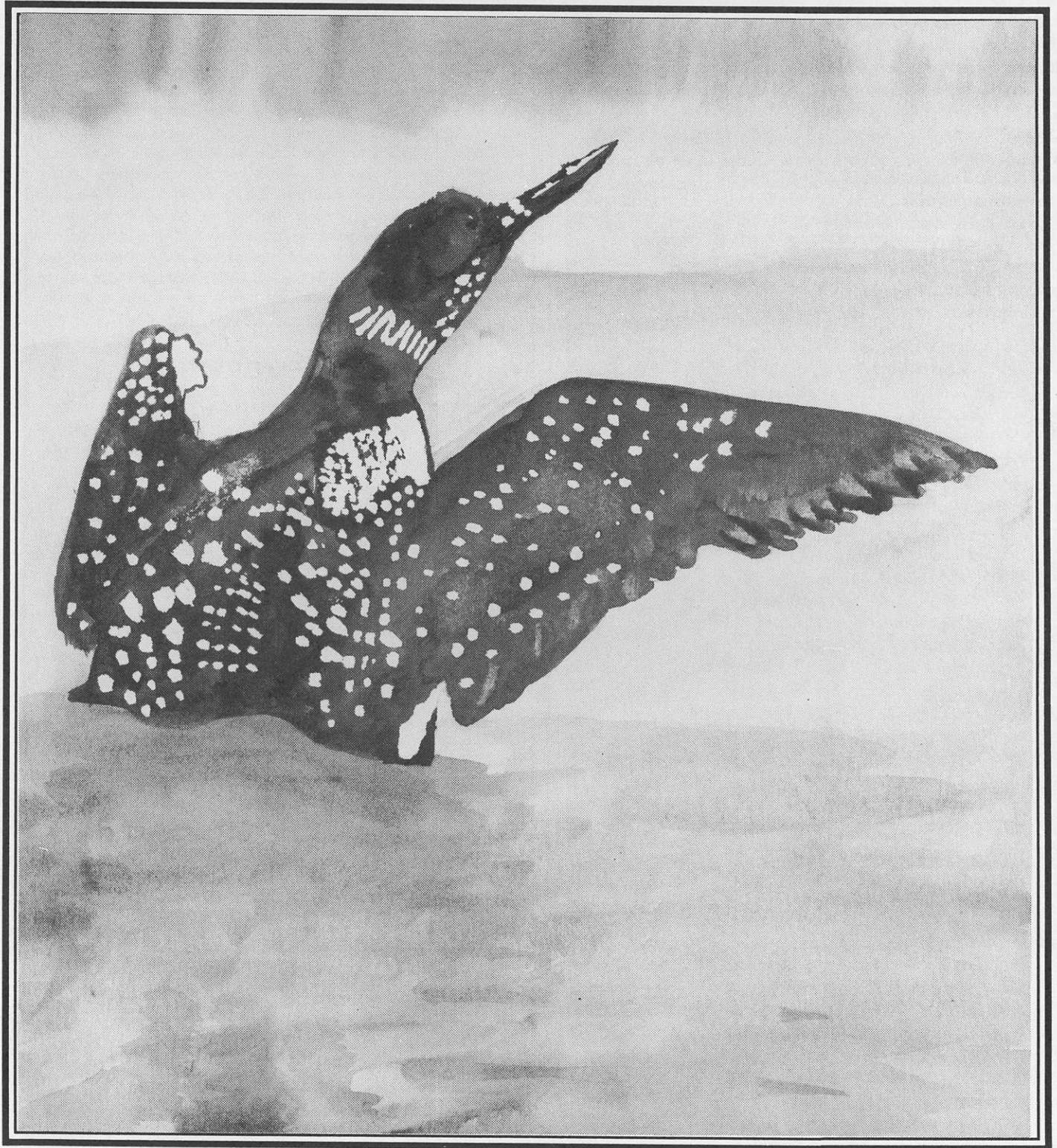




# The Victoria NATURALIST

MAY  
JUNE  
1992  
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VICTORIA NATURAL HISTORY SOCIETY



# The Victoria NATURALIST

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Members are encouraged to submit articles, field trip reports, birding and botany notes, and book reviews with photographs or illustrations if possible. Photographs of natural history are appreciated along with documentation of location, species names and a date. Please label your submission with your name, address, and phone number and provide a title. We will accept and use copy in almost any legible form but we encourage submission of typed, double-spaced copy or an IBM compatible word processing file on a 360K 5.25" diskette plus printed output. Having copy submitted on diskette saves a lot of time and work for the publications group and we really appreciate the help. If you have an obscure or very old word processing program, call the editor, Warren Drinnan, at 652-2112 or 652-9618, or save the text in ASCII format. Blank diskettes may be obtained from the editor and we will return any of your own diskettes submitted. Photos and slides submitted may be picked up at the Field-Naturalist, 1241 Broad Street, or will be returned if a stamped, self-addressed envelope is included with the material.

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## WELCOME

*The Victoria Naturalist* welcomes Kim Nemrava, the new Publications Chair for the Victoria Natural History Society. Kim holds a Bachelor of Science degree in biology, from the University of Victoria and became an avid naturalist after her introduction to birding with David Fraser, who she describes as "...an inspiring instructor". She continued this interest while working with the Coast Guard, taking full advantage of the boating trips up and down the coast. Kim is now working in administration for the Red Cross but biology still remains her passion. She has been a member of the Victoria Natural History Society since returning to Victoria in 1989. "I have long been an admirer of the *Victoria Naturalist*. Indeed, it is the most welcomed piece of mail received at our household. I am excited about taking on a more active role with the Society." With comments like those we are excited about Kim joining the publications team. Welcome aboard.



Rattlesnake Fern, *Botrychium Virginianum*. (Photo: Art Guppy) See Mr. Guppy's article, Encounters with Rare Ferns, on Page 4.

## COVER

This month's cover of a common loon was painted by twelve-year old Jessica Harcombe. The water colour was completed last year and was seen by many visitors to the Goldstream Park Nature Art Show held last September. Jessica is hoping to develop a career that will combine her obvious talents in art with her love of animals.

# Encounters with Rare Ferns

By Art Guppy

Recently, browsing through Part 3 of *The Vascular Plants of British Columbia* (Douglas *et al.*, 1991), I was shocked to notice there was no mention of any fern of the *Gymnocarpium robertianum* complex occurring in southeastern B.C. This fern will not be familiar to many readers but likely they will know the common oak fern, *Gymnocarpium dryopteris*. This fern has roughly triangular fronds, rather like those of the very common spiny wood fern, but smaller and growing scattered at a distance from each other. *G. robertianum* is similar but it is much less common and primarily associated with limestone. Recent research has changed the nomenclature of this plant but I will come to that.

I found it surprising that this rare limestone oak fern was not recorded for southeastern B.C. because older references (e.g., Taylor, 1970) mentioned a station for it on the Big Bend of the Columbia River. After a little reflection I realized the record was an old one and likely was excluded from Douglas *et al.* by the policy of omitting references to collections made over 40 years ago. Quite probably the damming of the Columbia had flooded the old collection site and eliminated the fern.

But I was shocked for another reason. On August 2, 1965 I had discovered a population of *Gymnocarpium robertianum*,

as it was then called, in Yoho National Park, close to the road that leads to Takakkaw Falls. It was growing on a talus slope, presumably limestone, though the rocks were so weathered I could not be sure. With the *Gymnocarpium* was another fern that I had not previously encountered, the slender rock-brake, *Cryptogramma stelleri*, which is also associated with limestone. I photographed both ferns.

Had I not been in a national park I would have collected and pressed suitable specimens to submit to a herbarium. Only a short time previously I had inquired of a national parks official if I could obtain a permit to collect small samples for identification when I was botanizing in national parks. The request was refused. So there I was in 1965, looking at a very rare fern, and having no legal way to collect a frond to confirm identification. Obviously, I felt very excited at having made such a rare find but at the same time I realized I should make no rash claims until I had carefully checked the literature to be sure I understood the identifying features of the fern. My field guide, the first edition of *The Ferns and Fern-allies of British Columbia*, by T.M.C. Taylor, did not make identification of this fern easy, for it described both the rachis and blades as being densely glandular. With the fern I was looking at, the rachis was densely glandular but the blades were only sparsely to moderately so. If I had then possessed the literature which is available today I would not have been doubt, for only the rachis, not the blades, are described as densely glandular. Evidently a better description is: "Stipe, rachis and axes with many very small, stalked, capitate, white glands ..." (Lellinger, 1985).

