

The
**VICTORIA
NATURALIST**

Vol. 3, No. 3

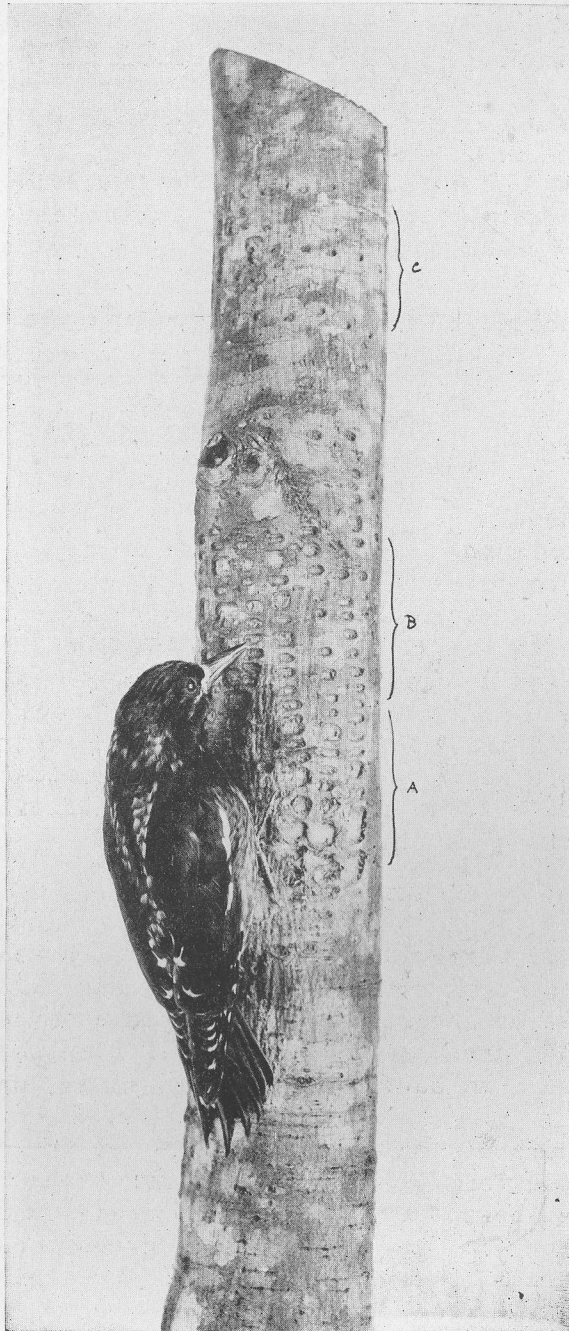
September, 1946



DEVIL'S CLUB IN SITKA SPRUCE



96



RED-BREASTED SAPSUCKER

THE VICTORIA NATURALIST

Published by

The Victoria Natural History Society

The regular monthly meeting for May was held at 8 p.m. on 14th. Mr. Palmer took the chair and Archdeacon Connell spoke on the subject of "Seaweeds". There follows a brief report of his talk;

"The fascination of the seaworld is unlimited. With its strange plants we are concerned this evening. These are chiefly observed along the margin of the land, but there is a floating vegetable world, the PLANKTON world. Plankton is the Greek word for floating. This world contains:

1. Diatoms.
2. Peridinians
3. Coccospheres

Diatoms are algae and are very tiny. Under the microscope they reveal many varied forms. They can sometimes be seen on seaweed, having been washed up on to the shore. One day, at the Chinese cemetery, all the rocks looked as though they had had a coating of whitewash several feet wide. This proved to be vast numbers of diatoms of one species only. Diatoms are the basic food of fish. Cocco-liths are algae with limy plates.

Peridinians feed like plants and also like animals.

In the marginal world are the seaweeds, so-called sea-plants. (Weed is an old English word.) Rare kinds of seaweed should be looked for on the beaches after a storm. Some sea plants are flowering plants. Examples are eel-grass (*Zostera*) and surf grass (*Phyllospadix*, *scouleri*, and *torreyi*).

The structure of seaweeds is simple but they vary tremendously in form. Some seaweeds are threadlike tubes, others sheets of cells. Where fresh water runs into the sea one can generally find a greenish slime which is composed of the threads of a fine algae.

Some resemble a leaf with veins. Some attach themselves to other seaweeds. They never have true roots, only adhering organs which are called "hold-fasts".

The seaweed CODIUM is a single cell green seaweed growing like a blackish green bush some eight or more inches in height. Another single celled seaweed is called BRYOPSIS and grows to about four inches in height. It may be found growing on stones in pools.

Seaweeds are classified according to their colour into groups of green, brown and red.

