

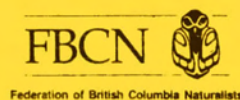
British Columbia Nest Records Scheme

43rd Annual Report ~ 1997 Nesting Season



R. Wayne Campbell, Maureen L. Funk and Lyndis Davis

March 1998



WBT Wild Bird Trust of British Columbia Wildlife Report No. 3

This Report is Dedicated To:

REVEREND JOHN STAINER

Teacher, Minister, Naturalist, and Writer

(1915 - 1997)

Reverend John Stainer was born November 23, 1915 in Epsom, Surrey, England the first son of John Frederick Randall Stainer and Ruth Alice (Mallam).

He attended St. Edmund's and Marlborough schools, followed by Magdalen College, Oxford, where he obtained an M.A. degree in geography. In the 1930s he was active in the British Schools Exploration Society, participating in expeditions to Finnish Lapland, Labrador, and Newfoundland. He was elected a fellow of the Royal Geographical Society.

He moved to Canada in 1938, working for his uncle in Okanagan Mission, and then as a teacher at St. George's School in Vancouver. Next he moved to Cherry Point, B.C. where he worked as a free-lance journalist. In 1951 he began a new career as an Anglican minister, serving as a deacon at St. Paul's, Nanaimo, and then becoming vicar of Parksville-Errington.

In 1961 he became rector of St. Edward's, Oliver and St. Barbara's, Okanagan Falls, where he served 10 years, and another year later, after his retirement. He went on to the shared Anglican and United Church parish of Arrow Lakes. His last parish was another shared charge based in Invermere.

On retirement he moved back to Oliver. He was a 52-year member of the Royal Canadian Legion and was past president of Branch 97 (Oliver) in addition to being chaplain for the past 10 years. He joined Rotary during his first period in Oliver and was a past president of that organization in Oliver. He was awarded a Paul Harris Fellowship through the Invermere branch.

He was author of several books and started writing with published accounts of expeditions in the 1930s. One book, The Way of the Wild Olive, which was a composition of sermons, provided a basis for many a discussion.

One of his favourite activities was watching birds. He knew all the back roads around Oliver, and exactly where the interesting birds were to be found. There were always binoculars and a spotting 'scope in the trunk of his Volvo, and bird books and maps in the door pockets. He often carried a camera with him, although he tended to photograph scenery more than birds. He would drive slowly along the road, stopping every now and then for anything of special interest. All his life, he gained great pleasure from the birds.

And he was willing to share his discoveries with others. He was a regular and faithful contributor to the B.C. Nest Record Scheme since its inception in the mid-1950s and eagerly participated in data collection for the 4-volume set The Birds of British Columbia. His passion for birds, and unselfish contributions to ornithology, have increased our appreciation and level of understanding of birds in the province.

British Columbia Nest Records Scheme

43rd Annual Report ~ 1997 Nesting Season

Compiled by

R. Wayne Campbell, Maureen L. Funk and Lyndis Davis

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THE 1997 NESTING SEASON

Introduction

This report summarizes results of the 1997 nesting season, including a few cards submitted late from previous years and also some historical records which are being transferred from diaries, technical literature, and unpublished reports. All cards have been combined in this report.

In this year's report, **307 nest finders** located **5,382** individual **breeding records** representing **238 species**. Eight participants each completed over 100 cards for either nests or broods. These dedicated naturalists included Michael S. Rodway (Burnaby), Linda M. Van Damme (Nelson), Andrew C. Stewart (Victoria), Kathy Martin (Vancouver), Elsie Nykyfork (Vernon), J. Bristol Foster (Salt Spring Island), Gary S. Davidson (Nakusp), and Chris Siddle (Vernon). Others, with 50 or more cards, included Nancy Mahony (Vancouver), Frank Kime (Tappen), Alice Beals (Vernon), Hylda Mayfield (Vernon), John M. Cooper (Sidney), Rita Wege (Nelson), Lucille Campbell (Invermere), Hilary Gordon (Salmon Arm), and Richard R. Howie (Kamloops). **MANY THANKS!**

Twenty species were represented by more than 50 nests. Some of these were widely distributed birds whose nests are relatively easy to locate. Others were the direct result of "Bluebird Trails" while the rest were found during seabird and wetland surveys. Species topping 50 nests included American Coot, Bald Eagle, Barn Swallow, Black Oystercatcher, Brewer's Sparrow, Canada Goose, Cassin's Auklet, Cooper's Hawk, Glaucous-winged Gull, Herring Gull, House Wren, Mountain Bluebird, Northern Flicker, Osprey, Red-naped Sapsucker, Red-necked Grebe, Tree Swallow, Tufted Puffin, Western Bluebird, and Western Grebe.

Generally, the quality of information recorded on each card increased. Habitats and locations were better described, behaviour and predation information was concise, and repeat visits to nests were better documented. Sixteen nest finders, who committed to following nests to fledging with well-timed repeat visits included Janice Arndt, J Briggs, Barbara Cannon, Cliff Day, Hilary and Orville Gordon, Willie Haras, Burke Korol, Hylda Mayfield, Elsie Nykyfork, Laurie Rockwell, Robin Rohrmoser, Elsie Stanley, Andy Stewart, N.A.M. Verbeek, Rita Wege, and Mildred White.

The task of searching and transferring nesting information from technical literature, unpublished reports, books, historic diaries, and field notes (e.g., Elmer Callin - Revelstoke, Glen Ryder - Lower Mainland and B.C. General, Maurice Ellison - Trail, Martin Holdom - Crescent Beach, and John Comer - Duncan) continued. Over 1,200 breeding records were extracted in 1997.

We are excited to have better representation throughout the province this year. New locality information was received for MACKENZIE (Vi and John Lambie), TUMBLER RIDGE (Charles Helm), sw NIMPO LAKE (Chris Czajkowski), SIKANNI CHIEF (Tony Greenfield), and VANDERHOOF (Lee Foster).

Highlights

The main highlight in 1997 was the publication of the long-awaited *Birds of British Columbia - Volume 3: Passerines - Flycatchers through Vireos*. One of the strengths of this publication was the quality and quantity of breeding information, over a long period of time, that was available for each species. In many cases, incubation periods and clutch-sizes could be determined. In addition, changes in the breeding distribution could be noted.

The nesting season in 1997 was unusually wet. Consequently, nest cards for many wetland species, including blackbirds, waterfowl, grebes, and swallows were down in number. Some species probably didn't breed at all in 1997! However, cavity-nesting species fared quite well. Still many species were found in areas where nesting was not expected. Significant extensions in breeding range were discovered for GREATER YELLOWLEGS (northward to Sikanni Chief - Tony Greenfield and Kotcho Lake - Hugh Fraser in the Taiga Plains), LEAST SANDPIPER (Atlin - Wayne Campbell), MEW GULL (Queen Charlotte Islands - Mike Rodway), YELLOW-BREASTED CHAT (Creston - Wayne Campbell), COOPER'S HAWK (Dawson Creek - Dave Stewart), and ANNA'S HUMMINGBIRD (Langley - Murray Brown).

ELSIE NYKYFORK continued to record data directly on nest cards while checking her "Bluebird Trail". As a result, her nest cards indicated breeding success for several species in an unusually wet year. As

well, she contributed valuable data on a large population of HOUSE WRENS. Others keeping track of nest box trails included MILDRED WHITE in the KIMBERLEY area and HYLDA MAYFIELD near VERNON.

GARY DAVIDSON, CHRIS SIDDLE, AND RICK HOWIE spent two weeks in the Peace River in early July helping locate breeding information for a book on BIRDS OF THE NORTH PEACE being prepared by Chris. The result - hundreds of breeding records, many of which were compiled and submitted by Gary.

TONY GREENFIELD discovered three, (yes three!), Northern Hawk Owl nests in the space of five days, all within a few kilometres of each other, while working in the SIKANNI CHIEF region of northeastern B.C. He postulated that their presence was probably due to an astonishingly high population of rodents which were teeming throughout freshly logged clearcuts.

