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COVER PHOTO: by Tim Zurowski
 Kittlitz's Murrelet, first Canadian record, Victoria Harbour, Nov/Dec 85.

THE WESTERN BLUEBIRDS' STRUGGLE FOR SURVIVAL

by Harold Pollock

The present population of Western Bluebirds on Vancouver Island is alarmingly low. The Victoria Christmas bird counts of the early sixties averaged about forty-five bluebirds, but have been zero for almost the last twenty years.

Much of the decline in the bluebird population has been properly attributed to the introduction on the North American eastern seaboard of two alien species, the European Starling and the English Sparrow. Together, they evicted less aggressive cavity-nesters, including bluebirds, from the homes they had been innately programmed to use. Coupled with this was man's increasingly widespread drive to tidy his environment by cutting down the dead trees on which the bluebirds depended.

By the time naturalists realized that bluebirds were threatened with extinction, the bluebird population had already suffered a drastic reduction. Then commenced a nest box building drive that slowly gathered momentum as more people became concerned. Activity seemed to be greater east of the Rockies and certainly has been more successful there, with the Eastern and Mountain Bluebirds, than with the Western here.

The southern portion of Vancouver Island is the northern limit of bluebird migration and the first to feel the effects of adverse conditions in the bluebirds' southern wintering grounds. The few that now winter here are in danger of being wiped out by any prolonged cold spell. As this is being written, we are still in the grips of the November deep-freeze and it is unlikely that any bluebirds still here will survive.

Bluebird nesting boxes are designed to provide optimum accomodation for the intended occupants, while barring the entry of starlings. This is accomplished by using a 1.5" hole and eliminating perches from the boxes. Unfortunately, there is no simple solution for keeping out House Sparrows. Sparrow occupancy can be discouraged, however, by placing nesting boxes not more than six feet above ground and keeping them away from barns and other buildings.

The diminutive House Wren can be a menace to other song birds due to its habit of puncturing eggs or filling empty boxes with twigs. Its deperadations can be minimized by placing bird houses well away from bushes.

Crows sometimes menace the lives of young bluebirds by attacking them from the roof when they are about ready to fledge. A roof with a large overhang seems to be the best solution.

Other predators which are a serious threat to song birds generally in the eastern part of this continent, but fortunately not here, are raccoons, squirrels and snakes. Because bluebirds are ground feeders they are particularly vulnerable to cats. Feral cats have been known to leap seven feet to the top of a nesting box if they thought a meal awaited them inside.

Where feasible, Charlie Trotter and I place our nesting boxes in tight groups of three — sometimes with two on the same post. Then if a tree Swallow claims one, it will keep its own kind out of the other two. The same territorial principle applies to many other species such as Violet-green Swallows, House Wrens, and Chickadees. With luck, one house in the group will be available for bluebirds.

Tree Swallows tend to gang-up on bluebirds and prevent them from nestbuilding. The bluebird can hold its own on an individual basis, but is no match for three or four swallows. To give the bluebird a fair chance, we keep the groups of houses well separated. Young swallows have fledged from nests supported by the dead bodies of a bluebird mother and her nestlings killed by the swallow parents. One would gather from this that avian olfactory organs are not overly sensitive.

In the spring of 1984, three pairs of Western Bluebirds appeared in Metchosin and the outlook seemed promising. Before the nesting season commenced, however, two females disappeared, probably the victims of avian predators. The remaining pair raised a family of six, but when they attempted to build a second nest they were driven off by swallows. Since under normal conditions bluebirds will raise two families per season, the score of one rather than six families was a serious setback. Taken with the average 20% one-year survival rate of song birds, the addition would scarcely compensate for normal losses in the adult population.

A pair of bluebirds appeared for the first time in many years in the spring of 1984 in a clump of firs alongside Layritz Park. Despite having the snag in which they were building a nest cut down from under them, and then having the roof of the nesting box to which they transferred, yanked off, this tenacious pair raised two families of three each in a second adjacent box. We expected that one or possibly two pairs would return in 1985, but none appeared.

A small farm situated approximately four miles north-west of downtown Victoria has been the scene of bluebird activity in spring migration for at least the last ten years. Five or six appeared there again last spring and eventually two pairs remained behind as the others moved on. The owner, Vicky Scott, 'phoned to say she thought they had plans to

take up residence after all these years. Not knowing just what appeals to bluebirds, I thought it prudent to add some nest boxes to those Charlie had put up several years earlier. Our total was now twelve, but was shortly reduced to ten, thanks to vandals.

When a week or more passed with the bluebirds showing little interest in our offerings, it seemed wise to enlarge our avian subdivision, lest we lose them. Vicky pointed out two tall snags that the bluebirds seemed to favor. On our way over to the first, my wife and I looked around for bluebirds, but saw none that we could identify. I secured a box to one dead tree and walked over to the second about fifty feet away and had just finished putting it up, when a female bluebird materialized and alighted on the roof of the first. Almost immediately, a male bluebird appeared and clung to the lip of the entrance hole and peered inside. With blue wings spread out and braced by his tail, he fairly glowed in the sunshine. Then he flew back and forth between the hole and a branch a few times in great excitement. Finally, curiosity overcame caution, and he disappeared within. Before he could emerge, a second male alighted on the threshold and peeped inside. Their inquisitiveness satisfied, they flew up into the tree. It appeared that we had at last come up to their housing expectations. If ever there was a genuine case of "people watching", this was it. We hadn't seen them, but we had been under surveillance from the beginning.

After this "thrill of a lifetime" experience, we expected nesting to get under way without further delay, but we hadn't counted on the actions of a certain slightly demented robin. Whenever the bluebirds tried to carry grass into a house, the robin interfered — strange behaviour for a non-cavity nester. After a few days, he lost interest in his little game and normal nest building commenced.

One female laid a clutch of six eggs and then vanished. A Sharp-shinned Hawk was seen in the same snag and was probably the culprit. How could the six precious pale blue eggs be salvaged? Vicky placed two of them under a Violet-green Swallow that was incubating eggs in one of the boxes. One bluebird egg was removed by an unknown predator without disturbing the nest. The other hatched and the bluebird nestling was fed faithfully by its adoptive parents. It seemed to be thriving, but died from undetermined causes when about twelve days old. By the time brooding House Sparrows were located for the remaining eggs they were cold, and failed to hatch.

The other female laid a clutch of four eggs and in due course four nestlings appeared. When they were seven to eight days old, she turned over the feeding to her mate, no doubt instinct telling her to start a second family. At about this time she became highly agitated, calling her mate to join her on an upper window sill where he was severely scolded. Later, on two separate occasions Vicky and her husband returned home to find a bluebird in their bedroom. Once it was a male, the other time, a female. Stains on a mirror told the story.

When not attacking his imaginary rival, the male unceasingly toiled from dawn to dusk to

satisfy the hunger pangs of his little family. They successfully fledged when about twenty-one days old and then took off. Such are the ways of bluebirds.

