

THE VICTORIA NATURALIST

published by the VICTORIA NATURAL HISTORY SOCIETY Victoria B.C

December, 1973 Vol. 30, No. 4

THE VICTORIA NATURALIST

Published by THE VICTORIA NATURAL HISTORY SOCIETY

Vol. 30: No. 4

Dec. 1973

THE GRIZZLY BEARS' PICNIC

Having trouble catching that salmon? Herring strip doesn't work or even that new plug? Well then, try your feet. That might be the advice a Kodiak bear would give you.

The McNeil River Sanctuary off Cook Inlet near Anchorage, Alaska provides a bear watcher's paradise during the spawning season. In early August Chess Lyons and Dick Cooper (a school teacher from S. Africa) flew north to film what must be the world's most fascinating fishing "derby" - the Kodiak bears catching salmon.

The Grizzly and the Kodiak are not separate species as some people think. The Kodiak is only a sub species (Ursus arctos midden dorffi). To quote from W.J. Schoonmaker: "There are two types of Grizzlies. One that lives in the Western U.S., Western Canada, and Alaska. This is the Grizzly or silvertip. The other is the big brown that lives on the Alaska Peninsula, adjacent islands and a strip along the Alaskan coast. It is called the Alaska brown bear, brown grizzly or Kodiak bear. Often two forms integrate and are impossible to distinguish one from the other. The Alaska brown is merely a coastal and island form of the Grizzly but consistently larger than the Grizzly ... a large brown can be nine feet from nose to tail, and standing would tower eleven feet or more." On the whole the bears that come down to fish at McNeil River are on the small side compared to the older and bigger "monarchs" who for some reason rarely make the trek down to the fishing grounds. But the "fishermen" are big enough that any photographer or biologist is always cautious, (the Kodiak are the largest flesh eating mammal in the world and can reach speeds of 30 miles per hour!)

Except for mating and, later, cub rearing by the females, the Kodiak are loners. Their home base is up near timberline where they dig their own caves for hibernation. Mating takes place in June and July but due to delayed implantation the cubs aren't born till January or later. When feeding they are omnivorous. Their diet includes grass, sedge, berries, mice, ground squirrels and carrion. But their fish feast in August must surely be the culinary high point of the year. A good "fisherman" will catch and consume up to 100 pounds of salmon in a day!

In spawning season dog or chum salmon crowd the estuary and swim upstream in ever deeper and swifter water. The channel narrows upstream and an experienced bear will take advantage of this and stand belly-deep in the swift water awaiting his chance.

The bears come down singly or in small mother and cub groups over the well worn bear trails from the mountains. They are very individualistic both in appearance and personality. Colours range from black to light gold and temperaments from amiable to downright nasty. But they all share the slightly turned in front feet with six inch claws and the grizzly hump. As fishermen they range from the expert to the indifferent to absolute flop. And flop is the word. Some of the inexperienced ones become so frustrated they do a belly flop in the shallow water hoping, one supposes, to land on a nice plump salmon. They are the ones who are reduced to stealing scraps and licking up leftovers.

The hierarchy system is in high gear during this season. An older and larger bear will stake out a good spot and no one dares argue the point with him. Young males will sometimes engage in playful scuffles but they are nothing more than adolescent antics. When a bear means business the lips are raised and teeth bared — a sure signal of anger. A female with young will often show a great deal of courage and aggression as she hunts for a good fishing spot.

Fishing methods vary, but none seem to include the time honoured picture of the bear swatting a fish out of the water with his forepaw. He is more likely to stand belly deep when the fish are crowding past and fish by "feel". It appears that a frequent manoeuver is for the bear to literally step on a fish with its foot and then grab it in its jaws. Once caught the salmon are dealt with summarily. In some way not understood as yet by biologists, the bears can tell the difference between male and female salmon. The latter are the ones most often caught and devoured. The attraction is the roe. Once the fish is landed the bear strips off the skin like a wet sock and bites open the belly. Roe squirts out and is devoured with relish. Then the rest of the fish is eaten and what little remains is cleaned up by the waiting gulls who have been raucously following the proceedings. Between bears and gulls the "picnic table" is left scrupulously clean.

