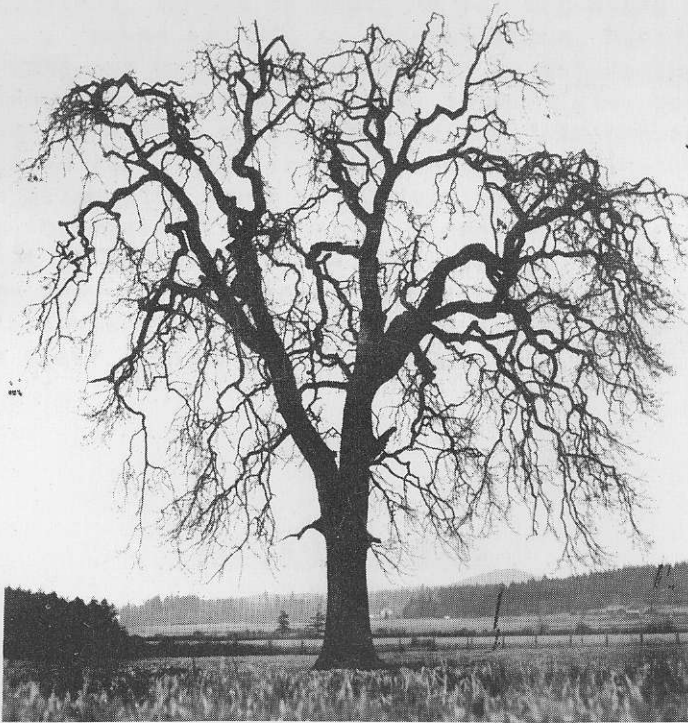


The
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COVER PICTURE

Gaunt, gnarled, twisted, dark, sinister, grotesque, picturesque, massive, shaggy -- all these adjectives, and many more, have been used to describe an oak tree. Our old friend Chess Lyons, in his book "Trees, Flowers and Shrubs To Know in British Columbia", rightly states that its form, once recognized, cannot be mistaken for any other native tree. In a recent article in this magazine, David Evans reveals that our Garry oak is home to an astounding number of insects, and by virtue of this, it must also host many birds. It is a tree with character and "atmosphere". Your editor chose its photo for this month's cover because its leafless silhouette seems an appropriate symbol of the apparent bareness of February. Close examination, however, shows that it is well prepared for spring; that its plump buds have been ready for many weeks and are prepared to produce a new suit of foliage as soon as warmer weather triggers their final stage of development.

* * * * *

SHELLS FOR DEFENSE

by J.W. Winson

The rim of the sea is rich in life, not death, as scattered shells and flotsam seem to indicate. The tide-washed strip is crowded, the sand is packed, rock crevices are crammed, rock faces are closely studded with living things. The very water teems with minute life.

Shell-life seems to predominate. It is less mobile than any other. Though furnished with a "foot", fish that carry shell armour prefer to stay where the tide can bring them food.

There is a vast range of these "mollusk" forms, varying in feature as well as size. Millions of years ago,

they began to live safely, rather than dangerously. The hoary rocks are scrolled with their myriad generations; their history is almost as old as life.

A few of these shellfish kept their character while forests were made, birds to sing in them and petals to flourish at their feet. Legs came to the curious, feet to the fleet and eager; but shelled fish merely gaped through the eons and yawned at passing centuries. Whales and eels explored oceans; salmon and herring ranged the tides --- aged clams and limpets are where they clung in infancy.

Yet the classes are named by their feet, though each has but one, as the snail. In most, it is a "stomach foot" -- gastropods walk where they eat. Others are cephalopods and walk on their heads. Feet are of minor importance to these creatures, though among them are famous travellers. The pearly nautilus has borne its Argonautic sails through long waves of history.

Jelly fish left their shells for adventure. They found greater life in meeting danger than by living in armoured security. Risk and jeopardy are the spice of life-sense. They who have never breasted a wave know nothing of the peace of a haven. Courage and venture are keys which release true freedom from fear.

** * **

WATER BEARS IN THETIS LAKE (continued from January issue)

They remain alive for a few weeks in suitable aquaria. The name tardigrade means "slow step", and when one is crawling along a bit of vegetation, it walks very slowly, but when in a tangle of algal threads, it can scramble through fairly rapidly. Its shape resembles a tiny bear, but it is very different in that it possesses four pairs of legs which are short and thick. In size, a full grown water-bear is about one fiftieth of an inch long and about one quarter of that at its widest part.

