

THE THRUSH

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Nanaimo
District
Naturalists

EDITOR'S NOTES

Van Kerkoerle

After the barbecue, every club member seemed to have disappeared in the great wideness of B.C. We hope everybody had a good summer and feels fit to tell some of his nature experiences in the next bulletin.

Our Thetis Island member had a record late sighting of a Rufous Humming bird on August 26th.

On June 6th the bird nesting count was held by Ken Knowles and Peter and Anneke Van Kerkoerle. A total of 50 nesting species was recorded along the 25 mi route from Boomerang Lake to Nanaimo Lake Road. In the meantime, we received a very favourable reply from the Migratory Bird and Habitat Research Lab. at Laurel, Maryland, U.S.A.

On August 9th we went to the flats, where we noticed that "No Hunting" signs were set up. We saw many great blue herons and kinged Plovers.

On June 8th a stray few-days-old Canada goose was given to the Van Kerkoerle family. It grew well, is a perfect and beautifully feathered creature. We are looking forward to getting company for her.

The beaver pond was very successful.

On June 27th a wood duck came out with her 9 ducklings which grew up to healthy mature ducks, flying away in the last week of August. They still come back regularly for feeding.



Another wood duck raised her 8 ducklings to maturity in the pond, and 2 hooded Mergansers and 3 Mallards grew up here too.

On August 23th we had an executive meeting. Mollie Byrne presided.

Mollie who has given so much of her time to the club from the beginning, would like to see somebody else take over her position as President. We would surely appreciate it if somebody would step forward at the next meeting

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to volunteer.

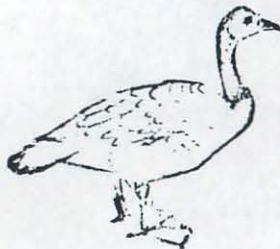
The B. C. Naturalists want to divide the whole province into different regions. Vancouver Island is one region. On October 7th a meeting on this regionalisation will be held at Marshall Stevenson's Wildlife Sanctuary, just north of Qualicum Beach. Our Club would like to send some delegates to this meeting. If someone is interested in going, let us know at the next meeting - or call Molly Byrne at 758-9773, or Anneke Van Kerkoerle at 245-2530.

We were very fortunate to get Room 108 at the Malaspina College again this year for the 4th Friday of every month. The next meeting will be on September 26th and our Speaker will be our Winnie Espritier in "Drifting to Dawson".

After our trip to Dawson, we'll have a "berry work shop" with an introduction to berries. A field trip about berries will be planned that evening.

The Executive has decided to subscribe to the "Nature Canada". Our membership fees will be due in November.

Your Editor.



BIRDS OF PREY

Peter van Kerkoerle

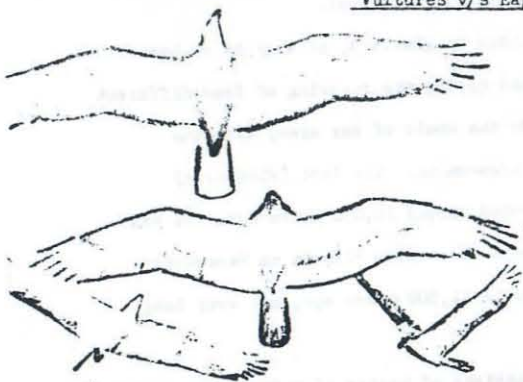
Most people will easily identify a bird of prey as a "hawk". And that is as far as they go! For a naturalist, however, it is good to know a bit more, and to be able to recognize at least the main hawk families.

Hawks are often "difficult birds", particularly when they are sitting in a tree and the light is not just right. However, when flying they show wing form and by this we are able to identify them - if not to species, then at least to their "group".

For our use we divide the birds of prey into the following groups:

1. vultures;
2. Eagles;
3. Osprey;
4. Accipiters;
5. Buteos;
6. Falcons;
7. Harriers.

