

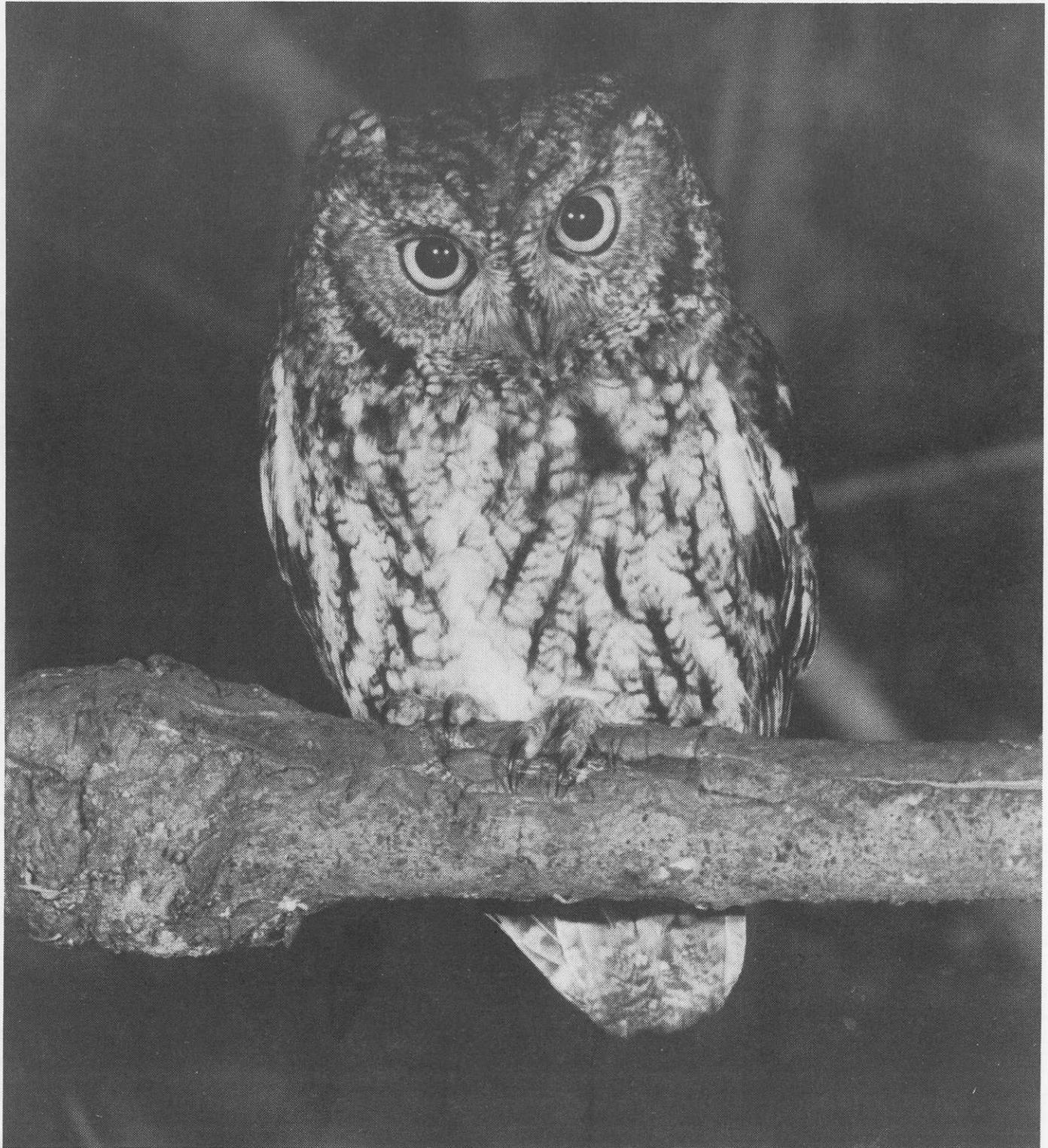


# The Victoria NATURALIST

NOVEMBER  
DECEMBER  
1987

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VICTORIA NATURAL HISTORY SOCIETY



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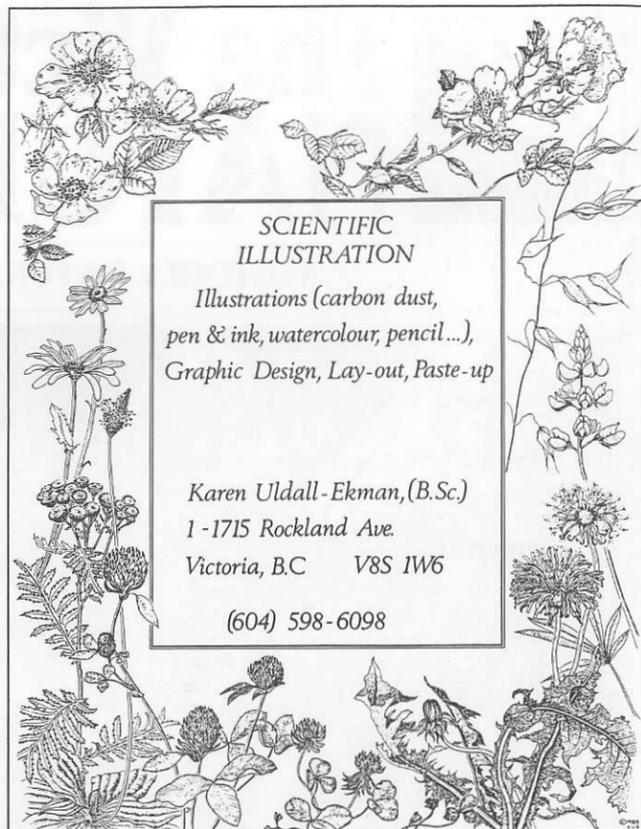
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## A Change of Leadership

by Katherine Sherman

The Tuesday Group was started in about 1953 by Mr. A. R. Davidson, or "Davey" as he is always affectionately known. It met at the foot of Bowker Avenue. The good news spread by word of mouth, and over the years the original handful of participants increased to 40 or more. Although for most people birding was the main interest, Davey always insisted that the outings were just as much for botanists, geologists and butterfly enthusiasts. Hence he wanted the name to be the Tuesday Group and not the Tuesday Birders. Davey carried on for 28 years until, having reached the age of 92, he felt someone younger should take over. Perhaps some day Davey's dream will be realised, and we shall find botanists and others in our ranks.

It is never easy to find leaders, especially for a group which meets rain or shine, 52 times a year. Fortunately for all of us, Alf Porcher, a keen and knowledgeable member of the group, agreed, after considerable persuasion, to take over.

Each leader has his own method of leadership. Davey, having called the group together, would announce our destination and then lead from the rear, in consideration for the less agile members of the group. Alf's method was just the reverse. Having got us gathered around for matters of birding interest, and having regaled us with the week's funny story, he would announce our destination and where we would have lunch. At Cattle Point there was never any problem keeping him in sight, and we all appreciated sharing his scope to glimpse some rare and distant bird. But when Alf really got going it was only the most stalwart who managed to keep up with him, the stragglers eventually joining at the chosen spot for lunch.

We all look forward to Tuesdays, and Alf's genial nature has kept the Group the friendly, happy one it always has been. Alf, we have enjoyed your seven years of leadership, and appreciated the seven years you carried that scope. We now look forward to a new manner of leadership under Harold Hosford. Welcome Harold, and once again thank you, Alf.

## Christmas Bird Count

December 19, 1987

All birders wishing to participate should contact either:

Barb McGrenere 658-8624

or Lyndis Davis 477-9952

# JESSIE WOOLLETT

## A Profile

by Elsie Turnbull

Born in Vermilion, Alberta, March 1907, and left a widow with two teen-age sons, Jessie Woollett found employment in the Department of the British Columbia Chief Electoral Office, but she soon became involved in her many special hobbies. Deeply interested in botany and biology, she gathered knowledge from Myrtle C. Melburn, a former teacher of Nature Science at Hopewell School and Museum in Ottawa, who for 15 years was leader of the Victoria Natural History Society Botany Group. Jessie fell heir to Miss Melburn's extensive library of technical books.

Joining the Victoria Camera Club, Jessie learned the essentials of photography and was awarded the high distinction of becoming a member of the Federation Internationale de l'Art Photographique (EFIAP) of Berne, Switzerland. Her photographic skills enabled her to present slide shows and lectures, and she became a frequent contributor to programs of the Thetis Park Nature Sanctuary Association, the Hallmark Society and the Victoria Natural History Society. The last-named group published in The Victoria Naturalist several articles from her pen which disclosed a delight in the vagaries of bird, flower, animal, butterfly and fungus life.



Jessie's 80th birthday (March 21, 1987)

## Some Words from a Friend

by Bertha McHaffie Gow

Jessie Woollett was a lover of all nature in this wide and wonderful world. She travelled from the Arctic to sunny Africa, East and West, a camera always her companion, recording its magnificent scenes. But the natural world in our own back yard got special attention. The wild flowers were a rewarding love and the butterflies that flew among them were a joy to her eyes. The drama of their life cycle enthralled many a school class when she did her programs to introduce children to the wonders of nature around them. Adults as well, at home and afar, enjoyed and learned from Jessie an appreciation of flowers, trees, butterflies, sea creatures, and heritage landmarks. Her research and knowledge of subjects photographed was astounding.

As a member of our community, Jessie touched many lives in a most beautiful way. She worked tirelessly to instill an appreciation of and to protect nature's creations for her children and grandchildren and ours to hold in sacred trust for all generations.

## A tribute...

to Jessie May Woollett, who passed away August 11th, 1987.

*World wide she gathered nature's gifts  
And brought them home for all to see;  
The flowers, the trees, the butterflies  
That form that wondrous treasure.*

*From film and from her eager mind  
A boundless wealth of lore she poured,  
And opened wondering eyes to share  
The magic world that she adored.*

*The lives she touched, alike of child  
Or adult, with the lasting thrill  
Of nature's secrets, hear them yet  
In echoes of a voice now still.*

J.P.H.

## Where Have All the Pheasants Gone?

By Tracey Hooper

A recent letter to the editor of the Times-Colonist captured my attention. It was written by a person who had returned to the Saanich Peninsula following a 15-year absence. Alarmed by the apparent decline in the local Ring-necked Pheasant population, the correspondent asked, "Where have all the pheasants gone?". Long-time peninsula residents, accustomed to seeing and hearing pheasants throughout the spring, may think the local pheasant population is hale and hearty. A recent study by the Wildlife Branch, though, has indicated that the correspondent may indeed be justified in his concerns over the future of our pheasant population.

Ring-necked Pheasants are native to Asia. Although only a small number of pheasants were introduced to Vancouver Island in the late 1800's, the species quickly became well established on the Saanich Peninsula. Autumn censuses estimated the number of pheasants on the peninsula at 5,700 in 1966, 14,300 in 1972 (Finnegan 1972).

Censuses of the Saanich Peninsula pheasant population were made between 1966 and 1972. In 1981, the Ministry of Environment's Wildlife Branch (Victoria) resumed the census as a means of recording and analyzing pheasant population trends on the Saanich Peninsula. The results were somewhat difficult to analyze, but definite trends were apparent - trends that may surprise many long-time peninsula residents.

### Census Technique

Visually counting pheasants is difficult, time-consuming, and inaccurate, since the birds are often hidden by hedgerows or long grass. The method used to census the Saanich Peninsula's pheasant population was the "crowing count" census technique. During the breeding season, the cock pheasant crows, on average, once every two minutes. (Crowing helps establish and maintain a cock's breeding territory). By counting the number of cock crows heard per two-minute interval, at various stations along a census route, an index of pheasant numbers can be calculated. The index does not represent actual pheasant numbers - it is only a means of comparing population levels over the years.

Pheasants were censused along five routes on the Saanich Peninsula. Each census route was 27-32 km long, with listening stations placed at approximately 1.6 km intervals. All routes followed paved public roads. Wherever possible, interference noise from highways, busy intersections, sprinklers and humming street lights was avoided.

At each listening station, the car carrying the censusing party was stopped and the engine shut off. Each member of the party walked away from the car, stood still, and

recorded the number of cock crows heard during a single two-minute interval. This procedure was repeated for all listening stations along the census route. Censusers were not permitted to compare their results. Upon completion of the census, results were tallied and the crowing index was calculated.

Studies have shown that time of year affects cock pheasant crowing rates. The crowing rate increases from late March, peaks in early to mid-May, then declines beginning in early June (Smith 1947). To be accurate, then, the Saanich Peninsula censuses were usually done in the last week of April or the first two weeks of May.

The crowing count census method has been well tested throughout many regions of North America. Best results have been achieved when the census was done from one hour before to one hour after sunrise, on days with no wind, cloud cover of less than 25% in the east, and temperature of about 10 C. This generally makes for pleasant birding except that sunrise in early May is somewhere around 5:00 a.m.

