

The
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(Courtesy Provincial Department of Mines.)

Meanders and Oxbows (Tatshenshini River, Cassiar District).

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VICTORIA NATURAL HISTORY SOCIETY
Victoria, B.C.

Cut-throat Trout

Of our two native trouts, the rainbow (including steelhead and Kamloops) and the cut-throat, the latter is a favorite with many anglers.

The coastal form of this fish is found in practically every stream and lake system accessible from the sea where it may attain a size up to 30 inches in length and 17 pounds in weight. Spawning takes place usually in the late spring. The young remain in fresh water for varying periods; some enter the sea when quite small, others apparently remain indefinitely in lakes and streams.

Away from the coast two other varieties are found, the Yellowstone cut-throat and the Mountain cut-throat. The former is native to the upper waters of the Kootenay river system including the basins of the Moyie and Elk rivers in the south-east portion of the Province and some have been planted on the coast. Mountain cut-throats are restricted to headwaters of mountain streams in central British Columbia. Both are small, seldom exceeding 14 inches in length.

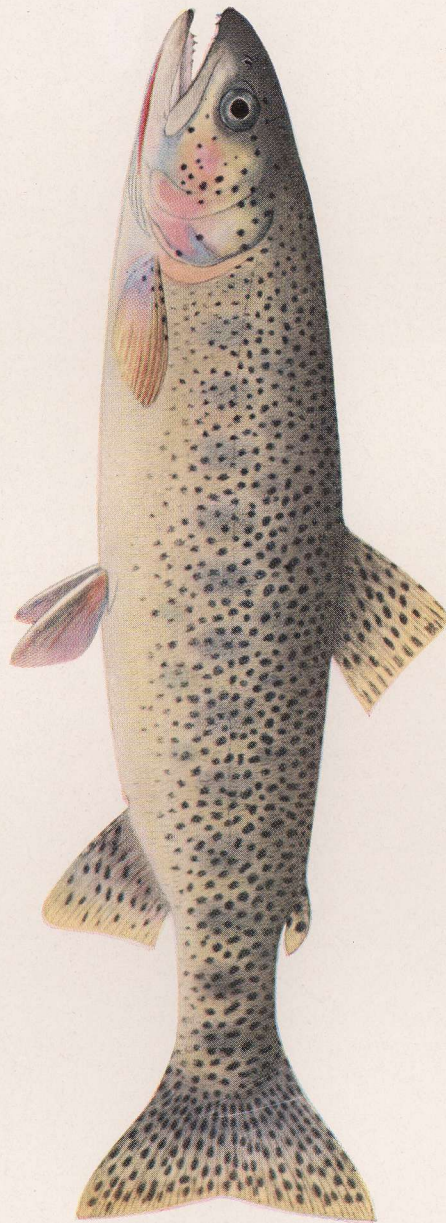
Cut-throats as a group differ from rainbows in having longer jaws, teeth on the back of the tongue and a red streak between lower jaw and isthmus (throat). They do not equal the rainbows as a game fish but they nevertheless are popular with most anglers.

G.C.C.

THE FIRST TEN YEARS

It is with a great deal of satisfaction that we now come to the publication of the March issue of the "Victoria Naturalist", completing its tenth year.

Shortly after the formation of the Society and the election of Officers certain policies were formulated among which was the idea of having some form of magazine to keep the members informed of meetings of the various groups, local



COASTAL CUT-THROAT TROUT.
Salmo clarkii clarkii Richardson.

THE FIRST TEN YEARS - Cont'd

items of interest in natural history and also as a means of holding the membership together.

Our Society was not the first of its kind to be formed in Victoria but the previous ones gradually died out and the committee's idea of a magazine for the new society held out certain possibilities for keeping the membership together, which has been born out through the years.

The matter of cost played an important part at the start as funds were very limited, and it was found necessary to solicit certain firms to sponsor advertisements to help defray costs: this was achieved through the untiring efforts of Mr. Jack Trace. Also it was hard in the early stages to get members to contribute articles, but the fact that the society is stronger, both numerically and financially at the end of its tenth year speaks well for the executive and editors, who have worked untiringly to keep the magazine interesting, which in turn has helped so largely in keeping the membership together.

A.L.M.