Aside from a more or less straight digestive tract, it seems devoid of other organs in the body cavity -- no heart, no lungs, no blood system and no kidney. It is a segmented animal, the segments more marked in some specimens than in others. The paired legs are the best evidence of segments in this species. At the extremity of each leg, there is a pair of claws, and each has two sharp hooks. The skin or cuticle is pervious to water, so oxygen can readily pass

into the body and carbon-dioxide pass out.

Its food consists chiefly of living green algae, both unicellular and filamentous. When feeding on small plants, the "lip" of the buccal cavity is extended a short distance and food is very rapidly drawn inside. It passes down into what is termed the "bulb". This is a spherical structure, through which the digestive tract passes, and leads to a long chamber. In the cavity of the bulb are two rows of three or four chitinous rods or plates, known as placoids, which function as teeth and crush food.

Tardigrades must always be in contact with water to be active, even those that live in wet mosses or lichens. When in danger of drying, they become encysted and remain viable for long periods of time. While in this state, they can be picked up by the wind and carried long distances, then resume active life when moisture is sufficient.

The relationship of these curious animals to other groups is obscure. Because of having four pairs of legs, they were at one time supposed to be related to spiders. They are now placed in a phylum of their own -- Tardigrada. This is divided into two classes and four families. The water-bear found in Thetis Lake belongs to the genus Macrobiotus, in the family Macrobiotidae. There are at least fourteen species in the genus and this one is very like M. occidentalis Murray. Markings on the eggs, which the author has not yet seen, and granulations in the cuticle should be examined further before identification can be finally determined.

There are both male and female individuals in many of the Tardigrada, and as in some other groups of animal life, the male is smaller than the female.

Thetis Lake is one of many of our lakes which must be preserved from contamination, so that those who come after us can enjoy its life and beauty, as we do at present.

** * **

Using natural "sonar", a bat, even when blind, can fly successfully without collision, and can discriminate between the echoes of its own sound emissions and those of other bats, even when background noise is 2,000 times stronger than the echoes.

** * **

CHRISTMAS BIRD CENSUS

SPECIES:		A	B	C	D
LOON,	Common	1	5	15	4
	Arctic	2		14	3
	Red-throated			10	2
GREBE,	Red-necked	4		5	
	Horned	10	4	70	36
	Eared	1		2	
	Western	2		182	15
	Pied-billed		15	2	4
CORMORANT,	Double-crested	16	14	10	200
	Pelagic		1	22	47
	Brandt			1	
HERON,	Great Blue	4	4	19	14
GOOSE,	Canada				40
DUCK,	Mallard	405	223	24	71
	Gadwall				
	Pintail	119	24		8
	Green-winged teal	18	64		
	European Widgeon			1	
	American Widgeon	678	205	99	32
	Shoveller	11	6		1
	Redhead				
	Ring-necked		28	3	6
	Canvasback	6			219
	Greater Scaup	1	18	307	291
	Lesser Scaup		8	3	
	Common Golden eye	7	5	37	40
	Barrow Goldeneye				5
	Bufflehead	15	91	455	75
	Old Squaw			28	
	Harlequin			3	2
	White-winged Scoter	3		99	36
	Surf Scoter	4		209	25
	Common Scoter			1	
	Ruddy	5	15	192	10
MERGANSER,	Hooded		10	6	17
	Common	15	4		1
	Red-breasted	8		23	20
HAWK,	Goshawk				
	Sharp-shinned		1		
	Cooper	1		1	1

VICTORIA, B.C. DECEMBER 21st, 1963

		E	F	G	H	I	J	K	L	TOTAL
		2	9	11		5		4	6	62
		7	4						7	37
		4	6	5		1		1	1	30
		5	23	3		5		39	55	139
		32	147	182		122		29	25	657
		3	91	3		2			6	108
		44	150	123		15		2		533
		2			2	14				39
		25		4	3	8			4	284
		76	99	127		16		19	1000	1407
		1	16	2		1		2	1	24
		4	3	2	2	2		2	14	70
		433	322	125	272	1261	275	151	26	3588
								1		1
		2	1		31	34	23	5		239
			7	65	98	35	18			313
										1
		682	653	79	914	1982	458	40	24	5846
			51	9	46	8	10	12	7	161
						8				8
					2	73				112
		7								232
		844	1311	190	2	115		35	25	3139
		5	171							187
		20	157	25		25		21	10	347
								2		7
		167	378	64	8	57	7	82	120	1519
		5	80	19		5		14	52	203
		30	151	43		1			76	306
		8	112	71		4		100	120	553
		57	86	34		32		154	50	651
			2	2		4		3		12
			38	16		12		8		296
		8	11	6	2	30		6	25	121
		2	1		7	802		5		837
		50	61	31		9		1	38	241
						2				2
			1	4	2		3			11
		1	1	3	1		2		1	12