As a result of his research in the Greater Victoria area over the past three years, ANDY STEWART more than doubled the number of nest cards in our files for COOPER'S HAWK. Each card has full details for each nest including productivity information. SCOTT DICKIN completed cards for NORTHERN GOSHAWK nests he located while working with Erica McLaren on Vancouver Island.

As every field naturalist knows, just seeing BROWN CREEPERS is a challenge but to locate nests is a special talent. Biologist BARBARA CANNON found eight nests in the REVELSTOKE area in 1995 and 1996!

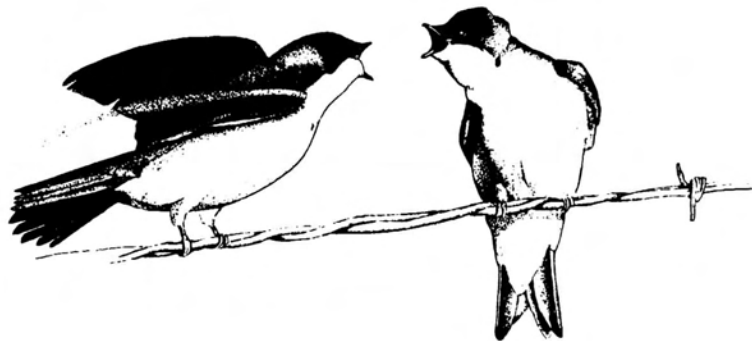
NANCY MAHONY, a graduate student at the University of B.C., located and checked over 90 BREWER'S SPARROW nests in the southern Okanagan Valley. In the short span of a couple of summer's work she has established a strong data base on which work and land-use decisions in this threatened habitat can be developed.

Over the past several years, KATHY MARTIN'S students at the University of B. C. have been studying cavity-nesting and grassland birds on Becher's Prairie west of Williams Lake. Over 200 cards were completed making this data set one of the most important local sources of information in the Cariboo-Chilcotin area.

First time participant RITA WEGE, encouraged by seasoned nest finder LINDA VAN DAMME, submitted 70 cards this year and mentioned that collecting data on the nest cards had certainly raised birdwatching to a different level for her. In fact, she can't wait until next year to reconnect with the OSPREYS again and ponder the question - is that one of our young?

We know that the long-term success of any natural resource conservation effort for birds in the province will depend on public education and public support. One of our jobs as birders and naturalists is to increase participation in the BCNRS so that future research needs and informed decisions about birds and their habitats in British Columbia can be supported.

PLEASE CONTINUE TO SUPPORT THIS IMPORTANT ACTIVITY.



List of Species and Nests/Broods by Family

Family Gaviidae: Loons (29)

Red-throated Loon - 1 and Common Loon - 28.

Family Podicipedidae: Grebes (228)

Pied-billed Grebe - 22, Horned Grebe - 10, Red-necked Grebe - 54, Eared Grebe - 47, and Western Grebe - 95.

Family Hydrobatidae: Storm-Petrels (17)

Fork-tailed Storm-Petrel - 7 and Leach's Storm-Petrel - 10.

Family Pelecanidae: Pelicans (1)

American White Pelican - 1.

Family Phalacrocoracidae: Cormorants (79)

Brandt's Cormorant - 40 and Pelagic Cormorant - 39.

Family Ardeidae: Bitterns, Herons, Egrets and Night-Herons (27)

Great Blue Heron - 26 and Green Heron - 1.

Family Anatidae: Geese, Swans and Ducks (553)

Canada Goose - 115, Mute Swan - 2, Trumpeter Swan - 2, Wood Duck - 37, Gadwall - 14, American Wigeon - 28, Mallard - 126, Blue-winged Teal - 8, Cinnamon Teal - 3, Northern Shoveler - 5, Northern Pintail - 8, Green-winged Teal - 7, Canvasback - 9, Redhead - 13, Ring-necked Duck - 13, Lesser Scaup - 8, Harlequin Duck - 6, Bufflehead - 38, Common Goldeneye - 37, Barrow's Goldeneye - 24, Hooded Merganser - 18, Red-breasted Merganser - 1, Common Merganser - 15, and Ruddy Duck - 16.

Family Accipitridae: Kites, Eagles, Hawks and Allies (325)

Osprey - 53, Bald Eagle - 140, Northern Harrier - 14, Sharp-shinned Hawk - 2, Cooper's Hawk - 52, Northern Goshawk - 15, Swainson's Hawk - 2, Red-tailed Hawk - 29, and Golden Eagle - 18.

Family Falconidae: Falcons (51)

American Kestrel - 13, Merlin - 14, Peregrine Falcon - 19, Gyrfalcon - 4, and Prairie Falcon - 1.

Family Phasianidae: Partridges, Pheasant, Grouse, Ptarmigan and Turkey (100)

Chukar - 2, Gray Partridge - 1, Ring-necked Pheasant - 3, Blue Grouse - 16, Willow Ptarmigan - 4, Rock Ptarmigan - 9, White-tailed Ptarmigan - 14, Ruffed Grouse - 21, Spruce Grouse - 23, Sharp-tailed Grouse - 2, and Wild Turkey - 5.

Family Odontophoridae: American Quail (15)

California Quail - 15.

Family Rallidae: Rails, Gallinules and Coots (97)

Virginia Rail - 5, Sora - 2, and American Coot - 90.

Family Gruidae: Cranes (6)

Sandhill Crane - 6.

Family Charadriidae: Plovers (39)

American Golden-Plover - 2, Semipalmated Plover - 12, and Killdeer - 25.

Family Haematopodidae: Oystercatchers (67)

Black Oystercatcher - 67.

Family Recurvirostridae: Stilts and Avocets (4)

American Avocet - 4.

Family Scolopacidae: Sandpipers, Phalaropes and Allies (55)

Greater Yellowlegs - 3, Lesser Yellowlegs - 2, Solitary Sandpiper - 3, Spotted Sandpiper - 26, Long-billed Curlew - 5, Hudsonian Godwit - 1, Least Sandpiper - 6, Sharp-tailed Sandpiper - 3, and Common Snipe - 6.

Family Laridae: Jaegers, Skuas, Gulls, Terns and Allies (1,369)

Bonaparte's Gull - 1, Mew Gull - 1, Herring Gull - 162, Western/Glaucous-winged Gull - 1, Glaucous-winged Gull - 1,172, Caspian Tern - 2, Forster's Tern - 1, and Black Tern - 29.

Family Alcidae: Auks, Murres and Puffins (393)

Common Murre - 9, Thick-billed Murre - 4, Pigeon Guillemot - 18, Ancient Murrelet - 16, Cassin's Auklet - 109, Rhinoceros Auklet - 32, Horned Puffin - 1, and Tufted Puffin - 204.

Family Tytonidae: Barn Owls (7)

Barn Owl - 7.

Family Strigidae: Typical Owls (69)

Flammulated Owl - 2, Western Screech-Owl - 1, Great Horned Owl - 14, Northern Hawk Owl - 8, Northern Pygmy-Owl - 3, Burrowing Owl - 19, Barred Owl - 6, Great Gray Owl - 9, Long-eared Owl - 3, Short-eared Owl - 1, Boreal Owl - 1, and Northern Saw-whet Owl - 2.

Family Caprimulgidae: Goatsuckers (3)

Common Nighthawk - 3.

Family Apodidae: Swifts (4)

Black Swift - 1 and White-throated Swift - 3.

Family Trochilidae: Hummingbirds (17)

Anna's Hummingbird - 4, Calliope Hummingbird - 1, and Rufous Hummingbird - 12.

Family Alcedinidae: Kingfishers (4)

Belted Kingfisher - 4.

Family Picidae: Woodpeckers (221)

Lewis's Woodpecker - 5, Yellow-bellied Sapsucker - 3, Red-naped Sapsucker - 90, Red-breasted Sapsucker - 12, Red-napped/Red-breasted Sapsucker - 1, Williamson's Sapsucker - 7, Downy

Woodpecker - 5, Hairy Woodpecker - 10, and White-headed Woodpecker - 1, Three-toed Woodpecker - 11, Black-backed Woodpecker - 2, Northern Flicker - 67, and Pileated Woodpecker - 7.

