notes and records published in various journals so that he soon became well known in the bird world.

His ornithological affiliations include life membership in the British Ornithologists' Union (over fifty years membership), and honorary memberships in both the Pacific Northwest Bird and Mammal Society and the Cooper Ornithological Society. He has been a member of the American Ornithologists' Union since 1926.

A tolerant partner in these pursuits has been his wife, Elizabeth Margaret Llewelyn whom he married in 1919. The two have lived at Comox since 1945.

Jacket design by Philip R. Ward