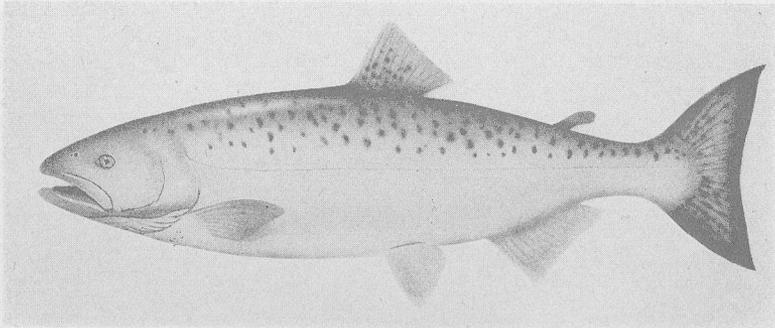


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Spring salmon.

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THE VICTORIA NATURAL HISTORY SOCIETY

Vol. 10, No. 3September, 1953SOME NOTES ON VANCOUVER ISLAND SALAMANDERS

by Richard Guppy, Wellington, B.C.

(The first part of this article appeared in the May copy of the Naturalist)

LONG-TOED SALAMANDER Ambystoma macrodactylum

This species evidently occupies a wide range on Vancouver Island, though I have not come across it on the west or North-east coasts. I have found it frequently around Wellington. Here they breed in swampy ditches, which often dry up in summer. I have found small transformed specimens under bits of wood in the beds of these dried ditches. Some individuals breed every year in pot holes in the rocks, above Englishman River Falls near Errington. On the Forbidden Plateau I found one specimen under a stone near Panther Lake, altitude probably over 4000 feet. On several occasions I saw adults in snow pools on Mount Arrowsmith, but I found no spawn or larvae there.

Of sixteen partly grown larvae taken in September, six transformed within a month. The remainder were still gilled next spring and were turned into a garden pool. While kept in quart jars they had very little cover; they did not seem wary, and fed freely while being watched. They came frequently to the surface, ejecting a bubble of air, as mature newts do. This seems to indicate that the oxygen supply was inadequate. But they did not appear to be forced into transforming, and the removal of nearly all the water from one jar, had no effect either. After gaining freedom in the pool they immediately assumed an entirely nocturnal existence. With a flashlight at night they could be spotted, but never otherwise. While I was away in June, the pool went nearly dry. Whether the larvae were eaten by snakes or transformed I cannot say.

RED-BACKED SALAMANDER Plethodon vehiculum

This is the commonest salamander around Wellington. I have also found it on the West Coast, but not so frequently. In September I set out numbers of jars to catch beetles,

and both *Plethodon* and *Triturus* often fell into these traps. Evidently they are attracted by the insects struggling in the jars. Though the traps were visited every day these salamanders were nearly always dead. Apparently either alcohol or acid in the fermented fruit used as bait kills them on contact.

CLOUDED SALAMANDER *Aneides ferreus*

An intriguing problem is the way in which these arboreal salamanders find a niche in sound trees at a considerable height from the ground. On two occasions after felling sound maple trees which had rotten spots high up I found *A. ferreus* in the cavities. Do they patiently climb tree after tree, to a height of thirty feet or more, looking for a suitable home? Or can they in some mysterious way detect the cavities from the ground?

On the West Coast, *A. ferreus* lives under the bark of dead hemlocks a dozen or more to the stump. No other salamander in any locality have I found in such abundance. Ova I have found in July, very late for amphibians, though doubtless a long incubation period partly accounts for this.

RED SALAMANDER *Ensatina eschscholtzii*

This terrestrial salamander appears to be very scarce on Vancouver Island. I have found only two specimens, both near Wellington. One of these I found under peculiar circumstances; it was resting quietly on the bottom of a small lake, in about one foot of water. Since the bank was level and gently shelving, it certainly could not have fallen in accidentally, and likewise could easily get out. This individual was found at the end of a long spell of dry weather, and the shore line of the lake at that spot was rocky with almost no soil. The salamander, however, could easily have found patches of swampy ground had it preferred that method of obtaining moisture. The accounts of the habits of *Ensatina* in Stebbins' "Amphibia of Western North America" suggests that this genus is adapted to survival in rather dry localities, and may not hesitate to resort to submergence in order to replenish its body fluids.