Most of our nesting boxes have been occupied by swallows, wrens, and chickadees in that order. Why these species are so vigorous compared to the bluebird is not apparent. However, it seems that, with many species, a certain critical minimum population density must first be established in some limited area before they become viable. The two male bluebirds in Metchosin in 1984 were unable to attract new mates because there were none around. Had they been swallows for example, mates would probably have been found promptly and without difficulty. It seems to me that we need to build up a nucleus of bluebirds in one or two restricted areas before there is any real resurgence in their numbers. Rocky Point, with its almost ideal habitat, offers perhaps our best hope if we can induce a pair or two to start nesting there. A number pass through that area, and some stayed on last winter, but all moved out in the spring.

Finally, I draw hope from the experience of those who introduced the House Sparrow to New York about the middle of the last century. Eight pairs were released and yet were unable to form a viable colony and the species died out. It was only much later, when fifty pairs were released, that the species took hold and flourished — much to our regret.

PLANT NAMES FOR PEOPLE: SOME B.C. ALPINES

by Kaye Suttill

What a wondrous living memorial is a plant honouring some man or woman, remembered in name every time we say or see or even think of the species. Why are certain people-names chosen? Did they know the specific flora firsthand, or were they so preeminent in their botanical field that they were distantly plant-identified?

In our B.C. high country, some plant names remember field pioneers, like the Alpine Larch, *Larix lyallii*, whose needles glow gold in late September up the treeline around the Continental Divide and southwest into Cathedral and Manning Parks, and the Dwarf Goldenweed, *Hapiopappus Lyallii*, that hardy native composite hugging shaley alpine slopes in B.C. near the Divide and down into the Cascades. Both these honour a British naturalist and physician, David Lyall, who went plant collecting through Western North America during the mid 19th century. We also remember him of the mauve woodland Anemone *lyallii*, which he found along the lower Fraser River in 1859; it ranges from the Cascades to the coast of Southwest B.C., down into California.

Our paintbrush genus with all its vibrant species, the partially-parasitic *Castillejas*, which range all across B.C. from our coastal Vancouver Island through the province's high

country, are named for one Don Domingo Castilleja of Spain. He was a late 18th century field botanist who discovered the first paintbrush species growing up in the Andes of Colombia.

In *Wildflowers of British Columbia* Dr. Lewis Clark states that the Alpine Anemone, *A. drummondii*, is named for James Francis Drummond, a Scottish botanist who lived from 1851 to 1921, and Yellow Mountain Avena, *Dryas drummondii*, "almost certainly refers to James Drummond", the Scottish curator of the Cork Botanic Gardens, who died in 1853. However, an early field naturalist, Thomas Drummond, was attached to the second Sir John Franklin expedition and for some time was associated with Dr. John Richardson, collecting specimens from the Arctic down into Athabasca Pass and up the headwaters of the Peace River, from 1826 to 1830. He was the first professional naturalist to reach what is now Jasper National Park. So I like to think of Thomas Drummond when I see the Alpine Anemone dancing to the ridgetop winds, for he must surely have noted it in its indigenous habitat long before James Francis Drummond was born, even as he was sure to have joyed to yellow *Dryas drummondii* pioneering plant life across gravel flats, some time before he lost his life plant hunting in Cuba.

The hanging blue and pink bells of our indigenous lungworts, both *Mertensia longifolia* of lower level Ponderosa Pine-sagebrush flats and foothills of S.E. B.C., and *Mertensia paniculata* of wettish alpine brooksides throughout the Rockies and up into the Yukon, honour F.C. Mertens, a German botanist living from 1764 to 1831. Mertens also has his name perpetuated in *Cassiope mertensiana*, the White Moss Heath so part of our herb mats from timberline upward. Thinking of Mertens when rejoicing on seeing them, I wonder every time if he actually saw our high country, too. How did his name get these floral identities?

Sawwort, *Saussurea densa*, like tiny mauve wool balls crossed with a dwarf thistle up in the damp tundra of our B.C. Rockies, does justly honour a scientist who never saw North America, but was so preeminent in early Alpine botany-geology-mountaineering, Horace Benedict de Saussure. His home was Geneva, his lifetime the late 18th century, his dedication the High Alps, for de Saussure was closely associated with the first and early ascents of Mt. Blanc and a great pioneer in High Alps scientific study.

Early and midsummer alpine flora remember J.F. Eschscholtz, a Russian naturalist and doctor who lived from 1793 to 1831. His pioneer field work was done on Otto von Kotzibue's second voyage from Europe through Bering Strait to Alaska and south, 1823-1826, a part of a journey around the world. At Sitka, Eschscholtz and Kotzibue noted Rufous Hummingbirds nesting, among other birds. But we think of Eschscholtz for his Mountain Buttercup, *Ranunculus Eschscholtzii*, so often joying us in melting snows, and False Hellebore, *Veratrum viride* ssp. *Eschscholtzii*, patching the alpine meadows. California Poppies, *Eschscholtzia*, are his garden remembrance.

So our B.C. Alpine flora, like that of our Pacific Northwest Coast, honours men special of their enduring wilderness plant questing, and others thousands of miles distant, considered so deserving of plant identities. This is just a partial thanksgiving.

GEOLOGY OF THE VICTORIA-EAST SOOKE AREA FIELD TRIP NOVEMBER 2, 1985

by *Richard Hebda*,
Archaeology Division, B.C. Provincial Museum

Can you imagine living in a place where you can visit three ancient continental fragments and a piece of oceanic crust in a one-hour drive? Well, that's precisely the geological setting of our area.

On a progressively humid Saturday field trip, Paul Wilton, Victoria District Geologist, with the Ministry of Energy, Mines and Petroleum Resources led a Victoria Natural History Society group over our fascinating landscape, explaining geologic structures, principles and history.

In this note, I briefly describe the geology of our area, for it is definitely worth knowing, and then I retrace the field trip so that those of you who couldn't make it might be able to go on a self-guided tour.

