

PROVINCE OF BRITISH COLUMBIA
DEPARTMENT OF EDUCATION

PROVINCIAL MUSEUM
of NATURAL HISTORY
and ANTHROPOLOGY

REPORT FOR THE YEAR 1960



Printed by A. SUTTON, Printer to the Queen's Most Excellent Majesty
in right of the Province of British Columbia.
1961

THE UNIVERSITY OF CHICAGO
LIBRARY

*To Major-General the Honourable GEORGE RANDOLPH PEARKES,
V.C., P.C., C.B., D.S.O., M.C.,
Lieutenant-Governor of the Province of British Columbia.*

MAY IT PLEASE YOUR HONOUR:

The undersigned respectfully submits herewith the Annual Report of the Provincial Museum of Natural History and Anthropology for the year 1960.

L. R. PETERSON,
Minister of Education.

*Office of the Minister of Education,
January, 1961.*

PROVINCIAL MUSEUM OF NATURAL HISTORY AND ANTHROPOLOGY,
VICTORIA, B.C., January 16th, 1961.

The Honourable L. R. Peterson,
Minister of Education, Victoria, B.C.

SIR,—The undersigned respectfully submits herewith a report covering the activities of the Provincial Museum of Natural History and Anthropology for the calendar year 1960.

I have the honour to be,

Sir,

Your obedient servant,

G. CLIFFORD CARL,
Director.

DEPARTMENT OF EDUCATION

The Honourable LESLIE RAYMOND PETERSON, LL.B., Q.C., *Minister*.
J. F. K. ENGLISH, M.A., Ed.D., *Deputy Minister and Superintendent*.

PROVINCIAL MUSEUM OF NATURAL HISTORY
AND ANTHROPOLOGY

Staff

G. CLIFFORD CARL, Ph.D., *Director*.
CHARLES J. GUIGUET, M.A., *Curator of Birds and Mammals*.
WILSON DUFF, M.A., *Curator of Anthropology*.
ADAM F. SZCZAWINSKI, Ph.D., *Curator of Botany*.
DIANE MACEACHERN, B.A., *Assistant in Anthropology (to May 31st)*.
DONALD N. ABBOTT, B.A., *Assistant in Anthropology (from August 8th)*.
FRANK L. BEEBE, *Illustrator and Museum Technician*.
MARGARET CRUMMY, B.A., *Clerk-Stenographer*.
BETTY C. NEWTON, *Museum Technician*.
SHEILA Y. NEWNHAM, *Assistant in Museum Technique*.
CLAUDE G. BRIGGS, *Attendant*.
C. E. HOPE, *Relief Attendant*.

Totem-pole Restoration Programme

MUNGO MARTIN, *Chief Carver*.
HENRY HUNT, *Assistant Carver*.

PROVINCIAL MUSEUM OF NATURAL HISTORY
AND ANTHROPOLOGY

OBJECTS

- (a) To secure and preserve specimens illustrating the natural history of the Province.
- (b) To collect anthropological material relating to the aboriginal races of the Province.
- (c) To obtain information respecting the natural sciences, relating particularly to the natural history of the Province, and to increase and diffuse knowledge regarding the same.

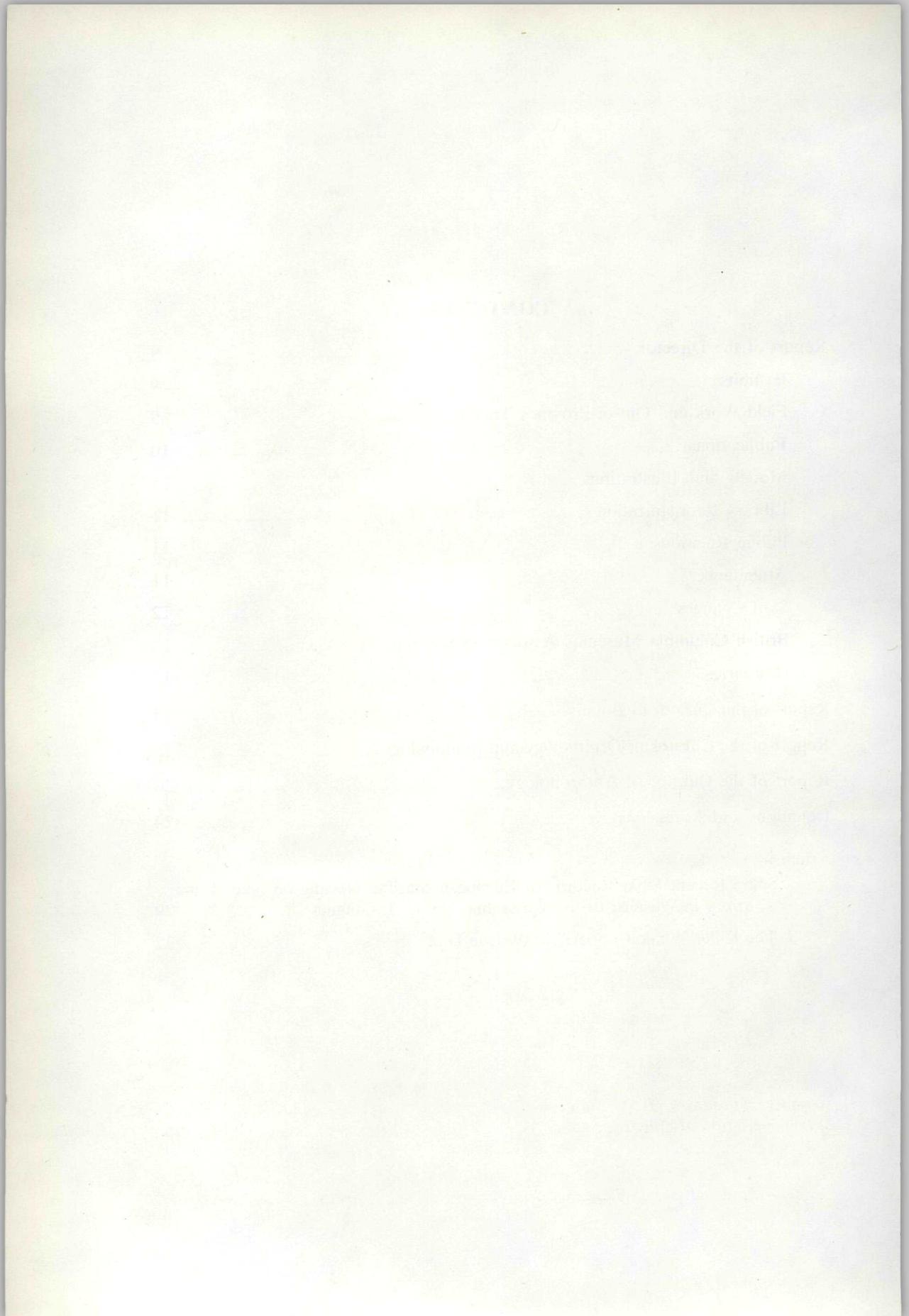
(Section 4, *Provincial Museum Act*, Chapter 273, R.S.B.C. 1948.)

ADMISSION

The Provincial Museum is open to the public, free, on week-days, 9 a.m. to 5 p.m., and on Sunday afternoons, 1 to 5 p.m.

CONTENTS

	PAGE
Report of the Director.....	9
Exhibits.....	9
Field Work and Out-of-Province Travel.....	9
Publications.....	10
Models and Illustrations.....	11
Library Reorganization.....	11
Public Relations.....	11
Attendance.....	11
Staff Changes.....	12
British Columbia Museums Association Seminar.....	13
Obituaries.....	13
Report of the Curator of Botany.....	14
Report of the Curator of Ornithology and Mammalogy.....	18
Report of the Curator of Anthropology.....	20
Donations and Accessions.....	24
Articles—	
“Some Recent Sight Records of European Starling Nesting on New Territory in Western British Columbia,” by C. J. Guiguet.....	29
“ The Killer Whale Copper,” by Wilson Duff.....	32



REPORT OF THE PROVINCIAL MUSEUM

For the Year 1960

REPORT OF THE DIRECTOR

The year 1960 was relatively uneventful in so far as Museum activities were concerned; the usual services were carried out, with the exception of the film shows for children and adults, which were discontinued because of lack of acceptable accommodation. Progress and accomplishments are outlined in the following sections.

EXHIBITS

New installations in the anthropology galleries were the outstanding addition to our exhibition facilities. These consist of showcase-type display-cases incorporated into a false wall in three of the basement rooms. The use of controlled lighting and attractive colours have permitted a much more dramatic and effective presentation of the Indian material than was previously possible.

A number of new plant replicas created by Miss Susan Taylor, under the direction of Mr. Beebe, have been added to the botanical exhibit, and two mammal cases have been decorated by Miss Newton. The displays of living plants, fishes, bees, and reptiles have been maintained as usual.

A display-stand featuring wild-flower conservation was designed and installed in early spring by the Department of Recreation and Conservation.

A habitat display of bats has almost been completed by Mr. Beebe.

FIELD WORK AND OUT-OF-PROVINCE TRAVEL

Various staff members spent periods in the field, as follows:—

Duff: Tour of Interior centres, May 18th to 29th.

Carl and Duff: Prince Rupert, Hazelton area, Barkerville, etc., May 30th to June 10th.

Guiguet: Islands in the Tofino area, July 6th to 23rd.