1. CHLOROPHYCEAE: Found in the littoral zone which is between low and high tide water marks. These are green.
2. PHAEOPHYCEAE: Found in the sub-littoral zone, which is below the low tide mark. These have the chlorophyll colour obscured by brown.
3. RHODOPHYCEAE: Found below the sub-littoral zone. These have red or purplish tints.

The common bladder kelp is scientifically known as NEREOCYSTIS LUTKEANA. The bladder has an opening which extends a small distance up the stem and there are leaflets on top. The stem was used for fishing line by the Indians. Some seaweeds are used by different peoples for food but their nutritive value is low.

Note on the drying of seaweeds Seaweeds are easily dried by washing in clean water, floating on to a piece of paper, and then placing between dry papers under pressure. Red ones should be covered with a piece of soft cotton or muslin before drying paper is placed over them, otherwise

their natural mucilage will make them adhere to both sheets. The stiffer ones, like the browns and a few reds, will require little attaching slips to hold them down. The date and place of finding should be noted on the sheet.

C. A. HARWELL

Early in June Mr. C.A. Harwell of Berkley, Calif., Western representative of the National Audubon Society, visited Victoria and district. While here he took moving pictures of skylarks, glaucous-winged gulls, black oyster-catchers, pigeon-guillemots, violet green and white crested cormorants.

Before leaving for Vancouver he lectured before members of the ornithological group, at the home of Dr. and Miss Hart, Laurel Lane; showing several very fine films.

An outstanding film depicted Yosemite National Park. By request he showed a film of the water ouzel in its nesting haunts. Being a close student of wild life, Mr. Harwell was able to maintain a running commentary upon these pictures, pointing out details, whistling bird calls and songs. Those fortunate enough to be present derived the keenest enjoyment from the evening's entertainment. We hope the Society will again have the opportunity of hearing Mr. Harwell and of seeing his pictures.

J. O. Clay.

BIRDS IN THE OKANAGAN

Three weeks of almost daily opportunity for watching birds, enabled me to see much of interest. Ospreys nesting in a tall dead tree, the male bringing food to the female, and once, a rodent, which was not eaten. A crow lit near the nest cawing loudly, hovered over the osprey and they sparred for some time: the crow, though very persistent, was finally defeated.

Marsh Harriers were nesting in the reeds, the male in very beautiful plumage. I was surprised to see one allow itself to be chased completely off the marsh by red-winged blackbirds, which mobbed it. The red-wings have increased greatly and seem pugnacious. I saw one chase a crow off the marsh.

Red-headed ducks were, I fancy, nesting, for I saw much flying and chasing and they were very noisy. One Ruddy Duck appeared.

Bitterns abounded. Three together at fairly close quarters were sometimes hunched, sometimes drawn up to look very thin and elongated, with beaks pointing straight upwards and the boomings were very frequent.

Bobolinks (all males) were soaring and singing, floating down into the thick grass quite near to me; also perching and singing on some rails and wires. They seemed totally indifferent to my presence. Their puffy hind neck is a rich cream colour, in some lighter, almost yellow. At close quarters their dark plumage shows beautifully marked. In the same field was a grass-hopper sparrow.

Damp places were full of yellow-throats, giving their curious song, "Witchitty, Witchitty, Witchitty, Witch." They are very difficult to see, the song may be almost at one's feet yet the bird impossible to locate in the tangled grasses.

The Rock Wren flew from a slide of loose shale and remained below me for some time feeding and running about amazingly fast. It called and sang and gave its trill. Peterson describes it as "rather grey" and Taverner as "greyish brown" but this bird was not grey at all but a light earthy brown, its tail tipped with buff.

On one occasion I found a party of lark sparrows, pipits and yellow-headed blackbirds, but never found them again.

In the sage brush country were Brewer's sparrows, their song a buzz followed by some pretty notes. Close by were Lazuli Buntings, with brilliant blue heads, cinnamon breast-bands, white bellies and wing bars. These are some of the loveliest of birds. Two males were scrapping and scuffling like common house sparrows.

Long-tailed chats were abundant. Though Taverner says "it comes and goes unseen" my experience is that in late spring it is most obvious. It perches in the tops of small trees, singing there, floating down, giving its curious medley of sounds and not minding an observer.

The marshy thickets were full of willow thrushes. Their long call note in the evenings puzzled me until it was followed by the monotonous "Vee-ur, Vee-ur, Vee-ur" which is the song.

I had a sight of young MacFarlane's screech owls in a hole in a dead tree. One unhatched egg was also in the nest. The young birds appeared almost ready to fly.

Anna Ewart.