CHRISTMAS BIRD CENSUS - continued

SPECIES:	A	B	C	D	E	F	G	H	I	J	K	L	TOTAL
HAWK, Red-tailed	1	1	1							1	3		7
EAGLE, Bald			2				2		1				5
HAWK, Pigeon			2										2
Sparrow	1			3	2	1	1						8
GROUSE, Ruffed	2										1		3
Quail, California			5		6	8	63	4	43	1	25		155
Mountain	9												9
Pheasant, Ring-necked	1			1	4		4	6	5	6	2		29
RAIL, Virginia											1		1
COOT, American	10	167	314	125	9	49	19	44	470				1207
OYSTER-CATCHER, Black					1	40	18					35	94
KILLDEER			18		1	6	34	43	219	8	13		342
PLOVER, Black-bellied						29	12						41
SURFBIRD						4	10					20	34
TURNSTONE, Black			10	4	41	169	5					42	271
SNIFE, Common	1		5			5	3	6	60	8	2		90
SANDPIPER, Spotted			2										2
YELLOWLEGS, Greater						7	1	3	31	11		4	57
SANDPIPER, Rock						48							48
DUNLIN						45							45
SANDERLING						1	4				2	1	8
GULL, Glaucous						1							1
Glaucous-winged	3103	230	257	200	1014	888	543	241	366	800	168	1000	8810
Herring			1	2		7	1	1	32			50	94
California					1							3	4
Mew	1	30	78	51	6	736	139	231	14	100	15	600	2001
Sabine		1											1
MURRE, Common			1		3	21					14	250	289
GUILLEMOT, Pigeon			1	2	2	24	3		5		3	54	94
MURRELET, Marbled						9	12		1			175	197
Ancient						10						200	210
AUKLET, Cassin												2	2
Rhinoceros					2	1						4	7
PUFFIN, Tufted												1	1
PIGEON, Band-tailed		3					5						8
DOVE, Mourning			1						20				21
OWL, Screech						1							1
Great Horned		1				2						1	4
Saw-whet					1								1
KINGFISHER, Belted	3	4	8	4	5	1	4		2		2		33
FLICKER, Yellow-shafted		1		1									2

CHRISTMAS BIRD CENSUS - continued

CHRISTMAS BIRD CENSUS - continued

SPECIES:	A	B	C	D	E	F	G	H	I	J	K	L	TOTAL
FLICKER, Red-shafted	18	46	31	27	21	51	42	12	49	54	23		374
WOODPECKER, Pileated	1	2		2			3		1	2			11
Hairy		5	1	5		3	1		2				17
Downy		10	4	7	3	1	5	2	1	1	1		35
KINGBIRD, Western									1				1
SKYLARK				5			130		86		22		243
JAY, Steller	1	18	1				3		2	30	1		56
RAVEN	22	12		3			3	6	2	20	3	3	74
CROW, North-western	302	162	171	190	72	83	30	180	175	9	1	40	1415
JAY, Blue							1						1
CHICKADEE, Chestnut-backed	21	68	23	125	46	48	125	85	27	15	6		589
BUSHY TIT, Common	23	27		10	17	66	85	20	27				275
NUTHATCH, Red-breasted	4	16	4		1			2		1			28
CREEPER, Brown	3	8		2	6	2	6		3				30
DIPPER,		3											3
WREN, House									2				2
Winter	18	12	5	7	9	4	28	6	7	3	2		101
Bewick	6	6		11	7	6	8	9	10	3	1		67
ROBIN	141	182	261	300	101	349	458	185	269	800	121		3167
THRUSH, Varied	32	14	5	48	6	10	35	3		6	4		163
Hermit			1	2	2	1	3						9
KINGLET, Golden-crowned	17	45	10	60	15	51	55	78	48	20	4		403
Ruby-crowned	4	18	9	20		3	10	9	2	4	14		93
PIPIT, Water			9							30			39
WAXWING, Cedar		3	41	52			41			120			257
SHRIKE, Northern						1							1
STARLING	28	2	36	1	94	152	806	13	73		336		1541
WARBLER, Orange-crowned						1							1
Audubon		3											3
SPARROW, House			20	27	47	30	62	137	20	2	13		358
MEADOWLARK, Western			26	2	2	5	46		11		3		95
BLACKBIRD, Red-winged		3			18	5		13	25				64
Brewer	34				15	4	31	14		302	100		500
GROSBEEK, Evening	4	1			5								10
FINCH, Purple	10	15	7	26	3	1	17	10		3			92
House		2	34	4	8	51	57	9	59	17	24		265
SISKIN, Pine	135	277	140	75	292	61	165	8	82	10	45		1290
CROSSBILL, Red		20			7			4					31
TOWHEE, Rufous-sided	4	18	12	15	9	14	36	12	14	25	20		179

