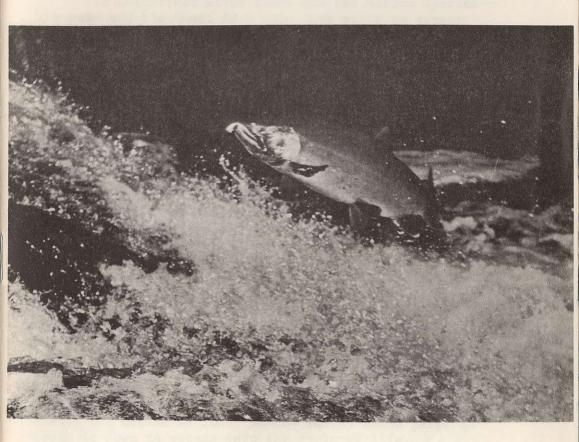
Dec., 1970 Vol. 27, No. 4

THE VICTORIA NATURALIST



published by the VICTORIA NATURAL HISTORY SOCIETY

Victoria B.C

THE VICTORIA NATURALIST

published by THE VICTORIA NATURAL HISTORY SOCIETY

Vol. 27: No. 4

December 1970

SALMON

At this time of the year we who live in the Greater Victoria District have the advantage over most other Canadians in that we have at our front door a salmon stream. There we can go to see that most fascinating of animals return to the place of its birth to deposit the eggs so that the species may never die.

In Goldstream River there are two native species the Coho and the Chum. As a rule they start to appear
about the middle of October with the Coho coming first,
and the run continuing until mid-November. The habits of
each species vary somewhat, but all of them die on the
completion of the spawning.

One never ceases to wonder at the strength of the animal, as one watches with fascination male and female fighting against the current and obstacles in the stream to reach those same gravel bars of their birth.

It is generally the female that leads the way and it is she who selects the spawning place and digs the "redd" or trench, for her eggs. This is done by stirring the gravel with her powerful tail, so that the current can wash away the silt and sand that might otherwise smother the eggs. When the trench is just right she will move over it and deposit her eggs, to be followed by the male who will shower them with "milt". The female will make several "redds" in an area and the process will be repeated many times. When all the eggs have been deposited the fish are weak and exhausted and slowly die. But a new generation has been born.

Both male and female of these species die, but in death the bodies are by no means wasted. Many living creatures come to feed on the flesh - gulls by the hundreds, and ravens as well, along with mammals large and small. The action of fungi on the rotten flesh helps to break it down to return into the cycle of life.

Both fish will change color as they enter the spawning beds, but their habits are slightly different and it might be interesting to examine some of the ways they may be distinguished.

The Coho (Oncorhynchus kisutch) is very shy, often hiding under overhanging banks and travelling mostly at night. Spawning takes place in remote spots of the stream. When in the ocean the Coho is silvery and is in fact often called the silver salmon. The male develops a strong upper jaw with hooked teeth to fight off other males. As a general rule these fish travel in pairs and it is the female who picks the partner. The young stay in the stream for a year before descending to the sea, where they feed on herring and shrimp, building their energy for the third year when they return to spawn. For this reason the Coho is called a three-year fish. How they find their way in from the deep ocean seems a miracle, but this is done by navigating by the stars as man has learned to do. When they reach the bays or inlets the fish are able to "smell" the waters from their own particular stream or river. When they enter fresh water to complete the cycle they must be at their peak of energy because they never eat again.

The Chum salmon (Oncorhynchus keta) are the larger fish that one sees in the Goldstream, and since they use the more open pools they are the most commonly seen as well as the more plentiful. While variations occur, the males are a dingy gray-green often with reddish vertical bars, while the females are a creamy gray with a dark bar along the sides. They do not pair off so definitely as other salmon and you may see one female with more than one male, and several males may fertilize her eggs. A deeper trench for the eggs is made, and the coarser gravel is preferred. When hatched from the egg this fish stays in the stream for a short time only and then descends to the sea for a period of four years. When in the ocean the Chum has no teeth for it is a plankton feeder; back in the stream strong spiked teeth are developed for fighting and as these somewhat resemble canine teeth the Chum is often called "dog salmon".

