

B.C. Provincial Museum, Victoria

STORAGE

(PROVINCE OF BRITISH COLUMBIA)

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REPORT

OF THE

PROVINCIAL MUSEUM

OF

NATURAL HISTORY

FOR THE YEAR 1913



THE GOVERNMENT OF
THE PROVINCE OF BRITISH COLUMBIA.

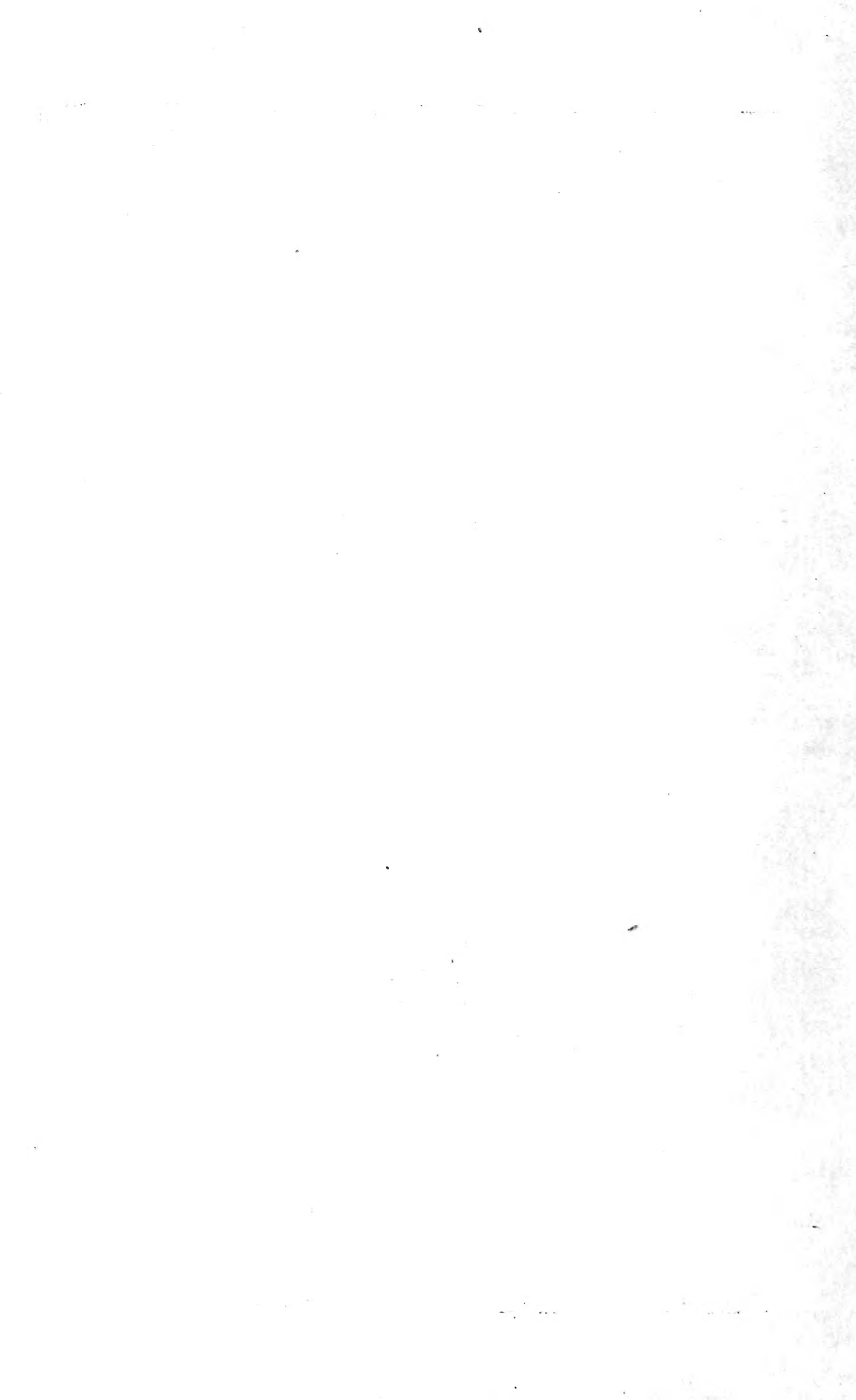
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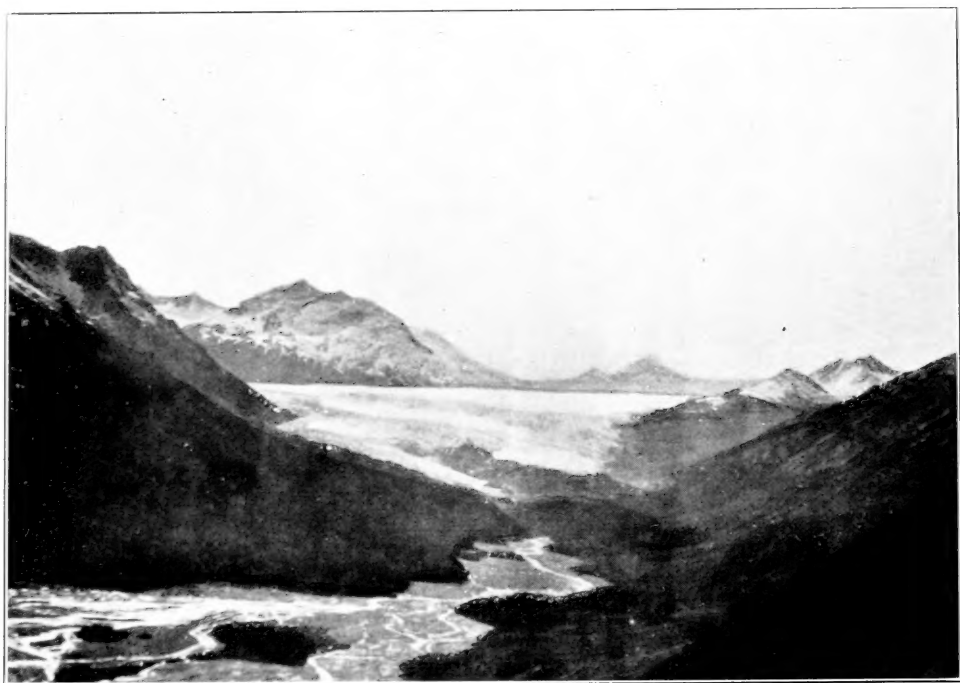
VICTORIA, B.C.:

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Glacier, south end of Atlin Lake, B.C.

PROVINCE OF BRITISH COLUMBIA

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Group in the Provincial Museum, representing a section of Bare Island, Straits of Georgia, B.C. The birds included are Tufted Puffins, Pigeon Guillemots, Glaucous-winged Gulls, and Violaceous Cormorants, that nest on Bare Island during the months of June and July. It is proposed to make this Island a Bird Sanctuary.

To His Honour THOMAS WILSON PATERSON,
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 1913.

HENRY ESSON YOUNG,
Provincial Secretary.

Provincial Secretary's Office, January 15th, 1914.

PROVINCIAL MUSEUM OF NATURAL HISTORY,
VICTORIA, B.C., January 15th, 1914.

The Honourable H. E. Young, M.D.,
Provincial Secretary, Victoria, B.C.

SIR,—I have the honour, as Director of the Provincial Museum, to lay before you the report for the year 1913, covering the activities of the Museum.

I have the honour to be,
Sir,
Your obedient servant,

FRANCIS KERMODE,
Director.

ERRATA.

Page 5, line 25.—For “batrachins” read “batrachians.”

Page 19.—For “Reptila” read “Reptilia.”

Page 22, line 6.—For “Buffalo-head” read “Buffle-head.”

Page 26, top line.—For “Kwakiult” read “Kwakiutl.”



PROVINCIAL MUSEUM REPORT

FOR THE YEAR 1913.

PROVINCIAL MUSEUM,
VICTORIA, B.C., December 31st, 1913.

*The Honourable H. E. Young, M.D.,
Provincial Secretary, Victoria, B.C.*

SIR,—The work of the Provincial Museum of Natural History during the past year has been more extensive in its scope, and, I believe, more productive in results which are calculated to advance and serve the purposes of popular instruction, than in any preceding year. It is gratifying to note that the earnest and persistent efforts made during the past years have won the generous and appreciative recognition not only of scientific men, but of the general public, and that our institution as a Museum of Provincial Natural History and Anthropology is recognized as one of the foremost of its kind.

There is no way of accurately recording the attendance, but a glance at the visitors' register shows the names of people from all parts of the world. Only a very small proportion of persons visiting the Museum utilize the register, 33,896 only having recorded during 1913. Several classes from the public schools under the direction of their teachers have visited the Museum, and I think that, if other teachers would take an opportunity of bringing their classes to visit the Museum, it would be of great benefit to the students in their nature-studies.

It has been the endeavour of the Director to make every dollar of expenditure tell in the direction of increasing the extent and value of the possessions of the Museum.

Considerable scientific research has been carried on in the field during the year, and the Director proposes to continue this work and have parties in the field each year until every portion of the Province has been covered; the country offering almost unlimited opportunities for the enthusiastic collector.

On April 7th, E. M. Anderson, of the Museum staff, accompanied by an assistant, C. B. Garrett, were sent afield to make a general collection of zoological specimens in the Okanagan Valley from the south end of Okanagan Lake to the United States boundary. Many valuable specimens were added to the Museum, several species being new to the collection. During the three months' trip there were collected: 306 birds, 580 oological specimens (comprising 114 sets of eggs with nests), 278 mammals, 36 batrachins and reptiles, 11 fishes, and over 4,000 entomological specimens.

Special attention was given during the year to our collection of fishes. An interesting and beautiful series of casts has now been arranged in eight cases on the upper floor in the north section of the Museum. These casts, carefully coloured, represent the salmon family in both salt-water and spawning forms, and other fishes indigenous to the waters of the Province. In addition to the above, many new specimens have been preserved in alcohol, and the whole collection of fishes rearranged.

During the months of May and June the Director, accompanied by an official of the Provincial Secretary's Department, made several week-end trips to Bare and Saturna Islands, and secured some very interesting material.

The Director has this year taken up with more activity the question of the preservation of wild life, and having the permission of the Honourable H. E. Young, M.D., Provincial Secretary and Minister of the Department, invited the Royal Commission on Indian Affairs for the Province of British Columbia to visit Bare Island, an Indian reserve, which has been proposed as a bird sanctuary. The invitation was accepted, the launch "Gunhild" chartered, and the trip taken on July 4th. The Commission was greatly impressed with what they saw of the bird-life on this island, and negotiations are now in progress with the Department of Indian Affairs at Ottawa to have Bare Island made a permanent bird sanctuary for the preservation of wild life.

Dr. C. F. Newcombe has continued his work of collecting anthropological material and data relating to the Coast tribes, and has secured a large number of rare and valuable specimens, one of which is a large board sail, which I believe is the first that has been secured by any museum. Dr. Newcombe's report is annexed hereto.

Mr. J. A. Teit, of Spences Bridge, has also continued the work of collecting anthropological material from the Interior tribes, and has been very successful in securing a great deal of wearing-apparel, baskets, etc.

Dr. Newcombe having been employed by the Fisheries Department to carry on investigations regarding the life-history of sea-lions, the Director left Victoria on June 17th for Namu, to accompany him to the rookeries in the Sea Otter Group, south-west of Cape Calvert. On arriving at Namu on the 20th, the launch "Chaos" was chartered and left the same evening for Cape Calvert. On the way down Fitzhugh Sound, about 9.30 p.m., when nearing Safety Cove, the "Karluk" on her way north, with the Steffanson Arctic Expedition on board, was passed. Early next morning a start was made round Sorrow Island and Cape Calvert, out to sea in a south-westerly direction to Devil and Pearl Rocks, which are about seven miles off-shore. On approaching Devil Rock only a few sea-lions were found, probably about 200, but at the next point visited, Pearl Rocks, which is the main rookery, the number estimated was 1,500 males and females and about 500 pups. In an endeavour to secure specimens several shots were fired, but when hit the animals would roll off the rocks into the sea and sink almost immediately. One large male, however, was secured before it sank, and was towed back to Grief Bay, a distance of seven miles, where it was hauled up as the tide came in, to be skinned and prepared for transportation. This mammal measured 11 feet 6 inches in length and 8 feet 6 inches around the neck, and weighed about 2,500 lb. Several good photographs were secured, showing the rocks inhabited by these large sea-mammals. Early the next morning Pearl Rocks were revisited, and subsequently Watch Rock, where approximately 500 males and females, including pups, were observed. Bird Rock, which is nearer the shore-line of Calvert Island, was also visited. This is a small island, chiefly rock, where a number of glaucous-wing gulls and cormorants nest, and should be set aside as a bird sanctuary; the birds on this island are not found in any such numbers as on Bare Island, near Victoria.

On August 30th the Director and his assistant left Victoria for Atlin on a general zoological collecting trip. Although in the Atlin country only during the month of September, a considerable number of specimens were collected, several of which were not previously known to be in the Province. When it becomes possible to again visit this district and do a full season's field-work, there can be no doubt that a number of eastern and northern species will be found within the limits of British Columbia.

In a Province possessing such an enormous coast-line, the study of marine biology is of very great importance, but so far our efforts in this direction have been handicapped by the lack of suitable means for carrying out the work. Systematic dredging along the coast must be undertaken by means of a suitable vessel. It is generally to be hoped that in the near future it will be found possible to obtain a launch for the use of the Department, in order that this important branch of our institution may not be neglected. A suitable boat would be of very great assistance also in obtaining data relating to the migration of sea-birds and the nesting habits, and would afford an opportunity of visiting certain little-known islands which contain material of the greatest value and interest to the Provincial Museum.

Annexed will be found a complete list of all new specimens secured during the year.

I have the honour to be,
Sir,
Your obedient servant,

FRANCIS KERMODE,
Director.