CHRISTMAS BIRD CENSUS -(Continued)

SPECIES:	A	B	C	D
JUNCO, Slate-coloured		2		
Oregon	18	255	124	175
SPARROW, White-crowned				
Golden-crowned	3	10	3	3
Fox	5	11	4	15
Song	13	40	18	28
BUNTING, Snow				
<u>TOTAL, Individuals</u> - -	<u>5335</u>	<u>2499</u>	<u>3549</u>	<u>2865</u>
<u>AREA SPECIES, Totals</u> - -	<u>58</u>	<u>62</u>	<u>71</u>	<u>67</u>

Total number of Birds --- 50,416

Seen in area count week but not on count day:

Golden Eagle, Whimbrel, yellow-bellied Sapsucker,
Long-billed Marsh Wren, Townsend's Warbler,
Brown-headed Cowbird.

AREAS AND PARTICIPANTS: CHRISTMAS BIRD CENSUS

Area "A": Prospect Lake - Highlands:

Mr. & Mrs. K. Dobson, Miss Joan Groves, Mr. R. Mackenzie-Grieve, Mr. Freeman King, Miss Gail Moyer, Dr. J. Chapman.

Area "B": Glen Lake - Langford Lake - Goldstream.

Mr. & Mrs. T. Briggs, Miss Joan Hannay, Miss Leah Halsall, Miss Betty Howland, Mr. & Mrs. J. Palmer, Miss Alice Heron, Mr. S. Baker, Mrs. S. McCulloch.

Area "C": Esquimalt Lagoon - Metchosin.

Mr. D. Guthrie, Mr. F. Buffam, Mr. D. Stirling, Miss Norma Haas.

Area "D": Portage Inlet - Thetis Lake.

Mr. K. Beckett, Mr. Bill Adams, Mr. W. Fitzpatrick.

Area "E": Beacon Hill Park - Gorge.

Rev. & Mrs. D. Sparling, Mr. J. Barnett, Mr. R. Fryer, Mr. H. Warren, Mr. C. Trotter, Miss Liela Roberts, Miss Edith Valens, Mrs. G. Soulsby.

Area "F": Clover Point - Oak Bay.

Mr. G.A. Poynter, Mr. C. Pritchard, Mr. C. Blair, Mr. W. Reith, Miss M. Melburn, Mrs. J.R. Parris.

E	F	G	H	I	J	K	L	TOTAL
	1	1		1				5
43	67	306	56	118	170	62		1394
	8	4	1			8		21
2	54	23	6	2	4	19		129
6	16	22	2	20	1	1		103
18	42	29	31	29	6	10		264
							3	3
<u>4499</u>	<u>7447</u>	<u>4808</u>	<u>2884</u>	<u>7127</u>	<u>3389</u>	<u>1833</u>	<u>4181</u>	<u>50416</u>
<u>71</u>	<u>86</u>	<u>81</u>	<u>51</u>	<u>75</u>	<u>42</u>	<u>63</u>	<u>43</u>	

Total species ----- 127

AREAS, PARTICIPANTS, CENSUS, (cont'd)

Area "G": Gordon Head - Ten Mile Point.

Mr. & Mrs. A.R. Davidson, Dr. C. Carl, Mr. & Mrs. P. Moncton, Mrs. P. Raymond, Mrs. G. Bell, Mr. D. Gorham, Mrs. B. Hughes.

Area "H": Swan Lake - Wilkinson Road.

Mr. & Mrs. W. Sendall, Dr. J. Tatum, Mr. R. Barnes, Mr. C. Morgan, Miss A. Mayhew.

Area "I": Blenkinsop Lake - Elk Lake.

