THE THRUSH

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Mollie Byrne, Assistant Editor

IF YOU HAVE NOT YET DONE SO PLEASE SEND US YOUR POSTAL CODE THEY WILL BE USED ON OUR NEW MAILING LIST THIS COMING FALL



As we come to the end of another indoor session and look forward to a few months of enjoyment in the great outdoors, I would like to take this opportunity to wish you well and many happy hours of outdoor pleasure during the summer. I would like to remind you that although we do not have any planned summer activities, as club members we should feel free to call upon one another for companionship in various summer outings that we might plan. For this reason we have included a list of members and their phone numbers so that you will be able to contact another member or two, should you need some company on any trip you have planned.

A few suggestions concerning outings that are readily available locally and well worth effort are:-

Forbidden Plateau - The snow is gone, the alpine flowers are nearly out, the forest closure has not stopped us yet - see it while you can.

Mt. Arrowsmith - There are some spectacular views from this mountain and the hike is well worth taking.

Miracle Beach - A Provincial Park with an exceptionally fine Nature douse - mainly marine oriented.

Remember this year that there is to be greater public access into logging areas and this will open up many fine areas both close in and more distant. The Nanaimo Lakes area and the kenfrew Road come to mind. After all, we have some of the most spectacular scenery throughout Vancouver Island and there is always something new at every turn.

Be sure to take lots of pictures of your summer activities so that we can see them at our fall meetings.

HAVE A GOOD SUMMER -- NATURE ALLY ::

"Spunky" was the only name which suited this little creature, who, along with many others of his kind, can evoke a wide variety of reactions from human beings.

He was first sighted on a hot day in late July, and promptly proceeded to defend his small person by repeatedly striking at the huge being who towered above him, keeping him "cornered" and unable to escape.

There were always large and small jars on hand, suitable for anything from milk to the taking of Wolf spiders or other odd creatures. A large, wide one was quickly procured and Spunky was soon placed within its confines.

He was only about 14 inches long, a white tummy, set off by dark brown markings along the length of his body and on the head. His red tongue flicked out constantly, testing the air for the danger he knew was close by, while his small, dark eyes, watchful and alert, stared coldly at us.

As you have probably guessed by now, Spunky was a snake - a young Milk snake - with the yellow tints around the head just beginning to be discernible. Nor did he in the least, appreciate being held captive in that jar!

To provide the necessary moisture, we supplied him with dampened moss, plus a couple of pieces of bread, which had been dipped in milk. Here, it must be explained that milk snakes, despite their name, do not drink milk - this is but an old fallacy. The moistened bread was only a temporary item, which evoked no interest whatever, and was removed before it fouled the creature's quarters.

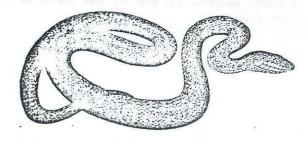
Holes had been punched in the lid of the jar for fresh mir, with a protective covering of gauze placed directly over the mouth, to prevent any rough edges from the punched lid, injuring the snake's eyes or head. Thus ensconced, Spunky travelled back to the city with us, for the purpose of being photographed.

By leaving the jar on its side, the little snake was afforded greater movement, during the week. Each time the lid was removed to clean his quarters or place more food within, he would coil and attempt to strike in self-defence - he had not been named Spunky for nothing!

The following week-end found him carefully packed in the car again, along with other paraphanalia and, some three hours later, he was once again in his own territory. However, due to photographic diff-culties, I had promised to return him for another "session" with the camera, which meant a longer delay in regaining his freedom.

During the night, I was awakened by rustling sounds, and with a "Ton't tell me a mouse got in!" was out of bed in a jiffy. It dawned on me immediately, that the rustlings were not created by a mouse, but by a bat. He had taken advantage of the fact that a tiny opening in the adjoining stove pipe, had provided him with just enough space through which he could squeeze his small body. Now that he was in, he was just as anxious to be back outside again!

Keeping the flashlight trained on him - as much as it was possible to do, in between his wide, sweeping flights - I ducked and dodged my way to the front door, flicked on the porch light and opened the door. The bat reacted as I had hoped - a quick swish to the lighted area, and the door was closed firmly behind him. He was left to share the porch with Spunky, who was now ensconced in an unused aquarium, complete with moist, old wood, sand, and a dish of water. The mesh cover was firmly tied and anchored around the rim, with rocks.