After returning home, I made an appointment to consult



A rare fern, probably the Nahanni oak fern, *Gymnocarpium jessoense*, which became road fill. (Photo: Art Guppy)

a fern expert but when I arrived for the appointment he was too busy to see me. Perhaps he was tired of people bringing him pieces of bracken to identify.

Two years later I again set off for the Rockies. This time I was determined to collect a specimen, though I knew I should arrange to have the park naturalist accompany me to make the actual collection.

That never happened, for when I arrived at the site, it was gone. I don't mean that just the ferns were gone but that the entire site was gone. The talus slope on which the ferns had been growing had been trucked away, apparently to provide fill to improve the road for tourists who wished to gawk at Takakkaw Falls.

I did visit the office of the park naturalist but not to arrange for the collecting of a specimen. Instead I protested the destruction by park's personnel of one of the most rare plants in the park. A girl in the office remarked that it was an unusual switch to have a tourist complaining of park's people damaging the plants. At the time I was feeling too angry and frustrated to appreciate the humour of the situation.

Years passed until the discovery that Douglas *et al.* had no record of the *Gymnocarpium robertianum* complex occurring in southeastern B.C. set me to thinking again about my find in Yoho National Park. I got out the photo I had taken that day over 26 years ago. I examined the transparency under a microscope at 15x magnification. Beyond a doubt, there on the rachis of each frond were the numerous little glands which provide positive identification. The other North American species in the genus, *G. dryopteris* and *G. disjunctum* have a glabrous rachis.

There have been taxonomic changes to these ferns since 1965. The species *Gymnocarpium jessoense* (Koidz.) Koidz. has been split off from *G. robertianum* (Hoffm.) Newman. Now that the fern no longer exists at the site in Yoho Park, it is not possible to be absolutely sure which of the two species once grew there but the following information from Sarvela, Britton and Pryer (1981) does make identification almost certain. The newly named *G. jessoense* has a circumboreal distribution and



Slender Rock-Brake, *Cryptogramma stelleri*, at Yoho River Valley. (Photo: Art Guppy)

is represented in North America (as well as in parts of Eurasia) by the subspecies, *G.J. parvulum* Sarvela. *G. robertianum*, as now defined, occurs in Europe and in North America, from Newfoundland to Minnesota, but is not known to occur farther west on this continent. A specimen collected by J.M. Macoun in 1917 in Jasper National Park, Alberta, about 175 km from the Yoho site, has been identified as *G. jessoense*. Thus, it seems that the ferns I found were almost certainly *G. jessoense*, subspecies *parvulum*. The hybrid between this species and *G. dryopteris*, known as *G. X intermedium*, is a possibility but the densely glandular rachis of the Yoho plants suggests the species rather than the hybrid.

Douglas *et al.* use the vernacular name "Nahanni oak fern" for *G. jessoense*, which seems a questionable choice for a fern with a circumboreal distribution, but for B.C. it seems suitable enough, especially as in B.C. the species is now known only from the northeast corner of the province.

I should mention that *Cryptogramma stelleri* (Gmel.) Prantl, which joined the *Gymnocarpium* as highway fill, is circumboreal but is far from common in B.C.

I do not have a greater interest in ferns than in other plants but by chance I later came across another rare fern, this time on Vancouver Island. I had several times noticed a pond in Sutton Pass, between Sproat Lake and Kennedy River, and finally in August, 1970 I got around to investigating it. At first glance it seemed botanically rather uninteresting, but then on its shaded banks I spotted what appeared to be the leaves of some member of the lily family.

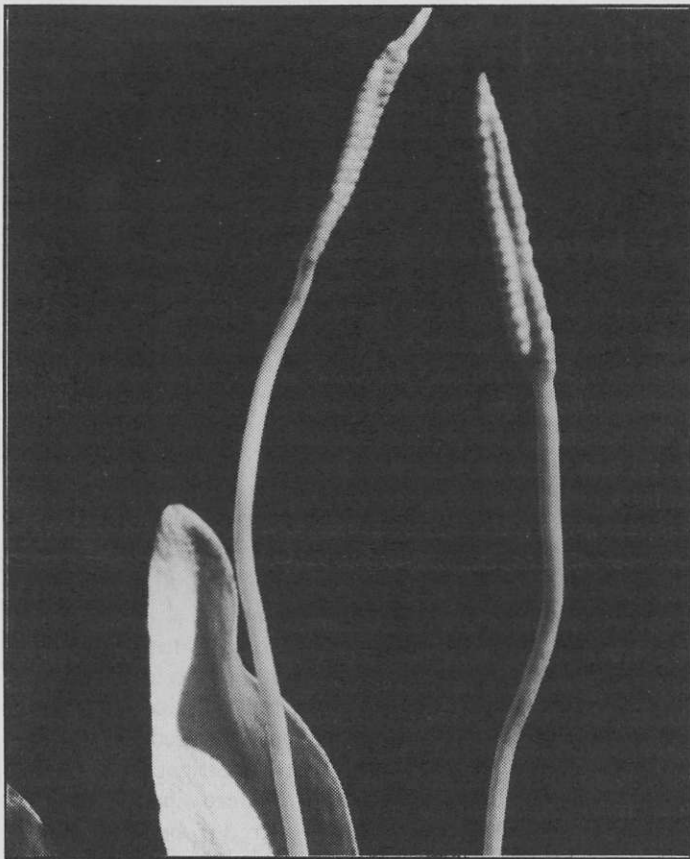
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The rare adder's-tongue fern, *Ophioglossum pusillum*, at Sutton Pass is now protected by an ecological reserve. (Photo: Art Guppy)

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A closer look revealed that attached to the unfamiliar leaves were slender, upward-pointing spikes which evidently were spore-bearing structures. Obviously this was no lily, but some sort of fern, though a very unusual one. The leaves were not divided, as is usual for a fern, but resembled those of a fawnlily. (Later I learned that the fern, like the fawnlily, is often called "adder's tongue".) It was something entirely new to me and there was nothing like it in my field guide. This time I was not in a park, so I was able to collect a specimen for identification.

After returning home I took my find to Dr. W.B. Schofield, who is an expert on mosses, but somehow also manages to know a great deal about many other plants. He identified the fern instantly as *Ophioglossum vulgatum* L. and was very enthusiastic about its discovery, for it was the first time the plant had been collected in the wild in B.C.

Encouraged by Dr. Schofield's enthusiasm, I returned to more closely inspect the site in Sutton Pass. Many of the most interesting wildflowers and ferns grow where conditions discourage the growth of other plants and this unusual fern was no exception. Its chosen ecological niche is a rather odd one. The outlet of the pond in Sutton Pass is blocked by loose rock that allows water to seep through but not to flow freely. As a consequence, the water level in the pond during the summer is very low but with the arrival of rainy weather in fall, the level rises dramatically, flooding a large area around the pond. It was in the periodically flooded area that the fern had found its niche.

In 1975, while again inspecting the pond, I noticed that on the east side of the pass a logging road was under construc-

tion and appeared to be headed toward the vicinity of the outlet of the pond. Clearly, if road construction altered the cycle of low and high water in the pond, it could destroy the fern population.

With that situation in mind, I wrote to MacMillan Bloedel Limited, the logging company which was operating in the area, and described the rare fern and the site in which it grew. I suggested the vicinity of the pond be made into an ecological reserve. The company accepted the suggestion and the site became a reserve.

In the years since I chanced upon the rare *Ophioglossum* it has been found elsewhere in B.C. (Dr. A. Ceska, pers. comm.), so it is no longer quite so rare. Also, the name has been changed; the fern found in B.C. (and elsewhere in North America) has been split from the species named by Linnaeus and now goes under the name *Ophioglossum pusillum* Raf.

It is a fern worth knowing, for it is so unusual as not to be readily recognized as a fern. Its nearest relatives in B.C. are the grapeferns and moonworts (genus *Botrychium*). The frond of *Ophioglossum* has an erect, unbranched, spore-bearing spike and below it a leaf blade as I have described, while generally the frond of a *Botrychium* has a branched fertile spike and a lobed or compound sterile blade.