Carl: Long Beach, July 6th to 10th; Bowron Lake Game Reserve, August 29th to September 6th.

Szczawinski: Smithers area, June 27th to July 5th.

Details of some of these and of other shorter trips are given in the curatorial reports.

We are indebted to the Provincial Department of Mines for accommodation and transportation provided to Dr. Szczawinski in the Smithers-Hazelton area, and to the Federal Department of Fisheries for certain services supplied to Mr. Guiguet while he was working in the Tofino area.

In March Carl made a lecture tour in California under the auspices of the National Audubon Society and the Audubon Society of Canada. En route, visits were made to several museums and colleges, including the Scripps Institute of Oceanography (La Jolla), Santa Barbara Museum of Natural History, Los Angeles County Museum and Museum of Science and Industry (Los Angeles), Hopkins Marine Station (Monterey), and the California Academy of Science (San Francisco).

In May Carl attended the annual meeting of the Canadian Museums Association in Montreal and in September and October Duff attended two conferences on

archæology—the first in Calgary, sponsored by the Glenbow Foundation, the second in Toronto under the auspices of the Ontario Government.

PUBLICATIONS

The following publications have been produced in 1960:—

By Frank L. Beebe—

“The Marine Peregrines of the Northwest Coast.” *Condor*, Vol. 62, No. 3, pp. 145–189.

“An Instance of Piracy by the Red-tailed Hawk on the Peregrine Falcon.” *Condor*, Vol. 62, No. 6, pp. 480–481.

By G. Clifford Carl—

Review of “Africa’s Wild Glory” (Phillip Keller). *Daily Colonist*, January 3rd, p. 7.

“The Stickleback and Other Spiny Fishes.” *Victoria Naturalist*, Vol. 16, No. 5, pp. 54–55.

“Animals around Us.” Series in *Victoria Daily Times*, July.

“A Fish-eye View of You.” *Fin Fare* (Victoria Aquarium Society), February, pp. 3–6.

“Danio Eggs by Order.” *Vancouver Aquarist*, March.

“Albinistic Killer Whales in British Columbia.” Report of the Provincial Museum for 1959, pp. 29–36.

“The British Columbia Provincial Museum.” *Bull. Canadian Museums Assn.*, Vol. 12, Nos. 1 and 2, pp. 6–7.

By Wilson Duff—

“The Mortuary Poles of Ninstints.” *Victoria Naturalist*, Vol. 16, No. 7, February, p. 65.

By C. J. Guignet—

“Birds of British Columbia.” Series in *Vancouver Province*.

“Birds of British Columbia: (7) The Owls.” *British Columbia Provincial Museum Handbook* No. 18, December, pp. 1–62.

“The Golden Plover (*Pluvialis dominica*) Nesting in British Columbia.” Report of the Provincial Museum for 1959, p. 40.

“The Sharp-tailed Grouse.” *Beautiful British Columbia*, Vol. 2, No. 2, summer.

“The Cinnamon Teal.” *Beautiful British Columbia*, Vol. 2, No. 3, fall-winter.

By George A. Hardy—

“On the Life History of *Incisalia eryphon* (Lycanidæ) on Southern Vancouver Island.” *Journ. Lepidopterists’ Society*, Vol. 13, No. 2, 1959, p. 70.

“A Recent Record of *Annaphila arvalis* (Noctuidæ) in British Columbia.” *Journ. Lepidopterists’ Society*, Vol. 13, No. 2, 1959, p. 78.

“Notes on the Life Histories of Two Butterflies and One Moth from Vancouver Island.” *Proc. Entomol. Soc. British Columbia*, Vol. 57, December 1st, pp. 27–29.

By D. B. Quayle—

“The Intertidal Bivalves of British Columbia.” *British Columbia Provincial Museum Handbook* No. 17, July, pp. 1–104.

By Adam F. Szczawinski—

“Amethyst, Star of the Woods.” Popular Gardening, Vol. 11, No. 1, January, pp. 41–65.

“New Records of Chamisso’s Orchid (*Habenaria chorisiana* Cham.) for British Columbia.” Victoria Naturalist, Vol. 17, No. 3, pp. 35–36.

In addition to the above, reprints of several numbers in the Handbook series were published. These include “The Mammals of British Columbia” (in collaboration with the Department of Recreation and Conservation), “The Edible Plants of British Columbia,” “The Amphibians of British Columbia,” and “The Reptiles of British Columbia.” Also, the greater part of the text and figures for “The Heathers of British Columbia” has been completed by Dr. Szczawinski, a start has been made on a handbook to the Indians of the Province by Wilson Duff, and a rough draft of a guide to marine life has been prepared.

MODELS AND ILLUSTRATIONS

Mr. Beebe has produced numbers of plant models and a fish model in plastic, as well as a series of bird illustrations. He has also commenced the construction of a relief model of the Province for later installation in the Museum entrance-way.

In addition to her regular duties, Miss Newton has prepared a series of detailed drawings of native heathers to be used as illustrations in a forthcoming handbook.

A series of most life-like plant replicas was completed by Miss Taylor, and these have been added to the wild-flower display as previously noted.

LIBRARY REORGANIZATION

The reorganization and recataloguing of the Museum reference library was continued in 1960 under the direction of Miss K. Clark (Chief Cataloguer), Miss Margaret Hastings, and Mrs. Lorna Sager, all of the Provincial Library staff.

PUBLIC RELATIONS

In addition to the usual numbers of public lectures given to organized groups by various staff members, Carl, Guiguet, and Szczawinski each presented a night course for adults in their respective fields. The Director has continued to participate in the weekly radio programme “Outdoors with the Experts,” sponsored by the Victoria station CJVI, and he and other staff members have appeared on other radio and television programmes at various times during the year.

ATTENDANCE

The number of visitors to the Museum in 1960 according to the register is as follows:—

January	911	August	13,587
February	1,283	September	5,052
March	1,430	October	1,991
April	2,336	November	834
May	3,023	December	640
June	8,662		
July	17,052	Total	56,801

Compared with the 1959 registered attendance, the attendance in 1960 was up about 8 per cent, probably largely due to increased travel in the summer months.

The number of persons registering is not a true measure of attendance as the proportion of visitors stopping to sign the book varies inversely with crowding. On two occasions in July, counts were made of signers and non-signers. When the number of visitors averaged 93 per hour (6 hours), the proportion registering was 42.5 per cent; when the number was 122 per hour (2½ hours), the proportion dropped to 41.4 per cent.

From these data plus records of those persons in school classes and other organized groups, we estimate that the 1960 attendance was well over 100,000 persons.

The July attendance figures have been broken down by Mr. Briggs and Mr. Hope, as follows:—

Residence	Registration	Residence	Registration
British Columbia	2,650	Washington	2,645
Alberta	725	Oregon	1,360
Saskatchewan	420	California	3,840
Manitoba	230	Other States	3,962
Ontario	635	Great Britain	175
Quebec	165	Other countries	143
New Brunswick	35		
Nova Scotia	35		
Prince Edward Island ...	10	Total	12,125
Newfoundland	2	Grand total	17,052
Yukon Territory	18		
Northwest Territories ...	2		
Total	4,927		

Compared with figures obtained in previous years, the July attendance reached an all-time high, exceeding the previous record established in 1957 by over 20 per cent. Visitors from California continued to outnumber those from other areas, followed closely by British Columbians and Washingtonians.

The sum of \$440.48 was collected by the Museum donation-box during the year; of this amount, \$55.60 was turned over to the World Refugee Year Fund and the remainder given to the Queen Alexandra Fund for Crippled Children.

STAFF CHANGES

At the end of May Miss Diane MacEachern resigned from the position of Assistant Curator of Anthropology to accept a fellowship at the Australian National University. Though a member of the staff for less than a year, Miss MacEachern contributed a great deal by reorganizing the storage of Indian costumes and other perishable materials and by preparing many of the new Indian exhibits.

In August Mr. Donald N. Abbott took up the duties of Assistant Curator of Anthropology. Mr. Abbott is a graduate of the University of British Columbia, with two years of postgraduate training at the University of London Institute of Archæology.

During the summer months three student assistants were employed—Miss Gail McKevitt in the general office, Miss Susan Taylor and Mr. William Savale in the herbarium. Mr. John Nutt has continued to care for the living plant exhibit on a part-time basis. Mr. Charles Hope has acted as attendant while Mr. Briggs was on annual leave and on sick leave.

BRITISH COLUMBIA MUSEUMS ASSOCIATION SEMINAR

The annual meetings of the newly formed British Columbia Museums Association were held at Penticton on September 15th, 16th, and 17th. As in previous years, the meetings were made possible by a grant from the Leon and Thea Koerner Foundation.

Carl, Duff, and Abbott attended the conference as representatives from the Provincial Museum. Carl and Duff were elected to the offices of president and vice-president respectively, and Duff was appointed editor of the proceedings. Abbott gave a demonstration of the restoration and care of basketry.

OBITUARIES

With regret we record here the passing of several persons who have rendered services to the Museum and to the Province as a whole.

Mr. Kenneth Racey, widely known amateur ornithologist of Vancouver, B.C., and early member of the Pacific Northwest Bird and Mammal Society (May 9th).

Lieut.-Col. Gilbert Howland, executive member and for many years a moving force in the B.C. Indian Arts and Welfare Society, Victoria, B.C. (May 12th).