The following morning, there was no sign of either the snake or the bat. The bird feeders were attemed to, then our breakfast, after which I went out to the porch for a more careful search. A small speck of white caught my eye - Spunky was accounted for, safe in his comfortable quarters, so well hidden beneath moss and wood, he was scarcely visible.

But where was the bat? Every little corner or opening had been investigated, before it suddenly occurred to me to lift up the aquarium. There, like a small child curled up contentedly in its sleep, lay the brown bat on the floor, beneath Spunky's home. He looked so soft, the impulse to stroke him had to be quickly rejected.

Carefully replacing the aquarium so as not to awaken the bat, I went in search of a wide-mouth jar - complete with lid! Once again the aquarium was lifted to one side, and the jar placed over the bat. The trick now was to get the lid on, so that the creature could be released outside.

He escaped my first attempts, flew around a couple of times, then landed on the screening. Such a rude awakening had not improved his temper and he was ready with teeth and squeaky snarls to repel his would-be captor. Translated, his language must have been shocking! However, despite his emphatic protests, he was finally captured, taken well away from the house and released into the bright sunshine, from which he very soon found refuge in one of the tall spruce trees. The flight of a bat is a beautiful sight to watch.

That night, a severe thunderstorm developed and the land was deluged with torrents of rain, which literally roared down. I wondered whether storms of this nature affected creatures such as snakes. Spunky was safe from this one, in his aquarium on the porch floor. His little container of water had been renewed, fresh food supplied, in the form of available insects, the lid replaced, tied down, then anchored with the rocks.

In the morning, I went out to see how the snake had fared, but this time, no patch of white caught my eye. Carefully the lid was removed, neither moss nor wood revealed any trace of Spunky. This time he really had gone - perhaps the storm had urged him to make good his escape. Due to an injured hand, I had possibly failed to place one of the rocks in a secure position, but how he managed to find his way between the wood and screening of the porch, remained a mystery.

And so Spunky never did get to face a camera and I did not get my hoped-for pictures, but the snake did win his freedom, one week ahead of time.

Two weeks later, our snake was seen again, but this time he did

not wait to defend himself. He set out for safer territory as fast as his peculiar muscles would allow him to wriggle, and that was the last we saw of a little Milkesnake named Spunky.

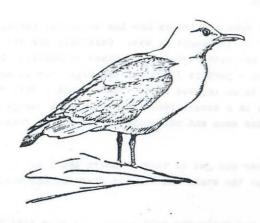
MICHAEL'S SONG

Winifred W. Gibson

Because I set no snare
But leave them flying free,
All the birds of the air
Belong to me.

From the Blue-tit on the sloe To the eagle in the height, Uncaged they come and go For my delight.

And so the sumward way I soar on eagle's wings, And in my heart all day The Blue-tit sings.



SEASTARS OF THE NANAIMO AREA Kath

Because they are the largest of the intertidal animals, starfish are easily found by most sea shore visitors. Their bright colours make them especially attractive and noticeable. Many different species of starfish are found in the Nanaimo area, however, most of these will be only encountered at low tides (2 feet or less).

Starfish belong to the phylum Echinodermata, meaning "spiny skinned." This phylum also includes the sea cucumbers, sea urchins, sand dollars, and brittle stars. This article will cover only the class Asteroidea (the sea stars or starfish).

Sea stars are radially symmetrical, possessing five or more rays which merge with a central disc. The mouth is located on the lower surface in the center of the disc. A groove lines the underside of each ray, and tube feet cover much of the ventral surface. The upper, dorsal surface, is made rigid and protected by a network of calcarecus plates. These plates allow for flexibility, (a sheet of calcium would inhibit this). The upper surface in most cases is covered with spines and pedicellariae. These are small pancers which prevent bits of debris from settling on the surface. Also noticeable on the dorsal surface of many starfish is the madreporite. This small light spot near the center of the disc is the passage between the internal water vascular system and the ocean.

The starfish in the key following (page 7), are all found at the beach south of Dodds' narrows, but most of them should be found on other beaches around Nanaimo.