This group of plants is considered to be among the most primitive of living ferns. Unlike all other living ferns, these strange plants do not have their young, undeveloped fronds circinate-ly coiled into fiddleheads. Their roots, which are few and fleshy, lack root hairs but instead contain the hyphae of fungi which presumably contribute nutrients to the fern (Lellinger, 1985). The prothallus (the gametophyte or sexual stage) is buried in the soil, lack chlorophyll and requires the presence of the appropriate mycorrhizal fungus in order to grow (Sporne, 1970).

Ferns of this group tend to be either rare or easily overlooked, so it is always a pleasant surprise to encounter one, even if it is a fairly common species. Finding a rare one is truly exciting.

As I ponder the events which followed my encounters with rare ferns, it seems to me there may be a moral to be found in them, but I leave that to the reader to determine.

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- Taylor, T.M.C. 1970. *Pacific northwest ferns and their allies*. University of Toronto Press, Toronto.
- Art Guppy is a retired schoolteacher and plant watching has long been a favourite leisure-time activity. He is also providing information to the University of Victoria on the destruction of plants in parks.*

## Endangered Invertebrates in British Columbia

By Syd Cannings, R.P.Bio.

In 1981, in the middle of a hot and sunny summer on the British Columbia coast, my brother Rob and I journeyed to the Brooks Peninsula, a finger of land jutting into the Pacific Ocean on the northwest coast of Vancouver Island. We went there looking for endemic insects, since it was thought that all or part of the peninsula had escaped glaciation, and plants formerly known only from the Queen Charlotte Islands had recently been discovered there. In two weeks of regular collecting, using nothing fancier than butterfly nets and yogurt bins, we collected 3600 specimens of terrestrial invertebrates. Two years later, after we had received them back from specialists around the world, we compiled a list of 519 species in 190 families. Of the 519, 31 were undescribed species and an additional 34 were species previously unknown to Canada!

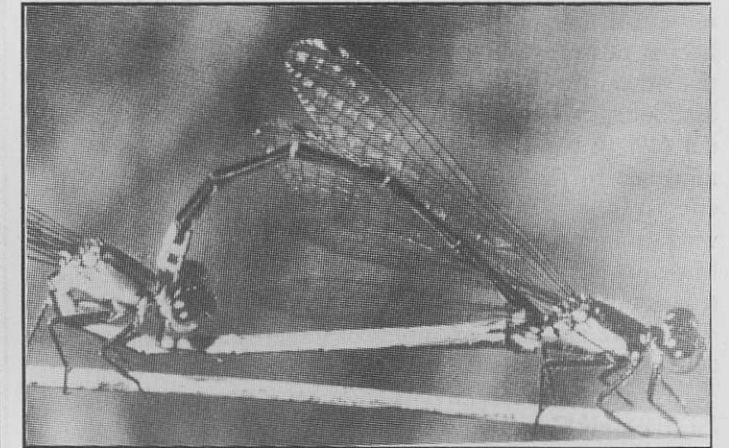
A few years later, Rob put a Malaise trap (a tent-like affair designed to catch all manner of flying insects) in a second-growth alder forest near Sooke, as part of a survey of gall midges. After four months, the trap had caught (in addition to a wealth of other insects) 100 species of gall midges, 90 of which were new to science!

These two stories illustrate the present state of our knowledge of terrestrial invertebrates in British Columbia. Although by far the greatest part of British Columbia's biodiversity is made up of invertebrates, they are the least known of any major biological group. Our knowledge of the distribution and abundance of insects and other invertebrates in British Columbia is so incomplete and fragmentary that, except for some abundant species, it is usually impossible to say from the data at hand what the true status of a species is. This is the case even for small, supposedly well-known groups such as butterflies or dragonflies.

Our knowledge of marine invertebrates is equally sketchy. We do know that most are widespread, but some have vanished from large areas of the British Columbia coast in the last few decades. For example, the native oyster and littleneck clam have been largely supplanted by their introduced Japanese cousins, and the whelks have disappeared from Burrard Inlet, apparently because antifouling agents for ships had made them all female! The rate and methods of harvesting abalone, clams, snails, and other invertebrates are also worrisome to some marine biologists.

The diversity of invertebrates makes them good indicators of small, unique habitats, but it also makes it very difficult for biologists to identify and study them. We often hear that many of the species in tropical forests will disappear before they are discovered, but this could be equally true in our province. A good guess at the number of insect species in British Columbia is 35,000; only about 15,000 have been found so far. The mind-boggling diversity makes it very difficult for entomologists to do a literature or collection survey to determine which species are endangered or threatened. Specialized, detailed surveys will be required for almost every species that is suspected of being endangered.

Because we lack baseline knowledge, even good local



*Ischnura damula* Calvert (plains forktail). Liard River Hot Springs, July 17, 1981 Photo by G.P. Doerksen.

surveys are difficult, if not impossible, to interpret. For example, we don't know whether the new species we found on the Brooks Peninsula are endemic, endangered, or widespread, simply because no similar surveys have been done up and down the mainland coast. There is hope, however, that this situation may change in the coming years. The Royal B.C. Museum is planning to coordinate a large-scale inventory of endangered habitats (especially grasslands and old-growth coastal forests), with emphasis on invertebrates and non-vascular plants. It will be a huge undertaking, but well worth the effort.

The Entomological Society of Canada has recently established a standing committee on endangered species, and one of their aims is to press for the recognition of endangered invertebrates in all provinces. In British Columbia, invertebrates cannot even be nominated as threatened or endangered species at this time, because they are not considered wildlife and are therefore excluded from the provincial Wildlife Act's endangered species provisions. I believe that it is essential that we recognize in legislation their importance to the natural diversity of our province.

Many large birds and mammals have been hunted or in some way exploited to the point of extinction or extirpation, but this is not usually the case for insects and other terrestrial invertebrates. In British Columbia, the small number of collectors and the generally high reproductive capacity of invertebrates means that invertebrates (at least terrestrial ones) are essentially immune to human predation. Certain accessible populations of rare butterflies (the Eversmann's parnassians on Pink Mountain, for instance) may be in danger of local extermination. But for most threatened and endangered invertebrates the problem is habitat destruction, and despite our general ignorance about invertebrate distribution, we do know a number of species that are confined to threatened habitats of very limited extent in the province.

A quick perusal of "well-known" groups of invertebrates produces a list of about 50 species that could be considered threatened or endangered because of their rarity and restricted distribution.

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This list is dominated by species represented in the province by peripheral, or marginal populations. But we shouldn't ignore their plight here just because they may be more common, or even widespread elsewhere. For one thing, habitat destruction is occurring everywhere, and if we think that others are going to take care of our endangered species we are fooling ourselves. Also, we should take the advice of Scudder (1989): "Marginal populations have a high adaptive significance to the species as a whole, and marginal habitat conservation, preservation and management is one of the 'best' ways to conserve the genetic diversity and resources of species. Marginal habitats are an essential prerequisite for the maintenance of this diversity and versatility."

Here are eight examples of insect species that are endangered or threatened in British Columbia.

*Argia vivida* Hagen (vivid dancer): Threatened. A beautiful, intensely blue damselfly, the vivid dancer is found only in a few scattered springs in British Columbia. All but one of the localities are creeks and ponds associated with hot springs, which are of course under tremendous development pressure for human use. Most accessible hot springs in British Columbia have already lost their unique flora and fauna by water diversion into swimming-pools. The only population of vivid dancers not associated with a hot spring is in a small cool spring near Penticton, which is being severely impacted by cattle trampling.

*Ischnura damula* Calvert (plains forktail): Endangered. A smaller, daintier damselfly than the previous species, the plains fork tail is represented in B.C. by a single, relict population in the

Liard River hot springs. These springs, although they are within a provincial park, will be flooded if a planned hydro-electric project of B.C. Hydro on the Liard River goes ahead.

*Litaneutria minor* Scudder (ground mantis): Threatened. This, the only native praying mantis in Canada, is restricted to the dry shrub-steppes of the southern Okanagan Valley. Despite recent entomological attention to this habitat in the last decade, it has been found only a handful of times.

*Notonecta spinosa* Hungerford (backswimmer): Threatened. In Canada, this aquatic bug is restricted to valley bottom wetlands in the Okanagan Valley, which are disappearing rapidly.

