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Mailing Address: P.O. Box 1747, Victoria, B.C., V8W 2Y1

EDITOR:  
Mrs. Marjorie Ketcham  
384-1463

ASSOCIATE EDITOR:  
Ms. Marjorie Elston  
598-6367

*The editors welcome all contributions, either by phone  
or by mail at the above address.*

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she is in the best position to straighten it out in the least  
time.

*Thanks,  
Mrs. Jean D. McInnis, Membership*

*A special welcome to the many new members to the  
Victoria Natural History Society. We know you will  
enjoy the Fall Naturalist's programs and activities.*

*Do come and let us meet you. Be at our next General  
Meeting, Tuesday, September 9th at 8:00 p.m. and come  
join us on our next field trips and programs. You'll  
find them exciting, interesting and friendly.*

LAND SNAILS

(Mollusk, Gastropoda, Pulmonata, Helicidae)

As the new editor of the Victoria Naturalist, I was given a packet of  
shiny black and white pictures of interesting natural history subjects,  
I was told they were ready to be used for future covers of our magazine,  
and that all I would need to do is to get someone to write an article  
about each one. I thumbed through the lot to choose a subject for the  
cover of our September-October issue. I was fascinated by a very fine,  
clear photograph of a snail. Marjorie Elston, our able assistant editor,  
agreed it was a super photo. She said all we had to do was just call  
Dr. Ainscough in Entomology at the Provincial Museum and ask him to do a  
story for us on the snail, and would have no worries. Next day I phoned  
Dr. Ainscough only to find he was on vacation. I called others, recommended  
to me, only to find they were either out of town for the summer or on  
vacation, all except Brian Hughes, a graduate student from the University  
of Victoria, who was starting work on his thesis on gunnel fish. He said  
snails were not in his field, but that if I would come over to the  
Curatorial Towers at the Provincial Museum, I could use the library there;  
then he asked me what kind of a snail was in the picture. I said a pretty  
snail on a log. He laughed and said, you know there are land snails,  
salt water snails and fresh water snails. I quickly examined my photo  
and told Brian I'd call back in a few minutes and let him know what I had.  
I turned to my World Encyclopedia, and was only confused to find that  
there are snails with lungs, which belong to the order Pulmonata; snails  
with gills, which are members of the order Prosobranchiata; that the  
common land snail belongs to the family Helicidae; that all snails belong  
to the class Gastropoda. I knew snails belonged to the group of animals  
known as Mollusks, and that they have no backbones, and that they have  
soft bodies, which are not composed of segments, and that they are usually  
covered with a hard shell consisting of one or more parts. This much I  
recalled from early botany courses. Oh yes, I remembered also that the  
shell of the mollusk is secreted by a covering mantle, formed on snails,  
also clams, oysters, whelks and mussels, but not on slugs, octopus or  
squids, and that mollusks make up a phylum in the animal world. But I  
still wasn't sure what kind of a snail I had to write about. I called  
Brian again to say I would come to the library. He said fine, he was on  
the fourth floor in the Curatorial laboratory.

So off I went with picture, paper and pen to the Curatorial Towers.  
After 15 minutes of convincing a security officer at the entrance to  
the Towers that I really was who I said I was, and having to show him  
my pharmacare card for identification, I was asked to sign in a Special  
Guest Book, and was led to the elevator to go upstairs. Brian was there  
waiting. He was an angel. He looked at my photo and said yes, my photo

COVER: LAND SNAIL  
by Bertha McHaffie Gow



was of a mollusk, Gastropoda, Pulmonata, Helicidae, or land snail. We went through index cards and decided that Purchon's 2nd. edition "Land snail - Biology of the Mollusca" was my best reference source for information on my pet snail. I was almost as excited as when I was told whether my first newborn child was for sure a boy or a girl. At least my picture was not a Prosobranchiata, or a snail with gills; what a relief.

From Purchon I found that a snail is a very slow-moving mollusk, that it usually has a spiral shell and a broad flat foot. Some snails are only as large as a pinhead, while others grow to a length of two feet. I looked at my picture; I had no idea of the exact size of my snail. I did more research and after hours of study decided that my snail belongs to one of Nature's most unusual phenomena.

Snails usually live from two to five years, more than 80,000 species are known. Snails are found in all parts of the world, including dense jungles, at the bottom of the ocean, and even in frozen wastelands of the Arctic regions. They do live on land, in fresh water and in salt water. Snails feed on plants or on animal matter.

Land snails usually are found in damp places, under logs and stones, at the edges of ponds and rivers and in damp woods. My snail was on a log. All land snails have lungs, and most of them have shells. Those without visible shells are called slugs. When the land snail crawls, it produces a sticky solution that serves as a roadway. The muscles of its foot then move in a rippling motion, causing the snail to move forward. The sticky solution acts as a protection against injury. This solution is so effective that snails can crawl across the edge of a razor blade without being injured.

Snails must have moisture to live. During the day when the air is dry, land snails hide in the shade or in damp spots. They crawl under leaves or any other dry object that will help to conserve moisture. If they cannot find a spot damp enough, or if the season is very dry, they hibernate. They draw their bodies into their shells and seal themselves off from the air by manufacturing a "door" at the base of their shells. When the outside air becomes moist enough for their comfort, they come out. This special kind of hibernation is called estivation. It may take place at any time and may last for a few days, a month, or years.