STARFISH AND BRITTLE STAR KEY

- Animals with 5 or more fleshy arms merging with a central disc. Ventral surface lined with tube feet. (2)
 Animals with 5 thin arms (not fleshy) with spines along the margins. Arms distinct from small central disc. (10)
- Starfish with up to 5 arms. (3)
 Starfish with more than 5 arms. (9)
- Starfish with a wide central disc and thick short rays. (4)
 Starfish with a small central disc and long thin rays. (7)
- Starfish with conspicuous spines. (5)
 Starfish with no conspicuous spines (smooth surface). (6)
- 5. Central disc humped, and with spines arranged in the shape of a pentagon. Colour usually purple, but may be other or pinkish-brown. Pisaster othraceus

No pentagon arrangement in center of disc. Two rows of spines running down the center of each ray. Size-large 12"-24". Colour pink with pink or rose spines and sometimes spots of purple or green. Pisaster brevispinus

- 6. Rays shorter than wide and upturned at the ends; disc broad.
 Animal covered with a heavy coat of mucus.
 Pteraster tesselatus arcuatus
 - Rays longer than wide-triangular in shape. Ventral surface is smooth and tan in colour, with tube feet restricted to the thin central grooves of each ray. Colour, dorsally, is reddish or green mottled with grays and browns. Lermasterias imbricata
- Starfish with conspicuous spines. (8)
 Starfish without conspicuous spines. Usually bright red in colour (occassionally orange or purple). Small size up to 6" across. Henricia leviuscula
- 8. Starfish with spines arranged in cluster. Colours mottled white.

 Commensal scaleworm is often found on the underside of this species.

 Evasterias troschelli

 Starfish with spines arranged in 5 or more indistinct langituding.

Starfish with spines arranged in 5 or more indistinct longitudinal rows down each ray. Flexible skeleton. Arms are easily broken off. Colours - reds and purples with white spines. Crthasterias koehleri

- 9. Starfish with a firm coarse textured dorsal surface. Arms-usually 8-15. Colours reds or oranges with blue or purple streaks running down the dorsal surface of each ray. Solaster dawsoni Starfish with 12-24 arms. Texture soft. Arms flexible and easily broken off. Colours grays, purples, oranges.
 Pycnopodia helianthoides
- 10. Arms 5-disc small with a distinct lobe present between each ray. Spines arranged perpendicular to the sides of each ray. Size about 2-3" across. Ophiopholis aculeata

WISPS OF COLOUR IN THE SUNSHINE David C. Kerridge

We have all caught glimpses of colour dancing through the sunlit forests and over the open meadows. These gay, colourful patches seem to bring a certain brightness to us. We have not seen a great number of butterflies this year because of our poor weather but, on the few sunny days that we have had, they have been out displaying their colours and telling us that spring may get here yet.

Butterflies, along with their relatives, the Skippers and Noths, belong to the order Lepidoptera meaning 'scaled wings'. Butterflies are easily separated from the moths if one knows what to look for. The moths generally have much fatter bodies, hair-like or feathered antennae and, when sitting, hold their wings horizontally. Butterflies on the other hand have slender bodies, swollen tips on their antennae and, when resting, hold their wings vertically. The skippers are frequently included with the butterflies as they possess most of the butterfly characters. They derive their name from their peculiar flight——they skip from flower to flower. They can be generally identified by their antennae which are pointed clubs that generally form a little hook.

Our largest and probably most spectacular group of butterflies is the Swallowtails --so called because of the tail-like protrusions from their hind wings. On Vancouver Island we have three different Swallowtails which are easily recognized by their large size and their predominantly yellow and black colouration. A close relative which belongs to the same family and is quite common in our area is the Clodius butterfly. This is recognized as it is a white butterfly with grey etchings along the forewings and two bright red spots on each hind wing.

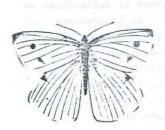
Another family found locally and which contains the best known but least loved butterfly is the family containing the Sulphurs and whites—the Alfalfa being an example of a Sulphur butterfly and the Cabbage being a White. If we look hard enough, we may be fortunate to see what appears to be a Cabbage butterfly with orange tipped forewings——this is the Sara Orange Tip which also belongs to this family.

The largest and most diverse family found locally contains the Brushfooted butterflies. A well-known member of this group would be the
Monarch---its mimic, Viceroy is also a member. Most of the members of
this group contain orange colourations and a great deal of patterning.
They have such delightful names as Satyrs, Wood Nymphs, Fritillaries, Angle
Wings and Checker Spots.