SOME NOTES ON THE FEEDING OF SALAMANDERS

Most salamanders can easily be observed feeding in captivity. Even when first taken they show little concern over being watched, and after a few weeks lose all fear. The main reaction of the observer is likely to be wonder that in their natural state they ever get anything to eat. *Triturus* are

particularly comical. All their actions are extremely deliberate and they seem to have no idea of the possibility that a prospective victim might have some instinct for self preservation. As a result the meal usually strolls away while they are getting ready to grab. I never yet saw a terrestrial newt catch even the most sluggish arthropod.

Any salamanders over which I am particularly fussy I hand feed with earthworms. These can be tied near one end with thin string and dangled before the amphibian. Once the worm is seized it will not be easily relinquished. A sharp pull on the string will break it off. Salamanders that have been in captivity a month or so will take food from one's fingers.

Ambystoma are more active in pursuit of prey. *A. macrodactylum* when hungry might almost be described as energetic. Still they can catch only the most sluggish insects. Larvae or aquatic adults have much less trouble; in the water they lose some of their sluggishness. It is doubtful though, if *Ambystoma* feed in the water once they have transformed to the terrestrial form. On the other hand *Triturus* feed regularly during the breeding season, while in the water.

Half-grown larvae of *A. macrodactylum*, confined two or three together in quart jars, bit off each other's feet and tail, until in one case death resulted. This cannibalism does not seem to occur at all when the animals have more space. These larvae are always on the watch for floating insects, and will rise to inspect any small objects on the surface. However, they are not adept at grabbing such food; the refraction of light seems to confuse them. Insects such as *Trichoptera*, which easily take flight from the water, will never get caught.

I have never been able to observe the feeding of terrestrial species. I believe that they are very strictly nocturnal, and are disturbed by any sort of illumination which would allow them to be watched.

BIRDS OF CARMANAH

by E. Bruce Irving,
(Concluded from the May issue)

Land Birds: The following may be taken as a complete list of all land birds noted:-

Mourning Dove: These seem to have been of rare occurrence. We had one feeding in the chicken run, punctual for meals, for three or four days; and two or three times had a single bird in the garden. An old-time resident informed me in 1951 that that was the first she had ever seen. And an Indian 'phoned me excitedly in 1952 to come and identify a bird he had never seen before. There were 2 close to the village about that date.

SNOWY OWL: - - In the year 1950 we had a plague of mice throughout the summer and fall which may or may not account for the invasion of Snowy Owls late in November. They were generally seen on the beaches near where fresh water came in. Several were eventually found dead on the beaches, and in nearly every case these were suffering from a broken wing.

Screech, Saw Whet and Pygmy Owls were observed but despite the fact there was always someone on duty all through the night very few were seen.

Nighthawks were seen at the Light on two occasions, 1951 and 1952, and were reported to be common at the top end of the Nitinat.

Swifts: Half a dozen were seen leaving the country at their best speed, July 13th, 1951. Prior to that only one had been noted, inspecting our property.

Rufous Hummingbird: On December 8, 1950, after nine weeks of really foul weather we had a beautiful cock bird in the garden for most of the afternoon - the thermometer then reading 45 degrees.

Eastern Kingbird: We came to look for this bird regularly, both coming and going. In August 1951 we had one making himself quite at home in the garden for five full days. Several times a single bird would stay for a day or two.

Western Kingbird, not so frequent a visitor as the last mentioned.

Flycatchers, Trail's and Western, Richardson's Peewee and Olive-sided all regular migrants - some remaining around the garden or bluff for several days.

Horned Lark: Two of us are morally certain we saw this bird on the beaches, but unfortunately there is no written record.

Violet-Green Swallow is our common swallow. It nests over the door of Clo-oose Post Office in a box, and is almost the only one seen.

American Rough-Winged: A pair were seen on the beach, June 1st, 1951.