*Cicindela parowana* Wickham (tiger beetle): Extirpated. From what I can deduce, the only Canadian locality for this beautiful tiger beetle was an alkaline flat in Penticton. The last remaining area of this habitat was bulldozed and built on a number of years ago.

*Eucyrtopogon spiniger* Curran (robber fly): Endangered. This species is only known from the holotype specimen collected in Victoria. Its habitat of dry, garry oak woodland is under heavy development pressure.

*Mitoura johnsoni* Skinner (Johnson's hairstreak): Threatened. Rare throughout its Pacific Northwest range, this attractive little butterfly had not been recorded in Canada for many years when it was rediscovered in the University Endowment Lands (now Pacific Spirit Park) last year. Since then, a number of lepidopterists have been searching for it and it has turned up in Stanley Park and Lynn Creek Headwaters Park. Its larval foodplant is the western hemlock mistletoe.

*Papilio machaon pikei* Sperling (sage swallowtail): Threatened. This recently-discovered subspecies is known only from populations along south-facing riverbanks on a 500 km stretch of the Peace River in British Columbia and Alberta, and from one population in the Kleskum Hills badlands of Alberta. Another population near Findlay Forks on the Peace River was probably eliminated by flooding by the Bennett Dam; the present British Columbia populations are threatened by planned future dams along this river.

#### References

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Syd Cannings is presently the Program Zoologist for the Ministry of Environment's Conservation Data Centre. This article was originally published in *BioLine*, the official publication of the Association of Professional Biologists of British Columbia.

#### Announcement

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## President's Report

Nineteen ninety-one was a very productive year for the Society during which a number of major events were held involving the participation of many of our members.

A year-long wildlife survey of the Martindale flats area has been coordinated by Eric Walters and Darren Copley to gather information on the wildlife use of the area. The information will be used by the Parks and Conservation committee of the Victoria Natural History Society (VNHS) to make informed submissions regarding land use in this area. The survey will be continued during 1992.

In March, the Society hosted an all day *Shoreline and Adjacent Wetlands Workshop* at the University of Victoria. The workshop was attended by six Vancouver Island naturalist clubs, nine federal and provincial agencies, and several other non-government organizations. Thanks to Connie Hawley and several other volunteers for organizing this event.

Bev Glover and Ann Scarfe organized a booth for the Society at the Hobby Show in April. This type of event provides excellent exposure for our activities to the general public.

Through the coordination of Lyndis Davis and a hard working group of volunteers the Society successfully hosted the Federation of B.C. Naturalists (FBCN) field camp during May. Almost 70 "campers" enjoyed the programs and field trips lead by Society members.

The VNHS and B.C. Parks sponsored a most successful art show in September at Goldstream Provincial Park. The art show was coordinated by Leah Ramsay and was attended by over 10,000 people. Over 200 Society members volunteered to staff the art show.

David Pearce demonstrated his excellent ability in organizing major bird counts by coordinating the first spring bird count held in Victoria as well as our record breaking Christmas bird count which set a new Canadian record of 152 species and had over 200 observers.

One of the commendable activities of the Society is our financial support

through the scholarship fund to students in the life sciences program at the University of Victoria. Three \$500.00 awards were given to the University for the 1991/92 academic year. The value of these awards will be increased to \$600.00 for 1992. A major initiative of the Board was to increase the scholarship fund during 1991. We have been able to do this primarily with revenue obtained through our hosting of the FBCN field camp and the net proceeds of the art show.

Our Society has a number of outstanding members who have contributed in many ways to the successful operation of Society activities. In addition to those individuals already mentioned are Margaret MacKenzie-Grieve, Bryan Gates, David Fraser, Carol Berryman, Victor and Beth Chatwin, Freda Woodworth, Dannie Carsen, Dorothy Henderson, Hank van der Pol, Margaret Wainright, Bruce Whittington, Jerry and Gladys Anderson, Samantha Statton, Warren Drinnan, Diana Jolly, Jennifer Emms, Adolf Ceska, Jean McDougall, Anne Belither and Sheila Stewart.

We also extend special thanks to retiring board members Ann Scarfe, who handled the Library committee and the events tape, and to Alan Burger who organized the Society's programs for 1 1/2 years. A very special word of thanks is extended to Betty Kennedy who is stepping down from the board after five years, three as our president

and the last two as our past-president. Our society has benefitted greatly from Betty's foresight and enthusiasm.

Respectfully submitted,  
Mike McGrenere

## Awards and Recognition Committee Report

At the annual banquet in February 1992, Distinguished Service Awards were presented to Margaret Mackenzie-Grieve and David Fraser. Both Margaret and David have given and continue to give outstanding service to the VNHS. We are proud to recognize their contributions.

Respectfully submitted,  
Betty Kennedy

## Scholarship Committee Report

The VNHS provides funds for the following awards, scholarships and bursaries:

- 1) The Barbara Chapman Award for a young naturalist — \$100.00 (awarded by the Federation of B.C. Naturalists); and
- 2) The VNHS Scholarship and the Samuel Simco Bursaries — \$500.00 each (awarded by the University of Victoria to students in the life sciences program).

A new scholarship for a student entering the second year of the Environmental Technology program at Camosun College has been established. It is for \$200.00.

Respectfully submitted,  
Betty Kennedy

## Publicity Committee Report

This "fledgling" committee was formed in January of 1991. Among the duties of the committee is the collection of information for the Calendar and Bulletin sections of the *Victoria Naturalist*. The committee has put together posters of evening talks for posting and mailing to community newspapers. Thanks to Brenda Robson for producing the posters. Displays were put together for the Lapidarian Society Hobby Show and for the Capital Regional District's Recreation Day. Thanks to all members who helped at these two events. A permanent Society display is being organized including a club banner, table skirts and photograph enlargements. Future activities of the committee may include the production of a new society brochure. If you would like to assist the committee, please contact Bev Glover at 721-1476.

Respectfully submitted,  
Bev Glover

## Membership Committee Report

Our membership totalled 783 as of December 31, 1991. We have had 36 new members join up until the Annual General Meeting but 325 people have not renewed their memberships for 1992 to date. Although this delay in renewal is not unusual, it would be appreciated if more people would renew their memberships earlier in the new year.

Respectfully submitted,  
Tom Gillespie



## USED BOOKS

We've just received a large collection of titles in ornithology. Most are out of print and hard to find; some are very rare. All are single copies, so come in early for a browse.

10% of VNHS members' purchases  
will be donated to the Society

the field-naturalist

Natural History Specialists  
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1241 Broad Street, Victoria V8W 2A4

## Social Committee Report

**September 3rd to 22nd, 1991.** The Victoria Natural History Society (VNHS) hosted a Nature Art Show at Goldstream Provincial Park entitled "Art, Parks and Diversity." Leah Ramsay and David Fraser organized the show and 223 members of the Society volunteered to staff the exhibition and to arrange the wine and cheese gallery opening.

**December 14th, 1991.** This year the Christmas Bird Count gathering was held in the Gordon Head United Church hall with participants providing Christmas refreshments. A good time was had by all.

**February 11th, 1992.** The Annual Banquet was held again at the Princess Mary Restaurant with 94 people in attendance. The attractive buffet and sumptuous food were much appreciated. Bev Glover of the University of Victoria and a Society member was our guest speaker. Her topic, "This is not the Opera House - A Naturalist's Journey through Australia," was extremely well-presented and excellent slides added to the entertaining evening. Thank you, Bev.

Special thanks to Dorothy Henderson, Connie Hawley, Freda Woodworth, Beth and Victor Chatwin, Dorothy McCann and others who helped to make these events a success.

Respectively submitted,  
Anne Adamson

## Parks and Conservation Committee

### CURRENT PROJECTS:

Through the coordination of Margaret Wainwright, conservation observers continue to help the committee by giving us information about their respective areas.

Our Martindale Flats Wildlife Survey report is currently being prepared. Since agricultural areas like Martindale Flats are very important to wintering waterfowl, we are continuing to encourage the public to ask for and buy produce from local farmers to support the farmers and thus, the waterfowl. Funding for the project has been received from the James Baillie Memorial Fund in the form of \$1,000.00.

A new bird observation platform has been approved by Saanich authorities for construction at Quick's Bottom, at a site selected in a joint effort between the Parks & Conservation Committee (PCC) and the Birding Committee. Funding has come from a donation by Mrs. Duke of \$600.00 and \$214.00 from the Federation of B.C. Naturalists Warden's Fund.