A few members this group are very common in our area. Some of these are: Lorquin's Admiral, Mourning Cloak, Painted Lady, West Coast Lady, Common Wood Nymph, as well as many of the Fritillaries and Angle Wings.

The final group found in this region is the family containing the Blues and Metal-marks. These are gay little patches of copper, orange or blue which flit from flower to flower. To see these, one has to be alert for they are generally quite small---about 3/4 the size of a Cabbage butterfly. Many of the Blues can be seen at this time of year feeding on the vetches and wild sweet peas.

Many of these delightful creatures are only found at certain times or seasons of the year so one must constantly be on the lookout for the different types. Hopefully this will make your summer nature trips a little more exciting as you become more aware of another group from natures wonderland. Kemember that even the creatures which devour your gardens have a place and may turn into a wisp of colour to delight you on a sunny day.







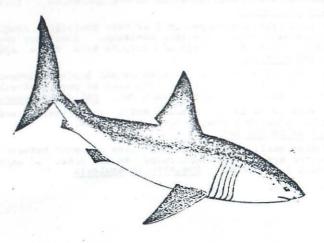
VANCUUVER AQUARIUM & STANLEY PARK Barbara Graves

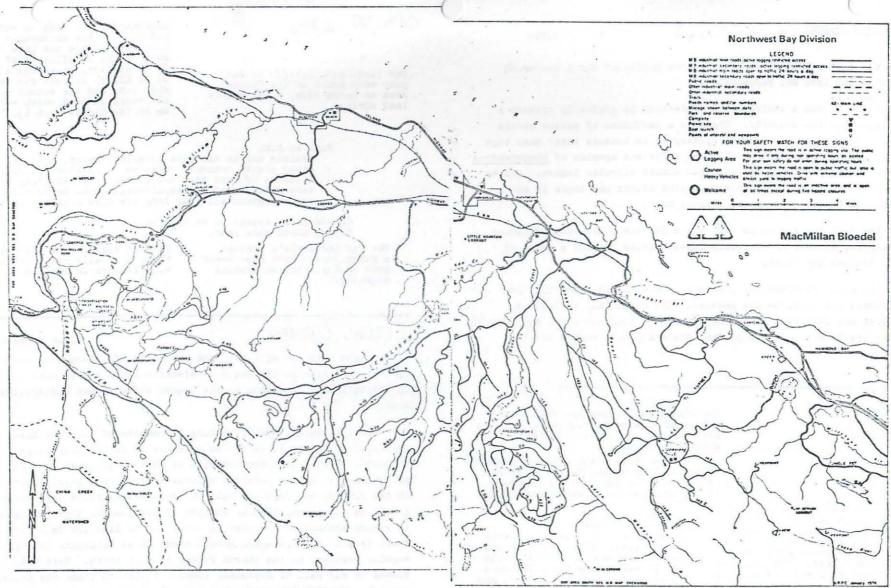
On Saturday, April 20th, about 20 of us assembled at the C. P. Ferry wharf for the 8:00 A.M. sailing. On arrival in Vancouver we decided to hike rather than ride to Stanley Park as the weather was glorious. Though our destination was the aquarium, we found some additional interests as we walked through the park. A mixed group of golden-eye off-shore, gave us a good opportunity to study both species at close range and we also observed quite a Variety of water-fowl on the ponds. We even took in an art show curing our lunch break, while the children were more engrossed with the animal exhibits nearby.

The highlight of the aquarium visit for most people was the whale show which many of us enjoyed at least twice (One member's pleasure was marred by an unexpected bombardment from a passing seaguil and he regretted not bringing an umbrella!). The recent additions of a seal pool and a pond with flamingos and native water-fowl drew our interest, aside from the wealth of marine life inside the main building.

Later in the afternoon there was excitement of a different kind followed by some fast detective work when one small Kerricge disappeared. He was shortly discovered to be enjoying a stolen train ride, happily too; some of us enjoyed the outdoor presentation by the Breadcakers' Theatre group in the Park, and others took time to go into the city before returning for the 8:00 P.M. ferry.

Our thanks to Marg Kerridge for organizing such a delightful day.





This is one example from a complete set of revised logging road maps (January 1974) which can now be obtained free of charge to members of the general public from MacMillan Bloedel.

