



# B.C. Naturalist

JULY/AUGUST 1992

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The Federation of British Columbia Naturalists, 321-1367 W. Broadway, Vancouver, B.C. V6H 4A9

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For details on the program please  
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**THANK-YOUS &  
 WELCOMES ETC....**

A Big Get Well Soon to **Frank Paul**  
 who is recovering at home following a  
 short hospital stay in Vancouver.

A Big Thank-you to **Hazel Street** who  
 is retiring as Regional Coordinator for  
 the Kootenays and Director from the  
 West Kootenay Naturalists Assoc. and  
 moving to the Fraser Valley. Hazel  
 has been a very dedicated FBCN  
 "worker". Thanks.

Welcome to **Bob Purdy** newly ap-  
 pointed Project Manager for the Land  
 For Nature Program. Bob, who has a  
 B.Sc. in Zoology, was Executive Di-  
 rector for the Burns Bog Conserva-  
 tion Society. He brings experience in  
 business, project management and  
 fund raising, to the FBCN.

**DEADLINE  
 SEPTEMBER EDITION  
 B.C. NATURALIST  
 JULY 30, 1992**

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# 1991 CHRISTMAS BIRD COUNT RESULTS

The 1991-92 Christmas Bird Counts were held in almost perfect weather conditions by British Columbia standards (there was heavy rain in Prince Rupert and hurricane force winds on the Queen Charlotte Islands, of course), and record totals of species and individuals were commonplace. The total of individual birds topped the million mark for the first time with 1,039,011 birds seen, far above last year's record of 812,731. A total of 224 species were reported, edging out last year's record of 222. Participation was up as well, with 1740 observers on 51 counts.

Victoria led the way in total species for the fourth time in six years with 151 species, the first time a Canadian count has broken the sesquicentennial mark. Vancouver tied its own record but was still well back with 142 species, and Ladner dropped to third with 140 after being first for the last two years. The Okanagan counts dominated the Interior as usual, Vernon was in front again with 103 species with Penticton and Kelowna trailing with 96 and 94 respectively.

The mild weather was in marked contrast with last year's conditions, which affected birds as well as birders. Red-breasted Sapsuckers obviously stayed up in the mountain forests, with only 25 being reported compared with last year's total of 218. On the other hand, a remarkable total of 21 Townsend's Solitaires were reported on nine coastal counts. The mild weather in the Interior provided for good waterfowl watching, as is evidenced by the totals at Burns Lake and Fort St. James, as well as the total of 53 Common Loons and 34 Red-breasted Mergansers on Interior lakes. Shuswap Lake reported the only Interior Yellow-billed and Pacific Loons; an impressive total of nine Yellow-billed were seen on the coast. Single Cattle Egrets were at Campbell River, Duncan, and Ladner, and the Northern Oriole at Kelowna and Black and White Warbler at Vancouver were obviously enjoying the balmy weather. But perhaps the most fair-weather friends of all were the Barn and Cliff Swallows at Vancouver!

Two House Wrens reported on the Comox count were the first ones ever reported on a British Columbia count complete with convincing details; this species was dropped from a couple of other counts simply because it is almost unknown here in winter and can be very easily confused with other wrens. I ask observers and compilers again to provide descriptions of unusual birds when submitting your count. Another case in point are the many Purple Finches suddenly being reported by southern Interior counts; is this a real phenomenon or are they misidentified Cassin's Finches? The two species are difficult to separate (except by call), so extreme care should be taken in identifying Purple Finches in the southern Interior in winter. Again, this may be a new and very interesting event, but without the details we'll never know.

Counts followed by (AB) in the list below (44 of 51 counts) send their results to the National Audubon Society and

are published along with more than 1500 other North American counts in the journal *American Birds*. These "official" counts (and about half of the "unofficial" counts) follow the basic Christmas Count rules of taking place within a 24-km (15-mile) circle on a single day within 10 days or so of Christmas. Details given below for each count include the following: date; numbers of observers (obs.); number of bird species (spp.); total number of individuals (indiv.); a brief list of noteworthy bird species with numbers, selected for their rarity, large numbers, or uniqueness within B. C.; sponsoring club, if any; and name of compiler or organizer. Once again, I thank all count compilers and observers for their efforts, and we wish you the best of luck on next winter's counts. Merry Christmas!

Bamfield (AB) — Dec. 29; 7 obs., 74 spp., 3687 indiv.; 1 Eared Grebe, 85 Brandt's Cormorants, 30 Trumpeter Swans, 1 Gr. White-fronted Goose, 1 Eurasian Wigeon, 49 Bald Eagles, 38 Black Oystercatchers, 405 Black Turnstones, 2 Western Screech-Owls, 2 Ruby-crowned Kinglets. (Alan Burger).

Boundary District (Christina Lake to Rock Creek) — date?; 75 obs., 74 spp., 6923 indiv.; 2 Common Loons, 20 Bald Eagles, 65 Gray Partridge, 13 Chukar, 1 Short-eared Owl, 1 Black-backed Woodpecker, 19 American Dippers, 7 Harris' Sparrows, 54 Snow Buntings. (Boundary Naturalists, Laurie Hamilton).

Burns Lake-Francois Lake (AB) — Dec. 15; 13 obs., 35 spp., 793 indiv.; 1 Red-necked Grebe, 83 Trumpeter Swans, 1 White-winged Scoter, 1 N. Pygmy-Owl, 2 Great Gray Owls, 1 N. Saw-whet Owl, 2 Three-toed Woodpeckers, 1 Am. Tree Sparrow, 4 Purple Finches. (Garry Boos).

Campbell River (AB) — Dec. 28; 28 obs., 97 spp., 19683 indiv.; 1 Eared Grebe, 1 Cattle Egret, 58 Trumpeter Swans, 1 Gr. White-fronted Goose, 441 Harlequin Ducks, 20 Black-bellied Plovers, 1 Rhinoceros Auklet, 1 Anna's Hummingbird, 3 Hutton's Vireos, 2067 Pine Siskins. (Heather Asplin).

Chilliwack (AB) — Dec. 14; 29 obs., 76 spp., 21254 indiv.; 1 Green-backed Heron, 96 Trumpeter Swans, 1 Gr. White-fronted Goose, 372 Wood Ducks, 66 Bald Eagles, 1 Townsend's Solitaire, 19 Yellow-rumped Warblers, 1 Lincoln's Sparrow. (Chilliwack Field Naturalists, Gladys Brown).

Comox (AB) — Dec. 15; 47 obs., 103 spp., 30591 indiv.; 3081 Western Grebes, 415 Trumpeter Swans, 148 Bald Eagles, 1 Northern Harrier, 3 Peregrine Falcons, 335 Black-bellied Plovers, 2983 Dunlin, 1 Glaucous Gull, 1 Anna's Hummingbird, 2 House Wrens, 1 Townsend's Solitaire, 1 Harris' Sparrow. (Comox Valley Naturalists, Willie Haras).

Cranbrook (AB) — Dec 26; 9 obs., 39 spp., 3465 indiv.; 3

Great Blue Herons, 4 Bald Eagles, 1 N. Pygmy-Owl, 1 Blue Jay, 7 American Dippers, 2759 Bohemian Waxwings. (Greg Ross).

Deep Bay (AB) — Dec. 29; 27 obs., 86 spp., 10549 indiv.; 10 Eared Grebes, 77 Trumpeter Swans, 5 Eurasian Wigeons, 167 Bald Eagles, 33 Black Oystercatchers, 10 Greater Yellowlegs, 453 Black Turnstones, 1 Hutton's Vireo, 4 Savannah Sparrows. (Willie Haras).

Duncan (AB) — Dec. 21; 46 obs., 123 spp., 52327 indiv.; 346 Pacific Loons, 3709 Western Grebes, 1 Cattle Egret, 414 Trumpeter Swans, 210 Mute Swans, 97 Wood Ducks, 14 Eurasian Wigeons, 3 Redheads, 285 Ring-necked Ducks, 1068 Common Mergansers, 405 Bald Eagles, 4 Peregrine Falcons, 899 American Coots, 3 Western Sandpipers, 9 Least Sandpipers, 415 Bonaparte's Gulls, 10335 Glaucous-winged Gulls, 1 N. Pygmy-Owl, 1 Hutton's Vireo, 8 Lincoln's Sparrows, 2 White-throated Sparrows, 6 Brown-headed Cowbirds. (Derrick Marven).

Fauquier (AB) — Dec. 28; 11 obs., 44 spp., 1013 indiv.; 36 Horned Grebes, 4 Ring-necked Ducks, 2 Red-breasted Mergansers, 2 Northern Harriers, 1 Northern Pygmy-Owl, 1 Blue Jay, 4 Townsend's Solitaires. (Ruth Bumpus).

Fort St. James (AB) — Jan. 2; 15 obs., 37 spp., 1042 indiv.; 2 Red-necked Grebes, 47 Trumpeter Swans, 6 Canada Geese, 2 Bald Eagles, 8 Ruffed Grouse, 1 Killdeer, 4 Three-toed Woodpeckers, 9 Pileated Woodpeckers, 2 Black-billed Magpies, 4 Boreal Chickadees, 2 White-breasted Nuthatches, 6 American Tree Sparrows, 12 Rosy Finches, 237 Pine Grosbeaks. (Joanne Vinnedge).

Golden — Dec 27; 25 obs., 32 spp., 1133 indiv.; 1 Bald Eagle, 14 Pileated Woodpeckers, White-breasted Nuthatch, 1 Townsend's Solitaire, 2 Northern Shrikes, 3 Song Sparrows, 1 White-throated Sparrow, 4 Rosy Finches. (Ellen Zimmerman).

Kamloops (AB) — Dec. 14; 14 obs., 75 spp., 7494 indiv.; 3 Common Loons, 33 Tundra Swans, 5 Trumpeter Swans, 1 Gr. White-fronted Goose, 1 Gyrfalcon, 20 Chukar, 17 Sharp-tailed Grouse, 98 California Gulls, 4 Glaucous-winged Gulls, 1 Glaucous Gull, 1 Great Gray Owl, 4 N. Saw-whet Owls, 1 Blue Jay, 1 Marsh Wren, 1 Loggerhead Shrike, 43 American Tree Sparrows, 45 Cassin's Finches. (Kamloops Naturalists, Rick Howie).

Kelowna (AB) — Dec. 14; 57 obs., 94 spp., 20285 indiv.; 15 Common Loons, 12 Tundra Swans, 4008 Canada Geese, 9 Bald Eagles, 15 American Kestrels, 739 California Quail, 2144 American Coots, 774 Ring-billed Gulls, 267 California Gulls, 573 Herring Gulls, 11 Thayer's Gulls, 7 Glaucous-winged Gulls, 1 Glaucous Gull, 4 Lewis' Woodpeckers, 2 Three-toed Woodpecker, 10 American Dippers, 5 Ruby-crowned Kinglets, 4 Western Bluebirds, 4 Rufous-sided Towhees, 1 Northern Oriole. (Central Okanagan Naturalists Club, Brenda Thomson).

Kitimat (AB) — Jan. 2; 4 obs., 42 spp., 3919 indiv.; 10 Great Blue Herons, 2 Trumpeter Swans, 1 Redhead, 2

Ring-necked Ducks, 36 Bald Eagles, 2 N. Pygmy-Owls. (Dennis Horwood).

Ladner (AB) — Dec. 23; 62 obs., 140 spp., 328933 indiv.; 3 American Bitterns, 1 Cattle Egret, 2 Black-crowned Night-Herons, 190 Tundra Swans, 325 Trumpeter Swans, 5064 Snow Geese, 29 Brant, 23472 Green-winged Teal, 37045 Mallard, 55070 Northern Pintail, 32 Eurasian Wigeon, 50901 American Wigeon, 145 Northern Harriers, 133 Red-tailed Hawks, 1 Golden Eagle, 8 Peregrine Falcons, 3 Sandhill Cranes, 960 Black-bellied Plover, 15 Greater Yellowlegs, 4 Western Sandpipers, 61106 Dunlin, 13 Western Gulls, 22036 Glaucous-winged Gulls, 2 Rhinoceros Auklets, 12 Barn Owls, 11 Short-eared Owls, 102 Marsh Wrens, 2 Mountain Bluebirds, 1 Orange-crowned Warbler, 4 Savannah Sparrows, 18 Lincoln's Sparrows, 3 Swamp Sparrows, 2 Snow Buntings. (Jude Grass).

Lake Windermere district — Dec. 26; 49 obs., 54 spp., ? indiv.; 616 Mallards, 1 Hooded Merganser, 1 American Kestrel, 2 Red-winged Blackbirds, 1 White-crowned Sparrow. (Ian Jack).

Masset (AB) — Dec. 15; 18 obs., 85 spp., 5790 indiv.; 2 Yellow-billed Loons, 1 Short-tailed Shearwater, 13 Trumpeter Swans, 1 Lesser Scaup, 22 Black-bellied Plover, 1 Lesser Golden-Plover, 221 Sanderlings, 10 Long-billed Dowitchers, 1 California Gull, 32 Ancient Murrelet, 4 Cassin's Auklet, 30 American Pipits, 1 American Tree Sparrow, 1 Savannah Sparrow, 3 Lincoln's Sparrows. (Peter Hamel).

Nakusp (AB) — Dec.30; 13 obs., 49 spp., 1781 indiv.; 1 Common Loon, 6 Common Snipe, 1 N. Pygmy-Owl, 1 Black-billed Magpie, 142 American Crows, 55 White-winged Crossbills. (Gary Davidson).

Nanaimo (AB) — Dec. 29; 31 obs., 112 spp., 25388 indiv.; 1 Yellow-billed Loon, 2337 Brandt's Cormorants, 1062 Pelagic Cormorants, 159 Trumpeter Swans, 213 Bald Eagles, 20 Virginia Rails, 72 Black Oystercatchers, 2 Western Sandpipers, 5 Rock Sandpipers, 57 Rhinoceros Auklets, 2 Barn Owls, 2 Lincoln's Sparrows. (Peter Van Kerkoerle, Nanaimo Field Naturalists).