Mr. M. Matheson, Mr. A. Hockly, Mr. J. Underhill, Mrs. M. Winstone, Mr. G. Rushton, Mr. D. Gray, Mr. D. Zirul.

Area "J": Wilkinson Road - Prospect Lake Road.

Miss E. Lemon, Mrs. M. Slocombe, Mr. F. Beebe.

Area "K": Martindale Road - Island View Beach.

Mrs. R. Stirling, Mrs. B. Westerborg, Miss Diana Dron, Mr. K. Joy.

Area "L": Trial Island - Chain Islands.

Mr. Charles Guiguet

Junior participants:

Shirley Martin, Rene Mather, Linda Slocombe, Marilyn Beebe, B. Trotter, Catherine Colcough, Shawn Newton, Derek Lundell, Keith Hodson, Trevor Gibbens, Rowallan Reith.

*** * ***

RETROSPECTIVE

by David Stirling

During the Christmas Bird Census, two records were established this year -- 127 bird species, and 80 bird counters. Total individual birds was 8,000 lower than the record of 1961.

Good weather this year helped in the heavy turn-out of both birders and birds, and in this connection, we might ponder for a moment the following bits of masochism from Audubon Field Notes, 1962 Christmas Count issue -- "It snowed so heavily you couldn't see an ostrich at 100 yards, but we put chains on and kept trying (to see ostriches?) -- winds so fierce -- 'scopes were useless and beach parties were sandblasted -- gusts screamed to 70 mph -- all the woodcocks had their bills frozen to the ground." Meanwhile, back in Victoria -- "temperature 50 degrees, wind light, picnic lunch on a sunny hillside, 127 species --"

Many thanks to all participants who made such a successful bird count possible, especially to those group leaders who turned in neat, legible reports. A big vote of thanks to Helen and Alan Poynter, whose kindness, patience, and effort on count evening, provided a fitting climax to a successful day.

*** * ***

COMOX CHRISTMAS BIRD CENSUS

by Betty Westerborg

Several rarities made December 28 exciting as well as successful. A burrowing owl, rare on Vancouver Island, was seen at Goose Spit. Five snowy owls, resident in the area since late November, were counted. Other uncommon birds were glaucous gull, marsh hawk, sparrow hawk, trumpeter swans (4), mourning dove, slate-coloured junco and hermit thrush.

A total of 89 species, highest count to date, and 9,900 individual birds were observed by four parties. Last year, two parties counted 76 species and 11,000

individuals. The census area included Comox Bay, Goose Spit, Point Holmes, Comox Airport, Little River, Courtenay, Royston waterfront and Plateau Road.

Predacious birds were abundant this year -- eight species of hawks were reported, but only two bald eagles. Thanks to the efforts of Sid Belsom, several birders were able to gain access to the airport and add the snowy owl to their life list.

Theed Pearce, over 90 years old, turned out for his 40th bird count. On his first count in 1922, Mr. Pearce was accompanied by Major Allan Brooks, Ronald Stewart and Hamilton Laing, all well-known ornithologists. One year, unable to find assistants, Mr. Pearce did the count alone.

Other local birders, David Guthrie, Margaret Glenn, Betty and Sid Belsom, Betty Westerborg (compiler) were assisted by Erma and Walter Fitzpatrick of Denman Island, and Tom Briggs, Alan Poynter, Bill Sendall, Ralph Fryer and David and Ruth Stirling from Victoria.

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BIRDS FOR THE RECORD

At least three European widgeon were in this area this winter -- seen coincidentally in different places on December 14.

For the second year, wintering cowbirds have frequented Saanich Peninsula.

A snowy owl! Reported by R. Fryer and F. Beebe. Unfortunately, the bird did not stay long enough to be observed by others.

Seen by R. Fryer and M. Mathison, a gadwall duck on Blenkinsop Lake, December 20.

Great horned owls are still in town, being photographed, tape recorded and frequently reported.

Right in town, Mrs. F.C. Dollard, Hampshire Road, reported a bald eagle (adult) in the middle of her lawn, devouring an unidentified bird.

Mr. G. Hardy reported pine grossbeaks and Hutton's vireo on Little Saanich mountain, January 3.

An albinistic junco was reported in Cobble Hill area on January 9.

Also on January 9, Frank Beebe's report of a gyrfalcon in Royal Oak vicinity confirmed Alan Poynter's report of January 1.

Mrs. H.M.S. Bell, with Derek Lundell and Shawn Newton, reported a stilt sandpiper at Bowker Creek, January 11.