### Population Trends

To analyze pheasant population trends on the Saanich Peninsula, an index of pheasant numbers was first calculated. The index chosen was the average number of cock crows heard per listening station on a census route. The table lists the crowing count indices calculated from censuses made between 1966 and 1985.

Growing Count Indices from Ring-necked Pheasant Censuses on the Saanich Peninsula, 1966-1985.

Census Date	Growing Index average number of calls/station)
May 1966	.....3.3
May 1967	.....4.1
May 1968	.....5.1
May 1969	.....6.0
May 1970	.....8.0
May 1971	.....7.3
May 1972 *	.....8.6
May 1982	.....3.4
April 1984	.....3.1
May 1985	.....2.4

\*1966-1972 results taken from Finnegan (1972)

The crowing count index generally increased from 1966 to 1972 and then declined sometime between 1972 and 1982. The index for 1985 was the lowest since the census began. What does this mean? The crowing index reflects pheasant population levels (more cock crows are heard when there are more pheasants in the population). Hence, in the early years of the census, pheasant numbers on the peninsula in-

creased, but between 1972 and 1982, the population began to decline until an all-time low was reached in 1985.

#### Reasons Why

Where have all our Ring-necked Pheasants gone? To answer this question, we must look for reasons behind the apparent population decline. At one time, hunting may have been a significant controlling factor of pheasant populations on the Saanich Peninsula. Game checks indicated approximately 3,000 pheasants were shot each year (Finnegan 1972). Municipal bylaws, though, have prohibited the discharge of firearms on the peninsula in recent years.

Pesticides could be affecting the present pheasant population. Pesticide residues in eggs can cause heavy post-hatching mortality: acute and chronic pesticide toxicity may kill adult birds. Insecticides threaten chick survival by killing or poisoning insects, which are a main food source in the chick's diet. Cover, nesting habitats and food sources like weed seeds are often reduced or destroyed by herbicides. The decline of Ring-necked Pheasants in the Okanagan has largely been attributed to the use of herbicides in "clean cul-

tivation" in conjunction with large-scale and sometimes indiscriminate use of pesticides (Finnegan 1971).

The extent of pesticide use on the Saanich Peninsula is difficult to determine, since most land is privately owned. In 1967 and 1971, though, autopsies of Saanich pheasants found DDT in brain and liver tissue (Friis 1975). Organophosphates and carbamates are probably the most commonly used pesticides on the peninsula today (R. Mullett, pers. comm.).

Agricultural practices on the peninsula's farmland may also be affecting our pheasants. Haying and mulching often destroys nests and kills or injures chicks and incubating females. Sprinkling can cause hatching failure.

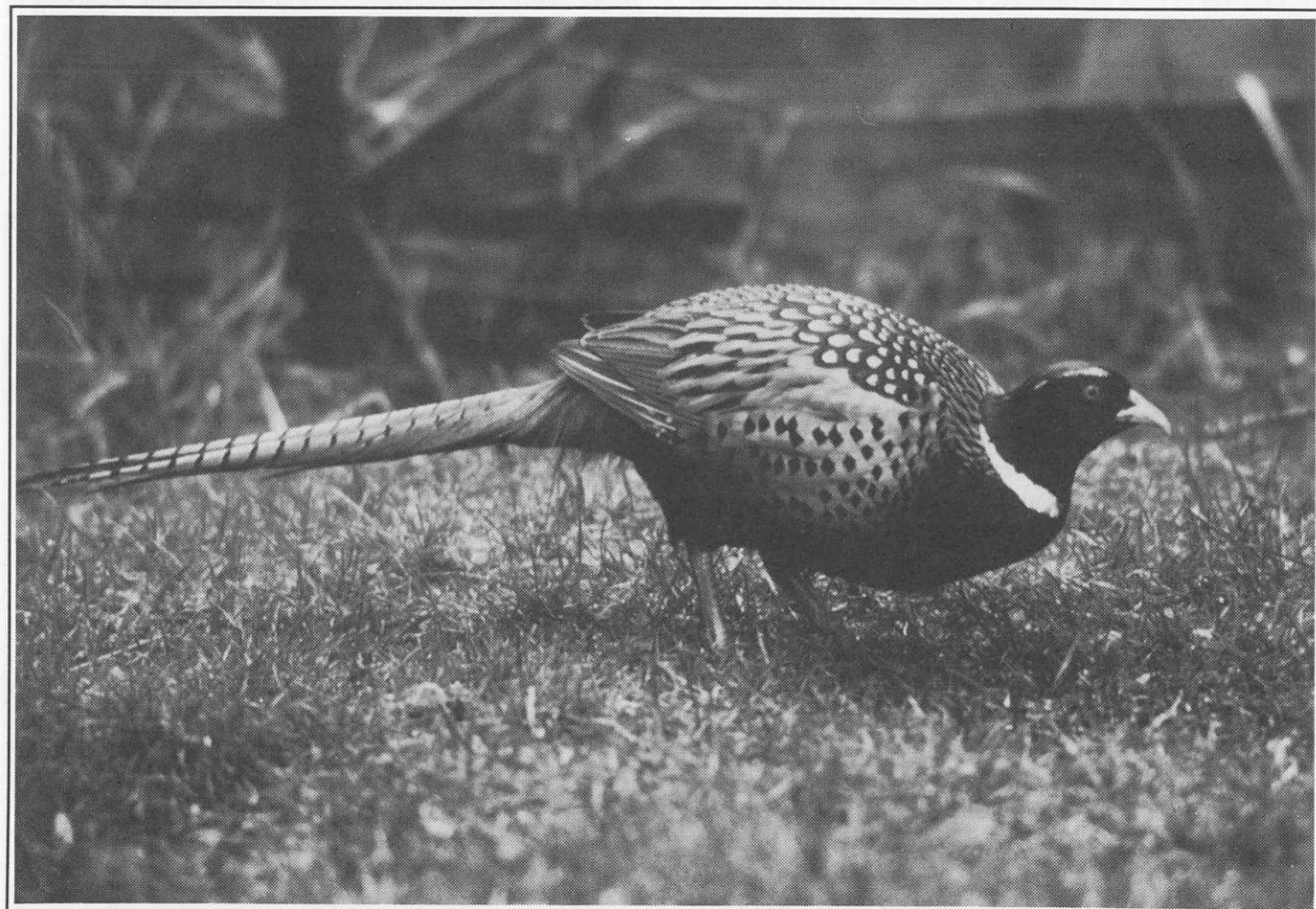
But the most serious threat to the local pheasant population may be habitat destruction. Prime pheasant habitat consists of irrigated fields of mixed crops interspersed with cover areas of hedgerows, thickets, and ungrazed woodland borders (B.C. Fish and Wildlife Branch 1967, Godfrey 1979). Urban sprawl and widespread clearing of woodlots and thickets destroy pheasant habitat (B.C. Fish and Wildlife

Branch 1967). Both these forms of habitat destruction have occurred on the Saanich Peninsula. Air photo interpretations have shown that between 1964 and 1980 large areas of agricultural and forested land on the peninsula were lost to urban development.

Saanich Peninsula residents may be skeptical that the future of our pheasants could be in danger. After all, the sight of cock pheasants "strutting their stuff" and the sound of their distinctive squawk are still fairly common during spring on the peninsula. But we must resist the temptation to say that as long as we see or hear pheasants, the population is not suffering. Population trends of most species are complex and difficult to analyze. Casual observations, alone, do not give us the whole picture.

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Ring-necked Pheasant

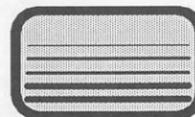
by Tim Zurowski

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## Our Twin Flower, Linnaeus's Logo

by Kaye Suttill

Walking through the Aylard Farm section of East Sooke Park in late June, Thoreau might well have exclaimed, "What is this fugacious fragrance?", for you sniff the perfume before you usually note the little paired pink trumpets of the Twin Flower, pendant on thread-like stalks a few inches up from their ground-hugging vine. Actually, you note Twin Flowers in the UVic woods, too, and on Mount Douglas and above the Sooke River Potholes. In fact, they grow throughout much of our Victoria area. Their shiny, evergreen, broadly ovate leaves, about half an inch across, with few minute serrations on their dark green upper side and much paler lower side, show Twin Flowers' presence at all times of the year.

You find Twin Flowers from sea level up to treeline and beyond in the Rockies, usually in open to dense coniferous woods where there is filtered sunlight, but we photographed them up on a rock glacier in the Yukon this past July.

As their scientific name *Linnaea borealis* suggests, Twin Flowers range across the forests of Sweden and Lapland, into Russia and China, and to Alaska and across northern

North America, reaching the southern fringe of the Arctic and into Greenland. They are also rare but existent in parts of England and Scotland, as well as among the mosses and lichens in some valleys in the Alps.

Our North American species (*L. Americana*, Forbes, *L. longiflora*, Howell) has stronger coloured flowers than its Eurasian counterpart. It is distributed across Northern Canada, down through New England into Maryland and west Virginia, across to the Great Lakes area and Minnesota-Dakotas, and on to the Rockies and our West Coast, where it ranges throughout B.C. into the Olympics and Cascades of Washington and Oregon. In California it was first recognised in 1870, growing beside a stream in the Mt. Shasta area, by John Muir and Sir Joseph Dalton Hooker, president of the Royal Horticulture Society and an outstanding eco-botanist. Muir had previously been pleased to see the Twin Flower in Canada and around the Great Lakes, even as beside Lake Huron Thomas Nuttall, ornithologist and botanist, first rejoiced at seeing it west of his native Massachusetts, back in 1810. Despite its northern connections, *Linnaea borealis* does reach south into semi-shaded spruce-fir woods in the mountains of Arizona and New Mexico.

The Twin Flower's scientific name, *Linnaea borealis*, honours Carl Linnaeus of Sweden, generally considered the father of biological binomial nomenclature, though Gaspard Bauhin had already in 1623 pared down the rambling olden descriptive plant names to two: a clan or genus plus a

specific name. The potato plant today is still *Solanum tuberosum*, the name Bauhin called it. But the time was not ripe for universal acceptance during Bauhin's life; it is Linnaeus who has become associated with binomial nomenclature, since his *Species Plantarum* was published in 1753, 2 volumes, listing 5,900 species placed in 1,098 genera.

Ever since Carl Linnaeus had seen a clump of the wee pink flowers up in Lapland when he was 25 and on one of the first - if not the first - official botanical collecting expeditions, he had identified with the Twin Flower. He called it *Campanula serpyllifolia*, the old name given it in 1596 by Bauhin. Then in 1737 Dr. Johann Friedrich Gronovius of Leyden, wishing to honour Linnaeus, whom he had befriended some years before and helped to gain scientific recognition, asked Linnaeus which flower he would like to bear his own name. Immediately the answer was the Twin Flower, and so it was renamed *Linnaea borealis*. Actually the Twin Flower turned out to be not a bell flower, *Campanula*, as originally designated, but a member of the honeysuckle family, the Caprifoliaceae, and so the name change is not unfair to the original choice, as Therese Todd wrote me years ago.

Linnaeus had identified with his namesake flower since he first saw it. The walking stick he is said to have made in Lapland is carved with Twin Flowers, and at the time of his marriage in 1739 J. H. Scheffel painted "The Bridegroom" wearing scarlet jacket and waistcoat and holding a sprig of *Linnaea borealis*. The flower also appears on his coat of arms and was engraved on his drinking glasses. When his pupil Pehr Osbeck sailed for the Far East in 1750, Linnaeus had him bring back a china tea set decorated with his Twin Flowers. On arrival part of the set was broken, and the replacements ordered came with red flowers rather than the correct pink.

For a treasure time of getting to know and see Linnaeus, his people, places and things, you should read Wilfred Blunt's *The Compleat Naturalist, A Life of Linnaeus*, published in 1971 by Collins, London. The text and illustrations are a feast.

We think of Linnaeus in so many of the plant names we joy to - names he gave, names associated with his "apostles", as he called them, who ranged our planet earth for more new-to-Europe species, names evoked by our binomial botanical nomenclature. But we especially remember him when we smell the perfume and see the delicate little pink trumpets of his *Linnaea borealis*, so specially ours in the woods around Victoria and throughout our High Country wanderings in this Northwest America.

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## Great Basin Desert field trip

A field trip for the Victoria Natural History Society to the Great Basin Desert of Oregon is being organized through Swiftsure Tours, May 7-18, 1988. The trip will combine botany, birding, geology and whatever other interests and expertise Society members bring along with them. This is the Great Basin Desert at its best, full of wildflowers and spring migrants as they stop to fuel up on northward migration. On the way we'll stop at Ocean Shores, Washington State's shorebirding hot spot, with its interesting dune vegetation. The Malheur and Klamath Basin National Wildlife Refuges will be major destinations; large marsh complexes in the middle of hundreds of miles of desert attract an amazing variety of wildlife including American Avocets, Black-necked Stilts, and White-faced Ibis. The drier sagebrush areas are inhabited by Pronghorn, Burrowing Owls, Sage Thrashers and Sage Grouse.