North Pine (AB) — Dec. 14; 15 obs., 23 spp., 1014 indiv.; 2 N. Goshawks, 2 Northern Hawk Owls, 2 Great Gray Owls, 2 Three-toed Woodpeckers, 35 Blue Jays, 2 White-breasted Nuthatches, 82 Snow Buntings, 158 Pine Grosbeaks, 12 Hoary Redpolls. (North Peace Nature Club, Anne Magusin).

Oliver-Osoyoos (AB) — Dec. 29; 36 obs., 89 spp., 12091 indiv.; 36 Red-necked Grebes, 11 Red-breasted Mergansers, 16 Northern Harriers, 10 Chukar, 5 Blue Grouse, 1217 California Quail, 1 Mew Gull, 1 Thayer's Gull, 5 N. Pygmy-Owls, 3 Long-eared Owls, 74 Clark's Nutcrackers, 3 Canyon Wrens, 1 Western Bluebird, 1 Rufous-sided Towhee, 7 American Tree Sparrows, 340 Brewer's Blackbirds, 223 Red Crossbills. (Oliver-Osoyoos Naturalists Club, Syd Cannings, Joan King).

Parksville-Qualicum Beach (AB) — Dec. 15; 19 obs., 95 spp., 18645 indiv.; 1 Yellow-billed Loon, 22 Trumpeter Swans, 1 Gr. White-fronted Goose, 10 Brant, 49 Eurasian Wigeon, 337 Bald Eagles, 1 Barred Owl, 8 Western Meadowlarks. (Arrowsmith Naturalists Club, Terri Martin, Edward Nygren).

Pender Harbour (AB) — Dec. 22; 15 obs., 68 spp., 4885 indiv.; 50 Pacific Loons, 1 Mute Swan, 54 Bald Eagles, 423 Bonaparte's Gulls, 11 Ancient Murrelets, 1 Rhinoceros Auklet, 1 Hutton's Vireo, 72 White-winged Crossbills. (Pender Harbour Wildlife Club, Tony Greenfield).

Pender Islands (AB) — Dec. 29; 10 obs., 76 spp., 7147 indiv.; 75 Pacific Loons, 842 Brandt's Cormorants, 1 Turkey Vulture, 60 Bald Eagles, 35 Black Oystercatchers, 9 Rhinoceros Auklets, 25 Band-tailed Pigeons, 1 Townsend's Solitaire. (Mary Roddick).

Penticton (AB) — Dec. 28; 58 obs., 96 spp., 19576 indiv.; 10 Common Loons, 255 Horned Grebes, 1 Gr. White-fronted Goose, 1532 Canada Geese, 1605 Redheads, 2 Red-breasted Mergansers, 1418 American Coots, 336 Ring-billed Gulls, 458 California Gulls, 6 Glaucous-winged Gull, 1 Glaucous Gull, 1 Western Screech-Owl, 9 N. Pygmy-Owls, 2 Boreal Owls, 5 Lewis' Woodpecker, 331 Pygmy Nuthatches, 2 Canyon Wrens, 34 Western Bluebirds, 19 Townsend's Solitaire, 5 Rufous-sided Towhees, 3 Fox Sparrows, 260 Red Crossbills. (South Okanagan Naturalists Club, Richard Cannings).

Pitt Meadows (AB) — Dec. 29; 26 obs., 86 spp., 14693 indiv.; 109 Great Blue Herons, 122 Trumpeter Swans, 92 Wood Ducks, 16 Ring-necked Ducks, 1 Peregrine Falcon, 50 Band-tailed Pigeons, 1 Northern Pygmy-Owl, 1 Common Yellowthroat, 8 American Tree Sparrow, 8 Lincoln's Sparrow, 10 Brown-headed Cowbirds. (Alouette Field Naturalists, Wilma Robinson).

Port Clements (AB) — Dec. 18; 3 obs., 48 spp., 3015 indiv.; 1 Pied-billed Grebe, 49 Trumpeter Swans, 3 Eurasian Wigeon, 1 Ring-necked Duck, 1 White-crowned Sparrow, 3 Pine Grosbeak. (Peter Hamel).

Prince George (AB) — Dec. 15; 29 obs., 41 spp., 5114 indiv.; 11 Bald Eagles, 1 Gyrfalcon, 4 White-breasted Nuthatches, 2900 Bohemian Waxwings, 118 Pine Grosbeaks. (Prince George Naturalists Club, Nancy Krueger).

Prince Rupert (AB) — Dec. 14; 11 obs., 46 spp., 1802 indiv.; 1 Red-throated Loon, 1 Ruddy Duck, 32 Bald Eagles, 1 Peregrine Falcon, 1 Great Horned Owl (Robin Weber).

Revelstoke (AB) — Dec. 21; 21 obs., 56 spp., 5051 indiv.; 2429 Canada Geese, 1 N. Pygmy-Owl, 2 White-breasted Nuthatches, 2 American Tree Sparrows, 1 Swamp Sparrow, 1 White-throated Sparrow, 200 White-winged Crossbills. (Bob Brade).

Rose Spit (AB) — Dec. 16; 2 obs., 31 spp., 2634 indiv.; 1 Peregrine Falcon, 617 Sanderlings, 13 Rock Sandpipers,

7 Western Gulls, 1 Glaucous Gull, 173 Ancient Murrelets. (Peter Hamel).

Salmon Arm (AB) — Dec 21; 9 obs., 63 spp., 3492 indiv.; 51 Tundra Swans, 2 Trumpeter Swans, 914 Canada Geese, 11 Bald Eagles, 74 Ring-necked Pheasant, 2 Blue Grouse, 1 Black-backed Woodpecker, 1 Blue Jay, 1 Marsh Wren, 139 American Goldfinches. (Shuswap Naturalists Club, Frank Kime).

Saltspring Island — date?; 186 obs., 103 spp., 21256 indiv.; 22 Eared Grebes, 2624 Western Grebes, 1 Green-backed Heron, 24 Mute Swans, 142 Hooded Mergansers, 1 Northern Goshawk, 1 Golden Eagle, 649 California Quail, 2 Greater Yellowlegs, 22 Rhinoceros Auklet, 1 Northern Pygmy-Owl, 1 Townsend's Solitaire, 13 Hermit Thrushes, 6 Hutton's Vireos. (Glen Moores).

Shuswap Lake (AB) — Dec. 21; 10 obs., 68 spp., 4821 indiv.; 1 Pacific Loon, 1 Yellow-billed Loon, 26 Bald Eagles, 2 Mew Gull, 2 Glaucous-winged Gull, 1 Yellow-rumped Warbler. (Rick Howie).

Skidegate Inlet (AB) — Dec. 14; 16 obs., 78 spp., 8518 indiv.; 37 Trumpeter Swans, 247 Brant, 1084 Greater Scaup, 154 Bald Eagles, 2 Peregrine Falcons, 152 Black Oystercatchers, 15 Rock Sandpipers, 2 Long-billed Dowitchers, 1 Rhinoceros Auklet, 1 Short-eared Owl, 1 Downy Woodpecker, 10 American Pipits, 2 Orange-crowned Warblers, 9 Yellow-rumped Warblers, 3 Palm Warblers, 2 Savannah Sparrows, 1 Lincoln's Sparrow, 4 Golden-crowned Sparrows, 1 White-crowned Sparrow. (Peter Hamel).

Smithers (AB) — Dec. 29; 39 obs., 36 spp., 3849 indiv.; 2 Hooded Mergansers, 32 Bald Eagles, 5 Northern Goshawks, 1 Northern Pygmy-Owl, 1 Northern Saw-whet Owl, 11 White-crowned Sparrows. (Rosamund Pojar).

Sooke (AB) — Dec. 21; 21 obs., 108 spp., 20531 indiv.; 1 Yellow-billed Loon, 24 Mute Swans, 7 Eurasian Wigeons, 1602 Buffleheads, 114 California Quails, 2 Ancient Murrelets, 4 Rhinoceros Auklets, 4 Barred Owls, 5 Hutton's Vireos. (Mike Shepard).

Squamish (AB) — Dec. 21; 18 obs., 78 spp., 7613 indiv.; 2 Yellow-billed Loons, 18 Trumpeter Swans, 60 Canada Geese, 260 Common Merganser, 737 Bald Eagles, 24 American Dippers, 2 Townsend's Solitaires, 1 Swamp Sparrow, 41 House Finches, 66 White-winged Crossbills, 26 House Sparrows. (Doug Kragh).

Sunshine Coast (AB) — Dec. 14; 21 obs., 95 spp., 12801 indiv.; 3 Eared Grebes, 2012 Surf Scoters, 1208 Barrow's Goldeneyes, 61 Bald Eagles, 287 Surfbirds, 40 Rock Sandpipers, 318 Marbled Murrelets, 18 Ancient Murrelets, 1 Mourning Dove, 1 N. Pygmy-Owl, 3 Barred Owls, 3 Anna's Hummingbird, 1 Hutton's Vireo, White-winged Crossbill. (Sechelt Marsh Protective Society, Tony Greenfield).

Terrace (AB) — Dec 26; 11 obs., 45 spp., 3656 indiv.; 91 Trumpeter Swans, 48 Bald Eagles, 2 Peregrine Falcons,

516 Herring Gulls, 8 Northern Pygmy-Owls. (Diane Weismiller).

Vancouver (AB) — Dec. 15; 143 obs., 142 spp., 113413 indiv.; 3545 Western Grebes, 1 Clark's Grebe, 2 Mandarin Ducks, 1 Tufted Duck, 4305 Surf Scoters, 2573 Barrow's Goldeneyes, 1 N. Goshawk, 22 Virginia Rails, 20 Greater Yellowlegs, 33 Long-billed Dowitchers, 6045 Rock Doves, 1 Snowy Owl, 1 Long-eared Owl, 1 Yellow-bellied Sapsucker, 3 Barn Swallows, 2 Cliff Swallows, 8384 Northwestern Crows, 8 Townsend's Solitaires, 21565 Eur. Starlings, 13 Crested Mynas, 2 Orange-crowned Warblers, 1 Black-and-white Warbler, 1 Common Yellowthroat, 2264 Song Sparrows, 20 Lapland Longspurs, 1 Snow Bunting, 1977 House Finches. (Vancouver Natural History Society, Wayne Weber and Kevin Bell).

Vaseux Lake (AB) — Dec. 27; 24 obs., 87 spp., 6494 indiv.; 61 Tundra Swans, 6 Trumpeter Swans, 320 Ring-necked Ducks, 4 Golden Eagles, 1 Prairie Falcon, 4 Gray Partridge, 6 Virginia Rails, 4 N. Pygmy-Owls, 1 Three-toed Woodpecker, 3 Canyon Wrens, 3 Rufous-sided Towhee, 217 Red Crossbills. (Richard Cannings).

Vernon (AB) — Dec. 15; 47 obs., 103 spp., 19395 indiv.; 10 Common Loons, 74 Pied-billed Grebes, 178 Horned Grebes, 3 Wood Ducks, 2 White-winged Scoters, 521 Common Goldeneyes, 613 Common Mergansers, 19 Red-breasted Mergansers, 20 Bald Eagles, 31 Red-tailed Hawks, 3 "Harlan's" Hawks, 1 Prairie Falcon, 234 Ring-necked Pheasant, 1 Spruce Grouse, 334 California Quail, 1 Mew Gull, 362 California Gulls, 150 Mourning Doves, 39 Horned Larks, 16 American Tree Sparrows, 1 Swamp Sparrow, 3 White-throated Sparrows, 1 Rusty Blackbird. (North Okanagan Naturalists Club, Phil Ranson).

Victoria (AB) — Dec. 14; 200 obs., 151 spp., 87755 indiv.; 1 Yellow-billed Loon, 1 shearwater sp., 121 Trumpeter Swan, 663 Ring-necked Ducks, 602 Oldsquaws, 486 Hooded Mergansers, 111 Bald Eagles, 42 Cooper's Hawks, 3 Golden Eagles, 9 Peregrine Falcons, 378 California Quail, 1 Whimbrel, 9 Western Gulls, 12749 Glaucous-winged Gulls, 1 Glaucous Gull, 69 Ancient Murrelets, 6 Rhinoceros Auklets, 23 Western Screech-Owls, 30 Great Horned Owls, 2 N. Pygmy-Owls, 3 Barred Owls, 4 N. Saw-whet Owls, 24 Anna's Hummingbirds, 9 Eur. Skylarks, 6338 Northwestern Crow, 6 Townsend's Solitaires, 17 Lincoln's Sparrows, 1 Swamp Sparrow, 4 White-throated Sparrows, 937 Golden-crowned Sparrows, 17 Western Meadowlarks. (Victoria Natural History Society, Michael & Cynthia Shepard).

Wells Gray (AB) — Dec. 28; 7 obs., 23 spp., 302 indiv.; 1 Sharp-shinned Hawk, 3 Three-toed Woodpeckers, 1 Black-backed Woodpecker, 1 Northern Flicker, 6 Pileated Woodpeckers, 7 Gray Jays, 1 American Dipper, 1 Northern Shrike, 70 Pine Grosbeaks, 14 White-winged Crossbills. (Trevor Goward).

West Kootenays — Jan. 4; about 50 obs., 70 spp., 5499 indiv.; 25 Great Blue Herons, 28 Barrow's Goldeneye, 2 Harlequin Ducks, 1 Tufted Duck, 29 Bald Eagles, 2 Blue Grouse, 5 Spruce Grouse, 2 Boreal Chickadees, 4 Ruby-

crowned Kinglets. (West Kootenay Naturalists, Madge Hollington).

Whistler (AB) — Dec. 14; 8 obs., 25 spp., 617 indiv.; 5 American Wigon, 1 Ring-necked Duck, 3 Hooded Mergansers, 1 Bald Eagle, 127 Glaucous-winged Gulls, 4 American Dippers, 5 Brewer's Blackbirds, 14 House Sparrows (Max Gotz).

White Rock (AB) — Dec. 29; 66 obs., 133 spp., 67264 indiv.; 1 Yellow-billed Loon, 5 Eared Grebes, 1 Green-backed Heron, 8 Trumpeter Swans, 2 Mandarin Ducks, 32 Ring-necked Ducks, 72 Hooded Mergansers, 477 Ruddy Ducks, 3 Peregrine Falcons, 28 Greater Yellowlegs, 1 Lesser Yellowlegs, 1 Whimbrel, 1 Long-billed Curlew, 1 Marbled Godwit, 17381 Dunlins, 89 Mourning Doves, 21 Barn Owls, 3 Barred Owls, 3 Long-eared Owls, 6 Anna's Hummingbirds, 3 Mountain Chickadees, 473 Bushtits, 1 Townsend's Solitaire, 1 Savannah Sparrow, 4 Lincoln's Sparrow, 1 Swamp Sparrow. (Langley Field Naturalists, White Rock & Surrey Naturalists, Hue Mackenzie).

