PROVINCE OF BRITISH COLUMBIA

REPORT

OF THE

PROVINCIAL MUSEUM

OF

NATURAL HISTORY

FOR THE YEAR 1931

PRINTED BY
AUTHORITY OF THE LEGISLATIVE ASSEMBLY.

VICTORIA, B.C.:
Printed by CHARLES F. BANFIELD, Printer to the King's Most Excellent Majesty.
1932.

To His Honour J. W. FORDHAM JOHNSON,

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 for the year 1931.

SAMUEL LYNESS HOWE,

Provincial Secretary.

Provincial Secretary's Office,

Victoria, B.C., March 23rd, 1932.

PROVINCIAL MUSEUM OF NATURAL HISTORY,
VICTORIA, B.C., March 23rd, 1932.

The Honourable S. L. Howe,
Provincial Secretary, Victoria, B.C.

SIR,—I have the honour, as Director of the Provincial Museum of Natural History, to lay before you the Report for the year ended December 31st, 1931, covering the activities of the Museum.

I have the honour to be,
Sir,
Your obedient servant.
FRANCIS KERMODE,
Director.

DEPARTMENT *of the* PROVINCIAL SECRETARY.

The Honourable S. L. Howe, *Minister.*

P. de Noe Walker, *Deputy Minister.*

PROVINCIAL MUSEUM OF NATURAL HISTORY.

Staff:

Francis Kermode, *Director.*

William A. Newcombe, *Assistant Biologist.* Nancy Stark, *Recorder.*

John F. Clarke, *Assistant Curator of Entomology.*

TABLE OF CONTENTS.

	Page.
Object	5
Admission	5
Visitors	5
Activities	5
Anthropology and Archæology	7, 11
Palæontology	12
Botany	9, 12
Amphibia and Reptilia	6, 13
Ichthyology	9, 13
Entomology	10, 13
Marine Zoology	10, 13
Ornithology	10, 14
Oology	10, 14
Mammalogy	10, 14
Publications received from other Museums	14
Accessions	11

REPORT *of the*
PROVINCIAL MUSEUM OF NATURAL HISTORY
FOR THE YEAR 1931.

By Francis Kermode, Director.

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 diffuse knowledge regarding the same.

ADMISSION.

The Provincial Museum is open, free, to the public daily throughout the year from 9 a.m. to 5 p.m. (except New Year's Day, Good Friday, and Christmas Day); it is also open on Sunday afternoons from 1 p.m. to 5 p.m. from May 1st until the end of October.

VISITORS.

The following figures show the difference between those who registered and those who were checked by the attendants. While only 25,630 people registered, the total of the check was 53,093.

	Registered.	Checked.
January	955	2,162
February	875	2,124
March	879	2,249
April	1,123	2,493
May	1,755	4,045
June	2,748	5,195
July	6,202	12,190
August	6,090	11,510
September	2,465	4,708
October	1,253	3,188
November	583	1,609
December	702	1,620
Totals	25,630	53,093

ACTIVITIES.

There was a slight decrease (approximately 3,500) of visitors to the Museum during the year; no doubt due to the present depression. Tourists from many parts of the world visited the institution throughout the year. Local residents also continued to show their interest in the exhibits. School students of the city and surrounding municipalities and Normal students still come to the Museum for assistance in their nature-studies; many expressing their gratification at being allowed to use the collections, which helps them materially in their studies. Members of the staff of the Museum are always on hand to give whatever information may be desired.

One of the collections which is greatly used by many visitors is the seasonal exhibit of wild flowers, which was instituted several years ago. Fresh flowers are on exhibit throughout the year and are renewed by members of the staff, who collect the plants before or after office hours, so as to keep it going; as, with the small staff, time would not permit otherwise. Several outsiders occasionally contribute to this display, and the Director wishes to extend the thanks of the Department for their co-operation.

The valuable display of totems, house poles, boards, and other carvings which are on exhibition in the old Drill Hall have been gone over and labels have been attached with the necessary data. These exhibits are visited by many persons interested in Anthropology.

On August 9th, 1931, the Museum was visited by the President and Secretary of the British Museums Association, Sir Henry Miers, M.A., D.S.C., F.R.S., and S. F. Markham, M.A., B.Litt., M.P., who were on a tour of Canada to make a survey of the Museums of the British Empire for the Carnegie Corporation. They spent most of the day with the Director, going over the Provincial collections, and were greatly pleased with what they saw, the manner in which the specimens were shown and labelled; saying it was so much more interesting being a representative collection of the Flora, Fauna, and Anthropology of the Province. Congratulations were extended to the Department for the work that is being done with so limited a staff and the small amount of money that is voted by Legislature. Both gentlemen, wishing to discuss matters appertaining to the Museum work, were introduced to the Honourable S. F. Tolmie, Prime Minister; the Honourable S. L. Howe, Provincial Secretary; and the Honourable W. McKenzie, Minister of Mines.

Sir Henry Miers broadcasted over the Dominion from Montreal on August 25th, his subject being "Museums of Canada," in which he referred to the Provincial Museum as "The Museum of Victoria, one of the best of its sort in the Dominion, confines itself to Natural History and Ethnography."

The Director wishes to extend to the many persons who are mentioned in the list of accessions, the grateful thanks of the Department for their gift of specimens and co-operation in the work of the Provincial Museum.

A REMARKABLE CAPTURE OF LEATHERBACK TURTLES OFF BAJO REEF, NEAR NOOTKA SOUND, WEST COAST OF VANCOUVER ISLAND, BRITISH COLUMBIA.