As the bears were such individuals Chess and Dick found themselves giving them nicknames such as "the airdale" and "old baldy". There were several "snorkelers" who fished with their heads partly submerged and some who stood stock still but swung their heads back and forth as if watching a tennis match. Whatever their method, the majority seemed to be successful, and the trigger mechanism appeared to be that of touch — a slight movement against a leg perhaps. Even after as much as seven or eight hours of fishing many bears went away hungry but it is likely they would learn by the following year to catch their fill. That is if they lived to return.

The tragedy is that these magnificent mammals are considered prize trophies. While they feed without fear of man (apart from the odd ear tagging) in the McNeil Estuary their lives inland are always in danger of some hunter who for some rather gross reason feels he is proving himself by "bringing down" a Kodiak bear.

Chess Lyons brought back a great deal of excellent film footage from his trip and Klahanie fans will be able to see it on television this winter. We thank Mr. Lyons for the fine cover photo and for his cooperation in helping us with this article.

For those interested in visiting the McNeil River State Game Sanctuary in spawning season it must be noted that it is strictly controlled and a permit is required. Applications must be made to the Alaska Department of Fish and Game, Game Division, 333 Raspberry Road, Anchorage, Alaska 99502.

... M. Slocombe (cover photo: Chess Lyons)

PICKING THE PAPERBACKS

The Bears and I by Robert Franklin Leslie

With the cover story of this month's issue being devoted to bears we felt it might be appropriate to include a review of a book about bears as well. It has been called the "North American Born Free" and fully deserves the name. The author adopted three bears, Rusty Dusty and Scratch as orphaned cubs and reared them with what must be a landmark in human accommodation to the needs of wild animals. Mr. Leslie even kept his own living quarters at hibernation temperature so his three cubs could be comfortable during their winter sleep indoors. The locale of the story is in and around the Takla Lake region. It was written some years ago and one wishes the author had included an up dated postscript concerning the present state of the area regarding hunting and trapping. The only information your reviewer has is that the lake and its shoreline belt are reserved for public recreation and perhaps future park development.

This book is extremely well written - almost poetical at times - and includes passages of both high comedy and numbing tragedy. It also includes one of the most graphic descriptions of what a forest fire is really like and what it does. This is a most engrossing book from cover to cover and we recommend it highly.

... M. Slocombe

* * * * * * *

The largest of all ants is the general black ant (Dinoponera gigantea), found in the Amazon delta in South America. Females measure up to 1.3 inches overall.

BIRDS REPORTED

European Widgeon (1)	Oct.	12	Esquimalt Lagoon
Rusty Blackbird (1)	Oct.	17	Dooley Road
			Vic Goodwill
Red Knot (1)	Oct.	20	Clover Point
			R. Satterfield & Mr. &
			Mrs. Vic Goodwill
Townsend's Solitaire (2)	Oct.	22	Thetis Lake
Backstiens on militarias			Ron Satterfield
Yellow-billed Loon (1)	Oct.	24	Mill Bay
THE SET INC. YOUR SAME WASH			Vic Goodwill
Aleutian Sandpiper (1)	Oct.	25	Bowker Ave.
au 189 grand and bank the			Mr.&Mrs. A.R. Davidson
Red Crossbill (25)	Oct.	27	Wallace Drive
			Enid Lemon
Evening Grosbeak (6)	Nov.	3	Brentwood
Philes - Les year, and a party			Mr. J. Gardner
Golden Eagle (adult) (2)			Niagara Creek
Dipper (6)	Nov.	3	Goldstream
LEKE SZÍMONK SZ SÁSELSEK	RUET		Ron Satterfield
Barn Swallow (1)	Nov.	5	Penrhyn Ave.
12 66 1974 9111 bolue	bes 1	T. ava	R. MacKenzie-Grieve
Cassin's Auklet (1)	Nov.	5	Clover Point
Ansas sandhakaran 194 19	ghid- i		Mr. & Mrs. Vic Goodwill
Mountain Bluebird (1)	Nov.	10	Beach Drive
			Mr. & Mrs. A.R. Davidson