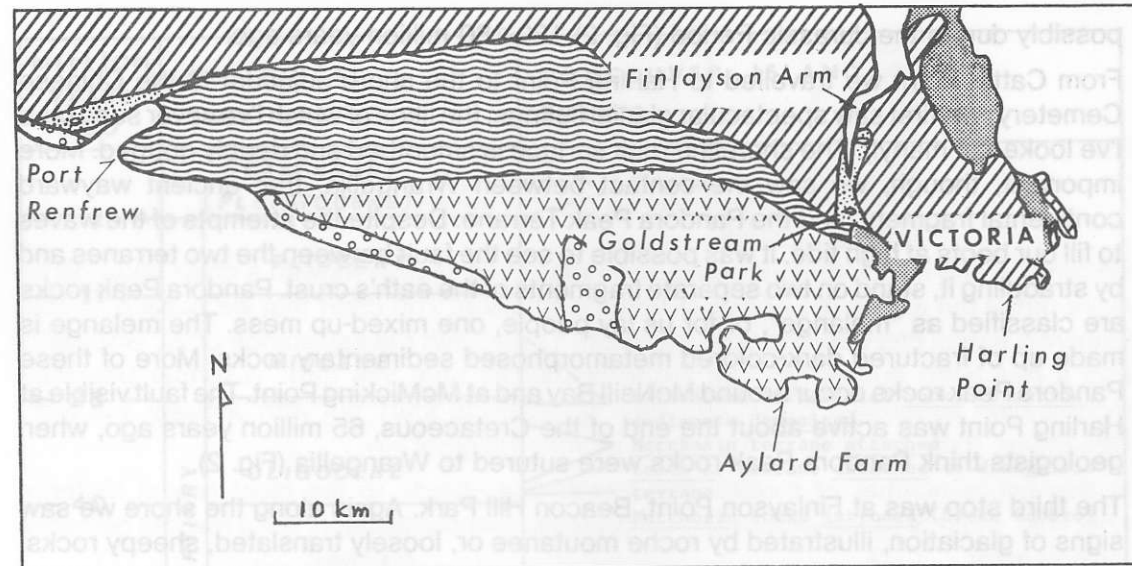
Vancouver Island, for the most part, belongs to what geologists call Wrangellia (Fig. 1) or Wrangellia terrane¹. Fragments of another geologic unit called the Pandora Peak terrane, are distributed along the south part of Wrangellia, notably in southeast Victoria at Harling Point, along Finlayson Arm and near Port Renfrew. Glued onto this mess there is the Leech River complex. This is a suite of rocks of unknown origin presumably drifted into place against Vancouver Island after Wrangellia and Pandora Peak terranes arrived.

A mass of ocean-floor rocks called the Metchosin terrane is plastered onto the southwest shore of our area. Finally, patches of relatively young sediments, ranging from a few thousand to a few tens of millions of years old blanket the older terranes.

From this you can see that most of southern Vancouver Island consists of a succession of floating pieces of earth's crust which have come together to call our area home.

Field Trip Stops

The field trip began at the northeast parking lot at Cattle Point, Upland Park, just before the boat ramp. Here, Paul Wilton showed us rocks grossly banded in gray and black. This is the Colquitz gneiss, which is superbly displayed along the shore just above the high tide mark. We saw a large pistachio green inclusion of the mineral epidote. These rocks formed when original rocks of Wrangellia were metamorphosed by heat and pressure,









- | | | | |
|---|-------------------------|---|---|
|  | Wrangellia
Terrane |  | Metchosin
Terrane |
|  | Pandora Peak
Terrane |  | Tertiary sediments
(Sooke Formation) |
|  | Leech River
Terrane |  | Quaternary (Ice Age)
Sediments |

Figure 1. Geologic map of southern Vancouver Island, adapted from Rusmore, M.E. and D.S. Cowan, 1985. *Canadian Journal of Earth Sciences* 22:1223-1232.

possibly during the Jurassic Period (Fig. 2) 130-180 million years ago.

From Cattle Point we travelled to Harling Point to the shore adjacent to the Chinese Cemetery. We first saw spectacular glacial flutings, the likes of which I've never seen (and I've looked at many!). The shoreline rock surface is smoothed and deeply gouged. More important, though, we saw the contact between Wrangellia, that ancient wayward continental fragment, and the Pandora Peak Terrane. Despite the attempts of the waves to fill our boots at high tide, it was possible to see the fault between the two terranes and by straddling it, stand on two separate fragments of the earth's crust. Pandora Peak rocks are classified as "melange", or for us lay people, one mixed-up mess. The melange is made up of fractured dark-colored metamorphosed sedimentary rocks. More of these Pandora Peak rocks occur around McNeill Bay and at McMicking Point. The fault visible at Harling Point was active about the end of the Cretaceous, 65 million years ago, when geologists think Pandora Peak rocks were sutured to Wrangellia (Fig. 2).

The third stop was at Finlayson Point, Beacon Hill Park. Again along the shore we saw signs of glaciation, illustrated by roche moutanee or, loosely translated, sheepy rocks. These are formations that, at least to the French, look like the rounded backs of sheep and were formed as ice passed over a knob of bedrock. A little to the west the dark coloured Wark gneiss (part of Wrangellia) is exposed. Here it is intruded by a light coloured dike of diorite which probably ripped up chunks of gneiss as it forced its way into the rock from below. The dark chunks can clearly be seen surrounded by lighter intrusive material.

Next we visited a spectacular exposure of ribbon chert on the west side of Finlayson Arm next to the large pullout, a few kilometers north of Goldstream Park. Here, at the foot of a large power pylon, vertically bedded ribbons of dark chert are separated by graphitic layers. The chert was probably formed from the silica covering of radiolarians, microscopic marine protozoans. These Pandora Peak rocks weather a prominent creamy colour.

From Finlayson Arm we went to the bank of Goldstream Creek just above the bridge at the campground. Here we could imagine (most of the rocks were below the water) or faintly see the thinly layered slates of the Leech River Formation. Quartz veins, which run through the slate, carry traces of gold, which is generally too finely divided to be commercially valuable. Leech River rocks arrived in the middle of Tertiary Era (Oligocene-Eocene) about 35-40 million years ago.

As the rain continued to increase in intensity I left the trip. Chris Brayshaw recounted to me observations at the remaining sites.

At Stop 6, Centre Mountain, Happy Valley Road, we saw pillow lavas in a cliff on the right side of the road. These formed as magma oozed onto the ocean floor deep in the Pacific Ocean. We learned that gas bubbles, which later filled with precipitated silica, were