Leatherback Turtle (*Dermochelys schlegelli* Garman).

This Chelonian is the largest of the turtle family; specimens have been recorded measuring as much as 8 feet in total length and weighing over 1,600 lb. They differ so materially in structure from other species that they have been placed in a distinct family. The horny plates, so conspicuous in all other types, are entirely absent, the bony carapace, which is distinctly seven-ridged longitudinally, being covered with a homogeneous leather-like skin. Both jaws are formidably hooked and cutting throughout their edges, and the paddles are destitute of rudimentary claws found in other species.

The flesh of this large Chelonian is not only unfit for food, being very oily and fatty, but is reported to be of a poisonous character.

Plate I. shows a photograph of this large turtle after it had been brought to Nootka by Captain Henry White, a Masset Indian, and is published by the courtesy of the photographer, Mr. M. S. Robertson. These turtles are only stragglers to the North Pacific Coast of Western North America, the type localities being given as the Tropical Pacific and Indian Oceans.

The Provincial Museum was very fortunate in receiving the back-shell of one of the turtles mentioned in the letter received from Mr. J. J. Petrich, General Manager of the Nootka Packing Co., Ltd., for which the Department wishes to acknowledge with many thanks, as this is the first known record so far north on the Western Pacific.

"Nootka, B.C., October 6th, 1931.

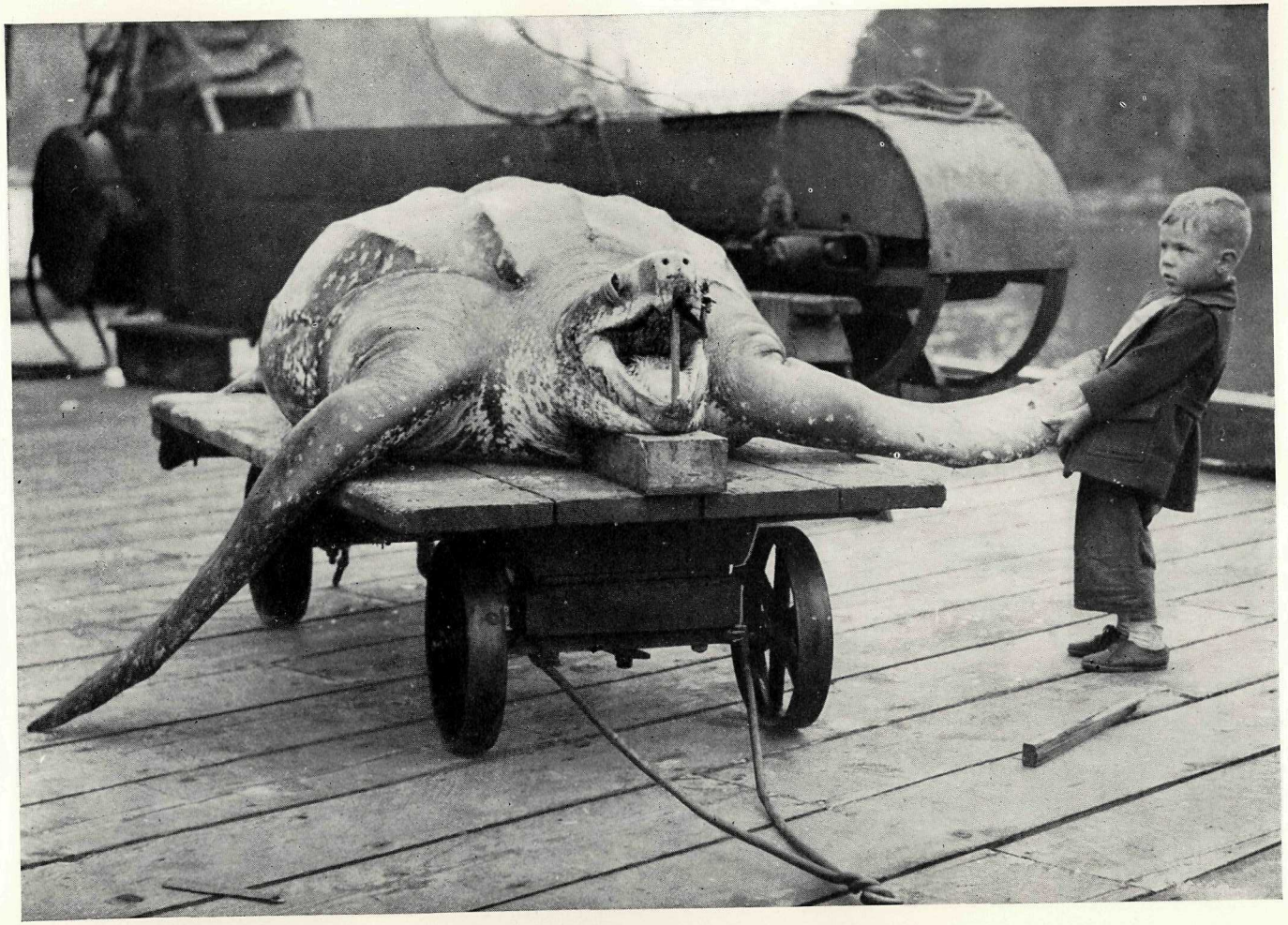
"*Mr. F. Kermode, Director,*
Provincial Museum, Victoria, B.C.

"Dear Sir,—We are in receipt of your letter of September 30th and are shipping you on this 'Maquinna' one back-shell of the turtle that was captured on August 16th by one of the pilchard seine-boats belonging to the Nootka Packing Co., called the 'Snow King.' You will notice that the shell is punctured in several places, which was caused by the Indians shooting at it several times in trying to kill it. They finally hit it on the head, which cracked open very much like a watermelon. Captain Henry White, of the Haida tribe of Masset Indians, was the man who killed both the turtles.