Land snails are bisexual, with both male and female productive systems. They usually lay their eggs in damp places, burrowing out a small depression with the foot. The young emerge after several days. They stay in the nest a few days, but soon leave to seek food.

Snails are generally considered harmless, and some are of great usefulness to man. But some large snails can bite viciously. Snails whose poison can kill a man are found in some areas of the Pacific Ocean. Some snails carry organisms that cause diseases in man. Snails that attack and kill oysters can be found along the east coast of the United States. In addition, some snails cause great damage to plants and flowers. Crop damage caused by snails amounts to millions of dollars.

But many types of snails are friends of man. Cannibalistic snails have been used to destroy snails that damage crops. Some types of snails are used as scavengers in aquariums. Snails provide food for many kinds of fish. Snails are also considered as food delicacies in many parts of the world.

Fresh water snails usually live among water plants in rivers and ponds. Some have lungs, some have gills. Many fresh water snails lay eggs, others give birth to live young.

Salt water or marine snails have gills. They make their home on rocks, sand and mud. Some live on the deepest part of the ocean floor. Marine snails are usually unisexual, or of one sex only. They usually lay eggs. Marine snails include the limpets, periwinkles and whelks.

In the order Pulmonata, or land snails, the primary modification is the conversion of the whole mantle cavity into an air-breathing organ with a heavily vascularized lung on its roof. The ctenidia have been lost.

The mantle cavity serves primarily for respiration, also collecting of food, incubation of early developmental and larval stages, even locomotion. Prior to the discovery of the class monoplacophora, the diversity of the form of the mantle cavity in modern mollusks was explained as having been derived from a hypothetical ancestral form in which the mantle cavity was posterior in position. The modern representative has a lateral mantle cavity and metamericly segmented ctenidia. In both orders, Pulmonata - snails with lungs, and Prosobranchiata - snails with gills, the mantle cavity occupies an anterior position and both the gut and the nervous systems are twisted. The rectum opens as usual into the mantle cavity and feces are discharged from an anus which is situated above and behind the head. This is a curious arrangement, one which seems at first sight to have serious disadvantages. There must have been powerful grounds for establishing this as the basic configuration in this successful class of mollusks. It is agreed that originally the mantle cavity occupied a posterior position and that neither the gut nor the nervous system was twisted. It is further agreed that at a very early stage in the phylogeny of the class, a process of torsion of the viscera

mass occurred whereby the mantle became displaced through 180° of arcs in an anti-clockwise direction, when viewed from above, so that henceforth the mantle could lay in its present position above and behind the head.

We cannot even know the functional processes which actually brought about this change, but there are plausible speculations on the disadvantages of having a posteriorly-sited mantle cavity.

If the ancestral gastropod or snail crawled on a surface which carried a certain amount of sediment, some of this would be disturbed and raised in suspension temporarily. The water drawn into a posteriorly situated mantle cavity would then be slightly contaminated by unwanted small particles. Moreover, the opening of the mantle cavity would be sheltered behind the visceral mass, where it would not get the benefit of gentle water currents caused when the snail moved about in calm water. Again, these same organs are the asphradia, and with the mantle covering in a posterior position, it would be difficult for the snail to locate the source of contaminating material and avoid it.

Various members of the Pulmonata or snail with lungs, have approached or invaded fresh waters. Among the principally aquatic Basommatophora, *Lymnaea truncatella*, is a marsh dwelling and breathing snail.

Other species of *Lymnaea* are truly aquatic forms and these can breathe either air or water, as also can *Physa fontinalis*.

Some pulmonata are established on the sea shore, e.g. the limpet genera *Siphonaria*, *Trimastix* and *Welliomya*.

There is much more that could be written about land snails and their developments and habits.

The time spent studying the Gastropoda, or land snail, for the cover of this issue of the Naturalist was most interesting and rewarding. If any of you come upon an outstanding, unusual or interesting phenomena of natural history, do write it up and send it to the editor. We may even use it with a picture for the front cover. May we all have a meaningful, happy, friendly fall season together, learning of and enjoying the marvelous natural history abounding in Victoria, or wherever we may come or go.

*Sincerely,*

*Your New Editor,  
Marjorie Ketcham.*

SPECIAL THANKS TO MERLE HARVEY

It takes time and talent to be an Editor: Merle had the talent and somehow managed during the last three years to find the time -- literally hours and hours of it -- to assemble, edit and type out all the material for each edition of the VICTORIA NATURALIST. Now, because of problems with eyesight, Merle has had to give up the editorship, but we do not feel we can let her retire without a warm acknowledgement for all she has done for the Society.

Merle emigrated to Canada from her native Scotland as recently as 1975, but during the previous eighteen years she had periodically visited Victoria, having two daughters resident here. Merle joined the Society in 1965, just as soon as she discovered its existence, and in-between visits to Victoria kept in close touch with the "Tuesday Group". In fact, several members, notably Doug and Reita Sparling, Charlie Trotter, and Lucy Parris, found that their European travels took them to a certain village in Perthshire where they were able to indulge in birding and botanizing under expert guidance!

Merle has had a lifelong interest in nature. For five years she acted as a volunteer warden at the Loch of Lowes Osprey Centre, the only place in the British Isles where the osprey is now nesting. She also did some research on endangered species of wild flowers for Stirling University.