Williams Lake — Dec. 29; 47 obs., 42 spp., 1777 indiv.; 1 Pied-billed Grebe, 1 Lesser Scaup, 2 Northern Goshawks, 2 Bald Eagles, 1 Spruce Grouse, 1 Northern Saw-whet Owl, 17 Pileated Woodpeckers, 405 American Crows, 1 White-breasted Nuthatch, 16 American Dippers, 8 Townsend's Solitaires, 4 Cassin's Finches. (Williams Lake Field Naturalists, Anna Roberts).

Yoho National Park — Dec. 29; 15 obs., 20 spp., 280 indiv.; 1 Three-toed Woodpecker, 14 Gray Jays, 10 Clark's Nutcrackers, 24 Boreal Chickadees, 4 American Dippers, 2 Townsend's Solitaires, 1 Snow Bunting, 39 Rosy Finches, 38 Pine Grosbeaks, 17 White-winged Crossbills, 38 Evening Grosbeaks, 24 House Sparrows. (Rob Scoble).

Richard Cannings  
Vancouver

## R. WAYNE CAMPBELL AWARDED ORDER OF B.C.

R. Wayne Campbell, curator of Ornithology at the Royal British Columbia Museum as has been awarded the Order of British Columbia by the Provincial Government. Wayne has contributed to the knowledge of the natural history of this province for many years and was responsible for the first complete seabird colony inventory in the province. He was a co-author in the recent best selling volumes of *The Birds of British Columbia*.

In announcing the awards, Premier Harcourt noted that those receiving this honour, which is the highest form of recognition extended by the government of British Columbia were chosen from 230 nominations. They were invested in a ceremony at Government House on June 25, 1992. The Order of B.C. recipients were presented with a medallion which incorporates the dogwood, the province's floral emblem, and the B.C. shield of arms. They also received certificates of appointment signed by the lieutenant-governor and have the right to have the letters O.B.C. placed after their names.

# PURPLE LOOSESTRIFE WORKSHOP

The Purple Loosestrife Workshop held in Ottawa in early March was organized by the North American Wetlands Conservation Council Secretariat. NAWCC (Canada) was established in 1990 by the Federal Minister of the Environment. It provides a national forum for the coordination and implementation of Canadian Joint Ventures of the North American Waterfowl Management Plan (NAWMP). The twelve members of the council are appointed by the federal Minister of the environment and chosen from the Canadian Wildlife Service, Ducks Unlimited, the three Canadian NAWMP Joint Ventures, Wildlife Habitat Canada and NAWMP (USA).

The participants were welcomed by Steven Curtis, Acting Director General, CWLS. The first day was chaired by the Head of the Secretariat of NAWCC (Canada). The purpose of this workshop was to bring together individuals from agencies concerned with purple loosestrife infestations of wetlands across Canada, and other stakeholders who would suffer financial losses with the eradication of this plant. The participants would pool observations and experiences of their attempts at controlling or eradicating the plants.

We first heard from Ton Duffy, P.E.I. Environment. There, the government was quick to put the purple loosestrife on the the Noxious Weed List. There was an all-plant ban, no exception was made for any of the cultivars obtained from *Lythrum salicaria* or *vergatum*.

Shafeek Ali, Alberta Agriculture, told of their 1991 plan which began by determining the level of infestation in the province, creating a public awareness, controlling/eradicating infestations found, evaluating the weedy potential of ornamental *Lythrum* and finally proposing a long term strategy based on the infestation levels determined.

Because seasons, like tides, wait for no man, some of this action plan would have to wait for 1992. Nevertheless the results of this awareness was soon felt through the "Beautiful Killer" brochures and posters, as well as through local newspapers and radio stations. Municipalities undertook to involve Boy Scouts and Girl Guides in handpulling small infestations; one municipality offered a \$10.00 reward for any new confirmed sites within the city limits. They found that most sites seemed to be related to garden escapes.

Alberta declared purple loosestrife a Noxious Weed in January of 1992. Only one species of ornamental *Lythrum*, Morden Pink, escaped the ban and was allowed to be sold and propagated from root stock and not from seed.

Later we heard from Kim Ottenbreit, University of Manitoba, telling us of the risks associated with the sale of *Lythrum* as a garden plant. Her study showed Morden Pink to be capable of producing seeds when in the presence of the wild *Lythrum*. This research was done under laboratory conditions; no work has been done to

prove these findings in the natural environment.

From the Canadian Wildlife Federation we heard the results of the "Beautiful Killer" campaign. Not surprisingly 72.7% of the responses came from Ontario. They also mapped the greatest infestation. B.C. was second with a 6.7% response.

Here is a percentage breakdown of the type of habitat infested:

marsh or wetland	24.41
ditches	16.22
roadsides	16.05
stream or river	14.55
meadow or pasture	7.19
canal	1.17
other	7.36

Judging from the data gathered across the country, the information is still incomplete. The work was done by volunteers and it becomes obvious that a network or reporting is needed for more efficient data collection in each province.

Cheryl Nielson gave an account of the efforts of the City of Winnipeg to eradicate loosestrife from their gardens and the positive responses from the public. Betty Lunam shared her experiences with the group and crowed about her success with the Courtenay City Council which had passed a by-law banning loosestrife within the municipal limits. As well, a resolution was on its way the Vancouver Island Association of Municipalities to ask the Provincial Minister of Agriculture to declare purple loosestrife a Noxious Weed. The resolution has since been passed and will be taken to the meeting of the Union of B.C. Municipalities to be held in Vernon in the fall.

The Canadian Nursery Trades Association was represented by Lothar Behnke. He told us of the initiative taken by the association in the control of wild *Lythrum*. The proposed resolution was to call for a voluntary halt to the sale of all cultivars except those proven to have been made sterile; the emphasis being on Morden Pink. Generally speaking, nurseries operating in regions where the growing season is limited, find *Lythrum* a favourite of the customers since both *salicaria* and *vergatum* and their cultivars have a much longer blooming season than all other horticultural flowers offered on the market. The demand from gardeners will obviously dictate their response. We are lead to believe most garden centres will likely be willing to participate in the campaign to education the public about the dangers of *Lythrum* by introducing the sale of their cultivars and planting instructions, warning of the dangers of having these plants near waterways, etc. It shows a willingness to compromise and goes a long way in the campaign to control loosestrife.

When told of the benefits of purple loosestrife as a honey nectar plant, we who knew very little about the trade, were

in for an eye opener. the beekeepers income is generated from the farmer's orchard through pollination fees as well honey produced. However, when pollination of the orchard has been done the beekeepers must move his hives to a safe location while the orchards are being sprayed with "whatever". In Ontario, where acres of land are covered by purple loosestrife, this source of free nectar is the obvious choice. The interesting aspect of this is that the honey produced from purple loosestrife nectar is of lower quality than other nectars. It is darker and will not bring as much money per pound produced. But, because the nectar is readily available, many beekeepers over-winter their bees on this honey. The sudden eradication of purple loosestrife in Ontario would be of grave consequence to them. However in this beautiful province of ours where loosestrife is not yet an integral part of the beekeepers seasonal schedule, and where the blooming season for a variety of wildflowers is much longer, beekeepers need not rely on this source of nectar.

The afternoon sessions of the workshop was to see us divided into four groups. The intention was to link directly with the morning sessions. A mix of knowledge and interests was the consideration in assigning members to the groups. Proposed questions were prepared and given to the participants in advance of the sessions. A work group leader was assigned as well as a non-participant reporter and the notes taken from the groups were typed and distributed to all of us the next morning. In this way we were all aware of the way other groups dealt with the questions. This led to a very effective plenary session on the last morning of the workshop.

Some of the questions dealt with the advertising campaign, the posters and brochures and the need to be more explicit. Suggestions were to get an 800 number in each province for reporting new site of infestations. Long discussions followed about what advice should be given to inquiring individuals on what to do about infestations. It is generally agreed that each case has to be treated in a different way. Provincial by-laws and federal laws were discussed. The federal government has the authority to restrict the sale (import) of seeds. Root stocks would come under a provincial jurisdiction through a Weed Act. Similarly, cites (in B.C. at least) can prevent you from growing a plant, but cannot tel you what you can buy or sell.

The second day of the workshop dealt with the control options for the purple loosestrife. Robert Clay from Duck Unlimited talked about water level control. Certain levels in inundation seem to weaken the plant. the tests on loosestrife done away from other plants did not show what such control measures would have on the surrounding vegetation in the natural habitat. Generally speaking, such control were not a solution for the long term control of loosestrife; more tests are needed for successive years.

The use and integration of Phytocide Triclopyr for selective

management of purple loosestrife was presented by G. Stephenson, University of Guelph and Shane Gabor of Ducks Unlimited. the efficacy of these were demonstrated and many questions ensued about the residual chemicals in the ground after use of these. However, as yet the chemical has not been approved by the government for specific use on loosestrife; until such time they cannot be considered part of the "tool box" for the control of loosestrife infestation.

Peter Harris of Agriculture Canada gave a most fascinating overview of the work done in the States and in Canada on the potential of biocontrols for loosestrife and the extreme care taken in the study of each potential insect. Dr. Harris is well known in B.C. where his work has taken him.

Malcolm Stewart explained the new process in pest control and Rich Malecki of Cornell University told us of the USA's experience in purple loosestrife control. Although biocontrols are deemed to be the most promising tool for the control of loosestrife, from an economic as well as an environmental point of view a number a key points must be addressed, not the least of which is the cost factor. The number of insects released is limited by the availability from "nurseries". Hopefully there will be cooperation across Canadian universities in this endeavour but it all translates into dollars. Propagation and dispersal rates are still an unknown; what about predators on these biological controls?

In the afternoon work session all groups agreed that control of the infestation of loosestrife must be pursued on a national level. It was also agreed that no one tool could be the prescribed control agent but, depending on the site location, i.e., an integrated approach has to be taken. Everyone involved could see their organization taking an active tole in the fight to contain purple loosestrife; in the reporting of infested sites, in the efficacy of controls used, the research and education campaign, the lobbying for government action and funds, etc. A task force was organized to set up a national task force/committee whose mandate would be to provide guidelines and inform stakeholders of various approved methods of control, to prepare a justification paper for the introduction of biological controls, to identify sources of funding and proved guidelines in an overall program of control and eradication where possible. Dr. Harris commented that, as a preference, he would prefer to introduce biological controls in those provinces with purple loosestrife on the Noxious Weed list.

This was a very worthwhile workshop for which I wish to thank the FBCN for airfare, the Comox-Strathcona Naturalists and the Rod and Gun Club of Courtenay for expense money, and my friends in Ottawa for bed and breakfast.

Betty Lunam

# PAINTED LADIES

## Migrations

On 26 April 1992, the advance guard reached the Gulf Islands and Penticton. On the 28th it reached south Delta. On the 30th, it reached Vancouver. Reinforcements poured into South Delta on 5 May.

Fortunately, this is not an army, but a migration of butterflies. Sometimes called the Cosmopolitan, the Painted Lady, *Vanessa cardui*, is almost worldwide in incidence. The similar and closely allied *Vanessa kershawi* occurs in Australia and New Zealand.

From continent to continent, the markings of *cardui* do not vary significantly. In temperate latitudes and at high elevations, the upper sides, and more of the undersides, are beautifully shaded with bright pink. Tropical specimens are a muddy flesh colour or a dirty yellow. These colour variations being climatic, the butterfly arguably has an extreme genetic stability. The parting of the ancestors of *cardui* and *kershawi* could have been during a cool period before the Ice Age, with conditions between continental Asia and Australia drier than now.

Painted Ladies usually do not reside permanently in humid tropics or in cool or cold temperate areas. Their most thriving redoubts may be dry subtropical and warm temperate areas, like deserts with winter rains. From there, they migrate into the tropics, but far more into temperate regions and beyond.

They are thought to reach Sierra Leone and Algeria. They have reached Malaya, perhaps from northeast India or South China. From the USA they reach the Antilles. In large numbers they reach northern Europe from North Africa, the hills and mountains from the plains in India, and as far as Newfoundland and Haida Gwaii in Canada, reported from the north Sonoran Desert.

Migrations proceed in stages, each one brood. Fertilized migrating females lay eggs, on thistles by preference, and on these, the caterpillars feed and grow. Upon reaching the adult or butterfly stage, they fly further onwards, but after mid-summer, they congregate where air currents and flowers suit them.

The worn and frayed specimens that came to B.C. in late April and early May, 1992, must surely be the end on one brood flying the entire way. One may speculate that eggs laid in the Sonoran Desert on 31st January could have resulted in adults by 28th February. At an average of 40 kilometres per day, stops at flowers for fuel taking little time, 63 days completes the 2500 kilometres to Vancouver. There is no room for an interim brood in any guessing of speeds and times.

By the first week of May, in South Delta, eggs were laid of thistles, *Cirsium lanceolatum*. By early June, fresh adults

of unspoilt temperate pink beauty should have formed the core of a new northward wave. Before that, more waves due to eggs laid along the way, further south, should have arrived and gone on further.

One would like to know when and if the second wave reaches Haida Gwaii, Atlin, and Fort Nelson. With so early a start, the waves may go far into the subarctic.

One would like to know also, if in August, September, and October, there is any seeming remigration southwards. Such appears to occur in Europe. Observations are here with requested.

Simultaneous migrations on a more modest scale have started. One is of the Western Painted Lady, *Vanessa annabella*, of a more uniform and orange colour than the Painted Lady, and laying eggs on stinging nettles if mallows are unavailable. The other is of the Red Admiral, *Vanessa atalanta*, which prefers nettles.

The northward migration of Monarch butterflies, also, is very early this year. They laid eggs on milkweed at Lytton by about 10 May. One was seen flying near the ferry there on 13th May, and another in South Delta on the 16th.