Barn Swallow: Very few seen at any time, and these not in large numbers. A single bird going out June 7th, 1951, passed right over us - intent on his journey.

Blue Jay, April, 1951, "Joshua Edgar, Clo-oose Postmaster and native of clo-oose, volunteered the following: a few days ago his wife drew his attention to a strange bird, in company with a dozen Steller Jays. His description not only fitted the Blue Jay, but his wife made the statement that the bird was a Blue Jay, and that she had seen them at Yakima whilst berry picking".

Steller's Jay fluctuate in numbers.

Magpie: On April 28th, 1952, one was sighted; there is reason to believe there was one, or more, in the vicinity of Clo-oose in May 1949.

Clarke's Nutcracker was reported seen near Cheewhat River, Feb. 1, 1950.

Mockingbird: August 1948; May 5, 1950; and November 2, 1950. On each occasion a single bird was seen travelling along the beach, and on closer examination, taking refuge in the bush. Hermit and Russet-backed Thrush. During the summer of 1952 these birds passed through the station.

Wilson's Thrush remained to nest, and seemed the common member of the family, locally, all summer.

American Pipit: These are to be met with on the beaches, amongst the numerous sparrows, April 22, 1951, whilst up the Cheewhat River we saw some half dozen in spring plumage.

Cedar Waxwing were regular visitors, and even nested close to the Light. They brought up their families in or around the garden.

Northern Shrike: Finally identified May 1951, after being a bird of mystery off and on since December.

Vireos seldom seen - though one was captured, and turned loose, in the Paint Shop.

Warblers: Orange-crowned, a regular boarder.

Yellow Warbler, generally travel by night in varying sized flocks, and are seen on the Lantern. A few may stay for a morning, at most. In 1952 a pair nested near the Engine Room. (Did you ever see a Yellow Warbler sitting on a chimney pot?)

Myrtle and Audubon's may rest from a few minutes to a few hours.

Black-throated Grey: June 11, 1951 a pair settled in the fruit trees about 6 feet from where we stood in the sitting room. The cock tried to fly through the glass of the window. Seen for about 5 minutes.

Townsend's sometimes nests around the Station. Generally travels with the Black Caps.

Macgillivray's most often seen, in company of Yellow Warblers, on the Light at night.

Longtailed Chat: A specimen was collected October 26, 1950 and forwarded to the Provincial Museum. (First specimen record for Vancouver Island)

Black-capped Warbler (Pileated) nests wherever a suitable location is found.

Western Meadowlark: A single specimen was seen on two or three occasions in six years; always in the fall migration.

Yellow-headed Blackbird: A single, female, specimen seen for a few minutes May 16, 1951.

Red-wing Blackbird, regularly at Clo-oose.

Bullock's Oriole: August 26, 1952, specimen, female, collected and forwarded to the Provincial Museum. (First specimen record for Vancouver Island)

Brewer's Blackbird: Sometimes singly, sometimes a pair.

Yearly.

Cowbird: As the last mentioned.

Western Tanager: Generally pass through, with hardly any halt on way up - but may spend several hours, or even days, on way down. Go up as pairs, and return as families, generally speaking.

Black-headed Grosbeaks: August 24, 1951 a pair spotted, with field glasses, in tree top. A short halt in their journey.

House Finch: First noticed January 13, 1952 - seen in the garden on 13th and 15th of January and 3, 5, 6, 8, and 16th of February 1952, both male and female - though male noticed more often.

Red Polled Linnet a rare visitor.

Pine Siskin, Erratic. Sometimes in large flocks, and again a pair hung around the garden all one summer, entirely alone.

American Goldfinch: Nesting at Clo-oose, and regular visitors.

Red Crossbill: Apparently nested locally in July 1951, and a case of "a feast or a famine". The fishermen on the NitiNat

complained that they were so numerous, and so noisy, it was impossible to sleep.

In connection with all the foregoing "purple" birds it is of interest that they were absent in 1950, except Crossbills, but during the winter 1951-1952 they were all very much in evidence, even unto the House Finch, until then a stranger.