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(Note: Mr. A. L. Meugens, who kindly wrote the above article for this issue, was the editor of the 'Naturalist' for its first two years)

INSECTS AND WEATHER

by

W. Downes

After a cold spell one frequently hears the remark "Well anyway we shall not have so many insect pests next year". The general public indulges in a lot of wishful thinking along these lines and clings to the erroneous idea that cold weather is necessarily harmful to insects. As a matter of fact frosty weather, provided it comes when the insects are dormant, is actually beneficial to most species of insects in the northern temperate regions. Insects are attacked by a number of diseases and of these fungous diseases are particularly prevalent in mild, rainy weather.

During a cold winter these fungi cannot grow and a larger number of those insects which spend the winter in hibernation are enabled to survive and lay eggs in the spring.

Insects of many kinds spend the winter in the adult stage and some as larvae and pupae. On the approach of winter they find shelter under leaves or trash in hedgerows or in piles of rocks, in cracks in wood, under shingles or almost any conceivable spot where they will be protected from sudden changes of temperature. Cold does not bother them; they simply go to sleep until the steadily rising temperature of the spring months awakens them. Heavy rains and mild weather on the other hand destroy many insects. Those sheltering in the surface soil or where rising waters can reach them are drowned in great numbers and humid conditions encourage the growth of fungi which attack others.

The ability of insects to resist freezing is due in a great measure to certain minute bodies in their tissues, known as colloidal particles, which hardy insects possess in common with hardy plants. The name is used for want of a better one in allusion to the term colloid in chemistry; a colloid being a substance which surrounds the particles of another when in solution and when another chemical is added prevents chemical action between the two. Colloidal particles in insects and plants have the power of attracting water to them and when water is thus attracted it is said to be "bound". When water is bound to these particles it completely loses its ordinary properties. It will not freeze (until -20°C.), will not conduct electricity and can be compressed, just the reverse of ordinary water. Larvae of insects in particular contain large amounts of water and were it not for the possession of these colloidal particles the creatures would freeze solid, their cell tissues would burst, and they would perish. But under freezing conditions when any "free" water in their bodies turns to ice, the pressure is taken up by the "bound" water and the insect is unharmed.

The degree of hardiness in insects and in plants has been found to be proportionate to the number of colloidal particles which they contain. There are other factors, but this appears to be the most important one. Successive freezing and thawing is usually very injurious, but certain cutworm larvae of species found in subarctic regions have been frozen and thawed twelve times in succession before they succumbed.

During a winter which I spent in Alberta, moisture

condensed in considerable quantity on the windows of the log house. This froze solid every night and embedded the numerous bluebottle flies which had taken shelter in the house for the winter. Every morning the warmth of the house thawed them out and every night they froze again, but the process did not harm them in the least and there seemed to be just as many flies at the end of the winter as at the beginning.

Very young insects are susceptible to cold, especially young aphids, and vast numbers are destroyed by late frosts in the spring. Drought is also a serious matter. During the long, dry summer of 1951, when grasses and herbage became dry and brown early in the season in much of the coastal area, numbers of insect species were reduced nearly to the vanishing point and only managed to survive in small numbers in low-lying spots where a little moisture remained. These small colonies provided a nucleus from which various species would eventually recover their numbers. Thus these small forms of life have their problems of existence like all others, but over the millions of years that they have been present on the earth they have developed means of resistance to adverse conditions which will insure their survival long after the human race has disappeared.

THE LINNET or HOUSE FINCH

by G. M. Bell

Today, the twenty-third of January, 1954, it is snowing and a Linnet sings. So also does a Golden-crowned Sparrow, a Seattle Wren, numbers of Red-winged Blackbirds; and the notes of others may be heard. A friend on Foul Bay Road has five Meadowlarks feeding on her tray. The hardness of winter takes on the gentleness of spring. The voice of the Linnet in particular is in powerful contrast to the freezing temperature.

Lyrical and sensitive it has warmth with gayety, purity with sweetness. If the urge is biological is he considering nesting? Only a few days ago a brightly coloured male was seen placing its bill into that of a palely dressed female close beside him. Previously he had been allowed to give her face light pecks. She responded in kind to this.

Carpodacus mexicanus, to give the Linnet its technical

name, was "supposed" to migrate; but many seem to prefer year round living in Oak Bay and its environs. Since one male and female appearing at a station in Oak Bay three years ago have brought more and more, one wonders if it is because of continuous feeding of the favourite food, the birds having been nearby all along and identified as another similar species!

It is true the numbers present do vary from day to day or week to week, yet have never gone below twelve, whereas today there must be from fifty to sixty, even more; it is difficult to count them when over thirty. A few weeks ago there were not more than fifteen for several days.

