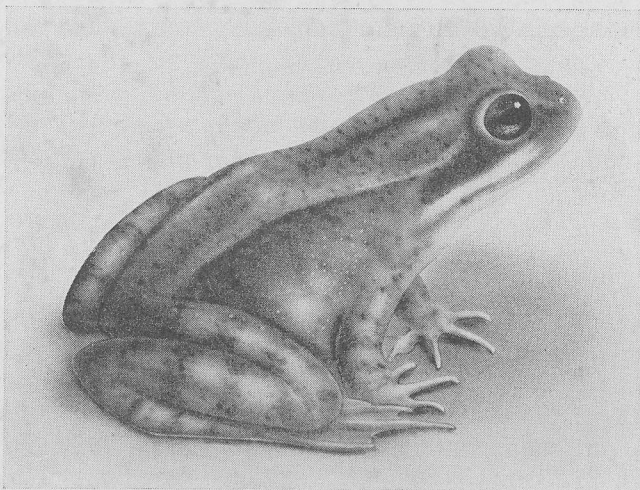


The
**VICTORIA
NATURALIST**

Vol. 8, No. 9

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Red-legged frog.

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WHAT TO LOOK FOR IN MARCH

FROGS - HERALDS OF SPRING: During most of the year frogs are relatively silent and seldom seen, but in the early spring months they come into prominence. Perhaps they are more noticeable, too, at this time because they follow the winter season which lacks the bustle and activity usually associated with other parts of the year. At any rate the frog chorus which marks early spring is a welcome sound indeed.

The songster in this area is the Pacific Tree-toad or Tree-frog (*Hyla regilla*) which congregates in temporary pools in the suburban districts. He is a little fellow, scarcely an inch and three-quarters long and varying in colour from green or grey to bronze and brown. A dark band almost invariably extends from the nostril backward through the eye and ear to the shoulder and a Y-shaped blotch is usually present on top of the head between the eyes.

The masculine gender is used advisedly since it is the male who makes all the noise. The female, alas, is dumb! The sound is produced by forcing air from the lungs over the vocal cords into a single inflatable air sac beneath the throat. At each croak the sac swells to near-bursting size, then partially subsides as the air is allowed to return to the lungs. Since the nostrils and mouth are held tightly closed during this process the same air is used over and over again. At intervals, of course, the nostrils are opened so that the air can be renewed.

While the croak of each individual frog is not particularly pleasing to our ears the chorus of many songsters blended together and mellowed by distance has a very melodious effect. Despite the apparent effort required to produce the song, the singers seem tireless; the chorus is carried all through the night without interruption unless disturbed and at the height of the breeding season, all through the day as well. The females, seemingly wooed by the sweet voice of their would-be mates, make their way

to the ponds during the period to pair off and to lay their eggs.

The Red-legged frog (*Rana aurora*) (see front cover) is less well known though fairly common on Vancouver Island and the adjacent mainland. It frequents more permanent bodies of water being found along the banks of streams or shores of lakes and large ponds. When disturbed it leaps from its hiding place into the water and swims rapidly to the bottom. If the observer is patient, after a time the frog rises to the surface where it can be easily taken in a net. In colour it is usually light brown above sometimes with a tinge of red and usually with irregularly shaped dark spots on the head and body. A dark patch is present behind the eye and a light area extends along the upper jaw from a point below the eye to the corner of the mouth. The sides of the body and the under surfaces of the fore and hind legs are conspicuously coloured red from which the animal gets its name.

The Red-legged frog does not sing in chorus as does its smaller relative. Both sexes, however, give forth a jerky cry when frightened. While this frog is a particularly shy species and consequently difficult to keep in captivity, two individuals were maintained in the Museum vivarium for what appears to be a record period of time. One lived eleven years and the other thirteen and since each was at least two years old when captured, both can be considered to be "centenarians" of their kind.