## Life History

The Painted Lady egg is roughly a half millimetre across, cylindrical, and a paler green than young bull thistle leaves. It glints in sunlight. Keen eyes can find them all on various thistle species, or on alternatives like lupins, mallows, and perhaps nettles.

After a week, or less in warm weather, the infant caterpillar emerges from the egg. About 1 1/2 mm long, it is pale brown with a black head capsule. Growth is divided by four moults into five instars or larval skin growth periods. In each instar it roughly doubles each dimension or grows near eight-fold in bulk. At the final maximum length of about 4 1/2 cm, bulk from hatching to pupation has increased near 30,000 times.

The second, third, and fourth instars are mainly black with dorsal designs of angular cream marks. There are several distinct designs of the mature caterpillar, of the fifth instar. On each segment there are pale branched spines. In one colour form the segments are alternately banded with pale grey and gold. In another, the grey is darker, the fold more restricted, and the spines bases deep pink. In yet another, the predominant colour is black. These forms are not reflected by any variation in the stable design of the adult butterfly.

The caterpillar forms merit painstaking photography at high magnification. The perishable colours of caterpillars cannot otherwise be preserved.

The first instar of the caterpillar feeds on the surface of the leaf, often in a hollow, which it covers with a thin silk web. As it grows, it makes and feeds in a succession of shelters, the last of which, at the end of the fifth instar, is a conspicuous individual tent or nest into the silk webbing of which bitten off thistle spines are neatly woven. There is normally one nest per plant, but winds and ground warmth can cause crowding that undoes the scattering that evades natural enemies.

If a caterpillar stabs itself on a thistle spine, it reaches around, sucks the blood from the gash, and develops without defect. The flexible but inelastic chitinous larval skin heals. Bacteria driven in are resisted.

Having reached full size, the caterpillar makes a silk pad under some surface, in the nest or under a rock or other shelter. It entangles the tail end of the abdomen in the pad, and hangs upside down with the head curved forward upward. In a day or less, it moults, becoming in a common form, in the truest sense, a chrysalis, which signifies the gold spots and suffusion than can make the Painted Lady pupa a jewel.

Of species in this butterfly's family, *Nymphalidae*, and allied families such as of the Emperors, Monarchs, and Morphos, the pupal moult is a manoeuvre marvellous to witness. When peristaltic impulses have pushed the final caterpillar skin almost to the top, abdominal segments grip the crumpled skin while the abdominal tip ending with the hooked cremaster withdraws and reaches up over to the silk pad. This entangling contact having been made, the still soft pupa contorts and convulses, fixing further the cremastral hooks in the silk pad while working loose until it drops down the discarded caterpillar skin, which only two seconds before the convulsing was a vital support. Failure in this perilous exercise would cause a fatal fall.

The pupa then alters shape and hardens in less than an hour, still green. Within a day it acquires the light grayish brown colour with gold points and shading, if not a duller pattern.

After a week or so the wing cases of the pupa darken and show the white spots and pink patches of the butterfly's forewing to be. After another day, the butterfly emerges, hangs from a suitable object to expand and dry its wings, and hardly more than an hour later, is ready, to fly off at the top.

Indoors, in warmth, from egg laying to adult emergence may be only 22 days. Such astonishing speed uses chances like food plants in deserts after rain, or completes the growth cycle before natural enemies can sabotage it.

### Enemies

Natural enemies include parasitoids such as dark blue winged and orange bodied ichneumon wasps, fit subjects for morbid fantasies and films. The female lays an egg in a luckless caterpillar, inside which the grubs eats and develops, usually without disturbing pupation, but becoming evident soon afterward.

This wasp's parasitoidism may be far more ancient, and is certainly far more refined, than that of tachinid flies, whose feeding maggots turn the larval or pupal insides to a putrescent mess. The wasp grub nearly deposits its wastes in the upper or terminal abdominal part of the pupa, and turns the lower or thoracic part into a translucent and non decaying medium in which it feeds. Some days later, under a strong light, the demon inside, the developing wasp, can be seen moving, doing pushups, as it were, even before being finally formed. A day or so later, the wasp gnaws a round hole in the pupal case and climbs out, already energetic, and dries its wings.

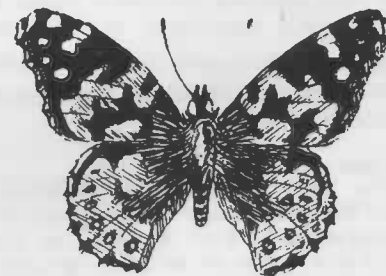
Fortunately for other butterflies in the dry interior, such as the attractive Pearl Crescent, *Phycoides pallida barnesi*, between Lytton and Lillooet, which in the caterpillar stage depends upon woolly thistle, *Circium undulatum*, for food, such enemies as the wasps are but among many that prevent Painted Ladies from eating all the thistles, which would starve the natives. Let us hope that this balance will remain intact.

### Numbers

Many will ask how many Painted Ladies are migrating. In 1991, on 17 August, I estimated there were at least 10,000 on the Grouse, Dam, and Goat Mountains complex in North Vancouver. Air currents had congregated them there, where the only nectar source of consequence was healthier. They were hardly to be seen further down. Two days later on the Thompson Plateau, southwest of Kamloops, where a great congregation could have been expected, numbers were far lower.

Coordinated observation over a wide area might allow guessing by order of magnitude, whether millions, or tens or hundreds of millions. Nothing more precise is possible. Even that precision would be welcome.

Roger Ashton  
Vancouver



P.C.

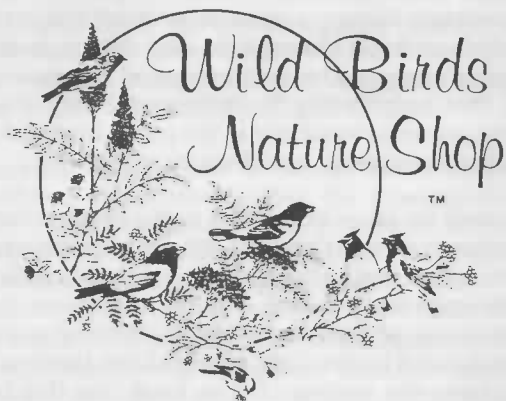
### FRONT COVER:

Painted Lady (*Vanessa cardui*)

Photo: Al Grass

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#### Archaeology and Ethnography of the West Coast Peoples

This field trip is designed to introduce participants to the history and prehistory of Bamfield and the Broken Group Islands. The program includes exploration of many sites of historical and biological significance. Discussions and seminars will reveal the fascinating stories behind what is seen. Denis St. Clair, author of a number of works on the prehistory of the Barkley Sound area, will lead the group.

Dates: October 11-14, 1992

Cost: \$300.00 (includes \$225.00 tax deductible receipt)

#### Maritime History and Shipwrecks of Barkley Sound

Of interest to both divers and non-divers, this course explores the relationship people have had with the sea in Barkley Sound. Trips to wreck sites and whaling stations as well as lectures and audio-visual presentations will be part of this weekend. Your instructor will be David Griffiths, a marine archaeologist who has done extensive work in Barkley Sound.

Dates: November 20-22, 1992

Cost: \$235.00 (includes \$150.00 tax deductible receipt)

# RAVEN TALK

Your Federation in Action: information, committee reports, projects and concerns

## PRESIDENT'S MESSAGE

What a wonderful setting for an Annual Meeting. Loon Lake, is a jewel tucked away in the UBC Research Forest near Maple Ridge. The host club, The Alouette Field Naturalist (or All-a-wet Naturalists as they were dubbed) put on a great program including spectacular thunder lightning shows along with "heavy" rain showers. But Naturalist never complain. It does make me wonder what the Rocky Mountain Naturalists will do with us at Kimberley this fall? Maybe I should take my snowshoes and sled!

At this time I would like to turn the column over to the winners of the Federation of B.C. Naturalists Award winners. These are people who have worked very hard for their clubs, or for the federation or for natural history as a whole in this province. These awards are the Federations way of saying THANK YOU for service. Here are this years winners. Congratulations all.

### CLUB SERVICE

This award is presented to a club member who has done exceptional work on behalf of their club for their club.

#### **Beryl Cunningham Alouette Field Naturalists**

Beryl has been a member of the Alouette Field Naturalist for the past fifteen years. She has acted as President, Treasurer and Club Representative at numerous meeting, she has also put in several years as Club Director to the FBCN. Along with Wilma Robinson she has participated in the Rieboldt Park Nature Information Board changing photos and in-

formation spring and fall. Every outing is also clean-up day for Beryl, never without a plastic bag or two with which to collect other peoples garbage, she is a familiar sight emerging from the woods or staggering along the dykes with bags building with assorted trash. She returns all bottles and cans and turns to proceeds over to the club from an "anonymous" donor. She participates in Nature Park walks with the schools, cubs, guides etc. as well as with public groups. She also participates in giving slide shows to these groups and testing for Nature Badges. She is an idfatigable worker on behalf of nature and is a cheerful and reliable individual.

The club considers itself very lucky to count Beryl amongst its members and she is well known and respected in the community to the extent that she was the winner of the Citizen of the Year for 1992 being nominated by the Historical Society and SPEC as well as by our club.

#### **John Toochin Vancouver Natural History Society**

John Toochin has been a member of the Vancouver Natural History Society since the 1950's and has been particularly active in the Birding Section. He served as section leader of the Birding Section for seven years, from 1975 through 1982, and chaired the monthly Birders' Night meetings. He was first Vice-President of the Society from 1981 through 1985. He organized and compiled the Vancouver Christmas Bird Counts from 1976 to 1978, and led dozens of field trips over the years. During John's tenure as Section Leader, the job became so

big that a committee of seven, with John as the chairman, had to be created to look after all the Societies birding activities. John was always full of good ideas. In 1974 he conceived of and organized what was probably the first organized winter Bald Eagle count in B.C., which was expended in the next year. He organized a Crested Myna count in 1980, which demonstrated the dramatic decline of this species when compared to a similar count five years later. In 1979 he started the first taped Rare Bird Alert in Vancouver. He also took part in roadside raptor surveys, and has been an area leader for part of Stanley Park on the Christmas Bird Count from the 1960's through to the present. He has taught night school courses on birds and birding and has been a Director of the B.C. Waterfowl Society and a strong booster of the Reifel Bird Sanctuary.

In summary the VanNHS wishes to express it's long overdue recognition of John Toochin for his many contributions to the society. Any naturalists club would be lucky to have a member who gave so unstintingly of his time over as many years as John Toochin.

#### **Anne Murray Delta Naturalist Society**

Anne Murray is recognized by the Delta Naturalist Society for her outstanding service to the local community. She has contributed to the public awareness of environmental issues in Delta through the following activities:

- she is a founding member of the Delta Naturalists Society and has been the club's secretary and newsletter editor from 1988 to 1991.

cont. on page 20

## CLUB CHAT

Thanks for all the newsletters you clubs have sent direct to me. I also thank Frieda for forwarding those I don't receive direct. Now for some "Chat".

The **Delta Naturalists Society** reports that three treefrogs were heard calling in the ditch near the 64th Street dyke in December.

Birding, trail clearing, and wildflower walks were some of the pleasures of the **West Kootenay Naturalist** of Castlegar. They had 70 members turn out to their annual dinner in January.

Steve Baillie of the **Nanaimo Field Naturalist** used his tape player to get immediate vocal responses from five Virginia Rails concealed in a Harwood Lake marsh, part of the clubs Christmas Bird Count area.

**Chilliwack Field Naturalists** member Frances Guinet briefly described worm composting using "worm bins" to recycle food waste. The worms and associated micro-organisms can process the waste into rich compost in as little as two months - in the lower mainland that is! Apparently the GVRD have a "Guide to Worm Composting" available.

**Cowichan Valley Naturalist**, Miles Hoeg, made 54 swallow nesting boxes for the Cowichan Golf Course this past winter. Will the swallows keep the bug population down?

A Cattle Egret was observed at Colony Farm (Coquitlam) in December by the **Burke Mountain Naturalists**. According to the Christine Hanrahan, the egret is probably a descendent of the first Cattle Egrets which found their own way from Africa to South America in the 1880's from where they spread up into Canada by 1952. They are rare winter visitors to the Vancouver area.

Burke Mountain Naturalists' Mary Trainer, wrote such a good press release on an up-coming field trip that trip leader April Mol had her phone ringing off the hook with calls from all over the Lower Mainland. April estimated she had to turn down at least 150 callers as the group size would have been unmanageable. Some callers even tried to bribe her to reveal the meeting place, they were so eager to go.

**Williams Lake Field Naturalists**, Jina Roberts reports the first record of a western small-footed bat hibernating in the Williams Lake area. It was in a limestone cave near the Fraser River.

**EDITOR'S NOTE:** In the last edition (May 1992 - Page 18) we incorrectly said that Jean Waite was studying bats near Williams Lake. The correct name is Jina Roberts.

Anna Roberts, of the Williams Lake Field Naturalists, reports that on several of the bluebird trails she monitors, mountain bluebirds used 80% of the paired boxes. There are 15 nest box routes maintained by the Williams Lake club. In all, there are 500 - 600 nest boxes spread over the Chilcotin grasslands.

On the morning of February 6, 1992, Williams Lake Field Naturalists, Carol and George Atkins, were witness to two wolves downing and gorging themselves on a moose the ice at Horsefly Lake. Two adults and one juvenile Bald Eagle and finally a flock of 21 ravens cleaned up after the wolves, leaving only the moose skeleton by dusk that day.

The **North Okanagan Naturalist Club** is working on display consisting of 3 x 4 foot panels for each of ecosystems in their area. Quite an ambitious project! Good for them.

The **Central Okanagan Naturalist** have completed the Sybil Maude-Roxby Bird Sanctuary project and have a burgeoning membership of 250, with record numbers turning out for Wednesday and weekend hikes and birding two days a week.

A dry land garden, featuring representative shrubs and flowers of the South Okanagan, has been developed cooperatively by the **South Okanagan Naturalists** and Okanagan University College at the south end of the Penticton campus. The idea has been taken up by the Kelowna College campus and the Summerland research centre.

The **Prince George Naturalists** club report an extraordinary number of Great Grey Owl sightings this past winter. One member also reports on a long toed salamander wintering in his vegetable storage area.