The small fry of both species must have clean fresh water to survive in the stream, and the stream must be kept flowing at all times. If the fish become isolated or stranded in small pools and the water becomes too warm, fungi will develop and death follows. The spawning period is a crucial time and a water scarcity can cause the loss of a whole generation of salmon. If this wonderful cycle of life is to be preserved for future generations of humans to see and marvel at, then we must take all steps possible to conserve water in times of drought, and demand that the natural habitat be preserved from destruction.

Freeman King, cover photo by Dane Campbell

BE AWARE OF EASTERN BOTANICAL INVADERS

The semi-annual meeting of the Federation of B.C. Naturalists was to be held at Prince George over Thanksgiving weekend. This crystallized for me a drive that I had planned for some time. For years I have been interested in the occurrence of a number of species of eastern North American plants in the general Prince George area and was anxious to see some of them at first hand. The season being late the number of such species that I might expect to see was really limited to those that had evergreen foliage or could otherwise be identified at this season of the year.

The route that I took was Highway #5 from Kamloops, the Yellowhead Highway. Following the North Thompson through the arid ponderosa pine woods one soon noticed a gradual change in the trees. As one got north towards Little Falls it was obvious that the climate was becoming wetter. This was indicated by the presence of spruce (Picea), balsam fir (Abies), hemlock (Tsuga) and western red cedar (Thuja). Of special interest was the presence of black spruce (Picea mariana) on poorly drained swampy sites. This is a species abundant in all muskeg swamps from Newfoundland westward but only just penetrating through the Rocky Mountains to somewhat west of Prince George. It is a species that can be readily recognized by its narrow crown, hairy twigs and above all by its habit of retaining a mass of cones at the top of the tree. White spruce (Picea glauca), on the other hand, sheds its cones each year and characteristically occupies better drained. hence drier, sites. Whether the black spruce entered this part of B.C. by way of the Yellowhead Pass or by the more northern Pine Pass still remains to be settled.

As my special interest is in ferns I paid particular attention to specimens I could identify along the way. Early frosts had cut down a lot of the foliage but enough remained in many cases to make specific identification possible. I spent the night at Blue River and next morning collected in swampy woods near the highway. Here the woodfern (Dryopteris austriaca) was common, easily recognizable by its broadly triangular fronds and in certain technical details. This is a western North American species apparently identical, however, with a species of western Europe. Scattered among them were plants with very narrow fronds and different technical features. These plants appear to be identical with the eastern North American

spiny woodfern (Dryopteris spinulosa) - another invader from the east known only from eastern B.C.

Later that day I turned west at Tete Jaune on Highway #16. The drizzle had stopped and the clouds lifted to reveal the Premiers' Range in all its grandeur. A dozen miles of gravel brings one to McBride and from then on it is black-top all the way to Prince George. A stop was made at Slim Creek about twenty miles west of McBride. The spiny woodfern was collected here again, also the ostrich fern (Matteuccia struthiopteris). This has been a much more successful invader from the east. It apparently crossed the Rockies through Pine Pass. It is abundant on the banks of the Parsnip; is scattered on the Fraser, where habitats are suitable, from McBride to Agassiz; occurs eastward to Revelstoke and westward from Prince George through the Bulkley Valley to Hazelton and then down the Skeena to within about thirty miles of its mouth. This fern has special culinary interest as its young fronds provide the 'fiddle-heads' so greatly prized in Nova Scotia and New Brunswick. One wonders how many in our province have cooked and relished these gourmet's delights!