G. Clifford Carl,
Provincial Museum.

WHAT TO LOOK FOR IN MARCH

Botany: Soon the landscape will be covered with a lovely carpet of multicoloured flowers but for March there will be very little of the spectacular splendor of later spring and summer. The golden aments of the early willows and silver bells of the bird cherry will be in all their glory before the month is out and the fields will be starred with the bright blue of the first satin flowers.

W.T.

WHAT TO LOOK FOR IN MARCH - cont'd

Birds: Shortly after the March issue of the magazine is in our hands, the first migrants should be looked for. As an indication of probable dates; last year the violet-green swallow arrived on March the 18th, Audubon warbler on the 26th, and the lutescent warblers on the 31st, then on April 6th the warbling vireo appeared and the white-crowned sparrow on the 10th, with the first female rufus humming bird on the 10th. These are my dates for birds seen at Cadboro Bay. After the middle of April we should be seeing new migrants almost every day for a while.

A. R. Davidson.

FEBRUARY MEETING

After some hesitation as to its location this meeting was called to order in the Provincial Library Reading Room at about 8 p.m. Tuesday, February 12, with Mrs. Hobson, the President, in the chair.

Several matters which had received the consideration of the Executive were brought up for discussion. The first item was the matter of the Audubon Screen Tours, which had to be decided at this meeting as the contract must be concluded before another meeting could be held. Mrs. Hobson suggested that if we were going to continue the series we would be furthering the objects of the Society as written into the constitution if we were to sponsor a series of five matinees for school children in the upper grades. The President had approached Mr. English, Chief School Inspector; and had his support on the condition that there would be no cost to the School Board. With the extra fifty dollars that the next series will cost and the two hundred for the school series, our total guarantee would have to be six hundred dollars. Mr. Stewart gave a very clear and concise resume of present Audubon financial standing. Despite the inclement weather the average attendance had been the same this year as last. Financially we have a profit of \$36.29 so far this year. Together with any further gain from the next two lectures and the surplus already on hand from other years, we are assured of a surplus of four hundred dollars by the end of the current series. Mrs. Hobson considered that we could be reasonably sure of the adult series carrying itself for another year and in using two hundred of the

surplus to further the objects of the Society, we would still be in a position to meet anything but the most unusual contingency. The idea of school matinees had the complete support of the Executive and all the discussion from the floor of the meeting was favourable to the project, so it was not surprising that a motion to approve signing a contract with the National Audubon Society for a guarantee of six hundred dollars was passed unanimously.

With the problem of the Screen Tours settled a problem that has probably been given some thought by most of the members was brought up by Mr. Stewart. This was the need for films and lectures on Nature and conservation, equal to or better than the Audubon Screen Tours but produced in Canada and emphasizing our own problems and picturing our own terrain with its own particular flora and fauna. Dr. Carl assures us that we do not, at present, have films of the quality or quantity necessary to support a project of the size, but having seen the work of such men as R. Bird of Regina, and Dr. Carl himself, and knowing the large body of first class natural scientists available in Canada, it seems to me quite possible of accomplishment. In view of the recommendations of the Massey Report and cultural value of a more intimate knowledge of our native country, it seems pertinent that we should urge the Government to do something to make the very diversified nature of our country and its scenery, flowers and animals understood and appreciated at home. Mr. Stewart moved that the Secretary be instructed to write to the appropriate Minister at Ottawa asking that the National Film Board be instructed to start at once on the preparation of Nature films of a quality and in quantity to preclude the necessity of procuring this material from sources outside Canada where the problems are different from our own and the outlook and training of the lecturers definitely not Canadian.

It was drawn to the attention of the meeting that the next meeting would be the Annual Meeting. In accordance with the constitution Mrs. Hobson appointed a Nominations Committee to bring forward a slate of officers for election at that time. Other business at the Annual Meeting will be the submission of a revised constitution for the Society. Dr. Carl and Mr. Tildesley have spent considerable time in revising the constitution so that it could be incorporated under the Societies Act of British Columbia if this should become advisable.