**Kamloops Field Naturalists**, Ken Favrholt is compiling a list of the largest Ponderosa Pines in the Kamloops area. One on Squam Bay Road measures 18 feet in circumference 5 feet above the ground.

The 250 strong **Salt Spring Trail and Nature Club** is looking at an "adopt-a-trail" system for the island to better share the responsibilities for the trail maintenance and development on Salt Spring Island.

Martindale Flats has been surveyed for wildlife every Saturday for over a year now, by dedicated volunteers from the **Victoria Natural History Society**. The weekly surveys, of about two hours duration, have accumulated a wealth of information on the areas waterfowl, raptors, Western Meadowlark and Eurasian Skylark. This will enable the Society to make informed submissions regarding land use in this area of the Saanich Peninsula next to the Pat Bay Highway.

## FBCN RESTRUCTURING COMMITTEE

In 1990 Indian Arm part of Burrard Inlet was surveyed nine times to note seabird populations and varieties of birds, according to a report the **Vancouver Natural History Society** publication *Discovery*. The higher species counts were along sheer rock faces, gravel beaches, and shallow bays, not near fresh water falls or creek outwash fans. Each survey was conducted by a minimum of two observers plus a recorder aboard a small motor vessel. Starting at Deep Cove at 0900 and travelling 30 metres offshore at about 4 knots the circuit of Indian Arm took until 1700 to complete. A total of 79 species of birds were observed in the area.

## Feature Club

Welcome the **Vermillion Forks Field Naturalists** of Princeton organized by Madelon Schouten in November 1991. The club meets the third Monday of the month September to June at 8:00 p.m. in the Princeton Library. They plan to publish quarterly newsletters and run field trips on a weekly or biweekly basis depending on the season. Membership runs January to December at \$15 per individual or \$20 per family. The club is already registering concern about local interest in damming the Similkameen River to run an electric generator for the community.

Good luck to this new club.

Adam Moss  
Quesnel

## Notes from Frieda at the office . .

We have a **volunteer** Mari Black helping out at the office.

**Club Reports** are a main part of our Fall General Meeting. Clubs are reminded to send their reports into the office by September 14th so they can be duplicated before the meeting.

Thank you to all who have used our new Change of Address form in **B.C. Naturalist**. It is a real help.

There are still a few spaces left in the **Bamfield Camp**. Please consider coming - you won't be disappointed. See page 30 for details.

We are receiving lots of replies from our letters regarding our 1992 resolutions. We will be pulling together an update for **B.C. Naturalist**.

The structure of the Federation can make a lot of difference in its success or failure. The huge size, complex geography and inclement weather of British Columbia all pose great challenges to any provincial organization such as ours. In addition the FBCN's size and activity have increased markedly since it was first formed. If we are to increase of effectiveness both internally and externally, we must either adapt our present structure to new situations or adopt a new structure.

For this reason a Restructuring Committee has been struck consisting of Syd Canning (chair), Daphne Solecki and Frances Vyse. A lively and well-attended (and of course, too short) workshop was held at the AGM at Loon Lake. As well the committee has received several constructive submissions from members. All these ideas, priorities, suggestions, etc., are currently being compiled. However, the committee would like to hear from clubs and/or members who were not able to attend the AGM. We should like your thought/suggestions/recommendations on the following:

- \* communications - what's lacking? how to ensure a feeling of integration clubs/FBCN
- \* directors - how chosen? duties? term of office?
- \* executive director - need for? how to finance?
- \* focus of activities, priorities, annual work plan, budget, accountability
- \* executive and directors meetings - how often?, where?
- \* regional activities - how should they fit in? can we alternate provincial and regional directors meeting/ what "powers", responsibilities could be handled regionally?
- \* PR/ raising FBCN profile - how: increased membership, broadening membership base, provincial and cultural representation?
- \* fund-raising, finances in general, FBCN Foundation
- \* conservation, education
- \* publications (*Cordilleran*, *B.C. Naturalist*, current books, future publications)
- \* anything else that you feel ought to be considered.

We need to hear from you by the end of **July** so that we can prepare a basic position paper or restructuring in the September **B.C. Naturalist**. This will be followed by an in-depth discussion at the Fall General Meeting in Kimberley, and a vote on those items which there appears to be consensus. Work will continue on other items until agreement is reached.

Please write or phone to:

Daphne Solecki,  
3672 West 1st Avenue, Vancouver, V6R 1H2 (736 9471)  
or Frances Vyse  
2646 Valleyview Drive, Kamloops, V2C 4E5 (372 8607)

## FBCN - RESOLUTIONS - 1992

The following resolutions were presented at the 1992 Annual General Meeting at Loon Lake in April.

### #1 WIDGEON MARSH PURCHASE

BE IT RESOLVED that the Federation of British Columbia Naturalists applauds the persistent actions taken by the Greater Vancouver Regional District and by The Nature Trust of British Columbia to purchase these valuable lands for wildlife and for public use by present and future generations. Carried

### #2 COLONY FARM

BE IT RESOLVED that the Federation of British Columbia Naturalists:

- a) urges the Premier and Cabinet to ensure that Colony Farm remain crown land, and that it remain as important wildlife habitat,
- b) urges the provincial government to designate Colony Farm as either a wildlife management area, or a conservation area, or a combination of environmentally sound farming methods and protected wildlife habitat, and
- c) objects to other land uses for this area, and urges the provincial government to reject proposals for such uses as race tracks, golf courses, and other organized sport facilities on the lands of Colony Farm. Carried

### #3 WATERSHED LOGGING

BE IT RESOLVED that the Federation of British Columbia Naturalists request the Greater Vancouver Regional District:

- a) to impose a moratorium on logging and all road building activities relating to logging in the watersheds pending completion of an ecological inventory for all of the watersheds,
- b) to establish ecological reserves in areas of remaining old growth forest within watersheds, and
- c) to develop, with public input and rigorous scientific review, a long term management plan for the watersheds which takes into account new scientific finds regarding the complex ecology of coastal old growth forests, and the important role played by these forests in providing water of the highest quality. Carried

### #4 DOUGLAS ISLAND

BE IT RESOLVED that the Federation of British Columbia Naturalists strongly oppose the zoning of Douglas Island to RS-3 (estate residential),

BE IT FURTHER RESOLVED that the Federation of British Columbia Naturalists urge the completion of a thorough environmental assessment, including a complete inventory of flora and fauna,

BE IT FURTHER RESOLVED that we urge the Ministry of Municipal Affairs to withhold approval of the plan by the City of Port Coquitlam to zone the Island RS-3 (estate residential), and that the Island be zoned Agricultural until completion of the environmental assessment, and

BE IT FURTHER RESOLVED that the Federation of British Columbia Naturalists support the acquisition of the Island for wildlife, habitat preservation, and public non-hunting use. Carried

### #5 WIDGEON VALLEY CLASS A PROVINCIAL PARK

BE IT RESOLVED that the Federation of British Columbia Naturalists request the Ministry of Environment, Lands and Parks to act immediately to establish a Class A provincial park in the area including Burke Mountain, Widgeon Valley, Or Creek, the western side of Pitt Lake, and the Pinecone Lake Wilderness Area, with the exception of the Widgeon Marsh Regional Park area, so that the lands of the proposed Burke-Widgeon Park would be forever protected from impending development and resource extraction. Carried

### #6 TAHSHISH-KWOIS CREEK CLEAR-CUT LOGGING

BE IT RESOLVED that the Federation of British Columbia Naturalists oppose any logging along Kwois Creek or in the Tahshish Estuary. Carried with one abstention

### #7 BROOKS BAY

BE IT RESOLVED that the Federation of British Columbia Naturalists urge the government to launch an immediate investigation into forestry practices on the northwest coast of Vancouver Island, with particular emphasis on Brooks Bay. Carried

### #8 BIODIVERSITY PROTECTION

BE IT RESOLVED that the Federation of British Columbia Naturalists make it a matter of priority to work with member clubs and all government agencies to develop policies that will protect B.C.'s range of biodiversity.

BE IT FURTHER RESOLVED that the Federation of British Columbia Naturalists recommend that the B.C. government develop adequate legislation to empower their various agencies to enforce policies that will protect B.C.'s biological diversity. Carried

### #9 BABINE MOUNTAIN RECREATION AREA

BE IT RESOLVED that the Federation of British Columbia Naturalists support the position taken by the Bulkley Valley Naturalists that the Draft Master Plan for the Babine Mountain Recreation Area be accepted, as is, with no further changes to the snowmobile boundaries, at least not until the impact of snowmobiles on the ecology of the area is more fully understood. Carried

### #10 HUNTING

BE IT RESOLVED that the Federation of British Columbia Naturalists urge the Minister of the Environment to remove the pro hunting biases and policies at present evident in the Wildlife Branch and enact new policies to conserve and preserve wildlife with a greater emphasis on allowing the public to view and enjoy nature.

Resolution #10 was Tabled, and referred to the Conservation Committee for re-wording.

**#11 THE BANNING OF LEAD SHOT**

BE IT RESOLVED that the Federation of British Columbia Naturalists deplores the present self-defeating regulation concerning the use of lead shot cartridges and urges the provincial government as follows:

- a) immediately to ban the use of lead shot cartridges for all hunting and for all target shooting in those areas for which at present there is a ban merely for the hunting of waterfowl, coot and snipe, and
- b) as soon as possible to extend the ban on the use of lead shot cartridges, for all purposes, in all of the Wildlife Management Units of the province. Carried

**#12 BRANT HUNTING**

BE IT RESOLVED that the Federation of British Columbia Naturalists request the Minister of Environment, Lands and Parks, the Honourable John Cashore, to close the hunting of Brant in the Lower Mainland Region and to request the Lower Mainland Region of the Wildlife Branch to take adequate measures to implement objectives 1 and 2 of the 1979 Preliminary Brant Management Plan of the Fish and Wildlife Branch. Carried

**#12B HUNTING IN THE FRASER ESTUARY**

BE IT RESOLVED that the Federation of British Columbia Naturalists request through the minister and head of the Wildlife Branch, that the B.C. Ministry of Environment, Lands and Parks conduct a full, open public review of the discharge of firearms within the GVRD, and that this review include involvement by the Canadian Wildlife Service, the GVRD, the municipalities, non-government groups and interested individuals. Carried

**#13 SERPENTINE FEN**

BE IT RESOLVED that the Federation of British Columbia Naturalists urge action be taken by the Minister of Environment, Lands and Parks to expedite the transfer of Serpentine Fen to his ministry and to take measures to give greater protection to the wildlife in the Serpentine Fen. Carried

**#14 BOUNDARY AND MUD BAYS**

BE IT RESOLVED that the Federation of British Columbia Naturalists request the Minister of Environment, Lands and Parks take action:-

- a) to close hunting on the inter-tidal zone, foreshore and dykes of Boundary and Mud Bays and to declare the dykes wildlife viewing areas;
- b) declare Boundary/Mud Bays to be Wetlands of International importance under the Ramsar Convention, and Western Hemisphere Shorebird Reserves. Carried

**#15 BURNS BOG**

BE IT RESOLVED that Burns Bog be preserved as an Ecological Reserve. This resolution was Tabled and returned to the submitting club for clarification.

**#16 ALL TERRAIN VEHICLE LICENSING**

BE IT RESOLVED that the Federation of British Columbia Naturalists request the provincial government to enact legislation that requires the licensing of all-terrain vehicles and the prominent display of the license number. Carried

**#17 NECHAKO RIVER WATERSHED**

BE IT RESOLVED that the Federation of British Columbia Naturalists urge the Federal Ministers of Environment, Fisheries, Transport and Native Affairs to immediately proceed with a full, public environmental review of the Kemano projects.

BE IT FURTHER RESOLVED that the Federation of British Columbia Naturalists urge Premier Harcourt and the Minister of the Environment, John Cashore, to immediately offer to co-ordinate a joint federal-provincial, public, environmental review of the Kemano projects. Carried

**#18 GREAT BLUE HERONS**

BE IT RESOLVED that the Federation of British Columbia Naturalists request the Provincial Government to pass legislation to protect heronries by the establishment of a buffer zone, as recommended by C.W.S. biologists, of a 300 metre (1000') horizontal and 650 metre (2000') vertical disturbance-free zone from February 1st to August 31st which would exclude all mechanized activity, trail building, power boats and low-flying aircraft; and BE IT FURTHER RESOLVED that compensation be considered for farmers suffering a genuine loss of income due to protection of heronries. Penalties should be adequate to provide a strong deterrent to offenders. Carried with 12 opposed and 4 abstentions.

**#19 SUSTAINABLE DEVELOPMENT**

BE IT RESOLVED that the Federation of British Columbia Naturalists support the concept of limits to the growth of human population and the spread of human settlements based on the need to maintain the sustainability of ecological systems and the economy. Carried with 11 opposed and 5 abstentions.