Since becoming a permanent resident, Merle has been one of our most enthusiastic members, hardly ever missing a field trip, and meticulously recording everything seen or heard. Once on an outing there was a panic - Merle had become separated from her notebook! We retraced our steps, and there where we had stopped briefly at an intersection on the highway, lay the precious notebook, well flattened but still legible!

So, thank you Merle, from all of us, for all those enjoyable editions of the Naturalist! We know being an editor was a demanding job, involving deadlines and decisions. We are so fortunate that Marjorie Ketcham has accepted the editorship, with Marjorie Elston's help, and we extend to them our appreciation and good wishes.

*-- Katherine Sherman*

THE NEXT F.B.C.N. REGIONAL MEETING will be held in Campbell River, September 27, 1980. Douglas Turnbull and Wilford Medd will be the official delegates from Victoria. Many observers are welcome and if interested in attending, should contact Douglas Turnbull or Wilford Medd.



JUNE BIRD OUTING*A. Knowles*

On June 8th, an enthusiastic and intrepid party of birders (total number four!) started off in rubber boots and rainwear around Spectacle Lake.

Mike had said this should be a field trip to listen to bird song, but little did he know how we would be forced to listen, like it or not! The rain poured down, our field glasses fogged up, then after the rain did stop, the mist descended, obscuring any birds that finally ventured out of hiding. Actually, I think we did quite well.

The first sighting was the striking black and yellow Townsend's Warbler. Next, a persistent singer in the thick undercover that we finally identified as the MacGillivray's Warbler, with his gray hooded head. Wilson's was another warbler that sang his emphatic song everywhere. At the far end of the Lake in the marshy bit, Yellowthroats and Song Sparrows could be heard. The Warbling Vireo sang continuously, rain or no rain.

After the high spot of the day, lunch in Wilford Medd's cosy van, we climbed through the mist up the power line road, and there we really had to depend on our ears.

Olive-sided, Western and Traill's (Willow) Flycatchers were heard, as well as many White-crowned Sparrows. A Rufous Hummingbird was seen feeding on the wild honeysuckle. A Blue Grouse was booming in the distance and I believe I heard a Western Tanager. The last good sighting was a Turkey Vulture sitting on top of a dead tree.

We all agreed that it had been a good day, in spite of the weather. A total of 31 birds were either seen or heard.

When I got home, I happened to see the film on T.V. about Roger Tory Peterson. Then I saw a Black-headed Grosbeak singing in the rain, in my very own garden. Could one ask for anything more?

SPECTACLE LAKE AGAIN!*Anne Knowles*

Well, as the June 8th trip was virtually rained out, we tried again two weeks later. To my utter dismay, again it was wet! But away we went and this time twenty brave souls showed up, the weather cleared, and we had a good time. Mostly the same birds were seen or heard (35 total) and the wild flowers were at their best. The area on either side of the power line road was a mass of ox-eye daisies (*Chrysanthemum leucanthemum*),

blue lupins, orange honeysuckle (*Lonicera ciliosa*), yellow broom, red columbine and Columbia Lily (*Lilium Columbianum*) - Nature's garden at its best. The Rufous Hummingbirds were very numerous, both males and females, zooming past us, up and down, like miniature fighter planes chasing off every other bird that dared alight in their territories, even fly through them.

After lunch, everyone did "their own thing" - identifying flowers - eating wild strawberries - having great discussions and flipping through the bird books, trying to identify obscure looking sparrows with streaked breasted and white outer tail feathers, (imm. Dark-eyed Juncos!) and just sitting and enjoying the peace and quiet. Let's do it again.

GOLDSTREAM PARK - JULY 27, 1980

The sixteen members who turned out for the Botany Trip were blessed with a perfect summer day, and a remarkable absence of pesky insects!

The cool, moist area around the Picnic Grounds produces some of the Island's most enormous Western Red Cedars and Black Cottonwoods. It also appears to provide the ideal habitat for certain flora we don't see much of elsewhere, such as Hazelnut (*Corylus cornuta* var. *Californica*) and Stink Currant (*Ribes bracteosum*). Magnificent Lady Ferns abound. Hardly existent is Bracken and Oregon Grape.

As was to be expected, the flowering season was over for most of the plants, but with the able assistance of Terese Todd, we enjoyed the challenge of trying to identify them by what was left of fruit and foliage. The wild Lily-of-the-Valley (*Maianthemum dilatatum*) with its red-speckled berries carpeted the forest floor. Almost as abundant was Enchanter's Nightshade (*circaea alpina*) already completely stripped of its fruits. Wild Ginger (*Asarum caudatum*), confined to one small area, showed no signs of flowering. Still in bud was the False Hellibore (*Veratrum viride*), and only one flowering stalk was found. There was no Indian Pipe, no Coral Root. We decided that perhaps the forest canopy had become just too dense.

Looking back over notes taken in 1968 when Miss M.C. Melburn took us over the same ground, it was sad to find how many plants seem to have disappeared. Gone is the little pond where Water Parsnip and Water Hemlock grew. In vain we searched for Deer-fern. Fortunately the Oak-fern still thrives in its own special area well removed from the public eye. We thought we had lost the Maidenhair Fern until someone discovered a magnificent plant near the Mount Finlayson trail. Along

the stream, floods and the work of man have eliminated the natural shoreline and with it most of the semi-aquatic plants; bugleweed can no longer be found, other species are very poorly represented.