There was just one specimen on exhibit - a long stocking-like bush tit's nest brought in by Mr. Stewart. It was a most wonderful demonstration of the ingenuity and energy of this smallest of our tits. A sac of cobwebs, lichens, moss and feathers a foot long and several inches in diameter. Mr. Clay, who described this comparatively new migrant, has published a full account on page 27 of the September number of 1948.

Turning from business to the more enjoyable part of the meeting, Mrs. Hobson introduced Dr. Albert Hays, Professor Emeritus of Structural Geology at Rutgers University. While Dr. Hays hails from Moncton, New Brunswick, his profession of geologist has taken him to many parts of the world, and his twenty-five years as Professor at Rutgers led us to anticipate a most instructive lecture. While we got the anticipated instruction we also got much more. What might have been a dry recital of geological terms and the incomprehensible periods of geological time, became a vitally interesting description of this crust of water, soil and rocks upon which the human race exists. Dr. Hays' enthusiasm for his subject carried his audience with him and they insisted he continue his explanation of the theory of balance even after he thought he had taken enough time talking. In support of this theory of balance or equilibrium he said it had been found that the rocks below the depths of the sea were of much higher specific gravity than those of the mountains. All the silt, soil and rock that the rivers pour into such areas as the Gulf of Mexico must be compensated for somewhere. The explosions, volcanoes and earth tremors that occur from time to time are only minor adjustments when we view the world as a whole. Actually the surface of the earth is rising and falling and occasionally folding as the changes of pressure shift from one area to another. The changes in the quantity of water in the seas as the ice age gradually recedes tends to push the solid land up. As most of our rocks become liquid under the pressure and heat about 11 miles below sea level, this rising, falling and folding becomes much more understandable.

After his talk Dr. Hays showed us examples of rock placement and breakage, some of them right at our own doorstep at Ross Bay and Ten Mile Point. The speaker was given a most hearty vote of thanks by the meeting, which appreciates our good fortune in having such individuals as Dr. Albert Hays as active members of our Society. W.T.

AUDUBON SCREEN TOURS

The public interest in this series of wonderful nature pictures still seems as great as ever so we are repeating our sponsorship of the Audubon Screen Tours again for 1952-53.

Our introduction of a new location has been attended with the worst kind of weather which has accentuated the discomfort of a raw new building site. Despite these temporary difficulties the S.J. Willis High School has proven a most satisfactory location. The rough walking from the bus stop on Quadra Street will probably be improved before another winter rolls around and a good deal of the difficulty in car parking has been through misunderstanding and poor definition of the parking areas. The difficulties of those of us who can climb on a bus about seven p.m. or back the car out at a quarter to eight must seem rather trivial to those regular attendants who drive in from outside points on the Island just for the lecture. One car comes in from Youbou for every film and on the night of snow and rain which greeted the last lecture the car ploughed all the way over the Malahat and a foot or so of snow with two lady passengers, just to attend the Audubon Lecture.

The more practical point about the School is that we at last have room to accommodate all the people who wish to see the pictures. The largest crowd we had at the Crystal Gardens was 410 and it was necessary to have people standing at the back of the hall. This was not a satisfactory arrangement as some of the exits were blocked off and people also resent having to stand when they hold a season ticket. About 420 persons have been accommodated at the School with 70 empty seats in reserve.

W.T.

CORRECTIONS: Vol.8, No.8, p.93 & 89

Lactuca muralis L. Mr. Eastham has drawn my attention to his article in the February number of the Victoria Naturalist, in which a record for Kelowna was included. This was an error on my part as he asked me to fill in this detail which I did, but failed to consult the actual specimen until too late to prevent publication. Hence the records, so far as the museum specimens show, are for the earliest, Fitzgerald, V.I. August 5, 1919 and the eastern most locality for B.C., Hope-Princeton highway near Hope, July 15, 1949. George A. Hardy

Christmas Bird Count: For the area "City and East to Gonzales Bay" the item: Goose, L.Can. 390, should read - Mallard 390.
H.D.R.S.

BIRD-GROUP MEETING AT ESQUIMALT LAGOON

On Saturday, the 26th January, a trip was made to the Lagoon. Hours around noon had been chosen as best for light in observing from the Spit.