**#20 WOOD WASTE SITES**

BE IT RESOLVED THAT the Federation of British Columbia Naturalists encourage the Ministry of Environment Lands and Parks, Waste Management Branch, to strengthen the Waste Management Act to control the permitting, monitoring, and dumping at wood waste sites and that adequate staffing be provided for this. Carried

**#21 NOXIOUS WEED ACT**

BE IT RESOLVED THAT the Federation of British Columbia Naturalists will encourage:

- a) all affiliated clubs to survey and map all local infestations of *Lythrum salicaria*.
- b) all affiliated clubs to support an information campaign on the weed through "Beautiful Killer" pamphlets.
- c) all affiliated clubs to approach their city council and regional districts to support the addition of *Lythrum salicaria* to the Noxious Weed Act at the Association of

B.C. Municipalities' meeting, to be held in the fall in Vernon. Carried

**#22 PURPLE LOOSESTRIFE**

BE IT RESOLVED THAT the Federation of British Columbia Naturalists should approach both the Federal and Provincial Ministers of Agriculture to ask that *Lythrum salicaria* be put on the Noxious Weed Act list. Carried

**#23 MITLENATCH ISLAND**

BE IT RESOLVED THAT any further trail development on Mitlenatch Island be restricted to the meadow area between Northwest Bay and Camp Bay and that the proposed viewing platform and access trail from Northwest Bay be abandoned. Carried

**#24 SHORELINE SURVEY DATA**

BE IT RESOLVED THAT the Minister of Environment Lands and Parks, the Hon. John Cashore, be requested to:

- a) have collated existing shoreline survey data and
- b) extend the biophysical surveys undertaken by his Ministry to reconnaissance surveying of our marine shores. Carried

**#25 WATER ACT**

BE IT RESOLVED that the Minister of Environment, Lands and Parks, the Hon. John Cashore,

- a) include in new legislation proposed, the recognition of the welfare of fish and other aquatic organisms as a component in the legislation, and
- b) recognize in the new legislation, sloughs, ponds and small lakes as water to be considered as a biophysical resource. Carried

**#26 VOLUNTEER WARDEN SERVICE**

BE IT RESOLVED at this Annual General Meeting of the Federation of British Columbia Naturalists, that the Minister of the B.C. Ministry of Environment, Lands and Parks, the Hon. John Cashore and the Minister of Forests, the Hon. D. Miller:

- a) explore the possibility of extending the volunteer warden service for the care and protection, not only of certain ecological reserves and ranges but also certain provincial parks and forest recreation areas, and
- b) further a program of volunteer training and accreditation to support conservation officers in efforts to reduce illegal harvests of animals and plants, sales of animal parts such as bear parts and vandalism of public and private properties. Carried

**#27 GREEN ZONING**

BE IT RESOLVED THAT this Annual General Meeting of the Federation of British Columbia Naturalists urge the Minister of Environment, Lands and Parks, the Hon. John Cashore,

- a) to provide incentive funding to regional districts and municipalities wishing to acquire land for conservation and recreation, and
- b) where indicated, hasten the transfer of crown lands

to designations, whether in the name of the province, regional district or municipality, which clearly indicate their use for the conservation of natural features and/or public recreation (e.g. wildlife management areas), and

- c) encourage regional districts, municipalities, cities and villages to establish green zoning. Carried

**#28 EDUCATIONAL NATURE CENTRES**

BE IT RESOLVED THAT this Annual General Meeting of the Federation on British Columbia Naturalists request the B.C. Ministry of Education, the Ministry of Environment, Lands and Parks, the Ministry of Forests, the Ministry of Agriculture and the Ministry of Tourism and Fisheries, the Ministry of Energy, Mines and Petroleum Resources, to encourage, through re-direction of existing funds or through new funding, in the interest of both economy and environment, regional educational centers such as estuaria, nature centers, discovery centers, centers in demonstration forests, and wildlife and landscape viewing centers. Carried

**#29 HABITAT CONSERVATION BOARD**

BE IT RESOLVED THAT this Annual General Meeting request the B.C. Minister of Environment, Lands and Parks, the Hon. John Cashore, to augment the Habitat Conservation Fund, by one or more of the possible and varied means at Her Majesty's Government's disposal, and thereby give much needed and broader support for biological habitat enhancement and reconstruction. Carried

**#30 WILDLIFE VIEWING PROGRAM**

BE IT RESOLVED THAT this Annual General Meeting of the Federation of British Columbia Naturalists, request the B.C. Minister of Environment, Lands and Parks, the Hon. John Cashore, to assign or have assigned to the Advisory and Technical Committees of the Wildlife Viewing Program, a geomorphologist and climatologist with a view to including in the Program features of B.C. landscapes and climates. Carried

**#31 PROTECTION OF GARRY OAK AND ITS ECOSYSTEM**

BE IT RESOLVED THAT the Federation of B.C. Naturalists write to the Minister of the Environment, Lands and Parks to request that he protect Garry Oak by including this fine tree in the same Act of Law that protects Dogwood Trees and Red Rhododendrons: and that we also ask that he take other measures as advised by his specialists to further protect Garry Oak and its rare ecosystems. Carried

**#32 SQUAMISH ESTUARY**

BE IT RESOLVED THAT the Federation of BC Naturalists urge the Squamish Estuary Coordinating Committee:

- a) to negotiate a Section 101 transfer of all BC Rail lands west of the spur line to Crown Lands for the establishment of a Wildlife Management Area, and
- b) to provide clear accountability for the compensa-

tion package, showing the to fish and wildlife habitat (in terms of area integrity, biodiversity, and potential productivity) as a result of SEMP amendments. Carried

**#33 BELUGA AND KILLER WHALES**

BE IT RESOLVED THAT the FBCN opposes the capture of healthy, wild belugas and killer whales for the purpose of aquarium displays; and

BE IT FURTHER RESOLVED THAT the FBCN urge the Government of Canada to place a moratorium on the capture (in Canadian waters), and on the purchase or acquisition of all cetaceans, namely killer whales, belugas, porpoises and dolphins for any zoo or public aquarium in Canada. Carried with 3 abstentions.

Dick Stace-Smith  
Conservation Chairman

**UP AND COMING**

**AUGUST**

- 10 FBCN Executive Meeting - Vancouver.
- 29 Women and the Earth at Robson Square Conference Centre, Vancouver. Women on behalf of the earth including Levina White, Judith Plant, Marta Torres and many more. For more information please call 737 4302. Everyone welcome.

**SEPTEMBER**

- 14 Director's Meeting, 6:15 p.m., 1367 West Broadway, Vancouver.
- 26 Vancouver Island Regional Meeting, Nanaimo.
- 26 Rivers Day sponsored by Outdoor Recreation Council.

**OCTOBER**

- 16-18 Fall General Meeting, Kimberley (page 31)

**NOVEMBER**

- 14 Education Workshop on Environmental Literacy at Langley (details September edition)

If you have items for Up and Coming please FAX the Editor at 738 7075 or phone the office at 737 3057.

BINOCULARS  
SPOTTINGSCOPES  
for  
BIRDING AND  
NATURE STUDY

by  
PENTAX  
BUSHNELL  
BAUSCH & LOMB  
CELESTRON  
ADLERSCOPE  
STEINER  
SWAROVSKI  
LEUPOLD  
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Camp trips also available of 3, 5, or 7 days without meals.

Llama walks and gourmet hikes available. Round trips of 5-8 Kilometers. Minimum of four persons.

Also, drop-camps for those wishing to be dropped off and picked up at a later date.

**TOUR INFORMATION (604) 467-8555**

**President's Message - Awards**

- she has been the club president for two years and was chairperson of the Boundary Bay Conservation Committee for two years.
- she has devoted tremendous effort to developing a biosphere concept for the Boundary Bay ecosystem soon to be presented to the government and to the public.
- \* she currently serves on the Delta Municipal Environmental Advisory Committee.
- \* she is major participant in the local bird count and is also a very knowledgeable resource person on request for many causes and purposes such as school programs and nature walks with special interest groups.

**Frances and Alan Guinet  
Chilliwack Field Naturalists**

Faithful members of the Chilliwack field Naturalists Club since it's founding in 1971, Frances and Alan are still active and present at most meetings and field trips to offer their expertise to all members.

Frances was President in 1974, in the office Treasurer-Membership for five years from 1975 to 1979, and looked after field trips activities and public relations in 1983, 1984, 1986. She is still assisting whenever necessary each year.

Alan is a retired Judge with intensive and extensive knowledge of the natural life of the Fraser Valley, and can always be relied upon for moral support.

**Valerie May Whetter  
Chilliwack Field Naturalists**

Photos of firs, finches, frogs, ferns, foxes and fireweed by Valerie have appeared in many books and magazines: Reader's Digest, Year of the Land and endangered Spaces to name a few. She has the enviable ability to capture nature in the wild and in it's pictorial essence. Born in Victoria she was brought up in Chilliwack and worked a good many years for the Chilliwack School Board, while at the same time observing and photographing all aspects of the natural life of B.C. She has attended many VanNHS camps and made many trips

in her own camper.

Recently she made longer trips to Europe, Africa, Asia and South America, bringing back photographic records of natural life from around the world. All this time she served on the executive of the club every year from 1971 to 1990, being President in 1975 to 1976.

In 1990 she married Dr. Whetter, also a member of CFN, and they are continuing to travel and photograph nature, to share with all. beauty we must strive to keep.

**Frances McPherson  
Mitlematch Field Naturalist  
Society**

Frances, who joined the club in 1976, has been a model of good fellowship, her consistent kindness, ready sympathy and generosity of spirit combined with a wide knowledge and interest in natural history, has made her an integral to our club activities. Ever willing to take responsibility, she has been an executive member for at least ten years and has always given more service than has been demanded. For years all executive meeting were held at her home and she could be relied upon to give extra hospitality to those members from Quadra Island who were dependent upon ferry scheduling. For none years, as a member for the Christmas Bird Count Committee Frances has hosted the the tally and potluck supper which ended the count day and she has always taken part in these counts as well.

When the club met four years ago to decide whether to disband, Frances agreed to carry on as Treasurer until such time as sufficient enthusiasm to operate as a proper club could be regenerated. And so she did!

Still active in the program committee, Frances carries on in her usual style - finding speakers or leaders for field trips, putting them up if necessary and writing "thank you" letters. She has organized club trips to Newcastle Island and to the Bamfield Marine Station, even making a report of the latter trip in verse.

Frances has also represented our club

at Vancouver Island Regional Meetings.

Among Frances' other activities: founder of the Discovery Nordic Ski Club, a member of the Garden Club, involve in the health care field in Campbell River, took part in the 60 km walk from Gold River to Tahsis, and has hiked the Chilkooot Trail.

An asset to any club, we are lucky to have her in ours!

**THE ELTON ANDERSON  
AWARD**

Presented to an FBCN member who has provided exception service to the Federation.

This years very worthwhile winner is **Frank Paul** of Vernon. Frank is a long time member and Director from the North Okanagan Naturalists. He was editor of the **BC Naturalist** when it was published in Vernon and has represented the Federation on many committees. He presently represents B.C. on the Board of the Canadian Nature Federation and is helping to coordinate the CNF's meeting in Vernon next year. Frank other interest is in developing an ecological centre in Costa Rica.

**OUTSTANDING SERVICE  
AWARD**

Presented to an individual who has provided outstanding leadership and service in the field of natural history.

This year winner is **Dr. Barry Leach** of White Rock. Barry's involvement with environmental issues in the Lower Mainland goes back many years as he was one of the first to recognize the importance of Boundary Bay and other wetlands in the Lower Mainland for all types of wildlife and plants. He established the Environmental Studies department at Douglas College and worked towards the establishment of Serpentine Fen as a wildlife area. He currently is chairman of the Fraser Wetland Habitat Committee and works with various groups in Boundary Bay and Burns Bog on those ongoing issues. He has published several books and reports on wetlands and is a noted artist of waterfowl.

Stop the presses! A major new discovery has been made. At least that's how I see it. I doubt that this discovery will find a place in the natural history books, but, at least, it is a new observation for me. And I always enjoy making a new observation.

This spring, I was checking a red cedar (*Thuja plicata*) for unmistakable characteristics by which to distinguish it from a yellow cedar (*Chamaecyparis nootkatensis*). I was making a simple taxonomic key and I wanted to avoid the usual "one feels more prickly than the other" since I can never tell which feels more prickly. Also, because I was in an arboretum, elevation considerations were no longer helpful.

What caught my attention were little, red nubbins on the end of the withes of the red cedar. Hmm...red nubbins on a red cedar? You don't suppose that...why yes! There were yellow nubbins on the yellow cedars! Was this a mere coincidence? Were those nubbins not, in actuality, the wimpy little male cones of the tree? My hypothesis: red cedars have red male cones, while yellow cedars have yellow male cones, at least in early spring. My curiosity was piqued.

En route to resources which might confirm my suspicions, I passed by a cedar hedge which also had red nubbins. A red cedar, obviously; however, the cones looked more like yellow cedar cones, so I was confused — perhaps an ornamental of neither persuasion? Recognizing this confusion as normal, I continued on to my field guides for answers. None were to be had, so it was off to the local library. Again I was disappointed, for it seemed that no popular authors cared to describe male cones, let alone colourful nubbins. Not only were these books sexist, they also snubbed nubs! However, one book carried a photograph of yellow cedar that had "yellow pollen producing cones". I take that as evidence in support of my hypothesis.

This little fact-finding mission brought two things to mind. First, as I'm sure many will agree, there is nothing to compare with making your own discoveries. A few are privileged with some bona fide "new" discoveries, but for most of us, it is a matter of noticing something which had previously been overlooked, on a personal level.

The other thought had to do with "official" explanations of

the world. While the idea of male and female cones may not surprise naturalists, there are very few references to this fact in popular literature, and many people overlook the existence of male cones. This is odd, since one of the most obvious facts of human life is the existence of the two sexes. People look for these differences everywhere in the human world, as well as the rest of the animal world. But of course, few bother to look for this difference in the plant world. The reason for this may be that our preconceptions of the world do not include such distinctions, even though it might be easier to tell a male cone from a female cone than it is to tell a male vole from a female vole.

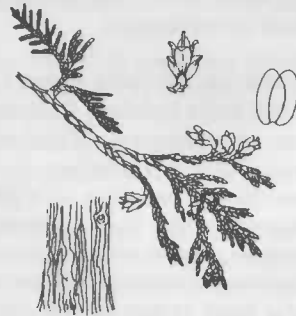
One might easily say that if you do not know what you are looking for, you probably won't find it. Some things are

nearly impossible to miss, but others hide right under our noses because they lack a prominent place in our official description of the world. That's why, for many people, conifers have only one sex of cone, and all cones are pine cones, regardless of whether they came from a fir, hemlock, or spruce tree. That's why all moss look the same, and that's why it is so quiet in nature: we can overlook the obvious if it has no place in our preconceptions.

A true discovery, then, is made even more amazing when you consider that it requires both astute observation and great imagination. Such discoveries require thinking the previously unthought, not an easy task. The great scientific discoveries of the past were built on these two elements, and future discoveries will depend on them.

I sometimes wonder how much I miss because I just don't know what to notice. A walk with someone who has a specialized interest usually reveals that. Conversely, a walk with a highly "citified" person reveals how much I do notice. And when I discover something previously hidden, I whisper my own little "eureka", and, perhaps, share a little of the excitement felt by the great pioneers of discovery.

As for my own discovery, I gather that the theory stands somewhat corrected, at least in regard to the diagnostic value of the colours. But they were male cones. While I doubt if this discovery shows particularly keen observation or insight, it was made without outside prompting; it was new and fresh to me. Above all, it was mine; and nothing can compare with one's own discoveries.