Family Tyrannidae: Tyrant Flycatchers (99)

Olive-sided Flycatcher - 2, Western Wood-Pewee - 23, Yellow-bellied Flycatcher - 2, Willow Flycatcher - 2, Least Flycatcher - 6, Hammond's Flycatcher - 4, Gray Flycatcher - 3, Dusky Flycatcher - 6, Pacific-slope Flycatcher - 4, Eastern Phoebe - 4, Say's Phoebe - 2, Western Kingbird - 21, and Eastern Kingbird - 20.

Family Vireonidae: Vireos (11)

Solitary Vireo - 1, Hutton's Vireo - 1, Warbling Vireo - 8, and Red-eyed Vireo - 1.

Family Corvidae: Jays, Magpies and Crows (81)

Gray Jay - 11, Steller's Jay - 2, Clark's Nutcracker - 5, Black-billed Magpie - 8, American Crow - 12, Northwestern Crow - 24, and Common Raven - 19.

Family Alaudidae: Larks (3)

Horned Lark - 3.

Family Hirundinidae: Swallows (354)

Purple Martin - 2, Tree Swallow - 171, Violet-green Swallow - 45, Northern Rough-winged Swallow - 7, Bank Swallow - 21, Cliff Swallow - 41, and Barn Swallow - 67.

Family Paridae: Chickadees (62)

Black-capped Chickadee - 19, Mountain Chickadee - 28, Chestnut-backed Chickadee - 12, and Boreal Chickadee - 3.

Family Aegithalidae: Bushtit (4)

Bushtit - 4.

Family Sittidae: Nuthatches (37)

Red-breasted Nuthatch - 29, White-breasted Nuthatch - 1, and Pygmy Nuthatch - 7.

Family Certhiidae: Creeper (13)

Brown Creeper - 13.

Family Troglodytidae: Wrens (74)

Rock Wren - 1, House Wren - 51, Winter Wren - 19, and Marsh Wren - 3.

Family Cinclidae: Dipper (6)

American Dipper - 6.

Family Regulidae: Kinglets (1)

Golden-crowned Kinglet - 1.

Family Muscicapidae: Bluebirds, Thrushes and Allies (315)

Western Bluebird - 71, Mountain Bluebird - 103, Townsend's Solitaire - 6, Swainson's Thrush - 10, Hermit Thrush - 3, American Robin - 111, and Varied Thrush - 11.

Family Mimidae: Mockingbird, Thrashers and Allies (11)

Gray Catbird - 5, Northern Mockingbird - 1, and Sage Thrasher - 5.

Family Sturnidae: Starling and Allies (34)

European Starling - 34.

Family Motacillidae: Wagtails and Pipits (4)

American Pipit - 4.

Family Bombycillidae: Waxwings (20)

Bohemian Waxwing - 1 and Cedar Waxwing - 19.

Family Parulidae: Wood-Warblers (61)

Orange-crowned Warbler - 6, Nashville Warbler - 2, Yellow Warbler - 20, Magnolia Warbler - 1, Yellow-rumped Warbler - 9, Black-throated Gray Warbler - 4, Townsend's Warbler - 1, American Redstart - 4, Ovenbird - 1, Northern Waterthrush - 1,

MacGillivray's Warbler - 3, Common Yellowthroat - 7, and Yellow-breasted Chat - 2.

Family Thraupidae: Tanagers (3)

Western Tanager - 3.

Family Cardinalidae: Cardinals, Grosbeaks and Allies (11)

Rose-breasted Grosbeak - 5, Black-headed Grosbeak - 3, and Lazuli Bunting - 3.

Family Emberizidae: Towhees, Sparrows, Longspurs and Allies (246)

Spotted Towhee - 11, American Tree Sparrow - 1, Chipping Sparrow - 23, Clay-colored Sparrow - 2, Brewer's Sparrow - 92, Vesper Sparrow - 2, Fox Sparrow - 7, Song Sparrow - 34, Lincoln's Sparrow - 4, White-throated Sparrow - 11, White-crowned Sparrow - 15, Golden-crowned Sparrow - 2, Dark-eyed Junco - 41, and Snow Bunting - 1.

Family Icteridae: Blackbirds, Orioles and Allies (124)

Red-winged Blackbird - 21, Western Meadowlark - 3, Yellow-headed Blackbird - 22, Rusty Blackbird - 3, Brewer's Blackbird - 27, Brown-headed Cowbird - 31, Baltimore Oriole - 1, and Bullock's Oriole - 16.

Family Fringillidae: Cardueline Finches and Allies (23)

Purple Finch - 2, House Finch - 6, Red Crossbill - 1, White-winged Crossbill - 2, Pine Siskin - 7, American Goldfinch - 1, and Evening Grosbeak - 4.

Family Passeridae: Old World Sparrows (5)

House Sparrow - 5.

Total nests - 5,382.

Total species - 238

List of Species and Nests/Broods in Alphabetical Order

American Avocet - 4.	Calliope Hummingbird - 1.	Green Heron - 1.
American Coot - 90.	Canada Goose - 115.	Green-winged Teal - 7
American Crow - 12.	Canvasback - 9.	Gyr Falcon - 4.
American Dipper - 6.	Caspian Tern - 2.	Hairy Woodpecker - 10.
American Golden-Plover - 2.	Cassin's Auklet - 109.	Hammond's Flycatcher - 4.
American Goldfinch - 1.	Cedar Waxwing - 19.	Harlequin Duck - 6.
American Kestrel - 13.	Chestnut-backed Chickadee - 12.	Hermit Thrush - 3.
American Pipit - 4.	Chipping Sparrow - 23.	Herring Gull - 162.
American Redstart - 4.	Chukar - 2.	Hooded Merganser - 18.
American Robin - 111.	Cinnamon Teal - 3.	Horned Grebe - 10.
American Tree Sparrow - 1.	Clark's Nutcracker - 5.	Horned Lark - 3.
American White Pelican - 1.	Clay-colored Sparrow - 2.	Horned Puffin - 1.
American Wigeon - 28.	Cliff Swallow - 41.	House Finch - 6.
Ancient Murrelet - 16.	Common Goldeneye - 37.	House Sparrow - 5.
Anna's Hummingbird - 4.	Common Loon - 28.	House Wren - 51.
Bald Eagle - 140.	Common Merganser - 15.	Hudsonian Godwit - 1.
Baltimore Oriole - 1.	Common Murre - 9.	Hutton's Vireo - 1.
Bank Swallow - 21.	Common Nighthawk - 3.	Killdeer - 25.
Barn Owl - 7.	Common Raven - 19.	Lazuli Bunting - 3.
Barn Swallow - 67.	Common Snipe - 6.	Leach's Storm-Petrel - 10.
Barred Owl - 6.	Common Yellowthroat - 7.	Least Flycatcher - 6.
Barrow's Goldeneye - 24.	Cooper's Hawk - 52.	Least Sandpiper - 6.
Belted Kingfisher - 4.	Dark-eyed Junco - 41.	Lesser Scaup - 8.
Black-backed Woodpecker - 2.	Downy Woodpecker - 5.	Lesser Yellowlegs - 2.
Black-billed Magpie - 8.	Dusky Flycatcher - 6.	Lewis's Woodpecker - 5.
Black-capped Chickadee - 19.	Eared Grebe - 47.	Lincoln's Sparrow - 4.
Black-headed Grosbeak - 3.	Eastern Kingbird - 20.	Long-billed Curlew - 5.
Black Oystercatcher - 67.	Eastern Phoebe - 4.	Long-eared Owl - 3.
Black Swift - 1.	European Starling - 34.	MacGillivray's Warbler - 3.
Black Tern - 29.	Evening Grosbeak - 4.	Magnolia Warbler - 1.
Black-throated Gray Warbler - 4.	Flammulated Owl - 2.	Mallard - 126.
Blue Grouse - 16.	Fork-tailed Storm-Petrel - 7.	Marsh Wren - 3.
Blue-winged Teal - 8.	Forster's Tern - 1.	Merlin - 14.
Bohemian Waxwing - 1.	Fox Sparrow - 7.	Mew Gull - 1.
Bonaparte's Gull - 1.	Gadwall - 14.	Mountain Bluebird - 103.
Boreal Chickadee - 3.	Glaucous-winged Gull - 1,172.	Mountain Chickadee - 28.
Boreal Owl - 1.	Golden-crowned Kinglet - 1.	Mute Swan - 2.
Brandt's Cormorant - 40.	Golden-crowned Sparrow - 2.	Nashville Warbler - 2.
Brewer's Blackbird - 27.	Golden Eagle - 18.	Northern Flicker - 67.
Brewer's Sparrow - 92.	Gray Catbird - 5.	Northern Goshawk - 15.
Brown Creeper - 13.	Gray Flycatcher - 3.	Northern Harrier - 14.
Brown-headed Cowbird - 31.	Gray Jay - 11.	Northern Hawk Owl - 8.
Bufflehead - 38.	Gray Partridge - 1.	Northern Mockingbird - 1.
Bullock's Oriole - 16.	Great Blue Heron - 26.	Northern Pintail - 8.
Burrowing Owl - 19.	Great Gray Owl - 9.	Northern Pygmy-Owl - 3.
Bushtit - 4.	Great Horned Owl - 14.	N. Rough-winged Swallow - 7.
California Quail - 15.	Greater Yellowlegs - 3.	Northern Saw-whet Owl - 2.