ADDENDA

This has been owl season with two Short-eared Owls being spotted in different parts of Oak Bay - one by Mary Winston and one by the Davidsons. And Snowy Owls have been positively abundant. Two or more have been spotted at the University. The Secretary of the Oak Bay Golf Club reports seeing one. Dr. G. Houston found one there also and it sat an obliging 20 feet away giving him a wonderful view. At work he had another good look at one as it flew over the Jubilee Hospital pursued by a number of angry gulls.

Both Dr. Tatum and Ron Satterfield report one Glaucous Gull apiece. Ron also spied a Rough-legged Hawk (light phase) and the Goodwills sighted another on Prevost Hill. There have been 7 Pine Grosbeak reported - One at Millstream Rd. and six at Ten Mile Point. We also have a surprise at Penrhyn Ave. Bob MacKenzie-Grieve has been watching two Hummingbirds in his garden this fall. (They were still present as of November 9th.) One is an Annah's and busies itself chasing the second bird which Bob believes is a Rufous.

Your Birds Reported editors don't seem to get much birding in but on November 4th at Parksville we spotted four swans near the beach. There were two adults and two young. As it was snowing hard our view was poor and we couldn't tell if they were Trumpeters or Whistlers. Here at home our fat feeders and seed tray are the scene of constant avian activity — we hope our readers' gardens are equally busy.

M. & L. Slocombe 3134 Henderson Rd. Phone 592-9047

* * * * * *

The AUDUBON FILM on January 11 and 12 of 1974 will be Frank Heimans "What Have You Done With My Country?" It promises to be a superior offering. Mr. Heimans has been a film editor, producer and director for thirteen years and has received several awards. This film was Australia's official entry during the International Environment Conference in Stockholm in 1972. To quote from a recent article: "...it is a tribute to Australia and an appraisal of its destruction by a progressive western culture. It is a question and a plea."

* * * * * *

The largest sponges are the barrel-shaped loggerhead (Spheciospongia vesparium), found in the Caribbean and Florida, measuring three and a half feet high and three feet in diameter, and the Neptune's cup or goblet (Poterion patera) of Indonesia, standing up to four feet in height. The smallest sponges fully-grown are 0.12 of an inch high. The rarest coloration among the 20,000 known species is blue.

STINKING WILLIE and THE CINNABAR MOTH

Scotland is famous for its scotch and also for having given the name of Stinking Willie to the tansy ragwort (Senecio jacobaea) which gives off a very unpleasant odour when the plant is bruised.

Tansy ragwort is a weed native to Eurasia, and has been found in British Columbia at least since 1950. To the agriculturist it is an absolute nuisance. Although the cattle normally avoid eating the mature plants, the immature ones are often consumed with the forage, producing a chronic cumulative poisoning, which in some cases causes death.

Fortunately, ragwort will not stand competition from other vegetation, so on suitable ground it can be kept in control by maintaining a dense sward through cultivation and reseeding as soon as the pasture deteriorates. On rocky ground or pastures containing many stumps there is a problem.

In Europe ragwort is attacked by many specialized insects which are not found in Canada. Amongst these is the cinnabar moth (Tyria jacobaea). This handsome red and black moth lays its eggs, in clusters of about 40, on the underside of the ragwort leaves. In early summer, soon after hatching the yellow and black-banded larvae move up to the top of the plant to feed on the yellow flowers and young foliage. As they grow they strip the plant, even consuming the tender parts of the stem. After feeding for about a month the larvae pupate under rocks or thick vegetation. They do not emerge as a moth until the following spring.

It was found by feeding tests, at the Canadian Department of Agriculture's Research Institute in Belleville, Ontario that the cinnabar moth larvae can only survive on ragwort and a few related plants, none of economic value. Therefore the moth could be established in Canada without risk of damage to other plants.