Cont'd page 20

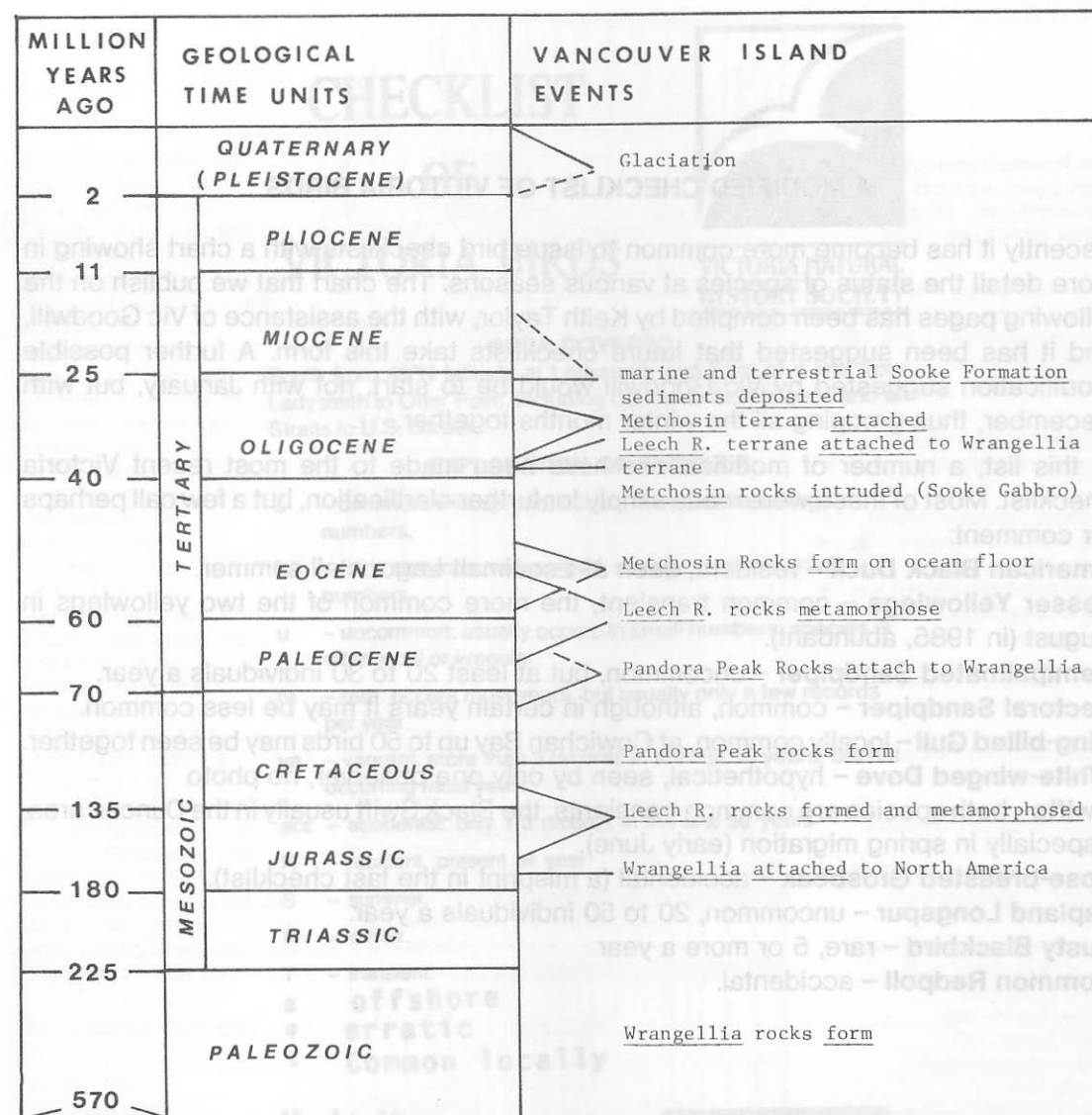


Figure 2. Geologic time scale and appropriate timing of geologic events on south Vancouver Island. Note that time (m.y.a.) is not drawn to scale.

A MODIFIED CHECKLIST OF VICTORIA BIRDS

Recently it has become more common to issue bird checklists with a chart showing in more detail the status of species at various seasons. The chart that we publish on the following pages has been compiled by Keith Taylor, with the assistance of Vic Goodwill, and it has been suggested that future checklists take this form. A further possible modification suggested by Vic Goodwill would be to start, not with January, but with December, thus grouping all the winter months together.

In this list, a number of modifications have been made to the most recent Victoria checklist. Most of these were made simply for further clarification, but a few call perhaps for comment:

- American Black Duck** – resident, seen at Esquimalt Lagoon all summer.
- Lesser Yellowlegs** – common transient, the more common of the two yellowlegs in August (in 1985, abundant).
- Semipalmated Sandpiper** – uncommon, but at least 20 to 30 individuals a year.
- Pectoral Sandpiper** – common, although in certain years it may be less common.
- Ring-billed Gull** – locally common, at Cowichan Bay up to 50 birds may be seen together.
- White-winged Dove** – hypothetical, seen by only one observer, no photo
- Swifts** – both species are common transients, the Black Swift usually in the Duncan area, especially in spring migration (early June).
- Rose-breasted Grosbeak** – accidental (a misprint in the last checklist).
- Lapland Longspur** – uncommon, 20 to 50 individuals a year.
- Rusty Blackbird** – rare, 5 or more a year
- Common Redpoll** – accidental.

CHECKLIST OF VICTORIA BIRDS



VICTORIA NATURAL
HISTORY SOCIETY

AREA COVERED

South from 49°N latitude at Ladysmith and East of a line from Ladysmith to Otter Point, including Canadian Gulf Islands and all Straits to U.S. border.

EXPLANATION OF SYMBOLS

- c** – common: widespread, occurs in moderate to large numbers.
- fc** – fairly common: widespread, usually occurs in small numbers.
- u** – uncommon: usually occurs in small numbers, species is often local or irregular.
- ra** – rare: occurs most years, but usually only a few records per year.
- va** – vagrant: more than 3 records in the last 50 years, but not occurring most years.
- acc** – accidental: only 1-3 records in the last 50 years.
- R** – resident, present all year.
- S** – summer.
- W** – winter.
- T** – transient.
- o** offshore
- e** erratic
- l** Common locally

Hard to Miss

Should See

May See

Lucky to Find

How Lucky Can You Get

- .. Ancient Murrelet - cW cT ●
- .. Cassin's Auklet - raW ● vaS
- .. Rhinoceros Auklet - cS, uW
- .. Tufted Puffin - raS
- .. Horned Puffin - va

- .. Rock Dove - cR
- .. Band-tailed Pigeon - fcS, uW
- .. White-winged Dove - acc' HYPOTHETICAL
- .. Mourning Dove - raR

- .. Yellow-billed Cuckoo - acc

- .. Common Barn-Owl - raR

- .. Western Screech-Owl - fcR
- .. Great Horned Owl - uR
- .. Snowy Owl - raW ●
- .. Northern Hawk-Owl - acc
- .. Northern Pygmy-Owl - raR uT
- .. Burrowing Owl - va
- .. Barred Owl - raR
- .. Long-eared Owl - raW
- .. Short-eared Owl - raW
- .. Northern Saw-whet Owl - raR uT
- .. Great Gray Owl - acc

- .. Common Nighthawk - fcS
- .. Common Poorwill - acc

- .. Black Swift - raS cT
- .. Vaux's Swift - fcS cT

- .. Anna's Hummingbird - uR †
- .. Costa's Hummingbird - acc
- .. Calliope Hummingbird - acc
- .. Rufous Hummingbird - cS, vaW

- .. Belted Kingfisher - fcR

- .. Lewis' Woodpecker - raT
- .. Yellow-bellied Sapsucker - va
- .. Red-breasted Sapsucker - raR
- .. Downy Woodpecker - cR
- .. Hairy Woodpecker - fcR
- .. Northern Flicker - cR
- .. Pileated Woodpecker - fcR