Nest and eggs of the Glaucous-winged Gull, Bare Island, near Victoria, B.C.



Nest and Eggs of Black Oyster-catcher, Bare Island, near Victoria, B.C.

REPORT ON BIRDS COLLECTED AND OBSERVED DURING APRIL, MAY, AND
JUNE, 1913, IN THE OKANAGAN VALLEY, FROM OKANAGAN
LANDING SOUTH TO OSOYOOS LAKE.

BY E. M. ANDERSON.

(NOTE.—Species collected on the trip are marked with an asterisk.)

*HOLBELL'S GREBE (*Colymbus holbelli*, Reinh.).

Common on all the lakes throughout the valley; breeds on Dog, Vaseaux, and Osoyoos Lakes. Eggs taken on June 11th and 16th. Nests found floating in the tule marshes and also on the margin of lakes, composed of dead rushes, grasses, etc., and lined with decayed vegetation—in about 3 feet of water. Eggs, four or five whitish buff to pale green, often stained to obscure the ground colour; size, 2.20 x 1.45.

*HORNED GREBE (*Colymbus auritus*, Linn.).

Fairly common on lakes. Nests found well hidden amongst tules in about 4 feet of water. Three sets of eggs taken June 13th at Vaseaux Lake. Nest composed of rushes, etc., and lined with decayed vegetation. From five to eight buffy white eggs, often pale greenish; size, 1.50 x 1.25. Birds seldom found near the nests, as the eggs are incubated chiefly by the action of dead vegetation placed in the nests.

LOON, GREAT NORTHERN DIVER (*Gavia immer*, Brun.).

A pair were found on all the larger lakes throughout the valley. On May 23rd, secured an interesting set of eggs at Vaseaux Lake; the nest was situated at the water's edge, on the extreme point of a small island. Eggs two in number, of a dark greenish-brown colour, spotted sparingly with black. One egg measured 2.20 x 3.15, the larger 4.40 x 2.50; the latter a most remarkable-sized egg.

HERRING-GULL (*Larus argentatus*, Pont.).

One seen at Okanagan Lake on April 9th.

MERGANSER (*Mergus americanus*, Cassin.).

One pair seen at Okanagan Lake on April 12th; probably breeds.

MALLARD (*Anas platyrhynchos*, Linn.).

On April 10th a large flock of about sixty birds was seen near Penticton, along the Okanagan River. By the 20th of the month nearly all of the birds paired and bred on the numerous lakes throughout the district.

RED-HEAD, POCHARD (*Marila americana*, Eyt.).

A few pair were seen with a large flock of scaup-ducks at Okanagan Landing on April 15th. A pair bred on Dog Lake, near the Okanagan Falls. The young were seen on June 12th close to the margin of the lake.

SCAUP-DUCK, BLUEBILL (*Marila marila*, Linn.).

Common at Okanagan Falls on April 9th. Did not find it breeding in the valley.

LESSER SCAUP-DUCK (*Marila affinis*, Eyt.)

Five birds seen in company with scaup-ducks on April 9th at Okanagan Landing.

BUFFLE-HEAD, BUTTER-BALL (*Charitonetta albeola*, Linn.).

Two males seen at Okanagan Lake on April 9th.

CANADA GOOSE (*Branta canadensis canadensis*, Linn.).

Found throughout the valley. Three were seen at Penticton on April 12th; about forty at Vaseaux Lake on May 12th. Breeds throughout the valley. On an island in Vaseaux Lake two nests were found on the ground. They lay five beautiful eggs; size, 3.45 x 2.40. Nests composed of pin-needles, lined with down. Birds have been known to nest at the edge of American osprey's nest, and not uncommonly on top of a pinnacle of a mountain-top.

TRUMPETER-SWAN (*Olor buccinator*, Rich.).

Two birds were seen at Dog Lake, near Kaleden. These birds were moving northward to their breeding-grounds. S. Satow reports the bird common at Vaseaux Lake during the winter months.

BITTERN (*Botaurus lentiginosus*, Montag.).

By no means a common bird; only three pair seen. A pair was found breeding at Vaseaux Lake on June 8th: nest in the marsh. Two birds seen at Osoyoos Lake on May 10th, and also a pair observed on wing along the Okanagan River on June 25th.

SANDHILL-CRANE (*Grus mexicana*, Muller).

Two flights of about one hundred birds moving northward seen on Schoonover Mountain, April 18th to 20th. One pair breeding at Vaseaux Lake, May 23rd.

VIRGINIA RAIL (*Rallus virginianus*, Linn.).

Found on Dog Lake, Okanagan Falls, May 2nd, breeding in reeds.

CAROLINA RAIL (*Porzana carolina*, Linn.).

One pair seen at Vaseaux Lake, May 23rd, breeding in tules.

COOT (Mud-hen), (*Fulica americana*, Gmel.).

Common at Okanagan Lake, Penticton, April 10th to 15th. Breeds on lakes throughout the valley. Eggs laid in marshes.

WILSON'S SNIFE (*Gallinago delicata*, Ord.).

One pair observed on May 10th at Dog Lake, Okanagan Falls.

*GREATER YELLOW-LEGS (*Totanus melanoleucus*, Gmel.).

A fine male taken on a small lake near Fairview on May 15th.

*SPOTTED SANDPIPER (*Actitis macularia*, Linn.).

Common, breeds throughout the valley. Seen at Vaseaux Lake on May 20th, Dog Lake on June 15th; two birds shot at Penticton along the river-bank on June 25th. This is the only species of sandpiper observed with certainty in the valley.

LONG-BILLED CURLEW (*Numenius americanus*, Bech.).

Not common. On May 8th a pair were seen on a side-hill on Shuttleworth Creek. A pair bred at Vaseaux Lake on the west side. Birds heard, May 25th to 30th; nest not found.

*KILDEER PLOVER (*Oxyechus vociferus*, Linn.).

Fairly common in suitable breeding-places. Taken on May 10th at Okanagan Falls. Seen at Vaseaux Lake on June 1st, at Dog Lake on June 20th.

CALIFORNIA QUAIL (*Lophortyx californica californica*, Shaw.).

Saw two pair at Penticton with young brood on June 28th. Settlers report the bird increasing throughout the district.

*RICHARDSON'S GROUSE (*Dendragapus obscurus richardsoni*, Dougl.).

Common in nearly all the foot-hills. Secured birds at Penticton on April 10th; Okanagan Falls, Schoonover Mountain (4,000 feet), April 18th to 25th. Found nest containing six eggs near the top of Schoonover Mountain, about 4,500 feet; nest on ground under small pine-tree. Eggs hard set on June 2nd; size, 1.90 x 1.30; buff coloured, spotted with brown.

FRANKLIN'S GROUSE (*Canachites franklini*, Dougl.).

Two birds were seen on April 9th at Four-mile Creek, Penticton, at an altitude of about 3,000 feet. These birds breed on Mount Pearson and most of the high mountains throughout the valley. R. D. Sullivan reports it breeding back of Summerland at about 4,000 feet.

*GREY RUFFED GROUSE (*Bonasa umbellus umbelloides*, Dougl.).

Abundant in different sections. Common along the river-banks and alder bottoms; also found in mountains in suitable places, along creeks, edges of lakes, etc. Secured several fine specimens during May. Found a nest on May 3rd placed on the ground, composed of dead leaves. The five eggs measure 1.60 x 1.20, pale-buff colour. Eggs fresh when taken.



Bird-nesting on Satarna Island.

The eggs of the North-west Coast Heron were taken from the nest near the top of this large fir.

RING-NECK PHEASANT (*Phasianus torquatus*, Linn.).

A few were seen at Okanagan Falls. J. Thomas reports the birds doing well, and it is to be hoped that they will endure the winter months.

*MOURNING-DOVE (*Zenaidura macroura carolinensis*, Linn.).

Very abundant from Penticton to Osoyoos Lake. Observed on May 24th at Vaseaux Lake, May 16th at Osoyoos, and all through June at Okanagan Falls. Breeds throughout the valley commonly : nest usually placed on the ground, laying two white eggs ; size, 1.15 x 0.80.

TURKEY-VULTURE (*Cathartes aura septentrionalis*, Wied.).

Very common from Vaseaux Lake to Osoyoos ; breeds in rugged cliffs from May to July.

MARSH-HAWK (*Circus hudsonius*, Linn.).

Saw one bird at Osoyoos Lake on May 16th. One pair were found breeding at Vaseaux Lake on June 10th amongst the tule marshes and grasses.

*SHARP-SHINNED HAWK (*Accipiter velox*, Wils.).

One specimen taken near Fairview on May 19th. Not a common breeder in the district.

*COOPER'S HAWK (*Accipiter cooperi*, Bonap.).

Found a pair breeding at Shuttleworth Creek, Okanagan Falls, on May 3rd. Nest composed of sticks and lined with bark strips, etc., was placed in poplar tree, about 30 feet up. The eggs, two in number, of a bluish-white colour, spotted slightly with brown : size, 1.90 x 1.40. Eggs fresh.

GOSHAWK (*Astur atricapillus atricapillus*, Wils.).

One pair seen at Shuttleworth Creek, Okanagan Falls, on April 18th.

WESTERN RED-TAILED HAWK (*Buteo borealis calurus*, Cass.).

Not common. Saw one bird at Okanagan Falls on May 25th, and another pair at Schoonover Cabin, 3,500 feet altitude.

SWAINSON'S HAWK (*Buteo swainsoni*, Bonap.).

Only one specimen seen at Shuttleworth Creek, Okanagan Falls, on May 20th.

GOLDEN EAGLE (*Aquila chrysaetos*, Linn.).

Not common. One pair found breeding at MacIntyre Creek, nest inaccessible on rugged cliff, May 10th.

BALD EAGLE (*Haliaeetus leucocephalus alascanus*, Towns.).

One pair seen on May 5th at Okanagan Falls.

*DUCK-HAWK (*Falco peregrinus anatum*, Bonap.).

On May 12th found a pair breeding on the south side of Peach Cliff, Okanagan Falls : nest situated in a crevice of an inaccessible bluff, about 500 feet from the ground. Secured both male and female in full breeding plumage.

BLACK PIGEON-HAWK (*Falco columbarius suckleyi*, Ridg.).

Not a common bird. Observed one at Okanagan Falls on May 8th, and one at Vaseaux Lake on June 1st.

*DESERT SPARROW-HAWK (*Falco sparverius phalena*, Lesson).

Common. Breeds throughout the valley ; nests in holes in trees. Okanagan Falls, May 8th ; Osoyoos, May 16th ; Penticton, June 26th.

*OSPREY (FISH-HAWK), (*Pandion haliaetus carolinensis*, Gmel.).

Abundant. Penticton, May 12th ; Okanagan Falls, April, May, and June. Breeds commonly ; nests tops of trees from 50 to 80 feet high. Three sets of eggs taken. Okanagan Falls, set of three, May 12th ; Osoyoos Lake, set of two, May 15th ; and Vaseaux Lake, set of three, May 20th. Size of eggs, 2.55 x 1.95, whitish, blotched with chestnut brown.

*LONG-EARED OWL (*Asio wilsonianus*, Less.).

Breeds fairly commonly in old crows' nests in bottom lands. Male and female and five downy young taken on small island in Vaseaux Lake on May 23rd.

DUSKY HORNED OWL (*Bubo virginianus saturatus*, Ridg.).

One seen on April 12th at Four-mile Creek, near Penticton, and another at Okanagan Falls on May 3rd. Breeds throughout the district.

BELTED KINGFISHER (*Ceryle alcyon*, Linn.).

Found breeding along the river-banks and Vaseaux Lake. Nest contained seven young on June 24th, in a hole in the bank at Penticton. Fairly common.

*NORTHERN HAIRY WOODPECKER (*Dryobates villosus leucomelas*, Bodd.).

One female taken at Shuttleworth Creek, Okanagan Falls, on May 7th. Not common.

*CABINIS' WOODPECKER (*Dryobates villosus hyloscopus*, Cab. & Heine).

Fairly common in the hills. Four specimens taken at Schoonover Mountain, Okanagan Falls—one April 19th, one April 25th, one May 7th, and another June 7th.

*BATCHELDER'S WOODPECKER (*Dryobates pubescens homorus*, Cab. & Heine).

Fairly common. Taken at Okanagan Falls on May 13th.

*RED-NAPE SAPSUCKER (*Sphyrapicus varius nuchalis*, Baird.).

Four specimens taken at Penticton on June 25th. Not common. Breeds near Penticton, along the Okanagan River banks; nests in alder-stumps. Birds located feeding young, June 22nd.

*WILLIAMSON'S SAPSUCKER (*Sphyrapicus thyroideus*, Cass.).

Rare in British Columbia. Male and female taken on April 22nd on Schoonover Mountain, Okanagan Falls, about 3,500 feet, and a single male on June 1st in the same locality. The hammering of this bird differs in sound from any other of the woodpecker family, being faster and shriller, not unlike that of a nuthatch, but heavier taps and more pronounced. All three were found feeding on tamarack-trees.

NORTHERN PILEATED WOODPECKER (*Phlaeotomus pileatus abieticola*, Bangs).

Not common. Breeds at Okanagan Falls. Pair seen at McLean Creek on May 1st.

*LEWIS' WOODPECKER (*Asyndesmus lewisi*, Riley).

Common from Okanagan Falls to Osoyoos. Breeds commonly. Nests in holes in stumps, etc., laying from seven to nine eggs, white, measuring 1.05 x 0.80. Eggs taken at Vaseaux Lake on May 31st and June 10th.

*RED-SHAFTED FLICKER (*Colaptes cafer collaris*, Vigors).

Common throughout the valley. Breeds commonly. Nests in old stumps, etc., from 10 to 20 feet high. Birds and eggs taken at Vaseaux Lake on May 27th and June 10th. Lay from six to eight white eggs, measuring 1.20 x 0.90. The male bird was sitting on the eggs. Bird shot.