Vultures v/s Eagles



Many people mistake our Turkey Vulture for an Eagle. They have almost the same size, but sure identification is possible with the wink of an eye if you know what to look for.

Eagles soar with wings horizontal, vultures hold their wings in an open V. This can be seen when the birds are miles away. The Turkey Vulture also shows an unsteady dippy flight.

Osprey

A large hawk. Shows a strong nick in the wing. Wings are very long for the short body. Light colour from beneath, with black spot at the bend of the wing. A fish-eater, so look for it around lakes or along the ocean shore.



Accipiters

They are the real hawks. There are 3 species and their flight pattern

is much the same. They have fairly short rounded wings and a long tail. They fly with a few fast wingbeats and then a short glide.

As a group they are easy to identify, but to separate the 3 species is a problem

that has given many naturalists grey hair. They are forest birds and are experts at darting around trees and through branches. They will use the shady side of your house for an in-flight to snatch an unwary bird away from your feeding tray.

You might not always be able to see a clear flight pattern. The rarest one of the three is the Goshawk. Cooper's and Sharpshinned hawks are often seen in our area.

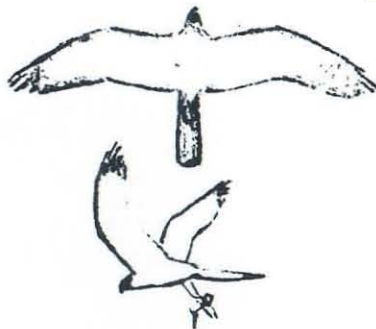
Buteos

These are a different breed. Slower and more gentle hawks. Wings are medium size with rounded tip. The short tail is an important point in the identification. They soar a lot, particularly in early Spring and after the nesting season. Under certain light they might be mistaken for eagles. Look for head, which is shorter than an eagle's. Our commonest Buteo is the red tailed hawk, which shows reddish colour on top of tail in adults only.



Harriers

We have only the Marsh Hawk in this group for our area. Look for it in Spring or Fall as it migrates through this area. Open terrain is its natural habitat. Marshes, airports, river flats, etc., are good spots to check. This is a slender



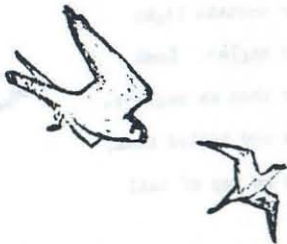
hawk with long wings and medium long tail. It is a graceful flyer. It flies low over the ground. Wings are held in open V like the Turkey Vulture. Colour of bird is light. This is an easy hawk to identify.

Falcons

They are masters of flight. Wings are long and pointed. Wingbeat is strong and flight straight forward. They are not soaring birds, though they will give a good display in Spring. Look for them in open terrain, dead tree tops, telephone poles. In August-September-October dune areas are used by Sparrow Hawks where they feed on grasshoppers.



The other Falcons are bird predators and catch birds on the wing. One of the most fascinating sights nature has to offer is a peregrine falcon chasing a golden plover at unbelievable speed, hitting it in the air and spiralling down to pick up the tumbling dead body before it hits the ground.



ROCK FORMATION OF HORNBY AND DENMAN ISLANDS

Winnie Espitalier

In the summer, 1975 issue, Mary Barraclough suggested that I might write a bit on the rock formations seen when we visited Hornby and Denman Islands last May.

It was obvious that we saw a predominantly sedimentary situation, but some beaches were littered with "foreign" cobbles and boulders. These errata are found on most East Coast Vancouver Island beaches, in some cases providing the rockhound with much variety of ornamental rock. Generally speaking, you might find from 76 to 91% of volcanic origin, 6 to 19% granitic, 1 to 10% sandstones, shales and less than 1% of quartzites, cherts, argillites, limestones, schists and vein quartz, including some red "jasper". These percentages vary greatly, especially near river mouths such as the Oyster-Flowerstone, Rosewall - "dallasite" volcanic breccia, or Chemainus - another variety of flowerstone, and jasper.

