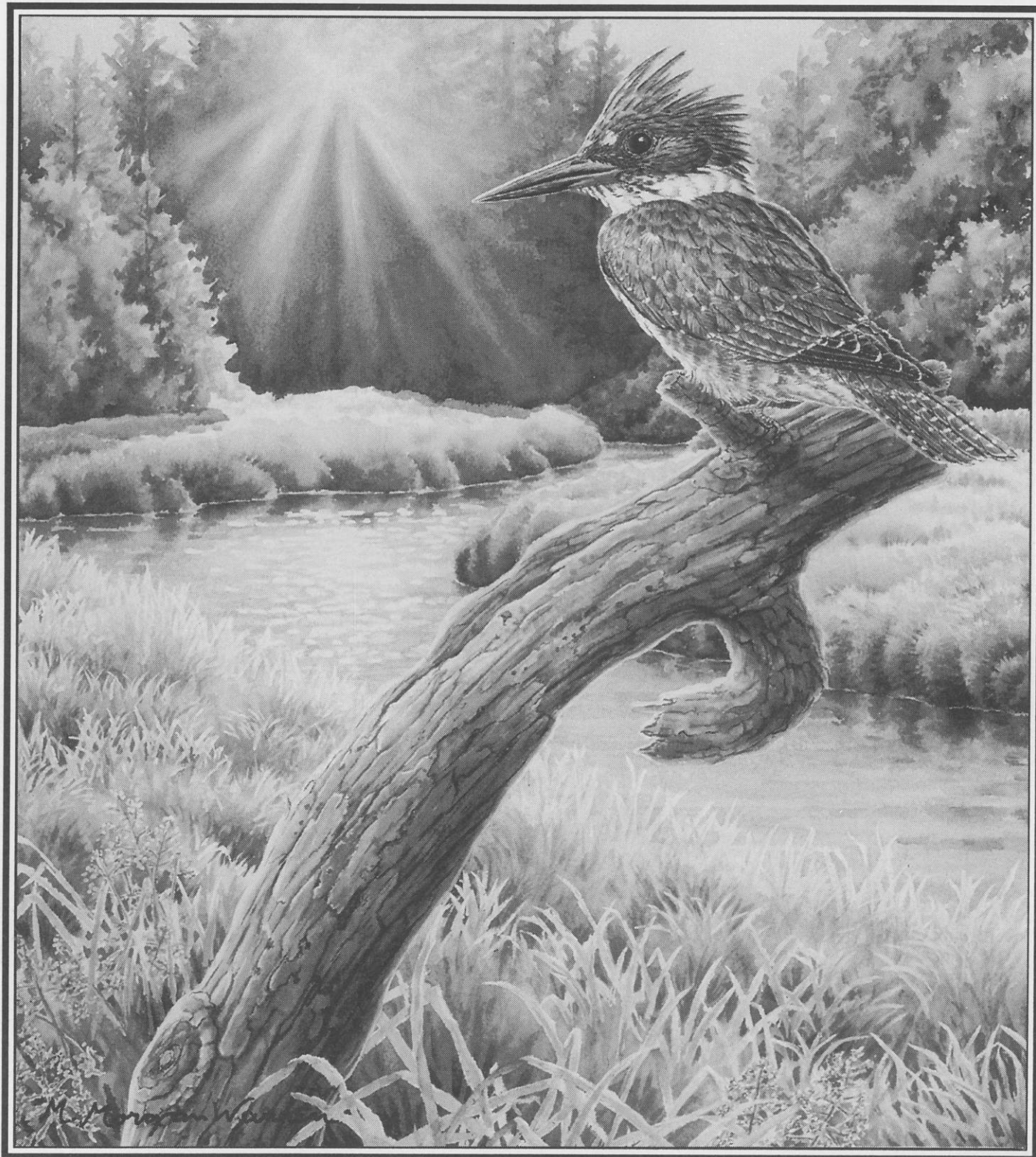


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OUR COVER

This month's cover is titled "Fulford Afternoon," a water colour and gouache painting of a female Belted Kingfisher by Sidney artist M. Morgan Warren.

"Of all the recent prints I have done, the kingfisher best represents the evolution in the backgrounds I now paint. Sun's rays slanting through trees and light on the water are a few of the technical problems I dealt with in this image," says Warren.

"Kingfishers are somewhat difficult to paint as they have a ragged double crest which makes them appear jaunty and a little punk. I sketched many of these birds before I was happy that I had captured their character."

The 17" x 22" piece is available as a limited edition, fine art print (\$150.00).

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Brant Fest 94 Big Day – Bigger and Better Than Ever

Competitors, organisers and sponsors agreed: Brant Festival 94's Big Day Birding Competition just keeps getting bigger and better. Birders from around B.C., with one migrating from as far as Washington State, turned out April 9 for the annual event in which teams scour the Parksville-Qualicum area vying to see or hear the most species of birds in a ten-hour period.

"Every year it gets better," Victoria Times-Colonist birding columnist Bruce Whittington wrote in his review of the Festival's third Big Day Birding Competition.

Whittington, who also operates Victoria's *The Field Naturalist*, received a special award for his contributions to birding and the Brant Festival. He joined 98 other birders, up from 61 last year, to compete in what's fast becoming one of the most popular and fun-filled Big Days in British Columbia.

As one participant observed at the post-count gathering, held at the Bayside Inn Resort, "I joined this Big Day because of the final rule: All participants must

have a good time." And a good time seems to have been had by all.

The *Get A Lifers* from Victoria captured the 1994 Big Day Trophy. They managed to record an astounding 114 species, handily breaking the old mark of 106 set in 1992 by the Authors of *The Birds of British Columbia*. The Authors didn't win that year because the judges figured them to be a bunch of ringers. However, they managed to hang onto the record for two years anyway.

This year a combined total of 145 species were recorded, with six teams exceeding 100 species on their tally sheets. Two new species were sighted during the competition: an Iceland Gull, which won Bird of the Day, and a Swamp Sparrow. Other rare sightings for the area included a Snowy Plover, Black-legged Kittiwake, American Bittern, Glaucous Gull, Surf-bird and Harris' Sparrow.

Big Day judges Jude Grass and Bill Merilees had their hands full determining the winners in the various categories. Prize winning teams included:

Most species –

Get a Lifers: Darren Copley, Jason Jones, Louis Haviland, David Allinson.

Bird of the Day –

The Biocrats: Mike Chutter, Syd Cannings, Andy and Brad Steward, Tom Ethier.

First to Register –

Old Country Twitchers: David Stirling, Barbara Begg, Ken Morgan, Marilyn Lambert.

Best Raptor List –

Wild Goosers: Dannie Carsen, Tom Gillespie, David Pearce, Bev Glover, Bryan Gates.

Best Story of the Day –

Wild Birders: Dick Beard, Al Grass, George Clulow, Robin Owen.

Bausch and Lomb, who has supported the Big Day since its inception, provided the Big Day's special draw prize. When the Elite 8x24 binoculars valued at \$1600.00 were won by Mike Chutter, the loquacious biologist from B.C.'s Wildlife Branch was left speechless! Festival organisers thank everyone who helped make the Big Day such a success.

One goal is to have a competitive but mostly fun event where birders know their observations will be taken seriously, given that the rules are followed. The Big Day's other goal is to encourage birding enthusiasts to come out, share and enjoy the diversity of wildlife on Vancouver Island's southeast coast. There were a number of signs this year that these goals are being met. Top notch birders are coming to the Big Day and making this a family event. This year there were five participants age 13 or younger.

Perhaps the Big Day spirit was best exemplified by the Diakow Family Team, who first spotted a Black-legged Kittiwake. They told other teams they met throughout the day about their find and where to see it. A wonderful example of sportsmanship. And what a way to teach youngsters that when you have a good time with others sharing the excitement of simply counting birds and getting close to the natural world, that everyone's a winner.

Brant Festival 95's Big Day will be held on April 8, 1995. For further information contact the Brant Festival Office at (604) 248-4117.

Camas Day in Beacon Hill Park

By Peggy Price

April 24, chosen for Camas Day 1994, dawned cloudy and cool but it did not dampen the spirits of those dedicated naturalists and friends who took advantage of this opportunity to learn more of natural wonders to be found within Victoria's favourite park. The Camas was in good form for its special day, and many meadows were carpeted with blue.

A wide variety of guided tours were offered. There were birding, wildflower and butterfly walks, family activity walks, Garry Oak meadow and woodland restoration walks, as well as a park native history walk. It was hard to choose from such a wide selection. Meeting at the summit, visitors studied the informative displays as they waited for the walks to assemble. A display by the Sencofen Language Instructors of the Lau, Welnew Tribal School of the Saanich Nation showed how the early people used the Camas as a valued food source. Other displays by the Friends of Beacon Hill Park and the Victoria Natural History Society were studied with interest.

I joined the 10:00 a.m. Birding Walk led by Jeff Gaskins. We were guided through the woods east of the lookout, around the waterfront to Horseshoe Bay. We seemed to hear more birds than we actually saw. The voices of Bushtits and Bewick's Wrens were identified. Then a Rufous-sided Towhee popped into view and we spotted a Song Sparrow singing in shrubs overlooking the beach. Here too an Orange-crowned Warbler



Blue Camas (Photo: Peggy Price).

was encouraged to reveal himself. We learned that, in spring, a little of the orange crown is revealed. Generally, however, only a small yellowish green bird is seen.