Savannah Sparrow: As a rule this bird follows the beach. At night they were often attracted to the Light, but by day it was only a very casual one we saw in the garden. There must have been two or three subspecies. (It is often none too easy to differentiate colours by the lantern.)

Slate-colored Junco: December 3, 1951 amongst a score of Oregon (the regular visitor) one, remained two or three days, and was then reported as passing through Clo-oose.

Tree Sparrow: Only three or four seen, altogether. (Possibly Lincoln).

Chipping Sparrow: Every year one or more single birds were to be found around the buildings, and in the garden, for a day or two.

Fox Sparrow: Generally only noticed in the light going up, and then travelling singly. A bad-tempered, bullying bird from my observations when he was with other and smaller birds on the footboard. Returns with family, as often as not. Does very little loitering on the beaches.

Song Sparrow: Probably two or three subspecies to be met with on the beaches. Generally two or three in residence all the year.

Other birds observed include band-tailed pigeon, kingfisher, red-shafted flicker, pileated woodpecker, yellow-bellied sapsucker, red-breasted sapsucker, hairy and downy woodpecker, raven, crow, chestnut-backed chickadee, nuthatch, brown creeper, dipper, house wren, winter wren, robin, varied thrush, mountain bluebird, western bluebird, golden-crowned kinglet, ruby-crowned kinglet, California purple finch, pine grosbeak, spotted towhee, white-crowned sparrow and golden-crowned sparrow.

COMMENTS ON BRUCE IRVINGS 'LAND BIRDS OF CARMANAH'
by J. O. Clay.

EASTERN KINGBIRD: 'Springly migrant and summer visitor west of the Cascades' (Hoffman)

WESTERN or ARKANSAS KINGBIRD: 'Rare or casual west' (Dawson & Bowles)

WRIGHT'S FLYCATCHER: 'Migrant at low levels' (Hoffman).
 BLUE JAY (Perhaps California Jay) 'California Jay of regular occurrence along banks of Columbia' (Belding)
 MAGPIE: Unlikely, as it is a bird of the 'East side'

(J.O. Clay.)

WESTERN WILSON'S or WILLOW THRUSH: 'Keeps East of Cascades' (Dawson & Bowles).

LONG-TAILED CHAT: First recorded specimen for Vancouver Island (Carl).

BULLOCK'S ORIOLE: 'Rare or casual West' (Dawson & Bowles) 'Puget Sound Region' (Hoffman)

HOUSE-FINCH: A possible continuance of the California-Eastern and Western Washington, South-west British Columbia curve of migration.

SONG-SPARROW: Several species only on migration.