Many of these have been left behind by glaciers, or they have been deposited by resultant outflow streams during the receding of four different glacial epochs. Glacial ice overrode the whole of our area, with the possible exception of the summit of Arrowsmith. The last (Wisconsin) glaciation (Vashon drift) may have ended around 10,000 years ago. It has been estimated that modern type forests and modern climate on Vancouver Island became established about 6,700 to 11,500 years ago, not very long geologically speaking.

Generally, the area we viewed consists of basins of soft shale, sandstone and conglomerate lying on a basement of altered basic volcanic rocks, altered sedimentary rocks and small granodiorite intrusions. The altered basaltic and andesitic lava and pyroclastic flow rocks are known as "Karmutsen" of the Vancouver Group (Upper Triassic). Mixed in and around one finds quartzite, chert, argillite, greywacke and greenshale, interbedded with limestones, some of which are fossiliferous. A few granodiorite bodies cut the basement rocks and are related to the massive batholiths of the Coast Range.

The sedimentary rock are of late Cretaceous age and include both marine and non-marine beds. We were more particularly concerned with those of the "Comox Basin" (a narrow belt of about 75 miles from Nanoose Bay to Campbell River) with subdivisions - Hornby, Spray, Geoffrey and Lambert formations which occur on Denman and Hornby Islands and which stand above sea-level because of the massive conglomerates of these latter formations.

On our Beach walk we were most impressed with the tremendous formations containing sub-angular to rounded pebble-cobble and even -boulder-conglomerates, including quartz, chert, volcanics, porphyries, granites, sandstones, shales, etc., with even minor calcareous concretions, all in a matrix of fine to medium grained, impure, greenish grey quartz sand.

In the vicinity of Boulder Point you will find thin-bedded dark blue-grey, highly fractured, brownish-grey weathering clay shales, with thin beds of fine-grained argillaceous sandstone. Similar formations were viewed when we later walked along the beach on the Northwest side of Denman Island.

Concretionary lenses occur in these beds, some containing the well-preserved and abundant fossil-fauna which has made Hornby Island such a well-known collecting area for ammonite and many other molluscs.

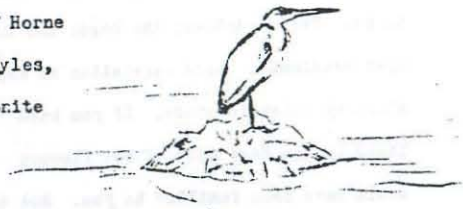
The less resistant sandstones weather into abstract, curving designs, and in some cases, as at Tribune Bay, take the form of "lace rocks", forming a good background for a collage of seashells, barnacles and "sea-weed" trim. In the pot-holes one could view a variety of sea-life. In larger holes, pools of water mirror the sky above, rimmed with mosses, lichens and beautiful yellow *mimulus guttatus*.

We pondered upon the variety of granitic boulders, one of which was very large and contained prominent, interpenetrating hornblende crystals. Heaven knows where they come from but we do know that most glacial-flow features record a south-eastward movement of ice in the Georgia depression more or less parallel with the front of the Vancouver Island Mountains. It is also thought that this ice-sheet may have been fed by ice moving in more or less the same

direction across the Georgia depression from the Coast Range. This would account for many granitoid boulders, and other "foreign" rocks found on some beaches. However, there is also evidence of ice tongues flowing out from Vancouver Island Mountains, from valleys like the Englishman River, giving localized distribution of granodiorite-rich till. This ice would have been fed by a mountain glacier heading on the east side of Mount Arrowsmith.

For more detailed and fascinating reading on these subjects, consult Memoir 318, Geological Survey of Canada, "Surficial Geology of Horn Lake and Parksville Map-Areas" by J.G.Fyles, 1963, and G.S.C. Bulletin No. 91, "Ammonite Faunas of the Upper Cretaceous Rock of Vanc. Isl", by J. L. Usher.