Accommodation will be in motels, and we'll be travelling by van with trip leader Dave Fraser. Cost will be \$1395, and further information and bookings can be had by phoning 388-4227.



Twin Flower

by Kaye Suttill

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## Growing Native

### A Method for Asexual Propagation of *Iliamna rivularis*.

by David F. Fraser

*Iliamna rivularis*, also known as Mountain Hollyhock or Globe Mallow, is one of the most attractive, long-flowered perennials native to British Columbia. It is found east of the Cascades, often along streamsides and in mountain runnels. In rich moist soil it can grow to 2 m high, with pinkish-lavender to rose-purple flowers on erect stems (Kruckeberg 1982). *Iliamna rivularis* is difficult to grow from seed, with germination percentages low (Kruckeberg, 1982). In addition, variable flower colour, leaf shape (Hitchcock and Cronquist 1973) and growth habit made finding an asexual propagation method desirable, since these characteristics would remain the same as the parent stock. Tip cuttings of *I. rivularis* collected near Fernie B.C. in July and August did not root under mist and with bottom heat in a greenhouse.

In May of 1982 I collected ten 10-15 cm long newly emerged shoots of a particularly attractive *I. rivularis* by digging down to the top of the woody section of root and removing the shoot with a small heel of the woody underground caudex. These were inserted into a pot of moist sand, which was then sealed in an inflated plastic bag. All cuttings rooted within a 2-week period. Cuttings were then transferred to a semishaded garden plot in Sparwood, B.C., where 4 of them produced a small flowering spike by that August.

With this method it should be possible to collect stems of *I. rivularis* for propagation. Care should be taken to remove only a few of the shoots from any one plant, to allow other stems to carry on the work of photosynthesis and reproduction.

I have had no experience with growing this species in our coastal gardens. Many of the plants found east of the Cascades are difficult in west coast gardens. However, the lure of the tall stems covered with pink hibiscus-like blooms that begin in June and last until September will encourage me to take a plastic bag, a trowel and a sharp knife on my next spring trip to the Interior.

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Kruckeberg, Arthur R. Gardening with Native Plants of the Pacific Northwest - an Illustrated Guide. Douglas and McIntyre. Vancouver. 252 p.

## Book Review

by Albert R. Davidson

### *Nature Diary of a Quiet Pedestrian*

By Philip Croft

Philip Croft was a remarkable man, his fairy-godmother having endowed him with many talents. As a working man he was an engineer employed by B.C. Hydro for many years. Even after his retirement he had to make trips to China and Japan to help solve their power problems.

We knew him not as an engineer but as a man with a profound knowledge and love of the natural world. He was president of our Society in the year 1962-63, and when he was transferred to Vancouver he became president of their natural history society.

He had so many interests; his life was full. In addition to his talents as a musician he was a competent carpenter, and a wildlife photographer specializing in portraying the lives of butterflies and moths. He was also a calligrapher and an artist. When our Society generously made me a life member, Mr. Croft gave me, for the occasion, an illuminated scroll of which I am very proud.

On retiring in 1967, Mr. Croft purchased a property on a cliff overlooking the sea in West Vancouver, and this book, *Nature Diary of a Quiet Pedestrian*, is an account of his walks from his house through the forest along the roads and on the beach, over a period of twelve months. Mrs. Annette Gardner, who was an intimate friend of Edith and Philip Croft and who helped me to write this review, gave me the book to read. I did, and found it so enjoyable that I read much of it again more carefully with pleasure.

His encyclopedic knowledge not only of birds, plants, insects and marine life but also of history and philosophy is put in very simple and interesting language. The book covers a whole spectrum of life, while the water-colour drawings in colour which illustrate it are superb. As Mrs. Gardner put it, "Everyone who reads this book and studies its contents, both the illustrations and the written word with the quiet humour that runs through it, will be a better person." I agree.

**DEADLINE FOR  
SUBMISSIONS  
Friday, November 27, 1987**

## Book Review

By Robin William Baird

### *Killer Whales - A Study of Their Identification, Genealogy & Natural History in British Columbia and Washington State*

by Michael A. Bigg, Graeme M. Ellis, John K. B. Ford and Kenneth C. Balcomb

Phantom Press, Nanaimo, 1987, 79 pp. \$14.95

*Killer Whales* is the first and only comprehensive description of the natural history of a complete population of killer whales. The best understood population of cetaceans in the world is that of the killer whales of B.C. and Washington, and this volume is an interesting and informative description of them, prepared "with both the biologist and the whale enthusiast in mind."

The book starts with the true story of a killer whale encounter and what can be learned through one encounter, with an observant eye and mind. The history and purposes of the fifteen-year study undertaken by the authors are described.

A description of the three populations of killer whales in B.C. follows, as well as the differences between the resident and transient races of killer whales. The two races live in the same area but feed on different prey, look slightly different, act differently, and have never been seen to interact. General facts about killer whale taxonomy, migration, feeding habits, vocalizations, interactions with humans, and other aspects of their natural history are included in a separate section.

The majority of the book is dedicated to the aspect that makes watching killer whales in B.C. most interesting and distinct from watching whales elsewhere in the world. Every individual killer whale has been and can be identified by its unique natural markings on the dorsal fin and saddle patch. The book describes how to identify individual whales both in the field and from photographs, and how to photograph them properly for individual identification. Techniques on how to approach and follow killer whales safely and with the least disturbance to the whales are also described.

From the ability to identify individuals, the social structure of the population has been determined. Whales travel in maternal groups, with one or more maternal groups together forming subpods and pods.

Photographs of each and every killer whale found in B.C. and Washington waters are included, totalling 332 individual whales at the time of press. The quality and layout of the photographs makes it easy to identify whales in the field. Each whale is grouped according to who it travels with the most, in the maternal groups, subpods and pods. For most whales born within the fifteen-year period of the study the mother is known, and in many cases the older siblings as well, because of the stability of the maternal groups over time. The relationships of individuals within the maternal groups are easily shown in a simple family tree format.

An index table lists each whale, when it was definitely or



L-Pod female breaching off the Victoria Golf Course

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most probably born, when it was last seen and when the photograph was taken, as well as its sex, if known, and the known mothers of each individual. A glossary, lists of researchers worldwide using the techniques pioneered by the authors, and suggested readings round out the information provided.

With the use of a book such as this, the wonderful experience of seeing killer whales in the wild can mean even more. You can now learn and know the names and history of individual animals, making every sighting of killer whales different and more complete, and if you are an ardent watcher like me, you can follow individuals over many places and times.

## 1987 Bluebird Report

by Harold Pollock

In Charlie Trotter's last report on Western Bluebirds, given a year ago, he mentioned the tremendous boost given this program by Calvor Palmateer's discovery of five breeding pairs on Mt. Tuam which in due course produced 21 fledglings in the 1986 season. This was a major breakthrough in our efforts to bring back this threatened species.

In light of this experience, together with word I received from a bluebirder friend in Oregon that their Western Bluebirds were almost always found 600 feet or more above sea level, we studied contour maps of other Gulf Islands. This led to the installation of nest boxes on Galiano, Saturna and North and South Pender islands - a total of 150 on all five islands, including Salt Spring.

On Mt. Tuam the number of breeding pairs increased dramatically in 1987, from five to eleven. Unfortunately this was not matched by a proportional increase in fledged young birds, because many of the first nestings were unsuccessful due to cold or infertile eggs or dead nestlings. In spite of this, 33 young birds fledged in this area this year. The only other Gulf Island showing bluebird activity was Galiano, where a pair raised a family of six, but all died when about a week old - probably victims of a House Wren nesting nearby.

At a birders' meeting I learned from Syd Watts, Warden of the Tzuhalem Ecological Reserve, that Western Bluebirds used to be seen in that region 25 years ago. On the strength of this lead we later put up about a dozen nest boxes there, scarcely expecting to attract bluebirds after such a long absence. I am pleased to be able to report that a pair took up residence in one of the boxes and subsequently raised two broods for a total of eleven fledglings. The total for all areas, including a family in Metchosin, was 14 breeding pairs and 49 fledglings.

The large number of casualties on Mt. Tuam is a matter of concern to us. There was no evidence of blowfly infestation nor disturbance by feral cats or raccoons. However, many of the nest boxes are necessarily in highly exposed locations and hypothermia may have been a factor. We plan to control nest box ventilation next year and hope this will reduce the casualty rate.

On a wider front, I was thrilled last June to find the first pair of Mountain Bluebirds using one of my nest boxes a few miles west of Princeton. These had been awaiting

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Western Bluebird

by Tim Zurowski

tenants since the Spring of 1985. And in Eastern Ontario, near the small town of Lansdowne where I first put up nest boxes in 1984, the number of adult pairs of Eastern Bluebirds more than doubled from the year before.

All things considered, 1987 was a very satisfying bluebird year.

## Summary

### Spring Bird Report

#### Vancouver Island

March 1, 1986 to May 31, 1987

David F. Fraser

This is a brief summary of the 1986 Spring Bird Report for Vancouver Island. The report has been compiled by several people: Loons thru Ducks (Jerry and Gladys Anderson, Mike Edgell); Vultures thru Cranes (Bruce Whittington); Plovers thru Puffins (David F. Fraser and Leah Ramsay); Doves thru Vireos (Barb and Mike McGrenere); Warblers thru Finches (Bruce Whittington and Leah Ramsay). The original report is filed at the Provincial Museum and the V.N.H.S. library, and a copy is sent to the regional editor of *American Birds*.

The data for the report is extracted from sighting cards submitted from Vancouver Island birders. The report is only as complete as the information received, and birders are urged to submit sighting cards by the end of each month. Sighting cards can either be brought to Victoria Natural History Society general meetings or Birders Nights, or dropped off/mailed to Swiftsure Tours office, 119-645 Fort St., Victoria, B.C. V8W 1G2, or in the mailbox at 5836 Old West Saanich Rd. All cards are forwarded to the B.C. Provincial Museum and used in their records.

#### Loons Thru Pelicans

The high count of Pacific Loons was of 700 in Active Pass on 9 April (Alan L. Macleod). Joy & Ron Satterfield noted a flock of 8000 Western Grebes on Mill Bay on 31 March. Two Fork-tailed Storm Petrels were seen at Race Rocks on 25 April (Robin Baird). A total of 2700 Brandt's Cormorants were noted in Active Pass on 9 April (Bruce Whittington).

#### Hérons Thru Waterfowl

The Great Blue Heron rookery in Beacon Hill Park was active again this year. Two reports received mentioned nest building and broken egg shells (RS & ALM).

#### Egrets And Herons

Some of the spring's most exciting birding came from this group of birds, with a GREAT EGRET that was found in the Cowichan Estuary on 29 April thru to 3 May. This is the ninth record for Vancouver Island. A SNOWY EGRET that was found by Giff Calvert in Saanich that stayed at Hastings Flats/Three Oaks Farm area from 14 to 27 May gave the third record for Vancouver Island. BLACK-CROWNED NIGHT HERONS were reported from two spots, 2 on 6 May at Martindale L. Reservoir (ALM, RS, Barbara Begg), and one on 20 May at Somenos Lake (SB) and again there on 31 May (Jerry and Gladys Anderson). Mary and Bob Hooper reported that at least six were present there during this spring. This is the largest number ever reported in British Columbia (fide Wayne Campbell). Prior to this year there were 2 other Vancouver Island records.

Besides the injured bird at Jim's Pond on Cowichan Bay Rd. there were several other Snow Goose reports: 7 on 29 March over Clover Pt. (RS); 1 on 29 March, Somenos Flats (Dave Aldcroft, RS). The highest count of Wood Ducks was 42 at the Duncan Sewage Ponds on 1 April (J&GA). The first Blue-winged Teal of the year was reported on 3 May, with 17 at Trevlac Pond, Prospect Lake Rd. (GC). Cinnamon Teal were first noted on 25 March at Martindale Flats (Brent Diakow). A single male Redhead was seen at Elk Lake on 9 March (RS) and 11 March (Jeff Gaskin).

Single male TUFTED DUCKS were reported from Duncan Sewage Pond (Hank van Der Pol, Keith Taylor) on 28 March, Esquimalt Lagoon on 3 May (J&GA, WD, Charles Harper), and one in the Cowichan Valley on 29 May (Dave Aldcroft). There was an unconfirmed report of a Smew from St. Mary's Lake on Saltspring Island on 27 March, the second such report from our area.