Closer to the water, gulls soared on the ocean winds. We learned there are two types of glaucous gulls – our common



Tracking the elusive White Camus (Photo: Peggy Price).



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Volunteers are an important part of Camus Day (Photo: Peggy Price).

Glaucous-winged Gull, of which we have many, and the Glaucous Gull, which roams up the northern coast into the Arctic. A California Gull was also spotted.

At 11:00 a.m., Leon Pavlick, botanist with the Royal British Columbia Museum, led the Garry Oak Meadow Restoration walk. Prior to beginning our walk, Leon told us why the Garry Oak meadows have developed in our area. "It is to do with the climate..." he said, pointing to the Olympic Mountains. "Most of our storm systems come in from the south or the southwest, and these have to cross the Olympic Mountains. As they do, they dump most of their rain on the other side, where they get about 160 inches of rain a year. After it rains there, the air masses come this way, and as they descend they warm, and they don't drop rain when they warm. This shows up in a little town on the Olympic Peninsula called Sequim, where they get 10 inches of rain a year. From 160 inches to 10. Then at Oak Bay it rises to 27, increasing the farther away it gets from the mountains. This is called a rain shadow and the farther you get from the rain shadow of the mountains, the heavier the rainfall. Because we only get about 27 inches of rain here in Victoria, we have the Garry Oak forests."

Significant also to the Garry Oak forests is the summer high pressure ridge which builds off the coast. During the two summer months from June 15 to August 15, this part of the island gets less rain than any other place in Canada due to this high pressure ridge. Other factors come into play as well, such as the shape of the landscape. Shallow soils on slopes provide the drainage which allows meadow formation.

Leon said that because the oaks in Beacon Hill are growing on slopes with deep soil, this points to human intervention - a human intervention model of an ecosystem. HIM for short. In order to keep the gender balance, Leon added, "We can also call it a humungous ecological restoration, or a HER!" He went on to tell us that because of the extensive use of Camas bulbs as a staple food, the Indians tried to preserve their Camas meadows. Periodically they would burn off whatever was growing in these areas, such as young Douglas Fir and brush. This was done regularly so that there was no build up of brush and, as a result, the fire did not damage the Garry Oak forests. This action encouraged the development and spread of the flower meadows.

Apparently this has been tried in Washington state as a method of restoration. They had some success but also some failures. In some areas the brush was so thick that it actually

burned down some of the Garry Oak trees. The early Indians wisely did not allow the brush to accumulate.

A member of the group asked if burning was considered as a restoration method at present to control the broom and other brush in the meadows. Leon felt that we could not emulate the HIM model but perhaps would try mowing. If this is done, it would be necessary to wait until the life cycle of the plants was over - they would have to finish flowering, make their seeds, and cast their seeds off. He was still not sure that mowing would be successful - "When there is a fire, the nutrients are returned to the soil but mowings would need time to rot and return the food to the soil. If you raked them you would deplete the soil of the nutrients and that would be a bad scene. It would be necessary to wait until the middle of July or later before mowing" he continued, "and we would have to leave the mulch in place. This would still be experimental but it might simulate the nutritional effect of a fire."

More Camas beds are planned as part of the restoration and also the planting of seedling oaks. Garry Oaks dry out the soil with their root systems and discourage the growth of Douglas Fir which prefers a little moisture. The roots of the oaks also bring up nutrients from down below and encourage the growth of many native plants such as the Camas, White Erythroniums and Shooting Stars.

Leon then led us to some rare plants which are barely surviving in the park. The first was the Deltoid Balsam Root, which is of the sunflower family. This is a different plant from those so prolific in the dry interior, which is the Arrow Leaf Balsam Root. The flowers are similar. In Canada, the Deltoid Balsam only grows from Victoria up to around Courtenay and can be considered a rare plant. However, the seeds germinate well and some plants are now growing from seeds in the park greenhouse in an effort to increase the plants in the meadows. Another rare plant is the Lomatium Dissectum, or "chocolate tips." Two presently exist within the park. It is a striking plant that has never been very common. The Friends of Beacon Hill Park may be attempting to germinate some of the seeds, if permission can be obtained from City Hall to collect them. Its present range is from Vancouver Island to both sides of the Southern Cascades.

In the afternoon, I joined the Woodland Restoration Walk, led by Agnes Lynn from the Friends of Beacon Hill Park and the Cadboro Bay Girl Guides. The Girl Guides have been working on a restoration project in an area of the Southeast Woods. The blue of the Guide uniform can also be considered



Cadboro Bay Girl Guides: restoration project volunteers..(Photo: Peggy Price)

a symbol of the blue Camas. The purpose of the project was to get the girls involved in activities they would enjoy, while learning about the natural areas of the park. They have discovered a lot about the native plants, about conservation, and about dealing with government officials. It was necessary to get the City Council's permission to work on this restoration project.

The Southeast Woods was once a very quiet place for birds and flowers but then someone decided that it should be cleaned out so that it would be tidy. Unfortunately, doing this would destroy much of the natural plant growth and bird habitat. The Friends of Beacon Hill and the Guides are trying to send a message that tidy is not really the way to go, that it does not take much work to keep it natural and make it interesting - and to give the native plants and birds a chance.

As we wandered to the Southeast Woods, the girls took turns in explaining some interesting features of the natural history of the area. The row of pines which are not native were discussed - apparently the wild flowers do not like to grow beneath these trees due to acidic soil conditions.

The White Camas was discussed. The Indians knew the Death Camas was poison and so removed all the bulbs of the white flowers. Unfortunately, there is a type of white Camas, shaped like the blue, which is not poisonous, and these too were removed and so there are few in the park. However, we did spot several pure white ones amongst the blue.

Other plants discovered during our hike were Chocolate Lilies, white Erythronium lilies, a Prairie Violet, Shooting Stars, Potentilla (Cinquefoil), Wild Strawberry, False Lily of the Valley and Ocean Spray. In the woods the Fairy Bells have come back after giving them room to grow. There are about 50



Leon Pavlick, botanist for the Royal B.C. Museum, discussing the two types of Camus (Photo: Peggy Price).

plants established now. Trilliums were blooming in the shady areas, as was the Tall Fringe Cup. Miner's Lettuce was discovered, a tasty spring salad green for early pioneers.

Efforts are being made to establish nurse logs, those decaying fallen trees which can be found in the deep forest, with new life



A walk in the Southeast Woods (Photo: Peggy Price).

sprouting from the disintegration of the old. A log was brought in for this purpose but has not yet rotted away. In times past any fallen trees were cleared up and taken away to keep the park tidy. Unfortunately, this clean up frustrated nature's chance to start its cycle again, as the needed nutrients were not available. Some new little trees were being started - the Douglas Fir and Grand Fir are thriving, along with some Garry Oak seedlings which were obtained from the Garry Oak Society.

It was heartening to see the enthusiasm of these young people, in their efforts to restore some of the wild places in Beacon Hill Park. They understand that such wild places are rare indeed within the city. They are continuing their project so that people will not have to go a long distance to enjoy these natural areas. Such special places can be easily visited by those who are not able to get out of town and yet will provide them with the tranquillity and healing of the natural world.

Camas Day '94 was again a day packed with interesting information, which in turn, added to our appreciation of the visual delights to be found in Beacon Hill Park.

Peggy Price is a member of the Victoria Natural History Society and a regular and welcomed contributor to the Victoria Naturalist.

Purple Loosestrife's Invasion – What You Should Do About It

By Cory Lindgren

Purple Loosestrife, or *Lythrum salicaria*, is an herbaceous perennial of European origin that has become an invasive weed species since it was introduced into North America in the mid-19th century. Unfortunately, the natural predators and diseases that evolved to control loosestrife in Europe did not follow the plant to this continent. In addition, no North American bird, fish or mammal depends upon loosestrife for food.

Its competitive nature and prolific seed production (a mature plant can produce over two million seeds annually) has resulted in Purple Loosestrife displacing native plant communities across North America and reducing wildlife populations. Control methods such as burning, cutting, flooding or discing have not been effective. While the plant was originally labelled a wetland invader, it is now migrating on to agricultural lands such as corn fields.

In the mid-1900s, horticulturalists developed cultivated varieties of Purple Loosestrife for use as a garden and landscape ornamental. *Lythrum*'s characteristic magenta spikes, hardiness and long blooming period were embraced by gardeners, and loosestrife cultivars became the best selling perennial for many seed companies.

Until the 1990s it was assumed that cultivated *Lythrum* did not produce seed and was safe for garden use. Now, however, researchers at both the University of Manitoba and the University of Minnesota have found indications that all loosestrife cultivars (horticultural or garden varieties) are capable of producing fertile seed. Field research done by the author and Ducks Unlimited has shown that the cultivar 'Morden Pink' can produce seed within four months of being exposed to wild *Lythrum* populations.

Although it has been proved that garden cultivars produce fertile seed which can contribute to the spread of Purple Loosestrife, gardeners are often sceptical about the plant's potential danger. Many say that they have had *Lythrum* in their garden for years and it has yet to spread. However, cultivated varieties could be contributing to the proliferation of loosestrife in several ways. For example, the cultivar's pollen could reach other plants via honeybees, which have a home range of approximately 2.5 kilometres. Or the plant may be producing seeds which are carried off with storm water runoff into rivers and marshes. The seeds could even be transported on the bottom of running shoes or car tires to new locations.