EARTHQUAKES

The earthquake of June 22nd aroused much local interest. It was reported as being the strongest in Canada since 1865.

Information about a shock, for scientific purposes, may be obtained from instruments or observers, or both. The following data will give readers an idea of what to watch for. Because instruments are far apart, local effects must often be obtained from observers.

All time records must be absolutely correct for stations to compare records. The local seismograph was immediately put out of commission, but recorded time of quake commencement.

When a disturbance occurs, WAVES with a direct forward movement speed through the earth in a curve slightly below a straight line from the source to the observation point. The curve is caused by a greater elasticity towards the centre of the earth. These waves, when near the surface, have a velocity of about $4\frac{1}{2}$ miles per sec. (more if deeper) and last for a period of $\frac{1}{2}$ to 7 secs. They are called PRIMARY or first phase waves. They are followed by SECONDARY waves (second phase) which have a transverse motion while speeding forward. Their velocity is slower, about 2.7 miles per sec. and last up to 12 seconds. These two rates of velocity give a station the means of working out, from prepared tables, the epicentre, or location, of the quake.

If several stations draw arcs of circles using their estimated distances as radii the intersection of the arcs would give quite accurately the position of the epicentre.

From data obtained from the seismograph record the depth or foci, of the quake, is obtained.

The THIRD PHASE OR LONG waves reach the station last. They travel through the crust or surface rocks and produce the main shock. Their speed is about $2\frac{1}{2}$

miles per sec. and they last up to one minute. Each phase is usually easily detected on the record.

Direction of the waves may be from different quarters near the epicentre. For the June 22nd quake local reports show E-W., while north of Cobble Hill reports are N-S. Falling chimneys etc., indicate direction.

Ground waves are a phenomenon of great interest to scientists. The speed of the waves already described is too great to be seen. The wave seen running along the surface of the ground must therefore be an induced or secondary effect, produced in the soil. Two reports from Cobble Hill indicate waves running along the ground in a N-S direction and causing a dust to rise from a gravel road.

Intensity of a quake is estimated without instruments by comparing observed effects with a prepared table or scale showing ten or twelve degrees of damage. An observer should therefore note types and degrees of damage done.

CRACKS OR FISSURES in the ground surface may be caused by one side of a deep fault slipping vertically or horizontally, either parallel with the fault or away at right angles to the face of the fault. At Deep Bay (N. of Qualicum) there are many fissures formed at the end of a spit running in various directions. A lateral movement was also shown by the sloping of a fence post, and a break and separation in the fence of three feet, in a series of three fissures. For a distance of about 100 feet from the shore line the end of the spit sank, increasing the water depth from 10 to 80 ft.

TIDAL WAVES (up to 100 ft. high) may be produced by the uprise of a large area under the sea. The sinkage of an area would cause an inrush and piling up of water towards the central point; effects reported from Deep Bay and Gt. Central Lake.

CRATER LETS from which water flows or air rushes are caused by compression of sandstones etc. deep below the surface. At Deep Bay one flow of water brought

up yellow mud and another, fine shell matter. At Goose Spit the sand blows were very interesting.

LAND SLIDES on mountain sides may destroy forest areas, dam rivers or block railroads. At Cowichan Lake are a number of streams that have been forming deltas on the sloping mountain sides since glacial times. These accumulations were caused to slide into the lake by the recent quake.

DAMAGE AREAS. The effects of a quake are more intense or greater where the area is underlain with peat, alluvium etc. Practically all the damage done in Victoria was on Howe St. in Fairfield district, a street with sunken twisted curbs and built on a layer of nearly three feet of peat.

Noises are frequently heard during earthquakes. Apparently earth tremors cause audible air tremors or waves. First earth tremors may therefore be heard before being felt, or the sound may be produced at a distance from a sound producing medium and arrive a little later.

Dr. Hodgson's preliminary report on the recent Vancouver Island earthquake should be published very soon and will make very interesting reading. For fuller information about earthquakes those interested are referred to "Earthquakes" by N.H. Heck, which is in the Victoria Public Library.

A. H. Marrion.

NOTES ON ILLUSTRATIONS IN THIS ISSUE -
THE DEVIL'S CLUB

(The front page illustration on this magazine shows a photo of Devil's Club in Sitka spruce bottom land, and was taken from the Provincial Museum Report of 1935.)

The Devil's Club, *Oplonanax horridum* (SM.) Miq. (*Echinopanax horridum* (Sm.) D. & P., *Oplc* signifies a weapon, in reference to the fierce array of spines on the stem, and *panax* means all-healing from the properties of some members of the family, while *horridum* emphatically indicates the nature of the prickles with which the plant is so copiously armed. In fact the scientific appellation is rather a contradiction of virtues with the accent on the unpleasant features. The popular name makes no mistake as to what the average person thinks of it, not without reason, for the wounds made by the spikes can produce a painful sore.