"It is the first time that one of this species of turtle has been caught in these waters, as far as we know. The first turtle weighed approximately 1,450 lb.

"Two weeks after this one had been brought in, another was killed in approximately the same place, about 8 miles south of Bajo Reef, by the same boat and the same captain. The

PLATE I.



LEATHERBACK TURTLE (*Dermochelys schlegelli* Garman).

PLATE II.

Fig. 1.

Fig. 2.

second turtle was very similar to the first caught, both in size and weight, and I am preserving its back-shell for myself.

"Trusting it will be of some assistance and value to your Museum, we remain,

"Yours very truly,
"NOOTKA PACKING CO., LTD.
"J. J. PETRICH, *General Manager*."

A LARGE SALISH EARTHWORK.

BY W. A. NEWCOMBE.

In the early literature of the Province will be found many references to Indian forts adjacent to their villages. In most cases these refer to rocky steep-sided islands or peninsulas in which the ascent was difficult, any weak point being strengthened by overhanging platforms or, in the case of a low-lying side, by a ditch (sometimes containing hidden stakes), behind which was placed a solid row of high pickets. These, together with the heavily timbered house with a low oval door, were the chief types of "fort" on the Northern British Columbia Coast. In the southern section, sites such as mentioned above were not always available close to the villages and camping-places, necessitating additional artificial work to protect them chiefly from the periodical raids of northern tribes. The remains of a number of these old forts have been discovered in the present Coast Salish area; though many of the small ones have only a single ditch across the base of a peninsula, others have been found with two lines of defence, an outer and inner ditch (probably each had its line of pickets). A good example is still to be seen on the north point of Towner Bay, Saanich Peninsula. Another method had to be used by the Comox Indians where their main settlements were divided by a high cliff facing the harbour. This they fortified by digging their ditch in a semicircle, the ends of which are at the face of the cliff. This trench was also doubled at the side farthest from the water, with the ends of the outer semicircular ditch tapering into the inner.

As will be noted in the above, every advantage has been taken in strengthening natural sites, but at Deep Bay, on the southern end of Baynes Sound, in the vicinity of which there is evidence of a large population in former days, there are no suitable islands or points for defensive purposes, which compelled the inhabitants to construct the only complete "earthwork" that I have knowledge of on the British Columbia Coast. (*See* Plate II.) This was reported on by James Richardson in 1872 (*see* Smith, Archæology of the Gulf of Georgia and Puget Sound, p. 323, Jessup North Pacific Expedition, Vol. II., Part VI.) as follows:—

"Sept. 22nd, 1872. Being Sunday I inspected an ancient fortification; in shape it is nearly a true ellipse 265 paces in circumference. The slope of the sides is 15 paces in length, at an angle of 50 degrees (from bottom of trench to top of parapet). From top of parapet to flat four paces. Inside of this circular parapet is a large flat.

"This mound is on a point of land between Baynes Sound on the one side (south-east) and Deep Bay on the other. On the Baynes Sound side the sea seems formerly to have washed the base of this part, or at least to have been within a few feet of it. At present the sea is 70 paces from it, a current having thrown in a lot of sand and stones.

"About 50 paces northward is another, and smaller one. There is a trench dividing the point, and on one side of it the walls are not half so high. Within this last are a lot of shell mounds or kitchen-middens. On the inside of the larger fortification I found one or two small mounds, hearths probably. One hollow place looked like a cache."

When I first visited this site in the summer of 1905 little could be seen of the artificial work on account of the heavy underbrush and the many maples being in full foliage. Photographing was also impossible for the same reasons. So in April, 1931, Inspector T. W. S. Parsons, of the Provincial Police, gave me the opportunity of accompanying him on one of his tours of inspection; it was gladly accepted. He very obligingly took me to many places of Ethnological interest between Victoria and Comox, among them the Deep Cove Earthwork. This we found had been cleared of the underbrush noted in 1905, but the majority of the maples were still standing, though not in leaf. The Deep Bay Cannery has been built close by, and some of the employees' residences are within the fort enclosure. Other than cutting through the parapet for walks in one or two places, little damage has been done and appeared very much as described by Dr. Richardson, though little remains of the artificial work on the Baynes Sound (south-

east) side of the large mound. The greatest height from the top of the parapet to the bottom of the trench agreed with Dr. Newcombe's measurements as given in Smith's Archæology—i.e., about seven metres; this is on the west side, near which is a small creek. From the fort the approach of an enemy, either from north down Baynes Sound, the east through Lambert Channel, or from the south coming up Strait of Georgia, would be quickly observed, and, the alarm being given, those fishing, clam-digging, or at some other seasonal occupation would have ample time to retreat within the enclosure.

AN UNRECORDED PETROGLYPH.

By W. A. Newcombe.

Late in the summer, J. L. Colbert, of the Provincial Forest Service, returned from his holidays and informed me that while camping on Kulleet Bay, near Ladysmith, his party had uncovered what was taken to be an Indian rock carving. I was unable to investigate the report until October, when F. J. and Mrs. Barrow, of North Saanich, kindly invited me on a launch expedition to give me the opportunity of examining the above and other reported archæological finds on the lower gulf islands.