Gardeners are encouraged to destroy any Purple Loosestrife they might have by digging it up and drying it out for a few days before burning it. Local naturalist groups can help protect wildlife habitats against this showy invader, too. In habitats where there are fewer than 100 specimens, they can start annual projects to keep loosestrife under control by cutting or hand-digging the plants. To control the population through cutting, you must remove the flowering spikes in June or July before they produce any seed. If time permits, cut the stem off at ground level to suppress growth. Plant material must be carefully collected, dried and burned, and the process should be repeated annually until more effective management methods are available.

When digging out loosestrife use a shovel or pitch fork for mature plants; younger ones can be pulled out by hand.) Be sure to remove all plant material (roots and above-ground portions) from the area, as fragments may sprout new growth. Loosestrife seeds can remain dormant five or more years before sprouting.

Pojar and MacKinnon in their newly published book *Plants of Coastal British Columbia* (B.C. Ministry of Forests and Lone Pine Publishing, 1994) give the following description of Purple Loosestrife: Leaves - mostly opposite, some in 3s or alternate, lance-shaped, pointed, hairy, more or less heart-shaped at the base, 3-10 cm long. Flowers - reddish-purple, showy; sepals 5, fused basally into a tube; petals mostly 5, somewhat crinkly, 7-10 mm long.

For more information, contact the B.C. Ministry of Environment, Lands and Parks Conservation Data Centre at 387-9717 or the Manitoba Purple Loosestrife Project at (204) 467-3269.

Cory Lindgren is provincial co-ordinator of the Manitoba Purple Loosestrife Committee. This article is reprinted with the permission of the Canadian Nature Federation's Nature Alert.



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Cowbird Threat

By Rich Stallcup

For about ten years now, birders in eastern North America have been discouraged by obvious, on-going declines in migratory songbirds.

In places where, not long ago, wave after wave of migrant warblers, vireos, thrushes and flycatchers passed in the hundreds or thousands, today there are only irregular trickles of birds in ones or tens; there are fewer every year.

In the spring of 1992, ornithologists who for years have been radar-tracking songbird migration over the Gulf of Mexico stared at empty screens day after day, night after night. In the late fall migration of 1992, our colleagues in southern California sadly spoke of "virtually no migrants," and said, "not only were there few rarities, there were no groups of regular species."

Popular belief has it that these abrupt declines result from large-scale disturbances like the clear-cutting of essential tropical rainforest, fragmentation of domestic woodland or global warming.

But what if our native songbirds were disappearing simply because something right under our noses is causing them near-total reproductive failure? What if we could do something right now (the only chance, in fact) to return from another *Silent Spring*?

There is such an option. The culprit this time is not pesticides, as it was when Rachel Carson wrote *Silent Spring*, but a North American bird species whose range and population have expanded explosively, thanks to massive habitat changes that humans have made to this continent during the last century. The bird is the Brown-headed Cowbird.

Cowbirds have an unusual, very successful reproductive strategy called "brood-parasitism," that enables them to

From Birdseed To Bateman

Don't miss this unique fund-raising event coming in September at the Swan Lake Christmas Hill Nature Sanctuary. The event will consist of a show and silent auction of a wide range of natural history art, goods and services - in short, everything from birdseed to Bateman. The articles will be on display and bids will be accepted at the Nature House from Friday, September 16th to Sunday, September 25th. Watch for announcements of extended Nature House hours during that week.

The event is planned in a spirit of co-operation with the Victoria Natural History Society and is scheduled to occur on years alternating with the Goldstream Art Auction.

Proceeds from all sales will support the Nature Sanctuary's education programs. The affair will include refreshments, raffles and door prizes and some family programs and activities. If you are interested in helping out with any aspect of the event, please contact our Coordinator of Volunteer Services, Joan Cowley, at 479-0211.

propagate their species without the fuss and bother of raising young. Copulation is like that of other perching birds but no territory is established and no nest is built. Egg-carrying females simply locate the nest of some other bird and "dump" an egg into it. The cowbird may also "toss" the eggs or small young of the foster species out of the nest.

Cowbird nestlings are usually bigger than their step-siblings and are always louder—insatiably squealing for and usually getting, all nourishment brought in by the parent birds. The young of smaller host species are squeezed out and none usually fledge.

Cowbirds are known to parasitize virtually every cup-nesting species. If they are allowed to magnify their presence they may well eliminate nearly all of our best known songbirds within a few years. What can be done? This is a real threat.

We need to wake up and reverse this huge wildlife disaster and we can justify intercepting the cowbird's take-over to re-balance avian diversity.

Rich Stallcup is a biologist/writer who lives at Point Reyes, California. He is a founder of Point Reyes Bird Observatory and has authored many publications, most recently, Ocean Birds of the Nearshore Pacific. This editorial was first appeared in Nature Niagara News, (March-April, 1994) bulletin of Niagara Falls Nature Club.

1994 Spring Bird Count

Introduction by David Pearce

The fourth annual Spring Bird Count took place on May 7 with 102 participants. The day started off with a brilliant dawn and an early dawn chorus at 5:00 a.m. It rapidly grew warmer to reach a high of 27 degrees and much of the bird song had diminished by 8:00 a.m. This is the earliest we have held the spring count so a few of our winter visitors were still here while some of the spring migrants had yet to return. As a result we recorded the second highest total of 165 species and a record 28,511 birds, 31 more than last year's record and with 34 fewer observers. We have now recorded a total of 193 species since the Spring Bird Count started four years ago.

Spring arrived early this year, due to a very mild winter. Highlights of this year's count included a Red-naped Sapsucker near the Munn Road powerline; a Vesper Sparrow at the top of Mt. Doug; a Hermit Warbler on Colquitz Avenue (seen the following day); three Ruddy Ducks on Viaduct Flats; three Snow geese at Esquimalt Lagoon; three Caspian Terns; a record 21 Purple Martins in Victoria and Esquimalt harbours; and a Northern Oriole on Martindale Road.

Other interesting counts were 28 Wood Ducks; 51 Turkey Vultures; one American Kestrel; 10 Ruddy Turnstones; and five Barred Owls.

The post count gathering was held at the Goldstream Nature Centre but few people were able to make it there. Next year the Spring Bird Count will be held on May 13, a return to the second Saturday in May. This year's intended date of May 14 had to be changed due the British Columbia Field Ornithologists annual conference held on that date.

1994 Spring Bird Count

- | | | |
|--|------------------------------------|------------------------------|
| 1. BUTCHART GARDENS/NORTHERN HIGHLANDS | 5. LANGFORD LAKE | 9. PORTAGE INLET - THE GORGE |
| 2. CENTRAL HIGHLANDS | 6. ALBERT HEAD - TRIANGLE MOUNTAIN | 10. VICTORIA HARBOUR |
| 3. GOLDSTREAM | 7. ESQUIMALT LAGOON - MILL HILL | 11. BEACON HILL |
| 4. THETIS LAKE/HASTINGS FLATS | 8. ESQUIMALT HABOUR | 12. OAK BAY |

SPECIES	1	2	3	4	5	6	7	8	9	10	11	12
Red-throated Loon							3					
Pacific Loon						2		1			8	
Common Loon			1		1	4		4			2	
Pied-billed Grebe					2							
Red-necked Grebe						1				1	1	
Western Grebe							1	9				
Double-crested Cormorant	1		10	16	5	14	21	93	16	132	85	6
Brandt's Cormorant								2			163	
Pelagic Cormorant						3	10	13		54	15	50
Great Blue Heron	8	2	5	7		9	20	28	18	13	22	4
Green Heron									1			
Trumpeter Swan				1								
Mute Swan						2	7		1		2	
Snow Goose							3					
Brant							1	1		3	3	
Canada Goose	80	15	3	72	30	14	12	37	21	10	29	1
Wood Duck		3			2							
Green-winged Teal	3			3		4					2	
Mallard	37	22	3	31	23	32	30	37		6	180	1
Northern Pintail												
Blue-winged Teal								1				
Cinnamon Teal						1						
Northern Shoveler						1	2					
Gadwall												
American Wigeon				2		4	2				11	
Ring-necked Duck												
Greater Scaup							10					
Lesser Scaup												
Harlequin Duck						2	2	7	6		19	4
Oldsquaw												
Surf Scoter						2	1	3		3	15	7
White-winged Scoter							8	2			2	2
Bufflehead						2	9	1	5		7	
Hooded Merganser	3	7		7		4	4	2	5			
Common Merganser	4		8									
Red-breasted Merganser						6	26			18	9	
Ruddy Duck												
Turkey Vulture	12	8		4	6	1				1		
Osprey												
Bald Eagle	9		3			7	2	3			2	1
Sharp-shinned Hawk		1			2							
Cooper's Hawk				1			1	2	2		2	
Red-tailed Hawk	9	6		4	2	3	2		1			

1994 Spring Bird Count

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|---------------------------------|-----------------------------------|
| 13. UNIVERSITY - CADBORO BAY | 18. ELK LAKE - CORDOVA BAY |
| 14. 10 MILE POINT | 19. PROSPECT LAKE - QUICKS BOTTOM |
| 15. GORDON HEAD - MOUNT DOUGLAS | 20. MARTINDALE - BEAR HILL |
| 16. SWAN LAKE - CEDAR HILL | 21 - 23. OAK BAY ISLANDS |
| 17. BLENKINSOP - PANAMA FLATS | |