POOR WILL (*Phalacroptilus nuttalli nuttalli*, Aud.).

Only one seen at Vaseaux Lake on June 5th. Heard notes of the bird at Penticton on June 26th.

*WESTERN NIGHT-HAWK (*Chordeiles virginianus henryi*, Cass.).

Very abundant at Okanagan Falls on June 29th, and also at Penticton from June 25th to July 1st.

BLACK SWIFT (*Cypseloides niger borealis*, Kenn.).

On July 2nd, while travelling on the train, observed a flock of about thirty birds on the wing a mile north of Mara.

VAUX'S SWIFT (*Chaetura vauxi*, Towns.).

Fairly common at Okanagan Falls on May 20th; also a pair on Okanagan River, about two miles north of Penticton, June 26th; the latter pair were breeding. Observed the birds breaking rotten sticks from a dead birch whilst on the wing. This performance was noticed only late in the evening, usually about an hour before dusk.

CALLIOPE HUMMING-BIRD (*Stellula calliope*, Gould).

One male seen at Shuttleworth Creek on May 15th at an altitude of about 3,000 feet.



Osprey and nest at top of a dead fir, Saturna Island, Straits of Georgia, B.C.

*RUFIOUS HUMMING-BIRD (*Selasphorus rufus*, Gmel.).

By no means as common as on the Coast. A few seen at Okanagan Falls from May 3rd to 30th, and at Penticton from June 20th to 30th.

*KINGBIRD (*Tyrannus tyrannus*, Linn.).

One of the commonest birds of the valley, arriving about the middle of May and breeding in June. Nests and eggs taken at Vaseaux Lake, June 11th and 15th; Penticton, June 20th, 25th, and 28th. Nests in bushes and tops of posts, etc. Lay from three to four cream-coloured eggs, blotched and spotted with brown and lilac, measuring 0.95 x 0.75.

*ARKANSAS KINGBIRD (*Tyrannus verticalis*, Say).

Very abundant in the valley. Breeds commonly. Found nest in stable containing three young on May 3rd at Okanagan Falls, and a second nest with fledglings on June 11th at Shuttleworth Creek in a pine-tree close to the trunk, about 30 feet high.

*SAY'S PHOEBE (*Sayornis sayus*, Bonap.).

Two specimens taken in sage-brush at Penticton on April 10th, and another at Okanagan Falls on May 5th. Breeds.

*OLIVE-SIDED FLYCATCHER (*Nuttallornis borealis*, Swains.).

One seen at MacLean Creek on May 8th. A male taken at Schoonover Mountain on June 6th, altitude 3,500 feet. By no means a common bird.

*WESTERN WOOD-PEWEE (*Myiochanes richardsoni richardsoni*, Swains.).

Fairly common at Osoyoos, May 16th; Vaseaux Lake, May 24th; and Penticton, June 25th. Breeds.

*TRAILL'S FLYCATCHER (*Empidonax trailli trailli*, Aud.).

Common. Nests and eggs taken at Penticton on June 16th. Nests placed in rose-bushes about 4 feet from the ground, composed of fine grasses and wood-fibre, lined with cow and horse hair. Lay from three to four eggs, cream coloured, spotted and blotched with lilac and brown, mostly towards the larger end. Measure, 0.75 x 0.55. (Eggs perfectly fresh.)

*HAMMOND'S FLYCATCHER (*Empidonax hammondi*, Xan.).

Fairly common at Okanagan Falls. Taken May 4th, 15th, and June 4th at Schoonover Mountain, elevation 4,000 feet.

*WRIGHT'S FLYCATCHER (*Empidonax wrighti*, Baird.).

Not a common bird at Okanagan Falls on May 5th.

*MAGPIE (*Pica pica hudsonia*, Sab.).

Common. Very abundant from Vaseaux Lake to Osoyoos. Breeds in large colonies at Incameep. Nest is a large structure of sticks usually placed in pine-trees from 15 to 40 feet high, often in willows, etc. Lay from seven to twelve eggs, averaging 1.25 x 0.90. Eggs taken on May 15th at Incameep, one set containing nine and the other seven. Nest is very bulky.

*BLACK-HEADED JAY (*Cyanocitta stelleri annectens*, Baird.).

Common throughout the valley. Breeds. Nests and eggs taken on May 2nd at Okanagan Falls. Nest was placed in jack-pine about 25 feet high, near the top. Composed of sticks and lined with wood-fibres, etc.

*ROCKY MOUNTAIN JAY (*Perisoreus canadensis capitalis*, Ridg.).

Found this fine jay fairly common near the top of Schoonover Mountain at an altitude of from 3,000 to 5,000 feet, in the thick tamarack and spruce belts. The birds are very shy and silent during the nesting season. Several specimens were taken on April 20th and three on June 1st. No birds were seen below 3,000 feet.

*WESTERN CROW (*Corvus brachyrhynchos hesperis*, Ridg.).

Very abundant throughout the valley. Nests and eggs taken at Okanagan Falls from April 30th to May 19th. The birds were found breeding in numbers during May along the river-bottoms, from Penticton to Osoyoos. The nests were usually placed from 15 to 30 feet high in alder, poplar, and willow trees. Eggs averaged about five in number, varying from black to greenish white, spotted and blotched with various shades of brown; size, 1.60 x 1.15.

These birds do considerable damage to the smaller birds' nests. On several occasions they were found plundering the homes and destroying the eggs of the goldfinch and western chipping-sparrow, which are usually found common in the peach and apple orchards throughout the valley.

*CLARKE'S NUTCRACKER (*Nucifraga columbiana*, Wils.).

The bird found common in the foot-hills from Penticton to Osoyoos Lake, more abundant on the east side. Birds were taken at Penticton (Four-mile Creek) on April 10th, and at Schoonover Mountain, 4,000 feet altitude, on April 20th. Birds have been known to breed in the latter part of February, when the thermometer often registers 20 degrees below zero. From the size of the young birds taken in June, it is without doubt that the birds lay some time about the middle of March. Search for the nests was made daily from April 20th to 25th on Schoonover Mountain, 4,000 feet altitude; only one deserted nest was located in a pine-tree 25 feet from the ground. The nest is a large bulky affair composed of sticks and lined with bark, etc.

*BOBOLINK (*Dolichonyx oryzivorus*, Linn.).

Fairly common. Ten specimens taken at Penticton on June 20th. Located a female building a nest on the ground in the meadow near Penticton on June 18th, and on my return a few days later found the nest deserted. A pair was seen at Okanagan Falls on May 20th.

*COWBIRD (*Molothrus ater ater*, Bodd.)

Birds taken at Penticton on June 25th. Flock of about seven were seen at Okanagan Falls on May 21st. On June 25th a single egg was found in the nest of a Pacific yellow-throat, which contained two eggs, slightly incubated.

*SAN DIEGO REDWING (*Agelaius phoeniceus neutralis*, Ridg.).

Very abundant in marshes and swamps throughout the valley. Seen only in the bottom lands. Specimens were taken at Penticton, April 12th; Okanagan Falls, April 15th and May 10th; and Vaseaux Lake and Osoyoos in May. Nests and eggs were taken at Dog Lake on May 21st, also several fine sets at Vaseaux and Osoyoos on May 24th.

*WESTERN MEADOW-LARK (*Sturnella neglecta*, Aud.).

Common at Penticton and Okanagan Falls; abundant nearly everywhere, in the fields and meadows throughout the valley. Breeds.

*BULLOCK'S ORIOLE (*Icterus bullocki*, Swains.).

Abundant throughout the valley. Birds taken on May 27th at Penticton, and on June 6th at Vaseaux Lake. Breeds commonly close to water. Nests placed usually in deciduous trees, resembling a hanging basket in shape. Fresh eggs were taken at Penticton on June 15th. Eggs four in number, pale bluish white, streaked and lined with black, brown, and grey; size, 0.95 x 0.60. Nest containing four young was found at Dog Lake on June 20th. The chatter of these birds can be heard from morn till night; and they are very busy during the nesting season.

*BREWER'S BLACKBIRD (*Euphagus cyanocephalus*, Wag.).

One of the commonest birds in the valley. Large flocks were seen at Penticton on April 12th, and also at Okanagan Falls during the months of May and June. On May 29th a nest containing six eggs was taken. Eggs were slightly incubated. The nest was situated on a haystack in an open meadow—rather an unusual nesting-place. Another fine set was collected at Okanagan Falls on June 15th. Nest was placed on the ground and contained six dull greyish eggs, blotched and spotted with brown and black; size, 1 x 0.75. Incubation fresh.

*WESTERN EVENING GROSEBEAK (*Hesperiphona vespertina montana*, Ridg.).

During the first week in June a flock of about twenty birds frequented our camp at Schoonover Mountain (3,500 feet). The birds were watched closely in order to try and locate their nesting-place, but our observations proved in vain. The birds showed no signs of pairing up to June 15th. Several birds were collected on June 12th, and on close examination of the ovaries three females showed no sign of breeding whatever; therefore it is without doubt that these birds lay well on into July. Mr. Blurton mentioned the fact that he once saw a female feeding young birds near Mara during the latter part of July. From observations, it is believed that the birds nest near the tops of tall conifers, 100 to 150 feet high, otherwise an old nest would have been found.



Sea-lions on Pearl Rocks, south-west of Cape Calvert, Queen Charlotte Sound, B.C.



Large Sea-lion killed on Pearl Rocks and towed to Grief Bay, back of Sorrow Island.

*CASSIN'S PURPLE FINCH (*Carpodacus cassini*, Baird).

Common at Okanagan Falls in April and May. A dozen specimens were collected in May at McLean Creek, Okanagan Falls. This bird is one of the finest songsters in the valley during the spring months. Its sweet melodious trills can be heard amongst the trees of the beautiful conifer forests characteristic of the Okanagan.

*CROSSBILL (*Loxia curvirostra minor*, Brehm).

Two flocks, about forty birds, were seen at Schoonover Mountain (4,000 feet) from June 2nd to 4th. Three males and one female taken on June 2nd.

*PALE GOLDFINCH (*Astragalinus tristis pallidus*, Mearns).

One male taken at Penticton April 12th; a small flock of seven observed at Okanagan Falls, April 30th; four seen at Penticton, June 14th. Breeds in July.

*PINE SISKIN (*Spinus pinus*, Wils.).

Four birds collected at Okanagan Falls, April 12th; one flock of about thirty at Schoonover Mountain, April 20th.

*SNOW-BUNTING (*Plectrophenax nivalis nivalis*, Linn.).

One specimen found dead at Okanagan Falls, May 1st. No other birds seen during the summer.

*WESTERN SAVANNAH SPARROW (*Passerculus sandwichensis alaudinus*, Bon.).

Common throughout the Valley. Taken at Okanagan Falls, April 20th to May 10th.

*WESTERN LARK SPARROW (*Chondestes grammacus strigatus*, Swains.).

Fairly common at Osoyoos, May 16th. Taken at Vaseaux Lake, May 27th. A fine songster.

*GAMBEL'S SPARROW (*Zonotrichia leucophrys gambeli*, Nutt.).

Fairly common. Okanagan Falls, May 6th; Osoyoos, May 22nd.

*WESTERN CHIPPING-SPARROW (*Spizella passerina arizona*, Coues).

Common everywhere throughout the valley. Eggs taken, May 30th, June 14th, June 21st and 25th. Nests placed in trees and bushes. Eggs four or five in number, of a greyish blue, spotted and blotched with blackish and purplish markings; size, 0.70 x 0.52.

*SHUFELDT'S JUNCO (*Junco hyemalis connectens*, Coues).

Found this bird common on all the foot-hills and higher altitudes throughout the valley. Taken at Penticton, April 10th to 12th; at Okanagan Falls, April 20th and May 10th.

*RUSTY SONG-SPARROW (*Melospiza melodia morphna*, Oberh.).

Common everywhere in the valley. Eggs taken at Vaseaux Lake, May 23rd; at Okanagan Falls, June 11th and 13th. Nests placed in swamp-grass; four or five eggs in number, whitish or greenish white, spotted and blotched with browns of various shades; size, 0.80 x 0.60.

*SPURRED TOWHEE (*Pipilo maculatus montanus*, Swarth).

Abundant throughout the valley. Breeds commonly; nests on the ground. Taken at Okanagan Falls, May 20th; Penticton, June 25th.

*LAZULI BUNTING (*Passerina amoena*, Say).

Common in the lower sections of the valley. Birds taken at Vaseaux Lake, May 18th to 27th, June 10th; at Penticton, June 28th. Nests and eggs collected at Vaseaux Lake, May 29th. The nest was placed in small bushes about 4 feet from the ground. The eggs, four in number, were pale bluish white; size, 0.75 x 0.55.

*WESTERN Tanager (*Piranga ludoviciana*, Wils.).

Fairly common at Okanagan Falls. Birds collected at Schoonover Mountain, June 1st; at Okanagan Falls, May 8th.

*CLIFF SWALLOW (*Petrochelidon lunifrons lunifrons*, Say).

Common everywhere in the valley. Breeds commonly in suitable places. Nest constructed of mud, placed on dwellings or cliffs. Eggs four or five in number, whitish, spotted with reddish brown; size, 0.82 x 0.56. Taken at Okanagan Falls, April 30th; Vaseaux Lake, May 16th; Penticton, June 16th.

*BARN-SWALLOW (*Hirundo erythrogastra*, Bod.).

Fairly common at Okanagan Falls and Osoyoos. Nests and eggs taken at Dog Lake, June 19th. Nests in buildings and barns, etc. Eggs four or five in number, slightly paler in markings than the cliff-swallow.

*TREE-SWALLOW (*Iridoprocne bicolor*, Vieill.).

Only a few birds seen at Okanagan Falls on May 10th. Found it the most uncommon of all the swallows. Bird, nest, and eggs taken at Penticton, June 29th. The nest was situated in a hole in a fence-post about 4 feet from the ground. Nest contained three white eggs (hard set); size, 0.75 x 0.50.