The Prince George Naturalists Club has a young and enthusiastic membership. It is to be hoped that one of their projects will be the study of our botanical invaders from the East. There are a number of these species and we badly need much more information about their occurrence in the Province.

T.M.C. Taylor

Doctor Taylor is Professor Emeritus of Botany, U.B.C., and is currently President of the Federation of B.C. Naturalists. His principal botanical interest is in ferns and their allies, resulting in recent publication by the University of Toronto Press of Pacific Northwest Ferns and their Allies.

EXIT THE CANADIAN AUDUBON SOCIETY ? ENTER THE CANADIAN NATURE FEDERATION ??

A sudden awareness of the dangers of pollution of land, air and water has alarmed Canadians from coast to coast as well as our neighbours to the south. The urgency of the need for Environmental Control we dare not overlook.

Small groups of concerned people have been trying bravely to cope with the monster only to discover that large resources are needed if they are to be able to assemble information and facts with which to fight the big interests and to persuade governments. In British Columbia the smaller conservation groups have joined in forming the British Columbia Nature Council as the central spokesman and acting force.

In like manner conservationists across Canada have felt keenly the need for united strength, and for all Canadians "a national voice in matters of environmental control". The finger was put upon the Canadian Audubon Society as a likely central authority rather than setting up another organization.

In May of 1970, the Canadian Audubon Society called a meeting in Winnipeg for all CAS Affiliates to examine and discuss all relevant factors. Mr. Cy Morehen represented the Victoria Natural History Society at that meeting. Since the CAS constitution could not be adopted to fit the need, the decision was taken at this conference to draft by-laws for the proposed new organization, the Canadian Nature Federation.

Detailed examination was made of a first draft and a follow-up conference was slated for October 17, 1970.

I went to Winnipeg to represent the Victoria Natural History at that meeting. A new constitution for the CAS to replace the old one was presented, and was discussed and worked through clause by clause and line by line. It will now be prepared for presentation to the Government of Canada for acceptance.

The main proposals are as follows:

- 1. Headquarters are to be located in Ottawa.
 - Representatives to be elected from ten provinces and two territories to meet twice a year.
- 3. The revised constitution to be forwarded to all members of the CAS who will have a vote to accept the proposed changes.

Future developments will be the concern of all of us.

EXPLORATION TIDEPOOL

The marine biology trip was a real fun evening for more than thirty enthusiasts of all ages who gathered at Cattle Point in the winter darkness, November 14. The tide was low, the weather mild, and as the group moved out the dark rocks were illuminated by an array of bobbing lanterns and flashlights.

We were surprised and delighted at the good showing of marine animals and plants. Sea-urchins, nudibranches, limpets, sea-stars, whelks and chitons were some of the animals discovered, examined and then left to carry on their lives. But the star of the show was a large octopus, discovered by sharp-eyed Linda Slocombe. The octopus was hiding under a big, flat rock but it had left a bit of tentacle sticking out. After some gentle persuasion the animal slithered out of its sanctuary and moved down to the sea several yards away, giving everyone a chance to see this fascinating creature in its natural habitat.

Skipper and I hope to continue these marine forays. There are many more beach situations to explore. Remember to dress warmly, wear rubber boots and don't forget to carry a stout stick to help you keep on your feet on slippery rocks.

David Stirling

NEW MEMBERS

	도 (C. C. C
Mr. A.J. Holcombe	82 The Woodfield, Surrey, England
Mrs. B.M. Bumpus	1640 Rockland Avenue, Victoria
Mr. L. Chambers	4317 Blenkinsop Road
	1586 York Place
	2160 Beach Drive
	2160 Beach Drive
	450 Tipton Street
	305-2314 Oak Bay Avenue
	1641 Alderwood Road
	2567 Beaufort Road, R.R.2, Sidney
	220-964 Heywood Avenue
Mrs. Marilyn Watt	Box 937, Sidney, B.C.
	as was deem of as 655 Fairway Avenue
Miss E. Paetzold	1207-647 Michigan Street

We offer these members a hearty welcome and hope that they will use and enjoy the opportunities the Society offers in the way of outings, lectures, library and magazine.