D.P.

**REQUESTS FOR  
PHOTOGRAPHS  
BIRDS OF  
BRITISH COLUMBIA -  
VOLUME 3**

At the request of many naturalists throughout the Province we have been asked to announce when photographs will be required for the next volume of *The Birds of B.C.*

We are presently preparing accounts for Flycatchers through Vireos. Groups in this volume include the flycatchers, kingbirds, larks, swallows, jays, crows, ravens, magpies, nutcrackers, chickadees, bushtits, nuthatches, wrens, dippers, kinglets, thrushes, catbirds, pipits, waxwings, shrikes, starlings, mynas, and vireos.

We are inviting interested naturalists to submit photographs as colour slides, or small colour and/or black-and-white prints. Photographs can include any part of the bird's life while it is in the Province. These might include single or groups of species, nests, eggs, predation, breeding and non-breeding habitat, foraging and staging areas, colonies and roosting sites, rare species, and naturalists involved in conservation activities such as bluebird trails.

All photographs must have been taken in British Columbia and be accompanied with details of date, exact location, full name of photographer, species name, numbers, and behavioural notes. Habitat photos should contain a brief description of plant association and species present.

Photographs to be considered for publication can be sent to R. Wayne Campbell, by September 1, 1992, at either:

Ministry of Environment, Lands  
and Parks  
Wildlife Branch  
780 Blanshard Street  
Victoria, B.C. V8V 1X5  
or

P.O. Box 6218  
Station C, Victoria, B.C.  
V8P 5L5

Material sent to the government address should be labelled Personal. All photographs received will be acknowledged in writing and those that are not appropriate will be returned immediately.

**NEW INITIATIVE TO  
PROTECT JOHNSTONE  
STRAIT KILLER WHALES**

Protection of killer whales in the Johnstone Strait area of Vancouver Island is the goal of a new initiative being launched by the provincial and federal governments.

B.C. Parks Minister John Cashore and MP Ross Belsher, Parliamentary Secretary to Minister of Fisheries and Oceans John Crosbie, have announced the creation of a joint federal/provincial management committee to assess and implement appropriate recommendations outlined in the final report of the Johnstone Strait Killer Whale Committee.

The report, released by the two governments, contain 27 recommendations aimed at protecting unique killer whale habitats, and providing new measures for killer whale research and viewing off the northeast coast of Vancouver Island.

Johnstone Strait has one of the world's highest concentrations of killer whales. Each summer more than 190 whales come to feed on salmon, rub on pebble beaches, and rest in Robson Bight. Rubbing behaviour is rarely seen elsewhere.

"Johnstone Strait is one of the best places in the world to see and study killer whales. The Joint Management Committee will build upon the intensive work completed by the Johnstone Straits Killer Whale Committee and address concerns ex-

pressed by the public, various stakeholders, and marine mammal experts", said Belsher.

Several of the recommendations, such as the establishment of the Joint Management Committee, expanded research, and increased educational activities, can be achieved quickly. Other recommendations require the amendment of federal regulations, or coordination with provincial authorities. DFO will work with the Province of B.C. and with the management committee to determine a schedule for implementation.

Cashore added that the implementation of many of the recommendations relating to provincial jurisdiction will be initiated this year. Those recommendations include:

- BC Parks should manage the Robson Bight (Michael Bigg) Ecological Reserve as a sanctuary for killer whales and should maintain its visitor programs in that reserve;
- BC Parks, in cooperation with local native people, should undertake the necessary feasibility studies to create a land-based whale watching park in the western Johnstone Strait area, away from the Robson Bight Ecological Reserve;
- BC Parks should close the Robson Bight Ecological Reserve to all access by land, except by permit, and improve the regulations of the Ecological Reserves Act to better control human activities in the reserve;
- The Ministry of Forests should immediately declare a five-year deferral on all forest harvesting activities in the lower Tsitika drainage below Catherine Creek and in the Schmidt Creek drainage to allow completion of additional research on the whales and their habitat. However, in the Schmidt Creek drainage, Western Forest Products will be allowed to complete yarding of a cutblock that has already been felled.

The new Joint Management Committee on Killer Whales will be co-chaired by Ron Lampard, Strathcona

District Manager of BC Parks, and Ed Lochbaum, Associate Area Manager, South Coast Division, Department of Fisheries and Oceans. Members will include representatives of the Aboriginal peoples, logging, fishing and tourism industries. (**Editor's Note:** What? no naturalists!!!)

### **KHUTZEYMATEEN VALLEY TO BE PROTECTED AREA FOR GRIZZLY BEARS**

The entire Khutzeymateen Valley has been permanently protected as grizzly bear habitat and no timber harvesting will be permitted. This is the first area in Canada to be protected specifically for grizzly bears.

The Tsimshian Tribal Council and other local residents will help decide on the most appropriate designation for the area. The designation options, which include a wilderness area, a wildlife management area, or an ecological reserve, will be determined under the government's protected area strategy.

The Khutzeymateen drainage, 45 kilometres northeast of Prince Rupert, covers 443 square kilometres. The valley supports approximately 50 grizzly bears, the largest known concentration of grizzly bears along the B.C. coast. This scenic wilderness area, traditionally used by the Gitsees people, contains a large estuary, old growth forests, glaciers, avalanche chutes and flood plains.

The area has a rich diversity of wildlife, including black bears, mountain goats, and wolves, as well as otters and seals. The river system features significant runs of chinook, coho, chum, and pink salmon, and the estuary is important for migratory waterfowl.

A summary report of the Khutzeymateen project will soon be available from Forest Service and the Ministry of Environment, Lands and Parks.

### **FIRST JOINT ABORIGINAL - PROVINCIAL PARK DEDICATED**

The first provincial park to be jointly managed by an Aboriginal tribal council and BC Parks has been announced by Parks Minister John Cashore and Nisga'a Tribal Council President Alvin McKay.

Nisga'a Memorial Lava Bed Provincial Park, known as Anhluut'ukwsim Laxmihl Angwinga'a Nisga'a in the Nisga'a language encompasses 17,683 hectares of land in the Nass Valley, 100 kilometres north of Terrace. The park is adjacent to the Nisga'a villages of New Alyansh and Gitwinksilhkw (formerly known as Canyon City).

McKay said this park has great spiritual value for the Nisga'a. "It commemorates the destruction of two Nisga'a villages, where as many as 2,000 of our ancestors lost their lives."

About 250 years ago, lava erupted from a cone in the Tseax Valley and flowed 30 kilometres to the Nass Valley, where it cooled to form a moon-like plain 11 km long and 5 km wide. It buried two villages and created a canyon along the Nass River. The Tseax cone will be a central feature of the new park.

From alpine ridges on Mt. Hoefft and Mt. Priestly, on the eastern part of the park, visitors will enjoy superb views of the Nass Valley and the lava flow. Mountain goats and grizzly bears may be found in this part of the park. In the valley, visitors interested in volcanic activity can see classic examples of smooth (pahoehoe) and rough (aa) lava flows, volcanic caves and hollow tree molds.

The park is being established without prejudice to the Nisga'a land claim, which is currently under negotiation.

This is the first park to be created through Parks and Wilderness for the 90s. Nisga'a Memorial Lava Bed Park

fulfils BC Parks' conservation and recreation goals. It protects one of Canada's most recent lava flows; it has the potential of becoming a major international attraction in North-western B.C. In particular, the park will be developed and managed as a rare opportunity to view the area through the eyes of Aboriginal people.

Some services will be provided in the park this year, with picnic tables and toilet facilities placed near existing viewpoints. Some interpretive signs may also be installed this year, as BC Parks and the Nisga'a Tribal Council begin working on a draft master plan for the park with full public involvement.

For more information contact  
Mike Murtha,  
Manager of Planning and  
Conservation  
Northern B.C. Parks Region  
565 6270

### **FRASER BASIN MANAGEMENT PROGRAM AGREEMENT ANNOUNCED**

Federal, provincial and local governments took a major step on 26 May 1992 towards ensuring sustainable development in the Fraser River basin.

The five-year Fraser Basin Management Program Agreement, announced at a public signing ceremony held at BridgePoint Market in Richmond will feature a 19 member management board with representatives from three levels of government, aboriginal peoples, environmental groups, industry, labour and other interested parties, to assist in developing and implementing an integrated management program for long-term sustainability in the basin. An initial focus of the program will be on cleaning up and preventing pollution, restoring productivity of the natural envi-

cont. on bottom of page 25 - Fraser



# Kwantlen College

Delta, Langley, Surrey, Richmond and White Rock

Kwantlen College, established in 1981, is a comprehensive Community College offering University Studies, Career/Vocational/Technical and Preparatory and Continuing Education programs. The College presently enrolls 7,000 students on three campuses and is expected to grow to 20,000 students by 1999. Kwantlen occupied its permanent campus in Surrey in 1990 and will occupy new permanent campuses in Richmond in 1992 and in Langley in 1993.

## Continuing Education Nature Trips

### BASIC BIRD WATCHING

Explore the world of local birds with **Al Grass**. Field identification, books and helpful hints for locating species will be covered. Thursday evening slide show and lecture at the Newton Campus. Field trip on Saturday to Serpentine River Dyke.  
Thur. Oct 22, 7 - 9 pm. and Sat Oct. 24, 9 am - 3 pm. \$38

### HAWKS & OWLS OF THE FRASER DELTA

Many predatory birds from Peregrine Falcons to Snowy Owls visit our flat lands. Thursday evening slide show at the Newton Campus covers field identification and natural history, followed by Saturday field trip with naturalist **Al Grass**.  
Thur. Nov 19, 7 - 9 pm. and Sat. Nov 21, 9 am - 1 pm. \$30

## Galiano Getaways

### GALIANO ISLAND SAILING

Hike through Bluff Park then sail on 46' Catamaran to visit seal nursery, bird sanctuary, and enjoy a gourmet picnic lunch on the beach. Thursday evening slide presentation prepares you for the trip.

**With Naturalist Al Grass:** Thur. Sept 24, 7 - 9 pm. (Newton Campus) and Sat. Sept 26, 9 am - 7 pm. \$65

**With Naturalist Kelly Sekhon:** Thur. Oct 15, 7 - 9 pm. (Richmond Campus) and Sat. Oct. 17, 9 am - 7 pm. \$65

### GALIANO MARINE EXPLORATION

Sail aboard the 46' Catamaran "Great White Cloud" to visit tree nesting cormorants and a seal nursery. Hike through Bluff Park. Overnight at historic Sutil Lodge. Thursday evening slide presentation prepares you for the trip.

**With Naturalist Al Grass:** Thur. Nov 5, 7-9 pm. (Newton Campus) and Sat. Nov 7, 9:25 am-Sun. Nov 8, 1:30 pm. \$139

**With Naturalist Kelly Sekhon:** Thur. Oct 29, 7-9 pm. (Richmond Campus) and Mon. Nov 2, 9:25 am-Tues. Nov 3, 1:30 pm. \$139

### GALIANO ISLAND RETREAT

3-day escape to Galiano — sail local waters in a 46' Catamaran, have a gourmet lunch on the beach, and visit Coon Bay. Hike through the parks with naturalist **Al Grass**. Stay at historic Sutil Lodge, with a great view of the harbour. Thursday evening slide presentation prepares you for the trip.

Thur. Oct 1, 7 - 9 pm. (Newton Campus) and Mon. Oct 5, 12:45 noon until Wed. Oct 7, 12:30 noon. \$185

For more information or to register, phone 599-2905 for Newton courses or 599-2501 for Richmond courses.

*Where people succeed!*

## SUNDEW

"There is something particularly sinister about a meat-eating plant. Perhaps we've all had nightmares of some fiendish monster slowly strangling us in its leafy embrace."

from: *Do Some Plants Eat Meat?* 1.

Insects beware! The world is full of seemingly innocent looking plants ready to make a meal of you! Some of these include sundews, butterworts and pitcher-plants. Probably the best known of these is sundew (*Drosera*, spp.) These plants have numerous hairs on their leaves which are covered by an "alluring" sticky droplet. An insect bungling into the leaf is trapped and absorbed by the plant. There are several versions explaining the name sundew. One suggests that it is a corruption of an Anglo-Saxon word which meant

"always dewy", while another says that the "glistening drops shine like dew (in the sun), hence "sundew". While usually thought of as a bog plant nestled in the Sphagnum moss, I have also observed it growing on nurse logs.

cont. from page 23 - Fraser

ronment, conserving natural areas, returning salmon stocks to historic levels, and monitoring and reporting on the state of the river.

Together, the three levels of government will spend in excess of \$1 million over the five-year life of the Fraser Basin Management Program Agreement. Included in the management program will be the \$100 million Fraser River Action Plan announced under the federal government's Green Plan in June 1991, as well as a variety of provincial initiatives which will be carried out in cooperation with the local governments involved. The provincial initiatives will focus on sewage treatment upgrading, integrated resource management, solid waste manage-

Having seen the plant in many places, but never having taken time to actually note what insects were trapped, I decided to do a little survey where sundew grows profusely, at the east end of Rolley Lake, near Ruskin in the Lower Fraser Valley. The survey was quite informal but I

managed to record the following over several visits:

- midges - (*Chironomids*), common;
- mosquitoes - (*Culicid*), types, several;
- damselfly - (*Zygoptera*)
- ants - several species.

I recall a number of years ago being shown a swallowtail butterfly caught up in sundew. It had obviously struggled for quite sometime for it was well entangled.

The photograph shows a large carpenter ant (*Componotus*, sp.)



but there were other smaller ants snared in the sundew leaves as well.

### 1. Anon. *The Monster Book of Facts*

ment, air emission control, groundwater quality monitoring and control, and elimination of toxics from pulp and paper mills.

Tony Dorcey, on leave from his appointment as Assistant Director of the University of British Columbia's Westwater Research Centre, will chair the 19-member management board that will develop and coordinate the Fraser Basin Management Program. The other 18 members of the board, to be appointed in July, will comprise nine government representatives (three each from the federal, provincial and local levels) and nine members from aboriginal peoples, industry and labour groups, non-government environment organizations and regions of the basin.

*Sail away with us* on the tall ship "SPIRIT OF CHEMAINUS" the flag ship of EXPO 1986! The vessel, launched in 1985, measures 92 feet, displaces 48 tons, and carries 12 sails of 3000 sq. feet. It accomodates 16 guests and 6 professional crew. Of course your vessel is totally non-polluting and Coast Guard Approved.