*NORTHERN VIOLET-GREEN SWALLOW (*Tachycineta thalassina lepida*, Mearns).

Found the bird common everywhere from Penticton to Osoyoos. Breeds commonly in May and June. Vaseaux Lake, May 16th; Penticton, June 26th.

*BANK-SWALLOW (*Riparia riparia*, Linn.).

Common in suitable breeding-grounds. The bird was found in hundreds breeding in the holes along the banks at Dog Lake on May 16th. Most of the nests contained birds a few days hatched or eggs far advanced. Eggs five or six, whitish in colour; size averaging 0.70 x 0.50.

*ROUGH-WINGED SWALLOW (*Stelgidopteryx serripennis*, Aud.).

Collected several birds at Penticton, June 25th to 30th. A small colony of about forty birds were found breeding in holes in the low bank of the Okanagan River near Penticton. Two sets of eggs were taken, both hard set; nests contained seven whitish-coloured eggs; size, 0.75 x 0.52.

*CEDAR WAXWING (*Bombycilla cedrorum*, Vieill.).

Fairly common at Okanagan Falls, Vaseaux Lake, and Penticton in June. Nests and eggs collected at Okanagan Falls, June 20th; eggs measuring 0.85 x 0.60, of a dull greyish blue, blotched and speckled with black and brown markings, mostly towards the larger end.

*RED-EYED VIREO (*Vireosylva olivacea*, Linn.).

The commonest of the vireos found in the valley. Vaseaux Lake, May 22nd; Penticton, June 15th to 25th. Nest and eggs collected at Shuttleworth Creek, Okanagan Falls, June 6th; at Penticton, June 30th. The nests were suspended from the outer branches of deciduous trees, about 6 feet from the ground. Eggs four in number, whitish in colour, sparingly marked with blackish brown; size, 0.85 x 0.55.

*WESTERN WARBLING VIREO (*Vireosylva gilva swainsoni*, Baird).

A few were seen at Okanagan Falls, May 7th to 15th. Bird, nest, and eggs were taken at Penticton, June 25th. Building habits similar to the red-eyed vireo. Eggs four in number, white, spotted with dark-brown markings; size, 0.72 x 0.52.

*CASSIN'S VIREO (*Lanivireo solitarius cassini* Xan.).

Two specimens taken at Okanagan Falls, May 1st.

*LUTESCENT WARBLER (*Fermivora celata lutescens*, Ridg.).

Common at Okanagan Falls and Penticton, May 10th and June 20th. Breeds. Nests on the ground. Eggs four, white, speckled with reddish brown; size, 0.65 x 0.45.

*ALASKA YELLOW WARBLER (*Dendroica aetiva rubiginosa*, Pallas).

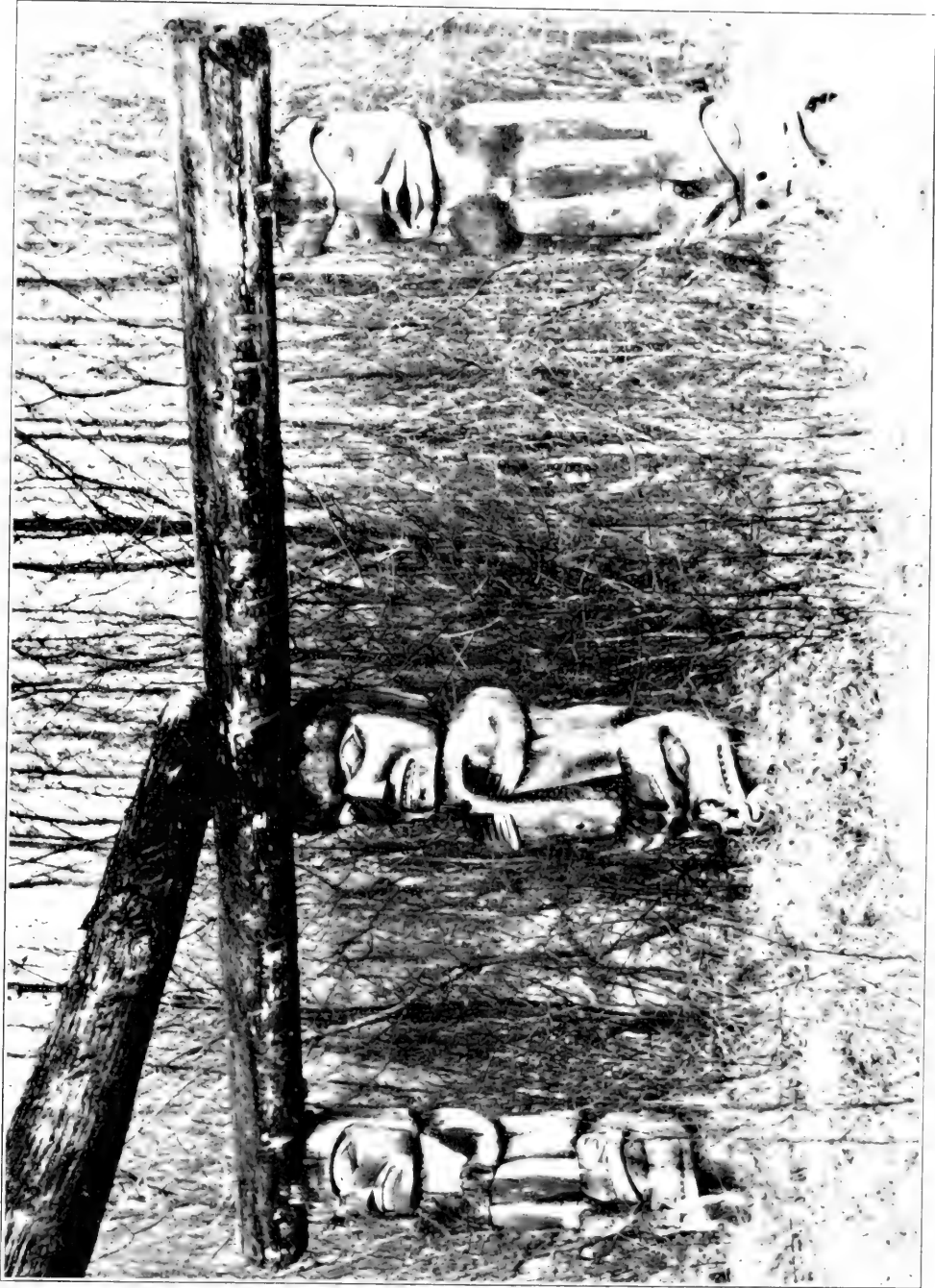
Breeds commonly. Collected at Vaseaux Lake, May 20th; Penticton, June 25th. Quite common at Vaseaux Lake and Dog Lake. Nests and eggs taken at Dog Lake on June 19th in bushes. Eggs four or five in number, of a dull whitish colour, spotted and blotched with various shades of brown and lilac; size, 0.65 x 0.50.

*AUDUBON'S WARBLER (*Dendroica auduboni auduboni*, J. K. Towns.).

Common at Okanagan Falls, May 1st to 10th; at Schoonover Mountain, June 1st.

*MACGILLIVRAY'S WARBLER (*Oporornis tolmiei*, J. K. Towns.).

One specimen taken at Schoonover Mountain (Sheep Creek) on June 3rd.



House - Totem-poles, Knight Inlet, B.C.

*PACIFIC YELLOW-THROAT (*Geothlypis trichas arizela*, Oberh.).

Common at Vaseaux Lake, May 25th; at Okanagan River (Penticton) in June. One nest collected with two eggs; nest also contained a cowbird's egg. Nest in low bushes about 18 inches from the ground and close to river-bank. Eggs whitish, speckled with brown and amber; size, 0.70 x 0.50.

*LONG-TAILED CHAT (*Icteria virens longicauda*, Lawr.).

Fairly common at Penticton and Okanagan Falls. Specimen taken at Penticton, June 24th. Breeds along the river-bottoms.

*GOLDEN PILEOLATED WARBLER (*Wilsonia pusilla chryseola*, Ridg.).

A few seen at intervals at Okanagan Falls and Penticton. Specimen taken at Vaseaux Lake, May 28th and 30th.

*REDSTART (*Setophaga ruticilla*, Linn.).

Only found the bird at Penticton, June 10th to 24th. Nest and eggs collected at Penticton, June 10th. Nest placed in a crotch of bush about 5 feet from the ground. Eggs four in number, slightly incubated, white in colour, spotted with reddish and grey markings; size, 0.65 x 0.50.

*PIPIT (*Anthus rubescens*, Tunstall).

A flock of about 200 seen at Okanagan Falls, May 6th and 7th; specimen taken at Vaseaux Lake, May 7th.

DIPPER (*Cinclus mexicanus unicolor*, Bonap.).

Only two pair were seen, one at McLean Creek, April 25th, and the other at Okanagan Falls. On May 1st a nest was located at Okanagan Falls and shortly afterwards was swept away by the rising water. The bird did not attempt to rebuild in the same locality.

*CATBIRD (*Dumetella carolinensis*, Linn.).

Common from Penticton to Osoyoos. Nests and eggs taken at Penticton, June 15th to 30th. Nests placed in low bushes, containing four or five bluish-green eggs; size, 0.95 x 0.70.

*ROCK-WREN (*Salpinctes obsoletus obsoletus*, Say).

A few birds were seen at Vaseaux Lake, May 18th. By no means common.

WESTERN WINTER WREN (*Tannus hiemalis pacificus*, Baird).

One pair seen at Penticton (Four-mile Creek), April 12th; at Okanagan Falls (Shuttleworth Creek), May 1st to 6th. Not common.

*ROCKY MOUNTAIN NUTHATCH (*Sitta carolinensis nelsoni*, Mearns).

Found this bird common at Shuttleworth Creek, Okanagan Falls, April 25th to 30th.

*RED-BREASTED NUTHATCH (*Sitta canadensis*, Linn.).

Birds collected at McLean Creek, Okanagan Falls, April 28th. Not as common as Rocky Mountain and pygmy nuthatch.

*PYGMY NUTHATCH (*Sitta pygmaea pygmaea*, Vig.).

Common everywhere throughout the valley. Found nests at Vaseaux Lake, May 3rd and 22nd. Nest situated in a hole in a rotten stump about 15 feet from the ground. Eight eggs, whitish, speckled with reddish brown, size, 0.60 x 0.50.

*LONG-TAILED CHICKADEE (*Penthestes atricapillus septentrionalis*, Harris).

Okanagan Falls, May 6th; Vaseaux Lake, June 2nd.

*MOUNTAIN CHICKADEE (*Penthestes gambeli gambeli*, Ridg.).

Okanagan Falls, April 20th to 25th, May 1st to 8th. Fairly common.

*HUDSONIAN CHICKADEE (*Penthestes hudsonicus hudsonicus*, J. R. Forster).

Common at Schoonover Mountain (4,000 feet) in June. Nest and fresh eggs taken, May 31st; five eggs. Nest in hole in tree, eggs white, speckled with reddish brown; size, 0.60 x 0.45.

*RUBY-CROWNED KINGLET (*Regulus calendula calendula*, Linn.).

Common at Okanagan Falls, April, May, and June. Breeds on Schoonover Mountain at an altitude of 4,000 feet. Found old nest in pine-tree about 30 feet high.

*TOWNSEND'S SOLITAIRE (*Myadestes townsendi*, Aud.).

Collected specimens at Okanagan Falls, May 1st; at Schoonover Mountain, June 4th. Occasional birds seen on the higher altitudes.

*AUDUBON'S HERMIT THRUSH (*Hylocichla guttata auduboni*, Baird).

Two birds collected at Schoonover Mountain (3,800 feet), June 5th.

*ROBIN (*Planesticus migratorius migratorius*, Linn.).

Okanagan Falls, May 15th and June 10th. Breeds.

*WESTERN ROBIN (*Planesticus migratorius propinquus*, Ridg.).

Abundant everywhere. Breeds commonly in the valley in May.

*NORTHERN VARIED THRUSH (*Ixoreus naevius meruloides*, Swains.).

Birds collected at Okanagan Falls, April 25th. Few seen at Osoyoos, May 23rd.

*WESTERN BLUEBIRD (*Sialia mexicana occidentalis*, J. K. Towns.).

Common. Penticton, April 10th; Okanagan Falls, April 25th to 30th. Nest and eggs taken at Vaseaux Lake, May 22nd. Eggs six in number, of bluish colour; size, 0.80 x 0.60. A very interesting set of six white eggs collected at Okanagan Falls on June 17th in a hole in a stump.

*MOUNTAIN BLUEBIRD (*Sialia currucoides*, Bech.).

Fairly common. Okanagan Falls, April and May; Penticton, June 20th.

LEPIDOPTERA COLLECTED IN THE OKANAGAN VALLEY.

BY E. M. ANDERSON AND C. B. GARRETT.

Papilio dumnus. Common, May and June, Vaseaux Lake.

" *eurymedon*. Common, May and June, Vaseaux Lake.

" *rutulus*. A few taken at Vaseaux Lake, May 20th to 30th.

" *turnus*. Vaseaux Lake, Schoonover Mountain, May 15th and June 6th.

" *zolicaon*. Common. Okanagan Falls, May 10th; Schoonover Mountain, June 1st to 6th.

Pontia beckeri. Osoyoos, May 23rd.

" *sisymbri*. Okanagan Falls, April 12th, May 15th. Common.

" *occidentalis*. Okanagan Falls, April 12th, May 15th. Common.

" *rapa*. Okanagan Falls, April 12th, May 15th. Common.

Synchlœ creusa. Okanagan Falls, April 12th, May 15th. Common.

" *ausonides*. Okanagan Falls, April 12th, May 15th. Common.

" *sara*. Okanagan Falls, April 12th, May 15th, and June 6th.

Eurymus eriphyle. Vaseaux Lake, Okanagan Falls, May 20th to June 20th.