Fortunately the area of the tidal flats was much as we have always known it, or even better! Eyebright (*Euphrasia arctica* var. *disjuncta*) an uncommon plant, not growing on the Saanich Peninsula, was not listed on the early trips. The last few years it has been noted and the patch is holding its own well. Not only this, but a completely new patch was found! It is a pretty little flower and happened to be at its peak of perfection. *Angelica lucida* was in seed, but it was reassuring to see it growing there as lustily as ever and perhaps even more widely distributed. A tall, yellow composite, growing in two showy patches, has still to be identified. This, and a large plant of Musk Mallow (*Malva muscatus*) were not remembered from previous visits.

Although Goldstream is a late blooming area, some year we should visit it in early June.

*Katherine Sherman*

THOSE JOHANNESBURG PENGUINS  
(*'Victoria Naturalist'* - July/August, 1980)

*Those game little birds that swam all the way home  
From Cape Town to Algoa Bay  
Deserve space in 'Guinness' for making, as well,  
A detour inland on the way.*

*How else would their saga be headlined so far  
From the sea as the City of Gold?  
(These flipping Jackasses owe more to their name,  
It seems, than we've ever been told.)*

*But may their example not set off a trend  
That could bring keen birders the boon  
Of hearing of sightings of Boobies in Banff  
Or surfbirds seen in Saskatoon?*

JACK HUTCHINGS

(In disavowal of the imputed  
authorship of the original  
report)

AUDUBON-OCTOBER 1980 TO MARCH 1981

FRIDAY & SATURDAY  
OCTOBER 10 & 11  
8:00 P.M.

"Okefenokee, Land of Trembling Earth"  
by Dennis Holt.

FRIDAY & SATURDAY  
NOVEMBER 7 & 8  
8:00 P.M.

"Vanishing American Wildlife"  
by Burdett White.

FRIDAY & SATURDAY  
JANUARY 23 & 24  
8:00 P.M.

"Song of the Northern Prairie"  
by Allen King.

FRIDAY & SATURDAY  
FEBRUARY 20 & 21  
8:00 P.M.

"Adventures of a Wildlife Photographer"  
by Robert Davison.

FRIDAY & SATURDAY  
MARCH 27 & 28  
8:00 P.M.

"Wilderness Trails"  
by Charles T. Hotchkiss.

*All are at Newcombe Auditorium, Provincial Museum; Carpark reached  
from Superior Street.*

SEASON TICKETS are available during September from:

- \* Gift Shop, Provincial Museum
- \* Borogrove Bookshop, 10 Centennial Square
- \* Dogwood Gift Shoppe, 2180 Oak Bay Avenue
- \* Bolen Books, Hillside Shopping Centre
- \* Woodward's Book Store, Mayfair Shopping Centre

Season Tickets: Adults - \$8.00  
Golden Age & Student - \$6.00

Single Adult Admission: \$2.00  
Golden Age & Student: \$1.50

*For information, please call: 598-1623  
Seats NOT HELD for Season Ticket Holders after 7:45 p.m.*

*Audubon Wildlife Films are presented by the Victoria Natural History  
Society and the B.C. Provincial Museum.*



A RARE BIRD

by Vera Guermsey

While visiting with my neighbour, Peg Wilkinson, across the fence, I spotted in her garden a small black bird with white wings feeding on the ground under her bird feeder, along with House-finches, House Sparrows, Brewers' Blackbirds and Cow-birds.

I ran for my bird book and very quickly it was identified as a male Lark Bunting.

Peg kept the bird-seed flowing and in 1-1/2 days, 20 people came to view this gregarious little fellow and most heard his very distinctive song, not unlike that of a canary, followed by "whistle-calls".

It will be of interest that this sighting was the first on record for Vancouver Island. This made many people keeping records happy, especially the "Life Listers".

The last sighting was in the evening, high in the oak tree. He was singing what turned out to be his farewell song. I'd like to think that, on a happy note, he left for his range on the southern prairies.

MUSEUM WATCH

BIRDS OF PREY, Second Floor, Provincial Museum, from June 21 to January 4, 1981. Gorgeous birds, a must to see.

PLANTAE OCCIDENTALIS, Second Floor, Provincial Museum, from 10:00 a.m. to 9:00 p.m. daily. Now showing till 17th of August, 1980. 200 years of botanical and floral illustration in British Columbia. Beautiful, don't miss it.

WILLIAM MORRIS CARMICHAEL, Silversmith, now showing till January 3, 1981. Lovely pieces. Provincial Museum.

FIELD TRIP TO ASCOT (KING'S) POND

JUNE 21, 1980

The morning of June 21 was rather cool and cloudy, but eight people joined Chris Brayshaw (Associate Curator of Botany) and Rob Cannings (Curator of Entomology) of the Provincial Museum in a walk around Ascot (King's) Pond in Victoria. Chris discussed aquatic plants and their adaptations while Rob talked about the lives of aquatic insects. Some of the interesting insects observed are noted here.