This all sounded very simple, but in New Zealand where ragwort is a problem, a virus was brought in with the larvae, with the result that most of the caterpillars were killed. So it was very important to establish a virus free strain. This was accomplished after the rearing of two generations which were entirely free from disease.

Releases of the moth took place in 1961 at Cape Breton in Nova Scotia and the following year in Abbotsford in the Fraser Valley. Neither became established; in Abbotsford its failure was thought to be predation by ground beetles. Other sites were sought including a site south of Nanaimo, where thousands of larvae were released. Most failed to survive, but fortunately a few moths emerged the next spring.

The effect on the weed in the Nanaimo area has been quite striking. In 1967 patches up to one acre had been defoliated. In 1968 this increased to 20 acres and in 1969 to 35 acres with an estimated larvae population of 750,000.

It will be a long time before the final control value of the moth is known. There must be a large store of seeds in the ground, so ragwort rosettes will continue to appear in infested fields for many years. The cinnabar moth may not be the complete solution to the ragwort problem. It might have to be supplemented by the introduction of other European ragwort insects. Above all, good pasture management is an essential part of the control programme of the weed.

... Enid Lemon.

* * * * * *

Tests on a giant tortoise (Testudo gigantea) in Mauritius show that even when hungry and enticed by a cabbage it cannot cover more than five yards in a minute (0.17 mph) on land. Over longer distances its speed is greatly reduced.

* * * * * *

THE GREEN HERON AND OTHER THINGS

The green heron is one of a few birds which are expanding their territory, and the back reaches of the Cowichan River and the large swamp on the Cowichan Indian Reserve is where they can be seen.

In the middle of September my wife and I visited John Comer of Tomwindsor Road, Duncan, and, under his guidance, we saw and heard a pair. Their voice is harsher than that of the blue heron, if that is possible, and he stands only about 18" high against the 48" of the blue heron, so identification is easy.

In August of last year we saw one flying at the Oak Bay waterfront. No place for a green heron, so naturally nobody believed us, but at that time Mrs. Scott-Moncrieff, whose home is the last house on Radcliffe Lane, saw one on the rocks there. That's the beauty of birding. Birds don't keep to the rules and can be found in unexpected places.

As an example, we were travelling the Otter Point Road on September 20th, and stopped at the Sooke Broome Hill Golf Course, which we must apologize in stating we didn't know existed. A most picturesque course too. Close to the club house is a small pool with half a dozen tame geese in charge. Going closer we found, in addition to the geese, there were four dowitchers, two pectoral sandpipers, one spotted sandpiper, one greater yellowlegs and four western sandpipers.

Another curious incident on the same day was an osprey walking in the shallow water of Esquimalt Lagoon. Never saw that before. The terns were diving after fish close by, so maybe he was only trying to get a meal a new way.

... E. & A.R. Davidson.



JUNIOR OUTINGS - DECEMBER

Dec. 8 Juniors. Day trip. East Sooke Gibson
Park. Meet at 10.00 am. McGavin
Bring lunch.

Dec. 15 Intermediates. Matheson Lake. Horgan

Dec. 15 Intermediates. Matheson Lake. Horgan Farnden

Dec. 22 NO OUTING

Dec. 29 Juniors. Francis Park. Murray
Archibould

Jan. 5 Intermediates. Mount Douglas Nielson
Beach. Allen

All outings meet at 1:30 pm at Mayfair Lanes, unless otherwise specified. If drivers are unable to participate, please inform Gail (477-9248) as soon as possible.

JUNIOR JOTTINGS

A variety of junior outings have taken place over the past month. Among them, a new area for a nature ramble was discovered. The Willows Way trail in Central Saanich offers several miles of good birding and botanizing. Only a portion of the trail was travelled on our afternoon outing. We are looking forward to exploring further sections of the trail on later outings.