On arriving at Kulleet Bay, little difficulty was experienced in following Mr. Colbert's directions and we landed within 100 yards of the dried-up creek-bed mentioned by him. Following this up a very short distance from the beach, a low rocky ledge was approached, jutting at an angle of 45°; at the outer end the moss and silt had been removed, uncovering the two or three carved figures that had been reported. The balance of the ledge being suitable for similar work, we soon had it stripped of debris to the creek-bank (about 15 by 5 feet), exposing the series of petroglyphs shown in Plate III.

The majority of these had been made by deeply pecking into the sandstone formation; the figures, represented as in most cases of this class of work in British Columbia, can only be guessed at, though the two nearest the camera resemble the mythical supernatural being of the Salish known as the "Xai-xai," an opinion in which Chief Tom Seymour, of the Kulleet Band, concurred. Two others look like birds and one possibly a crab. On the opposite side of the creek, on a small outcropping of sandstone, three or four additional figures were found; they were not so well worked and all apparently representing "humans."

The site of the petroglyphs, which is on the north side of Kulleet Bay, about half-way between Deer Point and the head of the bay, is seldom visited to-day, and the old Chief of the Kulleet Band had no knowledge of their existence, but thought they had probably been executed by ancient shamans during their initiation, part of which consisted of a prolonged fasting in the woods; the carved figures representing those seen in dreams.

On my return to Victoria I reported the find to P. de Noe Walker, Deputy Provincial Secretary, who immediately took steps to have the petroglyph preserved, by securing permission from the Superintendent of Indian Affairs, Ottawa, to place an Historic Objects marker on an Indian reserve. The permission being given, Order in Council No. 1473 was approved on November 25th, 1931, declaring the Petroglyph discovered on Kulleet Indian Reserve an Historic Object, and that a notice in a form approved by the Honourable the Provincial Secretary be erected and maintained at or in the vicinity of the said Historic Object.

ACCESSION NOTES.

By W. A. Newcombe.

Anthropology and Archæology.

Little material was added to our Déné collections, though the few pieces that were, filled in gaps in their particular series. The birch-bark baskets, though new, came from a "band" of the Carriers from whom we had no material. The snow-shoes were in actual use when secured, and Mr. Swannell's specimens are good illustrations of how metal has replaced the bone and stone of former days, though the shaping of the tools remains as of old.

For many of the additions to the Salish groups I have to thank Inspector T. W. S. Parsons, of the Provincial Police. He not only made it possible for me to visit many points of archæological interest, but also interested many others in our efforts and donated valuable personal finds.

PLATE III.

Fig. 1.

Fig. 2.

The "Mountain Goat Wool" blanket from Mr. Forde is similar to those made at Spuzzum about thirty years ago, a type I have not come across recently. Not having a Salish racing-canoe in our series, we were particularly pleased to accept the donation from the Victoria Parks Board.

The "Ceremonial Stone Dishes" from Mr. Giraud all belong to the type for the "use" of which we know so little, though the supposition is that they were used ceremonially in mixing charms or medicines by predecessors of the Salish who now occupy the territory in which they are found.

I can find no records of wampum having been found farther north than the specimens donated by Mrs. Kyle from Jervis Inlet.

The Nootkan whale harpoon and lanyard makes a valuable exhibit; the lanyard having the usual twine serving removed, baring the hand-laid rope of animal sinews.

Thread-like lashings made from our large kelp, when wet, give one an idea of the strength of this material; Inspector Parsons informing me that it was being used for tying up "saw-logs" when he first observed it.

Our only Tsimshian addition was the "Copper" from Mr. Woollacott. The following notes accompanied the specimen: "It was given to Mr. Woollacott's father in 1875, when he was Superintendent of Police, by Chief Zebassa, of Kitkatla. It was said at the time to have had a tribal value of 5,000 blankets and is known as a 'broken copper'; that is, one that has had pieces broken from it for distribution at potlatches; when these pieces are regained by the original owner by purchase in the course of time they are riveted into place again. The 'copper' is greatly enhanced by each successive 'break' and 'weld.'"

The Haida gambling-sticks donated by W. H. Dempster are an exceptionally well-marked set of seventy pieces, the largest number we have from any of the tribes playing this game.

Archæological material from the Queen Charlotte Islands, other than the well-known large mauls, adzes, and mortars (the majority of which had been collected from the Indians), is very rare in museum collections, so that Mr. Smith's specimens were very acceptable, not only because of this, but also on account of the localities in which they were found; i.e., the north-east coast of Graham Island having been deserted soon after the arrival of the whites on the Coast.

The little figure secured from Mr. Walters is also interesting, being made from the well-known Slatechuck material used to-day by the Haida in making model totem poles. It has been questioned whether this material was used before 1850, but this specimen dug up when road-grading at Chown Brook, Graham Island, together with other apparently old charms I have seen, lead one to believe that they had uses for the material long before that date.

Botany.

Outside of keeping our fresh wild flower exhibits renewed throughout the year, we had little time to spare for collecting material for other botanical work, but friends in many parts of the Province very kindly assisted us by sending in specimens which have been placed in the Herbarium.

Mr. Perry's alpines from the Lillooet District and Dr. Kujala's flowers collected along the Grand Trunk Pacific Railway added species not represented in the Museum. Mr. Boys wrote me during the summer enclosing a specimen of *Mimulus moschatus* collected at North-east Point, Texada. He had been attracted to the spot by the strong musky odour. This, I believe, is the first occasion a scented specimen has been reported for many years. At Clo-oose, Miss McGee collected *Anemone multifida*. Previous to this our westerly record had been Sooke River. Collecting *Erythronium revolutum* from where it is in close association with *E. giganteum* in the Comox District was kindly undertaken for us by Theed Pearse, of Courtenay. The collections made by J. G. Cory Wood and Miss M. Birley in the Peace River District were of particular value, as previous to this we had few species recorded from that area.