#### Raptors Thru Cranes

A late report by Sally Wait of an Osprey on 14 Feb. over Bazan Bay could have been the same bird reported in the last period on 29 January. Otherwise the earliest report was on 1 or 2 April at Witty's Lagoon, Metchosin (J&RS). Bald Eagle activity was reported at 5 nest sites in the Victoria Checklist area (fide BW). A total of 10 reports of Northern Harriers came in, mainly from the Saanich Peninsula and one on the Cowichan Estuary on 20 March (BRG). All reports were of female or immature birds. Ben Wallace reports a male Northern Goshawk in a trap at Metchosin on 6 March. A pair of Northern Goshawks were seen in Central Saanich (DFF, LRR). One (?) Golden Eagles were reported from North Saanich on 12 April (BB), and 2 on 24 April over the Goldstream Estuary (DFF, m.obs.). The only report of an American Kestrel was 1 on 14 March on W. Saanich Rd. (BW, ALM, Chris Escott). Three single Peregrine sightings came in from off of Saanich Peninsula during this period. Earliest report of Sora was on 8 April. Two Sandhill Cranes were reported on 4 May over Martindale (Leila G. Roberts), and on 21 May, Saanichton (BB).

#### Shorebirds Thru Terns

First record noting breeding plumage in Blackbellied Plovers was of 1 bird on 29 March at Esquimalt Lagoon, Colwood (Sue Cummings and Connie Hawley). First report of semipalmated plover was 1 on 17 April, Parry Bay, Sooke (Ron Satterfield).

#### Black-necked Stilt

Four reports were received during this reporting period. There is only one other additional record for Vancouver Island, so this represented an unprecedented influx:

Three birds on 27 April, Clover Pt., Victoria from 06:00 to 06:50, then flew east calling kek, kek, kek, kek (RS, Alan Macleod).

One bird on 5 May, Martindale Flats, Saanich 14:00 - 16:30 (Bill Sendall).

One on 5 May, Victoria Golf Course, Oak Bay at 20:00 (same bird?) Tim Leedham.

Six birds, 1-5 May, Courtney Sewage Ponds, Courtney (Charles Brant).

There was a report of 4 AMERICAN AVOCETS from Tofino on 7 May by Adrian Dorst. This represents the 4th record for Vancouver Island and the first record of more than one bird.

There were 5 reports of Solitary Sandpipers, with 1 bird at 26 April and 1 May on Roper's Pond, Saanich (RS); 1 and 2 birds on 26 & 28 April respectively at Hunt Rd., Saanich (RS); 1 on 28 April at Blenkinsop Lake, Saanich (RS).

April at Martindale Flats, Central Saanich (J&G Anderson).

Earliest report of Winnowing Snipe came from Barbara Begg on 19 April, Willow Way Trail, Saanich. A WILSON'S PHALAROPE was reported on a corn stubble field, Martindale Flats, on 16 May (BRG, Hank van der Pol).

A high count of 1400 Bonapartes Gulls were recorded at Active Pass on 12 April (ALM). Three Ring-billed Gulls



Black-necked Stilt

by Tim Zurowski

There were many reports of Whimbrels during this reporting period. All were reports of 1 - 3 birds along waterfront locations except for 5 on 16 May, Sidney Spit, Sidney Island (RS); 7 on 18 May, Whiffen Spit, Sooke (Joe Silvey); and 15 on 22 May, Esquimalt Lagoon (Brent Diakow), 17 on 19 May, The Combers near Tofino (J&RS) and 45 on 23 May, Grice Bay near Tofino (J&RS). Two reports of north-bound Ruddy Turnstones were received from the Victoria Checklist area during this reporting period, 1 on 9 May, Sooke River Estuary (Keith Taylor, Charles Harper, Hank van der Pol) and 1 on 18 May at Whiffen Spit, Sooke (Joe Silvey). J&RS reported a flock of 252 Sanderlings on 23 May at Long Beach - one with a red and green band on left leg and two yellow bands on right leg. Pectoral Sandpipers were reported from 16 to 24 May, at a variety of scattered Victoria locations. Only one report of Rock Sandpipers was received from the Victoria Checklist area during this reporting period, for 4 at Cattle Pt., Oak Bay on 10 March (RS). This species has been declining in numbers in recent years and reports of birds seen this next winter would be of interest.

Short-billed Dowitchers were first reported for this year with 4 on 17 April at Witty's Lagoon, Metchosin (RS). Earliest report of Long-billed Dowitcher was 4 birds on 26

were reported, 1 adult on 8 March at Cordova Spit, Saanich (D.F. Fraser m. obs.), 1 on 15 March at Island View Beach, Saanich (BB, M&B Hooper), and 1 report from outside Victoria Checklist area: 1 bird with California Gulls on 4 May, Yellowpoint, south of Nanaimo (DFF m.obs.). Black-legged Kittiwakes were reported, with 1 on 19 May and 2 on 21 May from The Combers, near Tofino (J&RS).

Two Caspian Terns at Esquimalt Lagoon, Colwood on 29 May (RS), and another pair on 21 May from The Combers, near Tofino (J&RS). Three Ancient Murrelet sightings were reported, 1 on 23 March, Clover Pt., Victoria (RS); 4 on 25 March, flying west past Clover Pt. in early A.M. (RS); 2 on 27 May, flying past south end of Saltspring Island (DFF). There was a Tufted Puffin on 11 May off the Victoria Golf Course, Oak Bay (ALM, RS), and another reported on 7 March, at Pacific Rim National Park near Ucluelet (Noralee Kirton).

#### Doves Thru Woodpeckers

A half dozen reports of Mourning Doves were received. A Barred Owl was reported on 21 May calling near Saanichton (Leah R. Ramsay, DFF). A Northern Saw-whet Owl was heard at the same locality on 1 March (LRR) and a total of 3 were found on River Bottom Rd. in the Cowichan Valley on an owling trip (DFF, m.obs.). The first Vaux's

Swifts of the year were reported from Mt. Finlayson, with 15 on 4 April (DFF). Newly fledged Anna's Hummingbirds were reported on 8 April in Oak Bay by Bryan R. Gates and Keith Taylor. The first Rufous Hummingbird report was dated 19 March, from Munn's Rd. (RS). Two Red-breasted Sapsuckers were seen on 26 April in Cumberland (BW), and 2 more along Butler Main, Sooke, evening of 9 May (KT et al.).

#### Flycatchers Thru Vireos

The first report of an Olive-sided Flycatcher was on 20 April in Metchosin (David Gaskin). There were 2 reports of Western Kingbirds, 1 on 22 May at Beacon Hill Park (KT) and 2 on 24 May at Rath Trevor Provincial Park (J&RS).

#### Fork-tailed Flycatcher

Vancouver Island's fourth record of a Fork-tailed Flycatcher: one was first observed on 16 May at Pacific Rim National Park (Adrian Dorst), and the bird was still present on 18 May (KT et al.).

Alan Macleod and Bruce Whittington's Eurasian Skylark survey encountered 44 singing birds and a total of 99 individuals on the Saanich Peninsula. One Horned Lark on 27 March along Coburg Peninsula was reported by Ray Williams. As usual in recent years, the only sites where Purple Martins were reported were the Cowichan Estuary and the abandoned naval vessel *Chaudiere* in Esquimalt. The WHITE-BREASTED NUTHATCH at Carter Drive that was seen almost daily in the winter was last seen on 28 March (Betty Fellow). Western Bluebirds were found breeding on Mt. Tuam with 29 nestlings on 6 June (Harold Pollock), also a male on Mt. Tzuhalem on 19 April (B&MMc) and 3 on Pears Rd., Metchosin on 12 April provided the high count at that locality (DFF). Harold Pollock reports that one of the new nest boxes on Mt. Galiano Island was used this year as well, but a check on 2 June revealed only dead young in the nest box. A MOUNTAIN BLUEBIRD was seen on 22 March along Westholm Rd. in the Cowichan River Valley, for one of the few records of this species for Vancouver Island (M&BH, Rebecca Finley). There were the usual handful of Townsend's Solitaire reports for the spring. The first report of Solitary Vireo was one bird on 13 April, at Cresswell Rd., Saanich (BB). Warbling Vireos were first seen on 25 April at Elk Lake (J&RS). A Red-eyed Vireo was heard singing on Lochside Drive, south of Martindale on 26 May (Wayne Weber).

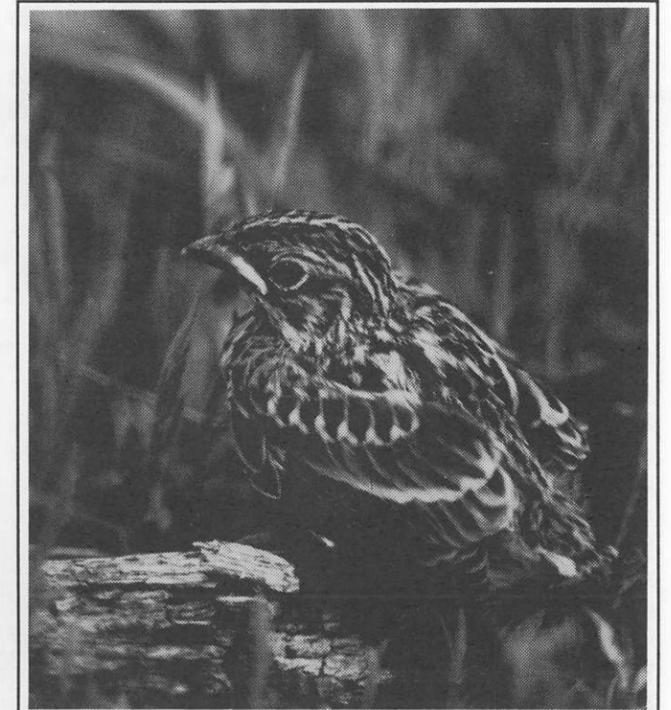
#### Warblers Thru Finches

Early reporting dates for warblers were Orange-crowned on 31 March (BW), Black-throated Grey on 24 April (JG), Townsend's Warbler 20 April (JG), MacGillivray's Warbler 25 April (KT), and Common Yellowthroat on 3 April (RS, Alf Porcher). A Wilson's Warbler 15 April was a little early. BW noted that the number of reports of almost all species of warblers was down over last year - fewer people filling out sighting cards or a real decline? A March 22 report of a Western Tanager at Gorde Beach west of Sooke was very

early, but had some good details (William Bell). First report of a Chipping Sparrow was for 2 on 28 April (BW).

#### Vancouver Island Vesper Sparrows Gone?

The only known population of Vesper Sparrows on Vancouver Island has been at Cobble Meadows, near Duncan. Last year only a single singing male was seen, this year no birds were reported, despite several parties having searched the area. This is despite the fact that San Juan Island's population was reported to have had good breeding success last year (American Birds 40: (5):1248) - has anyone any records from the Canadian Gulf Islands?



Vesper Sparrow Fledgling

by Mark Nyhof

White-throated Sparrows were reported from 2 feeders in Victoria (BRG, Anne Knowles) and 1 was seen on 26 April in Central Saanich (Mrs. Luney). Harris Sparrows appeared with 2 on 1 March at Willow Way Trail, Saanich (BB), 1 on 20 April at Landsdowne Rd. (Carl and Ethel Bely) and 1 on 26 April at Wesh Rd., Central Saanich (Mrs. Luney). A single Lapland Longspur was reported on 5 May at Coburg Peninsula, Colwood (G&JA). A RUSTY BLACKBIRD feeding in a seepage area in Pacific Rim National Park on 21-22 May (RS) provided only the fourth spring record for V.I. for this species. Three Yellow-headed Blackbird reports were received, all males, 4 birds at Swan Lake, Saanich, 1 on 24 May at the Cowichan Estuary (J&GA), 1 on 24 May, Martindale Reservoir (ALM). Four reports of Northern Orioles were received, 1 from Oak Bay (R. MacKenzie-Grieve), the rest from the Saanich Peninsula. An early report of 8 American Goldfinches on 2 March at North Saanich Marina (Brent Diakow). Evening Grosbeaks were widely reported in large numbers.