Mr. T. W. S. Parsons, former Commissioner of the British Columbia Provincial Police and ardent student of Indians (July 13th).

Mr. E. F. G. White, one of the founders of the Ottawa Field-Naturalists' Club and well-known amateur ornithologist (October 31st in his ninety-first year).

Mr. W. A. Newcombe, an active collector and authority in the fields of anthropology and natural history of British Columbia and one-time assistant biologist on the Museum staff (November 24th).

Mr. T. P. O. Menzies, curator of the Vancouver City Museum and secretary of the Art, Historical, and Scientific Association for many years up to his retirement in 1953 (December 8th in his eighty-seventh year).

REPORT OF THE CURATOR OF BOTANY**HERBARIUM**

Recorded accessions for the year 1960 amounted to 1,559 mounted and labelled sheets of phanerogams. The accessions of cryptogams amounted to 275, consisting of collections from Sooke district, Goldstream Park, and a few areas in the vicinity of Victoria. A number of lichens and liverworts were also collected in the Smithers area.

The number of phanerogams, stated above, does not present a true picture as there are approximately 700 plants labelled and mounted for which accession has to wait until more space is available or some rearrangement of the herbarium is made. At the moment the cases are overcrowded and cannot accommodate more material without damage to the present collection. Another problem is accommodation of the phanerogams, which at the moment are kept in packages awaiting proper herbarium cases.

There is still a certain amount of herbarium material from previous years, and some progress was made in sorting it and making exchanges with other herbaria. This material is very important as it constitutes early records taken in the Province.

The collecting scheme for amateurs started in 1956 and supervised by the herbarium was continued and brought a large bulk of material from several new collectors. Space does not permit us to list individual collectors, but we acknowledge their voluntary work and help with most sincere thanks. It should be mentioned that all the collectors are supplied with presses, instructions, and other necessary material from the herbarium, and as a result there is a noticeable improvement in the quality of collections.

From some of the most remote areas of British Columbia, collections were received from Mrs. D. H. Calverley, with the assistance of Mrs. G. Knoblauch, Mrs. Alex. Coutts, and Mrs. R. Sikora (Dawson Creek area); Mr. E. W. Sullivan (trees and shrubs from Alaska, Yukon, and Northern British Columbia); Mrs. C. J. Guignet (Stubbs Island); Mr. A. P. McLaughlin (remote area of Fraser Lake); Mr. D. A. Barr (Stikine and Barrington River areas); Mr. J. E. Underhill (alpine flora of Manning Park); Mr. T. R. Ashlee (Saltspring Island); Dr. A. Sutherland-Brown (Queen Charlotte Islands); and Dr. S. Holland (Smithers-Hazelton area). We also received specimens from Mr. and Mrs. Howard McDonald (Bamfield) and Mr. Bud Frost (Camp Woss, Beaver Cove), representing two non-collected areas of Vancouver Island.

A botanical survey and plant collection were started in the newly established Francis Provincial Park by Miss Gail Moyer, under the supervision of Mr. Freeman King.

The Smithsonian Institution continues its collaboration with the herbarium in the field of studies of cryptogams, and officials there have identified a number of lichens and mosses. There are constant requests by the Smithsonian Institution, Swedish Museum of Natural History, University of Washington, University of Delhi, and University of North Carolina to collect and exchange our material with them. The above-mentioned institutions send us collections from their regions in advance. Unfortunately, without additional help and space our contribution to this arrangement is limited. We hope that in the future we will be able to increase this service of plant exchange and send more British Columbia material to various world herbaria.

Supervision of the technical work in the herbarium was very efficiently attended to by Mrs. S. Newnham and summer assistant Mr. W. F. Savale, Jr.

PLANT EXCHANGE

Exchange of duplicate British Columbia plant material was continued with various universities, museums, and government botanical institutions, particularly University of British Columbia, Vancouver; University of Washington, Seattle; Science Service, Ottawa; National Museum, Ottawa; and several others.

FIELD WORK AND BOTANICAL SURVEY

Field work in 1960 included a botanical survey and plant-collecting trip in the area from Burns Lake to Telkwa, Smithers, Hazelton, Terrace, Lava Lake, Nass River, Kitimat, and Prince Rupert. This reconnaissance was made in co-operation with Dr. Stuart S. Holland, Department of Mines, Victoria, who kindly shared transportation and camping facilities. The Curator would like to acknowledge with thanks his kindness; without his help this survey would not have been possible.

Several new records were established. A few of the most important were: *Cassiope lycopodioides* Don., collected at Hudson Bay Mountain near Smithers and Telkwa range (second and third record for the Province); *Habenaria chorisiana* Cham., collected in the Prince Rupert area (third record for the Province and first record for the Mainland); and *Calla palustris* (L.) R. & S., near Smithers. The total number of plants collected during this survey amounted to approximately 500 sheets of phanerogams and sixty sheets of cryptogams. Several rare liverworts were collected on Hudson Bay Mountain at the edges of the glacier.

A few short collecting trips on Vancouver Island were made jointly with several botanists and other visitors interested in the flora of Vancouver Island.

A taxonomic study of the heather family (*Ericaceae*) was continued, which will lead to the completion of a monographic presentation in the form of a Museum handbook.

SPECIAL RESEARCH

An analysis of the allergenic pollen in the atmosphere of the Victoria area was continued at St. Joseph's Hospital to try to assist in the clinical diagnosis of suspected cases of pollinosis and to provide data for reference as to the allergenic atmospheric pollens to be expected. The main problem in the 1960 research was to find correlation between the pollen count and meteorological conditions. The particles were identified and recorded, and the data submitted to the research council of the American Academy of Allergy (Council on Aeroallergens, Pollen and Moulds Sub-committee) for publication and use of physicians.

It should be mentioned that at the moment this is the only sampling-station being operated in British Columbia.

EXTENSION WORK

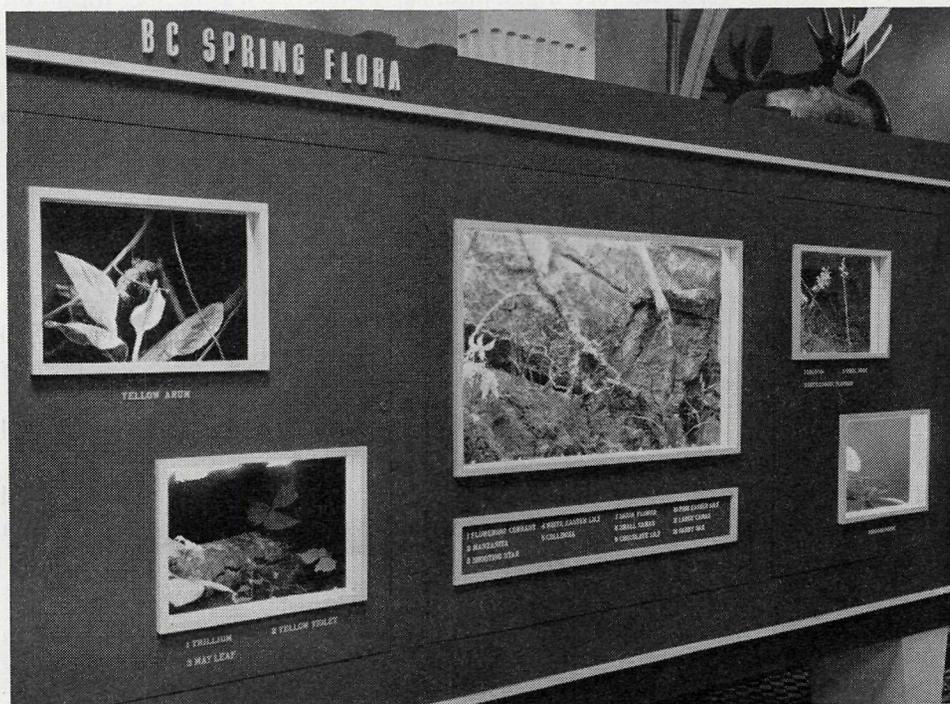
A number of lectures illustrated by coloured slides were given to popularize plant knowledge and encourage interest in botany, with special emphasis on protection and uses of plants. These lectures were presented to agriculture, horticulture, and conservation groups, as well as to garden clubs and a number of professional and service clubs, schools, scouts, and other societies in Victoria, Vancouver, and Washington State.

The Curator was invited to address the Olympia Audubon Society annual meeting, October 20th and 21st, where the topic was "Are the Mushrooms Your Friends or Enemies?" The following day the Curator led a mushroom foray, organized jointly by the Olympia Audubon Society and the Portland Mycological Club.

A series of lectures entitled "Plant Science of Today" was given at Victoria University night-school classes. The course, which was very well attended, covered the following topics: Botany in human affairs, plants in action, plant communities, fungi—a fascinating group of plants, plant classification, and practical uses of botanical literature for the layman.

A number of appearances in radio and television were made.

Other extension work of the botanical section is covered in the Director's report.



(British Columbia Government photograph.)

Wildflower models in the botanical exhibit.

NEW EXHIBITS

During the year new exhibits and changes in existing ones were made. The credit for this goes to Mr. F. L. Beebe, Miss B. C. Newton, Mrs. S. Newnham, and summer student Miss S. Taylor. Detailed accounts of these changes are found in the Director's report.