Northern Shoveler - 5.
 Northern Waterthrush - 1.
 Northwestern Crow - 24.
 Olive-sided Flycatcher - 2.
 Orange-crowned Warbler - 6.
 Osprey - 53.
 Ovenbird - 1.
 Pacific-slope Flycatcher - 4.
 Pelagic Cormorant - 39.
 Peregrine Falcon - 19.
 Pied-billed Grebe - 22.
 Pigeon Guillemot - 18.
 Pileated Woodpecker - 7.
 Pine Siskin - 7.
 Prairie Falcon - 1.
 Purple Finch - 2.
 Purple Martin - 2.
 Pygmy Nuthatch - 7.
 Red-breasted Merganser - 1.
 Red-breasted Nuthatch - 29.
 Red-breasted Sapsucker - 12.
 Red Crossbill - 1.
 Red-eyed Vireo - 1.
 Redhead - 13.
 Red-naped Sapsucker - 90.
 Red-napped/Red-breasted
 Sapsucker - 1.
 Red-necked Grebe - 54.
 Red-tailed Hawk - 29.
 Red-throated Loon - 1.
 Red-winged Blackbird - 21.
 Rhinoceros Auklet - 32.
 Ring-necked Duck - 13.
 Ring-necked Pheasant - 3.
 Rock Ptarmigan - 9.
 Rock Wren - 1.
 Rose-breasted Grosbeak - 5.
 Ruddy Duck - 16.
 Ruffed Grouse - 21.
 Rufous Hummingbird - 12.
 Rusty Blackbird - 3.
 Sage Thrasher - 5.
 Sandhill Crane - 6.
 Say's Phoebe - 2.
 Semipalmated Plover - 12.
 Sharp-shinned Hawk - 2.
 Sharp-tailed Grouse - 2.
 Sharp-tailed Sandpiper - 3.
 Short-eared Owl - 1.

Snow Bunting - 1.
 Solitary Sandpiper - 3.
 Solitary Vireo - 1.
 Song Sparrow - 34.
 Sora - 2.
 Spotted Sandpiper - 26.
 Spotted Towhee - 11.
 Spruce Grouse - 23.
 Steller's Jay - 2.
 Swainson's Hawk - 2.
 Swainson's Thrush - 10.
 Thick-billed Murre - 4.
 Three-toed Woodpecker - 11.
 Townsend's Solitaire - 6.
 Townsend's Warbler - 1.
 Tree Swallow - 171.
 Trumpeter Swan - 2.
 Tufted Puffin - 204.
 Varied Thrush - 11.
 Vesper Sparrow - 2.
 Violet-green Swallow - 44.
 Virginia Rail - 5.
 Warbling Vireo - 8.
 Western Bluebird - 71.
 Western/Glaucous-winged Gull -
 1.
 Western Grebe - 95.
 Western Kingbird - 21.
 Western Meadowlark - 3.
 Western Screech-Owl - 1.
 Western Tanager - 3.
 Western Wood-Pewee - 23.
 White-breasted Nuthatch - 1.
 White-crowned Sparrow - 15.
 White-headed Woodpecker - 1.
 White-tailed Ptarmigan - 14.
 White-throated Sparrow - 11.
 White-throated Swift - 3.
 White-winged Crossbill - 2.
 Wild Turkey - 5.
 Williamson's Sapsucker - 7.
 Willow Flycatcher - 2.
 Willow Ptarmigan - 4.
 Winter Wren - 19.
 Wood Duck - 37.
 Yellow-bellied Flycatcher - 2.
 Yellow-bellied Sapsucker - 3.
 Yellow-breasted Chat - 2.
 Yellow-headed Blackbird - 22.

Yellow Warbler - 20.
 Yellow-rumped Warbler - 9.

Total nests - 5,382
Total Species - 238



List of Contributors in Alphabetical Order

Our thanks to the following participants.

- A** E.M. Anderson - 2, L. Anderson - 1, Morgan Anderson - 2, T.M. Anderson - 1, Cathy and H. Antoniazzi - 1, Cathy Antoniazzi and others - 3, Janice Arndt - 34, and V. Atkins - 4.
- B** Peter Bailey - 1, Derek Beacham - 1, Marc-Andre Beaucher - 5, Alice Beals - 83, Alan Bear - 16, J. Beaulieu - 1, Barbara Begg - 8, Barbara Begg and Bruce Whittington - 1, Kevin Bell and Tom Plath - 1, Michael Bigg - 2, Kevin Black - 6, Ann Blackmore - 7, Peter Blokker - 5, Rick Bonar - 1, J. Boss - 1, C. Bowen - 23, Jack Bowling - 3, Ken C. Boyce - 4, Jan Bradshaw - 10, J. Briggs - 1, Allan Brooks - 23, Murray Brown - 1, and Beverly Butcher - 5.
- C** Lucille Campbell - 66, R. Wayne Campbell - 53, Robert A. Cannings - 4, Richard J. Cannings - 8, Richard J. Cannings and Ian McLaren - 1, Sydney G. Cannings - 6, Steve R. Cannings - 7, Barb Cannon - 49, Phil Capes - 1, G.C. Carl - 1, Larry Carper - 1, M. Carson - 1, M. Carson and Mary Collins - 1, Chris Charlesworth - 1, Chris Charlesworth and Chris Siddle - 1, Rosalind Chaundy - 1, A. Christenson - 1, John Christison - 1, Myke Chutter - 10, Stewart Clow - 29, A. Cooper - 1, Dianne Cooper - 1, Gillian Cooper - 4, John M. Cooper - 70, John M. Cooper and Mark Nyhof - 1, Claudia and Darren R. Copley - 1, Darren R. Copley - 2, Evi Coulson - 10, J. Cousens - 4, Vic and Cecile Cousineau - 10, L. Cowan - 1, L. Cowan, K. Irving and Michael Price - 1, Linnea Cross-Tallman - 3, and Chris Czajkowski - 2.
- D** S.J. Darcus - 1, Gary S. Davidson - 1, Gary S. Davidson and Rick R. Howie - 3, Gary S. Davidson and Chris Siddle - 131, B. Davis - 1, Lyndis Davis and David Stirling - 1, Neil K. Dawe - 24, Clifford Day - 17, C. deB Green - 1, Brent Diakow - 1, Scott Dickin - 9, Scott Dickin and Erica McClaren - 9, John Dillinger - 1, M. Dovich - 1, Eva Durance - 25, S. Durkin - 1, and Linda Durrell - 2.
- E** Peter Elliott - 10, Maurice Ellison - 7, Ken and Hanna Emes - 4, and Anthony J. Erskine - 2.
- F** Stephanie Fairley - 1, J. Bristol Foster - 134, Lee Foster - 16, Les Foster - 1, M. Foubister and Brent Olsen - 1, C.D. Fowle - 3, David F. Fraser - 5, David F. Fraser and Leah Ramsay - 7, Hugh Fraser - 1, Maureen L. Funk - 11, and Maureen L. Funk and Claudia Copley - 3.
- G** Jeff Gaskin - 23, Jeff Gaskin and Calver Palmateer - 1, Bryan R. Gates - 1, Bryan R. Gates and Keith Taylor - 1, L.A. Gibbard - 1, Ken Glover - 1, H. Godider - 3, J.E. Victor Goodwill - 2, Hilary Gordon - 62, Hilary and Orville Gordon - 13, Hilary Gordon and Janice Jarvis - 1, Orville Gordon - 4, Max Gotz - 2, James Grant - 9, Al Grass - 1, B. Green - 23, Tony Greenfield - 25, Tamar Griggs - 3, Tamar Griggs and Gary Meagley - 1, and C.J. Guiguet - 55.
- H** E. Haan - 1, Larry Halverson - 1, Peter J. Hamel - 3, Gayla Hanna and Lucille Campbell - 4, Willie Haras - 22, Bill Harper - 2, Robert D. Harris - 1, David F. Hatler - 13, Ian Hatter - 3, Margo Hearne - 1, Charles Helm - 28, R. Jerry Herzig - 90, Werner and Hilde Hesse - 1, Mark Hobson - 1, Rick R. Howie - 55, and Jean Hudson - 1.
- I** Doug Innes - 19, Doug and Marian Innes - 2, and John Ireland - 2.
- J** Phil James - 1, Pat Janzen - 30, Hugh Jennings - 2, Rick S. Jerema - 3, Fran Johnson - 2, and J. Jones - 1.
- K** Gary W. Kaiser - 1, Joan Kerr - 7, Frank Kime - 87, Frances King - 1, J. King - 1, Sandra Kinsey and Laird Law - 3, Sandra Kinsey, Laird Law and Mark Phinney - 1, Sandra Kinsey, Laird Law, Mark Phinney and S. Phippen - 1, John G. Knezevich - 1, Ann Knowles - 1, Burke Korol - 25, Nancy Krueger - 1, and Derek Kyostia - 3.
- L** Elsie Lafraniece - 1, Vi & John Lambie - 7, Susan Lanyon - 1, Laird Law and Mark Phinney - 1, Laird Law, Sandra Kinsey and Mark Phinney - 4, Joyce Lee and Wayne Erickson - 1, Paul Lehman - 1, Pat Levitt - 6, M. Lewis - 1, K. Lipke - 2, Eric C. Lofroth - 6, Ursula