A flock of these birds was recently seen at Ten Mile Point, and another was reported on Blenkinsop Road. Also on Falmouth some of them have been noted. This indicates movement, at least, unless there are many more resident here than is yet known. At no time have they been reported elsewhere on the Island.

Over 245 have been banded in Oak Bay since June, 1952. Where are they? If there were more banders we might find out. Of this number banded certainly some seem to remain at the original station, but many of the banded birds are away for months before coming back to take the place, as it were, of others who leave.

It was some seventeen years ago that Carpodacus mexicanus was first identified here; but no large flocks or numerous occasions of small groups or even of single birds have been recorded more than rarely.

There are records of this bird in the Okanagan as far back as 1932. It may even have been in the province before this.

It is so numerous in California and Mexico, that between 1930 and 1940 unscrupulous dealers were trapping and selling thousands to eastern merchants who bred the males to female canaries. The Audubon Society hearing about this immediately took steps to end the activity. Many hundreds of birds were quickly released by the commercial houses and tried adapting themselves to that part of the country. In Connecticut they seem to have been fairly successful. Strange that the bird is recorded only on the western and eastern seaboard (to my knowledge); so it is not to be considered commonplace as is the so-called English Sparrow.

In lieu of a better word, dainty describes the Linnet feeding. When one seed has been taken and requires longer

to husk than another or another which abound at his feet, the House Finch does not drop what he has and get the easier seed. He keeps the first one taken up, sunflower preferably, and it is turned round and round from stem to stern and from side to side while between his mandibles he feels it with his tongue, seeking an opening. Finally the husk falls away and the toothsome kernel is eaten. Other birds, in the meantime, may have gone through two or three more easily husked seeds while feeding beside him.

Strangely enough practically no nests have been found within the area where these birds abound in the last three years here. One of the supposed favourite nesting sites of Carpodacus mexicanus is in Boston ivy, an Ampelopsis growing on the walls of many homes in Victoria. Here where so many congregate the house is covered with this vine; yet not one nest can be found in it. As leaves are lost in the winter a nest would clearly show up, if it had ever been there.

A noticeable feature about this little bird is his aversion to alighting in the native cedar. There is a good deal of it on the property of this particular feeding station in Oak Bay, which would immediately suggest quick cover when a hawk or cat comes hunting. Certainly the English Sparrows think so; but the Linnets avoid the thick hedges and fly high, musical notes coming from them like lightly tinkled bells. They may alight in a neighbour's wild crab-apple tree, where the growth is rank, unpruned and protective, or they may go to the tall oaks further away and alight in the topmost branches. Some scatter by twos or threes in any direction till out of sight, flying higher as they go. It depends on the direction from which the hawk comes, but direction of flight has little to do with the case when the predator is a cat.

If we had a larger museum in Victoria there would be encouragement to have mounted some of our more recently placed birds, such as this one. The authorities cannot be expected to increase the display of fauna on the Island when there is no room to safely house and show it; yet it is needful that this bird and others should be shown for educational reasons. Taverner does not list Carpodacus mexicanus. Peterson and Hoffman do; but when a book of birds of British Columbia is written the description will vary from that given by both of them.

BIRD NOTES

This is the month when the early migrants will arrive. The following are the dates they were first seen in Victoria last year:

March 14th: White-crowned sparrows
 23rd: Violet-green swallows
 24th: Audubon Warblers
 29th: Yellow Warblers
 31st: Rufous Hummingbird, male.

BOTANICAL GROUP, NATURAL HISTORY SOCIETY, Jan.26,1954

A small number of the more enthusiastic members of the botanical group dared the very unpleasant weather on January 26th to hear Mr. W. A. Hubbard tell of the work of the Manyberries Range Experimental Station, Alta. This station is directed by the Department of Agriculture, Ottawa, and was established because of the need of more and better grazing land for the cattle and other stock in south-eastern Alberta. The vegetation of the area was studied in relation to the local soils and climate as well as to the needs of the animals. Irrigation was introduced and a number of more nutritious grasses were tested. Controlled grazing results were investigated. Experiments in improving the stock and in introducing new breeds of cattle and sheep were carried on, also the hybrids of cattle and buffalo were studied.

The lecture was illustrated with color photographs of grasses and other plants, land improvements, cattle, sheep, Brahma cattle, and Buffalo hybrids. A discussion followed in which most of those present took part.

C. W. L.

GEOLOGICAL GROUP MEETING, January 19th.