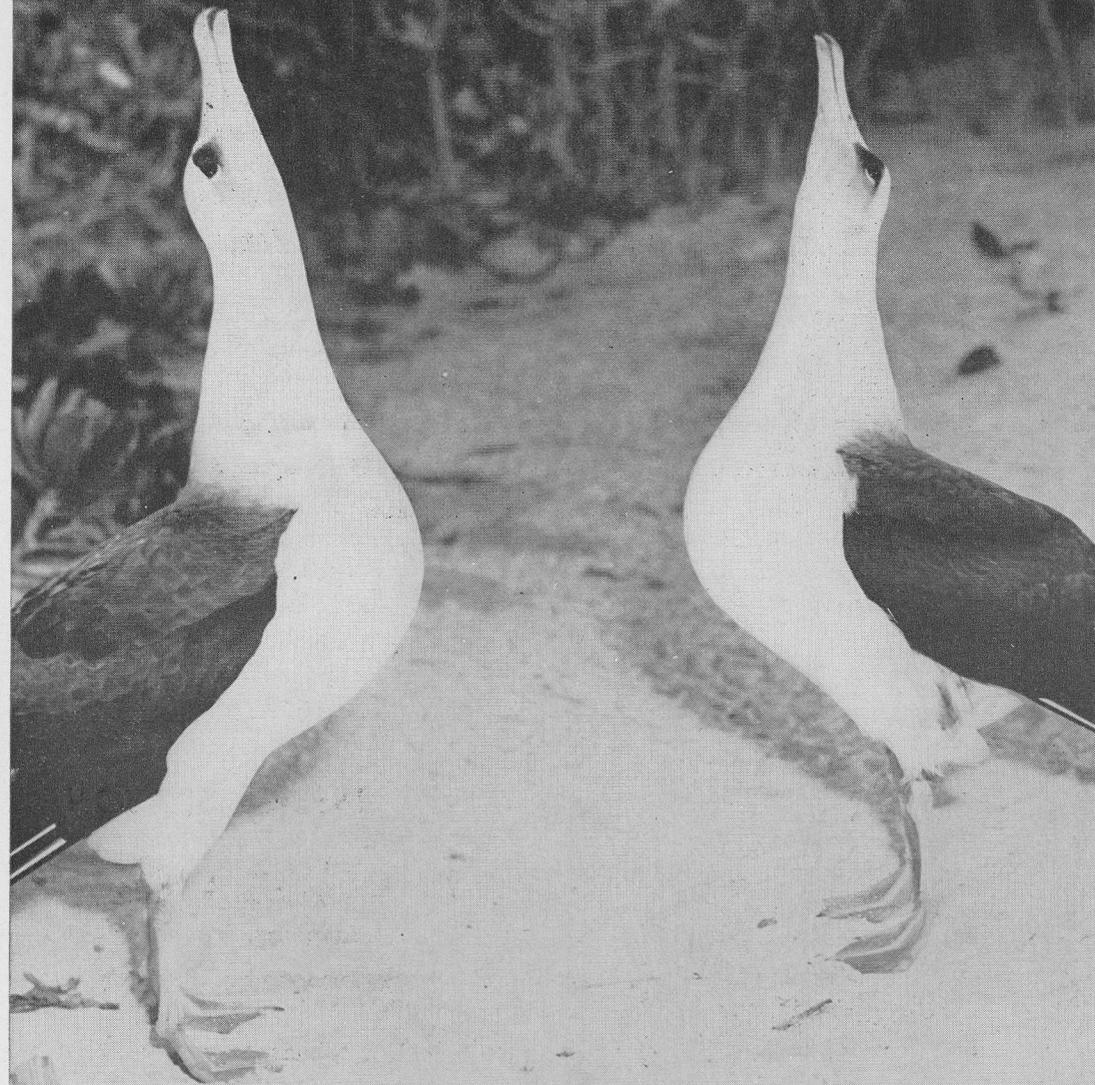
P.S. It may be that individual birds sometimes lose their sense of orientation and then travel to the farthest coast whilst under the spell, hence such birds as California or Eastern Blue-Jay, Western Wilson's Thrush, Magpie, Chat, Cowbird, Oriole, etc.

BIRD GROUP MEETING: Bare Island
 by J. O. Clay

On a cool, showery morning in June, thirteen members met at Sidney to make a trip amongst the islands in the gulf. Bare Island again was visited. A pair of herons flew from the trees at our arrival, though no nest was seen. An unusually large number of gulls were nesting this season (Glaucous Winged), some being situated everywhere among the grasses or even under bushes of rose and choke-cherry. Young gulls were in the pipping stage or a few days hatched. Baird Cormorants were nesting in good numbers on the steep cliff ledges, many eggs already laid. There were three colonies of Double-crested Cormorants, their numbers yearly increasing. About 55, 25 and 65 nests were counted, including both old and tenanted. Several of the latter were decorated with tips of fir. Only 2 or 3 eggs of the Double-crested were laid at this time.

Little flocks of Pigeon Guillemots flew constantly down to the sea to watch the human intruders from afar. Others were returning in batches to alight on the great boulders on the shore, very pigeon-like, their bright red

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1953-54 SEASON

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ALEXANDER SPRUNT, Jr.

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Friday, October 30

CLEVELAND P. GRANT

*"Wildlife of Marsh
and Mountain"*

Saturday, January 30

ROBERT C. HERMES

"Once Upon An Island"

Saturday, March 6

LORUS J. MILNE

"Panama Venture"

Wednesday, May 12

Garden Sanctuary Northern California, before man changed the landscape to suit his needs (or his notion of his needs) and after. Man in relation to his environment. Changes that result when he takes up habitation. From buckeye, live oak and bay to eucalyptus and pine. From thrasher, road runner and grey squirrel to robin, dove and fox squirrel. An intelligent wildlife and human interest colour film by Laurel Reynolds of Piedmont, California.