Shawn and Derek also found a turkey vulture at Blenkinsop Road, January 2 -- possibly an accidental, not an early spring arrival.

At Glen Lake, a white-throated sparrow has been a regular visitor to a feeder.

Remember! Bird observations can only be recorded if they are reported.

**** * ****

From Alan Poynter

Naturally, the Christmas Count was a roaring success, and I wish to thank everyone for the tremendous effort put into it. Without your support, we could do nothing. Special thanks go to the Stirlings -- I know how much work goes into compiling and reporting the count.

**** * ****

JUNIOR JOTTINGS
by Nancy Chapman

The past month was one of many activities, and in spite of generally cloudy and rainy weather, Junior Group attendance averaged from 25 to 30.

Two afternoons were spent at Francis Park, cleaning up and doing odd jobs. At the park everything is beautiful and green. Water in the swamps is rising more and more with each rain.

Although tides were quite high, trips to Island View Beach proved very interesting. Several species of red, deep-sea algae had been washed up to tide line, along with the usual kelp and eel grass. We spotted a good-sized flock of sanderlings searching the sand for tiny crustacea. Loons, grebes and scoters were observed through binoculars. One of the group had the good fortune to see a harbour seal swimming among the birds. Several live shrimp were found and examined. We also saw

how good logs can be almost entirely hollowed out by shipworms.

Several junior members accompanied the senior group on the Christmas Bird Count. We are grateful to the senior group for including us in this event. Their thoughtfulness is greatly appreciated.

On Friday, December 20, Junior Group members and their parents were invited to the Provincial Museum to see three films shown by Dr. Chapman. The first, "Introducing Insects" gave a general outline of the huge class of insects (over 600,000 known species) and told of habits and appearance of several of the most common insect orders. The second, "The Rival World" told of man's war with insect pests; showed unbelievable hordes of locusts, so thick they looked like clouds, and described several terrible human diseases, spread by insects. The last film, "Darwin and the Insects of Brazil" showed many of the insects met by Charles Darwin during his South American voyage. All three films were interesting and educational.

*** * ***

ARCTIC HORNED OWLS

by Max Enke

Evidence is circumstantial, but it would seem that horned owls can lift a considerable weight. On Galiano Island, during the winter of 1915-16, I kept some sheep in a barn, which although roofless due to wind-damage, still made a good windbreak.

Late one afternoon, a ewe gave birth to twins both quite small. Next morning, the ewe was still there, but the lambs were gone. Because there had been a light fall of snow the day before, tracks were easy to see. The only tracks in and out of the barn were mine. The ewe kept looking upward, to where the roof should have been, and seemed bewildered.

A neighbour told me he had passed the evening before and that he had heard a large owl hooting in a nearby tree. Another owl, about a quarter of a mile away, had answered. The only conclusion we could come to was that the owls had lifted the lambs through the open roof.

**** * ****

MEETINGS AND FIELD TRIPS1964REGULAR MEETING:

February 11

The regular monthly meeting of The Victoria Natural History Society will be held at 8:00 p.m. in the cafeteria of the Douglas Building. Members of the Junior Group will speak and show slides.

AUDUBON WILDLIFE FILM:

February 12 - 13:

The fourth Audubon Wildlife Film will be shown at 8:00 p.m. in Oak Bay Junior High School. Mr. Emerson Scott will present "Our Changing Heritage".

BIRD GROUP:

February 22.

Meet at Cattle Point at 10:00 a.m. Bring Lunch. Alan Poynter will lead.

BOTANY GROUP:

February 25

Will meet in the Provincial Museum at 8:00 p.m. A faculty member of Victoria University will be guest speaker.

SPECIAL FIELD TRIP:

March 14

To Ladner (south of Vancouver). Participants will catch the 7:00 a.m. ferry from Swartz Bay to Tsawwassen. Transportation from Tsawwassen will be provided by Vancouver Natural History Society members. This will enable us to meet Vancouver birders and put in a good day of birding in a new area. The party will return from Tsawwassen to Swartz Bay on the 5:00 p.m. ferry.

Note:

With a turn-out of 25 persons or more, we should be able to get a reduced fare -- \$1.10 instead of \$2.00.

IF YOU INTEND COMING ON THIS TRIP, PLEASE CONTACT ALAN POYNTER BEFORE SUNDAY, MARCH 1. EVERYONE IS WELCOME.

VICTORIA NATURAL HISTORY SOCIETY

OFFICERS, 1963-64

Honorary Presidents

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