NOVEMBER MEETING

The meeting was well attended and matters of general interest to the membership were dealt with. Freeman King made a rousing appeal on behalf of the salmon in the Goldstream and stressed that the recent rains had not solved the problem of water shortage and that water conservation must still be practised if the eggs when laid were to have sufficient cover for hatching.

Doctor Sparling spoke on behalf of the "Friends of the Museum"and also said a few words about his trip to the Audubon Convention in Winnipeg. A report of this meeting is printed elsewhere in this issue.

The new Chairman of the Ornithology group, Mr. Rod Muirhead was introduced and he said a few words. Since Mrs. Muirhead is Recording Secretary of the Society and now in charge of the "Hot-line", they are together making a great contribution and Mrs. Sherman expressed thanks and congratulations to them both.

Jeremy Tatum, after some discussion with the members present, set a new date for the Christmas Bird Census of Sunday December 27 (see note under December programme). He also expressed concern over further depredation of the Skylark habitat caused by new building at the University of Victoria.

Dr. R.A. Ring, the Chairman of the Entomology Group was introduced, and gave a most interesting and informative talk on "Some Alternatives to Chemical Insecticides", which he followed up with a colour film produced by the Shell Organization. Some notes on his talk are printed elsewhere in this issue. The film showed the alarming effects of insects on man, crops, and animals in tropical countries, and one part of the film dealt with the control of a plague of locusts by aerial spraying.

PELICANS

The only colony of Pelicans in British Columbia nests on an island in Stum Lake in the Chilcotin area. During the nesting season in June and July these birds are vulnerable to disturbances by thoughtless visitors. The Department of Recreation and Conservation might be persuaded to provide funds for the services of a caretaker during the nesting season if enough people wrote letters recommending this. Why not give it a try. Write:Hon. W.K. Kiernan, Minister of Recreation and Conservation, Victoria, B.C.

SOME ALTERNATIVES TO CHEMICAL INSECTICIDES

Most of us are aware of the destructive capacity of insects, but only a careful study or a visit to a tropical country will give one an idea of how many and varied are the ways these tiny creatures injuriously affect us. Conservative estimates place the number of species in the world at from seven hundred thousand to one million. Their tremendous diversity in feeding habits makes them destructive to our crops, our stored produce, our animals and to man himself. They are found in every conceivable terrestrial and fresh water habitat, but not, it is to be noted, in the sea. It is estimated that the percentage of our food lost to insects varies from 10% in the U.S.A. to 50% in less developed countries, and that this loss amounts to a value of about three and one-half billion dollars.

Modern practices of agriculture cannot help but upset the delicate balance of nature. Increased food produced for man has meant more available food for insects. As demand for unblemished produce grew, so did the cost of pest control. At the same time as the public was demanding virtual elimination of all insect pests, they were also insisting that control measures not have a deleterious effect on man or the environment. Producers. caught in the squeeze between profits, consumer demands and government controls, found themselves in a dilemma. It is known that certain pesticide residues remain in the environment for years, and just as insidious is the evidence that many insect species are now resistant to some insecticides. Entomologists have long abhorred the widespread and indiscriminate use of insecticides, and have stated that they should be used sparingly, as directed, and for specific problems. Now they feel that the time may have come when our society must be more realistic and not be too squeamish at an occasional insect in our food. At the same time the development of other methods of control continues.