Wing Havens Sanctuary! Sanctuary! The colourful action sequences of this film reveal the living results of wildlife protection. Rich reservoir of bird, plant and mammal life, in sanctuary areas. The glorious wilderness comes to life on the screen. An inspiring colour motion-picture programme presented by the well-known naturalist, Alexander Sprunt, Jr., of Charleston, South Carolina.

Wildlife of Marsh and Mountain

Magnificent colour motion pictures of wildlife—including water fowl at their nesting areas, shore birds, grebes and hawks, as well as antelope, deer, buffalo, moose, caribou and bear. Beauties of the marsh and mountain combined in a film of technical excellence by Cleveland P. Grant of Mineral Point, Wisconsin, noted lecturer and wildlife photographer.

Once Upon an Island Once upon an island there's always a special charm and interest to the person who has crossed to it. So too for the birds and animals that live upon or about islands. Eider ducks, puffins, Arctic and Caspian terns, murrets, whirligig beetles, seals and whales—these and many others are leading actors in this colour motion picture by Robert C. Hermes of Buffalo.

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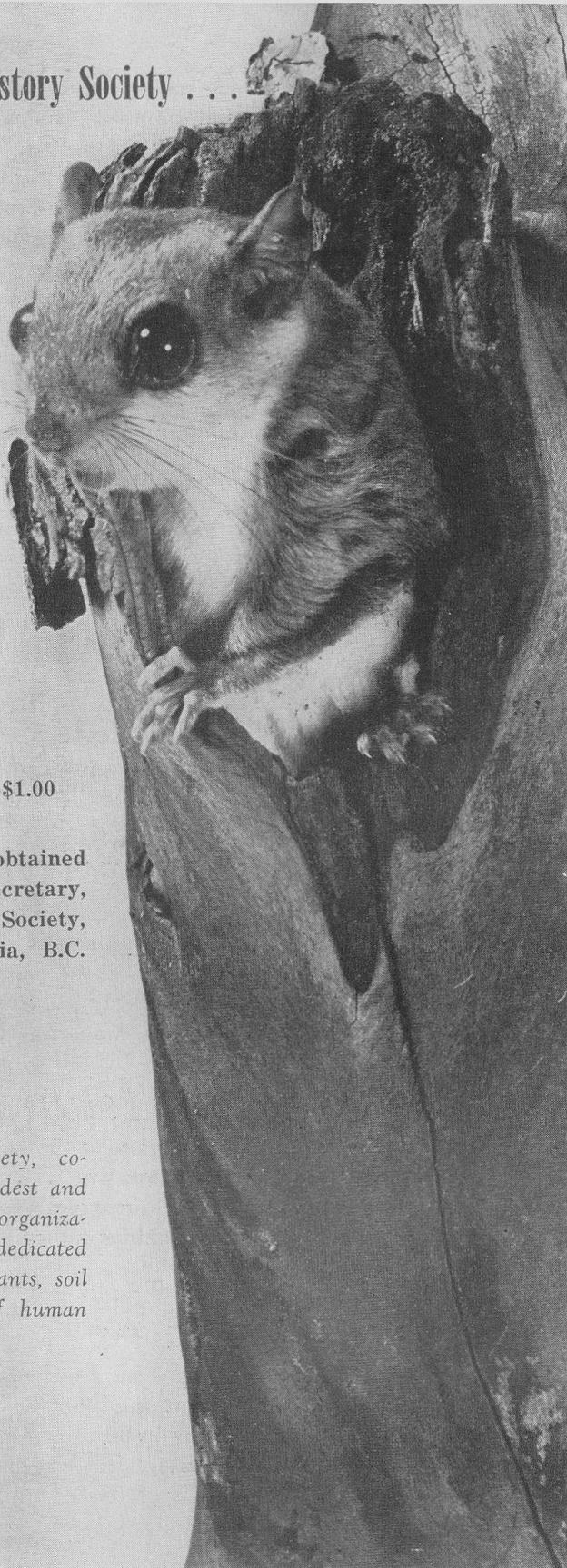
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LAYSAN ALBATROSS
LEWIS WAYNE WALKER

RIVER FOG
CLIFFORD MATTESON

FLYING SQUIRREL
ROBERT C. HERMES



legs and feet strongly contrasting with the black and white of their summer plumage.