On Tuesday, January 19th, the geological group had the pleasure of seeing some wonderful pictures taken by Mr. Jr R. Grant, one of our members, on his recent tour of Yosemite Valley, Salt Lake City, etc.

It was most unfortunate that the weather proved so bad that only a few hardy souls turned out to see what proved to be some really excellent colour photographs, both from the point of view of subject and of technical excellence. Accompanied as they were by Mr. Grant's running commentary on his experiences during the trip, they proved to be more than interesting. Visiting Crater Lake on May 4th Mr. and Mrs. Grant found strawberry picking at its peak on the bottom lands, and when they reached the Crater, there was twenty-two feet of snow. They also visited Death Valley and Las Vegas, Boulder Dam, Bryce Canyon, etc. After showing the slides illustrating his trips, Mr. Grant showed some pictures of Victoria and the surrounding country, finishing off a very interesting evening by projecting some sections of several varieties of petrified wood.

Prof. Lowe thanked the speaker and voiced the wishes of all present that Mr. Grant would repeat his lecture so that the other members could experience their pleasure.

J.H.W.

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JOHN JAMES AUDUBON IN CANADA

by Huia Ryder

It was in August 1832 that Audubon, accompanied by his wife and one of his sons, visited Fredericton, New Brunswick, as the guests of the Lieutenant-Governor, Sir Archibald Campbell.

In May of the following year, he visited a friend, Junge Lincoln, who lived near Eastport, Maine, and from here Audubon decided to study the birds of the Bay of Fundy, which lies between New Brunswick and Nova Scotia. The following is his description of the approach to the Island of Grand Manan:

"Soon our bark passed beneath the craggy head, covered with

trees, which, because of its height seemed scarcely higher than shrubs. The prudent raven spread her pinions, launched from the cliff, and flew away before us. The golden eagle, soaring aloft, moved majestically along in wide circles. The Guillemots sat on their eggs on the shelvy precipices; the broadbreasted eider duck covered her eggs with the grassy tufts. On a naked rock the seal lazily basked, her sleek sides glistening in the sunshine, while shoals of porpoises were swiftly gliding through the waters around us. Cape after cape we passed in succession until we reached a deep cove near the shores of Whitehead Island, which is divided from Grand Manan by a narrow strait. I was anxious to study the habits of certain gulls which breed there in great numbers. We found them on their nests on almost every tree in a wood which covered several acres. What a treat was it to find birds of this kind lodged on fir trees and sitting comfortably on their eggs".

On June 6th, 1833, Audubon returned again to Eastport, where a ship named the 'Ripley' was chartered for an expedition to Labrador. He stopped at various points on the coast of Nova Scotia and at several islands. One noticeable incident occurred after he left the Magdalene Islands; a few miles from there they saw in the distance an island called the "Rock". Studying it through glasses, Audubon gazed at what he took to be a rock with the top covered with snow, but to his delight discovered it was not snow but thousands of white gannets. The Labrador trip was a huge success and lasted until August. It is interesting to note that eleven years after Audubon's visit there, the last known specimen of the Great Auk was taken, and that twenty-six years after his death (1851) the Labrador Duck was no more.

After spending three months in Labrador, Audubon left the 'Ripley' at Pictou, Nova Scotia. The friendship formed there with Prof. McCulloch and his son lasted for many years. Prof. McCulloch had a wonderful collection of great interest to the naturalist. He was able to give Audubon many rare specimens of birds and eggs. After leaving Pictou, Audubon travelled leisurely through various parts of Nova Scotia and finally reached Saint John, New Brunswick, arriving on August 29th at 2 o'clock in the morning. His stay there was short. He walked the streets by moonlight and in the morning visited a friend, by name Edward Harris, where his mail

was waiting. He left Saint John that day on a steamer, "The Maid of the Mist", for Eastport.

(Condensed from the article in the Art Bulletin, issued by the New Brunswick Museum, Christmas, 1952.)

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NOTES ON OKANAGAN BIRD LIFE

These are a few notes on the bird life on the beach in front of our dinette window this winter.

The first to arrive in October were a pair of mallards, these being old timers who had fed here before. Later on came another pair, and gradually they kept coming until now (January, 1954) we have about fifteen. Some kind friends gave us some corn on the cob, and with what we grew ourselves, along with wheat which we buy and stale bread one of the bakeries gives us, the birds have fared very well so far. We also have lots of coots, gulls, and, best of all, three visits last week from thirteen swans, which have been wintering off Okanagan Mission until the lake has frozen out some hundred yards or more, so now they visit us, and are they ever a beautiful sight, as they come so close to the shore. One day recently a goose came and fed with the ducks, the next day she brought two others, and the following day eight arrived. They came right up on the beach and ate the grain, so we don't miss much of the wild life. Of course, we have the usual flocks of sparrows, one ground sparrow among them, flickers and juncos.