Most of us forget that a "civil war" goes on ceaselessly among the insects. The entomologist has turned this to the advantage of man, by making predatory and parasitic insects his allies. In the past hundred years more than one-hundred-and-ten different pests in more than sixty countries have been controlled by the use of parasites and predators. One example was the control of cottony cushion scale in California by the vedalia Ladybug introduced in 1888 at a cost of \$2,000.00, a control that is still satisfactory to this day. One of the best documented examples of biological control was the virtual destruction of prickly pear in Australia by the introduction of a small Argentine moth at a cost of less than 2 cents an acre, when previous unsuccessful attempts at control were costing more than twenty-five dollars an acre. Dragonflies, ground beetles, ladybugs and spiders are all useful insect predators, and many parasites are available commercially.

Biological control can be greatly facilitated by encouraging and helping protect the insectivorous birds and mammals. We are aware that some birds can eat in a single day a weight of insects equal to their own weight. The mammals, too, bats, moles, skunks and shrews are valuable allies. Some species of lizards and snakes subsist largely on an insect diet, and the food of a toad consists entirely of insects more than 60% of which are injurious species. Fish have been reared and employed to destroy mosquito larvae cheaply and effectively.

In the Caribbean island of Curacao the insect was the subject of a spectacular biological method known as "male sterilization technique", when males irradiated with X-rays or gamma rays were released to control the Screwworm Fly.

Many ingenious physical and mechanical methods of insect control were mentioned. We all know about flypapers, but far more sophisticated is the use of ultrasonic waves to kill mosquito larvae, or laser beams used against granary pests, or play back recordings of female mosquito flight sounds to attract the males on an electrically charged grid.

It would appear then, that while they may not completely supplant insecticides, these are other methods of control which can be used in conjunction with them, thus lessening the effect of dangerous chemicals.

(The above notes were taken from the talk given by Doctor Ring at the November meeting, and if any errors or omissions of a serious nature have occurred they may be blamed on the note-taker and not on the speaker)

THE NOVEMBER BIRD TRIP

The November Bird Trip was fortunate in having a very satisfactory day, in weather, attendance and number of species seen.

Attendance: best count forty-eight

Species seen: thirty-nine

Twelve members gathered at Mayfair Lanes, the Bowling Lanes. We recorded our first bird, a Flicker, embarked and drove to Esquimalt Lagoon. There we found or were later joined by the rest of the party. The day was spent in working along the South shore of the Lagoon, paying proper attention to the birds in the Strait from time to time. We lunched in the development at the North West corner.

The number of species seen indicate we all had a busy time. A number of Bird Recognition Class students came along and were very welcome.

Mr. Cy Morehen was unable to lead this trip, but has indicated he will lead a trip in the Spring.

Species seen N.H.S. Bird Trip Esquimalt Lagoon Nov.14,1970

Common Loon Horned Grebe Western Grebe Pied-Billed Grebe Double Crested Cormorant Pelagic Cormorant Great Blue Heron Mallard Pintail Green-Winged Teal American Widgeon Shoveller Canvas-back Lesser Scaup Common Golden-eye Bufflehead Old Squaw White-winged Scoter Surf Scoter Ruddy Duck

Hooded Merganser Red Breasted Merganser Bald Eagle American Coot Killdeer Black-bellied Plover Black Turnstone Greater Yellow-legs Dun1in Glaucous Winged Gull Mew Gull Belted Kingfisher Red Shafted Flicker Northwestern Crow Starling Western Meadowlark (6) Evening Grosbeak House Finch Song Sparrow

Rod Muirhead

THICK HEDGES MAKE GOOD NEIGHBOURS

Noisy neighbours? Plant a hedge and cut down the sound. This is only one of the many functions of the big city plants and trees. Just as sound levels are absorbed when you lay a carpet in your house, the same thing happens on highway greenbelts which filter out noise. Hedges are particularly useful for attenuating sound. For a large screen, a mixed planting of trees and shrubs will catch sounds high and low, evergreen plantings being more effective because they are denser than deciduous materials.

To check the efficiency of plant's screening ability, Joe Witt, assistant director of the University of Washington Arboretum made recordings of an automobile motor from in front of and behind a deciduous tree and another of a power motor from in front and behind a screen of mixed plantings. The result was a significant reduction not only in volume but in tone, particularly the high pitched sounds.