" *huffordii*. Okanagan Falls, May 25th.

" *occidentalis*. Vaseaux Lake, May 18th; Osoyoos, May 25th.

Brenthis freija. Schoonover Mountain, common, June 1st to 6th.

" *bellona*. Schoonover Mountain, common, June 1st to 6th.

" *epithore*. Schoonover Mountain, common, June 1st to 6th.

Lemonias cooperi. Okanagan Falls, Vaseaux Lake, June 1st.

" *palla*. Vaseaux Lake, June 1st to 10th.

" *whitneyi*. Vaseaux Lake, June 1st to 10th.

" *baroni*. Vaseaux Lake, June 12th.

Phycoides pratensis. Okanagan Falls, June 11th.

" *mylitta*. Vaseaux Lake, June 10th.

Eugonia californica. Schoonover Mountain, June 1st.

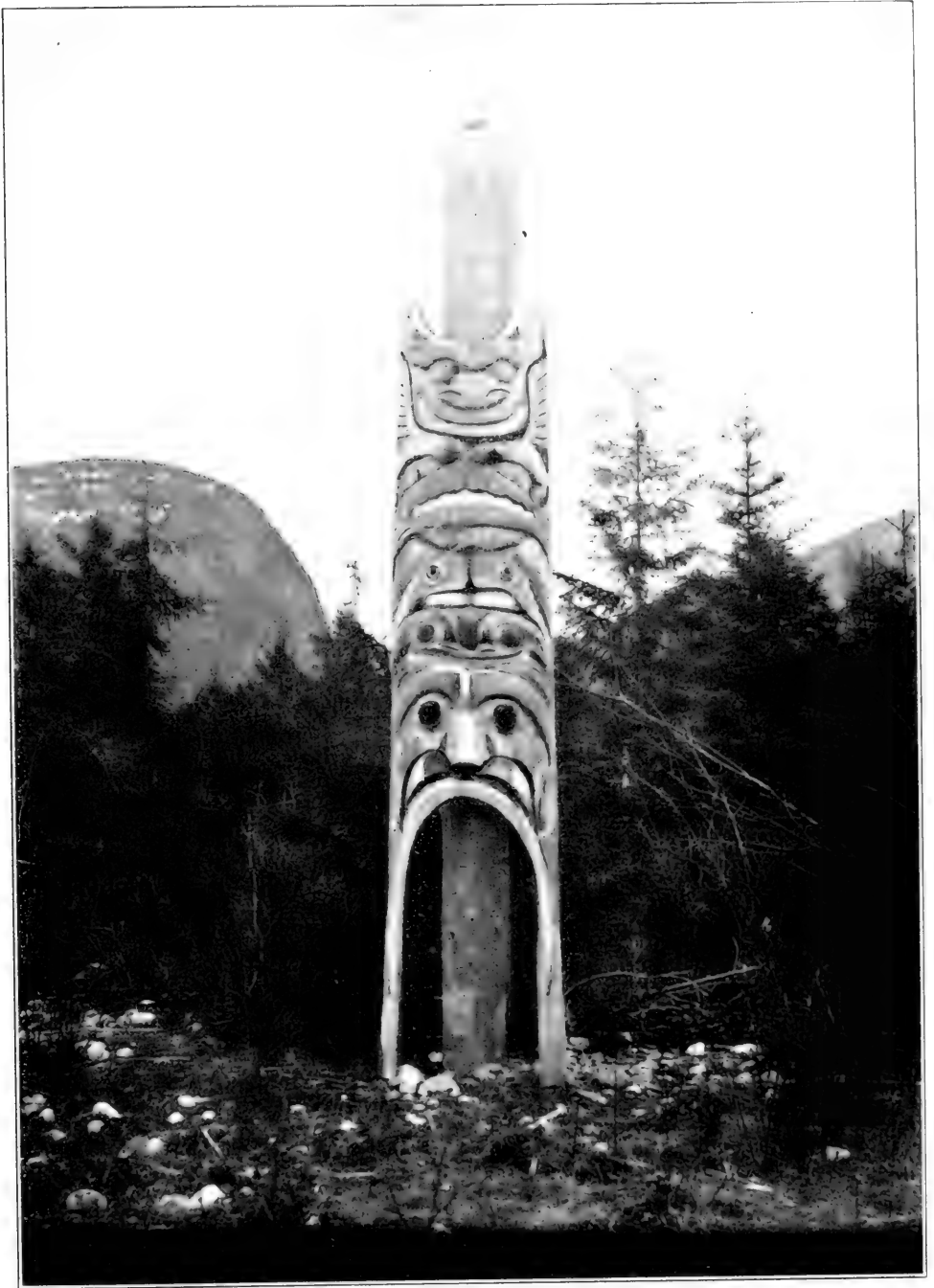
Eucanessa antiopa. Okanagan Falls, April 15th.

Basilarchia archippus. Vaseaux Lake, May 14th to 30th.

" *lorquini*. Penticton, June 30th.

Cercyonis charon. Vaseaux Lake, June 15th.

Erebia epipsodea. Vaseaux Lake, Schoonover Mountain, June. Common.



Totem-pole. Tallo. South Bentinck Arm. B.C.

- Cænonympha ampelos.* Vaseaux Lake, Schoonover Mountain, May 15th, and June.
Anosia plexippus. Vaseaux Lake, May 15th to 30th.
Uranotes melinus. Okanagan Falls, May 20th.
Callipsyche behrii. Vaseaux Lake, June 16th.
Incasilia iroides. Okanagan Falls.
 " *mossi.* Schoonover Mountain, June 1st to 6th.
 " *eryphon.* Okanagan Falls, Schoonover Mountain, May 4th and June.
Epidemia zeroe. Vaseaux Lake, June 10th to 15th.
 " *helooides.* Vaseaux Lake, common in June.
Cupido heteronea. Schoonover Prairie, June 1st to 6th.
 " *fulla.* Okanagan Falls, Schoonover Mountain, common, May 20th, June 6th.
 " *sapiolus.* Okanagan Falls, Schoonover Mountain, common, May 20th, June 6th.
Nomiades antiacis. Common everywhere in the valley, May and June.
 " *couperii.* Schoonover Mountain, June 1st to 6th.
Phadrotus sagittigera. Schoonover Mountain, June 1st to 6th.
Rusticus melissa. Vaseaux Lake, June 10th to 15th.
 " *anna.* Vaseaux Lake, June 10th to 15th.
Cyaniris nigrescens. Common in April and May, Okanagan Falls.
Everes comytas. Vaseaux Lake, May 20th.
Amblyscirtes vialis. Common in May and June, Okanagan Falls.
Pamphila palæmon. Schoonover Mountain, June 1st to 6th.
Erynnis manitoba. Vaseaux Lake, May 30th, Schoonover Mountain, June 5th.
Thymelicus cernes. Schoonover Mountain, June 3rd.
Thorybes pylades. Okanagan Falls, June.
Pholisora catullus. Okanagan Falls, Schoonover Mountain, June 1st to 6th.
Thanaos icelus. Vaseaux Lake, May 30th.
 " *persius.* Okanagan Falls, June 1st.
Hesperia cespitalis. Okanagan Falls, Schoonover Mountain, May and June. Common.

HERTEROCERA (MOTHS) COLLECTED IN THE OKANAGAN VALLEY, 1913.

BY E. M. ANDERSON AND C. B. GARRETT.

- Lepisesia ululume.* One rubbed specimen, Schoonover Mountain, June 3rd.
Marumba modesta. Penticton, July 5th, one specimen.
Samia columbia. Okanagan Falls, June 10th, one specimen.
Scepsis cockleyi (?). Penticton, June 28th, two taken at light.
Leptarcia californiata. Okanagan Falls, common in April and early part of May.
Isia isabella. Penticton, July 5th.
Apantesis achaia, var. *ornata.* Vaseaux Lake, May 30th to June 10th. Six specimens taken.
Androloma mac-cullochi. Common at Schoonover Mountain, June 1st to 6th.
Hadena cogitata. Penticton, July 3rd.
Xylomiges simplex. Okanagan Falls, common in May; took five in orchard.
 " *perlubens.* Okanagan Falls, common in May; took five in orchard.
 " *candida.* Okanagan Falls, common in May; took five in orchard.
Grapiphora pacifica. Okanagan Falls, common in May; took five in orchard.
Stretchia normalis. Okanagan Falls, May 6th to 8th.
Xylina contenta. Common on blossoms, May 6th.
Cucullia (?). Okanagan Falls, May 1st to 5th, at light.
Rancora solidaginis. Okanagan Falls, May 3rd.
Orthosia crispa (?). Okanagan Falls, May 5th.
Heliothis (?). Vaseaux Lake, May 22nd, one specimen.
Drasteria erchtea. Okanagan Falls, May 5th to 20th.
 " *crassiuscula.* Okanagan Falls, May 12th to 20th.
Eulidea cuspidæa. Okanagan Falls, May and June. Common.
Nadata gibbosa. Penticton, June 5th, one specimen at light.
Gluphisia septentrionalis. Okanagan Falls, April 28th, one specimen at light.
Euthyatira pudens. Okanagan Falls, May 6th, one specimen at blossoms.

GEOMETRIDÆ (GEOMETERS) COLLECTED IN THE OKANAGAN VALLEY, 1913.

BY E. M. ANDERSON AND C. B. GARRETT.

- Tephroclystis* (?). Okanagan Falls, May 1st to 10th, at light.
Hydria undulata. Okanagan Falls, April 27th.
Eois siberaria. Schoonover Mountain, June 1st to 6th. Common.
Lycia cognataria. Penticton, July 6th to 8th.
Marmopteryx marmorata. Okanagan Falls, May 4th.
Breplos infans. Okanagan Falls, May 1st.

COLEOPTERA (BEETLES) COLLECTED IN THE OKANAGAN VALLEY, 1913.

BY E. M. ANDERSON AND C. B. GARRETT.

The following is a list of beetles collected in the Okanagan Valley. A miscellaneous collection of over 1,000 still awaits classification:—

- | | |
|-----------------------------------|---------------------------------|
| <i>Coccinella transversalis</i> . | <i>Platynus subsericeus</i> . |
| <i>Comontis ovalis</i> . | <i>Chalæus interruptus</i> . |
| <i>Corymbites fallax</i> . | <i>Creophilus villosus</i> . |
| <i>Trogisita chloridea</i> . | <i>Clerus sphegus</i> . |
| <i>Trichodes ornatus</i> . | <i>Elodes cordata</i> . |
| <i>Didelonycha fulgida</i> . | <i>Silpha lapponica</i> . |
| <i>Saprinus lugens</i> . | <i>Necrophorus melschmeri</i> . |
| <i>Lachnosterna errans</i> . | <i>Mele montanus</i> . |
| <i>Cincindella oregona</i> . | <i>Geoderes melanothrix</i> . |
| " <i>obliquata</i> . | <i>Cleonus 4 lineata</i> . |
| <i>Haltica bimarginata</i> . | <i>Rhagium lineatum</i> . |
| <i>Chalcophaga angulicollis</i> . | <i>Leptura latifica</i> . |
| <i>Podabrus comei</i> . | <i>Ellychnia californica</i> . |

MAMMALS COLLECTED IN THE OKANAGAN VALLEY, APRIL, MAY, AND JUNE, 1913.

BY E. M. ANDERSON.

(NOTE.—Species collected on the trip are marked with an asterisk.)

*MULE-DEER (*Cariacus macrotis*, Rich.).

Found it common at Okanagan Falls in nearly all the foot-hills. Male and female killed at Shuttleworth Creek, June 15th.

BIGHORN (MOUNTAIN-SHEEP), (*Ovis canadensis*, Shaw).

Small herd of nine seen in the foot-hills at Shuttleworth Creek in May. Sheep are protected in this district. (No animals shot.)

*FLYING-SQUIRREL (*Sciuropterus volans sabrinus*, Shaw).

One specimen taken at Shuttleworth Creek, May 10th; three others at Schoonover Mountain, June 1st to 6th.

*SQUIRREL (*Sciurus hudsonius vancouverensis*, Allen).

Common everywhere in the valley. Specimens taken at Penticton, April 8th; Okanagan Falls, April 15th to June 6th.

*ROCKY MOUNTAIN CHIPMUNK (*Tamias quadrivittatus*, Say.).

Found it common at Okanagan Falls, April 20th, May 20th, and June 1st to 5th.



Totem pole - Tallis, South Bentinck Arm, B.C.

- *MOUNTAIN GROUND-SQUIRREL (*Citellus oregonus* Merr.).
Common at Okanagan Falls, May 28th; Schoonover Mountain, June 1st to 6th.
- *YELLOW-BELLIED MARMOT (*Marmota flaviventer*, A. & B.).
Specimens taken at Okanagan Falls, April 15th, May 20th, and June 12th. Common.
- *BUSHY-TAILED WOOD-RAT (*Neotoma cinerea columbiana*, Elliot).
Okanagan Falls, May 6th; Schoonover Mountain, June 3rd and 4th.
- *POCKET-GOPIER (*Thomomys douglasi fuscus* Merr.).
Common. Taken at Schoonover Mountain, June 3rd; Penticton, June 26th to 30th.
- *NORTH-WEST POCKET-MOUSE (*Perognathus Lordi*, Gray).
Penticton, April 8th; Okanagan Falls, May 11th to 30th; Schoonover Mountain, June 1st to 6th.
- *MEADOW-VOLE (*Microtus ? sp.*).
Two species found. Common at Okanagan Falls, May and June.
- *VARYING HARE (*Lepus americanus washingtoni*, Baird).
Common at Okanagan Falls. Taken April 20th, May 10th and 22nd.
- BLACK BEAR (*Ursus americanus*, Pallas).
One seen at Vaseaux Lake, June 7th.
- SKUNK (*Mephitis occidentalis*, Baird).
One observed in field at Osoyoos Lake, May 23rd.
- *BAT (*Myotis yumanensis saturatus*, Miller).
Taken at Vaseaux Lake, May 15th to 30th, June 14th.
NOTE.—Twenty-seven bats were taken at Vaseaux Lake. Three species still remain to be identified. Also several rodents await classification.