A dozen people turned out to watch fifteen varieties of ten groups, viz: of loons 1, grebes 2, cormorants 2, surface-feeding ducks 2, diving ducks 4, mergansers 1, coot 1, turnstone 1, gulls 2, sparrows 1.

After lunch a few members stopped on the Metchosin road to visit the splendid specimens of Douglas fir and interesting specimens of overgrown fir-stumps in their close vicinity.

The weather was mild, calm and dull, visibility medium.
J.O.C.

GEOLOGY GROUP MEETING

At the Museum on Tuesday evening, January 15, this group spent a very pleasant evening listening to Mr. Grant as he displayed his collection of fossils from the South Saskatchewan. They were many and varied ranging from the tiny hooves of eohippus to the bones of a dinosaur and one unknown specimen that proved a source of interest to our professors for a while. Petrified wood was first shown in bulk in its various stages, carbonized, vitrified, and agatized. Later, specimens were shown through a projector and were so clear and highly polished that the type of wood, walnut, oak etc., could be recognized by the natural grain even after millions of years. Slides of agates, both circular and moss types that had been cut and polished by Mr. Grant showed what wonderful effects could be obtained by anyone who took this hobby seriously. Mr. Grant's travels in search of fossils have taken him into some strange places including the trenches of the Riel rebellion at Botoche. Perhaps his strangest collecting experience appeared in Ripley's "Believe it or Not"- quote "Mrs. Grant found a fossil in the bed of the South Saskatchewan River with a piece broken off it, a year later and 200 miles further down stream Mrs. Grant found the missing piece."

Dr. Hays thanked the speaker on behalf of all those present.
J.H.W.

SOME NOTES ON THE FLORAS OF THE ISLAND
AND MANITOBA

Coming to Victoria late in the autumn from Manitoba the first impression is that the two floras are much the same except for the size of the trees. The Gumweeds, Golden-rods, Asters, Wild Barley, Rye grass, Bracken and a number of other plants call to mind similar plants in Manitoba. Some of the trees at first sight seem to be the same as found in the east, for Cedar, Fir, Pine, Poplar, Birch and Oak are all found within one Hundred miles of Winnipeg. A closer examination of most of them show very clearly the differences. Here are a few typical examples:

	MANITOBA	VANCOUVER ISLAND
Cedar	<u>Thuja occidentalis</u>	<u>T. plicata</u>
Pines	<u>Pinus Banksiana</u> <u>P. Strobus</u>	<u>P. contorta</u> <u>P. monticola</u>
Willow	<u>Salix Bebbiana</u>	<u>S. Scouleri</u>
Oak	<u>Quercus macrocarpa</u>	<u>Q. Garryana</u>
Gumweed	<u>Grindelia squarrosa</u>	<u>G. integrifolia</u>

There are a number of plants common to both regions such as the Fleabanes, Erigeron canadensis & E. philadelphicus; the Hawkweed Hieracium canadense; Pearly Everlasting, Anaphalis margaritacea; Indian Paint Brush, Castilleja rhexifolia; the Dogwoods, Cornus stolonifera & C. canadensis; the Beach Pea, Lathyrus maritimus; Marsh Pea. L. palustris; the Marsh Marigold, Caltha palustris; and many others.

The preliminary Catalogue of Flowering Plants and Ferns of Vancouver Island and adjacent Islands (1917) contains the names of 1425 species. Since that time many more species have been added to the list and there are probably around 1800 species recorded by the present time. To date in Manitoba about 1700 have been identified. Saskatchewan in its last list (1944) had nearly 1600 recorded. When plant surveys have been systematically made in all these areas they will likely show that the islands have a somewhat richer flora than the prairie regions.