We have contacted various governments such as the Ministry of Crown Lands and Central Saanich Council with our concerns such as the proposed construction of a boat-launching ramp at Patricia Bay; the Ministry of Highways regarding the possible contamination of run-off water going into the wells and into agricultural areas such as Martindale Flats; and Saanich Council with such concerns as the proposed four-lane road to replace the existing roadway in Mt. Douglas Park.

The PCC is embarking on a plan to erect Western screech-owl nest boxes on the University of Victoria campus in an effort to return the number of nesting pairs to the levels they were only 10 years ago, prior to development of the forested areas and large-scale snag removal. As well, we are concerned with the loss of hedgerows in the vicinity of Martindale Flats and the Horticultural Centre of the Pacific. We have issued warnings about the weed purple loosestrife, in an attempt to stop its spread, as it tends to take over an area and crowd out other plant species. The public has been asked to eliminate it and burn it.

We continue to support groups concerned with environmental interests such as the Esquimalt Lagoon Enhancement Association, Bilston Watershed Habitat Protection Association, and The Friends of Mount Douglas Park.

Our committee has been involved in determining possible Wildlife Viewing Sites within the Capital Regional District. Anyone interested in these sites or other potential areas is asked to contact Doris Brix at 479-7420.

A *Camas* Day Committee, chaired by Connie Hawley, has planned that Beacon Hill Park will be a showpiece on April 25, 1992, with the botanical, ornithological, archaeological, and native history aspects of the area being emphasized.

### ACCOMPLISHMENTS:

The PCC played an active role in sponsoring and participating in the Sensitive Shoreline Workshop, held on March 23, 1991.

A 68-page report was completed on April 4, 1991 by David Fraser and Leah Ramsay, of Arenaria Research & Interpretation, on wildlife use of the Martindale Valley. The report was commissioned by the Victoria Natural History Society.

A botanical inventory of Uplands Park was completed with valuable assistance from Dr. Chris Brayshaw. He contributed a detailed colour-coded vegetative zone map and a comprehensive list of rare and regular plants. The map and list were presented to Oak Bay Mayor, Diana Butler, at a council meeting on November 25, 1991.

The PCC has had several other botanists from the Royal B.C. Museum visit various locations in order to determine unique, rare or important flora to the province at areas such as Quick's Bottom, Rithet's Bog, and the boggy area threatened by the highway expansion at Island View Road and the Pat Bay Highway.

Environment Week activities were held at Quick's Bottom and Mount Tolmie in order to introduce the public to these areas and to VNHS concerns.

Our committee gratefully acknowledges all those that help the PCC's efforts by contributing to the Habitat & Conservation Fund Raffles held at Birders Night. To date, over \$450.00 has been raised which will help to fund some upcoming projects. Special thanks must be given to Samantha Statton who has operated the raffle since it first started in 1990. Sincere thanks must also be given to all Parks & Conservation members for their hard work and enthusiasm.

Respectfully submitted,  
Tony Embleton and Eric L. Walters

## The Cooper Hawk Incident

by Bill McLeod

That afternoon of February 8th, 1991 was one I shall always remember. It began by an unexplainable feeling of unease, decreasing sounds—a descending quietness.

The pleasant chirpings of the wild birds I had been feeding during the winter could not be heard indoors. But why was it so silent? Could there be bird sounds, normally unheard, felt in the room as vibrations? Why was today different? These thoughts were in my mind as I moved to the south window. From this view most of my flock could be seen feeding hungrily. Strange! Not a bird in sight! Where were my favourites: the towhees, fox sparrows and juncos? The ones I call "leaf-dancers", who make the leaves fly in their search for food.

The view from the east window was no more reassuring when I looked over the brush cover. The sight of one bird would do. Nothing here either.

To this day I can never explain why, in my initial look, I completely passed by a sight I had never seen before or expect to see again. What I saw startled and shocked me, as though I was confronted by an impossible apparition staring at me with red, unblinking eyes; a bird the size of a small raven. There was fear that if I moved, this large, unusual bird would disappear. I found out later that the window reflected only the views from the outside. This allowed me to remain hidden to observe and describe the bird and later how it fed.

It was a hawk. A magnificent looking bird, with a bearing that was fiercely majestic and proud. Bird books do not begin to capture the fierceness, yes, majesty of this hawk when viewed unexpectedly at close range. A bird classified as an accipiter, a true hawk.

The beak, an eye-catching bright yellow piece of sculptured "bone" projected from slightly above the hawk's eye level, curved menacingly downward in shiny black. A perfectly designed weapon of formidable power.

The breast was a striking rust colour; the back a bluish grey. It had a long tail and a white band distinguished the tip. The rump under the tail was pure white, maintained that way by an efficient method of elimination. The tail lifted up and an excretion was cleanly ejected a distance of at least two feet. Legs and feet were a bright yellow, featherless for at least six inches, exerting pressure on what appeared to be dried leaves sunk in the grass. These were not leaves, however, but the result of a successful attack by a male Cooper's hawk, probably completed only seconds before.

A towhee and fox sparrow reappeared and began feeding in the thimble berry thickets scarcely six feet away. The hawk, aware of their presence by its head movements, showed no interest.

Feeding was methodical. Starting at the rear, the hawk removed the tail and lower body feathers by repeated plucking with its beak. It would raise its head quickly each time with abrupt movements to the left, then to the right, or

to the right then to the left. The pattern was unpredictable. The hawk was aware of its vulnerability during the plucking action.

The bird would shift its position and that of the victim to face another direction, increasing the area of surveillance. As parts of the body became exposed by the plucking action, the hawk began to thrust and tear with its sharp, hooked beak to draw out the entrails, which were consumed at once. Feathers were plucked from the legs and the meat stripped and eaten like meat from drumsticks on a small chicken. Plucking continued up the body, always with those quick head movements. Forever alert, alternating left and right, predictable, in its watch for possible danger.

Feeding took approximately half an hour. Locating my binoculars when the hawk's head was down, I was able to witness part of the activity from the "binocular-distance" of five feet. At this distance the hawk was an imposing sight. The shoulders and head of the victim were still untouched. For some reason the hawk became nervous and stopped feeding. Suddenly took to the air with the remnants of the carcass straggling behind. It landed thirty feet up on a mature alder tree, remaining partially hidden. Seconds later it flew in a swooping accelerating flight to the shelter of a dense Douglas fir thicket on the neighbours' property next door.

Bill McLeod is retired and living in Campbell River. He has had a longstanding interest in wild birds.

## Yellow Point Lodge



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# Report of the Auditor to the Members

I have examined the Balance Sheet of the Victoria Natural History Society as at December 31, 1991 and the Statements of Income and Expenditure for the year ended on that date. These financial statements are the responsibility of the Directors of the Society. My responsibility is to express an opinion on these financial statements based on my audit.

My examination has been conducted strictly for the benefit of the members of the Society. Due to statutory limitations on the authority of members of the Society of Management Accountants of British Columbia, this examination would not meet the requirement of a statutory audit should such an audit be required.

My examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as I considered necessary in the cir-

cumstances, except that in the case of revenue it was not practicable to extend my examination beyond accounting for receipts as reported by the Society.

In my opinion, except for the effect of any adjustments that might have been required had I been able to carry out a verification of revenue (see preceding paragraph), these statements present fairly, in all material respects, the financial position of the Society as at December 31, 1991 and the results of its operations for the year then ended in accordance with generally accepted accounting principals applied on a basis consistent with that of the preceding year.