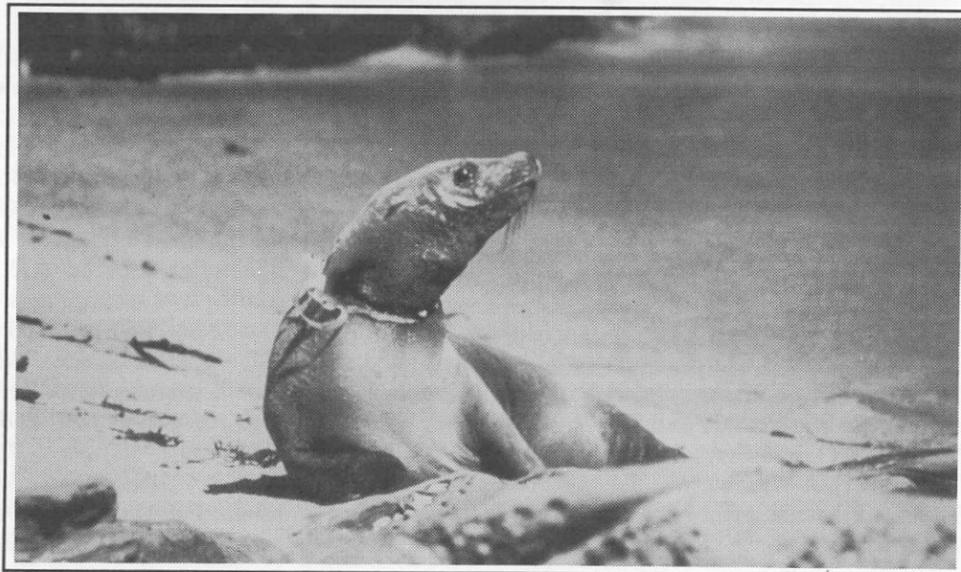
## Marine Debris and Entanglement

by Carol Bosy

Marine debris is accumulating in the oceans and coastal waters of British Columbia and other nations at an alarming rate. This debris appears in a wide variety of forms which reflect the extensive use of plastics throughout the world today. Everything from small plastic pellets used in packaging, monofilament fishing lines and net fragments to packaging bands, bottles, six-pack connectors, bags and large sheets of plastic are floating in our waters and littering our beaches. These highly persistent compounds reach the oceans of the world from ships, from large river systems, from storm drains and from sewage outfalls such as Clover Point. It is estimated that over 230,000,000 plastic containers are dumped from merchant vessels each year. Raw plastic pellets, Styrofoam pieces and plastic fragments are no longer an uncommon sight on our Victoria shorelines.

While plastic debris possesses little direct threat to man, a wide range of aquatic species are known to become entangled in or ingest these materials. Entanglement causes debilitation and death by drowning, starvation, predation by larger animals and loss of limbs through strangulation and infection. Approximately 50 species of seabirds are known to ingest plastic products, primarily in the form of small plastic pellets which are manufactured as Styrofoam and packaging materials. Upon ingestion, gut impaction often occurs, resulting in death, but more common is malnutrition due to displacement of food volume.

During the last few years, public outcry has brought a great deal of attention to the driftnet fisheries which are another major contributor to marine animal entanglement. Last year off British Columbia's coast, experimental Japanese and Canadian flying squid fishing boats took the lives of many marine animals through extensive entanglement in driftnets. A total of 32,388 Blue Sharks, 19,253 Pomfrets, 978 Salmon Sharks, 33 Dall's Porpoises, 5 Pilot Whales, 4 Northern Right-Whale Dolphins and 3 Pacific White-sided Dolphins were victims of this experiment. In addition, U.S. researchers have estimated as many as 5,500 Dall's Por-



Strangulation from a 6-pack connector

poises have become entangled and died in Japanese salmon driftnets. The salmon driftnetters comprise only 10% of the total fisheries. Skipper Blair Pearl of the Canadian ship Ocean Pearl confirmed that one evening last season his crew netted a catch so large that it took 3 days to get the nets aboard and cleared. At present, Canada does not have any annual limit for "incidental" catches in the flying squid fisheries.

Human safety is also jeopardized by plastic debris. Vessels are disabled when propellers and other gear get fouled with plastic ropes, netting, bags, sheets and fishing lines. Also, divers and research submersibles have become trapped in lost and abandoned fishing nets. Finally, our nearshore waters and beaches are despoiled with plastic debris, which affects community uses and the tourist industry on which so many of our coastal communities depend.

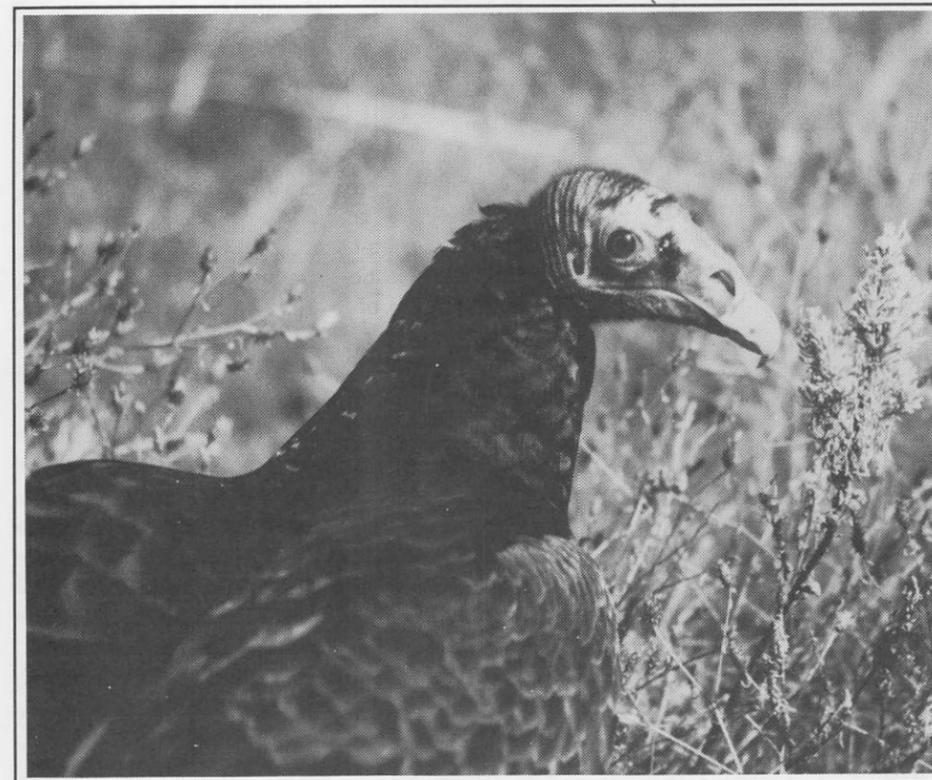
The issue of non-degradable refuse is not just a local maritime industry problem. Modern society in general should be considering its responsibility for proliferation of non-degradable refuse. This is not a problem that will go away, or even stabilize, without concerted local and international effort. There is a pressing need to focus and coordinate federal, provincial and municipal action into assessing the problems and finding potential solutions. You can participate in making your beaches more aesthetically pleasing for your family and visiting tourists by reducing your consumption of non-degradable products (eg. plastic bags, plastic bottles, plastic garden sheets, Styrofoam, etc.) and increasing recycling of tin and glass products. Also you can pick up some of the garbage that you find during your stroll along the beach and phone or write your local, provincial and federal representatives to express your concern about marine debris and how you would like to become involved and help.

## A New Classification

By Ian Gibson

The 6th edition of the American Ornithologists' Union checklist contains the following note in the preface:

"At the time of this writing, Joel Cracraft (1981, *Auk*, 98, pp 681-714) has published a new classification of birds of the world down to the level of tribes, based on principles of phylogenetic systematics (cladistics); Cracraft points out that many of his proposals are tentative and intended to stimulate further testing. A series of papers by Charles G. Sibley (and co-authors) appearing in late 1981 and early 1982, with others in prospect, revises avian classification largely on the basis of data obtained from DNA-DNA hybridization. Many parts of these authors' new classifica-



tions differ considerably from each other and from those used in most current references, including the present Checklist. Adoption by the Committee of any or all of these major changes would be premature, as the Committee's publication deadline does not allow sufficient time for critical evaluation to be published; we can only recommend serious consideration of these new proposals in the future." (1)

We have reached the time in history when biological classification will begin to be based on ancestry rather than on

appearance. This is likely to bring the greatest revolution in classification since Linnaeus. It may also bring the greatest leaps in our understanding of evolution since Darwin. The world of birds has proved a useful area for the beginning of this research.

A basic problem in the classification of animals by appearance and behaviour comes from "convergent evolution". If for instance two such unrelated birds as the northern creeper and an Australian creeper occupy the same ecological niche, they evolve similar behaviour and structure. It is then easy to conclude falsely that they are ancestrally related.

Cracraft and Sibley use two different ways of avoiding this problem. Cracraft's method is called "phylogenetic systematics" or "cladistics". The aim of the method is to identify clades, or groups that have an ancestor in common. These groups are identified by a set of characteristics that set them

apart from close relatives and are uncommon among birds in general. The crossbills, for example, are identified among the finches as a clade by bill shape. One problem is that different species of crossbills could have arisen from different ancestors which both evolved crossed bills to feed on cones. This is avoided by using other characteristics as well, and by giving more weight to characteristics unlikely to have evolved in response to environment. The branching tree that most simply fits the data is used. Cracraft published a tentative classification based on these methods in 1981 (2), using as an extra aid the paleontological and biochemical research then available.

Sibley, Ahlquist, and other collaborators compare the genetic material of different groups of birds. They have studied more than 1700 species from almost all of the traditional families.

Those species that diverged from each other recently have similar DNAs, since random mutations have had less time to accumulate. Adaptation to similar situations does not cause a similarity in DNA because the proportion of the total DNA affected by selection for individual proteins is extremely small. The probability of chance mutations effecting similarity is also extremely small because of the huge number of DNA bases being compared. Thus the problems of convergent evolution are avoided. Nevertheless, comparing DNAs is a technically formidable task. Sibley does this

by permitting single-stranded DNA from blood cells or tissue cells of different species to form "hybrid" double-stranded molecules, then measuring the temperature at which they dissociate. A DNA hybrid between distantly related species will dissociate at a lower temperature than for closely related ones. The temperature difference is a measure of genetic relatedness.