Mary commented on the beautiful flowers on our visit to Flora Island and walk through Helliwell Park on Hornby Island. Growth along the shoreline is influenced by the dryness of the soils which are often only a few inches of coarse textured soil over thin marine gravel overlying the Quarcra series sand and basement sedimentary rocks. This provides for sparse underbrush and drybelt-like conditions for the unexpected appearance of cacti.



NEWFOUNDLAND FLOWERS

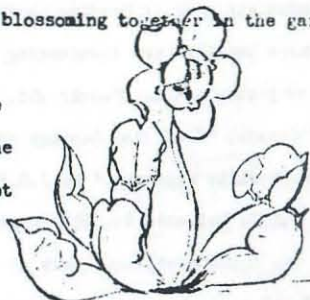
Mollie Byrne

I spent the first three weeks of July on the Avalon Peninsula in Newfoundland. Spring had been late in arriving, so I was lucky to find that a great many wild flowers were rushing into bloom during that period, as witnessed by the lilac and petunias blossoming together in the gardens of St. John's.

Three main habitats were available to me: The roadsides; the bogs; and the open headlands, where vegetation is kept short by Atlantic winds. If you have lived in the East many of the flowers would have been familiar to you. But to me they were new and exciting, though obviously related to western species. Along the country roads the wayside was starry with the white flowers of chuckley-pears. The books told me that they were also called Juneberries, Serviceberries, Shadbushes, Sarvis, Wild Pears and Indian pears. Our local B.C. species which has a heavier, less star-like flower, is usually known as Saskatoon! Mixed in with them was the attractive pinky-purple Rhodora bush, a wild Rhododendron.

Provided you kept moving, the blackflies in the bogs were bearable, but settle down to take a photograph, and they moved in for a feast. Maybe that is why some of my best bog pictures are out of focus! The pitcher plants, Provincial emblem, were at their best, with coral coloured petals opened out. The sepals and developing fruit stay until late into the Fall.

When I first saw them, several years ago, I did not realize that I had missed the real blossom. Side by side with the pitcher plants was the Dragon's tongue orchid—also known as Arethusa or Swamp Pink. It is not unlike our Fairy Slipper or Calypso with similar stature and colour. A bigger orchid is the pink Lady's Slipper with a rosy, hairy pouch, about the size of an egg. I had read somewhere about taking a bare-foot bog walk, so I tried it and can report that squelching into Sphagnum Moss and cranberry flowers is a beautiful feeling on a hot, humid



summer's day.

One day I went to Cape Spear, a rocky headland, most easterly point in North America. Here everything was in miniature, clinging close to the rocks. Labrador Tea, abundant on the edge of swamps, was here as well, with stunted body, small leaves and comparatively large flowers. Bog Rosemary has hard, dry leaves, suiting it to this exposed area, and big pale pink heather-like flowers. The name is misleading, for it is not a Rosemary, but related to blueberries and even to our Arbutus and Kinnickinick.

These are just a few of the highlights, but it was a three-week feast of wild flowers. I would be happy to answer questions or give advice about available books for identification, for these are hard to track down in Newfoundland.

NANAIMO DISTRICT NATURALISTS

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Bird Directors	Anneke & Peter Van Kerkoerle	245-2530
Secretary	Gloria Knowles	754-6297
Treasurer	Kitty Larnder	754-2520
Editor	Peter Van Kerkoerle	245-2530

MEMBERSHIPS

There are three types of membership available in the
Nanaimo District Naturalists Club:-

\$5.00 per year - Family
4.00 per year - Single
2.00 per year - Students & Old
Age Pensioners.

All new memberships and renewals are payable to the
Secretary:-

Gloria Knowles
1021 Nelson St.
Nanaimo, B. C.

An Honorary Family Membership has been extended to the
Kerridge family.