REPTILA.

- *PACIFIC TERRAPIN (*Clemmys marmorata*, B. & G.).
Common on all the lakes. Taken at Vaseaux Lake, June 5th to 15th.
- *BLUE-TAILED LIZARD.
One taken at Dog Lake on road-cut, June 10th.
- *BULL-SNAKE (GOPHER-SNAKE), (*Pituophis catinifer deserticola*, Stej.).
Common everywhere. Okanagan Falls, April 12th, May 6th; Vaseaux Lake, May 26th and June 7th.
- *PACIFIC RATTLESNAKE (*Crotalus lucifer*).
Common at Okanagan Falls and Vaseaux Lake, May 3rd, 20th, 26th, June 5th and 10th.
- *BLUE RACER.
Okanagan Falls, May 28th; Vaseaux Lake, May 30th and June 10th. Common; the swiftest of all snakes in the valley.
NOTE.—Twelve unidentified frogs and toads were taken at Okanagan Falls.

REPORT ON BIRDS COLLECTED AND OBSERVED DURING SEPTEMBER, 1913,
ON ATLIN LAKE, FROM ATLIN TO SOUTH END OF THE LAKE.

BY F. KERMODE AND E. M. ANDERSON.

(NOTE.—Species collected on the trip are marked with an asterisk.)

- *HOLBELL'S GREBE (*Colymbus holbelli*, Reinh.).
Atlin Lake, September 7th to 10th. Common.
- *HORNED GREBE (*Colymbus auritus*, Linn.).
Atlin Lake, September 7th. Not as plentiful as Holboell's grebe.

LOON (*Gavia immer*, Brun.).

Seen on Atlin Lake, September 7th, 10th, and 19th.

*MALLARD (*Anas platyrhynchos*, Linn.).

Atlin Lake, September 7th to 20th. Common. Large flock seen at Pike River, September 9th.

*GREEN-WINGED TEAL (*Nettion carolinense*, Gmel.).

One specimen taken in swamp, Atlin Lake, September 10th.

SHOVELLER (*Spatula clypeata*, Linn.).

Four observed on September 11th near Copper Island, Atlin Lake.

*LESSER SCAUP-DUCK (*Marila affinis*, Eyton).

Female shot at Williams Creek, Atlin Lake, September 18th.

*GOLDEN-EYE (*Clangula clangula americana*, Bonap.).

Female taken at Atlin Lake, September 10th.

BLACK-BELLIED PLOVER (*Squatarola squatarola*, Linn.).

Three birds seen on the lake-shore at Atlin, September 28th.

*SOOTY-GROUSE (*Dendragapus obscurus fuliginosus*, Ridg.).

Female shot at Williams Creek, Atlin Lake, September 16th.

*ALASKA SPRUCE-GROUSE (*Canachites canadensis osgoodi*, Bish.).

Common at Atlin. Ten specimens collected, Pike River, Atlin Lake, September 9th to 25th.

*GRAY RUFFED GROUSE (*Bonasa umbellus umbelloides*, Doug.).

One specimen taken near Atlin, September 27th.

*WILLOW-PTARMIGAN (*Lagopus lagopus lagopus*, Linn.).

Specimens taken at Blue Canyon, near Atlin, September 28th.

*ROCK-PTARMIGAN (*Lagopus rupestris rupestris*, Gmel.).

Five birds shot at Blue Canyon, Atlin, September 28th. Both willow and rock ptarmigans were found in the same flock.

*WHITE-TAILED PTARMIGAN (*Lagopus leucurus leucurus*, Swains.).

One specimen at Pine River, Atlin Lake, September 10th.

*MARSH-HAWK (*Circus hudsonius*, Linn.).

One specimen at Pine River, Atlin Lake, September 10th.

BALD EAGLE (*Haliaetus leucocephalus leucocephalus*, Linn.).

One bird observed on wing, Atlin Lake, September 8th.

*DESERT SPARROW-HAWK (*Falco sparverius phalaena*, Less.).

Immature male taken at Pike River, Atlin, September 10th. Three others seen, September 15th and 18th, at Williams Creek, south end of Atlin Lake.

DUSKY HORNED OWL (*Bubo virginianus saturatus*, Ridg.).

One observed in camp at Williams Creek, Atlin, September 14th.

*HAWK-OWL (*Surnia ulula caparoch*, Müller).

Fairly common at south end of Lake Atlin. Specimens taken, September 8th to 16th.

BELTED KINGFISHER (*Ceryle alcyon*, Linn.).

An occasional bird observed at Atlin Lake, September 9th to 20th.

*ALPINE THREE-TOED WOODPECKER (*Picoides americanus dorsalis*, Baird).

One specimen taken at Williams Creek, September 16th.

*ALASKA JAY (*Perisoreus canadensis fumifrons*, Ridg.).

Common at Atlin. Specimens collected at Pike River, September 7th, 10th, and 15th.



Tsimshian Chief's Cross-board, Nass River, B.C.



Kwakiutl, Totem-pole, Quatsino, B.C.

NORTH-WESTERN CROW (*Corvus caurinus*, Baird).

Birds common at Atlin, September 1st to 29th.

RUSTY BLACKBIRD (*Euphagus carolinus*, Muller).

One specimen seen near Baker Lake, September 19th. Identity certain.

HEPBURN'S ROSY FINCH (*Leucosticte tephrocotis littoralis*, Baird).

A flock of about fifteen birds seen near summit of mountain, south end of Atlin Lake, near Moose River, September 8th.

GOLDEN-CROWNED SPARROW (*Zonotrichia coronata*, Pallas).

About a dozen birds were seen at Atlin, September 4th to 12th.

SLATE-COLOURED JUNCO (*Junco hyemalis hyemalis*, Linn.).

Birds observed at Atlin, September 5th and 8th.

BOHEMIAN WAXWING (*Bombycilla garrula*, Linn.).

Flock of about fifty seen at Pike River, Atlin Lake, September 10th.

AUDUBON'S WARBLER (*Dendroica auduboni auduboni*, J. K. Towns.).

Common at the south end of Atlin Lake, September 7th, 8th, and 14th.

PIPIT (*Anthus rubescens*, Tunstall).

Common at Pike River, September 10th to 15th.

*LONG-TAILED CHICKADEE (*Penthestes atricapillus septentrionalis*, Harris).

Atlin, Williams Creek, September 10th.

*HUDSONIAN CHICKADEE (*Penthestes hudsonicus hudsonicus*, J. R. Forster).

Williams Creek, September 18th. Two specimens taken.

TOWNSEND'S SOLITAIRE (*Myadestes townsendi*, Aud.).

One bird seen on the mountain-side, Atlin Lake, September 9th.

ROBIN (*Planesticus migratorius migratorius*, Linn.).

Atlin Lake, September 4th to 28th.

MAMMALS COLLECTED IN THE ATLIN DISTRICT, SEPTEMBER, 1913.

By F. KERMODE AND E. M. ANDERSON.

(NOTE.—Specimens collected on the trip are marked with an asterisk.)

*MOUNTAIN-GOAT (*Oreamnos montanus*, Ord.).

Three were observed from the lake on Cathedral Mountain, Atlin Lake, September 11th. Male and female killed on mountain at Williams Creek, south end of Atlin Lake, September 14th and 15th. Two others seen near the top of a high peak above Baker Lake.

*RED SQUIRREL (*Sciurus hudsonius*, Erx.).

Three collected at Moose River, Atlin, September 10th to 12th.

*NORTHERN CHIPMUNK (*Tamias quadrivittatus borealis*, Allen).

One specimen taken at Pike River, Atlin, September 11th.

*JUMPING-MOUSE (*Zapus hudsonius*, Zimm.).

Male taken at Moose River, Atlin, September 12th.

*VARYING HARE (*Lepus americanus*, Erx.).

Three collected at Pike River, September 10th to 15th. Common.

*BLACK BEAR (*Ursus americanus*, Pallas).

Male killed near Pike River, September 12th. Skin is dark brownish in colour.

*BAT (*Myotis sp.*).

Male and female taken at Moose River, September 11th.

ACCESSIONS, 1913.

- | | | |
|---------|------------------------|--------------------------|
| Jan. 8. | 1 Mallard. | 2 Killdeer Plover. |
| | 1 Lesser Scaup-duck. | 1 Black turnstone. |
| | 2 American Scaup-duck. | 4 Hepburn's Leucosticte. |
| | 1 Barrow's Golden-eye. | 1 Snowflake. |
| | 3 American Golden-eye. | 1 Rat. |
| | 4 Buffalo-head. | |
- Collected at Parksville, B.C., by E. M. Anderson.
- | | | |
|-------|-----|---|
| Jan. | 22. | 1 Mourning-dove. Presented by H. Dodd, Telegraph Creek, B.C. |
| " | 25. | Rib of a whale. Found on Saturna Island, B.C.; presented by C. A. Lewis. |
| " | 29. | Reeve's Pheasant (male). Presented by Dr. Brown, Nanaimo. |
| Feb. | 3. | White-crested Cormorant, Sidney, B.C. Presented by Mrs. Nicholson. |
| " | 5. | Ratfish. Presented by J. Lucas, Victoria. |
| " | 7. | Evening Grosbeaks (male and female), Parksville, B.C. Presented by G. H. Petticrew. |
| " | 9. | Flying squirrels (4), Broadwater, B.C. Presented by A. Campbell. |
| " | 15. | Trumpeter-swan, Qualicum, B.C. Presented by J. Graham. |
| " | 16. | Holbøll's Grebe (male). Picked up on beach and presented by E. G. Kermodé. |
| " | 17. | 6 Willow-ptarmigan, Atlin, B.C. Presented by Horace Fraser. |
| " | 17. | 5 White-tailed Ptarmigan, Atlin, B.C. Presented by Horace Fraser. |
| March | 10. | Barnacle, Esquimalt, B.C. Presented by F. Saunders. |
| " | 10. | 1 White-tailed Ptarmigan, Nicola, B.C. A. B. Williams. |
| " | | 3 Mountain-goat heads, Bella Coola. Purchased. |
| " | | Mule-deer (whole skin). C. B. Garrett, Cranbrook. |
| " | | 1 White-tailed Deer. C. B. Garrett, Cranbrook. |
| " | | 1 White-tailed deer head. C. B. Garrett, Cranbrook. |
| " | 17. | 1 Sharp-tailed Grouse, Grande Prairie, B.C. F. Kermodé. |
| " | 17. | 1 Varying Hare, Grande Prairie, B.C., F. Kermodé. |
| " | 10. | Collection of African arrows. H. W. Seaton-Karr. |
| April | 6. | Cassin's Purple Finch. Presented by Junior Audubon Society, Nelson. |
| " | 23. | 3 Sooty-grouse, Malahat, V.I. F. Kermodé. |
| " | 25. | Crayfish. Found in Colquitz Creek, Victoria, and presented by J. D. Anderson. |
| May | 11. | Crab, Victoria. Presented by M. Cancellor. |
| " | 17. | North-west Coast Heron eggs, Saturna Island. F. Kermodé. |
| " | 17. | Crow's nest and eggs, Bare Island. F. Kermodé. |
| " | 17. | Starfishes, Bare Island. F. Kermodé. |
| " | 19. | 2 Indian stone pestles. Presented by J. McKay, Enderby. |
| " | 3. | 2 Moose heads and scalps. Purchased. |
| | | 4 Stone's Sheep heads and scalps. Purchased. |
| | | 1 Albino Moose (whole skin), female. Telegraph Creek, B.C. |
| | | 1 Grizzly Bear, leg-bones and skull, Telegraph Creek, B.C. |
| " | 24. | 2 Black Bear cubs. Purchased at Bella Coola. |
| June | 14. | Fossils (Shells, etc.). Presented by Miss Bonavia, Victoria. |
| " | 25. | Sea-lion. Dr. C. F. Newcombe. |
| " | 25. | Sea-lions (2). F. Kermodé. |
| July | 5. | Land-otter skull, Mink Trap Bay, Pitt Island (caught in a trap). Presented by W. A. Newcombe. |
| " | 17. | Catfish. Collected at Langford Lake. E. M. Anderson. |
| " | 17. | 3 Sunfish. Collected at Langford Lake, E. M. Anderson. |
| " | 26. | Hairworm, Bella Coola. Presented by E. R. A. Russell. |
| Sept. | | Skeletons of snake swallowing horned lizard. R. H. Machen. |
| Oct. | 1. | Moose-head. Purchased at Atlin. |
| " | 1. | Fannin's Sheep head. Purchased at Atlin. |
| " | 1. | 2 Stone's Sheep head. Purchased at Atlin. |
| Nov. | 1. | Osborne's Caribou (male). Purchased at Atlin. |
| " | 1. | Albatross-eggs. Presented by Allan Ouston, Yokohama. |
| Dec. | 4. | 2 Black Rats. Presented by Tatham and Dangerfield, Victoria. |
| " | 15. | Indian curios, carved-bone bark-knife, weaving-needle, etc., found in railway-cutting three miles from Ashcroft. Presented by C. Branson. |

ANTHROPOLOGY.

REPORT OF C. F. NEWCOMBE, M.D., FOR 1913.

138 DALLAS ROAD,

VICTORIA, B.C., Dec. 31st, 1913.

*F. Kermode, Esq.,**Director, Provincial Museum, Victoria, B.C.*

SIR,—I have the honour to report that during the current year I have collected material and data for the anthropological section from the following Indian villages, and from a few private collections.

In the beginning of February I went over to Vancouver to look at a collection of Upper Skeena curios, which I purchased, finding that the specimens would fill up one or two blanks from that locality. On my return to Victoria I acquired another small collection of Nass River material.