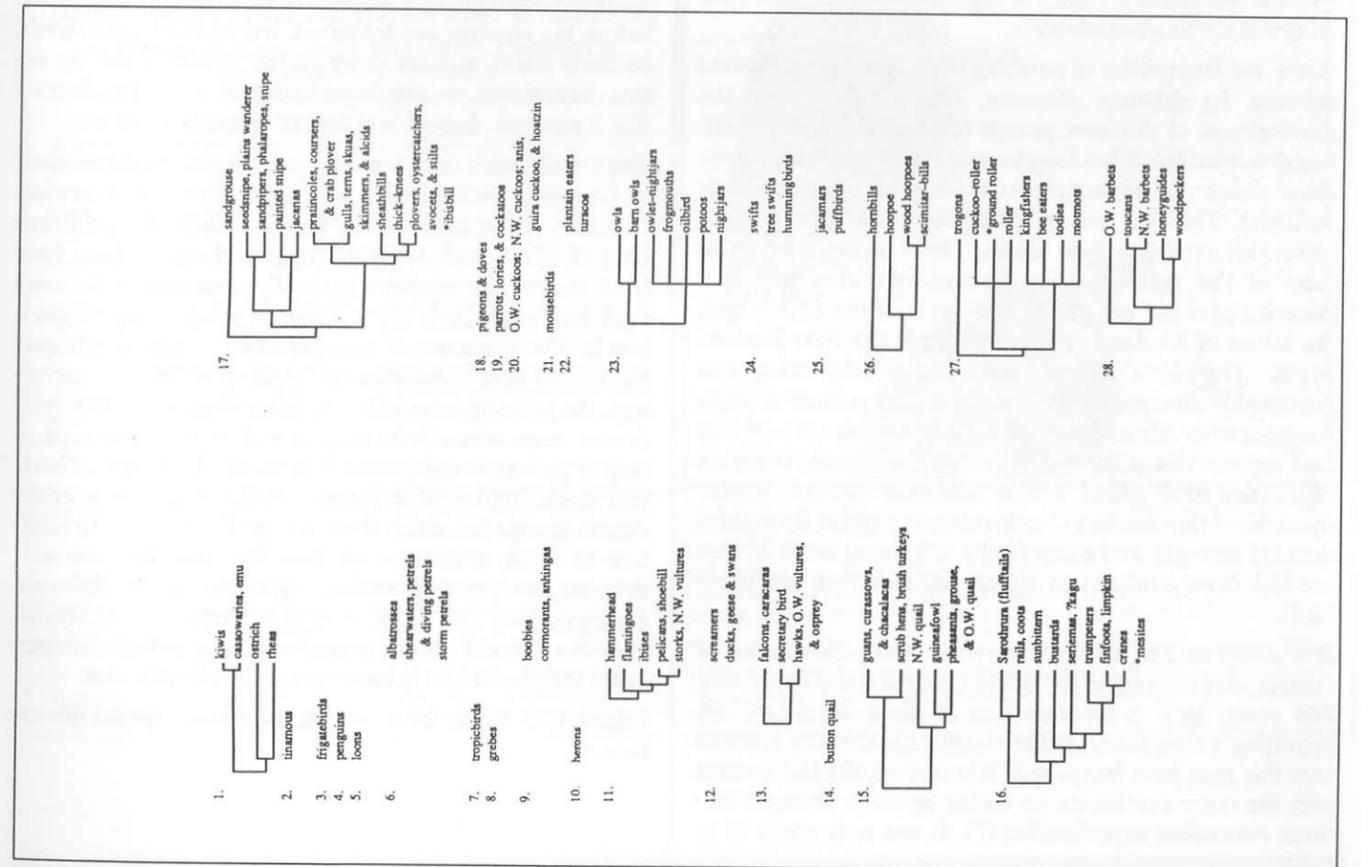
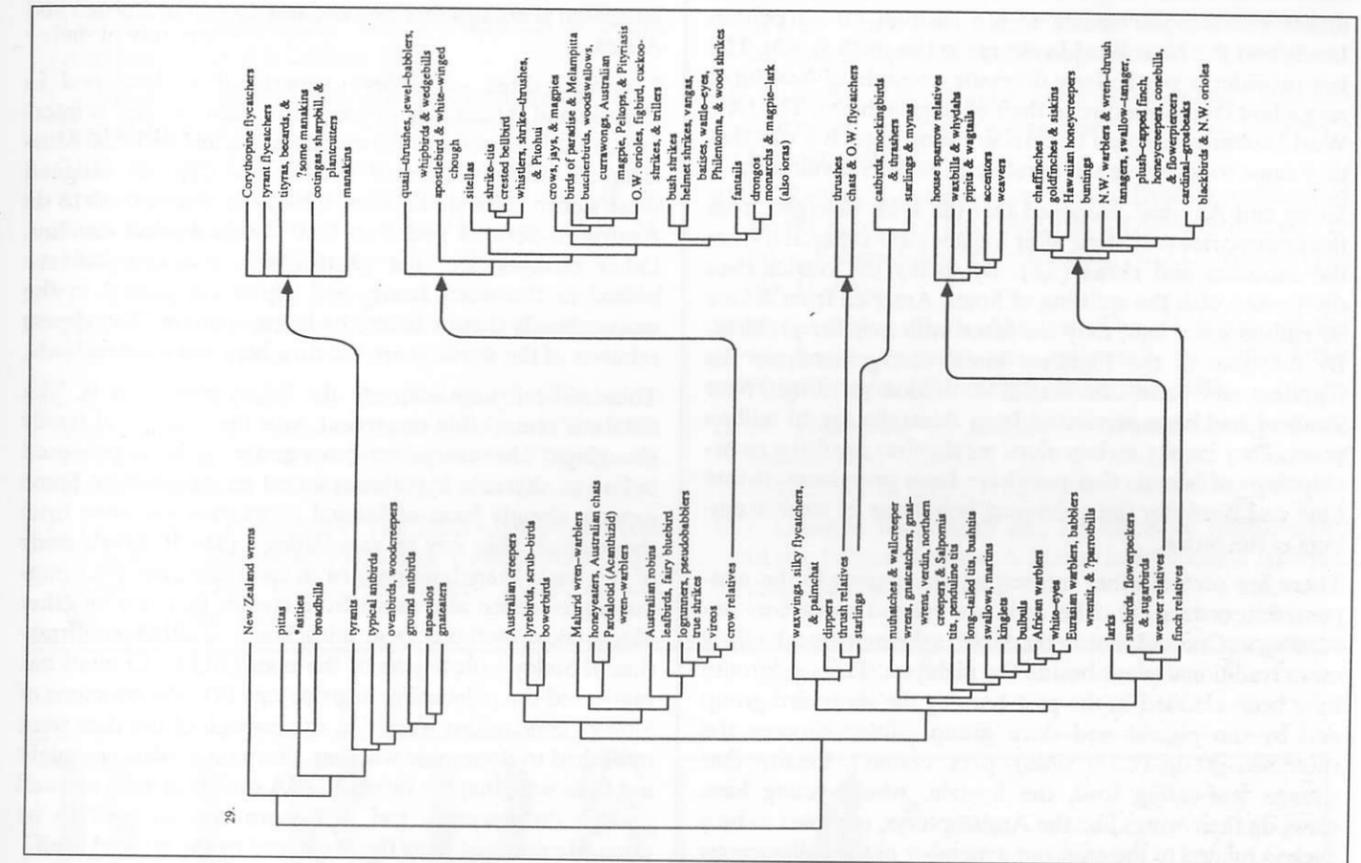
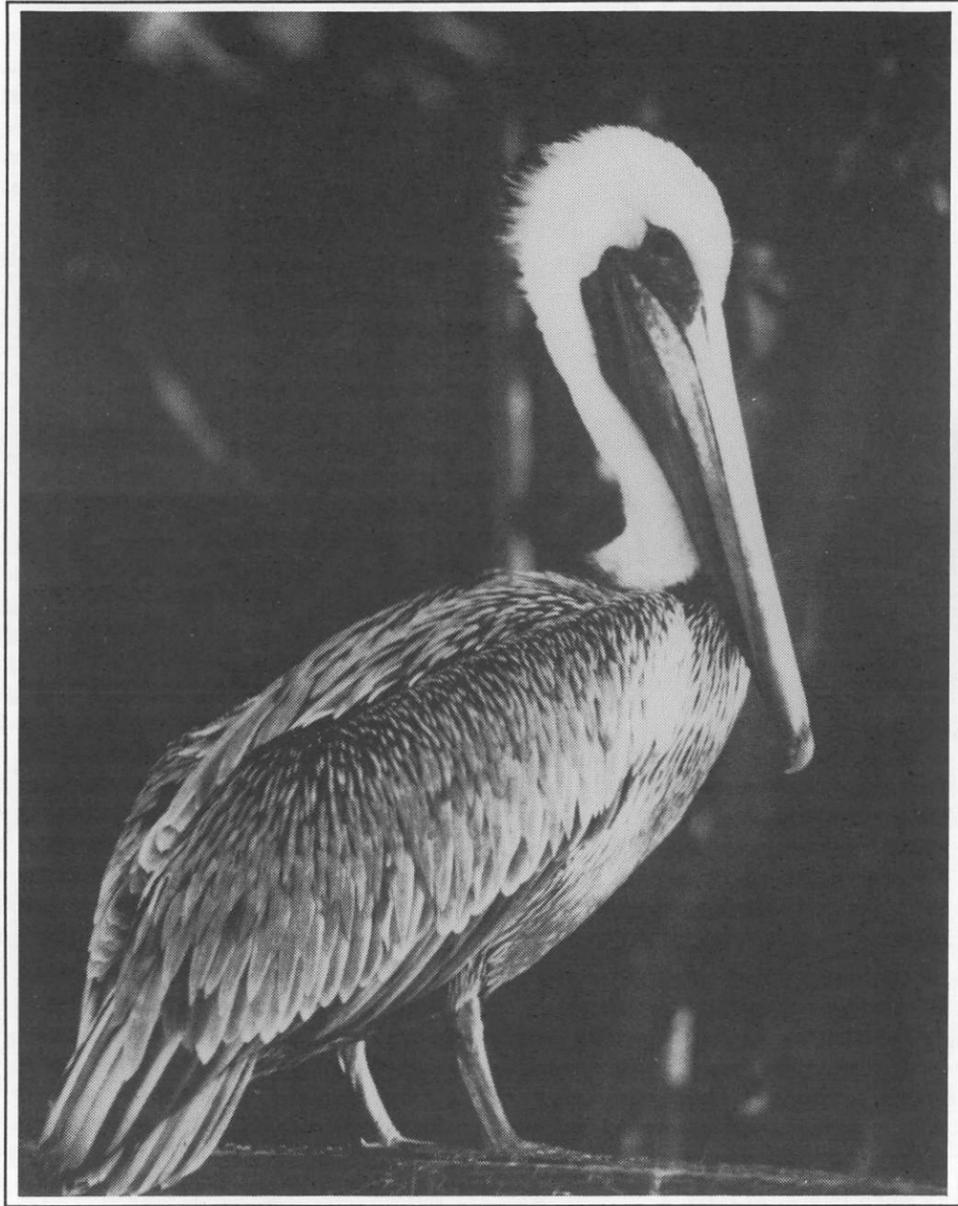
Even more remarkably but also more tentatively, it is possible to correlate divergence times with known geological events so that there is some idea of the time of ancestral divergence. A recently discovered problem here is that the DNA in different lines evolves at different rates. For instance, mammals and birds that delay breeding until several years of age seem to change their DNA more slowly than

those that breed at younger ages (3). However, as data from different sources accumulate, and as the certainty of dating of geological and paleontological events improves, a picture in time of animal ancestry should emerge.

One advantage of Sibley's method over Cracraft's is that it is easier to measure internal consistency. For instance, it would be expected that in comparing one species to several species on another branch, the DNA would differ by about the same amount regardless of different adaptations in the other branch. In their published figures this is generally true. It is also a more satisfying classification when it can give ages for individual divergences. This allows crosschecks with the geological history of the breakup of the supercontinent Pangaea into our present separate continents over the past 200 million years. It also allows crosschecks with the fossil record.

Other methods of studying classification by biochemical methods include various ways to compare body proteins. They can give useful corroborating information, especially at the species and subspecies levels. Drawbacks of these methods are that proteins evolve at different rates and can be turned on or off in response to environmental stimuli. A new method involving the rapidly evolving mitochondrial DNA is very useful at the species and subspecies levels. DNA hybridization, however, despite its complexity, remains the most informative biochemical method for arranging avian genera, families, and orders.

Sibley's classification differs from traditional ones in many parts. Among the non-passerine orders, the dismantling of the Pelecaniformes is well described in a February 1986 article in Scientific American (4). Frigatebirds were found to be relatives of the tubenoses; boobies and cormorants distant relatives of the herons; and pelicans relatives of the storks and ibises. Tropicbirds are placed in an order of their own. Also described in that



article are the placements of the shoebill in the pelican family and the New World vultures in the stork family. The last provides a particularly dramatic example of how birds may adapt their structure to their ecological niche. The New World vultures adapted to carrion eating in such a way that they came to resemble the unrelated Old World vultures.

Sibley and Ahlquist proposed that the kiwis diverged from the cassowaries and emus after the ancestor separated from the ostriches and rheas (5,6). By dating the ostrich-rhea divergence with the splitting of South America from Africa 80 million years ago, they are faced with another problem. By the time of the flightless kiwis' divergence from the flightless emus and cassowaries 40 million years ago, New Zealand had been separated from Australia for 40 million years. They invoke an ingenious mechanism involving an archipelago of islands that may have been prominent at that time and involving the swimming behaviour of some members of the order.

There are several other interesting placements in the non-passerine orders (4). The owls are related to raptors according to Cracraft, but in the Sibley scheme they take their more traditional place beside the nightjars. The sandgrouse have been claimed in the past both by the shorebird group and by the pigeon and dove group. Sibley chooses the shorebird group (C.G. Sibley, pers. comm.). Finally, that strange leaf-eating fowl, the hoatzin, whose young have claws on their wings like the *Archeopteryx*, is shown to be a cuckoo related to the anis, not a member of the gallinaceous birds. It was Sibley's studies of egg albumin which first gave credence to this association.

It is in the large order of perching birds that Sibley's system achieves its greatest elegance, because it details the development of different groups of perching birds on different continents. It has long been accepted that the "suboscines" developed separately from the other perching birds (oscines). The two groups differ in the structure of the syrinx that produces their voices. The suboscines comprise most of the perching bird families restricted to South America plus the broadbills and pittas of the Old World, the asities of Madagascar, and probably the New Zealand wrens. The New World and Old World suboscines presumably diverged at the time of the separation of South America from Africa about 80 million years ago. The Sibley data support this sequence (7). Among the South American birds they have found a new subfamily of "corythopine flycatchers" that are less closely related to tyrant flycatchers than are cotingas, and a new family of "ground antbirds" that are less closely related to typical antbirds than are ovenbirds.

It is reasonable to assume that while Australia was out of contact with the rest of the world (from about 60 to 30 million years ago), a separate line of birds developed. By providing a time frame in the classification, Sibley retraces how this may have happened. When Australia lost contact with the other continents, an oscine ancestor diverged into three Australian superfamilies (8). It was only about 20 to

30 million years ago that descendants spread to Eurasia and Africa.

The final three of Sibley's superfamilies developed in Eurasia and Africa. The organization into families is interesting. Little remains of the cumbersome and artificial Muscicapidae with its thirteen subfamilies. Cracraft assigned these to two separate families; Sibley distributes them to six Australian-derived and five Old World-derived families. Other changes are that gnatcatchers and creepers are placed in the wren family and pipits are placed in the weaver family that includes the house sparrow. The closest relatives of the starlings are the thrashers and mockingbirds.

Time will tell how accurate the Sibley phylogeny is. The data are remarkably congruent with the traditional family groupings. The exceptions have generally been proposed before as alternate hypotheses based on morphology. Some aspects already have additional supporting evidence from the methods that rely on morphology. (See Raikow's study of the basal branching pattern in the passerines (9).) Supporting evidence also exists from studies that rely on other biochemical methods (e.g. mitochondrial DNA confirmation of Sibley's phylogeny of the apes (10,11). Cracraft has reasserted the peleciform grouping (12). His criticisms of Sibley's conclusions were that not enough of the data were published to determine whether alternate hypotheses might not fit as well, that the rates of DNA evolution were not well enough documented, and that more crosses need to be done. He does not deny the usefulness of the method itself.