SPECIES	13	14	15	16	17	18	19	20	21	TOTAL	COMMENTS
Red-throated Loon										3	all time high (previous high 1 in 1991)
Pacific Loon		2	1			1		5	1	21	
Common Loon	2	6	3					4	1	28	
Pied-billed Grebe							5			7	all time high (previous high 5 in 1991)
Red-necked Grebe									2	5	
Western Grebe				1						11	all time high (previous high 8 in 1991)
Double-crested Cormorant	12	16	8	13	2	6	1	9	700	1,166	all time high (previous high 875 in 1993)
Brandt's Cormorant		6							42	213	all time high (previous high 69 in 1991)
Pelagic Cormorant	1	8	2			1		5	150	312	
Great Blue Heron	3	2		7	6	2	4	15	6	181	all time high (previous high 128 in 1991)
Green Heron										1	
Trumpeter Swan										1	
Mute Swan										12	
Snow Goose										3	new species
Brant										8	all time low (previous low 13)
Canada Goose	5			9	23	51	60	99	30	601	all time high (previous high 595 in 1993)
Wood Duck						7	16			28	all time high (previous high 27 in 1991)
Green-winged Teal							4			16	
Mallard	48	7	3	77	2	34	36	62	6	677	
Northern Pintail							2			2	all time low (previous low 3)
Blue-winged Teal							1		1	3	
Cinnamon Teal							2	1	2	6	
Northern Shoveler						4				7	
Gadwall							1	2		3	
American Wigeon										26	
Ring-necked Duck										5	
Greater Scaup										10	
Lesser Scaup								1		1	all time low (previous low 2)
Harlequin Duck	2	4							23	69	
Oldsquaw										1	all time low (previous low 4)
Surf Scoter										180	all time low (previous low 187)
White-winged Scoter										36	
Bufflehead										59	
Hooded Merganser										37	all time high (previous high 32 in 1993)
Common Merganser										12	all time low (previous low 14)
Red-breasted Merganser	1									99	
Ruddy Duck										2	all time high (previous high 1 in 1991)
Turkey Vulture										51	all time high (previous high 41 in 1993)
Osprey										3	
Bald Eagle	6		2	1						50	
Sharp-shinned Hawk										3	
Cooper's Hawk	2	1			1	1			3	16	
Red-tailed Hawk				1		2	1	2	6	1	40

1994 Spring Bird Count

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|--|------------------------------------|------------------------------|
| 1. BUTCHART GARDENS/NORTHERN HIGHLANDS | 5. LANGFORD LAKE | 9. PORTAGE INLET - THE GORGE |
| 2. CENTRAL HIGHLANDS | 6. ALBERT HEAD - TRIANGLE MOUNTAIN | 10. VICTORIA HARBOUR |
| 3. GOLDSTREAM | 7. ESQUIMALT LAGOON - MILL HILL | 11. BEACON HILL |
| 4. THETIS LAKE/HASTINGS FLATS | 8. ESQUIMALT HABOUR | 12. OAK BAY |

SPECIES	1	2	3	4	5	6	7	8	9	10	11	12
American Kestrel												
Merlin				1								
Ring-necked Pheasant	7	1		13			1	5				2
Blue Grouse			1	2		3						
Ruffed Grouse			2									
California Quail	29	31	8	18	48	73	1	3	12	9	7	5
Virginia Rail		1				1						
Sora												
American Coot												
Black-bellied Plover						2						
Semipalmated Plover						1						
Killdeer	8	10	3	3		2	5	2	1	3		4
Black Oystercatcher						2		9		5	9	9
Greater Yellowlegs						2	1					
Lesser Yellowlegs												
Wandering Tattler												
Spotted Sandpiper					1			2				
Whimbrel						3					1	5
Ruddy Turnstone												
Black Turnstone						10					1	
Surfbird												
Western Sandpiper				2		400	21		107	3		
Least Sandpiper			4	11		150	23				3	
Baird's Sandpiper						4						
Dunlin						25	3					
Short-billed Dowitcher						7		45				
Long-billed Dowitcher												
Common Snipe						1						
Mew Gull						12	1				4	
California Gull						4					2	
Thayer's Gull			1									
Western Gull										1		
Glacous-winged Gull	125	13	5	8	29	75	71	177	33	115	490	125
Caspian Tern								1				
Common Murre						1				1	12	
Pigeon Guillemot						3		3		2	61	10
Marbled Murrelet						6	3	8		2	2	
Rhinoceros Auklet						3	2	5		83	94	6
Rock Dove	6			1		1	25	45	8	14	155	19
Band-tailed Pigeon	9	1		60	4	48	1				2	1
Mourning Dove												
Western Screech-Owl	1											
Great Horned Owl		2				1						

1994 Spring Bird Count

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|---------------------------------|-----------------------------------|
| 13. UNIVERSITY - CADBORO BAY | 18. ELK LAKE - CORDOVA BAY |
| 14. 10 MILE POINT | 19. PROSPECT LAKE - QUICKS BOTTOM |
| 15. GORDON HEAD - MOUNT DOUGLAS | 20. MARTINDALE - BEAR HILL |
| 16. SWAN LAKE - CEDAR HILL | 21 - 23. OAK BAY ISLANDS |
| 17. BLENKINSOP - PANAMA FLATS | |

SPECIES	13	14	15	16	17	18	19	20	21	TOTAL	COMMENTS
American Kestrel					1					1	
Merlin										1	
Ring-necked Pheasant						1	1	11	4	46	
Blue Grouse										6	
Ruffed Grouse										2	all time low (previous low 3)
California Quail	15	13	10		26	24	46	41		419	all time high (previous high 389 in 1992)
Virginia Rail							3	3		8	all time high (previous high 4 in 1993)
Sora					1	1	1			3	
American Coot							2			2	
Black-bellied Plover									9	11	
Semipalmated Plover										1	all time low (previous low 3)
Killdeer	1			2	15	5	10	21		95	all time high (previous high 83 in 1993)
Black Oystercatcher									10	44	all time high (previous high 27 in 1992)
Greater Yellowlegs										3	
Lesser Yellowlegs							1			1	
Wandering Tattler									1	1	
Spotted Sandpiper					1		1	1	1	7	
Whimbrel		1								11	21
Ruddy Turnstone										10	10
Black Turnstone											11
Surfbird										2	2
Western Sandpiper	8						3			33	577
Least Sandpiper							4		3	198	all time high (previous high 164 in 1991)
Baird's Sandpiper										4	4
Dunlin										3	31
Short-billed Dowitcher											52
Long-billed Dowitcher								1		1	all time low (previous low 2)
Common Snipe										1	1
Mew Gull											17
California Gull											6
Thayer's Gull											1
Western Gull											1
Glacous-winged Gull	53	66	71	110	23	60	46	56	2,500	4,251	all time low (previous low 4,762)
Caspian Tern									2	3	all time high (previous high 1 in 1993)
Common Murre										14	
Pigeon Guillemot	4	21	24					10	36	174	
Marbled Murrelet		5	7					6	4	43	all time high (previous high 42 in 1991)
Rhinoceros Auklet	1	6	1					1	12	214	all time high (previous high 81 in 1992)
Rock Dove	4	3	33						34	348	all time high (previous high 254 in 1992)
Band-tailed Pigeon	11	21					2	20	3	183	all time high (previous high 141 in 1992)
Mourning Dove									2	2	
Western Screech-Owl										1	all time low (previous low 2)
Great Horned Owl							3			6	

1994 Spring Bird Count

- 1. BUTCHART GARDENS/NORTHERN HIGHLANDS
- 2. CENTRAL HIGHLANDS
- 3. GOLDSTREAM
- 4. THETIS LAKE/HASTINGS FLATS
- 5. LANGFORD LAKE
- 6. ALBERT HEAD - TRIANGLE MOUNTAIN
- 7. ESQUIMALT LAGOON - MILL HILL
- 8. ESQUIMALT HABOUR
- 9. PORTAGE INLET - THE GORGE
- 10. VICTORIA HARBOUR
- 11. BEACON HILL
- 12. OAK BAY