The golden leaves of the maples at Goldstream are warming on a dull fall day, as we once again marvelled at the chum salmon battling their way upstream. Besides colourful foliage and spawning salmon, wet autumn weather brings a myriad of fungi. On a stroll up the lower part of the Mount Finlayson trail, the juniors found dozens of different fungal forms. Features such as gills, pores, and teeth were noted, as well as sticky cap and dry cap. Not only the so-called "mushrooms" were found. Other fungi observed were the common bracket fungus (Fomes sp.), puffballs, jelly fungi, cup fungi, and (in great abundance) "deadman's fingers" (Xylaria sp.).

... Gail Mitchell.

DECEMBER PROGRAM

Tuesday Dec. 11 GENERAL MEETING. 8.00 p.m.

Newcombe Auditorium, Provincial Museum

Speaker: Ralph Fryer

Title: Waders - a film study of shorebirds.

Sunday Dec. 30 CHRISTMAS BIRD COUNT. See November Naturalist for further information.

The Compiler for the Christmas Bird Count will be Keith Taylor. He is available between 7 and 11 p.m. at 382-0912 except on Wednesday, Saturday and Sunday.

CHRISTMAS BOOK

An attractive little book entitled, A Naturalist Guide to the Comox Valley and Adjacent Areas including Campbell River, is a feather in the cap of the Comox-Strathcona Natural History Society. It should enjoy a wide acceptance since there are sections on plants, marine life, freshwater fish, reptiles and amphibians, birds, mammals and rocks. The discussions in the sections are commendable, for they set a framework for the listings of organisms present. This is particularly the case in the marine, fish, and mammal sections. Unfortunately, the spacing between successive plant listings in the botany section makes reading a little difficult, but does not detract too much from the information. Put this guide in your packsack if you plan to visit the Comox Valley!

(\$2.00 at bookstores or \$1.50 to V.N.H.S. members at General Meetings.)

... Stephen Mitchell

CHRISTMAS GIFTS

Stuck for ideas? Then here are some suggestions.

*A NET OF NATURALISTS. A publication of the Victoria Natural History Society describing the early history of naturalists in our province. Biographies of Steller, Douglas, Taverner, etc. \$1.35. Postage 15¢ extra.

*ANNUAL BIRD REPORT FOR SOUTHERN VANCOUVER ISLAND. A year-by-year account of the observations of all species of birds in our area. Separate numbers for 1970, 1971 and 1972 available at special members' price of \$1.45 each (postage 15¢ extra) or \$3.90 for the set of three (postage 30¢ extra).

*CARD CHECKLIST of the birds of the Victoria area. Special members' price of 10¢ each (postage 6¢ extra for each half-dozen).

*A NATURALIST GUIDE TO THE COMOX VALLEY AND ADJACENT AREAS. See review this issue. Special members' price of \$1.50. Postage 15¢ extra. Proceeds to the Comox-Strathcona Natural History Society.

*DECALS for your car or trailer with the F.B.C.N. raven motif and the name of our society. State whether you intend to stick the decal on the <u>inside</u> of a car window, or on the <u>outside</u> of a car or trailer body. 50¢ each or 3 for \$1.00. Postage 15¢ extra. Proceeds to Federation of B.C. Naturalists.

Prices of all the above include provincial tax. All may be obtained at meetings, or by mail (postage extra) from Miss Barbara McLintock, 3-1006 Tolmie Avenue, Victoria. Cheques should be made out to Victoria Natural History Society. The special members' price for the Comox publication is not applicable for sales made at the Audubon film shows.

ALSO: *F.B.C.N. CHRISTMAS CARDS. Superb colour photograph of Short-eared Owl photographed by one of our members. \$1.58 including tax and postage for package of ten. Profits to Federation of B.C. Naturalists. Obtainable at meetings or by mail from Miss Enid Lemon, 1226 Roslyn Road, Victoria.

Jeremy B. Tatum President.

WILDFLOWERS OF BRITISH COLUMBIA

For years those of us in the Botany Group have been more or less dependent on C.P. Lyons' most useful hand-book, TREES, SHRUBS AND FLOWERS TO KNOW IN BRITISH COLUMBIA. But as we advanced under the leadership of Miss Melburn and her successors, we found we needed something more comprehensive. WILD FLOWERS OF BRITISH COLUMBIA by Dr. L.J. Clark exceeds our wildest dreams!