Your bird field guide is likely to change order several times before the changes are solidified, but its final state should be fairly stable at least down to the generic level. As research continues, we may hope to depend on a classification that is accurate, logical, and easy to remember and use.

The classification here uses as a starting point the traditional sequence used in Howard and Morris: "A Complete Checklist of the Birds of the World". Where the published data of Sibley and Ahlquist suggest changes, these have been made. The numbers generally represent orders and each line in the first three columns roughly represents a family. The sequence of non-passerine orders is arbitrary but is used here to indicate the breakup of the Pelecaniformes, the unrelatedness of loons and grebes, a tentative relation between mousebirds, turacos and owls, and the separation of jacamars and puffbirds from the biciformes. Question marks represent uncertain attributions, and asterisks denote groups for which there are no DNA data. (In addition to these, there are no data for New Zealand wattlebirds, rockfowl, *Hypocolius*, *Hypositta*, and *Rhabdornis*, among others.) The "O.W." and "N.W." refer to "Old World" and "New World". More primitive groups (which diverged later) are placed first in each part of the classification.

I thank C.G. Sibley for reviewing the manuscript for this article.

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# BIRDS

of the Okanagan Valley, British Columbia

by ROBERT A. CANNINGS, RICHARD J. CANNINGS,  
and SYDNEY G. CANNINGS  
Published by the Royal British Columbia Museum,  
Victoria, B.C., Canada

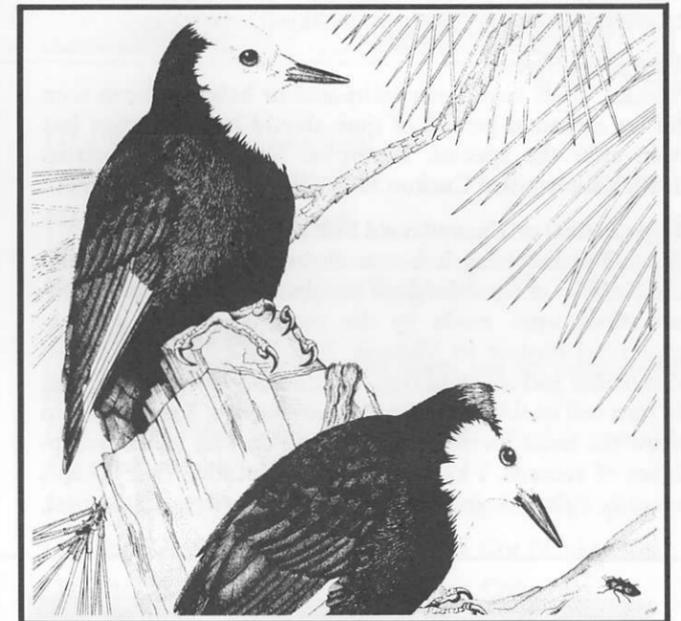
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Seasonal status, habitat preferences, migration patterns, breeding biology, and feeding behaviour are discussed for the 307 species (194 breeding) recorded. The authors examined over 126,000 records from both historical and modern sources. Introductory chapters outline the Okanagan as an environment for birds, stressing the historical changes that have affected them. Included are dozens of tables and graphs, black-and-white photographs of birds and their habitats, and sketches by the well-known Okanagan ornithologist and bird artist, Allan Brooks.

Robert A. Cannings is Chief of Biology at the Royal British Columbia Museum, Victoria, B.C. In the Department of Zoology, University of British Columbia, Vancouver, Richard J. Cannings is curator of the Cowan Vertebrate Museum, and Sydney G. Cannings is curator of the Spencer Entomological Museum.

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White-headed Woodpecker pair  
(female above, male below) on Ponderosa Pine.

Robert A. Cannings 1987

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## The Victoria Checklist - A Critical or Personal View

by K. Taylor

Checklists are structured to relate as much information as possible in a limited space. The user should be able to ascertain details of seasonal occurrence, relative abundance, breeding status, and whether the species has been introduced or extirpated. The user should be assured that the species listed are well documented and that those that are not are placed on a hypothetical list.

I feel that the Checklist of Victoria Birds, though adequate, could be more informative if the following ideals could be incorporated.

### Breeding Status

The Victoria Checklist should represent breeding status with an asterisk \* after every species known to have nested in the area. Observers are more apt to report new nesting records if they know what hasn't nested.

### Introduced Status

Introduced birds should be represented with an "I" for introduced. Examples: Mute Swan, Skylark, etc.

### Extirpated Status

Species which have been extirpated or have not been seen for an extended period of time should have the date last seen after the species. Examples: Short-tailed Albatross 1880, Yellow-billed Cuckoo 1904, Gray Partridge Ext. 1971.

### Hypothetical or Unconfirmed Status

Note: The following is not to discredit the abilities or the credibility of the records of the observers. Many of the observations were made by the most competent and experienced birders in Victoria. It is logical that the most competent and active birders will find more rarities and that in turn will enable some to go unconfirmed. I mean only to show the need for confirmation and criteria in the acceptance of records. I know of no other location that accepts records without being reviewed by a committee. In the past,

ornithologists would only accept collected specimens of extralimital and seasonal rarities to insure accurate documentation. Birders have convinced the professionals that photographs and carefully documented (confirmed) sight records could replace specimens. Unfortunately, in the Victoria area the acceptance of records has become too lax. A great many unusual reports are just accepted! Most reach Museum files via sight record cards or *American Birds* through the Vancouver Island Bird Report. Many may be published from these sources, adding to errors in regional reports.

I suggest:

A. That a records committee be organized to review the existing checklist and to review any new species to be added to the checklist. To look at records of annual "out of season" records of any species: i.e., 1986-7 Osprey in January, Northern Oriole in early April, Western Sandpiper in February, etc.

Fewer than ten species are usually all that need be reviewed per year and could easily be handled by mail.

B. That criteria for confirmation be drawn up by the same committee. I suggest a photograph, tape recording and/or sight record of at least three unrelated individuals from a selected group of a dozen experienced birders.

C. That the committee look at all annual Vancouver Island records as well. For example, the Black-billed Cuckoo has been "accepted" as a new Vancouver Island species, and yet I believe it was sighted by three British birders (who are unfamiliar with North American birds) and who first reported the bird as a species of Thrasher!

D. That older records of "out of season" birds that need clarification be reviewed; i.e., summer records of Herring and Thayer's Gulls, summer records of Jaegers, etc.

E. That all older records of difficult-to-identify birds be reviewed; i.e., Arctic Terns, Short-tailed Shearwaters, etc.

The following species listed on the Victoria Checklist are unconfirmed. I urge immediate communication of these and any rarity, including "out of season" birds, where blanks exist on the Vancouver Island Bar Graphs (Taylor, Victoria Naturalist). We hope that members from up island will phone accidentals in to the Victoria Hotline.

Edited, with Contributions, by

**Jim Weston & David Stirling**

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*Black Tern - a common Interior species*

by Mark Nyhof

### Pink-footed Shearwater

(1) Sept. 22, 1958 A. Poynter

(1) July 15, 1980 R. Satterfield

A common pelagic species occurring during these dates.

### Prairie Falcon

(1) Apr. 5, 1969 V. Goodwill

(1) Aug. 20, 1982 J. Comer

It will always be difficult to determine if these are wild birds or falconers' birds.

### White-rumped Sandpiper

(1) June 6, 1958 A. Poynter

(1) Apr. 20, 1977 R. Satterfield

(1) Aug. 10, 1977 V.&M. Goodwill

There exists one more 1977 record from Campbell River (Apr. 1).

### Black Tern

(1) June 16, 1973 R. Satterfield

(1) Sept. 12, 1974 R. Satterfield

(1) Sept. 9, 1985 M. Edgell

A common interior species.

### Horned Puffin

(1) Aug. 12, 1964 R. Fryer

(1) June 27, 1973 M. Goodwill

(1) May 11, 1979 R. Satterfield

(2) June 4, 1979 M. Guiguet

There are other confirmed records for Vancouver Island, including possible nesting at Triangle Island.

### Calliope Hummingbird

(1) June 12, 1963 nest record. Card lost or disregarded; reliable?

(1) Aug. 2, 1964 window kill Victoria. Card lost or disregarded; reliable?

(1) June 10, 1966 window kill (male) Duncan, Jim Oyen

(1) Apr. 27, 1984 (male) Marg Jamison, Cor Blankendaal

(1) Apr. 30 - May 2, 1986 Tsolum River, Courtenay.

I feel that a "Birder's Guide" may have influenced the addition of this species to the checklist. The window kills are listed as "specimens". No specimen exists in the B.C.P.M. I feel this species should be listed as Hypothetical.

### Pygmy Nuthatch

(1) Aug. 17, 1983 M. Shepard

(1) Mar. 8, 1986

There are specimens from Comox, 1931

### Tennessee Warbler

(2) Aug. 24, 1975 R. Satterfield

**THE  
NATURALIST'S  
GUIDE TO THE  
VICTORIA  
REGION**

- (1) May 9, 1981 R. Satterfield
- (1) May 20, 1982 J. & R. Satterfield
- (2) Sept. 17, 1983 R. Satterfield

There are many unconfirmed records for Vancouver Island.

#### Black-billed Magpie

- (1) Nov. 29, 1980 Barbara M. Hughes
- (1) Dec. 18, 1980 J.D. Galbraith
- (1) Feb. 10, 1982 M. Elston
- (1) Feb. 26, 1982 W. Campbell
- (1) Sept. 25-28, 1982 D. Fraser et al.

Many records exist for northern Vancouver Island and one dead bird was found by R. Satterfield in Victoria. A common interior species but also known to be kept as a caged bird locally.

The following species I suggest be added to a Hypothetical list or disregarded.

1. Black-footed Albatross - (1) ? E. Moody - disregard.
2. Spectacled Eider - (1) Sept. 25, 1962 C. Guiguet - Hypothetical.
3. Red-legged Kittiwake - (1) June 7, 1979 M. & V. Goodwill - Hypothetical
4. White-winged Dove - (1) Nov. 14, 1982 A.W. Ford - Hypothetical
5. Allen's Hummingbird - (1) May 22 - June 1971 - Photographed. Many observers including the author, who regards the record as good. The higher wing whistle (though not diagnostic) was recorded as well as the typical plumage of this species. It is unfortunate that the bird was not captured and measurements taken. Hypothetical.

#### Additions

The following are confirmed new records and should be added.

1. Arctic Loon; split from the common Pacific Loon. (1) specimen Victoria, Mar., 1906.
2. Clark's Grebe; split from the common Western Grebe. Photographed.
3. Black-necked Stilt. Sight record Apr. 27, 1987, R. Satterfield, M. & V. Goodwill, K. Taylor, A. MacLeod. May 2, 1987, others.
4. Terek Sandpiper. Photographed.
5. Kittlitz's Murrelet. Photographed.
6. Forster's Tern. Photographed.
7. Great Gray Owl. Photographed.
8. Blackpoll Warbler. Photographed.
9. Brewer's Sparrow. Photographed. M. & B. McGrenere, K. Taylor, A. Porcher.
10. Common Grackle. Photographed.

The following are still facing A.O.U. changes or are now changed.

1. Iceland Gull. Photographed. I suggest we follow Godfrey and lump this and Thayer's Gull.

2. Pacific Golden Plover. Photographed. I suggest we split this and the American Golden Plover.
3. American Black Oystercatcher now changed to Black Oystercatcher.
4. Yellow-bellied Sapsucker should be changed to Red-naped Sapsucker.

#### Bar Graphs

The bar graphs were first presented in an earlier issue of the Victoria Naturalist. Since that introduction they have been revised and now have reached what I feel is a more perfected form. As controversy will still rage over a few species that are most difficult to represent, I suggest that they be re-adjusted for compromise by the committee. I still urge the introduction of the bar graphs to the checklist, as the extra column is invaluable in knowing the exact details of seasonal occurrence and relative abundance of all species, thus aiding both experienced and novice birders and especially travellers. Example: Solitary Vireo, fairly common summer; Red-eyed Vireo, uncommon summer. The Solitary Vireo may be found from late March to mid-September, while the Red-eyed Vireo is only found from very late May to early September. A species listed as a transient gives no one any idea when to look for that species. As stated before, most checklists in North America are now using bar graphs.

The revision of the checklist and the forming of a checklist committee should be an item for a Birder's Night. I volunteer my assistance.



Common Grackle

by Tim Zurovski

## Botany Night under new stewardship

The Victoria Natural History Society's Botany Night has been revived under the direction of Dr. Adolf Ceska, a botanist with the B.C. Provincial Museum. Botany Night is free, with meetings held on the second Thursday of each month in the classroom at the B.C. Provincial Museum. November's topic will be the Ferns of B.C., with Adolf and Oluna Ceska, who will bring along some of their extensive collection of cultivated native ferns. If you have any potted native ferns or slides of some of our wild ferns, bring them along. December's meeting will deal with Evergreen shrubs and trees in Victoria, such as holly.