Our mosses were enriched by recently determined species in material collected by Mrs. F. A. MacFadden in the eastern portion of the Province and those from the southern end of Vancouver Island by Mrs. H. Mackenzie.

Ichthyology.

While no rare species were added to our fish collection, one or two well-known varieties were presented and placed on exhibition. These included Catfish (*Ameurus melas* Raf.) from New Westminster and Shawnigan Lake by P. Peebles and W. F. Crockford respectively.

Pilchard (*Clupanodon cœurulus* Girard) collected at Queens Cove, Esperanza Inlet, by M. Meed included one specimen exceptionally large, measuring 15¾ inches from tip to tip.

A series of spring and sockeye salmon yearlings showed a great variation as to size, accounted for by the food-supply available in the different lakes and streams of the Fraser River watershed.

Entomology.

Little was added in point of numbers to this branch, but our thanks are due to Mrs. Blackmore for about 100 specimens of Microlepidoptera, some of which may prove new species; to G. Stace Smith for specimens of *Ægialia opaca* Brn. and *Aphodius smithi* Brn., which we had noted in our 1930 Report as new to science; to V. J. Rittich, of Rutland, for a series of Blues; and to J. Thompson for Lepidoptera and Odonata.

Mollusca.

Keen interest in this section of our Natural History was shown by S. Boys and A. W. Hanham, both gentlemen generously donating specimens which added new species to the B.C. Mollusca Fauna listed in our Annual Reports of 1925 and 1926.

Mrs. Oldroyd, who has for many years been of the greatest assistance in determining our shells, identified the following material: *Chrysodomus phœniceus* Dall, *Colus jordani* Dall, *Cidarina cidaris* A. Adam, and *Spisula alaskana* Dall, collected by Mr. Boys in the Strait of Georgia. Of these, *Chrysodomus phœniceus* was described from a specimen taken off the west coast of Vancouver Island in 238 fathoms, and I can find no record of it having been previously found in our inland waters. *Colus jordani* was described from specimens collected off Sucia Island, but we had no British Columbia material until receiving the above. *Cidarina cidaris* and *Spisula alaskana* were represented, but not by such fine specimens as those collected by Mr. Boys.

From Mr. Hanham we received *Iselica obtusa laxa* Dall and *Solariella peramabilis* Carp., collected at Maple Bay and Departure Bay respectively. Neither of these species are shown in our lists of 1925–26. He also added the following to our small series of Land and Fresh-water Mollusca: *Physa conformis* Tyron, *Physa gabbi* Tyron, *Zonitoides cookeii* Pilsb., *Lymnæa palustris rowelli* Lea, *Planorbis opercularis* Gld., and *Planorbis hornii* Tyron; these were all collected in the Cowichan District.

Crustacea.

The Department is greatly indebted to Dr. Mary Rathbun, of the United States National Museum, Washington, D.C., for identifying a large crab (*Paralithodes camtschatica* Tilesius) caught off the Queen Charlotte Islands in 1930 and presented to the Museum by P. H. Johnson, Prince Rupert.

In 1931 Miss J. Hart donated exhibits of *Callianassa californiensis* Dana from Point Grey, *Paracrangon echinata* Dana from Nanoose, and *Pylopagurus schmitti* Stevens from Departure Bay; these with the following contributions of S. Boys collected at Halfmoon Bay made welcome additions: *Munida quadrispina* Benedict, *Pandalus platyceros* Brandt, and *Pandalus borealis* Kroyer. He also sent specimens of *Acantholithodes hispidus* Stimpson and *Lopholithodes foraminatus* Stimpson from the same locality.

A life-history exhibit of particular interest we received from A. K. Taylor, being a specimen of our Commercial Crab (*Cancer magister* Dana) with the old shell nearly off, exposing the new, which is still in the "soft" state. Mr. Taylor collected it at Saanichton in the latter part of January.

Ornithology and Oology.

As will be noticed, little has been secured by us in either of these branches during the past year, but the young of Cassin's Auklet and a Paroquet Auklet egg from Pine Island, Queen Charlotte Sound, collected and presented by the Rev. C. J. Young, made valuable acquisitions.

Mammalogy.

The outstanding addition to our Mammal collection in 1931 was a Columbian Coast Deer (doe) with well developed two-pronged antlers, shot in the vicinity of Hardy Bay, and the Department is very grateful to Game Warden O. Mottishaw for the trouble he has taken in securing and forwarding this unique specimen through the Provincial Game Commissioner.

ACCESSIONS.

Anthropology and Archæology.

Déné.

Baskets (6), birch-bark. Stoney Creek Band of the Carriers.
Purse, beaded. Hudson Hope (Inspector Parsons).
Snow-shoes, child's. Thutadi Lake (W. H. Forrest).
Knives (3), skin-scraper (1), horn handles (2). Secured from a Bear Lake Indian, Quenada River. Fort Connerly District (F. Swannell).

Salish (Interior).

Hand-hammer. West Summerland (A. Annett).
Chisel, jade. Kamloops (D. J. King).
Knife, bone. Lytton (Lieut. G. T. Emmons).
Skull. Kamloops District (R. A. Mascall).

Salish (Coast).