SPECIES	1	2	3	4	5	6	7	8	9	10	11	12
Barred Owl	1					1						
Northern Saw-whet Owl		1										
Anna's Hummingbird					1	1						
Rufous Hummingbird	28	17	16	15	45	18	4	3	2		1	
Belted Kingfisher	7	1	1			4	2	6		1	3	
Red-breasted Sapsucker			1									
Red-naped Sapsucker		1										
Downy Woodpecker	1	1		3	2			1	1		2	
Hairy Woodpecker		1	1	1	6	1						
Northern Flicker	10	4	2	21	15	13	3	8			1	
Pileated Woodpecker	4	3	2	9	4		2	1			1	
Olive-sided Flycatcher	3	2				2						
Hammond's Flycatcher		8	7	11								
Pacific Slope Flycatcher	32	13	36	47	23	18	3	11				
Eurasian Skylark	4											
Purple Martin								16		5		
Tree Swallow	11				63	3				3	3	
Violet-green Swallow	131	69	19	114	158	140	17	95	16	30	58	15
Northern Rough-winged Swallow	1				4	4		5			2	
Bank Swallow							2					
Cliff Swallow		28		34								
Barn Swallow	35	10	2	31	33	28	9	52	2	12	14	5
Steller's Jay	2	3	3		4	2						
Northwestern Crow	135	15	10	32	95	29	16	115	36	56	207	35
Common Raven	10	6	2	12	5	2	5	2	1	1	2	
Chestnut-backed Chickadee	28	27	27	43	53	29	12	32	11		6	6
Bushtit	12	4		8	15	2	6	48	9	7	12	6
Red-breasted Nuthatch	19	22	2	37	16	11	4	10	3			
Brown Creeper	5	2	3	14		9	4		1		6	
Bewick's Wren	14	11		9	14	3	5	21	7	1	9	16
House Wren	3	15	1	24	19	13	5				1	
Winter Wren	8	3	33	8	15	2	4	11	1		1	
Marsh Wren	1											
American Dipper			4									
Golden-crowned Kinglet	4	5	9	48	6		2	6	2	1	2	
Ruby-crowned Kinglet				1	3			1				
Townsend's Solitaire							1					
Swainson's Thrush			2									
Hermit Thrush											1	
American Robin	185	99	90	182	248	150	28	104	44	66	102	10
Varied Thrush				1	1	3						
American Pipit	2											
Cedar Waxwing												

1994 Spring Bird Count

- 13. UNIVERSITY - CADBORO BAY
- 14. 10 MILE POINT
- 15. GORDON HEAD - MOUNT DOUGLAS
- 16. SWAN LAKE - CEDAR HILL
- 17. BLENKINSOP - PANAMA FLATS
- 18. ELK LAKE - CORDOVA BAY
- 19. PROSPECT LAKE - QUICKS BOTTOM
- 20. MARTINDALE - BEAR HILL
- 21 - 23. OAK BAY ISLANDS

SPECIES	13	14	15	16	17	18	19	20	21	TOTAL	COMMENTS		
Barred Owl		1				2				5	all time high (previous high 3 in 1991)		
Northern Saw-whet Owl										1			
Anna's Hummingbird	4	14				2				22	all time high (previous high 17 in 1993)		
Rufous Hummingbird		7	8		10	12	18	13	1	218	all time high (previous high 28 in 1993)		
Belted Kingfisher		1	1			6		2		35	all time high (previous high 28 in 1993)		
Red-breasted Sapsucker										1			
Red-naped Sapsucker										1	new species (x Red-breasted Spasucker)		
Downy Woodpecker	8	2	1	1		3	4	5		35			
Hairy Woodpecker				1			2			13			
Northern Flicker	4	3	2	1		2	5	4		98			
Pileated Woodpecker		1	3			2	2	4	1	39			
Olive-sided Flycatcher	1	3	5					4		20			
Hammond's Flycatcher			2				2			30	all time high (previous high 28 in 1993)		
Pacific Slope Flycatcher		3	4			9	2	42		243			
Eurasian Skylark								14		18	all time high (previous high 14 in 1993)		
Purple Martin										21	all time high (previous high 5 in 1991)		
Tree Swallow						4	26	2	26	2	143	all time high (previous high 131 in 1992)	
Violet-green Swallow	38	45	6	95	61	78	211	166	4	1,566			
Northern Rough-winged Swallow				1			2			19			
Bank Swallow										2	new species		
Cliff Swallow						2	1	27		92	all time high (previous high 63 in 1991)		
Barn Swallow	18	12	12	55	18	16	18	100	4	486			
Steller's Jay										14			
Northwestern Crow	83	45	20	95	53	74	44	104	10	1,309			
Common Raven		4	4		2		8	9		75	all time low (previous low 131)		
Chestnut-backed Chickadee	20	40	22	12	5	102	41	43		559	all time high (previous high 494 in 1993)		
Bushtit	12	12	9	51	18	8	20	9		268			
Red-breasted Nuthatch	7	3	5		4	11	33	11		198	all time high (previous high 129 in 1991)		
Brown Creeper		1	2		2	2	3	4		58			
Bewick's Wren	28	18	5	19	16	13	27	45		281	all time high (previous high 231 in 1993)		
House Wren		1	5		2	5	17	2		113	all time high (previous high 73 in 1993)		
Winter Wren		4	3		3	2	3	6		107			
Marsh Wren				1	3	3	8			16	all time low (previous low 21)		
American Dipper										4			
Golden-crowned Kinglet								10	10	6	12	123	
Ruby-crowned Kinglet									3		2	10	
Townsend's Solitaire												1	all time low (previous low 2)
Swainson's Thrush												2	
Hermit Thrush											1	2	all time low (previous low 4)
American Robin	83	100	33	128	39	295	56	282	2	2,326	all time high (previous high 2,291 in 1991)		
Varied Thrush												5	all time low (previous low 9)
American Pipit			2		75	2		38		119			
Cedar Waxwing				1						1			all time low (previous low 11)

1994 Spring Bird Count

1994 VICTORIA SPRING BIRD COUNT

- 1. BUTCHART GARDENS/NORTHERN HIGHLANDS
- 2. CENTRAL HIGHLANDS
- 3. GOLDSTREAM
- 4. THETIS LAKE/HASTINGS FLATS
- 5. LANGFORD LAKE
- 6. ALBERT HEAD - TRIANGLE MOUNTAIN
- 7. ESQUIMALT LAGOON - MILL HILL
- 8. ESQUIMALT HABOUR
- 9. PORTAGE INLET - THE GORGE
- 10. VICTORIA HARBOUR
- 11. BEACON HILL
- 12. OAK BAY

SPECIES	1	2	3	4	5	6	7	8	9	10	11	12
European Starling	121	23	12	42	138	145	18	146	60	174	340	35
Solitary Vireo	2	10	3	21	6	3	4					
Hutton's Vireo			2	1			1	2				
Warbling Vireo	5	6	6	7	1		1				1	
Orange-crowned Warbler	90	53	16	115	55	25	17	20	2	5	12	5
Yellow Warbler	4	1		4		1						
Yellow-rumped Warbler	3	5	1	13	11	3	7					1
Black-throated Gray Warbler	25			2	1		7	2				
Townsend's Warbler	19	40	58	104	25	17	2					
Hermit Warbler									1			
MacGillivray's Warbler	7	23	23	17	2	5						
Common Yellowthroat	15	8		3	9	1	1					
Wilson's Warbler	3	3	7	14	3	3		5	1		5	8
Black-headed Grosbeak												
Rufous-sided Towhee	44	37	7	43	29	12	7	14	7		8	
Chipping Sparrow	13	6		34	5	7	8	6	1			
Vesper Sparrow												
Savannah Sparrow	33	1		2		4	6			5	9	4
Fox Sparrow	1			1								1
Song Sparrow	53	21	5	37	15	13	3	14	5	25	12	10
Lincoln's Sparrow				1							1	
Golden-crowned Sparrow	2				6	8		3	1		1	
White-crowned Sparrow	20	26	3	23	11	6	5	24	2	2		
Dark-eyed Junco	20	12	8	46	2	4	5	9				
Red-winged Blackbird	22	13		55	46	10	9	13	5	3		6
Brewer's Blackbird	16		4	1		4	1					
Brown-headed Cowbird	9	24	1	8	18	24		7	2		2	8
Northern Oriole												
Western Tanager	1				7	1					2	
Purple Finch	7	7	2	7	7	6	1	4	2	4		
House Finch	40	2	4	39	10	18	5	60	5	29	40	15
Red Crossbill		100	4	101	22	58	5	6	2		5	2
Pine Siskin	147	91	10	198	113	47	29	75	6		7	
American Goldfinch	6	11	1	14		12	7	1				1
Evening Grosbeak		2	5	1		5						
House Sparrow	11			47	8	5	6	77	8	74	45	8
TOTAL BIRDS	1,786	1,019	512	1,973	1,553	1,893	623	1,540	531	983	2,346	459
TOTAL SPECIES	72	65	57	74	61	98	78	66	48	41	69	39

1994 Spring Bird Count

- 13. UNIVERSITY - CADBORO BAY
- 14. 10 MILE POINT
- 15. GORDON HEAD - MOUNT DOUGLAS
- 16. SWAN LAKE - CEDAR HILL
- 17. BLENKINSOP - PANAMA FLATS
- 18. ELK LAKE - CORDOVA BAY
- 19. PROSPECT LAKE - QUICKS BOTTOM
- 20. MARTINDALE - BEAR HILL
- 21 - 23. OAK BAY ISLANDS