- .. Olive-sided Flycatcher - fcS

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
.. Ancient Murrelet - cW cT ●												
.. Cassin's Auklet - raW ● vaS												
.. Rhinoceros Auklet - cS, uW												
.. Tufted Puffin - raS												
.. Horned Puffin - va												
.. Rock Dove - cR												
.. Band-tailed Pigeon - fcS, uW												
.. White-winged Dove - acc' HYPOTHETICAL												
.. Mourning Dove - raR												
.. Yellow-billed Cuckoo - acc												
.. Common Barn-Owl - raR												
.. Western Screech-Owl - fcR												
.. Great Horned Owl - uR												
.. Snowy Owl - raW ●												
.. Northern Hawk-Owl - acc												
.. Northern Pygmy-Owl - raR uT												
.. Burrowing Owl - va												
.. Barred Owl - raR												
.. Long-eared Owl - raW												
.. Short-eared Owl - raW												
.. Northern Saw-whet Owl - raR uT												
.. Great Gray Owl - acc												
.. Common Nighthawk - fcS												
.. Common Poorwill - acc												
.. Black Swift - raS cT												
.. Vaux's Swift - fcS cT												
.. Anna's Hummingbird - uR †												
.. Costa's Hummingbird - acc												
.. Calliope Hummingbird - acc												
.. Rufous Hummingbird - cS, vaW												
.. Belted Kingfisher - fcR												
.. Lewis' Woodpecker - raT												
.. Yellow-bellied Sapsucker - va	?	?										
.. Red-breasted Sapsucker - raR												
.. Downy Woodpecker - cR												
.. Hairy Woodpecker - fcR												
.. Northern Flicker - cR												
.. Pileated Woodpecker - fcR												
.. Olive-sided Flycatcher - fcS												

White-throated Sparrow
 Rock Dove - cR
 Band-tailed Pigeon - fcS, uW
 White-winged Dove - acc' HYPOTHETICAL
 Mourning Dove - raR
 Yellow-billed Cuckoo - acc
 Common Barn-Owl - raR
 Western Screech-Owl - fcR
 Great Horned Owl - uR
 Snowy Owl - raW ●
 Northern Hawk-Owl - acc
 Northern Pygmy-Owl - raR uT
 Burrowing Owl - va
 Barred Owl - raR
 Long-eared Owl - raW
 Short-eared Owl - raW
 Northern Saw-whet Owl - raR uT
 Great Gray Owl - acc
 Common Nighthawk - fcS
 Common Poorwill - acc
 Black Swift - raS cT
 Vaux's Swift - fcS cT
 Anna's Hummingbird - uR †
 Costa's Hummingbird - acc
 Calliope Hummingbird - acc
 Rufous Hummingbird - cS, vaW
 Belted Kingfisher - fcR
 Lewis' Woodpecker - raT
 Yellow-bellied Sapsucker - va
 Red-breasted Sapsucker - raR
 Downy Woodpecker - cR
 Hairy Woodpecker - fcR
 Northern Flicker - cR
 Pileated Woodpecker - fcR
 Olive-sided Flycatcher - fcS

- .. Western Wood-Pewee - uT, raS
- .. Willow Flycatcher - fcS
- .. Least Flycatcher - va
- .. Hammond's Flycatcher - fcS
- .. Western Flycatcher - cS
- .. Say's Phoebe - va
- .. Tropical Kingbird - va
- .. Western Kingbird - raS
- .. Eastern Kingbird - raS
- .. Scissor-tailed Flycatcher - acc

- .. Eurasian Skylark - uR
- .. Horned Lark - raW fcT

- .. Purple Martin - raS
- .. Tree Swallow - fcS
- .. Violet-green Swallow - cS, vaW
- .. Northern Rough-winged Swallow - uS
- .. Bank Swallow - raT
- .. Cliff Swallow - fcS
- .. Barn Swallow - cS

- .. Gray Jay - uR
- .. Steller's Jay - fcR ●
- .. Blue Jay - va
- .. Clark's Nutcracker - va
- .. Black-billed Magpie - va
- .. Northwestern Crow - cR
- .. Common Raven - cR

- .. Chestnut-backed Chickadee - cR

- .. Bushtit - cR

- .. Red-breasted Nuthatch - fcR
- .. White-breasted Nuthatch - acc
- .. Pygmy Nuthatch - acc

- .. Brown Creeper - cR

- .. Rock Wren - va
- .. Bewick's Wren - cR
- .. House Wren - fcS
- .. Winter Wren - cR
- .. Marsh Wren - cR

- .. American Dipper - raR †

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
.. Western Wood-Pewee - uT, raS												
.. Willow Flycatcher - fcS												
.. Least Flycatcher - va												
.. Hammond's Flycatcher - fcS												
.. Western Flycatcher - cS												
.. Say's Phoebe - va												
.. Tropical Kingbird - va												
.. Western Kingbird - raS												
.. Eastern Kingbird - raS												
.. Scissor-tailed Flycatcher - acc												
.. Eurasian Skylark - uR												
.. Horned Lark - raW fcT												
.. Purple Martin - raS												
.. Tree Swallow - fcS												
.. Violet-green Swallow - cS, vaW												
.. Northern Rough-winged Swallow - uS												
.. Bank Swallow - raT												
.. Cliff Swallow - fcS												
.. Barn Swallow - cS												
.. Gray Jay - uR												
.. Steller's Jay - fcR ●												
.. Blue Jay - va												
.. Clark's Nutcracker - va												
.. Black-billed Magpie - va												
.. Northwestern Crow - cR												
.. Common Raven - cR												
.. Chestnut-backed Chickadee - cR												
.. Bushtit - cR												
.. Red-breasted Nuthatch - fcR												
.. White-breasted Nuthatch - acc												
.. Pygmy Nuthatch - acc												
.. Brown Creeper - cR												
.. Rock Wren - va												
.. Bewick's Wren - cR												
.. House Wren - fcS												
.. Winter Wren - cR												
.. Marsh Wren - cR												
.. American Dipper - raR †												

White-throated Sparrow
 Rock Dove - cR
 Band-tailed Pigeon - fcS, uW
 White-winged Dove - acc' HYPOTHETICAL
 Mourning Dove - raR
 Yellow-billed Cuckoo - acc
 Common Barn-Owl - raR
 Western Screech-Owl - fcR
 Great Horned Owl - uR
 Snowy Owl - raW ●
 Northern Hawk-Owl - acc
 Northern Pygmy-Owl - raR uT
 Burrowing Owl - va
 Barred Owl - raR
 Long-eared Owl - raW
 Short-eared Owl - raW
 Northern Saw-whet Owl - raR uT
 Great Gray Owl - acc
 Common Nighthawk - fcS
 Common Poorwill - acc
 Black Swift - raS cT
 Vaux's Swift - fcS cT
 Anna's Hummingbird - uR †
 Costa's Hummingbird - acc
 Calliope Hummingbird - acc
 Rufous Hummingbird - cS, vaW
 Belted Kingfisher - fcR
 Lewis' Woodpecker - raT
 Yellow-bellied Sapsucker - va
 Red-breasted Sapsucker - raR
 Downy Woodpecker - cR
 Hairy Woodpecker - fcR
 Northern Flicker - cR
 Pileated Woodpecker - fcR
 Olive-sided Flycatcher - fcS