Victoria  
March 3, 1992  
[Signed]  
Stephen Gentles, CMA

## Victoria Natural History Society Balance Sheet as at December 31, 1991

TOTAL DEC 31, 1990		TOTAL DEC 31, 1991	GENERAL ACCOUNT	NEHRING ACCOUNT	SCHOLARSHIP ACCOUNT
<b>ASSETS</b>					
\$11,584	Cash at bank	\$6,638	\$4,473	\$1,600	\$565
16,808	Term deposits	5,895	4,537	-	1,358
-	Short term investments at cost (market value 1991: \$52,581)	50,642	-	40,000	10,642
1,154	Accounts receivable	1,633	1,633	-	-
4,066	Stock of books	2,153	2,153	-	-
97,060	Long term investments at cost (market value 1991: \$80,411 1990: \$88,851)	77,059	291	63,832	12,936
<b>\$130,672</b>		<b>\$144,020</b>	<b>\$13,087</b>	<b>\$105,432</b>	<b>\$25,501</b>
<b>LIABILITIES</b>					
\$1,642	Accounts Payable	\$699	\$699	-	-
1,138	Memberships and subscriptions paid in advance	1,436	1,436	-	-
127,892	<b>FUND BALANCES</b>	141,885	10,952	\$105,432	\$25,501
<b>\$130,672</b>		<b>\$144,020</b>	<b>\$13,087</b>	<b>\$105,432</b>	<b>\$25,501</b>

## Victoria Natural History Society Statement of Income and Expenditure For the Year Ended December 31, 1991

1990	GENERAL ACCOUNT	1991	1990	NEHRING ACCOUNT	1991
<b>Income</b>					
\$11,665	Membership dues and donations	\$10,600			
-	FBCN Camp (net of costs)	4,635	\$8,046	Interest	\$9,555
1,041	Publications (net of cost of goods sold)	827			
1,297	Interest	916			
14,003		16,978			
<b>Expenditure</b>					
4,474	Naturalist-production & mailing (net of advertising revenues)	3,876	51	Martindale Flats Proposal	
270	Cost of meetings	250	2,500	Conservation Projects Account	3,925
1,303	Postage and stationary	681			
2,644	Affiliation fees	2,696	2,551		3,925
	Telephone, Bird Alert system and Information service	933			
1,057	Audit and accountancy	150			
150	Miscellaneous	877			
796					
10,694		9,463			
3,309	EXCESS INCOME OVER EXPENDITURE	7,515	5,495	EXCESS INCOME OVER EXPENDITURE	5,630
15,700	Funds on hand at beginning of year	19,009	85,234	Funds on hand at beginning of year	90,729
	Less: Transfer to Nehring and Scholarship accounts	(15,572)	-	Increase in funding -Transfer from General Fund	9,073
\$19,009	<b>FUNDS ON HAND AT END OF YEAR</b>	<b>\$10,952</b>	<b>\$90,729</b>	<b>FUNDS ON HAND AT END OF YEAR</b>	<b>\$105,432</b>
\$64	Donations	\$2,209	\$1,705	Interest	1,781
			-	Donations	\$78
			1,705		1,859
2,500	Donation-Swan Lake Sanctuary	2,500	1,600	Scholarship and Bursaries	1,500
-	Office Equipment	292			
-	Martindale Flats Report	2,100			
231	Miscellaneous	753			
2,731		5,645			
(2,667)	EXCESS INCOME OVER EXPENDITURE	(3,436)	105	EXCESS INCOME OVER EXPENDITURE	359
(322)	Funds on hand at beginning of year	(489)	18,538	Funds on hand at beginning of year	18,643
	Increase in funding -Transfer from Nehring Account	3,925	-	Increase in funding -Transfer from General Fund	6,499
2,500	<b>FUNDS ON HAND AT END OF YEAR</b>	<b>\$0</b>	<b>\$18,643</b>	<b>FUNDS ON HAND AT END OF YEAR</b>	<b>\$25,501</b>

# A Novice Birder's Guide to Birding Lingo

By Eric L. Walters

There's nothing more frustrating than pursuing a new hobby and not knowing what the heck everybody is talking about. I thought that I might be able to provide some assistance to those that feel like they're in a foreign country when they go birding with experienced birders (definitely not called birdwatchers).

A typical conversation between two birders might go like this:

**Birder A:** Hi, seen anything good? [Any interesting birds?]

**Birder B:** Yeah, I gotta TUVU for my winter list. [Saw a Turkey Vulture for the first time this winter and added it to my list of birds that I have seen so far this winter.]

**Birder A:** Oh I saw one on the VNHS CBC. [Victoria or Vancouver Natural History Society's Christmas Bird Count.]

**Birder B:** I called the tape and heard there might be a Cordilleran near Sparwood—that would be a lifer for me. [Called the Rare Bird Alert and ... a Cordilleran Flycatcher ... that would be a bird that I have never seen before.]

**Birder A:** Oh that's the one the AOU split a couple of years ago isn't it? [American Ornithologists' Union divided the Western flycatcher into two species—the Pacific-slope and Cordilleran]

**Birder B:** Yeah, but I don't know if it's confirmed or not. [Did two parties (usually well-known birders) see the bird and agree on its identity or was a photograph (in this case a sound recording) taken and confirmed by a well-known birder.]

**Birder A:** Say, dya get a new scope? [Spotting scope.]

**Birder B:** Yeah, I got sick of not being able to ID LBJs with my binos. [Identify "little brown jobs" with my binoculars.]

**Birder A:** Yeah, there's nothing worse than seeing a bunch of "peeps" without a scope [Least, semipalmated and Western sandpipers.]

**Birder B:** Oh, I should tell you 'bout the GBH that was robbing my wood duck nest box last year. [Great blue heron that was eating the young out of a nest box (never call it a birdhouse—it's just not cool).]

**Birder A:** I saw that happen on last year's Big Day. [An annual event held in the spring where an individual or group attempt to see/hear as many species in one day as possible.]

**Birder B:** Quick - look up there. Raptor...looks like a Golden! [Bird of prey that looks like a golden eagle.]

**Birder A:** Boy, look at that dark terminal band—immature, I guess. [Dark band of feathers at base of tail and still exhibiting immature markings.]

**Birder B:** Are you going to card it or should I? [All bird sightings are recorded on recipe cards and sent to Dave Fraser who compiles the sightings in this area and sends them to the

*American Birds* B.C. compiler (Chris Siddle) and to the Royal B.C. Museum.]

**Birder A:** I'll card it. Well, I had better head off to Martindale to do the survey. [A birding survey done every Saturday morning at 8:00 a.m. at Martindale Flats.]

**Birder B:** Oh, can I join you? I hear that is one of the best birding spots in all of B.C. [Our province.]

So there you have it. This is just a small sampling of some of the jargon used by birders. A great way to pick up the language is by spending time with birders. There are many field trips sponsored by the Victoria Natural History Society and from September until April there is the ever-popular *Birders Night*, held the fourth Wednesday of each month. Good luck to you and may you all see a lifer at the second annual spring bird count on May 9th.

*Eric Walters is an active member of the Parks and Conservation Committee of the Victoria Natural History Society.*

## Welcome To New Members:

- January 30 Elizabeth Kilby, of McClure Street: is a birdwatcher.
- January 30 Joyce Folbigg, of Neil Street.
- February 4 Ted Redman, of Moss Street: enjoys birds and mammals.
- February 4 John Shaneman, of Fifth Street: is a birdwatcher.
- February 7 Gordon Ford, of Dawson Way: is interested in hiking and birding.
- February 11 Stephen and Joan Dunn, of Cotlow Road: enjoy birdwatching.
- February 17 Ellen Prince, of Newport Avenue: is a novice botanist and likes birds and nature hikes.
- February 20 Wilfred and Charmian Horner: are interested in birdwatching, hiking and wildflowers.
- March 3 C. Adrian Stone, of Wain Road: likes birds, flowers and photography.
- March 6 Laurel Nash, of Robert Street: is interested in conservation.
- March 12 Michael Klazek and family, of Stanley Avenue: are birdwatchers.
- March 12 Rachael Pollard, of Stanley Avenue: studies birds and intertidal life.
- March 12 Joy Richards, of Faircliff Lane: is interested in birds fauna and wildflowers.
- March 12 Barbro Baker, of Dawe Road: is a birdwatcher.
- March 21 Kathy Kay, of Phoenix Street: likes birds.
- March 25 Joanna Smith, of Harbour Road: enjoys birdwatching.
- March 25 Louis Haviland, of Niagara Street: is a birdwatcher.

# Parksville Flats...the End is Near!!!

By Eric L. Walters  
Parks & Conservation Committee

It was only last year (March 23, 1991) that a workshop, sponsored by The Federation of British Columbia Naturalists and the Vancouver Island Natural History Clubs, was held in Victoria. The workshop was concerned with identifying and protecting sensitive shoreline and adjacent wetland habitat on the east coast of Vancouver Island (see the *Victoria Naturalist*, Vol. 47.6, pp. 8-9). The concern over such areas as the Englishman River estuary surfaced at that time. Following are some excerpts from that conference to provide some background.