Your FIVE DAY ADVENTURE includes: shipboard accomodation, all your meals, shore trips and a naturalist guide who specializes in ornithology and marine mammals. Full price (with coupon) is ONLY \$600 PER PERSON (GST included).

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Adventure, fun and plenty of sight-seeing is guaranteed on each trip!

Sailing dates from Vancouver to Port Hardy:

Monday, June 29, 1992

Thursday, July 09, 1992

Monday, August 03, 1992

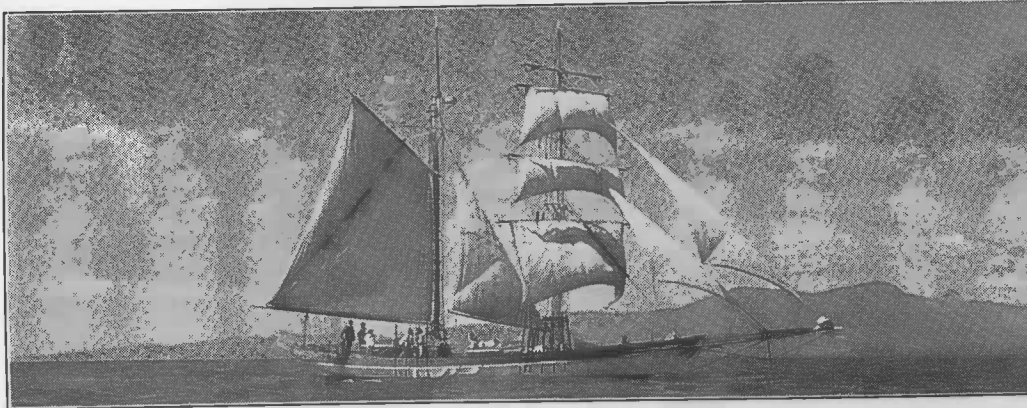
Sailing dates from Port Hardy to Vancouver

Saturday, July 04, 1992

Tuesday, July 14, 1992

Saturday, August 08, 1992

Telephone for more information or for an update on scheduled sailings.



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Fax (604)291-9451

## BOOKS FOR SALE

The following books are for sale by the owner. Please contact her directly if you are interested.

### Masters of Decorative Bird Caring

by A. Small

### Patterns and Instruction for Carving Authentic Birds

by H.D. Green

### Carving Realistic Birds

By H.D. Green

### Book of Wood Carving

by C.M. Sayers

### How to Carve Wood

by R. Butz

### Basic Whittling and Woodcarving

by E.J. Fangerman

### Woodcarving Illustrated

by R Schrolder and P. McCarthy

The seller also has 4 excellent texts on taxidermy.

Ms. Jane M.W. Steed  
Killarney-On-The-Lake  
2.9 RR #1,  
Nelson, B.C. V1L 5P4

# Jerry's Rangers

## Nature the Inventor

Here's a different way of looking at Nature in British Columbia's Provincial Parks this summer. It is called "Nature Had It First". We always like to take credit for many inventions that Nature has been using long before we came up with the ideas.

Look through your camping equipment or around the campground for inspiration. Here are some of Jerry's:

### MOBILE HOME -campers -trailers

- Caddis fly larvae make cases from sticks, needles and sand, etc.
- Snails carry their homes around with them
- Hermit Crabs also use mobile homes (somebody else's!)

### VELCRO (Look carefully for tiny hooks on one side)

- Plants such as burdock have tiny hooks that catch on animal's fur (on your socks) to help the seeds get around.

### BOAT (a boat has a keel on its bottom)

- Insects called back-swimmers have a boat-shaped body and even row around in the water with two oar-like legs!

### PAPER

- Some wasps make paper from wood bits gathered from dead trees, fence posts, etc.

### SWIM FINS

- Many water birds, such as ducks and geese, are born with swim fins. Other animals such as the beaver, have them too.

### SNORKEL

- Some water insects use a snorkel to breathe while partly submerged.

### FARMERS

- Look on plants for ants "milking" aphids to get their sweet liquid called honey-dew. Aphids are sometimes called "ant cows".

### CHISEL

- A woodpecker's beak is like a chisel to help to make holes in trees to feed or nest.

### HELICOPTER

- Maple "seeds" and seeds of other trees such as hemlock and Douglas-fir have "wings" to help them "auto rotate" (fly) in order to scatter them around.



### KITE

- Baby spiders pay out a line of silk which is caught on the wind carrying them far and wide.

### PARACHUTE

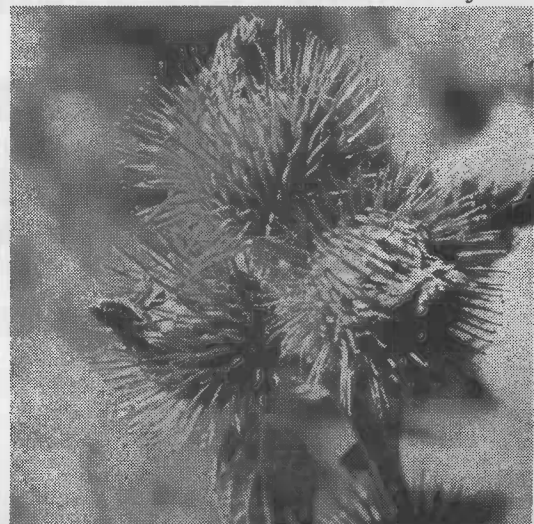
- Parachute "seeds" of plants such as a dandelion are carried along on puffs of air (try it).

Jerry knows that you can think of many more examples of Nature Had It First. The important thing is to have fun and use your imagination. It might be fun to draw and colour your ideas so that you can share them with friends and family. Remember that Jerry's Rangers promise never to hurt or collect anything in a B.C. Provincial Park. It's a nice feeling to know that B.C. Parks are places where Nature has a home and where you will be able to see wonderful things - forever!!

Have a fun summer in B.C. Provincial Parks and don't forget to look for Jerry's Rangers meeting in parks offering Naturalists programs.

Cheers!

Al Grass  
for Jerry the Moose



The first Velcro. Note the tiny hooks or barbs for catching an animal's fur (or your socks). In this way, the burdock transports its seeds about the countryside.

## BOOK REVIEW

### **Trees of Vancouver - A Guide to the Common and Unusual Trees of the City**

by Gerald B. Straley  
University of British Columbia Press, 1992,  
272 pages, 86 colour plates, over 500 line drawings and  
2 maps.  
Price: \$19.95

*"This comprehensive guide, the first of its kind,  
lists and describes more than 470 kinds of trees  
and shrubs found on Vancouver's streets and in  
its parks and public and private gardens."*

This could be the shortest book review in history - one word - wonderful! The author Gerald B. Straley, Research Scientist and Curator of Collections at the University of British Columbia Botanical Garden, and adjunct Professor or Plant Science, and Research Associate and Director of the Herbarium at U.B.C. has produced a work that will fill an important need - that of a good interpretive guide to the City's trees. Author Straley not only deals with native species but with non-native as well. The book is organized into various sections including where to see trees in Vancouver and; trees in the old arboretum at U.B.C.

Families are listed in the Table of Contents including angiosperms and gymnosperms. There are no keys in the book and perhaps a key to families might have been useful. The book is well-illustrated with fine line drawing which will serve as an aid to identification. These are complemented by colour plates

A particularly useful feature of the text are the clear instructions as to where to see the various trees. If for example you wanted to see a Japanese Pagoda Tree (*Sophora japonica*) a number of sites are given including "above the lake at Van Dusen Botanical Gardens".

**Trees of Vancouver** has a good index and bibliography. It should not be on the library shelf of every naturalist - it should be out in the field in constant use.

Dr. Straley should be commended for producing a work that will go along way to heightening appreciation (and hopefully) better protection of our trees.

Al Grass

## OVER THE EDITOR'S DESK

I would like to repeat in the pages of the *B.C. Naturalists* my most sincere thanks for the honour bestowed upon me in the form of the beautiful sculpture by Bunny Ramsden. In accepting the Special Service Award I pointed out that I did so on behalf of all who during the past years have supported the efforts of the Fraser Wetlands Habitat Committee to protect Boundary Bay and to achieve a better balance between wildlife viewing and hunting in the wetlands of the Lower Fraser. However, there is one other support that was afforded to me personally for which I wish to express my deepest appreciation, namely, the trust and faith placed in me by Yorke Edwards when he accepted **Waterfowl on a Pacific Estuary** as a special publication of the Provincial Museum. It was such a mixture of history, natural history, personal memoir and polemic that it would have been safer for him to steer me towards another publisher. But he evidently recognized that the message was appropriate.

Critics in government agencies were quick to put down the book for its 'personal bias' and "emotional appeals", but it was written to support neither 'fence-sitting' nor the kind of dispassionate indifference that had accepted the reduction of traditional wintering waterfowl populations and substituted a nuisance population of feral Canada Geese to meet the hunting needs of a tiny minority. Instead it brought to public attention the need and opportunity for "the recovery and enhancement of wildlife resources" in the Lower Mainland that Winston Mair's study of the Wildlife Branch had recommended in 1977. I thank Yorke Edwards for the opportunity to perform this service. Now, with the Pacific Joint Venture, the "Green Zone" proposal, and a greater public expectation for imaginative and positive opportunities for a broader enjoyment of the Lower Mainland's landscapes and wildlife, there is some hope for a shift away from the heavy bias of the local branches of the provincial and federal wildlife agencies towards the provision of the maximum amount of hunting, and for the adoption of policies and priorities that give first place to the needs of wildlife and them to the preferences of the wider public.

Dr. Barry Leach

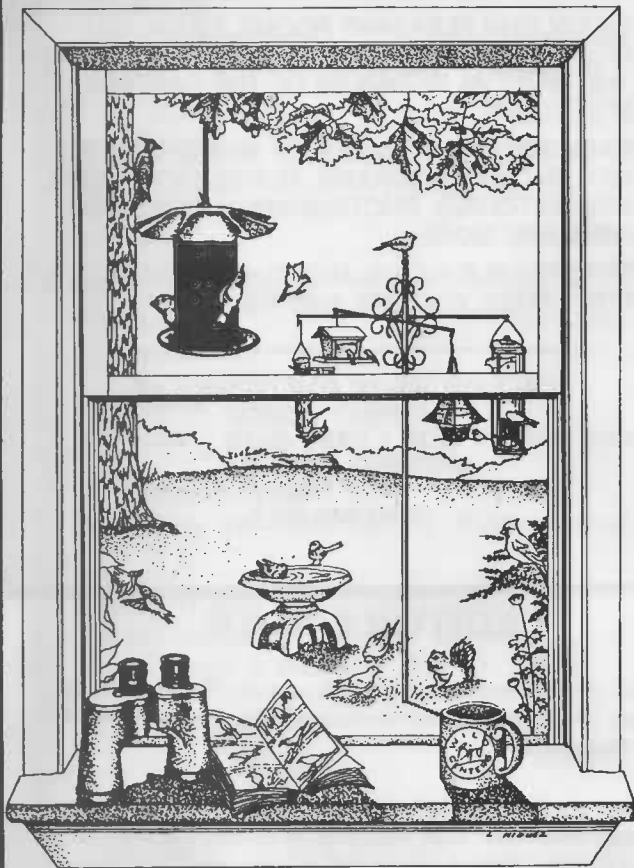
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**Health:** Campers must be in reasonable health - and be able to handle stairs, a steep slope down to the dock, and be able to get in and out of boats.

**Activities:** Many and varied - long and short hikes, boat trips, exploring walks along outer beaches, and fascinating lab sessions. Also, evening lectures.

**Camp Fee:** \$450.00 This covers everything at Bamfield - dorm bed, three excellent meals a day and days and evenings filled with activities including boat trips.

**How to Register:** Fill out the form below and sent it together with a cheque for \$450 made out to the Federation of B.C. Naturalists - Bamfield Camp, together with a large stamped, self-addressed envelope.

**REGISTRATION IN LIMITED** so, if you are interested in coming to Bamfield '92 send in your form and a cheque now. There are still a few spaces left.

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### EDITOR'S NOTE

Thank you to everyone who has contributed articles, poems, photographs, art work and other material to the **B.C. Naturalist**.

I have a good supply of material (**but still want more, please!**) and hope that you will be patient in my use of your articles. This is a very full edition and I know some of you were looking forward to having your work in this edition.

The September edition is well underway and I am planning to have a good selection of natural history articles as well as information and a Betty Lunam crossword.

Returning in the fall will be two of our regular writers. R. Wayne Campbell, (**B.C. Wildlife**) is now working for the Ministry of Environment and Trevor Goward (**Enlichenment**) has been working on lichen research. We look forward to their return.

Contributors are asked to send material to:  
The Editor, **B.C. Naturalist**  
103-7065 Stride Ave, Burnaby, B.C. V3N 1T3

Jude Grass

**FEDERATION OF BRITISH COLUMBIA NATURALISTS**

**FALL GENERAL MEETING - KIMBERLEY**

**OCTOBER 16-18, 1992**

**Hosted by the Rocky Mountain Naturalists Club  
at the Kimberley Ski and Summer Resort**

October 15  
7:00 p.m. - 9:00 p.m. Registration and social in lobby of Inn West Condos

October 16  
9:00 a.m. - 5:00 p.m. Workshop on Integrated Land Use Planning in the Rocky Mountain Trench. Proposed topics include Mica Dam - Implications of development and mitigation options; Nature Centres - how to plan for and to manage. Full details in the September edition).  
7:00 - 9:00 p.m. Registration and social in ski resort

October 17  
6:30 a.m. Early morning birding  
8:30 a.m. Registration in Banquet Room  
9:00 a.m. - 5:00 p.m. Fall General Meeting  
6:30 p.m. Social Hour  
7:30 p.m. Banquet and Guest Speaker

October 18  
9:00 a.m. Field Trips

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NOTE: Registration fee includes: the social Friday evening and the buffet lunches on Friday and Saturday as well as coffee breaks during the meetings and workshops. Please make your own arrangements for lunch if you are signing up for field trips on Sunday.

For further information please contact Art Gruenig at 426 8349

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