Most prominent were the aquatic true bugs (order Hemiptera), especially the waterboatmen (Family Corixidae) and the backswimmers (Family Notonectidae). True bugs suck the juices of plants and animals through a sharp proboscis. The aquatic forms are predaceous. To breathe, they carry a film of air underwater with them, much as a scuba diver carries his air supply. Waterboatmen use their hind legs as oars. Fringes of hairs make these legs efficient paddles. The middle pair of legs is used for holding onto underwater vegetation, and the short front legs are adapted for grasping food. Backswimmers are similarly constructed, although true to their name they swim on their backs, legs uppermost. The immature stages of these bugs do not have wings, but otherwise look much like the adults. Waterboatmen and backswimmers are good fliers and may leave the water, especially at night, to fly to a different pond. Backswimmers are typically more voracious and aggressive than waterboatmen; they can give a painful jab to the finger of anyone who handles one carelessly. We saw one devouring a damselfly larva. Water striders (Family Gerridae) were also observed. These true bugs run along the water surface, capturing prey lying on the water. Ascot Pond also contains other impressive aquatic bugs -- the giant water bug (a heavy-set insect two inches long and one inch wide) and the water scorpion (a long, thin bug that looks like a stick insect). These two species have snorkel-like breathing tubes at the tip of the abdomen.

Diving beetles (Order Coleoptera, Family Dytiscidae) were seen. The adult beetles having chewing mouthparts, but the larvae are vicious-looking "water tigers" with sickle-shaped mandibles that are hollow. The beetle larvae suck the juices of their prey through these mandibles.

The day was a little too overcast for much dragonfly (Order Odonata) activity -- these insects are real sun-worshippers. The bright red Sympetrum illotum that is such an attraction at the Pond in early summer was not flying during our visit. However, we did see many of the smaller, slender types, usually called damselflies. In the damselflies (Suborder Zygoptera) both pairs of wings are the same shape while in the larger dragonflies (Suborder Anisoptera), the hind-wings are broader at the base than the fore-wings. There are other less obvious differences.

The most common damselflies seen at the Pond were Ischnura cervula and Ischnura perparva. The females of these damselflies lay eggs in plant stems using the knife-like ovipositor at the tip of the abdomen. Adult Odonata are predators, capturing small insects on the wing with their spiny legs. The larvae are aquatic. Those of the Zygoptera have three leaf-like gills on the end of the abdomen. These structures are not only used for respiration but also are used like swimming fins for locomotion. Anisoptera (we found the larva of a large Aeshna species) do not have these gills, but rather take water into the rectum where gills line the gut. Odonota larvae are just as voracious as the adults. They have an extendable labium armed with pincers -- a sort of lower lip - that is shot out at their prey. Once caught, the prey is drawn back to the powerful jaws and eaten. We found many cast larval skins or exuviae on the plant stems emerging from the water. When mature, the dragonfly larva climbs out of the water, the skin along the back splits open and the adult emerges, pumping blood into its body and wings. At this stage, dragonflies are especially vulnerable to predation by the numerous red-winged blackbirds, sora rails and song sparrows that inhabit the marsh. Tree frogs, toads and garter snakes also make a feast of these and other aquatic insects.

Like damselfly larvae, mayfly larvae have leaf-like external gills. But their gills are in rows along the sides of the abdomen. The larvae we saw in the pond were very active, flipping around in the water, vibrating their gills rapidly. They had three "tails" or cerci at the tip of the abdomen; some species have only two. Most mayfly larvae eat algae and detritus rather than living animals. The adults usually live only a day or two -- long enough to mate. This "ephemeral" adult existence gives the order its name -- Ephemeroptera. In many kinds of insects, the larval stages live many times longer than the adult stage.

We found many caddisfly cases, but none of them had occupants. Caddisflies (Order Trichoptera) as adults are rather dull, moth-like insects. The larvae of many species built portable homes for protection and camouflage. In ponds, most use bits of plants for this purpose. The cases we found bristled like bottle-brushes -- they belonged to a species of the Family Limmophilidae.

Midge Larvae (Family Chironomidae) are worm-like creatures that as adults are recognizable as true flies (Order Diptera) by their single pair of wings. They are closely related to mosquitoes (Family Culcidae) but do not bite. The adults are commonly seen dancing in swarms near or over the water. The larvae are often very abundant in the mud of ponds, lakes and streams and form a very important part of the aquatic food chain. Some are red ("bloodworms") because they have hemoglobin in their blood. This chemical helps the larvae survive in waters poor in oxygen.

Ascot Pond is a wonderful place to watch aquatic insects. Some types spend both their larval and adult lives in the water (bugs, beetles), while others (dragonflies, mayflies, caddisflies, true flies) are aquatic only as larvae. Whatever their life cycle and whatever their habits, aquatic insects are a fascinating study for any naturalist.

*Rob Cannings,  
Curator of Entomology,  
B.C. Provincial Museum.*

### KING'S POND: Plant Life

The terrestrial environment around King's Pond has been so profoundly disturbed that the vegetation is now dominated by introduced grasses and weeds, with a few native species still present. The aquatic plant life is impoverished of species, but is still dominated by native species. The one notable species here is Alisma plantago-aquatica, the Water-plantain, which is not generally abundant on Vancouver Island. The dominant sedge in shallow water is the Beaked Sedge (Carex rostrata) which is accompanied by Spike-rush (Eleocharis palustris), small clumps of Cat-tail (Typha latifolia), and scattered Purple loosestrife (Lythrum salicaria), a garden escape of European origin. The native woody pond-edge zone has been almost completely destroyed, but a few Pacific willows (Salix lasiandra) and Hardhack (Spiraea douglasii) remain, accompanied by a form of the European White willow (Salix alba), and Himalayan blackberry (Rubus procerus).