The collection of mushroom models was enhanced by the addition of ten ceramic models, which were artistically and accurately reproduced by Mrs. L. O. Madison, of Port Angeles, Wash. As the mushroom exhibit draws much attention, it is planned to increase it steadily, preferably by permanent ceramic models.

OTHER ACTIVITIES

The exhibit of fresh material of native plants was maintained all year round by Mr. John Nutt. As usual, this exhibit was carefully prepared and well arranged and is popular with many visitors.

Routine curatorial duties, such as the identification of plant collections, mounting, cataloguing, labelling, and filing plant specimens were performed with the very

able assistance of Mrs. Newnham, and information service was provided for the general public and various Government departments (that is, Recreation and Conservation, Horticulture, Agriculture, and Forestry of the Provincial Government, and Forest Pathology Laboratory and Experimental Station, Saanichton, of the Federal Government).

The service of plant identification was also extended to the head gardener at Government House and a number of District Agriculturists and Forest Rangers.

SUMMER ASSISTANCE

The botanical section was able to obtain the help of two student assistants. Miss S. Taylor, a student at the University of British Columbia, was a great help in preparation of the dioramic display of native species of spring flora, including the dogwood, rhododendron, and several orchids. For a very short period we had in the herbarium Mr. William Savale, a graduate student from Harvard University, who was of great assistance in identification of the Calverley collection from the Dawson Creek area.

ACKNOWLEDGMENTS

The botanical section continues its cordial relationship with the following institutions: Department of Biology and Botany, University of British Columbia; Science Service, Department of Agriculture, Ottawa; National Museum of Canada, Ottawa; University of Washington, Seattle; Smithsonian Institution, Washington, D.C.; and many other institutions in Canada, the United States, and other countries.

Special thanks are due to Mr. J. W. Eastham and Dr. Mason Hale for checking and identifying our material, and to Dr. V. J. Krajina for constructive criticism and help in the preparation of the forthcoming book on the heathers of British Columbia.

We also acknowledge the generous donation of a number of botanical books by Mr. Eric Sismey, of Penticton.

Finally, we wish to acknowledge in general the voluntary co-operation and help of those who contributed to botanical collections and knowledge. Unfortunately, space does not permit us to list each one individually, but we intend to include all of them in a grateful vote of thanks.

REPORT OF THE CURATOR OF ORNITHOLOGY AND MAMMALOLOGY

FIELD WORK

During 1960 zoological exploration was continued on islands of the British Columbia coast. Beck, Felice, Stubbs, Mearnes, Vargas, and Wickaninnish Islands were investigated during the month of July. The animal influents found occurring there were recorded, collected, and prepared as scientific study skins and are now included in the Provincial Museum collections and field records.

This programme of insular field research was initiated in 1948 as a continuation of the earlier work commenced on northern coastal islands by T. T. McCabe, I. McTaggart Cowan, and R. M. Anderson, of the University of California, University of British Columbia, and the National Museum of Canada respectively. So far in the course of the Museum programme some forty-three islands have been worked, including units on the Queen Charlotte Islands, Goose Islands, Scott Islands, Solander Island, Bunsby Islands, Mission Islands, and islands adjacent to Vancouver Island in the Kyuquot and Tofino Inlet areas. The work has been progressing southward along the west coast of Vancouver Island, and in due course will be projected to those islands along the east side.

Field-notes accruing from these and other recent field investigations were indexed, largely during the current year. These and other bound notes contain much data, so far unpublished, but available to university students and other recognized workers. Some 18,000 study skins of British Columbia birds and mammals are available on a temporary loan basis.

This year, series of specimens were taken from four islands in Oak Bay where white-footed mice (*Peromyscus maniculatus*) from Vancouver Island have been introduced for a long-term study of speciation. These previously mouse-free islands are trapped at four-year intervals, and the specimens preserved for comparison with series to be taken in the future.

A control island receives annual introductions from Vancouver Island; in September thirty-two white-footed mice were live-trapped and released there.

In November the Curator took part in co-operative waterfowl investigations with personnel of the Canadian Wildlife Service and the Department of Recreation and Conservation. Data were collected largely on Canada goose populations which occur on the west coast of Vancouver Island and which have recently become accessible to hunters through the opening of a road into the area.

Observations of bird and mammal movements on Southern Vancouver Island were continued. In this the Natural History Society has contributed many valuable records during the current year and in the past. Mr. Alan Poynter, of that society, has compiled a most useful "quick reference" table to migratory movements of birds in the Victoria area, and Mr. David Sterling has contributed several pertinent papers.

A short period in early June was spent investigating band-tailed pigeon depositions on cherry orchards in Saanich. Hitherto of little or no consequence, the damage this year was considerable, amounting to total loss of the crop in some orchards.

Investigations revealed that although male band-tailed pigeons were in breeding condition, females were not. This may have caused the birds to remain "flocked up" later than usual. Normally the pigeons pair up and disperse over wide areas to nest, presumably before the cherries are attractive to them. It was noted also, by many observers, that there appeared to be more band-tailed pigeons than usual in

the area this spring. As increased population and time of fruiting may also have had a bearing in this case, the investigations will be continued next spring.

PUBLICATIONS

These have been reported upon under the Director's report. The revised edition of "Mammals of British Columbia" and "The Owls of British Columbia" in the Handbook series, published this year, are now in circulation. Final draft for a paper dealing with sea-bird nesting rookeries of coastal British Columbia is nearing completion and will appear shortly as a contribution to the Occasional Paper series.

Material for several handbooks dealing with birds is on hand in rough draft and awaits completion as funds and priority permit.

LECTURES AND OTHER ACTIVITIES

In addition to several short talks given to various organizations within the City of Victoria, the Curator conducted a ten-week course dealing with British Columbia birds. The course, part of the Victoria School Board's programme of evening classes, was given at the Museum, where study specimens were readily available. It was fully subscribed, with a total of thirty students attending.

Scientific-study specimens were out on loan to several institutions and individual students this year. Some research students visited the Museum study collections in person.

Curatorial activities, care and maintenance and shipping and receiving of study collections, handling routine queries, correspondence, identification of material brought and sent in by the public, indexing, cataloguing of accessions, preparation of skeletal materials, preparation of manuscripts, lecturing, and the host of minor but imperative Museum activities combined to completely utilize the Curator's time in the current year.

We wish to acknowledge the co-operation of citizens and organizations who contribute annually to our biological collections with services, information, and specimens. We are indebted to Mr. Gordon Barrie, Federal Fisheries; Mr. Frank Butler, Director of the British Columbia Fish and Game Branch, and his staff of biologists, inspectors, and game wardens throughout the Province; Mr. York Edwards, of the Provincial Parks Branch; Messrs. R. D. Harris and A. Benson, of the Canadian Wildlife Service; members of the Victoria Natural History Society; and the many private citizens too numerous to list here.

REPORT OF THE CURATOR OF ANTHROPOLOGY

EXHIBITS

Construction of the new built-in wall cases in three of the basement display-rooms was completed in January, and the satisfying task of installing new and more effective exhibits in these rooms was begun. Miss MacEachern worked on exhibits in the Interior Indian room and completed them in March. The Curator worked in the rooms devoted to Coast Indians and Indian art, and these, though not entirely completed, were opened to the public in May. Only minor additions were made during the summer months, but in the fall Mr. Abbott continued the renewal of the Coast Indian exhibits.

As an innovation, one show-case in the Coast Salish section has been set aside for the use of the Victoria and District Archæology Club. The private collection of Mrs. W. H. Cross was put on display as the first of a series of exhibits to be prepared by club members.



(British Columbia Government photograph.)

Portion of Indian exhibit to show new installations.

FIELD WORK AND OTHER TRAVEL

The Curator's major field-trip of the year was a tour of Interior and northern parts of the Province between May 19th and June 10th, accompanied after May 30th by the Director. Visits were made to museums in Vancouver, Penticton, Kelowna, Kamloops, Clinton, Barkerville, and Prince Rupert. At Penticton the annual meeting of the British Columbia Historical Association was attended. In

Hazelton the Curator spent several days assisting the staff of the new "Skeena Treasure House" museum, and on June 4th participated with the Director in its opening ceremonies.

Several visits were made to Kitwancool to conclude the Museum's agreement with the tribe by turning over to them the three totem-pole replicas carved for them in Thunderbird Park last year, and by supervising the installation of suitable steel and concrete bases. In addition, six historical songs belonging with the Kitwancool histories published by the Museum last year were recorded on tape.

Brief familiarization visits were made to two coastal Tsimshian villages—Kitkatla and Port Simpson. The phonetic transcriptions of a large number of Tsimshian names were checked, and several points of ethnology were clarified. We wish to acknowledge our gratitude to Mr. William Kelly, the leading hereditary chief of Port Simpson, for lending the Museum an old hand-written manuscript on the history of the Tsimshian tribes. This has been copied and returned.

In August the Curator visited the Kamloops area to examine a prehistoric burial mound discovered on an Indian reserve near Chase, to photograph the collections from the mound, and to investigate whether it should be legally designated as an archaeological site. On his recommendation a trained archaeological crew under the direction of Dr. C. E. Borden, of the University of British Columbia, made excavations in the mound, and the results are to be reported in an M.A. thesis by David Sanger. The legal status of the site is still under review.