Urban trees and plants play other roles. They control and direct the wind which they channel according to the density and shape of plantings. They act as shade controllers and provide sumps or catch basins to absorb precipitation which runs off from the pavement we add yearly to our cities.

Trees also trap particles of matter in our city air and can produce scents that mask the noxious odours of air pollution. They pump out hundreds of gallons of water in transpiration every day, raising the humidity around them; the resulting dew washes dust and pollutants to the ground.

Add to these functions the beauty they provide, the absorption of carbon dioxide and the constant replenishment of our oxygen supply, and it is enough to have plants, hedges and trees - with or without neighbours.

The above article was submitted from *Pacific Search* by Ruth Chambers

THE KILOMETRE SQUARE PROJECT

The idea is this. We divide the whole of the Saanich Peninsula into kilometre squares. Each participant in the project is assigned as many of the squares as he thinks he can handle, and, whenever it is convenient to him, he thoroughly searches every nook and cranny in one of the squares, noting all the bird species and estimating numbers in the square. Ideally he would make four visits to each square, in Spring, Summer, Autumn and Winter, as astronomically defined, (i.e., starting from March 21). These visits would not all have to be in the same year; indeed it may well take several years for the whole project.

When finished, the project will give us a lot of valuable information, which will eventually be published. It will also take birdwatchers to areas they do not normally go to, and will lead to the discovery of habitats we do not know about and to the new breeding localities.

The success of the project depends on all the top birders volunteering to take part, and not forgetting about it as the months go by. This is a long-term project for the dedicated field observer, but it should not interfere with his usual birdwatching routine except to give it a little more variety.

Two maps will be used, namely the Island Blueprint street maps of Victoria and the Saanich Peninsula. Possibly many people already have these, but I shall obtain them if desired for those who have not, at the normal price of 75¢ each.

If you are one of the regular birdwatchers of the area, then this article is dedicated at YOU. Let's have a good response! Please write or telephone to me if you wish to take part.

J.B. Tatum

AUDUBON WILDLIFE FILM

While waiting for the speaker to begin for the second Wildlife Film of the season, this reviewer found himself fascinated by the audience which filled the Newcombe auditorium to capacity by 7:45 on the Friday night. Everyone looked expectantly happy and there was that buzz in the air which told of a receptive audience. People were visiting as they walked up and down the aisles, and there was the usual straggle of youngsters running back for that last drink of water. A young friend of our acquaintance stopped to chat about a recent hike he had made. We thought how lucky we were to be there. Then the speaker was introduced after Miss Lemon had "warmed up" the gathering, and we sat back to really enjoy ourselves. We were certainly not disappointed. Walter Berlet presented us in his talk and film on "The Untamed Olympics" with an evening of delight. Having explored the Olympics on foot, by car, burro, horseback and boat, he caught on film the wonder of its wilderness, as well as its fragility, and he made a plea for preservation of this and other natural resources from the threat of the bulldozer age. The film began with tide pool exploration and went from there to the interior through rain forest and high mountain. Magnificent photography and excellent narration.

The next film is December 4th and 5th.
Robert E. Fultz presents "Arcadian Reflections". The
setting is Maine, and the promise of some special
effects should prove interesting. Don't miss this one.

CHANGE OF PHONE NUMBERS

A few of the members of the Executive resident in Oak Bay have had a change of telephone numbers. It would be appreciated if you would make a note of these:

Mrs. F.A. Sherman:	598-3237
Mr. and Mrs. Bridgen:	598-4025
Mr. and Mrs. Davidson:	598-3088
Doctor Sparling:	598-4262
Miss Enid Lemon:	598-3517

Also please note that the new group leader of Ornithology is: Mr. Rod Muirhead, 3431 Salsbury Way - 384-6005

Oct.25

THE EDITOR'S MAILBOX:

The Editor Victoria Naturalist

We thought the following item might be of interest for publication.