*Chris Brayshaw*

### HURRICANE RIDGE TRIP

Forty-three people climbed on the bus at 5:30 a.m. on a gray Saturday morning. After a pleasant trip on the M.V. Coho to Port Angeles and a drive into Olympic Park, we arrived at Hurricane Ridge. It was raining and there was fog everywhere. Merle Harvey, leader of the trip, led a wildflower tour of the Ridge and they saw over 40 species of plants.

This was my first trip to the Ridge and although I didn't see any spectacular mountain views due to the fog, I'd never seen that variety of flowers at one time. Back at the lodge, we had a fascinating lecture from the Park Naturalist about the history of the Olympic Peninsula, how it is thought to have been formed, and the highlight of the talk was the "wildlife", a 3 mo. old mountain cougar and a 2-1/2 mo. old timber wolf from the Sequim Wildlife Park.



Among the wildlife seen outside the lodge were black-tailed deer, Olympic marmots, chipmunks, mountain goats and 11 species of birds.

A good time was had by all, in spite of the weather. Thanks to Merle Harvey for organizing this trip. Anyone who wants the names of the plants seen, please call me.

*Marjorie E. Elston*

### VANCOUVER ISLAND MARMOTS

Imagine driving along a road up the side of a mountain for about 25 miles, off the highway which is marked "Green Mountain Ski Area", and finding it rather bumpy and steep. In fact, for the last 2-3 miles, we had to be transported by a 4-wheel drive, as the road looked a bit like a river bed.

That was the position, when 15 of us went with leader David Routledge and his wife on July 6th to see the Vancouver Island Marmots. Mary Lou Florian had arranged the trip, and we very much appreciated the chance to see these endangered animals.

We arrived at the first ski lodge eventually, and then started off on foot to hike for about an hour - almost to the top of the mountain. The views were spectacular - just logging roads and patches of snow here and there, and spring flowers in all their beauty.

We were all very quiet as we got near the place where the marmots live. There were only 4 known pairs a while ago, but their number is now approximately 12-16. We saw at least 4 babies - just large balls of brown fur, happily playing with their mother. Several older marmots were wandering around - one industrious mother was gathering straw, and sat on a rock looking at us for a long time, and we observed her through our binoculars, and took photographs of her. Adult marmots are black or very dark brown with patches of white on the muzzle, forehead and breast. The dark colour gradually fades until the fur is replaced at the next moult. Adults generally weigh between 3 and 6 kilograms.

It has been suggested to blacktop the road all the way up for skiers, and the conservationists are very worried that these marmots may not survive. Their only predators are bears, who don't often attack them, and man. We must do everything we possibly can to preserve our Vancouver Island Marmots.

*Phyl Downey*

### A DAY IN THE LIFE OF A NATIONAL PARK WARDEN IN THE SELKIRK MOUNTAINS

Five-thirty and the alarm clock allows of no silencing, so I swing my legs reluctantly out of bed and pull on my undergarments. Filling the kettle, I finish dressing while it boils for tea. Out I go to feed and saddle the horses while my wife gets breakfast ready; my lunch for today has been put up the night before.

This will, I hope, be a routine patrol though the July day is sultry, and there is a distinct smell of burning from forest fires many miles away; the atmosphere is smoky and visibility not too good.

I mount Nitchie, my saddle-horse, and with goodbye to wife and children, I set off down the trail toward the river, leading Mutt the big pack-horse with his load of emergency fire-fighting equipment.

The trail to the river lies through a heavy forest of western hemlock, Englemann spruce and Douglas fir; many of which are over-mature trees that the next windstorm may bring down to clutter up my fire trails. Meanwhile they give shade and coolness to the forest floor. As I near the river valley, I can see the bright yellow of the skunk cabbage glowing like lighted candles in the dark and swampy ground below the conifers.

Here also groves of white birch lift their slim trunks to the sky, a welcome variation from the sombre hemlocks. Giant red cedars flourish in the valley, some of them two hundred feet tall and over six in diameter. The forest floor here is thick with duff, dry tinder ready for a spark to set the woods ablaze.

Before leaving the valley, we pass through a scattered stand of black poplar or balm of Gilead, interspersed with groves of trembling aspen, their dainty leaves quivering in the slightest movement of air.

Now we start climbing steadily for our goal is the summit of Bald Mountain, twelve miles distant at an elevation of six to seven thousand feet. From there on the alpine meadows we can overlook the three or four hundred square miles of my district and detect any tell-tale plumes of smoke from incipient forest fires.

There are few flowers to be seen from the trail which winds upward, bordered by false box and under the trees are heavy growths of devil's club, the curse of fire-fighters as they struggle to drag their hoses to the burning timber.

As we gain elevation, the character of the forest begins to change; western white pine appears, some attaining a height of over one hundred feet. Here also grows the mountain yew, but it rarely attains to tree status at this altitude.