There are some remarkable differences in the families of the two areas. The 1917 checklist of the islands shows 93 families. The Manitoba list has 120 families. Here are some of the families present in the Manitoba flora and absent from the islands: the Daffodil family, Amaryllidaceae;

Milkweed family, Asclepiadaceae; Balsam family, Balsaminaceae; Water Shield family, Cabombaceae; Rock-rose family, Cistaceae; Whitlow-wort family, Corrigiolaceae; Teasel family, Dipsaceae; Pipe-wort family, Eriocaulaceae; Spider-wort family, Commelinaceae; Heliotrope family, Heliotropiaceae; Loasa family, Loasaceae; Mignonette family, Resedaceae; Pitcher-plant family, Sarraceniaceae; and the grape family, Vitaceae. The Water-wort family, Elatinaceae, found on the Island has not yet been recorded in Manitoba but has been found in both Ontario and Saskatchewan. Some of these families are immigrants from the southern United States. In this category come the Milkweeds, Pitcher-plants and the Loasa a close relative of the Cactus family.

Interesting comparisons can be made between families and genera which occur in both regions. On the Island the only cactus is apparently the Many Spined Cactus, Opuntia polyacantha. Opuntia fragilis is found in the dry interior of B. C. Both of these occur in Manitoba as well as two species of the Pin-cushion cacti, Mamillaria.

In the genus Mimulus, or Monkey flowers, in Manitoba only one is known M. ringens which has a relatively large blue flower. On the Island at least eight different Monkey flowers are found, usually yellow, many having small blotches of red or purple. The two lips of the stigma close together after an insect brushes past it upon entering the flower, thus preventing self-pollination.

Seashore plants are also found in various places upon the prairie or around the lakes. The Sea Milkwort is only one of a number of coastal plants found in alkaline soils and the Beach Pea, common on some of the beaches around Victoria, is plentiful on the sandy and gravelly shore of Lake Winnipeg. It has a wide distribution as a shore loving plant being found on the shores of Alaska, Arctic Canada, Greenland, Iceland, Scandinavia and Arctic Russia.

Compared with Vancouver Island Manitoba is not rich in ferns and fern allies having only 32 against more than twice the number on the Island.

It is in the trees that the greatest contrast is found. Not so much in the number of species but in the greater size here. Some moderately tall trees can be seen in Manitoba east of the Red River valley, also in the Assiniboine valley and the Riding Mountain National Park. In eastern Manitoba the Red and White Pines reach up to 60 feet high. Among the deciduous trees Bur Oak Cotton-wood, American Elm and the

Large Toothed Poplar have been found well over 50 feet high. The White Spruce in the Spruce Woods Forest reserve have reached a diameter of 33 inches with 91 annual rings of wood. There are no forest giants to compare with the Garry Oaks, the Large-leaved Maples, the Douglas Fir and Hemlock so well known here.

C. W. Lowe.

BIRD NOTES

During November, with its broken weather, high winds and rain, the small birds seemed to be absent. Migration for the year was apparently over except for the small flocks of robins which are constantly coming in, staying for a day or so, and then moving on. I was very fortunate therefore, while walking along Arbutus Road at Cadboro Bay on the fifteenth of the month to sight a flock of bluebirds alighting on the field which adjoins the road. Simultaneously with the coming of the birds the sun came out for a few minutes and lit up their brilliantly blue plumage. At least five out of the ten birds I saw were adult males and seemed to be in full nuptial colour. This is the only flock of migrating bluebirds I have seen this Fall.

Late this summer, into one of the pools at Cadboro Bay, came three pied-billed grebe. They seemed quite content to stay there, so I had ample opportunity to observe their habits. I found them always very shy, as on any sudden move on my part they just disappeared under the water. There was no splash and they did not dive, but sank beneath the surface of the water and apparently stayed there. They have the singular ability of being able to submerge to any depth they desire. Normally they float quite high on the water, but can swim with only their bills showing, or maybe their head and neck above the surface. I have not seen any other water birds perform such unusual aquatic tricks as this very plain looking pied-billed grebe.

A.R. Davidson.