- Golden-crowned Kinglet - cR
- Ruby-crowned Kinglet - fcW
- Blue-gray Gnatcatcher - acc
- Northern Wheatear - acc
- Western Bluebird - uS, vaW
- Mountain Bluebird - raT
- Townsend's Solitaire - uT, raR
- Veery - acc
- Swainson's Thrush - cS
- Hermit Thrush - uW cT
- American Robin - cR
- Varied Thrush - fcR ●

- Northern Mockingbird - va

- Water Pipit - cT, raW

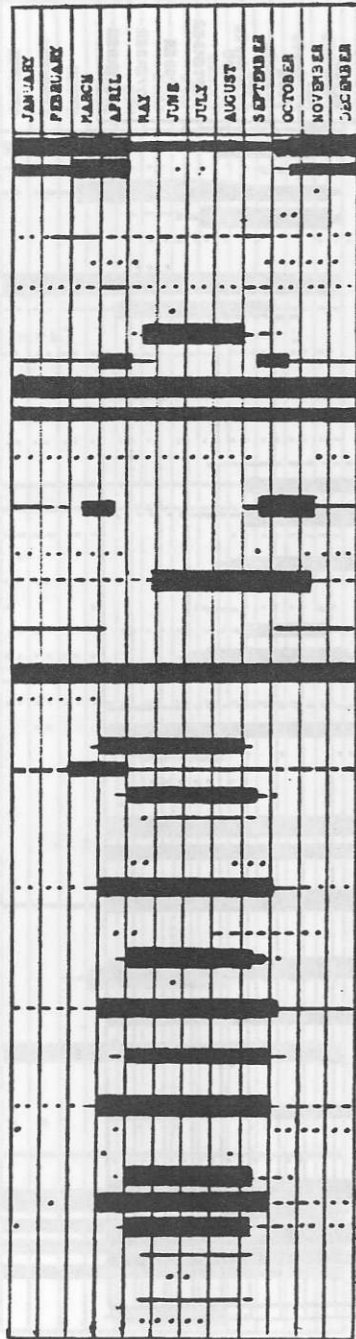
- Bohemian Waxwing - va
- Cedar Waxwing - cS, uW

- Northern Shrike - uW

- European Starling - cR
- Crested Myna - acc

- Solitary Vireo - fcS
- Hutton's Vireo - uR
- Warbling Vireo - fcS
- Red-eyed Vireo - uS

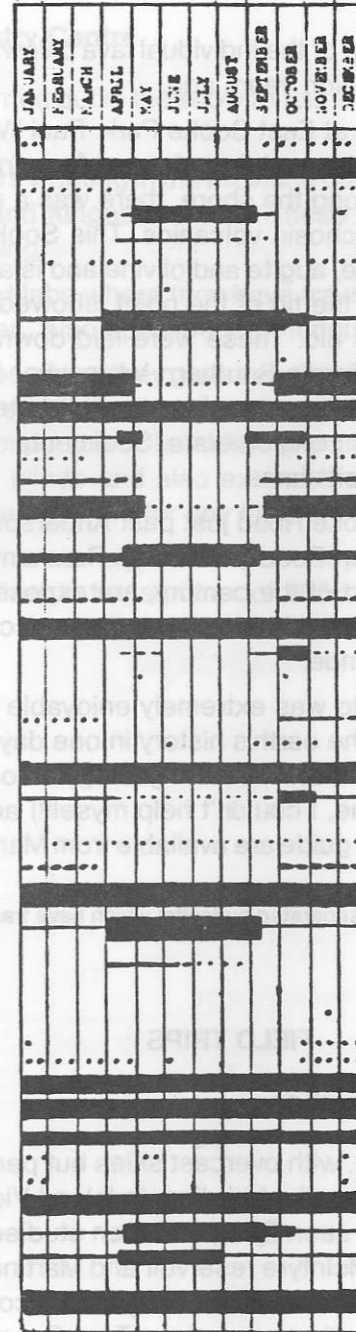
- Tennessee Warbler - acc
- Orange-crowned Warbler - cS, raW
- Nashville Warbler - raT
- Yellow Warbler - cS
- Magnolia Warbler - acc
- Yellow-rumped Warbler - uS, cT, raW
- Black-throated Gray Warbler - fcS
- Townsend's Warbler - cS, raW
- Palm Warbler - va
- Northern Waterthrush - acc
- MacGillivray's Warbler - cS
- Common Yellowthroat - cS vaW
- Wilson's Warbler - cS, vaW
- Western Tanager - uS
- Rose-breasted Grosbeak - acc
- Black-headed Grosbeak - uS
- Lazuli Bunting - va



- Dickcissel - acc
- Rufous-sided Towhee - cR
- American Tree Sparrow - va
- Chipping Sparrow - fcS
- Vesper Sparrow - raS COLONY
- Lark Sparrow - va
- Lark Bunting - acc
- Savannah Sparrow - cT, fcS, raW
- Grasshopper Sparrow - acc
- Fox Sparrow - raS, cW
- Song Sparrow - cR
- Lincoln's Sparrow - fcT, uW
- Swamp Sparrow - va ●
- White-throated Sparrow - raW
- Golden-crowned Sparrow - vaS, cW
- White-crowned Sparrow - cS, uW
- Harris' Sparrow - raW
- Dark-eyed Junco - cR
- Lapland Longspur - uT raW ●
- Chestnut-collared Longspur - acc
- Snow Bunting - raW uT
- Bobolink - va
- Red-winged Blackbird - cR
- Western Meadowlark - raS, uW fcT
- Yellow-headed Blackbird - ra
- Rusty Blackbird - raW raT
- Brewer's Blackbird - cR
- Brown-headed Cowbird - cS, raW
- Northern Oriole - raS

- Brambling - acc
- Rosy Finch - va
- Pine Grosbeak - va
- Purple Finch - cR
- House Finch - cR
- Red Crossbill - cR ●
- White-winged Crossbill - acc
- Common Redpoll - acc
- Pine Siskin - cR ●
- American Goldfinch - cS, uW
- Evening Grosbeak - uR ●

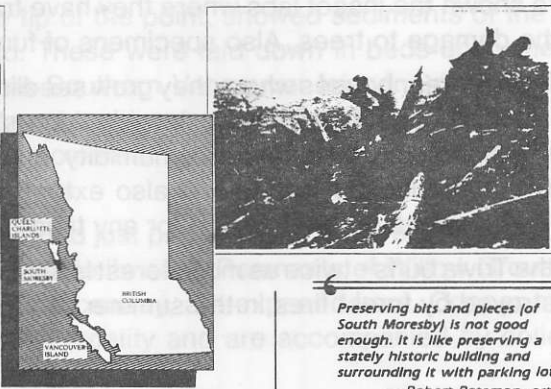
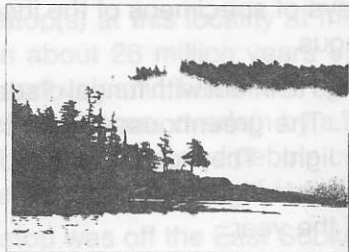
- House Sparrow - cR



TOTAL 324 SPECIES

Would you let them destroy the pyramids of Egypt?