Several shorter field-trips were made during the year. Members of the staff attended several Indian spirit dances in the vicinity of Victoria. Two afternoons were spent with old Songhees informants, visiting places around Victoria and recording their Indian names. The Curator spent two days with Dr. Borden and his crew at site DjRi-3 in the Fraser Canyon, the oldest known archaeological site in Western Canada. Since joining the staff in August, Mr. Abbott has made frequent week-end excursions to examine local archaeological sites, and he has organized the site records in the Museum files according to the Borden site designation scheme published by the Museum a few years ago and now in general use throughout Canada.

In the company of the Director, the Curator and Mr. Abbott attended the annual seminar of the British Columbia Museums Association in Penticton, September 15th to 17th. The Curator contributed a paper on the new *Archaeological and Historic Sites Protection Act*, and Mr. Abbott one on the preservation of basketry. These will be published in the conference proceedings. The Director was elected president of the association, and the Curator was elected vice-president and named as editor of the proceedings.

Also in September, the Curator participated in a three-day conference in Calgary on "The Present State of Archaeology in Western Canada," sponsored by the Glenbow Foundation.

The Curator was a member of British Columbia's delegation to the Conference on the Development of Historical Resources, in Toronto, October 16th to 18th. This exploratory conference met on the invitation of the Government of Ontario, and was attended by delegations from the Federal Government and all the Provincial Governments except Newfoundland and Prince Edward Island. The Honourable W. D. Black, leader of the British Columbia delegation, extended an invitation to the conference to reconvene in Victoria in October, 1961. The Curator stayed on an extra day in Toronto and attended an executive meeting of the Canadian Museums Association at the Royal Ontario Museum, representing the Director.

PUBLICATIONS

Anthropology in British Columbia, Memoir 4, "The Histories, Territories, and Laws of the Kitwancool," was printed and distributed early in the year. In view of budget limitations it was decided to relegate the Anthropology in British Columbia series from an annual to an occasional status, and to start issuing publications on Indian subjects in the Museum's popular Handbook series. Accordingly, the Curator started intensive work on a handbook dealing with the identification, territories, and populations of the numerous local Indian tribes of the Province.

Some work was also done on the Tsimshian file to incorporate the results of summer field work. A brief article entitled "Haida" was written for the *Encyclopædia Britannica*, and a chapter on the Indians was contributed to a book being prepared on the history of the Gulf Islands.

EDUCATION

During the year some sixteen organized groups, such as school classes, were given guided tours of the Indian exhibits or Thunderbird Park. The first two of a series of guest lectures were given to the Anthropology 200 class at Victoria University, and the Curator gave an illustrated address to the Victoria Branch of the British Columbia Historical Association.

In this connection the formation of the Victoria and District Archæology Club may be mentioned. Organized by Mr. Abbott, the club held its inaugural meeting in the Museum on October 28th. It will operate under the general auspices of the Museum and has as its main purposes the systematic recording of the archæological remains of the area and the improvement of standards of amateur archæology. Fourteen persons have become members of the club by signing its code of principles.

ARCHÆOLOGICAL SITES ADVISORY BOARD

The passage by the Legislature in March of the *Archæological and Historic Sites Protection Act* was one of the most significant events of the year, and work on the preparation and implementation of the Act claimed a major part of the Curator's time and attention.

In June the Provincial Secretary, who is the Minister responsible for the administration of the new Act, named an Archæological Sites Advisory Board. The Curator was named as its Chairman. Its other members are W. E. Ireland, Dr. R. Lane, and L. J. Wallace, of Victoria; Dr. C. E. Borden, of Vancouver; and A. C. Milliken, of Yale. The Board met twice to discuss the policies it was to follow and establish the procedures necessary to carry out the intentions of the Act. Three permits were issued for archæological work in the Province, and steps were taken to designate the Fraser Canyon site, DjRi-3, as an "archæological site" under the Act.

It was in the capacity of Chairman of this Board that the Curator attended the conferences in Toronto and Calgary, made the field-trip to Chase, and addressed the museum convention in Penticton, as described earlier in this Report.

MISCELLANEOUS

A number of loans of Indian materials were made during the year; for example, to the University of British Columbia, the Victoria School Board, and H.M.C.S. "Beacon Hill" (to exhibit at a reception in Yokohama). The largest, however, was a loan to the Vancouver Maritime Museum, for use in its opening exhibit "Man and the Sea."

A large part of the day-by-day work of the staff continues to be made up of such routine tasks as the conducting of correspondence, the answering of inquiries, the reception of visitors, and the maintenance of the collections, catalogues, photographs, and library.

TOTEM-POLE RESTORATION PROGRAMME

The totem-pole carving programme in Thunderbird Park was continued to the end of the calendar year under the direction of this office. The regular Kwakiutl carvers, Mungo Martin and Henry Hunt, were employed for all of this period.

The 60-foot totem-pole commissioned last year by the Provincial Council of the Boy Scouts Association was completed in February and sent to Ottawa, where it now stands in front of the new national headquarters building. Before the start of the tourist season, most of the exhibits in Thunderbird Park were treated with preservative and repainted. Some, however, were not painted, as it was felt that their appearance would be improved by further weathering.

The main project of the summer was the carving of an additional copy of the most elaborate of the three poles from Kitwancool. It is intended to erect this in the park in place of the large Bella Coola house frontal pole, which is an old original pole and should be preserved indoors. At the request of the Pacific National Exhibition the two carvers and the almost-completed Kitwancool pole were sent to Vancouver for the period of the exhibition, August 20th to September 5th, and proved to be a most popular attraction.

Another project was the preparation of the components for a new Thunderbird Park arch. The carvings on the old arch are not very authentic in style, and it does not satisfy the constant demand of photographers for a large, colourful, and authentic Thunderbird. Henry Hunt completed a Thunderbird with a 10-foot wing-span for the top of the arch. The cross-piece which bears the name of the park was also completed, and we wish to acknowledge the assistance of the Parks Branch staff at the Langford workshop in carving the name on it. It is intended to use a pair of Comox Grizzly Bear posts carved some years ago as the uprights of the arch.

As a start on the furnishings of the Kwakiutl house in the park, the carvers made a large feast dish in the form of a whale. Other smaller projects included the carving of four masks and two paddles for the Museum collection. Also, Mungo Martin completed five more water-colour paintings of creatures from Kwakiutl mythology.

On August 20th the Kwakiutl house was made available to Mr. George Clutesi, and he arranged for the performance of an impressive programme of Nootka Indian dances. The event was recorded on tape and colour slides were taken.

By the end of the calendar year all of the funds allocated for the programme had been expended, and it was necessary to lay the carvers off work.

DONATIONS AND ACCESSIONS

ZOOLOGICAL

MAMMALS

By gift—

- Miss Barbara Clowes, Milnes Landing, one live brown bat.
 Mrs. E. D. Cox, Mahatla River, Quatsino, nine marten skulls.
 A. H. Crawford, Campbell River, one live flying squirrel.
 R. Graham, Victoria, one dog skull.
 J. P. E. Klaverwyden, Victoria, two mounted water-deer from China.
 Dr. Douglas Leechman, Victoria, one fur-seal.
 C. E. Loggin, Victoria, one bat.
 Dr. D. G. Revell, Victoria, one deer antler (sectioned for demonstration).
 Mrs. C. J. Smith, Rocky Point, one muskrat.
 L. W. Stephenson, Brentwood, one walrus tusk.
 Mrs. Peggy Whittington, Long Beach, V.I., one Dall's porpoise skull.

By the staff, 161.

BIRDS

By gift—

- Mrs. Thorvel Anderson, Parksville, one Audubon warbler.
 A. Barklay, Victoria, one saw-whet owl.
 Mrs. Fred Borden, Victoria, one evening grosbeak.
 Harrison Brown, Hornby Island, one quail.
 W. J. Cave, Victoria, two mounted red-tailed hawks, one mounted blue heron.
 K. Hamblett, Victoria, one Swainson thrush.
 G. A. Hardy, Victoria, one house wren.
 H. Henderson, Victoria, one Cooper hawk.
 M. W. Holdom, Crescent Beach, one hermit thrush.
 J. Lenfesty, Victoria, one mountain quail.
 T. M. Lowe, Cobble Hill, one barn owl.
 Barrie Morgan, Victoria, one golden-crowned kinglet.
 Miss B. C. Newton, Victoria, one winter wren.
 J. H. C. Palmer, Victoria, two varied thrush, one screech owl.
 Theed Pearse, Comox, one hybrid flicker.
 D. Pearson, Victoria, one evening grosbeak.
 Corporal J. B. Short, Victoria, one killdeer plover.
 Miss Carol-Anne Stiles, Victoria, one pheasant.
 R. H. Turley, Saanichton, one hummingbird, one savannah sparrow.
 Game Warden Vincent, Alberni, one red-throated loon.
 Miss Shelly Marie Whitlaw, Penticton, one purple finch.
 R. B. Worley, Victoria, one screech owl.

AMPHIBIANS AND REPTILES

By gift—

- T. R. Ashlee, Victoria, one alligator lizard.
 R. Dent, Victoria, two eastern box tortoises.
 Gary Green, Victoria, one eastern box tortoise.
 M. Middler, Victoria, tadpoles.
 Dr. D. G. Revell, Victoria, one toad.
 A. Watson, Victoria, one garter snake.

By the staff, 11.