Not only the author, but Gray's Publishing and the Evergreen Press each deserve our gratitude for this superb volume - the result of 45 years of spare time study by a dedicated conservationist, blessed with rare intellectual gifts and a devoted wife. Accompanying him on his expeditions, sharing the discomforts and the triumphs, Dr. Clark states in the dedication it was she "who made the book possible."

Weighing 5 pounds, it is no handbook to be taken on field trips. Costing \$29.95, it will be beyond the reach of many. However, if you can persuade the family to give it to you for Christmas, it would be wonderful to possess and a treasured heirloom to pass on!

The flowers are arranged in their natural orders, and the importance of using scientific names is stressed again and again. Knowing the reluctance of most of us in this respect, Dr. Clark helps by explaining in detail the origin of each name, and we end by brushing up on our high school Latin; adding to our knowledge of Greek mythology; learning about the dietary and medicinal uses of the plant, and also something about the botanist after whom the plant may have been named. If, by this means, we still fail to become Instant-Melburns, at least we shall use the scientific names with much more confidence!

The text is delightful. For the amateur there is the minimum of those discouraging botanical terms. As we read we come to share the author's delight in the formation of each flower; in the marvels of their pollination, and in

IS IT REALLY GREEK?

or

A LAYMAN COMES TO GRIPS WITH BOTANICAL JARGON

When botanists use jargon like "umbel", And when "rachis" and "glabrous" they mumble, Do not be perplexed to hear "calyx reflexed". Use a glossary, then you won't stumble!

Annon.

A layman, confronted with the jargon of botany for the first time, might be excused for throwing up his hands in despair. At first glance the technical language of descriptive botany seems incomprehensible, like some diabolical scheme to frighten off all but the most persistent readers. Botanists could even be accused of hiding behind this fearsome facade to cover their inability to describe plants in simple terms.

Actually the shoe is on the other foot because by using this special language botanists are, in fact, reducing complex and lengthy descriptions to manageable proportions. In so doing, they use unfamiliar words. To understand their language, you must understand their words; thus a glossary.

Glossaries are put in books to help readers, not to fill blank pages. They are there to help you bridge the chasm between day to day English and the specialized language of botany. And like any other language, the language of botany can be learned. By tenacious reference to a glossary you can ultimately become familiar with those formerly frightening words and phrases and possibly even as comfortable with the language as you are with your own mother tongue.

Besides, if you are truly interested in plants and their identification you might as well start right now and learn the rules of the game.

the functioning of the delicate ecological system. Who could think of picking a Calypso bulbosa after his gentle exhortation to leave it in its native haunts, and how in future can we see a water lily leaf without thinking of all those creatures which rest upon its surface, and of those below benefiting by its shade and shelter. We are taken back in history, and lifted upwards with the poets.

For many, the photographs, taken of the plant as it grows in bog or on mountain top, will be the most exciting aspect of the book. Look at the detail, the colours and the three dimensional effect of Plate 342, Oplopanax horridum (Devil's Club) or the delicacy of the petals of Rubus parviflorus (Thimble Berry), But how can one pick out two from so many of equal quality! Striking as the full page enlargements are, from a botanical point of view, I do not think we need blown-up pictures of familiar flowers. I prefer my Linnaea borealis (Twin Flower) the size it is, and I can't help wishing that we might instead have had quarter-plate illustrations of some of those plants which are described but not illustrated at all. However, one can only be grateful for the detail enlargements of some of the small, less well known flowers, such as members of the saxafrage family. They are exquisite.

Advanced students might complain about the absence of a key to the families and genera, or the fact that fewer than half of the 2000 plants known to occur in British Columbia have been described. This information can be found in other books. What cannot be found elsewhere is the inspiration which Dr. Clark provides for the amateur. Each hour spent in the joyful company of this book will immeasurably enhance our appreciation of our wild flowers and thereby help ensure their environment will be preserved.