Lowrey - 1, J. Luce - 1, Betty Lunam - 7, Betty and James Lunam - 2, and Robert E. Luscher - 5.

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O David and Claire Oppenheim - 2.

P Linda Page - 1, Mary Pastrick - 1, George Patterson - 1, Jim Patterson - 4, W.A.B. Paul - 1, A. Pearson - 1, M. Peet-Leslie - 1, Brian J. Petrar - 1, Mark Phinney - 5, Mark Phinney and Laird Law - 1, Mark Phinney, Sandra Kinsey, Laird Law and L. Donaldson - 1, Tom Plath - 1, J. Plowden-Wardlow - 1, Douglas Powell - 2, G. Allen Poynter - 21, Alan Preston and Margaret Harris - 1, and Michael Preston - 1.

R K. Racey - 3, William S. Rae - 1, Elaine Ralph, Douglas Powell and Priscilla McPherson - 1, Sandy Rathbone - 1, Trish Reid - 2, Tom Reimchen - 1, Athol Richardson - 1, Diane Richardson - 1, Nancy Ricker - 1, Sophie Riedemann - 1, Dirk Rinehart - 2, Ralph W. Ritcey - 5, I. Laurie Rockwell - 12, Michael S. Rodway - 1667, Robin Rohrmoser - 23, Robin Rohrmoser and Rita Wege - 9, Manfred Roschitz - 11, D.A. Ross - 1, and Glen R. Ryder - 5.

S Jack and Rosamond Sarles - 1, Ron Satterfield - 2, A. Scarfe - 1, Anneli, Heidi and Claire Schadel - 1, Brian Scott - 1, Spencer G. Sealy - 1, Barbara M. Sedgwick - 6, Chris Siddle - 38, Chris Siddle and Rick Howie - 1, Chris Siddle and others - 1, P. Sinclair - 1, Ryan Sleik - 10, Marion Smith - 2, Marion Smith and S. Bull - 3, Pat Smith - 3, Joni and Jesse Spangler - 1, W.

Spreadborough - 3, Elsie Stanley - 41, Joni and Elsie Stanley - 1, Kendra and Elsie Stanley - 2, Andrew C. Stewart - 347, David J. Stewart - 1, David Stirling - 2, David Stirling and Lyndis Davis - 1, and Frances Strohmaier - 1.

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V Linda Van Damme - 432, Albert Van Goor - 1, E.P. Venables - 1, N.A.M. Verbeek - 36, and Frances Vyse - 2.

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Total contributors - 307



USE OF THE B.C. NEST RECORD SCHEME AND DATA BASES IN 1997

Requests for Information

During 1997, hundreds of government staff, professional ornithologists, naturalists, consultants, birders, industry personnel, the general public, television and radio stations, and newspaper and magazine writers requested information on birds from our provincial data bases. In total, 1,126 requests were processed for an average of 3.1 requests for every day of the year or over 5 per work day! Some requests were handled quickly while others took several days to compile and mail the information.

The following list is a partial summary of names, residence or affiliation, and species for which information was requested.

Lynn Abbott (Victoria - Bushtit), **Marc Andre-Beaucher** (Wynndel - Vermillion Flycatcher), and **Ted Antifeau** (B.C. Ministry of Environment, Lands and Parks - Williamson's Sapsucker).

James Barber (B.C. Ministry of Environment, Lands and Parks - Peregrine Falcon), **Jack Barry** (Wildlife Images Inc - Bald Eagle), **Linda Beach** (Madronne Consulting - northeastern warblers), **Richard Beacham** (Sooke - Whooping Crane), **Linda Bear** (Rithets Bog Conservation Society - birds and cats), **Linda Bedard** (B.C. Ministry of Forests - Marbled Murrelet), **Bruce Bennett** (Canadian Wildlife Service - Yukon bird records), **Stephen Bennett** (Consultant - Northern Goshawk and northeastern warblers), **Mike Bentley** (Saltspring Island - Aleutian Tern and Red-legged Kittiwake), **Mary Birch** (Courtenay - Leach's Storm-Petrel), **Dr. David M. Bird** (McGill University, Quebec - all B.C. hawks), **Don Blood** (Consultant - Barn Owl), **Jenny Bonk** (Denman Island - all species for island), **Barry Booth** (Consultant - all owl species for Peace River), **Colin Bowen** (Ottawa - Scissor-tailed Flycatcher), **Jack Bowling** (Prince George Naturalists Club - rare species for quarterly reports to National Audubon Society), **Andre Breault** (Canadian Wildlife Service - all sea ducks), **Betty Brooks** (Comox - all species for Strathcona Park checklist), **Dr. Charles R. Brown** (University of Tulsa, Oklahoma - Barn Owl), **Dr. Alan Burger** (University of Victoria - Brown Pelican and Black-backed Wagtail), **Trudy Butel** (Delta Optimist Newspaper - all owls), and **Robert W. Butler** (Canadian Wildlife Service, Delta - bird species diversity in B.C.).