So far I have seen few birds or animals, though I know they are numerous enough and as the forest begins to give way to more open country, I can observe them more easily. The Stellar's Jays have been conspicuous all along with their raucous voices, and I can hear the piercing call of the Varied Thrush and catch a glimpse of several Pine Grosbeaks presumably busy with nesting affairs.

Another two hours and the timber begins to thin out as we approach the alpine meadows. The mountain rhododendron is blooming all along the hillsides, its waxen flowers gleaming among the glossy green leaves. The yellow avalanche lilies are in full bloom even alongside the patches of snow still lying here. Together with the dainty spring beauties they spread a carpet of vivid colour over acres of meadowland. Red mountain heather covers the rocky knolls and the Indian Paintbrush with its varied hues from vermilion to creamy white, contrast with the blue-purple of the alpine lupins.

Unfortunately, I cannot spend much time studying and admiring the varied flora of these delightful meadows. My job is to scan the horizon and forest cover for any signs of fire, which I proceed to do until satisfied that everything is safe and that soon I can retrace my steps homeward. First, however, I must feed my horses and eat my own lunch, supplemented by copious draughts of coffee from my thermos.

As I do so, I sweep the horizon again with the binoculars. About a mile away I can see a bulky form moving slowly along the base of the Clachnacudainn Range; a big grizzly on the prowl for marmots and ground squirrels, his principal diet in summer. He lifts his huge head and sniffs the air, but I am too far away for even his keen nose to detect the alien human scent.

On the slopes above where the bear roamed I can see several grey-white forms which, under the glasses, resolve into mountain goats, three ewes, two kids and a billy who stands guard a little distance below. They are feeding from the shrubs below the rocky cliffs to which they can retreat at any signs of danger, though they have few enemies, as not many predators would tackle the sharp horns and formidable bulk of the billy.

Apart from bears, black and grizzly, the only animals likely to be seen here are the mountain caribou who make the alpine meadows their summer grazing ground, along with the mule deer who also prefer the high altitudes at this season. Rare are the wolverine and the coyote, who are seldom seen, the former a secretive animal and the latter adept at concealment.

Grouse, both blue and ruffed, are fairly common and usually I observe a few ptarmigan, conspicuous in their mottled plumage of early summer. Now to turn homewards, as it will have been a long day by the time I get there.

*R. V. Mann*

*R.V. or "Bob" Mann, as he is known to most of us, was born in Morayshire, Scotland, in 1890. He is one of our 90-years-young members of the Victoria Natural History Society.*

*Bob attended Aberdeen College and University, where he majored in English Literature.*

*In 1912, he came to Canada with college chums, just on an adventure, or "to see the world" before settling down. They got to Golden, British Columbia and found work available in forestry and surveying.*

*During the First World War, he went overseas with the Canadian expeditionary forces for three years. He served in the Army Medical Corps, then returned to Canada. Being fond of the out-of-doors, he found work in the Parks System and became a Warden in 1927.*

*He worked as a missionary for the United Church for a while in B.C. and Alberta. In 1946, he became Chief Warden of Glacier and Mount Revelstoke National Parks until 1961. When he retired at age 71 as a Park Warden, he loved wildlife protection, building trails and forest protection, also the rescue work in the forest for people in trouble. There were no roads in Glacier National Park when he first went there to work. He married Elizabeth Beattie in 1916 before going overseas. He had a son and daughter; his daughter lives in Calgary, his son died young. He loves living in Victoria. His hobby is oil painting, mostly landscapes. He studied art in Scotland and then in Canada. He taught painting in the Emily Carr Centre and at senior citizen centres in Victoria. He also enjoys writing and birding, and is an active, friendly member of the Victoria Natural History Society. We are proud of you, "Bob" Mann.*

#### ALEXANDER HENRY COUSER: IN MEMORIAM

We mourn the loss of Harry Couser, who died on July 4th in his eightieth year. Since October, 1969, Winifred and Harry had, until lately, been with us on our regular Tuesday Group outings and we always enjoyed being with him, listening to his tales of their life in Malaya and their experiences during the blitz in England.

Harry was born in Ireland, taking his degree as Civil Engineer at Queen's University in Belfast. In 1926, they went to Malaya, he being an engineer with the British Government Public Works Department, and there they lived until 1939 when the promise of war decided them to return to England, where he joined the staff of the Air Ministry. He left the service in 1947 and located in Vancouver, working there and in Seattle as Civil Engineer until he retired.

In 1969, they came to live in Victoria, becoming members of our Society, when fortunately for us they were introduced to the Tuesday Group by Mary Clark who had been their neighbour in Vancouver.



For four seasons from 1970 to 1974, he worked with Enid Lemon on the Audubon lecture series.

Harry Couser was also made an Associate Member of the Canadian Professional Engineers, and more than that, his friendly and out-going nature contributed to the harmonious nature of the Tuesday Group.