On October 25th, at the Cowichan Bay Assembly Dyke Road, we were astonished to see two Great Blue Herons performing what seemed to be a courting ritual. Facing one another about six feet apart, they suddenly raised their long beaks skyward, slowly spread and bowed their wings, and with precise and dignified movements advanced towards each other. When about two feet apart, they gazed steadily at one another for a few seconds, then turned and marched slowly back to their original position. They repeated the pattern, several times.

In the good light, the colouring of the blue-gray plumage was striking, and the patch of cinnamon in the shoulder was revealed. It was also noted that the tail feathers were spread stiffly, forming a V-shape.

Surely this is unusual at this time of year?

Sincerely,

Miss Betty Wise Mrs. Doris Davies Box 22A, RR1, Cobble Hill

This has been an active month for the members as can be seen from the many reports in this issue. The deadline for the January 1st issue will have to be December 14, and we will welcome your letters, articles and reports for this issue. Perhaps you have some ideas for a sort of year-end summary or even thoughts on the shape of things to come.

It may be a little early, but this is the only chance we will have of wishing all our members a Merry Christmas and a Happy New Year. And don't forget the Census on December 27.

BIRDS FOR THE RECORD

BINDS FOR THE RESORD
by G.N. and G. Hooper, 2411 Alpine Crescent (477-1152)
Golden eagle (1 adult) - Cadboro Bay Road - Oct.15 - Keith Taylor
Townsend's warbler (1) - Oak Bay - Oct.17 - A.R. and Eleanore Davidson
Fulmar (1) - Clover Point - Oct.18 - Keith Taylor
European widgeon (1) - Esquimalt Lagoon - Oct.25 -
(first seen Oct.4, and again Nov.1) Enid K. Lemon (1) - Beacon Hill Park - Oct.31 -
(seen up to Nov.11) Joy Satterfield
(3) - Panama Flats - Nov.11 -
no Masga III w and Table mot A arm Ron Satterfield
Snow bunting (1) - Esquimalt Lagoon - Oct.26 -
Peggy Pickford and Leila Roberts
Snowy ow1 (1) - Woodley Road - Oct.27 - Miss C.N. Burridge
Miss C.N. Burridge
(seen Cotswold Rd. by KT and others, Oct.29) Spotted sandpiper (1) - Muir Creek, nr. Otter PtNov. 6 -
(a late date) Keith Taylor
Slate-colored junco (1) - Bonnie View Place - Nov. 6 - (still there Nov.15) Cy Morehen
Black brant (1) - Cadboro Bay - Nov. 7 -
Rob Mackenzie-Grieve
Gyrfalcon (1, white phase) - Martindale - Nov.13 -
Ralph Fryer
(seen making a successful strike at a Widgeon)
Western meadowlark (5) - Esquimalt Lagoon - Nov.14 - Rod Muirhead and Saturday Field Trip
Gadwall (2) - Elk Lake (Black Swan) - Nov.15 -
Ron Satterfield
White-throated sparrow (1) - Alpine Crescent - Nov. 17 -
Gordon and Gwennie Hooper
Migrants and winter residents
Pied-billed grebe (3) - Esquimalt L. (CM) - Nov. 1
Snow goose (20) - Martindale (PP and LR) - Oct.23-27
Barrow's goldeneye (3) - Cooper's Cove (KT) - Nov. 6
Common scoter (12) - Whiffin's Spit (KT) - Nov. 6
(2) - Oystercatcher Bay (ARD) - Nov.14

Long-billed marsh wren (2) - Munn Road (KT) -

PROGRAM FOR DECEMBER 1970

Executive Meeting: Tuesday December 1 Audubon Wildlife

Film:

Fri., Sat., Dec. 4-5 at 8:00 p.m. Saturday December 5 at 2:30 p.m.