John Campbell (Consultant - breeding birds for the Quesnel region), **Susan Campbell** (Consultant - all species and habitats), **Wayne Campbell** (B.C. Ministry of Environment, Lands and Parks - all species for *Birds of British Columbia* - Volume 3 and 4 and B.C. checklist), **Sydney G. Cannings** (B.C. Ministry of Environment, Lands and Parks - Yellow Rail), **Richard J. Cannings** (Consultant - Boreal Owl, Long-billed Curlew, Sage Thrasher, Williamson's Sapsucker, and all species for B.C. taxonomic list), **Dan Carson** (Grand Forks - Gray Flycatcher), **Harry Carter** (U.S. Geological Survey - Common Murre and oil pollution records), **Susan Chung** (Times-Colonist - alien species of birds), **Paul Chytk** (Consultant - Northern Goshawk), **James Clowater** (Simon Fraser University - Western Grebe), **June Cochrane** (Victoria - bird species for Moberly Lake), **Brenda Coey** (Victoria - Northern Saw-whet Owl), **Beth Collins** (Victoria - birds of Pacific Rim National park), **Donald Comer** (Chetwynd - Cooper's and Sharp-shinned Hawk), **John M. Cooper** (Sirius Environmental Consultants - select species for *Birds of British Columbia* - Volume 3 and 4 and Black Tern, Lewis' Woodpecker, Swainson's Hawk, Peregrine Falcon, and Prairie Falcon), **Darren Copley** (Victoria - birds of prey), **Malcolm Coure** (Simon Fraser University - Common Merganser), and **Bruce Cousens** (Nanaimo - Sandhill Crane).

Laura Darling (B.C. Ministry of Environment, Lands and Parks - Western Screech-Owl), **Gary S. Davidson** (Arrow Lakes Naturalist Club - all species for the West Kootenay checklist), **Neil K. Dawe** (Canadian Wildlife Service - all species for *Birds of British Columbia* - Volume 3 and 4, Brant, and sensitive species for Georgia Basin), **Frank DeBoone** (B.C. Ministry of Environment, Lands and Parks - Snowy Owl), **Paul DeBrian** (Bellingham, WA - Peregrine Falcon), **Dr. Mike DeJong** (University of Minnesota - Northern Rough-winged Swallow), **Scott Dickin** (B.C. Ministry of Environment, Land and Parks - Northern Goshawk), **Adrian Dorst** (Tofino - Little Curlew, Pacific Golden-Plover, and Snowy Plover), **Pam Doworth-Christie**

(Canadian Wildlife Service - bird species trends in B.C.), **Don Doyle** (Ministry of Environment, Lands and Parks - Golden Eagle and Northern Goshawk), **David Dunbar** (B.C. Ministry of Environment, Lands and Parks - Barn Owl and Turkey Vulture), **Jon Dunn** (National Geographic Society - all warblers), and **Dr. Peter Dunn** (University of Wisconsin-Milwaukee - Tree Swallow).

Joe Easingwood (CFAX Radio, Victoria - bird migration and bird feeders), **Rainer Ebel** (Edmonton - subspecies of birds for B.C.), **Wayne Erickson** (Victoria - Chipping Sparrow), and **Dr. Andreas Euttimer** (Vancouver - passerine birds).

Howard Ferguson (Washington Fish and Game Department - Cooper's Hawk), **Robert S. Ferguson** (Matrix Resource Services - all species for the Upper Columbia Valley checklist), **Cam Finlay** (Victoria - Purple Martin), **Jim Forrest** (Barrie, Ontario - all B.C. bird species), **David Fraser** (Victoria - Yellow Rail), **Laura Friis** (B.C. Ministry of Environment, Lands and Parks - American White Pelican, Burrowing Owl, and White-headed Woodpecker), **Kathleen Fry** (Ducks Unlimited Canada - American Avocet), and **Maureen L. Funk** (B.C. Ministry of Forests - Northern Pygmy-Owl).

Bob Galbraith (Vernon - White-headed Woodpecker), **Kimball Garrett** (Natural History Museum of Los Angeles County - all warbler species), **Barry Garrison** (U.S. Fish and Wildlife Service, CA - Bank Swallow), **Jeff Gaskin** (Victoria Natural History Society - Bullock's Oriole and rare birds for southern Vancouver Island), **Bryan Gates** (Victoria - King Eider records for B.C.), **Dr. Luke George** (Humboldt State University, CA - Varied Thrush), **Dr. William M. Gilbert** (El Sobrante, CA - Wilson's Warbler), **Dr. Frank Gill** (Academy of Natural Sciences of Philadelphia - all species for *Birds of North America* accounts), **George Gleason** (Kamloops - Bobolink), **Kim Goldberg** (Consultant - all species for Hamilton Marsh), **Lance Goodwin** (Atlin - Trumpeter Swan), **Jude Grass** (Federation of B.C. Naturalists - Double-crested Cormorant), **Jim Greason** (Royal B.C. Museum - hummingbirds), **Brian Green** (Consultant - all thrush species), **Tony Greenfield** (Sechelt - select species for Sunshine Coast bird checklist), **Laura Gretzinger** (B.C. Ministry Environment, Lands and Parks - literature and breeding records for Cooper's Hawk), **Deb Griffiths** (Radium - B.C. bird field trips), **Tamar Griggs** (Bold Bluff Retreat - Bald Eagle), **Ralph Grundel** (Beverly Shores, IN - Mountain Chickadee), **Marilyn Gruno** (CBC Radio - Purple Martin), **Gerhard Gschwandtner** (Personal Selling Power - Bald Eagle), and **Don Guthrie** (B.C. Institute of Technology, Burnaby - current information on all regularly occurring B.C. bird species).

Roly Hack (MacMillan Bloedel Limited - Turkey Vulture), **Judy Hagen** (Courtenay - general information on B.C. birds), **Larry Halverson** (Parks Canada - all species for the Upper Columbia Valley checklist), **Peter Hamel** (Masset - literature and birds on Queen Charlotte Islands), **Fred Harper** (B.C. Ministry of Environment, Lands and Parks - Prairie Falcon), **Bruce Harrison** (Washington Game Department, WA - Gyrfalcon), **Carol Hartwig** (University of Victoria - Pileated Woodpecker), **David F. Hatler** (Consultant - all species for Adams Lake), **Grant Hazelwood** (Consultant - Northern Goshawk and Vaux's Swift), **Margo Hearne** (Masset - literature and birds on the Queen Charlotte Islands), **Ed Hennan** (Consultant - all species for range management), **Anne Hetherington** (B.C. Ministry of Environment, Lands and Parks - Yellow-headed Blackbird), **P. Hillier** (Montreal Quebec - Yellow Rail), **Tracey D. Hooper** (Consultant - Prairie Falcon, Sprague's Pipit, and Upland Sandpiper), **Dr. Stephen R. Johnson** (LGL Limited - Crested Myna and Sky Lark), **Greg Howelled** (Vancouver - Common Raven), **Richard R. Howie** (B.C. Ministry of Environment, Lands and Parks - Northern Goshawk), **Josep del Hoyo** (Barcelona, Spain - all B.C. bird species), **Jocelyn Hudon** (Provincial Museum of Alberta - Western Tanager), **Marianne Hughes** (Consultant - Brown Creeper), **Mark Hume** (Vancouver Sun - bird species for Georgia Basin), and **C. Stuart Houston** (Saskatoon - Swainson's Hawk).

David Ingram (Miracle Beach - all owl species and Blue Grouse, Spruce Grouse, White-tailed Ptarmigan, and Willow Ptarmigan) and **Douglas Innes** (Courtenay - Whooper Swan).

Tim James (Vancouver - Yellow-bellied Flycatcher), **Bob Jamieson** (B.C. Ministry of Forests - Flammulated Owl), **Connie Jennings** (Kamloops - Common Raven), **Dr. Scott Johnson** (University of Maryland - House Wren), **Christine Jolly** (B.C. Ministry of Environment, Lands and Parks - all birds of prey),

Pierre Johnstone (B.C. Ministry of Forests - Northern Goshawk), **Brenda Jones** (Kamloops - Northern Mockingbird), and **Rebecca Jones** (Fort St. John - Short-eared Owl).