Lou Knowles.

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JUNIOR NATURAL HISTORY PAGE

Chairman:
Bruce Colvin

Editor:
Roger Porter

Roger Porter again was unable to get anything from the Juniors for this page, so try to write something for him to put in the April number. Poems or little bits about what you saw or did would be interesting.

Bruce Colvin resigned as Chairman as he couldn't come in the afternoon. We will have an election for a new chairman who can come to every meeting. Bruce is very interested in any news about birds.

Here is a story about a crow. Mrs. R. Kerkham told this tale. Her son had a pet crow. He was kept free outside all day. He was quite alert and could say a few words. This bird could not make out what it was when ladies wore open-toed shoes, he would caw, caw at the toes sticking out and finally peck at them. During the summer holidays his master took him into the country. The crow looked with interest at the work being done replacing tar paper on the roof of their house there. As the old paper was being torn off he hopped along and helped (so he thought) by tearing it himself. He was still kept free. Then he started tearing tar paper off other peoples houses and the neighbors objected. His master then sent him right away to Salt Spring Island or somewhere. He continued tearing off tar paper so this story has a sad ending. Caw-caw was shot.

Mrs. Tom Hunt, Mr. Mungo Martin's step-daughter-in-law, says the herring season started out well, but when the cold snap came the net froze so hard that they couldn't cast. They had to give up working for several weeks and wait for it to thaw. Finally they got back but found that the herring run had gone. Now they will not fish until the halibut season opens. It is great fun on a seine fishing boat. The net is let out in a great circle, the bottom of it is drawn in like a string bag and cod, sole and crabs show up with all the lovely silver leaping salmon. The fishermen go into the cabin at about four o'clock and have a good feast of the freshly boiled crabs and hot strong tea. It must be fun to the fishermen as well as to the visitor as they seem to miss it when the season is over.

Saturday shows are now on, also same shows Sunday afternoon for adults. We do not meet until 1st Tues. after Easter holidays.

NOTICE OF MEETINGS

1954

Saturday

March 6:

AUDUBON LECTURE by Robert C. Hermes,
"Once Upon an Island",
at the Oak Bay Junior High School Auditorium,
2101 Cadboro Bay Road, at 8 p.m.

Tuesday

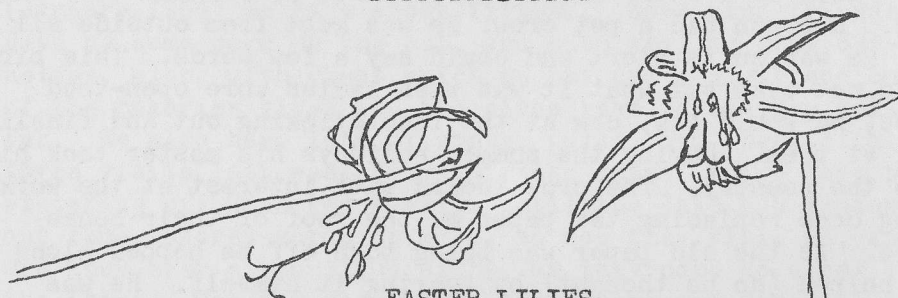
March 9:

ANNUAL GENERAL MEETING and Election of Officers.
Dr. A. O. Hayes, formerly head of the Geology
Department, Rutger's University, will speak on
'Across America', illustrated. Provincial
Museum at 8 p.m.

Tuesday

March 23rd:

MARINE BIOLOGY GROUP: Prof. Cunningham will
speak on "Tide Pool Ecology", at the Biology
Laboratory, Victoria College, at 8 p.m.

EASTER LILIES

Pointed petals in graceful whorls
Porcelain white and velvet soft,
Centered with yellow stamen clubs.
Pistil stem of pearl, breaking three fold
Curving downward at the ends, grapple like,
Points the way the petals bend.

The spring green bud is conical
Opening in six lovely arms
Spreading wide a welcome to everyone
Proud of the chaste beauty revealed.

Delicate and charming, pure delight,
Hidden deep in the forest's glades,
Shy little flower, low on the ground
Opens early to herald the spring.

Albert O. Hayes.

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