Neil Dawe of the Canadian Wildlife Service stated the following: "The east coast of Vancouver Island is an important area for migratory birds, both as a staging area for migrants on their northern and southern journeys and as an important wintering area for many species of waterbirds. Extensive shallow, nutrient-rich areas such as Baynes Sound with its fringe salt marshes, eelgrass and algae beds, and protected bays and harbours are important areas for wildlife. Principal among our concerns along this part of our coast is the loss of estuarine habitat. Estuaries are a rare ecosystem in the Province. Less than 3% of British Columbia's 27,000 km coastline is estuarine in nature. Estuarine systems act as stepping stones to the myriad of migratory waterbirds and songbirds that use them

each year. They are also important habitat for many other wildlife species. Estuaries are perhaps the most biologically productive ecosystems we have—we consider them of national significance."

Lindsay Jones of the Pacific Estuary Program (PEP) had this to say: "Estuaries are wetland habitats formed where fresh-water enters the ocean. They are biologically productive areas in which patterns of mudflat and marsh, and complex cycles of tidal flooding, create a hospitable environment for a great variety and abundance of organisms, notably waterfowl and young fish. Since the 1980's, about 70% of the wildlife habitat in southwestern B.C.'s estuaries has been lost to a variety of other uses. Unfortunately, most of the land uses in estuaries are incompatible with natural biological systems. To protect areas identified as critical to wildlife, it is necessary to acquire or reserve them for conservation purposes."

Pauline Tranfield of the Arrowsmith Naturalists provided the following historical overview concerning the Englishman River Estuary: "In 1870, John Hirst preempted 160 acres of the Englishman River Estuary and in 1874, he built his house there. During his tenure, the land was dyked and farming undertaken. In 1957, the flats were purchased by Martin Germyn for \$8,000. Nine years later, an attempt was made to make it into a "Venice village". Canals were dug, drainage was put in, then later the project was abandoned. In 1973, the Arrowsmith Natural History Society, along with Parksville Fish and Game Club and Parksville Village Council, made an application to the provincial government to establish a 'green belt' designation for the Englishman River Estuary and the flats. Mr. Germyn was willing to sell for \$625,000, stating that it would be ideal for a 'green belt' because of the flooding.

CONTINUED FOLLOWING PAGE



Englishman River Estuary. (Photo: Neil Dawe)



—CONTINUED FROM PRECEDING PAGE

"In 1974, the provincial government turned down the application stating that other estuaries had higher priority at the time. In 1975, Aldergrove Enterprises bought the flats and commissioned the Tera Report, an Environmental Impact Study which found that only 20% of the land was suitable for development. In 1976, the provincial government commissioned two independent studies of the area, namely an Environmental Impact Study and a Sociological Impact Study. Their main recommendation was preservation of the Parkville Flats as nature-oriented public recreation areas, through the purchase of Aldergrove Enterprises properties. This property has changed hands a number of times and different proposals have been presented which have been denied because of zoning and other reasons. In 1980, this area became part of the Town of Parkville, retaining regional R.1 zoning until rezoned by the city to allow up to 1200 R.V. [recreational vehicle] parking spaces. In 1987, it was designated a flood plain because it has flooded many times, including this past winter. This area is one of the last unspoiled estuaries on the east coast of Vancouver Island. It is a vital staging area for salmon and also a rest area for migratory birds. It is extremely important for the survival of resident birds and other animals because it not only has a very productive marsh but also a large forested area. Englishman River Estuary is a number one wildlife viewing area, right at our back door. It is therefore most educational for students and adults alike. It is adjacent to the community park and must be kept as a nature preserve."

As mentioned earlier, this information was provided over a year ago. In the meantime a lot has happened. The Pacific Estuary Program had negotiated a deal with the owner for purchase of the area. The government was going to guarantee a loan to the Pacific Estuary Program to enable the purchase of the property with the intent that the loan would be repaid in one to two years. Despite all the information that the government had gathered over the years, the protection of the Englishman River estuary was not a concern for our Provincial Government. The Ministry of Environment, Lands and Parks did not allow for the purchase of this land in the recent Provincial budget announced March 26, 1992. This was despite the Ministry's view that "estuaries and adjacent wetlands are deemed to be the most important or 'critical' habitats and have formed the basis for most of our long-term acquisition programs" (MOE, 91/03/23).

At the time this article goes to press, bulldozers are already destroying the Englishman River Estuary in preparation for a

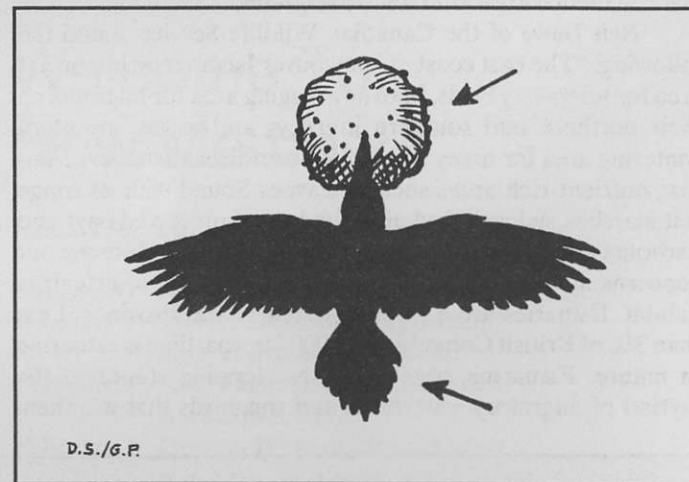
Recreational Vehicle "Park". Protesters have tried to stop the development but they need the support of the public. What's more important to the people of British Columbia—the preservation of one of our few remaining estuaries or yet another R.V. facility?

If you feel that the Englishman River Estuary is important and should be protected, I urge you to write to our newly elected government:

Hon. John Cashore                      Premier Mike Harcourt  
Minister of Environment,          Parliament Buildings  
Lands & Parks                          Victoria, B.C.  
Parliament Buildings                V8X 1X4  
Victoria, B.C.                              V8X 1X4

For more information contact: Pauline Tranfield, Box 1542 Parkville, B.C. V0R 2S0. Telephone: 248-6607

[Editor's Note: At press time the government had not rescinded its decision.]



Field Marks, Common McRaven, *Corvus burgerbunius*

## McRaven

By David Stirling

Last fall, while driving to the parking place where the trail leads up to the precipitous cliffs of the Gowland Range above Finlayson Arm, I saw a dozen ravens raiding barbecue leftovers at the last house on the road. At least two of the birds held sesame seeded hamburger buns in their massive mandibles. Time: 9:45 a.m. Later, at about 12:30 p.m., 20 ravens were aloft reveling in the rising air on the leading edge of an approaching cold front—singles, pairs, threesomes—all soaring, gliding, croaking, quorking as ravens often do. While checking the corvid circus and scanning for stray raptors, I noticed that two of the ravens had hamburger buns in their beaks (the range was too great for the identification of sesame seeds).

Were the ravens with buns, soaring overhead at a height of about 500 meters, the same ones that I had seen 2 3/4 hours earlier?

Are hamburger buns a source of wealth to ravens to be hoarded—like Masai cattle or a retiree's R.R.S.P.'s?

More observations are needed.

David Stirling has a long-time, active member of the Victoria Natural History Society and is a well-known local naturalist and author.



Seacoast Expeditions: Regularly scheduled two and three hour coastal excursions provide an exciting opportunity to search for and take pictures of various sea birds, killer whales, porpoises, seals and other marine wildlife

## Killer Whales and Marine Birds— Dual Opportunity for Naturalists

Seacoast Expeditions has been offering whale watching and marine mammal wildlife tours from Victoria's Inner Harbour during the past five years. Vessel pilots, Alex Rhodes and Eric Walters, have answered thousands of questions about marine mammals but more recently passengers' questions have reflected an increased interest in various marine birds. In fact, 22 people from Nature Discoveries of Rochester, New York have chartered two zodiacs for an exclusive, tour in July, eager to take part in this dual opportunity of bird-watching and whale watching.

Regularly scheduled two and three hour coastal excursions provide an exciting opportunity to search for and take pictures of various sea birds, killer whales, porpoises, seals and other marine wildlife. Routes vary depending on the weather and reported whale sightings but most trips go along the scenic waterfront to Oak Bay, on to the Chain Islets and then east to San Juan Island. Full length cruiser suits protect passengers from the occasional ocean spray and cool air. The trip is ideal for any individual or group seeking adventure while learning more about the natural history of the area. Group discounts are available.