FISH

By gift—

- H. Caldwell, Ganges, egg case of a skate.
- E. S. Gilbert, Victoria, one wolf-eel, one sand-fish.
- A. Glover, Victoria, one red Irish lord.
- G. R. Grossmith, Victoria, one hagfish.
- Miss A. Murray, Victoria, one handsaw fish.
- G. Squarebriggs, Nanaimo, one blue shark.
- Miss Wendy Watson, Victoria, one sculpin.

INVERTEBRATES

By gift—

- H. Alfalter, Victoria, goose barnacles.
- C. Blaikie, Victoria, one click beetle.
- Mrs. I. M. Coughtry, Muchalat, one California silk-moth.
- W. H. Cross, Deep Cove, V.I., one sponge.
- W. R. Fellows, Campbell River, one jumping spider.
- Miss M. Gould, Victoria, one banded borer.
- D. Hodgson, P. van der Jagt, and R. Senkler, Victoria, veleva specimen.
- W. Lee, Victoria, one black widow spider.
- M. McKinney, Victoria, one hawk-moth.
- Miss Elizabeth Meikle, Victoria, one cockchafer.
- W. H. Parker, Glen Lake, three spiders.
- G. Partington, Metchosin, one spider.
- M. N. Preston, Victoria, one eyed hawk-moth.
- W. Ray, Victoria, one barnacle.
- A. Redmond, one orb-weaver spider.
- Barry Spencer, Victoria, one black widow spider.
- M. and D. Trowsdale, Victoria, one wasps' nest.
- P. and M. Vesey and M. White, Victoria, one deep-sea amphipod.
- T. Won, Victoria, one mourning cloak butterfly.

GEOLOGY

By gift—J. P. E. Klaverwyden, Victoria, collection of stones from Ootsa Lake.

MISCELLANEOUS

By gift—

- The late Mrs. Maude Cameron, Victoria, copies of "Ibis" for ten years and other bird publications.
- W. E. John, Victoria, four photos of starfish attacking oysters.

ANTHROPOLOGICAL

The Mrs. R. T. MacKay Collection.—(Purchase.) Athapaskan clothing and other articles originally collected by Mrs. MacKay's late husband's father.

The Mrs. Maxine George Collection.—(Purchase.) Traditional Carrier Indian manufactures made by Mrs. George.

The Stanley Zayac Archaeological Collection.—(Gift.) A large collection of stone artifacts and chipping detritus picked up by Mr. Zayac on his property near Sooke (site DeRwl2).

The Mrs. Ada Davey Collection.—(Gift.) Interior Salish, Nootka, and Tsimshian articles donated from the late Mrs. Davey's estate by her son, the Honourable Mr. Justice H. W. Davey, Victoria.

HAIDA

Stone hammer-head. G. Hummel, Victoria.
Stone maul-heads, three. Mrs. P. H. Snider, New Westminster.

TSIMSHIAN

Wooden spoons, four. In Davey collection.
Hand-maul. In Davey collection.
Round labret of red stone. George L. Moody, Trail.

KWAKIUTL

Model totem-pole carved by Charlie James, *ca.* 1905–10. Ex Provincial Archives.

Wooden masks, two. Made in Thunderbird Park by Mungo Martin.
Wooden masks, two. Made in Thunderbird Park by Henry Hunt.
Old "broken" copper. Mungo Martin, in honour of his son, the late David Martin.

Incised sandstone object. Miss Carol Wilson, Stuart Island.
Human skull. Royal Canadian Mounted Police, Campbell River.
Cedar-bark net sinker slings. Made by Mungo Martin.
Wooden carving of halibut head. Made by Mungo Martin.
Paddles, two. Made in Thunderbird Park by Mungo Martin.

BELLA COOLA

Wooden grave-marker representing eagle. Dr. Walter Sheppe, Annandale-on-Hudson, N.Y.

NOOTKA

Basket. In Davey collection.
Human skull. Royal Canadian Mounted Police, Ganges.
St. Louis Louisiana Purchase Exposition Medal of 1904, formerly belonging to Chief Joseph of Opitsit. George Nicholson, Victoria.

COAST SALISH

Human skeleton and associated ground slate point. Staff.
Hand-maul. Dr. E. S. Fowles.
Human skull. P. S. Lomas, Victoria.
Wooden wedge, prehistoric, from midden, John Sendey, Victoria.
Cannon-bone awl, prehistoric. John Sendey, Victoria.
Human skeleton. Staff.
Adze-blade and stone anchor. Dr. Gwladys Downes, Victoria.
Chipped point. D. F. Pearson, Royal Oak.
Slate knife or saw fragment. Arthur Serwiner, Victoria.
Celt. Master Michael Wagg, Victoria.
Grave-box fragments and human skeleton. Mrs. E. Vassart, Westview.
Sandstone sinker and adze fragment. Allan Wayne Young, Victoria.
Ground slate projectile point. L. A. Prescott, Victoria.
Antler wedge. D. Birch, Victoria.

Abrasive stones, five. In Zayac collection.
Stone digging-tool. In Zayac collection.
Bone awl fragment. In Zayac collection.
Nephrite adze-blade. In Zayac collection.
Stone saw. In Zayac collection.
Chipped scraper. In Zayac collection.
Chipped scraper fragments, two. In Zayac collection.
Utilized stone flakes, four. In Zayac collection.
Chipped knife fragment. In Zayac collection.
Chipped knife or point. In Zayac collection.
Chipped projectile points, forty-nine. In Zayac collection.
Chipped projectile-point fragments, four. In Zayac collection.
Human skull. E. W. McMorran, Saanich.
Human skull. Peter Cartwright, Ganges.
Whalebone club fragment. G. C. Thornley, Victoria.
Human skull. Ron Foulds, Nanaimo.
Clay shale disk beads, twenty-five. Mrs. Anne Dodds, North Vancouver.
Small antler wedge. Richard Cox, Victoria.
Bone awl. Richard Cox, Victoria.
Fragment of worked antler. Richard Cox, Victoria.
Chipped projectile point and chipped scraper. Richard Cox, Victoria.
Ground stone projectile point. John L. D. Jervis, Victoria.
Hand-maul fragment. Sandra Lamont, Victoria.
Abrasive stone fragment. Staff.
Human skeleton. Staff.
Chopped-off antler tine. Staff.
Splinter bone awl. Staff.
Antler wedge fragment. Staff.
Rush mats, two. T. G. Barber, North Burnaby.
Grooved rock. Richard Elliott, Vancouver.
Prehistoric soapstone object. Mrs. W. H. Cross, Sidney.
Small hand-maul. D. J. DeRochie, Sooke.
Ground slate projectile point. R. F. Pitt, Victoria.
Hand-maul. John Van Dalen, Victoria.
Hammer stones, two. John Sendey, Victoria.
Miscellaneous artifacts from East Sooke. John Sendey and Richard Cox.
Goats'-wool blanket. Mrs. Lillian Rice, Victoria. (Purchase.)

INTERIOR SALISH

Jadeite chisel fragment. Les Cook, Barkerville.
Baskets, two. Mrs. Josephine Wendle, Barkerville.
Chipped basalt knife. J. L. Turing, Chichester, England.
Chipped basalt scraper. J. L. Turing, Chichester, England.
Large coiled basket. In Davey collection.
Basketry tray. In Davey collection.
Chipped celt or chopper. Les Cook, Barkerville.
Human skull and other bones. Coroner C. E. P. Skelton, 100 Mile House.
Antler wedge. Coroner C. E. P. Skelton, 100 Mile House.

ATHAPASKAN

Snowshoes. In MacKay collection.
Wooden staff. In MacKay collection.

Deer-hide jacket. In MacKay collection.

White hide leggings. In MacKay collection.

Beaded hide pouch. In MacKay collection.

Beaded blue flannel bag. In MacKay collection.

Moccasins, three (two unfinished showing stages of manufacture). In George collection.

Birch-bark baskets, three (two unfinished showing stages of manufacture). In George collection.

Birch-bark tray. In George collection.

Birch-bark cups, two. In George collection.

Wooden spoons, two. In George collection.

Spruce-bark storage-boxes, two. In George collection.

Tump-line loom and three tump-lines. Mrs. B. Grey, New Hazelton. (Purchase.)

MISCELLANEOUS

Horn spoons, three. Les Cook, Barkerville.

Collecting-basket with tump-line. Probably Kwakiutl or Nootka. Purchased in auction.

Colour slides of pictographs. Mrs. B. A. Ganoung, Chewelah, Wash.

Colour slides of pictographs. Mrs. F. Vestergaard, Garden Bay P.O.

SOME RECENT SIGHT RECORDS OF EUROPEAN STARLING NESTING ON NEW TERRITORY IN WESTERN BRITISH COLUMBIA

BY C. J. GUIGUET, PROVINCIAL MUSEUM, VICTORIA, B.C.

The invasion of the European starling (*Sturnus vulgaris* L.) in Canada is well documented. Its arrival in British Columbia in 1947 and subsequent spread within the Province was also recorded by many observers.

These records, together with additional data gathered by M. T. Myres (then a student at the University of British Columbia), were published by the Provincial Museum in 1958 (Myres, M. T., *The European Starling in British Columbia: 1947-1957*, Occasional Papers of the British Columbia Provincial Museum No. 11).

The purpose of this note is to put on record further nestings that have come to our attention since 1957. We have little doubt that there were many more nestings than those listed here. However, enough have been reported to indicate a pattern of establishment of the European starling as a nesting bird in the west-central Interior, on the Lower Mainland, and on the south-east coast of Vancouver Island—all areas from which previous nesting records are wanting.