Gary Kaiser (Canadian Wildlife Service - select species for *Birds of British Columbia* - Volume 3 and 4), **John Keane** (Stanislaus National Forest - Broad-winged Hawk), **Elizabeth Kellet** (Hamilton, Ontario - woodpeckers), **Ken Kennedy** (Clinton Elementary School - Barrow's Goldeneye and Blue Jay), **Shane Kennedy** (Lone Pine Publishing - all B.C. species), **Jenny Klafki** (Yoho National Park - B.C. Nest Record Scheme), **Dan Klinka** (Victoria - Northern Goshawk), and **Rob Knight** (Consultant - Purple Martin).

Vi Lambie (Mackenzie - Tennessee Warbler), **Doreen Lawson** (Municipality of Burnaby - all species for Burnaby Lake), **Charlene Lee** (Nanaimo - American Bittern and Sandhill Crane), **Enid Lemon** (Victoria - Harris's Sparrow and Merlin), **Chris Lemuir** (Canadian Nature Federation - important bird species in B.C.), **Jack Lenfesty** (Victoria - Downy Woodpecker and White-throated Sparrow), **Ron Lennard** (Prince George - Black-billed Magpie), and **Anne Ludbrook** (Scarborough, ON - Golden Eagle and Great Blue Heron).

Ian MacDonald (Vancouver - Blue Rock Thrush), **Dr. David Manuwal** (University of Washington - Common Murre), **Dr. Kathy Martin** (University of B.C. - White-tailed Ptarmigan), **Paul Mason** (Whitehorse, Yukon - all northern B.C. bird species), **Robert Matthews** (Smithers - Yellow-headed Blackbird), **Mats Matsushita** (Parks Canada - Blue Jay), **Wayne Matkoski** (W.M. Resource Consulting - trends for owls on Vancouver Island), **Ron Mayo** (Bella Coola - Boreal Owl), **Fiona McCall** (Times-Colonist - Spotted Owl), **Erica McClaren** (B.C. Ministry of Environment, Lands and Parks - Northern Goshawk), **George McCammon** (Parksville - all owl species for Vancouver Island), **Sue McDonald** (Campbell River - Barred Owl, Great Horned Owl, Northern Pygmy-Owl, Northern Saw-whet Owl, and Western Screech-Owl for Nimpkish Valley), **Dr. Ian McLaren** (Dalhousie University, Halifax - California Gull), **Ron McLaughlin** (MacMillan Bloedel Limited - American Dipper, Marbled Murrelet, Northern Goshawk, Sandhill Crane, and Turkey Vulture), **Michael McMann** (Nelson - all birds of prey), **Michael McNall** (Royal B.C. Museum - Spotted Owl, Lapland Longspur and Smith's Longspur for *Birds of British Columbia* - Volume 4), **Martin K. McNicholl** (Burnaby - birds of Sikanni Chief River), **Ian McTaggart-Cowan** (Victoria - species for *Birds of British Columbia* - Volume 3 and 4), **Rhonda Millikin** (Canadian Wildlife Service - Sage Thrasher), **Don Mitchell** (University of California at Santa Barbara - Brown-headed Cowbird), **Joe Miterly** (Donald Blood and Associates - all cavity-nesting species), **Dr. Tom Moberley** (Salem College, SC - American Wigeon and Swamp Sparrow), **Tim Mock** (T.M. Communications - all species in lodgepole pine forests), **John Monarch** (Consultant - Great Blue Heron), **Joe Morlan** (San Francisco - status for select B.C. species), **Ken Munro** (Dawson Creek - Common Loon), and **Dr. Michael Murphy** (Hartwick College - Eastern Kingbird).

Lebor Michalak (Kokanin Forest Consulting - Mountain Bluebird), **Dean Nicholson** (Invermere - Ring-necked Duck and Wood Duck), **Ken Neilson** (Boise, Idaho - Ferruginous Hawk), **Ted Nordhagen** (Artist - Tennessee Warbler), **Dr. Chris Norment** (New York - Golden-crowned Sparrow), **Ed Nygren** (Vancouver - Brant), and **Elsie Nykyfork** (Vernon - Tree Swallow mortality).

Penny Ohanjanian (East Kootenay - Western Grebe), **Joan Outerbridge** (Victoria - hummingbirds), and **Henri Ouellet** (Ottawa - all B.C. bird species for American Ornithologists' Union checklist and literature for the Okanagan valley).

Natalie Pahau (B.C. Ministry of Environment, Lands and Parks - all species Cariboo region), **Wilbur Peters** (Sooke - Brown Pelican), **Tom Plath** (B.C. Ministry of Environment, Lands and Parks - all species for Sea Island), **Dr. Alan Poole** (Academy of Natural Science of Philadelphia - all species for Birds of North America accounts), **Douglas Powell** (Revelstoke - Short-eared Owl and Virginia Rail), **George A. Poynter** (Parksville - Little Gull), and **Michael I. Preston** (University of Calgary - Black-bellied Plover, Black Swift, and Merlin).

Nina Raginsky (Saltspring Island Collective Waterbird Watch - Black Oystercatcher), **Austin Reed** (Simon Fraser University - Brant), **Charlie Renoe** (Duncan - Northern Hawk-Owl), **Dr. James D. Rising** (University of Toronto - Bullock's Oriole), **John Roberson** (Salmon Arm - waterbird records for estuary), **Lila Roberts** (Consultant - Black-capped Chickadee, Downy Woodpecker, Evening Grosbeak, House Finch, Pileated Woodpecker, Pine Siskin, Red-breasted Nuthatch, Song Sparrow, Spotted Towhee, and Steller's Jay), **Brian Robertson** (B.C. Ministry Environment, Lands and Parks - birds of B.C., flycatchers to vireos), **Jim Rodgers** (Tacoma, Washington - Northern Goshawk), **K. Rohner** (University of B.C. - Great Horned Owl), **Beth Ross** (Cranbrook - all species Flathead), and **Doug Ross** (Consultant - Barn Owl, Hutton's Vireo, Northern Pintail, Northern Pygmy-Owl, Northern Shoveler, Sora, and Virginia Rail).

Anne Salmon (University of B.C. - Yellow Warbler on Vancouver Island), **Dr. Spencer G. Sealy** (University of Manitoba - Northern Saw-whet Owl and Sky Lark), **Brian Seymour** (Royal B.C. Museum - birds of prey), **Chris Siddle** (Consultant - Baltimore Oriole, Hoary Redpoll, and Nelson's Sharp-tailed Sparrow), **Larry Simpson** (Nature Conservancy of Canada - birds of Penask Lake), **Bruce Sinclair** (Nelson - Long-billed Curlew, Sharp-tailed Grouse, and Williamson's Sapsucker), **Marg Skeel** (Vancouver - Hudsonian Godwit), **John Smith** (Canadian Wildlife Service - all species for *Birds of British Columbia* - Volume 3), **Tom Sowerby** (Cranbrook - Sky Lark), **Brent Smith** (B.C. Ministry Environment, Lands and Parks - Golden Eagle, Northern Harrier, Pacific Loon, and Peregrine Falcon), **Colleen Smith** (Delta - Golden Eagle), **Kay M. Smith** (Los Angeles - McCowan's Longspur), **Michael Spencer** (Montreal - birds for Queen Charlotte Islands), **Leanne Stepnov** (Canadian Broadcasting Corporation - Cooper's Hawk), **Bob Stewart** (Institute of Ecology - Red-naped Sapsucker), **Andrew C. Stewart** (B.C. Ministry of Environment Lands and Parks - Cooper's Hawk, Bushtit, Golden-crowned Sparrow, and White-throated Sparrow), **Kari Stewart-Smith** (Crestbrook Forest Industries - birds in East Kootenay, cavity-nesting forest birds), **David Stirling** (Tour Leader, Victoria - Turkey Vulture and breeding birds in B.C.), and **Ken Summers** (Consultant - Vaux's Swift and White-throated Swift).

Keith Thirkell (Vancouver Province - Xantus's Hummingbird), **Larry Thompson** (Victoria - all bird species for Vancouver Island), **Rick Toochin** (Consultant - all species for Iona Island checklist), **Roger Tremblay** (Nelson - Scissor-tailed Flycatcher), **Tanya Tripp** (Victoria - migration routes for B.C. birds), and **Nancy Turner** (Victoria - American Kestrel).