... Katherine Sherman.

<u>POSTAL CODES</u> I would be pleased to receive notification of postal codes for the official membership list. I will be on duty at the desk in the foyer in the Newcombe Auditorium at the meeting of Dec. 11. Would everyone please come prepared to give their postal code.

... Verna Vilkos, #5-1034 Queens Avenue.

Take the following sentence for example; it was taken, as is, from a well-known botany handbook:

"Calyx, strigose-hirsute, eglandular to sparsely glandular-puberulent"

It is a short sentence, only eight words, but it could be written in Greek for all the sense it makes. But hold on! Let us turn to the glossary and, taking each word as it comes, select its meaning.

CALYX - the outermost whorl of floral parts, the sepals.

STRIGOSE - beset with sharp-pointed, appressed, straight and stiff hairs or bristles, hispid.

HISPID - beset with rough hairs or bristles.

HIRSUTE - with stiff or bristly hairs.

EGLANDULAR - without glands.

GLANDULAR - with glands.

PUBERULENT - somewhat, or minutely covered with short, soft hairs or down.

Reconstructing the sentence from the glossary we now get:

The outermost whorl of floral parts, the sepals, are beset with sharp-pointed, stiff and bristly hairs, with few or no glands, which lie flat and are covered with minute soft hair or down.

Suddenly our former eight-word sentence has exploded into more than forty words, reason enough for botanists to seek short cuts through their technical language.

So, don't ignore the lowly glossary. Use it freely and it will help you to come to grips with botanical jargon too!

Harold Hosford 303 Daniel Place Victoria

VICTORIA NATURAL HISTORY SOCIETY

Honorary Life Members

Freeman F. King, Albert R. Davidson, George E. Winkler, Miss M.C. Melburn, Miss E.K. Lemon, Mrs. L.E. Chambers, E.E. Bridgen

EXECUTIVE OFFICERS 1973 - 74

President	Vice-President	
Dr. Jeremy Tatum	Mrs. G.N. Hooper	
305 - 1680 Poplar Ave.	2411 Alpine Cres.	
477-1089	477-1152	

Immediate Past President	
Mrs. F.A. Sherman, 2168 Guernsey St	598-3237
Secretary: Mrs. J.L. Rimmington, 3372 Henderson Rd	592-6037
Treasurer: Miss Maureen Collins, 2719 Richmond Rd	598-1875
Programme Chairman: Stephen Mitchell, 4321 Majestic Dr	477-9248

Group Leaders

Botany: Stephen Mitchell, (see address above)			
Ornithology: Mrs. Ruth Stirling, 3500 Salsbury Way	385-4223		
Marine Biology: David Stirling, 3500 Salsbury Way	385-4223		
Junior Naturalists: Freeman F. King, 541 McKenzie Ave	479-2966		
Editor - "The Victoria Naturalist":			
Maeford Slocombe, 3134 Henderson Rd	592-9047		
University Liaison: Dr. Rosemary Picozzi, 11-1595 Rockland	384-4958		
Federation of B.C. Naturalists:			
Kerry Joy, Millstream Lake Rd., R.R.6	478-5093		

OTHER OFFICERS

Audubon Wildlife Films:	Miss Anne Adamson, 1587 Clive Dr	598-1623
	A.H. Couser, 403-435 Michigan St	384-0832
Asst. Junior Naturalists:	Mrs. Gail Mitchell, 4321 Majestic	477-9248
Librarian: A.R. Davidson	, 2144 Brighton Ave	598-3088
Friends of the Museum:	Dr. D.B. Sparling, 9-1354 Beach Dr	598-4262

Annual Dues, including subscription: Single \$3; Family \$6; Junior \$2 Junior Membership is restricted to those not under 9½ years and not over 18 years. Sustaining Membership \$25

> Financial year is May 1 to April 30 New Members joining after January 1 - half fee.

Dues and change of address should be sent to the Treasurer.