In the latter part of February I went to the following Lower Fraser villages: Upper and Lower Sardis, Chilliwack, Chehalis, and Yale. Old material is very scarce in this locality. I purchased two blankets (which were left to be decorated), a long river-canoe, and a number of small articles and foods, and gave orders for models where necessary.

The first week in March was spent in Vancouver and vicinity, getting in touch with the owners of some very interesting specimens. I succeeded in purchasing a collection containing sixty-five specimens from the Yale District, and also a dozen of the rare Chilcotin baskets.

On March 18th I left for the Kwakiutl and Bella Coola Districts. On leaving the boat at Alert Bay, I found the Indians in the middle of a large potlatch and far too occupied to attend to me, so I went on to Hardy Bay and across to Quatsino. Here, among other things, I purchased a fine inside pole, negotiations for which were opened last year.

From Quatsino I went back to Hardy Bay and took a steamer to Bella Coola. Here were secured a set of nets, traps, boxes, strainers, etc., used in the oolachan industry, also a number of masks and ceremonial objects. Then I took a short trip to Talio, South Bentinck Arm, where two totem-poles and two grave-figures were purchased.

On the return trip from Bella Coola the steamer called in at Kimsquit, where I was lucky in getting a small shovel-nose canoe used in river navigation.

I left the steamer at Alert Bay, but, finding it impossible to do anything for a week, paid a hurried visit to Victoria, arriving back in Alert Bay on April 16th, where I chartered a gasoline-boat to run up Knight's Inlet. At Tsawadi, the village at the head of the inlet, I found the three poles with the carved beam, which you had reported to me, too far gone to purchase, but managed to secure one carving, as well as to open negotiations for others, which were photographed. We called at Tlaotsis on the way back, where a few masks and ceremonial objects were purchased.

On my return to Alert Bay, I managed to uncover one or two specimens of particular interest, the chief of which being the board sail which you now have. This is the first of its kind secured by any museum to my knowledge.

On May 1st I joined the sloop "Nymph," Captain Spring, which arrived from Victoria two days previously; the object being to gather information and inspect the haunts of sealions, as well as to continue my collecting for the Museum.

On the way north we called at Fort Rupert, Nahwitte (where we purchased an inside totem-pole), Namu, Bella Bella, China Hat, and the Tsimshian villages, Kitkatla, Metlakatla, and Fort Simpson. Specimens were secured at many of these places.

I spent the latter part of May on the Nass River, visiting Lakalzap, Gitex, Angidah, Guineha, Ayansh, Kitladamix, and Kincolith, and, although many purchases were made, the Indians would not part with any of their larger carvings except at exorbitant prices. We secured photographs of nearly every totem-pole and many smaller objects.

On June 1st we crossed over to the Queen Charlotte Islands, making our first call at Masset, where a large majority of the Indians were away. On cruising around the north and west coasts of Graham Island we called in at the deserted villages, Ian, Kung, Yats, Kiusta, and Chaatl, securing specimens at one or two places and photographing the totem-poles at all the villages.

After having called at Skidegate, we worked our way south on the east side of Moresby Island, but only stopped at Ninstints and Kaidso while in southern waters. On crossing back to the Mainland, a landing was not made until upon arriving at Bella Bella for supplies. Continuing south, we called at the fishing camp on Goose Island, afterwards proceeding to Namu, where you joined us; and coming south by steamer to Victoria, after the visit to Pearl Rocks, arriving home on June 28th.

The latter part of July was spent on the north and west coasts of Vancouver Island, studying the habits of the sea-lions. Quatsino, Nootka, and Ucluelet were visited on the way south, but it was not possible to do any anthropological work, as all the Indians were away fishing at that time of the year.

In the middle of September I made a quick trip to Chilliwack and vicinity to pick up material previously ordered, and through the kind aid of Mrs. Hulbert I was able to interest certain Indians of the Lower Fraser in the gathering of desirable specimens during the winter months.

In the early part of October I went north, and at Alert Bay made arrangements for repairing and painting the pole bought at Tsawadi in the spring, and paid for the other four poles for which negotiations had previously been opened.

Comox, Courtenay, and Nanaimo were also visited in October, but I could not get the specimens required, as they were in private hands.

I finished the season's collecting with a trip to Alberni, where with Dr. Sapir, Anthropologist of the Geological Survey of Canada, I ordered models of certain implements formerly used by the West Coast Indians.

You already have my annotated list of specimens collected during the year.

I have, etc.,

C. F. NEWCOMBE.



Dance-masks of the Kwakiutl Tribe.

LIST OF SPECIMENS COLLECTED BY C. F. NEWCOMBE, M.D., 1913.

Tsimshian.

Whistle of bone.	Dog-eater's collar.
Puberty tube, bone.	Whistles (4).
Doctor's rattle.	Doctor's wig of hair.
" crown of claws.	Chief's blanket of cloth.
" " "	Hat disks.
" apron with rattles of hoofs.	Toys (2).
" spirit-catcher, antler.	Wooden spoons (4).
" charm of leather.	Horn spoons (2).
" " plumed feathers.	Leather bag.
" head ornament of eagle quills.	Bag of cedar bark.
" " " "	Man's cap of skin.
" leggings of cloth.	" " "
" charm, small canoe.	Mat of rabbit-skin.
" head-dress.	Mat of squirrel-skins.
Dog-eater's head-band.	

Salish.

Vegetable food.	Ball of wool.
"	Stone cut for adze.
"	Dishes (2).
"	Adze.
"	Snow-shoes.
Oolachan-net.	Cradle.
Dish.	Basket.
Spoon.	Snow-shoes.
Paddles (2).	Canoe-mat.
Bailer.	Fish-basket.
Fish-knife.	Chilcotin baskets (12).

Kwakwaka'waka.

Seal dish,	Box, inlaid opercula.
Dsonoqua dish.	" carved.

Haida.

Canoe.	Stone disk wampum (2).
Blankets (2).	Copper "
Box.	Soapstone pendants (2).
Pipe.	Knives or chisels, small (2).
Chisel.	Knife, broken.
Spear-head.	Soapstone objects (2).
Soapstone object.	Nephrite block.
" bait (?).	Stone disk.
Carved figures (4).	Polished agate.
Stone hammers (3).	Soapstone object.
Slate fish-knives (5).	Nephrite knife, unfinished.
Stone war-club.	Rope of cedar twigs.
Whetstone.	Mat-creaser.
Pipes (2).	Spoon.
Chisels (10).	Awl.
Spear-points (7).	Skin.
Arrow-points (26).	

Kwakiult.

Slave-killers, Koskimo (2).	Rattles (2).
Masks (2).	Ladles (2).
Rigs for small fish (2).	Dishes (2).
Box with lid.	Baton.
Berry-dishes (3).	Scrapers, claws, and shells (2).
Berry-crusher.	Totem-pole.
V-shaped box.	Figure.
Ceremonial tongs (2).	

Bella Coola Salish.

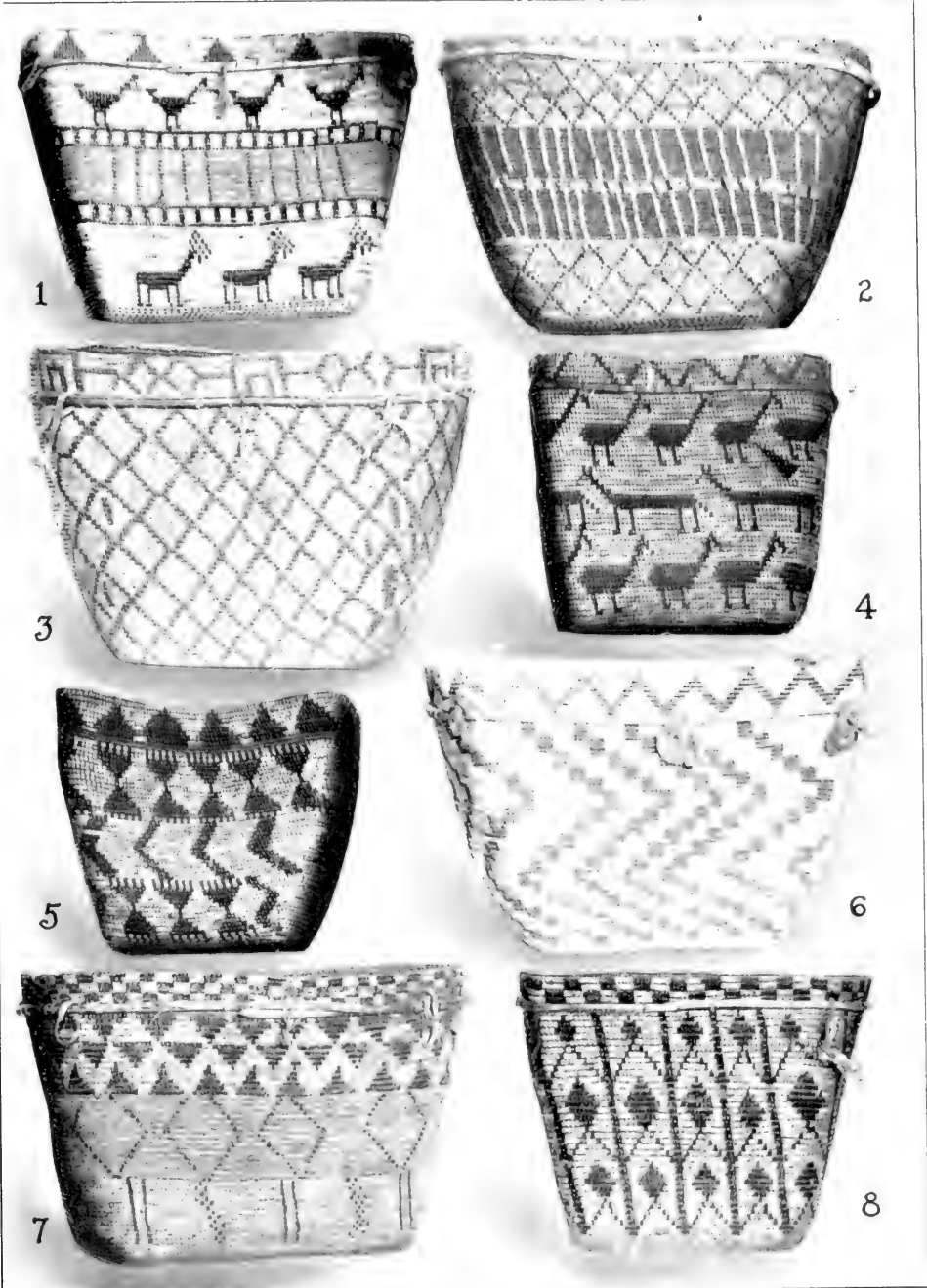
Oolachan-trap.	Strainer.
Digger.	Tongs.
Blanket of fur.	Basket for hot stones.
Fish-spear.	Clover-roots.
Cap.	Wedges (2).
Oil-box.	Oolachan-net.
Cradle of sticks.	Salmon-spear.
Mortar.	Dried berries.
Maul.	Bailer.
Canoe.	Paddle.

Kwakiult.

Hammer-stones (2).	Crushing-stone.
Berry-frame.	Pile-driver.
Game-stone.	Adze.
Hammer for wedges.	Masks (9).
Chief's stick.	Neck-ring.
Blanket of goat's wool.	Blanket of cloth.
Totems (2).	Frame, slat.
Monuments, bear (2).	Bark-chopper.
Mask, sun.	Sun mask, Sisuitl and man.
Chief's rattle.	Mask, Numasacumlis, butterfly top.
Heligya's rattle.	" Gulukwiwi.
Mask, sun, of Sisuiltais.	" Buquis.
Canoe-box.	" Nutlmatl.
" V-shaped.	" Dsonoqua.
" square ends.	Hammer-stone.
Baton.	Small box.
Maul, stone.	Chief's stick of yew.
Hammer-stone.	Chief's stick of yellow cedar.
Canoe mending cleat (2).	Blanket.
Stone chisel.	Chief's seat.
Whistle in two pieces.	Net-sticks (2).
Board sail.	Small chisel.
Whale mask.	Canoe.
Wash-bowl.	Stone hammer.
Dip-net and sticks (3).	

Tsimshium.

Fish-club.	Rattle.
Duitziq.	Totem-pole.
Figures (2).	Ladle.
Chisel.	Wedges (3).
Hand-hammer.	Spoon.
Maul.	Beaver-tooth in jar.
Mortar.	Spear-shaft.
Spear-point.	Stone hammers (3).



Chilooteh Baskets.

Tsimshian.—Concluded.

Dish.	Stone adze (2).
Gambling-sticks.	Skin-scraper.
Hammer-stone.	Frog carving.
Horn spoon.	Charm-stone.
Charm-stone.	" bone.
Doctor's stick.	" teeth.
Horn spoon.	Fasting-stones.
Slate mirror.	Stone charm.
Mortuary model.	Wooden spoons (2).
Pestle.	Hammer.
Needle.	" oblong with rounded ends.
Horn spoon.	" " squared ends.
Stone hammer.	Bark blanket.
Needle and string.	Fighting-club.
Spoon, goat's horn.	Mask.
Spoons (3).	Spoons.
Bark-stripper.	Bag of maple.
Stone adze.	Arrow-points (2).
Stone hammer.	Mirror.
Carver board.	Basket of maple bark.
Spoon.	Doctor's weasel charm.
Mortar, paint, and brush.	" rattles (2).
Charm-stone.	" crowns (2).
Painted chest.	" apron.
Doctor's box.	" rattle.
Wooden figure.	Gambling-sticks.
Doctor's " "	Charm-bones (3).
" bearskin charm.	Spoon.
" " "	Mortars (2).
Stone adze.	Spindle whorl.
Face of amalite.	Grease-skimmer.
Tlingit basket.	Stone pestle
Skin charms (2).	Box.
Pecten rattle.	Face of amalite.
Amalite.	Mortar.
Sinker.	Adze (2).

Haida.