Blanket, goat-wool. Lower Fraser River (J. P. Forde).
Canoe, racing type, 53 feet long. Malahat (Victoria City Parks Committee).
Fish-lure. Becher Bay (W. A. Newcombe).
Arrow-head, bone. Cadboro Bay (Miss E. Cockeram).
Arrow-head, chipped make. Mill Bay, V.I. (Inspector Parsons).
Arrow-head (3), chipped make. Point Grey (E. H. B. Giraud).
Arrow-head (2), chipped make. Metchosin (G. Bonavia).
Arrow-head, slate, found penetrating a skull. Qualicum (Constable A. M. Bestwick).
Anchor, stone, perforated. Esquimalt (A. Halkett).
Anchor, stone, perforated. Kirby Creek (T. Cross).
Awl or knife, slate, carved hilt. Cadboro Bay (Miss E. Cockeram).
Bone points (3). Bazan Bay (Inspector Parsons).
Bone points. Departure Bay (W. A. Newcombe).
Bone points. Qualicum (Constable A. M. Bestwick).
Bone points (14). Cadboro Bay (Inspector Parsons).
Chisels. Ladysmith Harbour (F. J. Barrow).
Chisels. Lyall Harbour (W. A. Newcombe).
Dish, ceremonial, carved human face. Point Grey (E. H. B. Giraud).
Dish, ceremonial, carved animal. Point Grey (E. H. B. Giraud).
Dish, ceremonial, carved animal. Point Grey (E. H. B. Giraud).
Horn carving ? dagger-handle. Qualicum (T. Kincade).
Knife, for fish, slate. Qualicum (T. Kincade).
Knife, for fish, greenstone. Qualicum (W. A. Newcombe).
Mortar, stone. Mayne Island (Col. Flick, D.S.O.).
Tube, bone ceremonial. Rocky Point (Inspector Parsons).
Wampum. Jervis Inlet (Mrs. A. Kyle).
War-club, end of. Sooke Harbour (Inspector Parsons).
Wedge, horn. Sansum Narrows (W. A. Newcombe).
Wedge, horn. Oak Bay (W. F. Burton).
Whetstone. Fanny Bay (J. E. Hastings).
Whetstone, perforated. Qualicum (Constable Bestwick).
Whetstone. Sooke (J. L. St. John-Jones).
Sphere, ? game-stone. Victoria (B. Forbes).
Stone, ? use. Victoria (A. Annett).
Skull. Gooch Island (Wm. and Lawrence Barker).

Nootkan.

Fish-hook, metal, old model. Clo-oose (Constable A. M. Bestwick).
Spear-head, part of, etched. San Juan River (A. Cameron).
Whale-harpoon and sinew lanyard. Nootka (purchased).
Skull. San Juan River (L. A. Gritten).

Kwakiutl.

Bone points. Hardy and Blinkinsop Bays (Inspector Parsons).
Lashings, made from large kelp. Blinkinsop Bay (Inspector Parsons).

Tsimshian.

Copper, rubbed design of Killer Whale. Kitkatla (A. P. Woollacott).

Haida.

Gambling-sticks (70) in leather case with carved toggle. Queen Charlotte Islands (W. H. Dempster).
Carving, human figure, dug up when road-making at Chown Brook, Graham Island (E. R. Walter).
Mortar. Tsa-wagis (C. A. G. Smith).
Pestle. Tsa-wagis (C. A. G. Smith).
Maul. Tsa-wagis (C. A. G. Smith).
Maul. Six miles south of Cape Fife (C. A. G. Smith).
Adze. Skonun River (C. A. G. Smith).
Chisel, nephrite. Near Cape Fife (C. A. G. Smith).
Chisel. North-east Graham Island (C. A. G. Smith).
Polished stone. North-east Graham Island (C. A. G. Smith).
Polished stone (2). Six miles south of Cape Fife (C. A. G. Smith).
Oblong gritty stones, ? use. Six miles south of Cape Fife (C. A. G. Smith).
Harpoon-point, bone. Near Rose Point (C. A. G. Smith).
Awls (3), pointed rib bones. Near Rose Point (C. A. G. Smith).
Bone fragment, with cutting marks. Near Rose Point (C. A. G. Smith).

PALÆONTOLOGY.

Pseudomonotis ? *subcircularis*. Ne-parle-pas Rapids (F. Swannell).
? species. Peace River, near the Ottertail (F. Swannell).
Aucella sp. Harrison Lake (W. A. A. Johnston); Saanichton (F. R. Bailey); Oak Bay (G. Bonavia).
Serpula sp. tubes (glacial). Mill Bay (G. D. Sprot).
Wood. Kirby Creek (T. Cross).
Concretions. Sooke Lake (J. B. Tighe).

BOTANY.

Valuable material was added to the Herbarium with the assistance of the following ladies and gentlemen: Ucluelet, G. Fraser; Bamfield, W. J. Macdonald; Clo-oose, Miss A. F. McGee; Sooke, Mrs. Hincks, Dr. Price, and Mr. Allan; Victoria District, Mrs. Symes, Miss M. Izard, Major Holmes, Rev. C. J. Young, Dr. Bailey, A. R. Sherwood, C. N. Sowerby, and E. A. Cooke; Esquimalt District, P. W. Martin, E. Loggin, and E. Evans; Saanich, L. E. Taylor; Shawnigan District, G. D. Sprot; Pender Island, J. S. Stigings; Chemainus, Miss E. White; Spider Lake, V.I., Mrs. F. R. Shenstone; Comox, Mrs. G. D. Sprot, Mrs. Paul, and T. Pearse; Pine Island, Rev. C. J. Young; Stewart, Mr. McIntyre; Surge Narrows, Miss E. Mrus; Whaletown, J. Pool; North-east Texada, S. Boys; Lillooet, A. W. A. Phair and P. de N. Walker; Tenquille Lake and McGillivray Mountain, F. Perry; Summerland, S. A. Liddell; Kelowna, G. A. Maves; Okanagan Landing, Mrs. A. Brooks; Crawford Bay, Kootenay, H. Murray per J. C. Bennett; Nicola, T. H. Bond; Copper Mountain, G. Stace Smith; Central British Columbia, Dr. Kajala and A. Cajander; Fort St. John, Miss M. Birley and J. Cory Wood.