RECORDS FROM THE WEST-CENTRAL INTERIOR

In June, 1952, I traversed the road from Prince Rupert to Prince George on foot and by motor-vehicle. I observed no starlings in the area at that time.

During the summer of 1958 Mr. Rudi Drent worked this area and observed no starlings despite fairly intensive general nesting investigations with the aid of local children.

In late August, 1959, while passing through Prince George, I observed a flock of twenty-five to thirty starlings at the airport there.

In 1960 Dr. G. C. Carl recorded the following from these areas:—

Kitwanga, June 2: Two pairs of European starling nesting in woodpecker holes in totem-poles.

Kispiox, June 3: Two pairs nesting in totem-poles; one pair feeding well-fledged young in a nest under eaves in an abandoned house.

Hazelton, June 4: Several adults observed carrying food near edge of town, presumably feeding young.

Moricetown, June 5: An adult feeding well-fledged young in a nest situated in trestlework on bridge.

Burns Lake, June 7: Adult seen carrying food, presumably feeding young.

Quesnel, June 8: Adult seen carrying food, presumably feeding young.

Dr. Carl observed other individuals and small flocks in the area and noted in his field journal, "It was my impression that a fairly dense concentration of breeding birds was in the Hazelton area."

It seems safe to assume that the birds had come into, and began nesting in the area discussed sometime after Mr. Drent's summer there in 1958.

RECORDS FROM THE LOWER MAINLAND

Nesting records for this area were extracted from files of the University of British Columbia's Nest Record Scheme. They were made available to us through the kindness of Dr. I. McTaggart Cowan with the co-operation of Mr. Rudi Drent.

In addition, two records from Vancouver Island were supplied and appear under that section. Hereunder the records and comments as supplied by Mr. Drent.

STARLING DATA, 1960

Nesting Records (in B.C.N.R.S. Files)

Through the efforts of Mr. William Hughes and his mynah bird study group of the Vancouver Natural History Society, records have accumulated to show that the European starling is now breeding on the Lower Mainland.

1958:

William Hughes' first nesting record: fledglings seen with parents May 18th, west side of Pitt River (Port Coquitlam district).

1959:

Pitt River. Fledglings observed in the same area June 20th.

Chilliwack. Nesting on Higginson's Farm (Higginson's Road); Mr. Hughes, who followed up the report on June 4th, learned that the young had left the nest cavity on June 2nd. The birds did not nest here in 1960.

Marpole. Corner of Rand Avenue and B.C. Electric tracks: William Merilees found a nest with young in a broad-leaf maple here May 15th; young fledged successfully May 27th to 30th.

1960:

Pitt River (same place as above). Nesting in pilings, where they had replaced purple martins; adults feeding young in the nest May 29th (first actual nest report here, William Hughes).

Beach Grove (Point Roberts). In a patch of woods at the north edge of the village, adults feeding young in the nest May 24th (William Hughes).

Marpole. Two nests found by William Merilees, both in old pilings along North Arm of the Fraser—one at Angus Drive, the other below Marine Drive Golf Club. At the time observations were closed (April 10th), nest-building had been completed. The three Marpole records lie along a 1-mile stretch of the river.

RECORDS FROM THE EAST COAST OF VANCOUVER ISLAND

The European starling was first recorded on Vancouver Island in the winter of 1951/52 (Guignet 1952, Pearse 1953). In the winter of 1952/53 many unsubstantiated reports were received from the general public, but only a few observations (those by Museum personnel) were entered in the Museum records. Since that time the European starling has become commonplace during the winter, particularly in the Victoria area, but it is also seen regularly from Campbell River south to Sooke. In the past three years a wintering concentration numbering 2,000 to 3,000 birds has been observed at Beacon Hill Park, Glen Lake, and at the Federal Agricultural Station at Saanichton, and small flocks are seen regularly.

First evidence of nesting was secured at Cadboro Bay in 1953, when a breeding female was collected and a nest observed at the home of Mr. M. Ball, who stated two pairs had nested there the previous year. This bird (B.C.P.M. No. 10073) so far constitutes the only breeding record for Vancouver Island substantiated by a specimen. All others, including those listed in this paper, are sight records only. However, all have been made by qualified observers and may be accepted without question.

Despite this early record, it seems certain that nesting did not intensify until 1960 in all three areas discussed here. Indications of the beginning of nesting on the Lower Mainland and on Vancouver Island occurred in 1959, as the sight records indicate. It is expected that nesting of the European starling will increase greatly in these areas in the next few years.

Some of the following reports were extracted from records of the Victoria Natural History Society by Mrs. Eleanore Davidson, to whom we are grateful.

Victoria, April into May, 1959. Young being fed in nesting-hole near 825 Monterey Avenue, reported by Mr. A. R. Davidson, of Victoria Natural History Society.

Victoria, April into May, 1960. Young being fed in same nesting-hole as reported above by Mr. Davidson. A second nesting-hole containing young at Wetherby and North Dairy Roads by the same observer.

Metchosin, May 1st, 1960. Young being fed in nesting-hole at Witty's Lagoon, reported by Mr. T. Briggs, of the Victoria Natural History Society.

Ivy Green Park, May 5th, 1960. A pair, flying in and out of a hole in an alder stub, observed by Dr. M. D. F. Udvardy, of the University of British Columbia.

Campbell River, May 17th, 1960. A pair nesting in a flicker hole on the property of Mrs. R. Palmer. She reported watching the nest-building activity and noted three other pairs in the area.

Victoria, May 26th, 1960. Adult feeding fledgling at feeding-tray, reported by Mrs. A. G. Gosling, 3954 Blenkinsop Road.

Victoria, May 26th, 1960. Adult feeding fledglings at Queen Anne Heights, reported by Dr. G. C. Carl.

Victoria, June, 1960. Fledglings being fed at three widely separated points, reported by Mr. Ralph Fryer, of the Victoria Natural History Society (Victoria Avenue, Uplands Golf Course, and Interurban Road).

Chatham Island, June 7th, 1960. Young being fed in nesting-hole, reported by Mr. Frank Miller; later observed by C. J. Guiguet out of the nest.

Miracle Beach, June 26th, 1960. A pair apparently nesting in a hole in a dead maple, from which they had driven a pair of red-breasted sapsucker, observed by Mr. William Merilees, of the Vancouver Natural History Society.

Nesting records of these birds in 1961 and subsequent years will be of particular interest. Observers are asked to report any such activities to the Provincial Museum, Victoria, B.C., or to the Department of Zoology, University of British Columbia, Vancouver 8, B.C.

THE KILLER WHALE COPPER (A Chief's Memorial to His Son)

BY WILSON DUFF, PROVINCIAL MUSEUM, VICTORIA, B.C.

In December, 1960, Chief Mungo Martin put into the permanent care of the Provincial Museum his valued "copper" Ma'haynootsi "Great Killer Whale." It had been his intention to fix it to a stone monument which he had erected in Centennial Park, Courtenay, in memory of his son David, who lost his life by drowning in September, 1959. However, the suggestion was made to him that it would be safer, and would make a more meaningful memorial, if it were placed on permanent exhibit in the Museum. To that he agreed.

The history of the copper was recorded on tape, with Mrs. Helen Hunt acting as interpreter. It is the purpose of this brief article to put the story into print, along with enough introductory information to give it a context. Certain sections are given verbatim from the tape, as they convey some of the eloquence of the original Kwakiutl phrasings.

Mungo Martin has risen to a high social position among his people. A member of the "real" Kwakiutl tribe of Fort Rupert, he holds at present the name Naka'penkum. He is the leading chief of the second-ranking clan of the tribe, and ranks third in the entire tribe, after Tom Johnson (Tla'kwageela) and James Knox (Tla'kodlas). At the time he purchased his copper, however, he had not yet attained such a high position of rank. His older brother, Spruce Martin, preceded him as leader of the clan and holder of the name Naka'penkum. It wasn't just the highest chiefs who could own coppers.

COPPERS

"Coppers" were owned by the Indian tribes of the Coast from the Tlingit of Alaska to the Kwakiutl of Vancouver Island. Their only use, aside from the tiny ones sometimes used as ornaments on costumes, was as objects of wealth and prestige. They served, in general, as the currency of highest denomination in the complicated native systems of high finance. They were bought and sold (for ever-larger prices), given away, "broken," and even thrown into the sea as the chiefs who owned them strove for superiority by "fighting each other with property." The most important coppers had their own names—Mungo remembers the names of thirty-two others which belonged to various tribes of the southern Kwakiutl—and their histories and values were widely known.

The origin of the custom of using coppers has not been satisfactorily explained, nor has their distinctive shape. It is generally believed that coppers were used in pre-contact times, being made of native copper from sources far to the north, in Alaska. Native traditions reveal that the metal was held in very high esteem, and the first explorers to the Coast did find a small amount of it already in use in the form of weapons and ornaments. However, native copper went out of use very quickly as the traders flooded the market with sheet copper. We do not know directly of any existing "copper" which is made of the native metal.

THE COPPER "MA'HAYNOOTSI"

This copper is 26 inches high and was about 13 inches across at its widest point; its size is not unusual, but its proportions are somewhat more long and narrow than most. It has been "broken" in two places. It was not uncommon for pieces to be removed from a copper in this way until only the raised T-shaped central ridge remained, and in fact this copper actually consists of an old central T



(British Columbia Government photograph.)