A great variety of sea birds can be sighted on any of the two and three hour scheduled trips but unfortunately this does not hold true for killer whales. However, one can make an appointment to see killer whales when they are available, if you are willing to wear a pager for one to four days and can arrive at the boats within one to three hours. If you happen to be

walking around the Inner Harbour and are "people watching", another North American interest, instead of bird-watching, look for the zodiac advertising a two-hour special, guaranteeing whale sightings. Guaranteed sightings of killer whales, developed by Seacoast Expeditions, is made possible by a cooperative network of local fishermen, Gulf Island residents, researchers, tour operators and spotters.

For details on tours run by Seacoast Expeditions, phone 477-1818 or visit their new office located at the Coast Victoria Harbourside Hotel. The 1992 season runs from May 1st to September 15.

# BIRDWOOD

## BED & BREAKFAST

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10% off native plants to VNHS members

## CALENDAR

**REGULAR MEETINGS** are generally held as follows: Board of Directors meetings the first Tuesday of each month and Birders' Night the fourth Wednesday, of each month. Locations are given in the calendar listings.

**FIELD TRIPS.** Please meet at the location indicated for each trip and **BRING A LUNCH.** Be equipped for changes in weather, with hat, rain gear and boots, if necessary. **Always phone the VNHS Events Tape at 479-2054 before a trip** to get further details or find out about changes in plans. On VNHS trips, participants usually pool vehicles to reduce parking problems and costs. The Board suggests that fuel costs be shared with the driver.

## MAY EVENTS

**Saturday, May 2**  
**Flowers of the Oak Bay Islands.** A trip out to the Islands at peak of spring bloom. Sponsored by the Western Institute for Global Studies (WIGS). Leader: Marilyn Lambert. Cost: \$40.00, lunch included. Contact Michael Shepard (388-4227). A second trip occurs on May 9.

**Saturday, May 2**  
**Birding in the Cowichan Valley.** Meet David Alcroft (743-3487) at 9:00 a.m. at the Aitken and Fraser Store in Shawnigan Lake, junction of Shawnigan Lake Road and Shawnigan-Mill Bay Road.

**Sunday, May 3**  
**Cowichan Estuary Birding Trip.** A great outing for the beginning birder. Join David Pearce for an easy walk to learn to identify shore birds, waterfowl, sparrows, swallows and more. Purple martins should be back and, hopefully, the osprey will be at their nest. Meet at Helmcken Park'N'Ride, 7:30 a.m., or at Cowichan Bay at 8:15 a.m.

**Sunday, May 3**  
**Seawatch at Clover Point.** The Victoria Natural History Society (VNHS) and the Western Institute of Global Studies (WIGS) work on seabird migration continues. If you can help for an hour or two, call Michael Shepard at 388-4227 or Mary-Anne Montgomery at 380-7152.

**Sunday, May 3**  
**Spring Shorebird Migration Watch.** WIGS is looking for help to boat over to Discovery Island flats to do shorebird counts. There are also trips on the 10th and 13th of May. Cost: \$15.00 per trip. Contact Michael Shepard (388-4227).

**Tuesday, May 5**  
**Board of Directors Meeting.** 7:30 p.m., Clifford Carl Reading Room, Cunningham Building, University of Victoria.

Final meeting before the summer break. Meetings resume in September.

**Saturday, May 9**  
**Second Annual Spring Bird Count.** Last year we found 159 species, so help us beat that record. The existing Christmas Bird Count areas will be used with the same leaders and participants. Official count time is midnight to noon, but you will likely start at dawn. If you would like to participate, contact David Pearce (477-2664). Barbecue for participants and non-participants at Goldstream Park barbeque pits, 5:00 p.m. Bring your own dinner.

**Saturday, May 16**  
**Butterfly Counts.** WIGS is conducting butterfly counts several times this summer. Today is the first. If interested, call Michael Shepard (388-4227) for more details.

**Saturday, May 23**  
**Birding at Mount Tolmie.** Meet 8:00 a.m. at the top parking lot. This spot is known for accidental migrants and tanagers. Come spend a morning looking for both.

## JUNE EVENTS

**Saturday, June 6**  
**Birding at Witty's Lagoon.** Meet 8:00 a.m. at the Lagoon parking lot. Spend the morning exploring the mud flats with David Allinson (478-0457).

**Saturday, June 6**  
**Cowichan River Footpath.** Meet at Helmcken Park'N'Ride at 8:00 a.m. or at the shopping centre before the bridge, on the south side of Duncan, at 9:00 a.m. Join Dannie Carsen on a birding, aquatic biology and botany hike along the riverside trail. The walk lasts three hours, not including lunch, and is suitable for children who are good walkers. Bring hiking boots, water and lunch.

**Sunday, June 7**  
**Clover Point Seawatch.** See Sunday, May 3 for details.

**Sunday, June 14**  
**Birding by ear ... and sight.** Meet at 6:30 a.m. at Layritz Park off Glyn Road (which is off Wilkinson Road). Frustrated sometimes because you can hear a bird but not see it? Join Hank Vander Pol (658-1924) on this three to four hour hike which will take you through a variety of habitats and focus on honing your listening skills. Trip will take us through Layritz Park, Broadcast Hill and Quick's Bottom. Bring a snack and drink.

**Saturday, June 27**  
**Hike Gowland Range.** Meet at Helmcken Park'N'Ride at 8:00 a.m. David Allinson (478-0457) will lead a hike into this great area. You never know what will turn up. It can be very dry and hot here in June. Bring good walking shoes, food and water.

## BULLETIN BOARD

**For Sale**  
National Geographic Field Guide to Birds, Naturalist Guide to the Victoria Region & Victoria Area Bird Checklists for sale. Contacting Lyndis Davis at 477-9952.

**Volunteers**  
The Martindale Survey is being extended and volunteers are needed for surveys on Saturday mornings 8:00 a.m. to 11:00 a.m. Contact Darren Copley (479-9879) or Eric Walters (385-0927).

**Hawk Sighting Reports Wanted**  
Spring is the time when a huge movement of raptors occurs near Cape Flattery, Washington. Keep a watch out wherever you are this spring, and please report your sightings of any flocks to Michael Shepard (388-4227).

**Slide Photographers**  
The 1992 program is continuing. Meetings incorporate slide viewing, speakers, educational programs, field trips and member participation. Club meetings first and third Tuesdays of each month, 8:00 pm at Windsor Park Pavilion, Oak Bay. Colour Film Study Group. 385-1640. For further information please contact: W. Wayne Maloff, President, Greater Victoria Colour Film Study Group - 385-1640.



Publication Committee at work: Connie Hawley, Lyndis Davis, Tom Gillespie, Nonie Embleton.

## 1992 Brant Festival

The 1992 Brant Festival at Parksville and Qualicum was held just as we were going to press. The event was very well organized with many activities for both the casual and serious naturalist. One of the activities was the Big Day birding competition, which was held for the first time this year. Top honours for the most species (106) went to "The Authors" - Wayne Campbell, Neil Dawe, John Cooper and Mike McNall. Second place, with 96 species, was shared between the Wildlife Branch Team of Andrew Har-

## Volunteer Warden Opportunity— Mitlenatch Island

**B.C. PARKS** is looking for knowledgeable individuals to act as volunteer wardens at Mitlenatch Island Provincial Park. This is a challenging opportunity in a unique environment. B.C. Parks will provide transportation to the island, accommodation in the "naturalists cabin", radio communication, some camp equipment and a training session on the duties and expectations of this interesting position. Volunteers provide their own food, bedding, and personal needs.

Wardens are expected to spend a minimum of one week on Mitlenatch during the period of late June until early September.

Mitlenatch Island is a 35-hectare sea bird nesting island with a diverse variety of interesting plant species. It is located in northern Georgia Strait 21 kilometres south-east of Campbell River.

For further information on this position please contact Martin Dueck, Zone Manager, Miracle Beach Provincial Park, R.R. #1, Black Creek, B.C., V0R 1C0; Telephone 337-5121.

 **The Victoria  
NATURALIST**

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Common Moonwort,  
*Botrychium Lunaria*.  
(Photo: Art Guppy)