Musci.

Interior of British Columbia, Mrs. MacFadden.
Southern Vancouver Island, Mrs. H. Mackenzie.

Miscellaneous.

Cedar limb, with looped graft. Jordan River (R. S. Gallop).
Cross-section of a 5-foot fir log (More-Whittington Lumber Company).

Reptilia and Amphibia.

Leatherback Turtle (*Dermochelys schlegelii* Garman). Bajo Reef, Nootka District (J. J. Petrich).

Garter-snakes (*Thamnophis o. ordinoides* B. & G.). Vedder Crossing (Mrs. Leavens); Victoria (Mrs. Hincks).

Alligator Lizard (*Gerrhonotus principis* B. & G.). Metchosin (W. A. Newcombe).

Pacific Coast Newt (*Triturus torosus* Rathke). Victoria (L. Johnson).

Ichthyology.

Catfish (*Ameiurus melas* Raf.). New Westminster (P. Peebles).

Catfish (*Ameiurus melas* Raf.). Shawnigan Lake (W. F. Crockford).

Pilchard (*Clupanodon cœrulus* Girard). Queen's Cove (M. Meed).

Spring Salmon (*Oncorhynchus tschawytscha* Walbaum), yearlings. Fraser River Watershed (Provincial Fisheries Department).

Sockeye Salmon (*Oncorhynchus nerka* Walbaum), yearlings. Fraser River Watershed (Provincial Fisheries Department).

Smelt (*Hypomesus pretiosus* Girard). Esquimalt (E. A. Cooke).

Pipefish (*Siphostoma griseolineatum* Ayres). Victoria (A. Adamson).

Broad-finned Cod (*Zaniolepis latipinnis* Girard). Deep Cove (G. Denbigh).

Skulpin (*Oligocottus maculosus* Girard). Sooke (D. V. Abbott).

Prickly Sailor Fish (*Blepsias cirrhosus* Pallas). Sooke (D. V. Abbott).

Wall-eyed Pollack (*Theragra fucensis* J. & G.). Esquimalt (E. A. Cooke).

Entomology.

Orthoptera.

Ahousat, R. E. Dent; Victoria, P. E. George.

Odonata.

Victoria District, J. Thompson.

Coleoptera.

Victoria District, P. Smith, F. Hurley, J. Rafter, Miss A. Burton, P. W. Martin, W. McPhee, A. Sinclair, J. M. Miller, C. P. Hickman, T. A. Simmons, and C. F. Bogart; Saanich, W. H. A. Preece; Saturna Island, W. Copeland; Merville, Mrs. Clear; Pine Island, Rev. C. J. Young; Copper Mountain, G. Stace Smith.

Lepidoptera.

Victoria District, Mrs. K. Malin, Miss J. L. Hart, Mrs. E. H. Blackmore, J. Thompson, and E. A. Cooke; Malahat, J. B. Godfrey; Rutland, V. J. Rittich.

Hymenoptera.

Victoria District, Miss K. Everest, W. Gibson, A. Berry, and E. A. Cooke; Saanich, B. Braidwood; Saltspring Island, Miss W. E. Hillier and E. H. Ruckle.

Miscellaneous.

Wasp-nest. West Saanich (P. B. Darnell).

Spiders. Victoria (W. H. Gibson, Jr., R. Service, Mrs. Levirs, and J. B. Godfrey).

Horse-leech. Saanich (V. E. Goddard).

Mollusca.

Marine.

Sooke, H. Goodrich and Mrs. G. D. Sprot; Victoria District, Rev. C. J. Young and Miss E. Wood; Saanich, A. B. Ford; Maple Bay, A. W. Hanham; Departure Bay, A. W. Hanham; Nanoose, D. V. Abbott; Pine Island, Rev. C. J. Young; Quatsino Sound, J. B. Godfrey; Banks Island, M. E. Lohbrunner; Halfmoon Bay, S. Boys; West Indies, Miss N. M. Clarke.

Land and Fresh-water.

Shawnigan Lake, Mr. Justice Martin; Cowichan District, A. W. Hanham.

Crustacea.

Sooke, D. V. Abbott and F. Risser; William Head, Miss J. Pearce; Victoria District, A. E. Deighton, G. and E. Fry, and H. Hartnell; Saanichton, A. K. Taylor; Departure Bay, Miss J. L. Hart; Halfmoon Bay, S. Boys; Pine Island, Rev. C. J. Young.

Miscellaneous Marine Orders.

Sooke, D. V. Abbott and A. Campbell; Victoria, G. Norman; Saanich, A. H. Maynard and L. G. Lee; Pine Island, Rev. C. J. Young.

Ornithology.

Cassin's Auklet (*Ptychoramphus aleuticus* Pallas), young. Pine Island (Rev. C. J. Young).
Pigeon Guillemot (*Cepphus columba* Pallas) (Miss G. Cox).
Glaucous-winged Gull (*Larus glaucescens* Naumann). Sooke (Miss G. Cox).
Fork-tailed Petrel (*Oceanodroma furcata* Gmelin). Victoria (G. W. Watson).
Turkey Vulture (*Cathartes aura septentrionalis* Wied). Maple Bay (M. M. White).
Clarke's Nutcracker (*Nucifraga columbiana* Wilson). Chemainus (Game Warden Marshall).