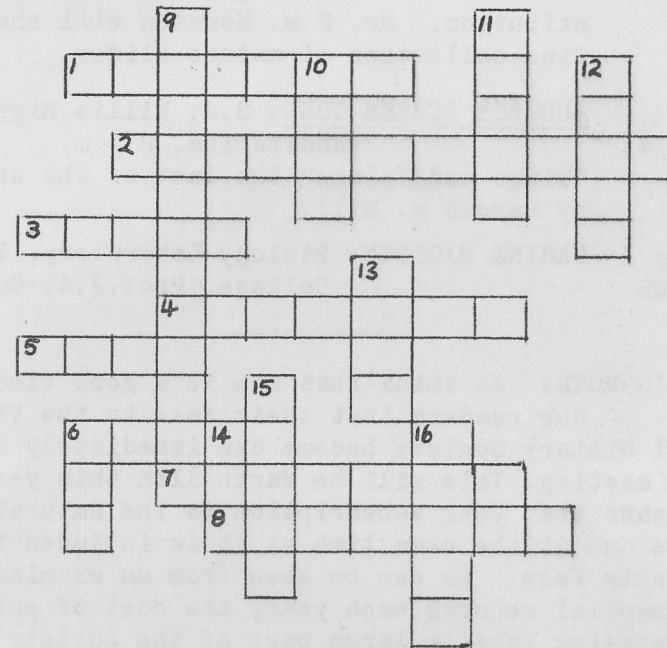
JUNIOR PAGE

March, 1952

Editor: George Merrick
Phone: B.4380.

Ass't Editor:
Bruce Colvin

Dr. Carl says, "Try this bird puzzle. Make one yourself for the Junior page."



Across:

1. A common duck
2. Our smallest bird
3. Long-legged fish-eater
4. An owl
5. An eater of eggs
6. Winter bird
7. Turkey
8. Swamp bird

Down:

9. Our commonest gull
10. A thin-bodied marsh bird
11. Hell-diver
12. Looks like a penguin
13. A small gull-like bird
6. A Cheeky bird
14. A male swan
15. Red breast
16. Fly in a V.

Hudson's Bay Woods: by Bruce Colvin.

I went on a nature expedition on Saturday, Jan. 19, 1952. I have two good specimens; two abandoned eggs. I have them in an incubator. I saw one cock pheasant on the way to the Hudson's Bay woods. On the way back I saw a quail...I nearly stepped on it. In Hudson's Bay woods I saw 3 puffballs and a large fungus. We played at the frog pond for a while and then further up the top of the meadow we saw a nest of 11 eggs.

NOTICE OF MEETINGS

1952:

- Tuesday BOTANY GROUP: Second in a series
 March 4: by Prof. C. W. Lowe,
 Provincial Museum, 8 p.m.
- Tuesday ANNUAL MEETING: Provincial Museum, 8 p.m.
 March 11: Reading of the revised Con-
 stitution. Mr. P.M. Moncton will show his
 fine collection of nature slides.
- Friday AUDUBON SCREEN TOUR: S.J. Willis High School
 March 14: Auditorium, 8 p.m.
 "Wings and Talons" the last of the series,
 by Harold M. Hill.
- Tuesday MARINE BIOLOGY: Biology Laboratory, Victoria
 March 25 College. Prof. J.A. Cunningham.

EDITOR'S NOTE: We think that now is a good time to remind our readers that their fees to the Victoria Natural History Society become due immediately after the annual meeting. This will be March 11th this year. This also means that your subscription to the Naturalist also becomes due at the same time as it is included in your membership fees. As can be seen from an examination of the financial reports each year, the cost of publishing this magazine takes a large part of the Society's income. Each year we inevitably carry a number of subscribers for some months who do not pay their dues. We think this expense is justified in order to allow everyone time to get their subscriptions in, but an early renewal is a great help to the executive in planning the year's work and an assurance to the editor that the publication can be continued. We know from experience that quite a number of members drop out inadvertently. If you think membership in this Society is worthwhile, and if you get any use out of the Naturalist, will you please be prompt in renewing, and do not just let it slip your mind. Only in strength and active participation can the Society carry out its objectives.

W. Tildesley.

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