Doctor's blanket.	Slate totem-models (2).
" beating-sticks.	Slate dish.
" box.	Sinker.
Carved board.	Oval stone.
Hammer-stone.	Indian tea.
Labret.	

COLLECTION MADE BY J. A. TEIT FROM THE INTERIOR TRIBES OF
BRITISH COLUMBIA, 1913.

Interior Salish (Ntlakyapamuk or Thompson River Tribe).

Riding-saddle of wood.	Deer-skin floor or bed mat.
Floor or bed mat of rushes (3).	Coiled basketry carrier.
Bags, woven of rushes and bark (3).	Floor or bed mat of rushes and bark.
Rain-cloak of bark.	Man's head-band, loon-skin.
Baby-carrier of dressed skin.	

Athapascan (Chilcotin Tribe).

Rabbit-skin robe.

Interior Salish (Ntlakyapamuk).

Floor or bed mat.	Cap of squirrel-skin.
Woman's cloak.	Man's shoulder-sash, marmot-skin.
Short leggings, skin.	Boy's cap, squirrel-skin.
Head band or cap, bear-cub skin.	

NOTE.—All the Ntlak. specimens are from the Nicola Valley, Spences Bridge, divisions of the tribe.

Ntlak. Tribe.

Cap of marmot-skin.	Woman's cap of squirrel-skins.
" rabbit-skin.	Trays of alderwood (2).
" goat-skin.	Poncho, deer-skin.
" marmot and coyote skin.	Large bark bag.
Head-band of bark, etc.	" basketry bag.
Cap of hoary marmot-skin.	" burden basket.
Apron, squirrel-skins.	Small " "
Vest or poncho, skins.	Baskets (3).
" deer-skin.	Fancy baskets (5).
" coyote-skin.	Small trunk-shaped basket.
Man's cap of coyote-head skins.	Oblong basket.
Bag of deer-skin.	Fancy baskets (15).
" squirrel-skin.	Basketry tray.
" rabbit-skin.	" (4).
" coyote-skin.	Open-work basket.
Resting-stick.	Birch-bark baskets (6).
Soap-berry spoon.	Netted carrying-bag.
Basketry spoon.	Mat of bark.
" rattle.	Bag of bark.
Cedar-bark head-band.	" pleated bark.
Robe of bark.	Rawhide bag.
Cape of bark.	Bark bag.
Skirt of bark.	Woman's cap of bark (2).
Pair leggings, bark.	Handle of root-digger.
Cap of bark.	Man's cap, deer-skin.
Three wooden fish-hooks.	Poncho of coyote-skin.
Lodge-mat, two goat-skins.	Bag of bark.

PUBLICATIONS OF OTHER INSTITUTIONS RECEIVED, 1913.

SMITHSONIAN INSTITUTION, UNITED STATES NATIONAL MUSEUM.

Ex. Proceedings,	Vol. 46, No. 2013—Bats of Genus <i>Molossus</i> .
"	" 46, " 2014—Pleistocene Cave, Maryland.
Misc. Collection,	" 61, " 13—New Antelopes, etc., Br. East Africa.
U.S. Nat. Herbarium,	" 16, Pt. 12—Monographs, Tribes of the Onograceæ.
Ex. Proceedings,	" 44, No. 1959—Sipunculids, North America.
U.S. Nat. Herbarium,	" 16, Pt. 7—Studies in Cactaceæ, 1.
Ex. Proceedings,	" 44, No. 1965—Synopsis of American Minks.
"	" 44, " 1967—New sp. Actinian, g. <i>Edwardsiella</i> , S. Calif.
Misc. Collection,	" 60, " 28—New Vole, Eastern Mongolia.
Ex. Proceedings,	" 44, " 1950—Crustacean Parasites, W. Indian Fishes.
Misc. Collection,	" 60, " 27—Extinct American Eland.
"	" 60, " 26—Pleistocene Camel, North of Arctic Circle.
Ex. Proceedings,	" 44, " 1946—Meduse and Siphonophoræ, Pacific O.
Misc. Collection,	" 61, " 2—Skull Extinct Horse, Central Alaska.
Opinions 1 to 25—Int. Com. Zool. Nomenclature.	
" 26 " 29—	" "
" 30 " 37—	" "
" 38 " 51—	" "
Ex. Proceedings,	Vol. 45, No. 1998—Amphipods, Pribilof Is. new sp.
"	" 45, " 1995—Isopod, Genus <i>Ichthyoxenus</i> herklots, Japan.
Misc. Collection,	" 61, " 5—New Dinosaur, Wyoming.
Ex. Proceedings,	" 44, " 1971—New sp. Crabs of the Family Octypodidæ.
"	" 44, " 1973—New Textularidæ, etc., Philippine I.
"	" 44, " 1975—Zeuglodon Skeleton, mounted.
"	" 44, " 1969—Fossil Horses, four new sp.
U.S. Herbarium,	" 17, Pt. 3—Mexican Grasses.
Bulletin 81—Synopsis of the Rotatoria.	
Ex. Proceedings,	Vol. 45, No. 1985—Silurian Fossils, Washington Co.
"	" 45, " 1989—Simple Ascidians, N.W. Pacific.
"	" 45, " 1990—Mammals, Altai Mts., 1912.
"	" 45, " 1993—New Land Shells, Philippine I.
"	" 45, " 2000—Two Fossil Insects, Florissant, Colo.
"	" 44, " 1955—Fossil Insects, Florissant, Colo.
U.S. Herbarium,	" 17, Pt. 1—Lichen Flora of S. California.
"	" 17, " 2—Tropical American Ferns, No. 4.
"	" 16, " 9—Genus <i>Epiphyllum</i> and its Allies.
Ex. Proceedings,	" 45, No. 1978—Giant sp. Mollusean, g. Lima, Philippines.
"	" 45, " 1982—Fossil Coleopters, Florissant, Colo.
"	" 45, " 1983—Philippine Mollusks, g. <i>Dimya</i> .
"	" 45, " 2002—Diagnoses of New Shells, Pacific O.
"	" 45, " 1996—Some New Hawaiian Cephalopods.
"	" 41, " 1879—Osseous and Horny Tissues.
"	" 45, " 1976—Treeshrews.
"	" 45, " 2007—Beaked Whale, North Carolina.
"	" 46, " 2026—Crinoid, g. <i>Himerometra</i> .
Misc. Collection,	" 61, " 1—White Rhinoceros.
"	" 61, " 17—New Races of Ungulates, Africa.
"	" 61, " 19—New Races of Carnivores, Africa.
Ex. Proceedings,	" 46, " 2009—Fossil Crinoids.
"	" 40, " 2006—Mollusks, Bahama Islands.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bull. No. 22—Game Laws for 1913.

Biol. Survey, No. 35—N. A. Fauna: New Mexico.

Farmers' Bull. No. 525—Raising Guinea-pigs.

- Biol. Survey, Circular No. 92—Protection of Birds.
 " " " 93—Protection of Birds.
 Farmers' Bull. No. 513—Fifty Common Birds of Farm and Orchard.
 Biol. Survey, Bull. 45—North American Herons and their Allies.

DOMINION GOVERNMENT PUBLICATIONS.

- Memoir No. 35, Geol. Survey—Reconnaissance along the Transcontinental Railway in Southern Quebec.
 " " 17 E—Larder Lake District, Ontario.
 Bull. " 16, Dep. of Agric.—Health of Animals Branch: Warble Flies.
 Memoir " 37, Geol. Survey—Atlin District.

BROOKLYN INSTITUTE.

Report for the year 1912.

CALIFORNIA ACADEMY OF SCIENCES.

- Proceedings, Vol. 111, pp. 187-258—Reptiles and Amphibians of China, Japan, etc.
 " " 1, " 431-446—Expedition to Galapagos Islands, 1905-6.

UNIVERSITY OF CALIFORNIA.

- Zoology, Vol. 11, No. 6—Pycnogonida from California.
 " " 11, " 5—Sagita, San Diego Region.
 " " 11, " 4—Control of Pigment Formation in Amphibian Larvæ.
 " " 10, " 9—Mammalian g. *Sorex*, West Central California.
 " " 10, " 10—Birds and Mammals, San Jacinto Area, Southern California.
 " " 11, " 9—California Schizopoda.
 " " 11, " 10—Copepoda of San Diego Region.
 " " 12, " 1—Geese of the San Jacinto Valley, California.
 " " 12, " 2—California Pocket-gopher.
 " " 13, " 3—Reptiles of the San Jacinto Area, Southern California.

DETROIT MUSEUM OF ART.

- Bulletin, Vol. VII., No. 2.
 " " VII., " 3.
 Annual Report, 1912.
 " " 1913.

PENNSYLVANIA MUSEUM.

- Bulletin, July, 1913.
 " April, 1913.
 " October, 1913.
 Annual report for 1913.

UNIVERSITY OF PENNSYLVANIA.

- Museum Journal, Vol. III., No. 4—December, 1912.
 " " " IV., " 1—March, 1913.
 " " " IV., " 2—June, 1913.
 " " " IV., " 3—September, 1913.

MANCHESTER MUSEUM.

Pub. No. 74—Report, 1912-13.

OHIO AGRICULTURAL EXPERIMENT STATION.

- Circular 129—Sweet Clover.
 " 130—Tree-planting on School Grounds.
 " 132—Soybeans.
 " 133—Apple-diseases in Ohio.

- Circular 134—Care of Cream.
 " 137—Grasshoppers.
 Bulletin 241—County Experiment Farms in Ohio.
 " 242—Forage Crops for Swine.
 " 243—Fertilizers on Wheat.
 " 244—Sweet Clover.
 " 245—Fattening Lambs.
 " 246—Barnyard Manure.
 " 247—Nitrogen and Mineral Constituents of Alfalfa.
 " 250—Some Ohio Birds.
 " 251—Wheat-leaf Miner.
 " 248—Spraying Machinery.
 " 253—Insect Pests of the Household.
 " 256—Miami County Experimental Farm.
 " 252—Early Cabbage.
 " 257—Oats.
 " 258—Paulding County Experimental Farm.

FIELD MUSEUM.

- Zool. Series, Pub. 168, Vol. X., No. 9—New Peruvian Mammals.
 " " 166, " X., " 8—New Species Fishes from Panama.
 " " 163, " X., " 7—New Fishes from Costa Rica.
 " " 161, " VII., " 13—Contents and Index, Vol. VII., Nos. 1-12.
 Report Series, Pub. 165—Annual Report for 1912.
 Anthropol. " 162, Vol. XII., No. 1—Chinese Pottery.
 " " " XIII., " 1—Turquois in the East.

AMERICAN MUSEUM OF NATURAL HISTORY.

- Ex. from Bull., Vol. XXXII., Art. XXIV.—Mammals of Korea.
 " " XXXII., " I.—Mammals Northern Malheur Co., Ore.
 " " XXXII., " XXXIX.—S. American Muridæ.
 " " XXXII., " XXXVI.—American Mudidae.

COLORADO AGRICULTURAL EXPERIMENT STATION.

- Vol. XIII., No. 4—Practical Value of Birds.
 Bull. 186, May, 1913—Fixation of Nitrogen in Colorado Soils.

WAGNER FREE INSTITUTE OF SCIENCE.

- Annual Announcement, 1913-14.
 Transactions, Vol. VII.—July, 1913.

MISCELLANEOUS PUBLICATIONS.

- New Jersey Ag. Exp. Sta.—Report of Entomological Department, 1911.
 Carnegie Museum, Pittsburg—16th Annual Report, 1913.
 Kingdom Papers, No. 13—British Protection, Behring Sea Seizures.
 " " " 15—Permanent Naval Policy.
 " " " 16—Canning Policy or Monroe Policy.
 Cincinnati Museum—Annual Exhibition American Art, 1913.
 " 17th Annual Exhibition of the Society of Western Artists, 1913.
 " Catalogue, 17th Exhibition of the Society of Western Artists, 1913.
 " 32d Annual Report.
 Michigan Academy of Science—Reprint, Lepidoptera.
 The Numismatic and Antiquarian Society of Philadelphia—Proceedings, 1910, 1911, 1912.
 Royal Society of Canada—Bibliography of Canadian Geology.
 Reprint from Geographic Magazine—Monarch of the Canadian Rockies, Walcott.
 Drexel Institute—Prospectus of Library School.
 City Art Museum, St. Louis—18th Annual Exhibition of Water Colours.
 " " " Paintings owned in St. Louis.

-
- City Art Museum, St. Louis—8th Annual Exhibition American Paintings.
 " " Annual Report, 1910, 1911, 1912.
 " " 7th Annual Exhibition.
 " " Philip Little Paintings.
 Minneapolis Society of Fine Arts—Report, 1913-14.
 Bristol Museum—Report, 1913.
 University of Michigan—Vol. XV., No. 9 : Zoology.
 Portland Art Association—Report, 1913.
 " Art School—Report, 1913.
 Revised List of Birds of Central N.Y., by Frank R. Rathbun.
 Grand Rapids Public Library—Report, 1911.
 N.Y. Zoological Society—Bulletin, 1913.
 Museum of Fine Arts—Egyptian Acquisitions.
 Oakland Free Library—Report, 1913.
 On "Tick Paralysis," by Seymour Hawden, D.V.Sc.
 "The Collector," N.Y., Nov., 1913.
 Syracuse Museum—Report, Sept., 1913.
 Charleston Museum—Birds of South Carolina.
 " " —Mollusca of South Carolina.
 Royal Scottish Museum—Guide to Collection of Egyptian Antiquities.
 " " Guide to Scottish Geology.
 " " Guide, Livingstone Centenary Exhib.
 " " Report for 1912.
 The Commercial Museum, Philadelphia—Handbooks to the Exhibits.
 U.S. State Board of Agriculture—Massachusetts Annual Report, 1912.
 Proceedings of American Assn. of Museums, Vol. VII., 1913.
 John Crearer Library—Handbook, 1913.

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