Specimens for determination were sent in by J. F. Risser, A. M. Rowlandson, Miss P. Beschizza, and C. Frame.

Oology.

Paroquet Auklet egg. Pine Island (Rev. C. J. Young).
Glaucous-winged Gull egg. Yellow Rock, Haro Strait (W. A. Newcombe).
California Quail egg. Victoria (J. J. Johnston).
Humming-bird double nest. Maltby Lake (W. F. Burton).
Traill's Flycatcher nest and two eggs. Prospect Lake (J. Willoughby).
? Goldfinch nest and eggs. Saltspring Island (P. de Noe Walker).
Violet-green Swallow nest and eggs. Victoria (Miss M. Holmes).
? Cassin's Vireo nest. Victoria (A. R. Sherwood).
Russet-backed Thrush nest. Sooke River (J. Syme).

Mammalogy.

Skins.

Weasel (*Mustela saturata* Merriam). Lillooet (A. W. A. Phair).
Mink (*Mustela vison energumenos* Bangs). (Nanaimo).
Marmot (*Marmota flaviventris* sp.). Kamloops (E. Hearle).
White-footed Mouse (*Peromyscus maniculatus* sp.). Pine Island (Rev. C. J. Young).
Coast Deer (*Odocoileus columbianus* Richardson). Hardy Bay (Game Warden Mottishaw).

Miscellaneous.

Black Bear, skull. Crown Mountain (A. G. Boulton).
Mule-deer, heads (2). Grand Prairie (L. Jones).
Hair-seal, snouts of. B.C. Coast (Dr. Clemens).
Sea-lion, snouts of. B.C. Coast (Dr. Clemens).
Whale, teeth. Sechart (Miss E. G. Finch Page).
Whale, baleen. Naden Harbour (Capt. W. Heater).
Whale, wax. Queen Charlotte Islands (W. H. Dempster).

PUBLICATIONS RECEIVED FROM OTHER INSTITUTIONS.

American Association of Museums, Washington, D.C.	18
Americal Museum of Natural History, New York	10
American Ornithologists' Union, Lancaster, Pa.	5
American Society of Mammalogists, Washington, D.C.	4
Art Historical & Scientific Society, Vancouver, B.C.	3
Carried forward	40

PUBLICATIONS RECEIVED FROM OTHER INSTITUTIONS—*Continued.*

Brought forward	40
Australian Museum, Sydney, Australia	3
Bernice Bishop Museum, Honolulu	2
Biological Board of Canada	16
Biological Society of Washington	4
Boston Society of Natural History	6
British Museum Association, South Kensington, England	12
Buffalo Society of Natural Sciences, Buffalo, N.Y.	1
California Acadamy of Sciences, San Francisco	7
Cardiff Naturalists' Society	1
Carnegie Museum, Pittsburgh, Pennsylvania	1
Charleston Museum, Charleston, S.C.	1
Chicago Academy of Sciences	4
Cleveland Museum of Natural History	11
Colorado Museum of Natural History, Denver, Colorado	7
Condor, Cooper Ornithological Club	4
Denkmann Memorial Library, Rock Island, Ill.	1
Division of Fish and Game of California	8
Dominion Government Publications	25
Entomological Society of British Columbia	1
Field Museum of Natural History	3
Grand Rapids Public Library, Michigan	1
Gray Herbarium, Harvard University, Mass.	1
Insular Experiment Station, Rio Piedras, P.R.	13
John Crerar Library, Chicago	1
Library of Congress, Washington, D.C.	1
Manchester Museum	1
Museum of Fine Arts, Boston, Mass.	5
National Museum of Ireland	2
New York Zoological Society	11
Nova Scotian Institute of Science	2
Ohio Agricultural Experiment Station	6
Ottawa Field-Naturalist, Ottawa, Canada	5
Oxford University Press	2
Peabody Museum, Harvard University, Cambridge, Mass.	7
Peabody Museum, Yale University	18
Pennsylvania Museum Bulletin	7
Philadelphia Academy of Natural Sciences	2
Public Museum, Milwaukee, Wis., U.S.A.	4
Puget Sound Biological Station, Seattle, Wash.	2
Royal Ontario Museum, Toronto	1
San Diego Society of Natural History	13
Smithsonian Institution, Washington, D.C.	65
Southern Biological Supply Company, Texas	1
State College of Washington, Pullman, Wash.	10
Staten Island Institute of Arts & Sciences	6
Sun Yatsen University, College of Science, China	6
Syracuse Museum of Fine Arts, Syracuse, N.Y.	1
Trinity University, Waxahachie, Texas	1
U.S. Department of Agriculture	9
University of California, Berkley, California	34
University of Illinois, Urbana, Ill.	7
University of Montreal, Montreal, Quebec	3
University of Oklahoma	2
Carried forward	408

PUBLICATIONS RECEIVED FROM OTHER INSTITUTIONS—*Continued.*

Brought forward	408
University of Toronto, Toronto, Ontario	12
University of Washington, Seattle, Wash.	3
Wagner Free Institute of Science, Philadelphia	3
Wales National Museum, Cardiff, Wales	2
Washington Academy of Sciences	1
Zoological Society of Philadelphia	2
Total	431

We are indebted to Mrs. A. M. Leffingwell and Dr. Carl L. Hubbs for pamphlets received during the year.

VICTORIA, B.C.:
Printed by CHARLES F. BANFIELD, Printer to the King's Most Excellent Majesty.
1932.

1,825-332-8803