SPECIES	13	14	15	16	17	18	19	20	21	TOTAL	COMMENTS
European Starling	111	60	23	290	57	77	48	165	18	2,103	
Solitary Vireo			1			2	1	3		56	all time high (previous high 35 in 1993)
Hutton's Vireo					1			3		10	all time high (previous high 7 in 1991)
Warbling Vireo		1	2					3		33	
Orange-crowned Warbler	8	17	14	5	15	10	13	59	1	557	
Yellow Warbler		1		2	3	4	4	6		30	all time low (previous low 63)
Yellow-rumped Warbler	2	2	6	1			3	6		64	
Black-throated Gray Warbler						6	12	21		76	all time high (previous high 55 in 1991)
Townsend's Warbler			6			2	11	3		287	
Hermit Warbler										1	new species (x Townsend's Warbler)
MacGillivray's Warbler										77	all time high (previous high 46 in 1992)
Common Yellowthroat			1	14	9	12	9	36		118	
Wilson's Warbler	2	1	3	1		1		1		61	all time low (previous low 106)
Black-headed Grosbeak					1	1				2	
Rufous-sided Towhee	27	20	17	27	16	52	40	75		482	
Chipping Sparrow	2		1	1		1	3	36		124	all time high (previous high 93 in 1993)
Vesper Sparrow			1							1	new species
Savannah Sparrow	2	1	4	2	39	1	4	111		228	
Fox Sparrow					2	1		1		7	
Song Sparrow	9	8	9	20	9	39	23	94	4	428	all time high (previous high 421 in 1991)
Lincoln's Sparrow										2	
Golden-crowned Sparrow		2		4		2	1			30	all time low (previous low 49)
White-crowned Sparrow		3	8		7	5	9	6	13	173	
Dark-eyed Junco			8			4	18	7		143	
Red-winged Blackbird	7	1	6	127	36	82	118	36	4	599	all time high (previous high 484 in 1991)
Brewer's Blackbird	3			1	5		8	62		105	
Brown-headed Cowbird	8	6	6	5	4	14	10	28	1	185	all time low (previous low 222)
Northern Oriole								1		1	new species
Western Tanager			1							12	
Purple Finch	3	4	2	3		10	3	10		82	all time low (previous low 138)
House Finch	44	68	9	51	19	29	18	70	2	577	all time high (previous high 494 in 1993)
Red Crossbill		9	9				10	17		350	all time high (previous high 28 in 1991)
Pine Siskin	2	15	17		30	10	188	63		1,048	all time high (previous high 455 in 1993)
American Goldfinch	11	4	3	7	6	8	7	117	1	217	
Evening Grosbeak										13	all time low (previous low 30)
House Sparrow	48	8	21	194	27	46	14	45		692	all time high (previous high 665 in 1993)
TOTAL BIRDS	774	754	533	1,449	703	1,424	1,404	2,563	3,689	28,511	
TOTAL SPECIES	46	60	62	45	45	79	78	83	44	165	

FBCN Land for Nature Project Comes to Vancouver Island

By Joel Ussery

Natural Heritage at Risk

Cities and towns on eastern Vancouver Island are growing at an unprecedented rate. Rural lands are being subdivided into smaller and smaller parcels. The rich bio-diversity of this lowland region, already much reduced from human alterations to the landscape, is being put further at risk by this new wave of growth and development.

Municipalities and regional districts are finding it difficult to cope with these intense, and relatively sudden, growth and development pressures. Faced with limited staff and financial resources, and imperfect knowledge of the location and significance of natural areas, they are often forced to react to a deluge of development applications rather than update or undertake community plans.

Often there is little communication and coordination among different levels of government and local conservation groups. There is also a general lack of awareness, in the development community and the general public, of the importance of our rich and diverse natural heritage to the quality of life in the region.

Land for Nature

The Federation of BC Naturalists (FBCN) Land for Nature Project was developed to work toward natural areas conservation in rapidly growing and urbanizing regions of the province by supporting and coordinating the initiatives and activities of local naturalist groups. There are four major components to the project:

- identify important natural areas;
- compile information on the characteristics and significance of these areas;
- work with all levels of government, the private sector, and other non-governmental organizations to conserve these natural areas using the full range of available options;
- raise community, business, and government awareness of the importance of natural areas.

Land for Nature Vancouver Island

The focus of Land for Nature activities on Vancouver Island is on the eastern coastal plain, from Campbell River to Victoria. However, the project is also working with naturalist clubs on other parts of the island, and the Gulf Islands.

Thanks to the efforts of individual clubs, activities that fall under the mandate of Land for Nature are well under way in the region. All clubs on Vancouver Island have developed lists of important native vegetation and wildlife habitat sites in their local area. Most clubs have submitted these lists to the

Commission on Resources and Environment (CORE) and the provincial Regional Protected Areas Team (RPAT) for consideration in the Protected Areas Strategy. Many clubs and individual naturalists are also working to incorporate these sites in local planning and development processes. The VNHS Parks and Conservation Committee, for example, has contributed lists of priority areas to both the CORE and RPAT and has worked to maintain the natural values of a number of areas in the region.

To assist with these efforts, the FBCN has secured funding from Environment Canada (the Environmental Citizens Fund), the Real Estate Foundation, the FBCN Foundation, and a local naturalist club, to hire a co-ordinator for the project on Vancouver Island. Funding for the project is guaranteed until October of this year but the FBCN is optimistic that this financial support will be renewed.

Conservation Opportunities

There are currently two major initiatives under way to identify and rank remaining areas of ecological significance in the rapidly growing areas on eastern Vancouver Island and the Gulf Islands: the provincial Protected Areas Strategy (PAS) and a multi-agency Sensitive Ecosystems Inventory (SEI). Each project has different goals, objectives, and criteria for identification and evaluation, but each will incorporate naturalist information and assist local naturalist clubs in their conservation efforts.

New Members

- March 30 Barbara West, of Lockhaven Drive: is interested in birds and native plants.
- April 2 Dr. Beverley Barron, of Cordova Bay Road: enjoys birding and wildflowers.
- April 6 Suzanne Bolton, of Glen Forest Way: is a birdwatcher.
- April 10 Nan Selkirk, of Burdett Avenue.
- April 10 Jill Groves, of Carey Road: has a general and all inclusive interest in natural history.
- April 16 Ken Walker and Jennifer Clark, of Moss Street.
- April 16 Don and Maureen Westlake, of Anchorage Avenue.
- April 30 Sylvia Rhodes, of Old West Saanich Road: is interested in birding and wildflowers.
- May 23 Paul and Virginia Gareau, of Camcrest Place.
- May 25 Shauna Hamilton and Mike Savory: enjoy birding and native plant gardening.

The FBCN has been asked to arrange and document naturalist input to the SEI, which is inventorying remaining ecosystems (meeting specific criteria) along the eastern coast of Vancouver Island and in the Gulf Islands. (See the Project Summary on page 21 of this issue of the *Victoria Naturalist*). Naturalists are being asked to use their local knowledge to review preliminary maps of these ecosystems and contribute relevant information on the sites.

The Land for Nature initiative will help local naturalist groups use the information from these inventory and evaluation processes to improve the information base on their own priority areas. The project will also work with local clubs to make priority area lists and information available to regional and municipal governments for use in Official Community Plans and other local land use planning processes. Information on these areas will also be used to raise public awareness of the rich natural heritage of southeast Vancouver Island and the Gulf Islands and the importance of conserving these areas to maintain the unique character of this part of the province.

As part of the process of improving cooperation and communication with government agencies, other conservation oriented groups, and the development community, the Land for Nature initiative held a forum entitled *Tools and Mechanisms for Protecting Ecologically Sensitive Areas* in Nanaimo on February 18, 1994. The forum was very well attended and should set the stage for more issue or area specific workshops to facilitate action on natural area conservation issues. Forum proceedings will be available sometime in April.

Conclusion

The Land for Nature initiative has an ambitious mandate. There are four major priorities: compile information on the location and significance of important natural areas; ensure the information is considered in development and planning processes; create partnerships with government, business and community groups for natural areas conservation; and raise public awareness of the importance of these areas. Although these may seem daunting tasks, the rapid pace of development on Vancouver Island and the Gulf Islands has the potential to destroy much of the regions natural heritage.

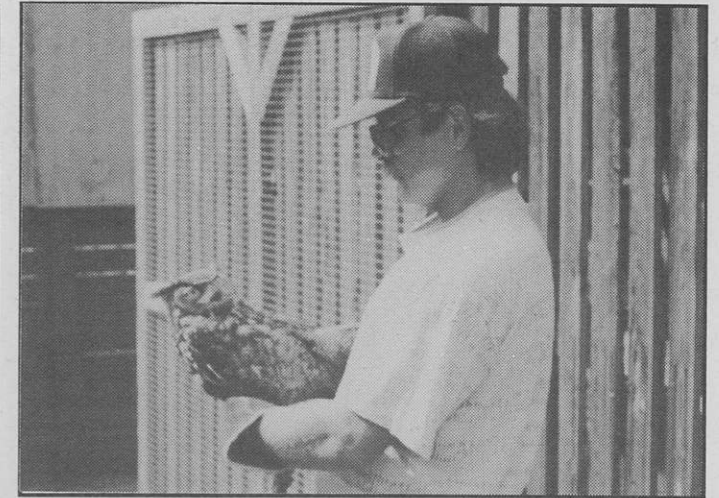
The FBCN will help local clubs to improve the effectiveness of the naturalists voice in natural areas conservation. I am working with the VNHS Parks and Conservation Committee to determine how the Land for Nature Project may be able to assist conservation efforts in Greater Victoria.

Proceedings of Greater Victoria

Land for Nature Forum Now Available

Copies of the Land for Nature forum *Ensuring Liveability in Greater Victoria*, held April 30, 1993, are available from Joel Ussery, #4-3228 Wicklow Street, Victoria, B.C. V8X 1C9. Phone/Fax 480-5150. The price is \$10.00 plus \$2.25 postage.