## Christmas Bird Count December 19, 1987

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## No Feathered Favourites

by Jack Hutchings

All the birds of the air, every species of fowl  
Had gathered in solemn conclave  
To hear some wise words of advice from the owl  
On a problem he held to be grave:

"I hear that that strife-loving creature Mankind  
Has hit on a way to promote  
A division among us, in order to find  
B.C.'s 'Favourite Bird' by a vote.

"We might just have ignored the whole childish affair  
If they hadn't invited debate  
By plucking a few of us out of the air  
To put on a 'Candidates' Slate'.

"Do they think this will make us behave as they do  
When their brash politicians compete  
And with hoopla and song give support to the few  
They have named as a feathered elite?

"Why can't they just play at their crude earth-bound games  
And leave us our Kingdom of Heaven  
Instead of attempting with flattering names  
To seduce an airborne Group of Seven?

"Must we tamely allow them to brand and insult  
Our kind with their high-sounding words?  
To their Superpower, Superman, Superstar cult  
Must we now let them add Super Birds?

"We hold all birds equal. Dame Nature, it's true,  
Has varied our plumage and size,  
Made some raucous, some tuneful, some yellow, some blue,  
Some foolish - and some of us wise.

"But we don't hold with favourites, so I suggest  
That we boycott this insolent vote:  
You seven, for starters, stay home in the nest,  
Do a 'No Show' and don't sing a note.

"For the rest, let us update their adage that talks  
Of the habits of 'birds of a feather'  
And show that, united, crow, sparrow or hawk,  
We all flock, when threatened, together.

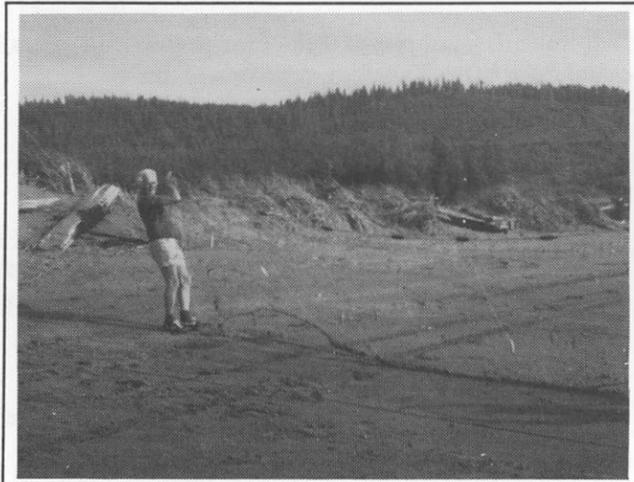
"Our protest, my friends, will have not been in vain  
If we show up this poll as absurd -  
And perhaps make it clear to the dim human brain  
That a bird is a Bird is a BIRD."

## Smelt Netting

by Marge Crowther

Over the years we have been on several trips to Port Renfrew to net smelts. Smelts are silvery-pink green-backed fish up to 7 or 8 inches long. To catch them an anchor of sorts is taken out by boat and placed on the sea floor about 50 feet from shore: to this is attached a rope, which in turn is tied to the handle of an empty bleach bottle, which floats. Through this handle runs a nylon rope about 150 feet long, each end of which is on shore, and the smelt net is attached to each of these ends. This net consists of a rope from which a weighted fine mesh hangs, and as the long rope is pulled through the bleach bottle handle, out goes the net itself. The smelts swim up to the suspended net and are caught.

About every half-hour we pull on this now-circular rope until the net comes ashore and we quickly gather the fish. These are delicious when cleaned, washed, dipped in flour and gently cooked in a little oil. Sometimes we have taken fish home and put them in our smoker. The instruction booklet for smoking refers to them as "Smokey Smelt (the beer-drinker's friend)", and they are delicious.



Pulling in the smelt net

by Marge Crowther



Presents

### Profiles of a Heritage

A hundred years of wildlife art in British Columbia

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## Hollydene Park

by A. R. Davidson

Saanich has provided its residents with quite a number of parks, five of which are really conservation areas. One of them, Quick's Bottom, is a sizeable marsh situated between Wilkinson and Markham Roads, a place where Mallard, Blue-winged and Cinnamon Teal and Pied-billed Grebe bring up their young. Another is Swan Lake, where Saanich Municipality purchased all the land surrounding the lake and put in a jogging trail around the whole area.

But the park which intrigues me is the one on Gordon Head waterfront. Where Arbutus Road joins Gordon Head Road there is a sign "Beach Access", and a few cars can be parked at that corner. The beach access is a long lane about a quarter of a mile in length, going between houses, gardens and orchards and leading to the top of the cliff overlooking Arbutus Cove. The first steps are magnificent affairs, made with stone with heavy balustrades - how come I don't know; I wrote the Park Branch asking for information on this park and its area, and when it was established, etc., but the answer I got from them was to the effect that there are no records at all on its history. The top steps are over 70 feet above the beach and there are 109 of them. The beach itself is about 300 yards long and at the south end there are 45 steps up to a park which leads to Hollydene Road. Up to the time all these steps were built this beach was not accessible to the public; even the few residents would have found it difficult. But now we have a beautiful clean beach facing San Juan Island, and in most picturesque surroundings.

## Decals Now Available

The Victoria Natural History Society logo is now available in decal form. The decal is approximately the size shown and can be purchased for \$1.00 each when enclosed with the payment of annual dues. Decals are also available at general meetings or for \$1.50, from Lyndis Davis.

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## Upcoming Programs

Please meet at the location indicated for each trip. For field trips BRING A LUNCH and be equipped for changes in the weather. Always phone the rare bird alert, 592-3381, the week before a trip you plan to take in order to obtain full particulars or details about changes (sometimes unavoidable) that have been made. On V.N.H.S. trips, participants usually pool vehicles to reduce parking problems and costs. A considerable fuel bill can be run up on a trip, consuming 5 to 10 cents a km. The Board suggests that these costs be shared with the driver. Contact Lyndis Davis at 477-9952 if you want to borrow the Society scope for a scheduled trip.

### November and December Programs

**Tuesday, November 10: "The Japanese Salmon Drift-net Fishery - A Canadian Biologist Looks On."** Illustrated slide show with Eric Groot. 8:00 p.m., Newcombe Auditorium, Royal British Columbia Museum (R.B.C.M.)

**Thursday, November 12: Botany Night with Adolf and Oluna Ceska.** "Native Ferns of British Columbia." A demonstration of live material and some slides. If you have any fern slides or specimens you want to get identified or talk about, bring them along. 7:30 p.m., classroom at the R.B.C.M.

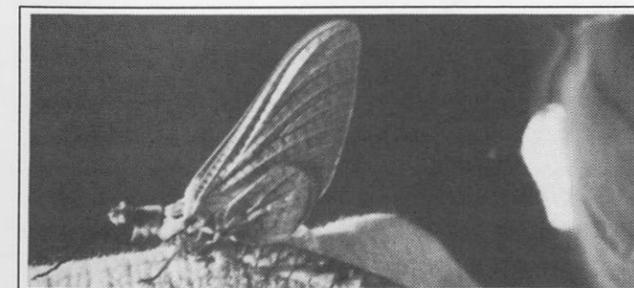
**Saturday, November 14: Birding trip to Portage Inlet with Jeff Gaskin.** Meet at Helmcken Park & Ride at 9:00 a.m. Remember to pack a lunch.

**Thursday, November 19: "Cambodia",** slide show and talk by Margaret McCurrach. 8:00 p.m. Newcombe Auditorium, R.B.C.M. Free Admission

**Wednesday, November 25: Birders Night, 7:30 p.m.** R.B.C.M. Classroom. Christmas Bird Count workshop and Ptarmagin Ptalk with Mike McGrenere.

**Saturday, December 5: Gull identification workshop with Rueben Ware.** A good way to bone up on this difficult group before the Christmas Bird Count, and participants are urged to attend! Meet at Helmcken Park & Ride at 8:30 a.m. Probably we'll go to Goldstream Park - but check in first!

**Tuesday, December 8: "Cold and the Canadian Insect",** with Dr. Richard Ring. Learn something about the ways in which insects cope with cold in our northern climes. 8:00 p.m., Newcombe Auditorium, R.B.C.M.



**Thursday, December 10: Botany Night.** "Evergreen shrubs in the Victoria Area," with Adolf Ceska. 7:30 p.m., classroom at the R.B.C.M.

**Saturday, December 19: Victoria Christmas Bird Count.** Come to November's Birders Night to learn more, or call the Rare Bird Alert for more information on how to participate.

**Saturday, December 19: Post-Count gathering** at 6:30 p.m. and dinner at 7:00 p.m. at Windsor Park Pavillion, Windsor Rd., south Oak Bay.

## Welcome to New Members!

- Aug. 12 Alex and Annie Gray, of Glenwood Ave. Welcome back!
- Aug. 26 Lorna J. Andrews, of Henderson Road. Interested in bird watching activities.
- Aug. 26 Mrs. Dorothea P. Brealey, of Henderson Road. Interested in bird watching and outdoor field trips in general.
- Aug. 26 Coryn Gooch, of Radcliffe Lane. Interested in birds and wildflowers.
- Aug. 31 John and Corry de Bondt, of Trailwood Place.
- Sep. 2 Barrie and Evelyn Bird, of Epsom Drive. Interested in flora and fauna of the Victoria area.
- Sep. 8 Don L'Heureux, of Medana Street. Interested in birds and native plants.
- Sep. 8 Mrs. Ruth Weldon, of Henderson Road. A former Chemistry and Biology teacher, whose interest is nature in general.
- Sep. 8 Diana M. Cumming, of Linden Avenue. Her interest is birding.
- Sep. 8 Alex and Cay Mills, of Hi-mount Drive. Interested in birding and botany.
- Sep. 8 Calvor I. Palmateer, of Russell Street.
- Sep. 8 George E. Lovick, of Russell Street.
- Sep. 8 Patricia W. Borden, of View Street. Interested in birding.
- Sep. 10 Peter and Peggy Gage, of Central Saanich Rd., Saanichton. Welcome back! Their specialty is birds.
- Sep. 14 Patrick and Sandra Shaw, of Hillgrove Road, Sidney.
- Sep. 16 Mr. and Mrs. A.S. Hawkins, of Wood Park Drive. Albert and Donna like birding.
- Sep. 17 Alison and Gwen Rimmer, of Swanson Place. They like birding and have a general interest in nature.
- Sep. 18 John and Marilyn Jackson, of Carloss Place. Two more birders!
- Sep. 22 Eleanor J. Coulter, of Gorge Road West
- Sep. 23 Deb Thiessen, of Amphion Street, who recently moved here from Vancouver to pursue her career as Naturalist; interested in birding, marine biology, wildflowers, and ethnobotany.
- Sep. 23 Dayle Gervais, of Nelthorpe Street, near Swan Lake; interested in birding.
- Sep. 25 Mr. and Mrs. A.G. Aldous, of Tudor Road. Welcome back!

## REPORT MARINE MAMMAL SIGHTINGS AND STRANDINGS TO:

382-1333, 380-1925 in the Victoria area  
1-800-334-8832 toll-free anywhere in B.C.

All sightings, no matter how old, are useful for research purposes, and are put into a computer data base. Records are available to all researchers. When current local sightings of killer whales, or any unusual species, are reported promptly, researchers will try to respond to them. Please report date, time, location, a description of the animals and number and direction of travel, as well as your name and phone number in case further information is required.

P.O. Box 5220, Stn. B  
Victoria, B.C. V8R 6N4



## Trips for Naturalists



### Discover Mexico

January 27 - February 11, 1988

### California Winter Escape

January 28 - February 7, 1988

### Southern Mexico

February 10-25, 1988

### Costa Rica

February 20 - March 6, 1988

### Rendez-vous with the Whales

April 1-4, 1988

### Texas Birding

April 9-21, 1988

### Southeastern Arizona

April 23 - May 1, 1988

### Oregon Natural History

May 7-18, 1988

### Okanagan & Nicola Valleys

May 21-29, 1988

### Dempster Highway Wildlife

June 17-29, 1988

### Canadian Rockies & Prairies

June 18-28, 1988

### Queen Charlotte Is. Cruises

Summer, 1988

### Life at the Top (Cascade Mountains)

July 7-10, 1988

### Yukon/Alaska Circle Tour

August 20-28, 1988

### Queen Charlotte Is. - Inside Passage

September 3-11, 1988

### West Kootenays & Okanagan

September 10-18, 1988

### Maple Leaf Tour

October 1-11, 1988

### Splendors of Japan

October 12-28, 1988

*Write for itineraries and a 1988 tour program.*

**Swiftsure Tours Ltd., 119 - 645 Fort Street, Victoria, B.C. V8W 1G2 • (604) 388-4227**