British Columbia's Queen Charlotte Islands hold treasures every bit as special as the pyramids.
Yet these treasures may be lost forever!



Already centuries old when Columbus arrived in North America, the Sitka spruce, western hemlock and red cedar are among the largest trees on earth. But they are targeted for logging in South Moresby, the wildest and most beautiful part of the Queen Charlottes.

At this moment what is happening on the poor, old Charlottes resembles a desperate attempt to loot a treasure house before the owners, you and I, realize what's going on and take measures to stop it.

— Bill Reid, Haida sculptor

WHAT MAKES SOUTH MORESBY UNIQUE?

□ The world's largest concentration of the rare Peale's peregrine falcon and the largest nesting concentration of bald eagles in Canada.

□ Over one-quarter of all the nesting seabirds on the Canadian Pacific coast:

- More than one-half of Canada's Steller's sea lions;
- Eleven species of whales;
- The world's largest black bears.

□ Plants, birds, mammals and insects found only on the Queen Charlotte Islands:

- Several hundred archaeological sites, including the Haida Indians' Ninstints village, a UNESCO World Heritage Site;
- Some of the most majestic scenery on earth.

WHY LOG IT?

South Moresby has only 2/10 of 1 percent of British Columbia's productive forest land. There are means to compensate the logging companies without loss of jobs.

WILL WE LOSE IT?

The federal and provincial governments must be shown that Canadians care about South Moresby.

Federal Environment Minister Tom McMillan and BC Environment Minister Austin Pelton have said that they place top priority on preserving the area. But they need strong public support to convince their governments that South Moresby needs to be preserved.

TIME IS RUNNING OUT: PLEASE ACT NOW!

Preserving bits and pieces (of South Moresby) is not good enough. It is like preserving a stately historic building and surrounding it with parking lots.

— Robert Bateman, artist

YOU CAN HELP.

Tell Prime Minister Brian Mulroney and Premier William Bennett of British Columbia:

Stop the logging of South Moresby NOW. Preserve this world treasure as a park for ourselves and future generations.

WRITE or TELEPHONE:

Right Honourable Brian Mulroney
Prime Minister
House of Commons
Ottawa, Ontario
K1A 0A6
(613) 992-4211

Honourable William Bennett
Premier
Parliament Buildings
Victoria, British Columbia V8W 1X4
(604) 387-1715

You can support the effort to save South Moresby by sending donations to:
The Save South Moresby Fund
c/o The Canadian Nature Federation
75 Albert Street, Suite 203
Ottawa, Ontario K1P 6G1
Telephone (613) 238-6154
Donations are tax deductible, and receipts will be issued on request.



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TOUR PROGRAM

Discover Mexico	February 5 - 20
Western Mexico Birding	Feb. 22 - Mar. 8
Gray Whales - Long Beach	April 3 - 6
San Juan Is. Cruise	April 18 - 20
Southeastern Arizona	April 19 - 27
Southern California	Apr. 27 - May 7
Flowers of the Islands	May 3
Princess Louisa Inlet	May 7 - 11
British Columbia Owling	May 15 - 19
Okanagan and Nicola	May 24 - June 1
Rockies and Prairies	June 7 - 17
Yukon - Haines Triangle	June 14 - 21
Dempster Highway	June 21 - July 3

Write for our 1986 brochure

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MORE ON GARTER SNAKES

by Katherine Sherman

It is good to know that sometimes the Victoria Naturalist has a wider readership. The other day I received a phone call from an unknown man, not a member of the Society. He explained that he had been going through some bundles of back numbers of the Victoria Naturalist at the Public Library, and had come across my article (September 1983) on the disappearance of garter snakes in Victoria. He wanted me to know that he had seen three in the Spring of 1984 in the thicket near the animal pens in Beacon Hill Park, and that this year he had found one in the shrubbery higher up on the hill. As this one had lost the tip of its tail he hoped to be able to keep track of it.

COASTAL CRUISING



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- Gulf Islands

Join us this year for an exciting cruise along the British Columbia coast. Our trips are aboard the 66' MV *Bastion City*, a spacious and very comfortable mini cruise ship. Featured are whale watching, seabird observation, and exploration of old Indian villages.

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The caller deplored the fact that there is a group called "The Friends of Beacon Hill Park" who are trying to get the Park "all tidied up". Perhaps we, as naturalists, should request the Park authorities to leave those areas not already "tidied up" as wild as possible.

THETIS PARK NATURE SANCTUARY

The Association will hold a meeting at 8 p.m. on February 20, 1986 at the Newcombe Auditorium. Our programme will be given by Dennis and Kaye Suttill, who will present "Spring Comes to the North Lands".

1985 BIRD OBSERVATIONS OCTOBER

No.	Species	Date	Area Seen	Observer
1	Common Black-headed Gull	1	McMicking Point	Mike Edgell & Ron Satterfield
1	Whimbrel	1	Victoria Golf course	Mike Edgell & Ron Satterfield
1	Snow Goose	5	Hd. of Cowichan Bay	Harry Davidson
1	White-throated Sparrow	10	Uplands Park	Bryan Gates
1	Townsend's Solitaire	11	Ft. of Mann Ave.	Alf Lohr
1	Iceland Gull	12	Hartland Avenue Sanitary Landfill	Keith Taylor
1	Chestnut-collared Longspur	13	Clover Point	Ron Satterfield
1	Short-eared Owl	14	Lohrunner Rd.	J.B. Tatum
1	Stilt Sandpiper	16	Esquimalt Lagoon	Ron Satterfield
1	Northern Saw-whet Owl	17	Swan Lake	Charlie Trotter
1	Rough-legged Hawk	20	Trevlac Pond	Giff Calvert
4	Rock Sandpiper	27	Race Rocks	Ray Williams
3	Black-legged Kittiwake	27	Jordan River	Keith Taylor & Tim Zurowski
1	Franklin's Gull	28	Tugwell Creek Mouth	Bob Hay
1	American Tree Sparrow	29	Quick's Bottom	Bruce Whittington