Joel Ussery is the Vancouver Island Co-ordinator for the FBCN Land for Nature initiative. He is also a member of the VNHS Parks and Conservation Committee. If you are interested in more information about the FBCN Land for Nature initiative, please contact Joel at #4 - 3228 Wicklow Street, Victoria, V8X 1C9 or telephone/fax him at 480-5150.



Volunteer Mike Semkiv holds a male Great Horned Owl in need of treatment on it's wing, at the North Island Wildlife Recovery Centre.

The Importance of Wildlife Recovery

By Jim Barwise

Wildlife Recovery? How do you define it? Simply, it is our efforts to help wildlife of all types heal from injuries, illnesses and stresses that we cause. Because of the constant pressure we put on animals with our expansion, wildlife recovery is an area of growing concern.

The opinions about the "ethics" of rehabilitating injured wildlife differ greatly. While many people feel it is a very valuable cause, the question of what to do with animals which can't be released is a tough one. Should they be put down if they can't live a normal, healthy life in the wild? Does the educational value of keeping them alive outweigh the restraints of life in captivity, even if they are not suffering? Or is rehabilitating nature interfering and wrong in itself? One thing is certain: those who help injured wildlife do it out of love for the animals. There are no financial rewards and the demands of time and energy are great.

Primary among the causes of human disturbance to wildlife is displacement from development. With less habitat, fewer animals can survive. Other causes include road kills, electrocution, lead and pesticide poisoning, oil spills, fish nets and even cats – the latter a major factor for songbirds.

Fortunately, there are a number of organizations that are willing to help. Locally, the S.P.C.A. (388-7722) run by Rick and Lynn West can provide some help. They can provide some basic information on caring for orphaned wildlife. They do have a small aviary, and as with all SPCA's, they are dependant on donations for funding. Any birds of prey or larger mammals have to be taken to the Victoria Veterinary Hospital on Roderick Street (475-2495) where the vets volunteer their time to treat the animals, if possible. Dr. Rolfe and Dr. Kowal, among others, have done such work. After that it's up to wildlife rehabilitation centres to look after the animals recovering from injury.



A gyrfalcon at the North Island Wildlife Recovery Centre, 1993.

What can you do if you chance upon an injured animal? Although it is vital to get it to the people who know how to look after it properly, there are some basic things you can do to help. If you judge the animal to be potentially dangerous, or you don't know how to handle it, phone for help and stay with the animal until help arrives. You're of no help to the animal or yourself if you get injured.

Upon deciding to act, be careful. With a large mammal (i.e., a road casualty) use a large stick to move it to the side of the road and cover it with a blanket. Keep it warm and quiet and offer no liquids. If it recovers in a couple of hours you can release it where you found it.

With all wildlife don't try to guess what to do—contact someone who knows, quickly. Who to contact? Locally, call the S.P.C.A. or take the animal to the Victoria Veterinary Hospital. There are, however, other places you can call. Wildlife Rescue in Vancouver (526-7275) is a great source of information. They are the largest non-profit society in British Columbia dealing with the treatment of injured wildlife with about three to four thousand cases a year.

Lynn Short in Vancouver (538-1363) is also an excellent contact for the Wildlife Rehabilitation Network of British Columbia, formed in 1990. Its purpose is to enable "rehabers" to communicate more effectively and quickly with each other, veterinary hospitals or interested individuals. It is hoped too that as a group "rehabers" can make more impact on the B.C. government when discussing important issues like funding and education for wildlife recovery.

There are an encouraging number of rehabilitation societies on Vancouver Island and the Lower Mainland. The North Island Wildlife Recovery Association (248-8534) in Errington, just north of Nanaimo, run by Robin and Sylvia Campbell, is the largest such place on the island. It is open to the public during April to October, 10:00 a.m. to 4:00 p.m., daily. It is one of the few centres which has a special licence to allow public viewing. Formed in 1985, and at its current location since 1987, the NIWRA is an interesting place to visit to get an idea what wildlife recovery can really do. They deal with all types of wildlife, from hummingbirds to raptors, woodpeckers to pelicans, harbour seals to bears. As with all such centres, funding is limited to almost entirely to donations and fund

raising events. Veterinarian Malcolm McAdie volunteers his services at the present time.

A special project the N.I.W.R.A. is working on now is a "Museum of Nature", a structure which will have samples of various types of ecosystems and greatly enhance their education program. Another significant feature is a huge flight cage to allow eagles and other raptors to recover their wing strength before being released. It is the largest such structure in North America. Many of the released birds are banded.

Veterinarian Ken Langier has done considerable work treating and retraining many injured eagles and other birds to releasable condition as well as lobbying to ban completely lead shot in Canada (it is currently partially banned). He has worked with many recovery centres and can be reached at the Island Veterinary Hospital at 753-1288.

The closest centre to Victoria is the Wildlife Reserve of Western Canada, formed in 1971. The centre, run by Alex Matheson and his daughter Katriand, recently moved from North Saanich to near Cobble Hill. It may be a few months until they are able to take in more animals but the plan is to do so as soon as they are able.

There are too many places to go into great detail on each but here some of the rehabilitation centres that you can contact:

Blue Roof Wildbird Hospital in Lantzville (390-2575) treats songbirds and migratory birds. Call Lynne Wood.

Dorothy Brooks in Port Alberni (532-3657).

Falcon Nest Raptor Recovery Centre, in Lantzville (758-7152), treats raptors and waterfowl; Call Georgia Dumont.

Rories Refuge, in Tofino (725-3783), treats seabirds, songbirds and waterfowl.

Gibson's Wildlife Rehab, in Gibsons, (Sunshine Coast)(886-4989), treats birds, small mammals and seals.

O.W.L. Rehabilitation Society (Orphaned Wildlife), in Delta (946-3171), treats raptors exclusively.

Monica's, in Surrey (882-0908), treats various wildlife.

Critter Cove, in Langley (530-2839), treats small mammals. Call Gayle Martin.

Rainforest Reptile Refuge, in Surrey (538-1711), treats reptiles and amphibians.

Other than by volunteering hands-on help or donating money, there are different ways to help. Naturalists can be of great help. Many of them have great knowledge of animal lifestyles and habitats that are invaluable in educating others or at least make them interested and aware. Some falconers can help by sharing their knowledge on the husbandry and exercise of raptors.

Anyone interested in starting a wildlife recovery centre should contact the Fish and Wildlife Branch of the B.C. Ministry of Environment, Lands and Parks in their Regional Office in Nanaimo (751-3100) and the Canadian Wildlife Service in Delta (946-8546) for the appropriate licences.

Finally, it seems clear we will continue to expand into Mother Nature's realm so we must learn to co-habitate with our neighbouring creatures. Keeping green space whenever possible is very important, of course. Most of all, educating people, especially children, would seem to be the best hope for the future.

Jim Barwise is a member of the Victoria Natural History Society, a birder and works at the Wild Birds Nature Shop in Victoria.

Project Summary of the Sensitive Ecosystems Inventory on the Southeastern Coast of Vancouver Island, and the Gulf Islands

Rationale

Development pressures on the southeast coast of Vancouver Island, and the Gulf Islands, have become intense. The increasing pace of land subdivision and urban encroachment is leading to the fragmentation and loss of natural ecosystems in this rapidly growing region.

At present, there is no detailed inventory of remnant natural ecosystems which are 'sensitive' to development (see list below). The systematic identification, mapping, and ranking of the biological significance of these vulnerable ecosystems will enable resource agencies and local governments to set priorities for the management and protection of these areas.

Study Area

The study area consists of the southeastern Vancouver Island coastal plain, from Victoria to Campbell River, and adjacent Gulf Islands.

Participants

The multi-phase project is being carried out under the direction of an inter-agency Technical Advisory Group (TAG) that includes BC Environment, Conservation Data Centre, Canadian Wildlife Services, Fisheries and Oceans Canada, the Habitat Conservation Fund, and the Islands Trust. The Federation of BC Naturalists sits on the TAG to coordinate naturalist participation in the inventory.

Sensitive Ecosystems

For the purposes of this study, the following ecosystem types have been designated 'sensitive ecosystems':

Wetlands (both permanent and seasonal. Bogs, fens, marshes, swamps, shallow water, wet meadows, riparian woods, shrub carr, gravel bars, and seasonally-flooded agricultural lands.

Streams, rivers and lakes.

Natural upland communities (essentially undisturbed areas). Old-growth (greater than 100 years) and older second-growth (60-100 years) forest above certain areas in size; herbaceous ecosystems "grasses, flowering herbs, mosses, and lichens; woodlands such as Garry Oak and Arbutus; cliffs, sand dunes, and spits; and coastal bluffs.

Methodology

Phase I—

Air photo interpretation and compilation of existing knowledge.

Product: (a) annotated report on existing soils, bedrock, and vegetation information relating to the

project; (b) air photos with sensitive ecosystem sites outlined and numbered; (c) site description data sheets for each sensitive ecosystem site.

Phase II

Sensitive ecosystem sites identified in Phase I will be visited to verify boundaries, classify, and evaluate quality and condition.

This phase will provide initial information on surrounding ecosystem types and land uses, and potential threats to the sensitive ecosystems.

Product: (a) complete site inspection data sheets for all sensitive ecosystems (classification and evaluation); (b) air photos with verified outlines of all sites containing sensitive ecosystems.