They may be picked up from their

FORESTRY DIVISION 55 Gordon Street Nanzimo Mollie Byrne

On May 10th a small group visited the garden of the house which belonged to the late Dr. Berkeley.

Although he was a zoologist by profession he gradually created a unique garden on his property. There is a profusion of exotic shrubs and trees, many of which remain a mystery to us because their name tags have been lost or obliterated. Several different species of khododendron are to be found, including one that has almost circular leaves. Across the front of the house a huge Wisteria vine climbs and there is an old-fashioned Medlar tree in the orchard area.

In the fall the garden is very vivid for there are many varieties of Pyracantha, Spindle and Barberry whose berries provide a range of yellows, oranges and pinks.

For several years now the plants have not had the care they need and are untrimmed and overgrow one another. The garden may be lost to developers, but this club is making efforts to find out about and possibly influence its future in the hope that there may be a chance for its preservation.

COUKING

CORNER

The following recipes are from a book published by Alaska Crippled Children's Association, Inc., P.O. Box 2432, Anchorage, Alaska.

kecipes are those contributed by students of the Shishmaref Day School who have agreed to share the profits with the Alaska Crippled Children's Association.

Seals Bare Feet (Seal Flippers)

Put the seals bare feet into a cooking pan. Cover them with blubber and keep in a hot place until the fur comes off. Then it is time to eat. You can cook them or eat them without cooking.

Pauline Tocktoo Alma Nayokpuk

Soured Seal Liver

Soured seal liver is made in the summer time. Place liver in enamel pot or dish and cover with blubber. Put in warm place for a few days until sour. Most of the boys and girls don't like it, except the grown-ups and old people. I don't like it either.

Agnes Kiyutelluk

Loon

Take off feathers and clean the loon. Wash and put into cooking pot with plenty of water. Add salt to taste. Do not make the loon soup.

Bert Tocktoo

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SPRING NOTES

The first hummingbirds of the year were spied in the Cassidy area on March 27th, a day before last spring.

Interested club members who have not yet done so are encouraged to buy as soon as possible the late Dr. Clarke's book on the Wildflowers of B.C. The first edition, which has already gone up to \$29.95 in most stores, is almost sold out, and the second edition is now being planned which will probably be in the mid to high \$30.00 range.

Memo to R.H.

Azaleas are in the same botanical genus, khododendron, as other plants commonly referred to as khododendrons (another instance of more than one common name referring to the same grouping of plants, although those khododendrons which are evergreen all year long are more commonly termed Azaleas

Canada geese appear to be late in flying north this year.

The Van Kerkoerle's spotted a rough legged hawk over their home on May 25th; an unusual sighting. The wet spring this year has led to an unusually heavy profusion of wild flowers in our area.

EDITURS CURNER

Allan R. Hawryzki

I hope that you will all find something of interest in our spring issue in addition to its being a reference which can be used in the future to identify such creatures as the common starfish and butterflies of our area.

Since no summer events, during the months of July and August, have been planned by the Executive no calendar of future happenings has been included. I hope that members will be able to dispense with the mundame and engaged in a long deserved departure from their yearly routine, namely in the form of holidays (if only our politicians would also cooperate). I will be publishing another edition of our journal this coming September to remind members of our meeting dates and to list the fall series of field trips. We have again booked hoom lob at Malaspina College for our regular meetings on the fourth Friday of each month. This will be confirmed in our Fall or September issue. I wish to thank the College for providing us with this aid as a community service in enabling individuals in groups such as our own to meet and thereby learn more about the natural history of the Nanaimo area.

I hope you will have a good summer and we'll be seeing you again this fall.

NANAIMO DISTRICT NATURALISTS EXECUTIVE OFFICERS 1973/74

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Rock Director	Mrs. W. Espitalier	758-7606
	Mrs. B. Graves	390-4750
Editor	Mr. A. Hawryzki	758-9355
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Youth Director	Miss K. Soames	753-1470
Bird Lirectors	Mr. & Mrs. P. Van Kerkoerle	245-2530
Convener	Miss E. Waddell	758-7485

MEMBERSHIPS

There are three types of memberships available in the Nanaimo District Naturalist Society:

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

All new memberships and renewals are payable to the Secretary/Treasurer.

The following is a complete list of this years paid up memberships to date:



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