Nevertheless, to the plant lover the Devil's Club is, at a slight distance, a striking and handsome shrub, the large palmate leaves standing boldly out in marked contrast to the surrounding herbage. Each leaf is poised horizontally and disposed in a perfect mosaic pattern that allows all to receive their fair share of light, which is none too bright in its gloomy woodland habitat. The small greenish flowers that top the plant in a compact spike give place in the fall to a gay splash of scarlet berries redeeming in some measure the possession of such fearsome thorns.

The Devil's Club has recently come to the fore by reason of its roots, which are under investigation in regard to a substance said to be of the nature of insulin, or at least of some medicinal value. The plant belongs to the Ginseng family so this might be expected.

By the Indians the bark of the roots was extensively used as a purgative, while a bit of the same bark

tied to halibut hooks was supposed to ensure a large catch.

The type locality of the Devil's Club is Nootka Sound and was collected by Menzies. It is of wide distribution from Alaska to California and Lake Superior, also in northeastern Asia and Japan. It occurs chiefly in moist woods and valleys at low elevations in hilly and mountainous country.

THE SCALY CRAB

The scaly crab, *Placetrion wosnessenskii* Sch., is quite unique among a group of crustaceans noted for their often bizarre appearance, for none other can boast the armour plated effect of the over lapping scales that adorn its carapace and limbs.

It is a fairly large species measuring roughly 12 inches by 8 inches including legs.

In life the surface of the body exhibits a beautiful iridescent sheen.

It inhabits comparatively deep water, up to sixty fathoms, and is a native of the northern parts of the Pacific Northwest including the Aleutians and south to B.C.

The specimen illustrated is of especial interest to Victoria Naturalists for it was taken in the inner harbour of Victoria in 1925 and illustrated in the Report of the Provincial Museum for that year. This record constitutes the most southerly one for this species, the nearest previous one being from Graham Island of the Queen Charlottes. No further records from the Victoria area are known, though it doubtless occurs in the deeper, off shore waters.

George A. Hardy,

Provincial Museum.

SOME SALAMANDER OBSERVATIONS

During the winter of 1944-45, while clearing off a swampy and very overgrown piece of land, I was able to add some interest to the task by noting the various species of salamanders which were turned up.

It was not possible to keep an exact record of the numbers of each species. A good estimate can, however, be given. At first the red backed appeared very much in the majority. Only one or two of the clouded variety appeared, to which four nests were added. Two long-toed salamanders were found, the first I have seen.

Finally, a very large hollow cedar stump was extracted and cut up. In the interior of this stump I counted 18 clouded salamanders. The clouded salamander may therefore be more abundant than generally supposed. In such hideouts their presence would not be detected.

On the west coast this is perhaps the commonest species. I found many at Tofino. The redbacked salamander seems to prefer the ground to stumps.

Last July I was lucky to find a clouded salamander with her eggs. These were attached to the inside of a hollow log of cedar. I kept them for some time but they were gradually attacked by mould and died. Some were still alive a month after taking them.

It is strange that oviposition should take place so late, with an animal so dependent on damp conditions for its existence; especially as other amphibians breed so early. An egg-laying site is probably occupied for at least a year and must be damp. I have proved that clouded salamanders wander at night. Once one was found under a rock on the beach.

Richard Guppy.

NOTICE OF MEETINGS

MONTHLY MEETING

Tuesday Reading Room, Provincial Library.
10th Sept. Speakers:
Subject: "A Symposium on Bird Watching.

GROUP MEETINGS (outdoors)

Saturday Ornithology - - - - - J.O. Clay.
21st Sept. Destination will be announced at the
monthly meeting.

Geology - - - - - A.H. Marrion

It has been suggested that an expedition be arranged to go to Muir Creek during September. For this a bus can be chartered if enough members are interested.

The bus company is willing to take a load to Muir Creek and remain there for two and a half hours.