Phase III

Evaluating values of the sensitive ecosystems for a variety of biological topics such as bio-diversity, representativeness, fish and wildlife values, and rare and endangered species.

Product: (a) published report with specific data including a summary and analysis of the inventory findings (maps may be digitized if funding is available); (b) 1:20,000 maps of all ecosystem units (maps be computerized if funding is available).

Schedule

(based on current levels of funding)

Phase I summer and fall, 1993;

Phase II 1994/95 fiscal year;

Phase III 1995/96 and 1996/97 fiscal years.

The project summary was produced by the inventory Technical Advisory Committee. This version has been slightly modified for The Victoria Naturalist.

Opportunity for Naturalist Participation in the Sensitive Ecosystems Inventory

There will be opportunities for naturalists to participate in gathering information relevant to Phase II of the sensitive ecosystem inventory. Although professional ecologists will be contracted to undertake site surveys and evaluations, local naturalist information will provide a valuable supplement.

The exact scope and form of naturalist involvement has yet to be determined, but interested individuals can contact Joel Ussery at 480-5150.

An orientation meeting will be held in the near future.

Project Tanager Gets Results

More than 200 Project Tanager participants combed the forests of North America this past summer, looking for signs that these colourful migratory songbirds were successfully rearing young. Birders from 31 states and two Canadian provinces conducted nearly 1,000 point counts as they studied the effects of forest fragmentation on breeding tanagers.

Now the Cornell Lab of Ornithology is recruiting more volunteers for the summer of 1994. The lab developed the project as a way to get birders across the continent involved in scientific study; Project Tanager is one of three "National Science Experiments" supported by the National Science Foundation. Through these experiments, the Ithaca, New York-based bird conservation centre hopes to build a network of experienced amateur researchers who can study other important ornithological questions.

Project Tanager examines the relationship between forest size and breeding success of the tanagers nesting there. Across North America, road building, logging and development have broken large forests into smaller fragments. Scientists have some evidence that Scarlet Tanagers in the eastern United States may not be able to breed in small woodlots. Project Tanager is examining this relationship in more detail, not only for Scarlet Tanagers but for Hepatic, Summer and Western Tanagers, which nest in other parts of the United States and Canada.

The project began in the summer of 1992, when coordinators developed the research methods in forests near the lab's headquarters. Last spring they launched a continent-wide pilot study. Seventy teams searched for signs of breeding tanagers in forests of four size classes: 1, 10, 100 and 1,000 hectares (2.5, 25, 250 and 2,500 acres). Their findings support the idea that Scarlet Tanagers are more sensitive to forest fragmentation than are other tanager species.

Participants spotted Scarlet Tanagers in a mere 20 percent of the 1-hectare forest fragments, compared to 50 percent of the of the 10-hectare forests and about 65 percent of the 100-hectare forests. Furthermore, teams confirmed that Scarlet Tanagers were breeding in 5 to 10 percent of the 10-hectare (or larger) forests but in none of the 1-hectare plots. In contrast, project participants found Western Tanagers in nearly 40 percent of the smallest fragments and about 55 percent of all the other forest sites. They confirmed that Western Tanagers, Summer Tanagers and Hepatic Tanagers were breeding in forests of all four sizes.

Why do small woodlots make inhospitable homes for nesting tanagers? Scientists think the "edge effect" may be to blame. When a forest is carved into fragments, the distance from the edge of each fragment to its center is short. Some of the animals that threaten nesting birds - such as house cats and Brown-headed Cowbirds (notorious nest parasites) - prefer open habitat. They won't go deep into a woods but they will venture in for a short distance. In large forests, tanagers can find a refuge from danger; in small fragments, even the very center of the forest is near an edge.

After their first season's experience, Project Tanager participants had some good ideas for improving the project. In particular, professional land managers and biologists are being

recruited to help with the sometimes complicated tasks of site selection and habitat description - a change that should make this project even more attractive to birders, who can now devote most of their time to finding and observing tanagers. We want to make intelligent recommendations concerning the habitat requirements of these beautiful neotropical migrants.

Those wishing to participate in Project Tanager or to get further information on the project can contact the Cornell Lab of Ornithology, 159 Sapsucker Woods Road, Ithaca, New York 14850 or call (607) 254-2446. There is no cost to participate.

Additions to the "New Bird to Victoria Checklist" Contest.

Keith Taylor has received several more entries for this contest. The contributors with their best guess are:

CONTRIBUTOR	CHOICE
Jeff Gaskin	White-tailed Kite
Keith Taylor	Garganey
Hand Van der Pol	Eurasian Dotterel
Derrick Marven	Snowy Plover
Bryan Gates	American Redstart
David Stirling	Black Tern
Barbara Begg	White-tailed Kite
Chris Sandham	Gray Catbird

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CALENDAR

REGULAR MEETINGS are generally held on the following days. **Board of Directors:** the first Tuesday of each month. **General Members Meeting:** the second Tuesday of each month. **Botany Night:** the third Tuesday of each month. **Birders' Night:** the fourth Wednesday of each month. Locations are given in the calendar listings. Telephone the VNHS Events Tape at 479-2054 for further information and updates.

NOTE: Meetings are not held during the summer. They will continue at their regularly scheduled times in September.

JULY EVENTS

Saturday, July 16

Esquimalt Lagoon and Early Shorebird Migration. Join us for a morning outing to possibly view the first of southbound sandpipers and other shorebirds. The sheltered lagoon is now well known as the locale for rare and unusual birds, most notably last year's Mongolian Plover. Meet at the north end of the causeway (Ocean Boulevard) in Colwood near the wooden bridge for an 8:30 a.m. start. Leader to be announced.

Saturday, July 30

Witty's Lagoon Shorebird Migration Workshop. Join David Allinson (380-8233) as we try to sort out and enjoy the first waves of southbound shorebirds on the mudflats and beach of this CRD park. Resident and some migrant songbirds will also be represented. Meet David at the park parking lot off Metchosin Road at 8:30 a.m.

Sunday, July 31

Sidney Island Birding. Our popular trips to the provincial park continue through the summer but now with the hope of witnessing good numbers of migrating Western Sandpipers among other species of shorebirds. Meet at the foot of Beacon Avenue in Sidney in time for the 9:00 a.m. sailing. Bring ferry fare (\$5.00 return) and a snack or lunch. Leader to be announced.

AUGUST TRIPS

Saturday, August 6

Sidney Island Birding, Continued. Our trips continue to monitor the movement of shorebirds but there is also the opportunity to see other species, especially alcids and songbirds. Observations of sea mammals like the Harbour Porpoise and Harbour Seal are also quite common while taking the ferry over. Meet at the foot of Beacon Avenue in Sidney in time for the 9:00 a.m. sailing. Bring ferry fare (\$5.00 return) and a snack or lunch. Leader is David Allinson (380-8233).

Saturday, August 13.

Cowichan Bay Birding. On this trip we shall review the success of this year's Purple Martin nests while also admiring the rich variety of avifauna attracted to the estuary. Shorebirds,

waterbirds, songbirds and birds of prey are all well represented here. Meet us at 8:15 a.m. at the Helmcken Park 'n Ride at Helmcken Road and the TransCanada Highway or on the Cowichan Bay Dock Road at 9:00 a.m. Leader to be announced.

BULLETIN BOARD

Request for Stories

Andre Legris is putting together a collection of contemporary stories about birds and publish them in book form. Such a collection would not only be entertaining but also very informative because they would detail the rich variety of bird behaviour, and would be of interest to both novice bird watchers and long-time experts. He invites those who have stories - humorous incidents, unusual sightings, weird, wacky or wonderful behaviours, or entertaining interactions with people, objects or other animals - to submit them to him. Those who do may someday walk into a book store and enjoy seeing their published story with their name alongside it. Information sheets on this project are available from the *Victoria Naturalist* or you can write to Andre Legris, 13, 5th Avenue, Aylmer, Quebec, J9H 5C5.

Reminder!

The Swan Lake Nature Centre holds birding walks regularly on Wednesdays and Sundays at 9:00 a.m. Everyone is welcome to join in.

For Sale

Ocean to Alpine - A British Columbia Nature Guide. This new book by Joy and Cam Finley is available from Lyndis Davis (477-9952). Also Available for sale: National Geographic's *Field Guide to Birds*; the *Naturalist Guide to the Victoria Region*; *Birds of Victoria*; the Victoria Area Bird Checklist; and, the new Victoria Natural History Society's Window Decals.

Back Issues of the Victoria Naturalist

Copies of back issues and indices of the *Victoria Naturalist* are available from Tom Gillespie (361-1694).

Garry Oak Meadow Society Membership

The Garry Oak Meadow Society aims to promote, conserve and restore our native oak meadow lands. You can help them to preserve our rarest Canadian habitat by joining the Society or through donations to any branch of Pacific Coast Savings Credit Union. For further information contact Joyce Lee at 386-3785.

Marine Ecology Station

Explore British Columbia's marine bio-diversity at the Cowichan Bay Maritime Centre. Life exhibits of B.C. sea life can be seen under microscopes and in live video displays. There are also programs available for schools, camps, naturalists and educators. The Centre is located on the water at 1761 Cowichan Bay Road. For information phone 746-4955.



Gathering Camus for food – Part of the Lau, Welnew Tribal School Display – Camus Day, 1994.