We were greeted coming and going by a pair of Oyster Catchers, noisily apprehensive of our visit. A pair of puffins flew over the sea in great circles to await our departure. Two pair of song sparrows were seen, also several dozen crows, some of which were busy carrying eggs away from the rock ledges.

A Field meeting of the members of the bird group was held on Saturday, August 15th. Twenty-five members were present, and met at Clover Point at 9:45 a.m. Shore birds, now moving south, was the main objective.

At the outset they were fortunate in being able to observe two Wandering Tattlers as they fed on the rocks and in the pools just below where the party were standing. Five species of gulls were seen here; Glaucous-winged, Short-billed, Bonaparte, California and Heerman.

The next point of interest was the rocks at the east end of Shoal Bay, where twenty Surf Birds and about the same number of Black Turnstones were seen.

Following the coast around Oak Bay the party stopped at Bowker Creek where there were four Sanderlings and a few 'Peeps'.

The party had their lunch on the Gordon Head cliffs overlooking the nesting site of the Baird Cormorants. On these perpendicular and sometimes overhanging cliffs the cormorants raise their young, shielding them from the intense heat of the sun by their outspread wings. There were about thirty nests and at the time of this visit, not less than eighty-five young, some of them three-quarters grown, but all of them still clinging to the cliff.

The party then went on to Cadboro Bay, where the Navy Regatta was in full swing. The sight of not less than fifty yachts, dingies, naval cutters, etc. maneuvering in the stiff breeze was most exciting and enjoyable, while just in front of the party many groups of Western and Least Sandpipers were feeding on the edge of the rising tide.

Thirty-three species of birds were identified.

J. O. Clay.

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Mrs. H.Shoebottom	Gibson Howe Landing, B.C.		
Miss Sara E. Spencer	3610 Cadboro Bay Rd., Victoria, B.C.		

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The Rev.& Mrs.T. Taylor	Box 3503, R.R.1, Metchosin Rd., Victoria, B. C.
Mrs. Walker L. Taylor	Towner Park Rd., R.R.1, Sidney, B.C.
Mr. W.T.Tildesley	118 Wildwood Ave., Victoria, B. C.
Miss E.M. Vernon	1162 McClure Ave. " "
Mr. & Mrs. R.M.Wellwood	1121 Munro St. " "
Mr. E.D. Wood & family	R.R.1, Saanichton, B. C.
Mr. & Mrs. J.H.Whitehouse	1627 Hollywood Crescent, Victoria, B. C.
Mr. Thomas Widdowson	1621 Chamber St. " "
Mr. George E. Winkler	415 Scollard Bldg. " "
Col.& Mrs. E.J.T.Woodward	Box 1498, R.R.#3, " "

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1952-1953 season to September 30.

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Barker, Douglas	3850 Ascot Drive " "
Begg, Wayne	2742 Scott Street " "
Carl, Peggy, Family membership,	410 Queen Anne Heights, "
Carey, Donald	2016 Romney Rd.
Carl, David " "	410 Queen Anne Heights " "
Chope, Joyce	1028 Sutlej St. Victoria, B.C.
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Davy, Jeremy	1836 Holland Ave. " "
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Hedley, Ian	2264 Windsor Rd., Victoria, "
Hamlet, Diane	2331 Dalhousie " "
Hamlet, Derek	" " " "

(cont'd page 38)