General Meeting: Tuesday December

Tide Pool Exploration: (Highline Hike)

Saturday December 12

Christmas Bird Count: Sunday December 27

8:00 p.m. at home of Mrs. S.Prior 1903 Shotbolt Road

Robert E. Fultz presents "Arcadian Reflections" Newcombe Auditorium Provincial Museum (South entrance)

8:00 p.m. Newcombe Auditorium (Provincial Museum) Mr. R. Tom Stirling will speak on "The Role of Ducks Unlimited in Waterfowl Management".

Meet at Mayfair Lanes parking lot (North side) 9:30 a.m. or Fort Rodd Hill 10:00 a.m.

Bring rubbers

Fifty cents - members One dollar - non-members Jeremy Tatum: 592-1332

THERE WILL BE NO BIRD FIELD TRIP IN DECEMBER

Junior Group:

Meeting every Saturday 1:30 p.m. at Mayfair Lanes parking lot (North side) for field trip Leader: Freeman King: 479-2966

CHRISTMAS BIRD COUNT

Would participants please note that the date has been changed. The Census will take place on Sunday, December 27, and not as previously announced, on December 26. Those who wish to take part should get in touch with Jeremy Tatum at 592-1332.

VICTORIA NATURAL HISTORY SOCIETY

Honorary President

Honorable W. K. Kiernan, Minister of Recreation and Conservation

Honorary Life Members

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

Officers 1970-71

President Mrs. F. A. Sherman 2168 Guernsey Street 386-1965 3614 Cadbo	Vice-President A. D. Turnbull ro Bay Road	592-6025
Immediate Past President		
Dr. D. B. Sparling, #9, 1354 Beach Drive		385-2229
Recording Secretary: Mrs. R. C. Muirhead, 3431 Sal	lsbury Way	384-6005
Corresponding Secretary: Mrs. H. F. Dickson, 2084		
Treasurer: E. E. Bridgen, 2159 Central Avenue		
-		
Program Chairman: A. D. Turnbull, 3614 Cadboro	Bay Road	592-6025
Audubon Wildlife Films: Miss Enid Lemon, 1226 Ro	oslyn Road	385-4676
A. H. Couser, #403, 435 Mi		
Group Leaders		
	D.D. A	450 0010
Botany (Summer) Miss Terese Todd, Barker Road,		
Botany (Winter) Mrs. J. M. Woollett, 624 Harbinger		
Entomology: Dr. R. A. Ring, 1467 Jamaica Road		
Ornithology: A. C. Schutz, 2060 McNeill Avenue		
Marine Biology: Freeman F. King, 541 McKenzie Av	enue	479-2900
David Stirling, 3500 Salsbury Way		
Junior Naturalists: Freeman F. King, 541 McKenzie		
Mrs. E. C. Osborne, 1536 Vining	Street	385-8164
Ornithology Records: Dr. Jeremy Tatum, #416, 3187	Shalbourna Street	592-1332
Federation of B.C. Naturalists: Kerry Joy, Millstream		478-5093
University Liaison: Dr. Jeremy Tatum, #416, 3187		592-1332
Membership: Mrs. Eleanore Davidson, 2144 Brighton		384-9595
		479-2966
Publicity: Freeman F. King, 541 McKenzie Avenue		
Librarian: A. R. Davidson, 2144 Brighton Avenue		304-3333
"The Victoria Naturalist"	,	
Editor: Roy D. Wainwright, 3250 Exeter Road -		592-1310
Assistant Editor: A. R. Davidson, 2144 Brighton Aver	nie	384-9595
Assistant Bultur: A. It. Davidson, 2177 Drighton Aven		001 0000
Annual Dues, including subscription: Single \$3;	Family \$5; Junior	rs \$2.

Annual Dues, including subscription: Single \$3; Family \$5; Juniors \$2.

Junior Membership is restricted to those not under 9½ years and not over 18 years.

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