The Killer Whale Copper, Ma'haynootsi.

riveted to a new copper-shaped sheet. The arms of the T, as was customary, form a shallow inverted V in cross-section, although they have been somewhat flattened out when riveted to the flat sheet below. The upper (larger) part of the copper is shallowly dished out from behind. The entire surface has been blackened with some type of lacquer, and a design of a killer whale has been engraved on the front.

HISTORY OF THE COPPER

Mungo bought Ma'haynootsi from Peter Scow about 1942 for \$2,010. He does not know its earlier history, except that it is an old T on a new copper, and Peter Scow had it remade in a machine-shop at Alert Bay. Willie Siwid engraved the design on it.

Most of the money which Mungo used to buy this copper was obtained in earlier transactions involving another copper. In the late 1930's, when he married Abaya (the present Mrs. Martin), her "cousin" Willie Siwid gave him many things as parts of her dowry—money, blankets, pots and pans, a Hamatsa mask and Hamatsa name, and other privileges (ki'su). In addition, he bought a copper named Tlaksoo'yala and gave that to Mungo as well. Some years later Mungo sold Tlaksoo'yala to his brother Spruce for \$1,600. He kept the money and later used it to buy Ma'haynootsi.

Mungo bought Ma'haynootsi with the thought in mind that he didn't want to put up a potlatch or winter dance without a copper for his children to dance on. Another reason was that if he died, his son would never be ashamed, but could say, "I have a copper to dance on, and for my children to dance on, through my father," and nobody could say otherwise.

The first time Mungo showed the copper in public was at the initiation of his son David into the Hamatsa "secret society":—

After Mungo had the copper to use as a shield against anyone who would say anything wrong against his family, after he had this security, then he put on a big winter dance and brought out Dave as a Hamatsa on that copper. Mungo selected one of the big chiefs, Harry Mountain, to place the copper in Dave's arms the moment he came back from being initiated, back to the tribe. Mountain made the motion of having Dave swallow the copper, tail end (small end) first. Then it was placed on the floor. Now it was said that Dave had had a feast of copper.

The copper was then "broken" for the first time:—

The chiefs of the tribes were then invited to break the copper. Not all chiefs can break copper—only the chiefs that had the right to break copper were invited. They got eagle down and put it over the copper, so that it would be perfect, and *te'lkw* (tender, soft.) The chiefs all put their hands on it as Harry Mountain broke it. All the chiefs are said to have broken it because they had their hands on it.

Then they got the piece off (it is the piece off the top of the copper). They gave Mungo the piece, and he gave it to Frank Walker. In that way he only returned what Frank Walker had given to his brother Spruce. Frank Walker was a Kwakiutl who had broken a copper for Spruce. They didn't want to have the name of not returning against them. This cleared that.

The next occasion on which the copper was shown in public was during the performance at Gwayastums, Gilford Island, of one of Mungo's owned ceremonies (ki'su), which he used to celebrate the coming of age and naming of a young girl in the family. The ceremony makes use of a very large decorated wooden cradle, which is hung at the back of the house. The copper was placed in the cradle as a "comforter" (blanket) for the "baby" concerned. This ceremony was repeated in Thunderbird Park in 1953, and will be described in more detail below.

The story behind the other piece "broken" from the copper is as follows:—

Mungo got quite angry at Chief Tom Omhid one time about 1944, and made all the arrangements to break his copper to give to Omhid. But after he had the piece broken off

he changed his mind, because Omhid didn't have any power to do anything about it if he did give him the piece.

Omhid had spoken out of hand and said that Dave was a Hamatsa without a copper. He was a Hamatsa with an empty stomach, he said. He forgot that Dave had already been filled with the copper, and that is one of the most disgraceful things to say against any Hamatsa, that he is a Hamatsa on an empty stomach. That is what angered Mungo.

Mungo disposed of the piece of copper when his brother died:—

So instead of giving it to Omhid (when he changed his mind and didn't want to hurt anybody with that piece of copper), when Spruce died, to comfort his own sorrow, he threw it in the water. He didn't want to bring up hard feelings about things that had happened years before, so he just vanished that piece with his brother. That was at Fort Rupert, when he invited the tribes to have the sa'la (mourning) for his brother.

The copper was shown again in December, 1953, when it played a very prominent role in the opening ceremonies of Mungo's Kwakiutl house in Thunderbird Park. First, Mungo went through the motions of financing the event by "selling" the copper to his wife Abaya for \$1,500. The cradle ceremony was performed in honour of David's daughter Dorothy, with the copper serving as her "comforter" in the large wooden cradle. The copper also appeared at times during the Hamatsa dance, carried on the arms of the Hamatsa, David Martin. The following summaries of these events are taken from the complete transcript made at the time, and now in the Museum files.

The "sale" of the copper took place, with proper speeches and ceremony, during a rehearsal on the evening before the main performance. The procedure was that Mungo "took up" (brought out) his valued copper and "sold" it to Abaya for \$1,500, so that he would have money to give away and thus show the extent of his pride in his new house. In actual fact it was Mungo's own money, and the figure included expenditures which had already been made in the preparations for the event.

Tom Omhid, who was Mungo's speaker, took up the copper and said (in part):—

This is what the chief has taken up, this that has a name, the name Ma'haynootsi. He doesn't want to take up just anything. He comes from a proud tribe. He is proud of the new house. You will recognize this house, chiefs. . . . It is a copy of the first house that all you tribes used to gather in, the house that belonged to my chief, the house of Naka'penkum. . . . And now I am selling this. . . . There it is."

Omhid placed the copper on the floor. George Scow, who spoke for Abaya, picked it up and made a speech: ". . . She will take it, you chiefs. She will buy it. . . ." He placed the copper down in front of Abaya and took from her a bag of money. ". . . Now we will need your help . . . ," he said, addressing Omhid and Daniel Cranmer. Mr. Cranmer took the money and he too made a speech, praising Abaya and Mungo for what they were doing. He passed the money to Omhid, who spoke again, then handed it to Mungo.

Helen Hunt later explained the speeches:—

They were talking about the copper being brought out. It was given to Mungo by Abaya in the first place, and now Abaya has brought it back so that Mungo will have money to distribute to the people, . . . so that all the performers will not be ashamed of themselves. They will have the copper to dance on. That is the value of the dance that is going to be performed.

The cradle ceremony was performed early on the first day of the opening ceremonies, at a performance to which only Indian guests and anthropologists had been invited. It followed the set of mourning songs which had opened the performance, and preceded the dances, which were of the winter ceremonial type. The large cradle had been suspended prominently in front of the painted screen that closed off

the rear of the house. The main performers grouped themselves in front of the cradle. There were strange sounds as the voices of spirits were heard from the back corners of the house. Mungo called out, as though to a baby in the cradle, not to be afraid. Then the song was sung, there were speeches, and the ceremony ended with 50-cent pieces being distributed to everyone in the house.

Omhid's speech was in the typical figurative language of Kwakiutl speeches, referring to the copper as a blanket, and to Dorothy as the new-born baby:—

The blanket to keep this child from getting cold has already been prepared. This man with the great name has already bought it. The softest of all blankets. Its price is enough to distribute to all you tribes. That is why it can never be cold, the new-born baby, it starts its life by keeping warm.

At other points during the 1953 ceremonies references were made to the copper. In one speech Omhid pointed to where it rested on the floor:—

This is the work of Naka'penkum. This is proof of his courage, lying right there. This belongs to the chief, and he can never fail the name of it.

But at some point Omhid must have said something that made Mungo angry, because Mungo renewed his threat to break the copper for Omhid. However, that was not done.

Mungo brought the copper out once more before David's death.

When Dave decided to marry Robina Ferrie, of Campbell River, Mungo gave her father Johnny Ferrie \$2,000 and the copper to make the ceremony big enough and known. Johnny Ferrie couldn't keep the money or the copper; he had to give it to Dave. That's what Robina carried to her husband, the copper and that money. So then the copper belonged to Dave.

Mungo didn't want it to go and stay with Dave. He bought it back from him, so that Dave would have the money to throw a big potlatch. That was the last one that was at Gilford, that last winter before Dave died. That is how the copper came back to Mungo.

On the death of his son, the grieving chief determined at first to comfort himself and erase the memory of the old insult by breaking the copper for Omhid. From this he was soon dissuaded, and decided to use the copper as David's "coffin."

For a while, Mungo wanted to cut off the T and give it to Omhid. It was just to erase the memory of the name he gave Dave when he said he was an empty stomach Hamatsa, and he wanted to get that off his mind. But the family said no, because they didn't want to shame the copper.

The copper was never brought out in public again, but Mungo told different tribes that it was Dave's coffin. In the old days, he would most likely have used it as a tombstone—as you have seen in some of the old graveyards. In the olden days they placed them over the graves. It is said to be the coffin. Because it is valuable, not only for the price that was paid for it, but for the name, and all the things the copper has come through and covered for the family, and it comes to an awful lot of money. That is why he used that copper as Dave's coffin.

Earlier in the interview Mungo said that he had always tried his best to use his copper as he had been taught it should be used.

He said that he had tried to bring it out in any kind of circumstances the way it was supposed to be brought out, right up to now. And it stopped because he lost his son. It was as far as the copper can go.