A. R. Davidson



### BIRD OBSERVATIONS

by Peggy Goodwill

No.	Species	Date	Area Seen	Observer
<u>June</u>				
1	Black-headed Grosbeak	2	Jennings Lane	R. Satterfield
1	Common Nighthawk	5	Woodridge Place	M. Northsworthy
1	Tufted Puffin	6	Clover Point	R. Satterfield
1	Lark Bunting	7	Linkleas Ave.	V. Guernsey
2	Purple Martins	9	Cowichan Bay	Vic Goodwill
1	Western Kingbird	10	Lohbrunner Road	L. Roberts
1	Eastern Kingbird	10	Earle Street	J. Jenson
1	Red-eyed Vireo	11	Lochside Park	E. & A. Davidson
1	Great Horned Owl	17	Phelps Ave.	Rick West
1	Hermanns' Gull	19	Baynes Channel	M. Shepard
1	Caspian Tern	26	Chain Islets	M. Shepard
<u>July</u>				
1	Wandering Tattler	7	Par 3 Golf Course	R. Satterfield
1	Yellow-headed Blackbird	12	Par 3 Golf Course	R. Satterfield
1	Solitary Sandpiper	13	Interurban Flats	R. Satterfield
1	Franklin's Gull	22	Clover Point	R. Satterfield
1	Marbled Godwit	25	Esquimalt Lagoon	Joan Inglis

BIRD ALERT - 478-8534

It would be helpful if, when you see anything unusual or of interest, you phone 478-9715 right away, so others may see it, too. This is what the "Alert" is for.

### PROGRAM - SEPTEMBER/OCTOBER

SUN. SEPT. 7

BIRDING DAY TRIP: Saanich Peninsula  
Meet Mayfair Lanes, 9:00 a.m.  
Leader announced later.

TUES. SEPT. 9

GENERAL MEETING: Newcombe Auditorium, 8:00 p.m.  
Speaker: Lloyd Brooks. Topic: "Progress Towards  
A National Parks System in Canada".

SAT. SEPT. 13

GEOLOGY OF VICTORIA: Tentative. Meet Mayfair  
Lanes, 9:00 a.m. Call BIRD ALERT for confirmation.

TUES. SEPT. 23

BIRDERS NIGHT: Boardroom, Provincial Museum,  
7:30 p.m. Bring a few slides.

SAT. SEPT. 27

AUTUMN BOTANY: John Dean Park.  
Meet Mayfair Lanes, 9:00 a.m.  
Leader announced later.

SAT. OCT. 4

URBAN FORESTS: Greater Victoria  
Meet Mayfair Lanes, 9:00 a.m.  
Leader: Dr. Robert McMinn

SAT. OCT. 11

MUSHROOM FORAY: (if dry fall, phone Alert)  
Meet Mayfair Lanes, 9:00 a.m.  
Leader: Dr. Al Funk

TUES. OCT. 14

GENERAL MEETING: Newcombe Auditorium, 8:00 p.m.  
Speaker: Mary Lou Florian.  
Topic: Victoria's Wildlife Artists.

SAT. OCT. 18

BIRDING DAY TRIP: Duncan & Cowichan Bay  
Meet Mayfair Lanes, 9:00 a.m.  
Leader announced later.

SUN. OCT. 19

SALMON RUN: Call Alert for time and meeting place.  
Leader: Dr. Alex Peden, 652-3598.

SAT. OCT. 25

BIRDING DAY TRIP: Fall Migratory Birds  
Reifel Wildlife Sanctuary.  
Leader: Vera Guernsey. Phone 598-4968 to arrange  
co-operative transportation for Swartz Bay 7:00 a.m.  
Ferry.

TUES. OCT. 28

BIRDERS NIGHT: Boardroom, Provincial Museum,  
7:30 p.m. Bring a few slides.

FOR MORE INFORMATION OR CHANGES, PLEASE CALL BIRD ALERT - 478-8534.

Mayfair Lanes is at the corner of Oak and Roderick, by Bowling Alley.  
Always take a lunch, and if wet, gumboots or strong shoes.

## JUNIOR PROGRAMME



SEPTEMBER 13  
10:00 - 12:00

Opening Get-together at Swan Lake Nature House. Sign up for year 1980-81. See new National Film Board nature films. Learn about the ESSAY CONTEST and prizes offered. Walk around SANCTUARY to see returning birds. Meet at SWAN LAKE NATURE HOUSE, 3873 Swan Lake Road.

SEPTEMBER 27  
9:30 - 12:30

Dominion Astrophysical Observatory.  
Leader: Frank Younger of the Observatory.  
Picnic afterwards at Mt. Douglas. Bring lunch. Meet MAYFAIR LANES Parking Lot, corner of Oak and Roderick at 9:30 a.m.

OCTOBER 4  
9:30 - 12:30

ISLAND VIEW BEACH. Camping Skills - learn how to set up tent, make a fire and cook over it, etc.  
LEADER: Roy Wainwright.  
Meet Mayfair Lanes at 9:30 a.m.  
Bring hot dog and bun with lunch.

OCTOBER 18  
9:30 - 12:30

LEARNING TO BIRD WATCH.  
Leader: Ron Satterfield, Witty's Lagoon.  
Meet at Mayfair Lanes at 9:30 a.m.  
Bring lunch and binoculars if possible.

VICTORIA NATURAL HISTORY SOCIETY  
Mailing Address: P.O. Box 1747, Victoria, B.C. V8W 2Y1

### HONORARY LIFE MEMBERS

Albert R. Davidson, Miss M.C. Melburn, Miss E.K. Lemon, Mrs. L.E. Chambers, E.E. Bridgen, Mrs. H.W.S. Soulsby, A. Douglas Turnbull

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