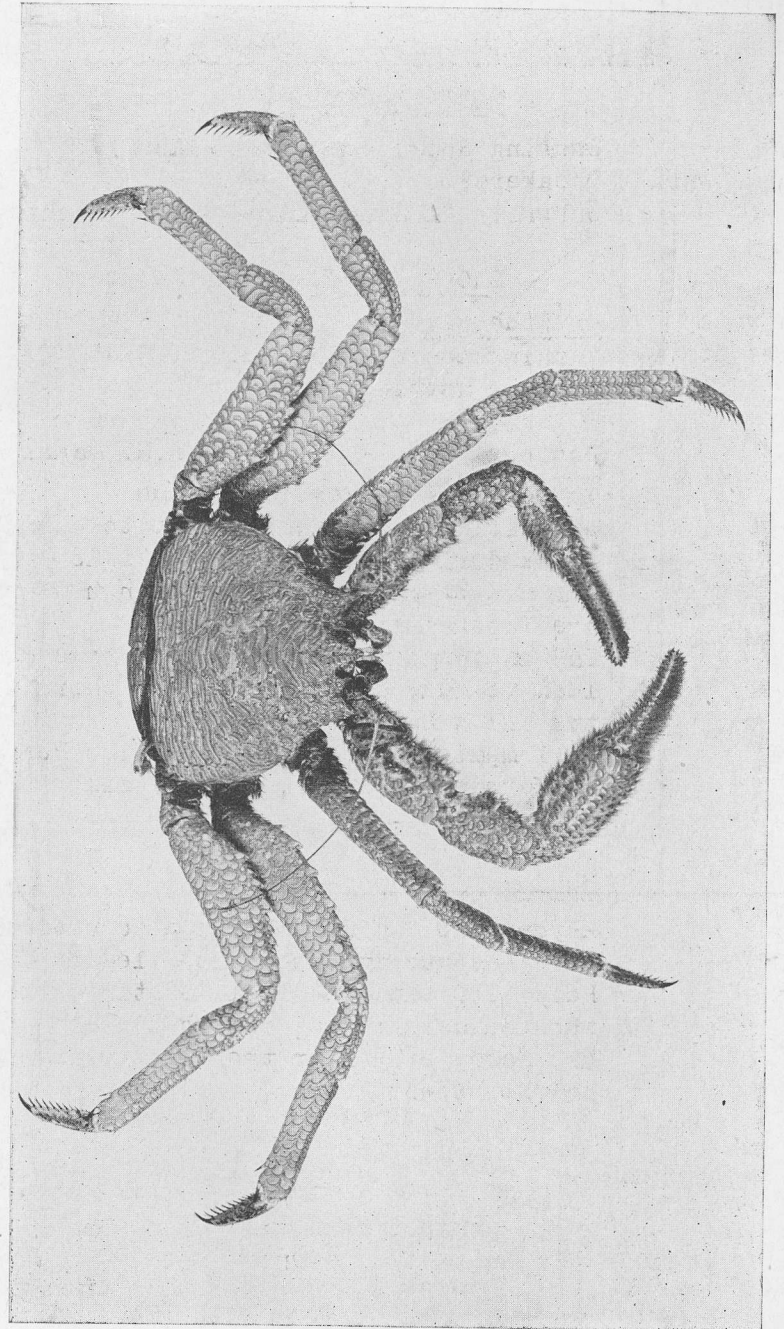
Will members please contact Miss Perry or Mr. Marrion (G.1983), if they wish to go on this trip.

Marine Biology - - - - - G. A. Hardy.

Anyone who did not obtain a copy of the very instructive sheet compiled by Mr. Hardy for the June field meeting, and who would like one, can obtain same from Mr. Hardy at either the monthly meeting or the Museum.

---oooOooo---

MIMEOGRAPHED BY MONKS' MULTIGRAPH LETTER SERVICE



SCALY CRAB

To

Mrs. I. E. Cornwall

584

Vancouver St.

Victoria



Pemberton, Holmes, Ltd.

(Formerly Pemberton & Son Ltd.)

REAL ESTATE
INSURANCE



MORTGAGES
RENTALS

625 FORT STREET

PHONE G-8124

VICTORIA NATURAL HISTORY SOCIETY

OFFICERS

Hon. Presidents

J. A. MUNRO - DR. G. M. WEIR

Past President

ARCHDEACON R. CONNELL

President

DR. G. C. CARL

Vice-President

MRS. K. DRURY

Secretary

MISS EUGENE PERRY
1627 Wilmot Place

Editor

MRS. R. G. HOBSON
2284 Windsor Road

Treasurer

A. L. MEUGENS
179 Olive Street

CHAIRMEN OF GROUPS

Botany: J. F. PALMER
Ornithology: J. O. CLAY

Entomology: WM. DOWNES
Programme: L. COLIN CURTIS

Geology: GEO. WINKLER
Zoology: G. C. CARL

Annual Subscription: Single, \$2.00; Family, \$3.00; Junior, \$1.00.

NOTICE OF NEXT MEETING

The next meeting of the Society will be held in the
PROVINCIAL LIBRARY READING ROOM
on Tuesday, September 10th, 1946, at 8 p.m.