NOVEMBER

1	Sooty Shearwater	2	M.V. "Coho"	Keith Taylor
3	Fork-tailed Storm-Petrel	2	M.V. "Coho"	Keith Taylor
1	"Black" Brant	2	M.V. "Coho"	Keith Taylor
7	Tundra Swan	2	Esquimalt Lagoon	Mike Bentley
1	Snow Bunting	3	Island View Beach	Tracy Hooper
3	Blue Grouse	8	Woods N. of 17 mi. House	Bob Hay
1	Gyrfalcon	9	Island View Beach	Barbara & Mike McGrenere
1	Glaucous Gull	9	Hartland Avenue Sanitary Landfill	Keith Taylor
1	Northern Goshawk	9	Courtland Avenue	Tim Zurowski
1	Rusty Blackbird	9	Island View Road	Keith Taylor
2	Trumpeter Swan	9	Courtland Flats	Tim Zurowski

No.	Species	Date	Area Seen	Observer
1	Brewer's Blackbird (fall variant male)	9	Island View Road	Keith Taylor
1	Turkey Vulture	10	Rockland Ave. at Vancouver St.	Barbara & Mike McGrenere
2	Ruffed Grouse	10	Woods north of 17 mi. House	Bob Hay
1	Redhead	11	Elk Lake	Keith Taylor
1	Harris' Sparrow	15	Cresswell Road	Dave Fraser
2	Northern Fulmar	16	M.V. "Coho"	Keith Taylor
1	Little Gull	16	Ogden Point	Keith Taylor
1	Lesser Golden-Plover	16	Clover Point	Harold Hosford & Class
3	Common Tern	17	Coburg Peninsula	Gladys & Jerry Anderson
1	Red-breasted Sapsucker	20	Beacon Hill Park	Fred Bender
1	Kittlitz's Murrelet*	24	Ogden Point Breakwater	Ron Satterfield

*First Canadian record

PROGRAMME JANUARY/FEBRUARY 1986

Please meet at the location specified for each trip. No cars can be left at Mayfair Lanes. Always take a lunch and dress according to the weather. **Always phone the Rare Bird Alert (382-5562)** the week before a trip that you anticipate taking in order to obtain full particulars or details of the changes that may have been made. Changes cannot always be avoided. On V.N.H.S. field trips, participants usually pool vehicles to cut down on parking problems and to reduce costs. A considerable fuel bill can be run up on a trip - vehicles usually consume 5-10¢/km. The Board suggest that participants share the fuel costs with the driver.

vehicles usually consume 5-10¢/km. The Board suggests that participants share the fuel costs with the driver.

Sunday, January 5 Birding at Beaver and Elk Lakes, leader Dave Fraser. Meet at Mayfair Lanes 8:45 a.m. or at Beaver Lake Picnic Ground at 9:00 a.m.

Saturday, January 11 Birding: Sooke to Jordan River, leader Bob Hay. Meet at Helmcken Park-and-Ride, (corner of Helmcken and Highway No. 1) at 8:30 a.m. or at the south end of Sooke River Road (Milnes Landing General Store) at 9:15 a.m.

Tuesday, January 14 General Meeting, Newcombe Auditorium, 8:00 p.m. Programme: Speaker Adrian Dorst, Naturalist Photographer. Topic: "Wilderness Endangered". A sound-slide show on the Megin Valley, Meares Island and the Stein Valley.

- Thursday, January 22 2 p.m. Crystal Garden: The Birds and plants by Aviculturist Rita Lowry and Horticulturist Bruce Tanner. Price \$1.50 per person. For reservations phone Mary-Lou Florian at 387-5552.
- Saturday, February 1 Field Trip – "Winter Botany". Leader Dr. Chris Brayshaw. A walk along Beaver Lake to look at winter tree buds, tree bark and remnant fruits and leaves. Meet at Mayfair Lanes at 9:00 a.m. or Beaver Lake Parking lot at 9:30 a.m.
- Saturday, February 8 Birding at Witty's Lagoon, leader Art Durkee. Meet at Helmcken Park-and-Ride at 9:00 a.m. or Witty's Lagoon Parking Lot at 9:30 a.m.
- Tuesday, February 11 Annual Dinner at the Sherwood Park Inn, 123 Gorge Rd. East. Cost \$15.00. Tickets available from Margaret Mackenzie-Grieve at 477-2402.
Speaker: Rob Cannings, Curator, Entomology, B.C. Provincial Museum. Topic: Damsels and Dragons: Dragonflies of B.C.
- Saturday, February 15 Field Trip "Cowichan Estuary". Leader Ann Holden, 748-8944. An overview of what is happening on the Cowichan Estuary – the intertidal area, the dyke and wildlife reserve and the site for the fish hatchery. Meet at Mayfair Lanes at 9:00 a.m. Details of Duncan meeting place on Bird Alert. You are invited for coffee with Ann Holden after the field trip. Phone Mary-Lou Florian at 387-5552 if you plan to go.
- Saturday, February 22 Birding along the Victoria waterfront. Details to be announced on the Rare Bird Alert.

THE JUNIOR PROGRAMME PROGRESS REPORT

by Bianca Message

The Junior Programme is focused on young families, but of course, all are welcome. Our small group is now starting to grow! The children range from age 3 to 7, and all are enjoying themselves and learning about the outdoors. Parents are very welcome, and I'd like to thank Jan Kirkby and Anne Isaacs for their support and suggestions.

This programme is a very informal one, where adults learn as well as children. We've watched birds at Swan Lake, salmon at Goldstream, and gone mushroom hunting behind Durrance Lake. There is lots of fresh air and exercise. If we're not outside exploring, we'll be inside learning about the environment, watching slide shows, or making crafts with nature as our focus.

We've had Alex Peden give us a professional view of the salmon run, and we hope to have Joan Andre give us an audio-visual presentation on wild flowers.

Guest speakers are very welcome, and much appreciated. If you are interested in participating in the Junior Programme call me at 652-3388 during the day, or 595-4254 in the evening.

In January we'll be looking at intertidal life and exploring local seashores. Please tell your friends, there's lots of room! Or come out and join us for some fun yourself!

JUNIOR PROGRAMME

For more information phone Bianca Message in the evening at 595-4254.

- Saturday, January 4 "Exploring the Seashore at McKenzie Bight". Meet at Swan Lake at 9:30 a.m. or at McKenzie Bight at 10:00 a.m. at top of the trail.
- Saturday, January 18 "Middens – what are they and what are they made of?" Meet at Swan Lake at 9:30 a.m.
- Saturday, February 1 Slide Show and Film (title to be announced later). Meet at Swan Lake at 9:30 a.m. or Francis Freeman King Park at 10:00 a.m.
- Saturday, February 15 "What lives in the intertidal zone?" Meet at Swan Lake at 9:30 a.m.

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Cameron Young

\$39.95

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