Laundy, David	2670 Cranmore Road, Victoria, B.C.		
Lee, Edward	123 Moss Street	"	"
Lee, Francis	" " "	"	"
Lindley, Sharlene	537 Niagara St.	"	"
Livesey, Diana	52 Sylvan Lane	"	"
Livesey, Joan	" " "	"	"
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Wade, Andrew	"	"	"
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Whale, Genevieve	" "	"	"
Wilby, Bruce	1276 Walnut Street	"	"
Wood, Clifford	Family membership		
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THE KOOTENAYS AND THE OKANAGAN

At the Provincial Museum, March 3, Mr. Geo. E. Winkler gave an address to the Geology group on the Kootenays and Okanagan districts with lantern slides of photos, taken on some of his trips. He began by giving a very informative talk on the Rocky Mountain Trench which forms the most striking conformation in the province, extending some eleven hundred miles from Flathead Lake, Montana, to Liard River Valley in Yukon Territory. The trench forms the Western Boundary of the Canadian Rockies and its alignment is parallel to the trend of the Rockies. From the West the view is much more striking than from the East on account of the depth of the trench and the sheer walls rising from five thousand to seven thousand feet. The width of the trench varies from two to ten miles, but strange to say, the rivers that occupy it do not all flow in the same direction. Most of them flow south, but the Fraser and the Columbia, within the trench, flow north westerly.

The trench is thought to have originated in the crustal movements involved in the elevation of the Rocky Mountains which form a range younger than either the Coast or Selkirk ranges. All of these ranges appear to have been built by movements from the West.

Mr. Winkler illustrated this part of his talk with a new map that has just been published by the Provincial

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JUNIOR PAGE

Editor: Bruce Colvin

Phone: Garden 2749

Soft the breezes blow
While the robins fly low,
Here is May for the chipmunks say
Here are the breezes for the song ceases.

Whither the waters run cool
Trees have breezes.
The trees all come bare.
The birds all fly away
While the warmth ceases
To natures call they obey
And to the south wing their way.

Joyce Chope aged eight.
April 1953.

Answers to cross-word puzzle in May magazine.

DOWN 1. killdeer. 2. bufflehead. 3. heron.
4. crow. 5. towhee. 6. widgeon.
7. geese. 8. sooty(grouse). 9. cob.
10. raven.

ACROSS

12. owl. 13. coot. 14. glaucouswing.
15. grebe. 16. lark. 17. murre.
18. tern. 19. jay. 20. loon.
21. wren. 8. scoter.

The first meeting of the Junior Natural History will be on Saturday, September 12, at 10 o'clock. Then we will fix another day for the meetings as the Museum offices are closed on Saturdays now. Our meetings are from Sept. until Easter and the membership fee is one dollar for one and 50 cents for each additional brother or sister.

NOTICE OF MEETINGS

Saturday
Sept. 5th:

BIRD GROUP: Meet at the Monterey Cafe at 9:30 a.m. or at Sterne's Garage, East Saanich Road about one mile north of airport at 10:15 a.m. Bring lunch. For transportation communicate with Mrs. F.A. Sherman.

J.O. Clay.

Tuesday
Sept. 8th:

GENERAL MEETING:
Speaker: Mr. Geo. J. Alexander,
Deputy Minister of Fisheries,
Subject: "Some Problems Involved in Conservation in B.C."
This Meeting to be at Provincial Library at 8 p.m.

Tuesday
Sept. 22:

MARINE BIOLOGY: Meeting to be held at the Biological Laboratory, Victoria College, at 8 p.m.
Subject: "Coelenterates and Scythozoa."

J. A. Cunningham.

Continued from page 38:

The Kootenays and the Okanagan

Government, excellent in its portrayal of geographic features of the province.

The lantern slides that were shown covered a large area, extending from the Columbia River in the northeast to the Similkameen and the Okanagan in the southwest.

The speaker gave a number of personal reminiscences, some of a humorous character, that helped to make the lecture entertaining as well as instructive. One anecdote concerned an East Kootenay prospector, an ex-Lieut. Governor and the late Wm. Fleet Robertson who served many years as Provincial Mineralogist.

Professor Lowe expressed the thanks of the audience and the hope that Mr. Winkler would at some future date give the group a talk on the "Life of a Prospector".

J.H.W.

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To