Vorma Urkanon (Whistler - Bald Eagle) and **Joel Ussery** (Victoria Capital Regional District - Bald Eagle).

Linda M. Van Damme (Nelson - Black-throated Sparrow, Black Swift, Bobolink, Brambling, Brown Thrasher, Harris's Sparrow, and all species for Creston checklist), **Nicolaas A.M. Verbeek** (Simon Fraser University - Rhinoceros Auklet and Mittenatch Island birds), and **Joan Voller** (B.C. Ministry of Forests - Northern Pygmy-Owl and Western Screech-Owl).

A. Warden (Yoho National Park - bird acronyms), **Pat Warrington** (B.C. Ministry of Environment, Lands and Parks - effects of motor boats on birds), **Allison Watt** (Nanaimo - Tufted Puffin), **Pat Wells** (Odin's Reach - Harlequin Duck), **Brian Wheeler** (Fort Collins, Colorado - all B.C. hawks), **Rita Wege** (JMJ Holdings, Nelson - birds of Wasa Park), **Mildred White** (Rocky Mountain Naturalists - Western Bluebird), **Mike Wigle** (Bella Coola - Hooded Merganser and Wood Duck), **Blake Williams** (MacMillan Bloedel Limited - Marbled Murrelet), **Derek Williams** (Consultant - Ovenbird), **John Wills** (Vanderhoof - Black-chinned Hummingbird), **Shannon Winter** (B.C. Hydro - bird species for Salmon Inlet), **Dr. Linda Wires** (University of Minnesota - Caspian Tern), **Jim Wisnia** (Squamish Estuary Conservation Society - all species Squamish checklist), **Dr. Barbara de Wolfe** (University of California, Santa Barbara - White-crowned Sparrow), **Joan Wood** (Victoria - Cooper's Hawk, Great Blue Heron, and Northern Goshawk), **John G. Woods** (Parks Canada - Pine Siskin), **Bill Wright** (Victoria - Green Heron), and **Ken Wright** (Canadian Wildlife Service - Harlequin Duck).

John Youds (B.C. Ministry of Environment, Lands and Parks - bird migration corridors in B.C.) and **Jim Young** (B.C. Ministry of Environment, Lands and Parks - American White Pelican).

Ellen Zimmerman (East Kootenay Environmental Society - Bobolink, Common Grackle, and Northern Mockingbird).

Recent Publications and Reports

The following list represents a sample of scientific papers, books, reports, and theses that have appeared recently which utilized information from our provincial data bases.

- Andres, Brad A. and Gary A. Falxa. 1995. *Black Oystercatcher (Haematopus bachmani)*. In *The Birds of North America*, No. 155 (A. Poole and F. Gill, editors). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C. 20 pages.
- Avery, M.L. 1995. *Rusty Blackbird (Euphagus carolinus)*. In *The Birds of North America*, No. 200 (A. Poole and F. Gill, editors). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C. 16 pages.
- Bechard, M.J. and J.K. Schmutz. 1995. *Ferruginous Hawk (Buteo regalis)*. In *The Birds of North America*, No. 172 (A. Poole and F. Gill, editors). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C. 20 pages.
- Blood, Donald A. 1993. *American White Pelican*. British Columbia Ministry of Environment, Lands and Parks, Victoria. 6 pages.
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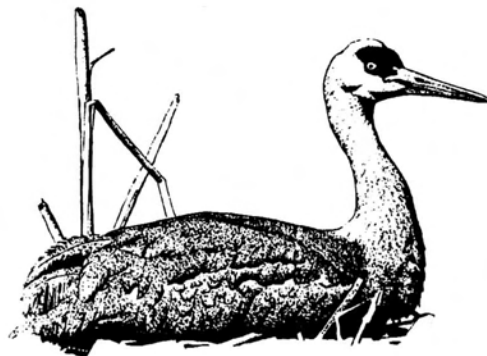
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APPENDICES

Appendix 1. British Columbia Nest Record Scheme Instruction Manual - Aging Waterfowl Addendum

In the spring of 1997, the first B.C. Nest Record Scheme manual was issued by the WBT Wild Bird Trust of British Columbia, along with participating partners, as WBT Wildlife Report No. 1. An important omission in that manual was the inclusion of plumage changes of young waterfowl developed by J.B. Gollop and W.H. Marshall in their 1954 publication *A Guide for Aging Duck Broods in the Field*. This information, when recorded on nest cards, is very helpful in recording the mortality of broods and breeding chronology in the province as they pass from the downy stage to the flight stage. Brood mortality is recorded at three stages of growth as follows:

CLASS I (Levels A, B, and C) - downy stage that covers the period from hatching to the time body feathers begin to appear among the down. It usually lasts about three weeks.

CLASS II (Levels A, B, and C) - this stage, from about the fourth week through the sixth week, covers the period when the body feathers gradually replace all of the down plumage.

CLASS III (Single Level) - this stage of development, which lasts about 10 days, includes the period when the young appear fully-feathered just before their first flight.

Information can simply be recorded on each nest card as I-A, II-B, III, etc. for each brood. The drawings on page 21, which have been modified from F.C. Bellrose's *Ducks, Geese and Swans of North America*, should be used as the reference.

Appendix 2. British Columbia Birds: A Species List - 1997.

The new species list for British Columbia birds, including the most recent common and scientific names, sequence and 4-letter codes, should be used as the standard reference when completing nest record cards. The 4-letter codes can be used on cards providing they follow the list. It is available as WBT Wild Bird Trust of British Columbia Wildlife Report No. 2 from WBT at 124 - 1489 Marine Drive, West Vancouver, B.C. V7T 1B8. There is no charge for participants.

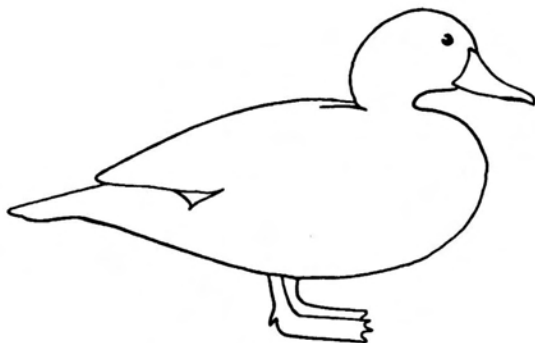
Subspecies codes (e.g., "Red-shafted" Flicker = RSFL and "Slate-coloured" Junco = SCJU) can be added in parenthesis following the species code in the appropriate box (e.g., Northern Flicker/"Red-shafted" Flicker = NOFL [RSFL], and Dark-eyed Junco/"Slate-coloured" Junco = DEJU [SCJU]).

Appendix 3. Birds of British Columbia - Volume 4 Update.

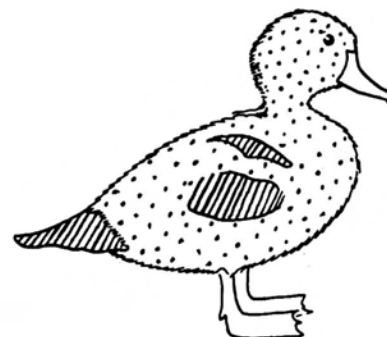
The final volume of *The Birds of British Columbia - Volume 4: Wood Warblers through Old World Sparrows* is progressing well. About 3/4 of the species accounts have now been written in first draft and have been sent to regional review for comments. These experienced birders include Jack Bowling, Jan Bradshaw, Dick Cannings, Myke Chutter, Gary Davidson, Dennis Demarchi, Adrian Dorst, Kyle Elliott, Bryan Gates, Max Gotz, Tony Greenfield, Larry Halverson, Margo Hearne, Charles Helm, Rick Howie, Douglas Innes, Vi Lambie, Douglas Leighton, Martin McNicholl, Douglas Powell, Anna Roberts, Chris Siddle, Andrew Stewart, David Stirling, Rick Toochin, Ruth Travers, Jim Tuck, Linda Van Damme, and Ellen Zimmerman.

Again, the BCNRS has provided an important data set for analyzing historic and current information on the breeding biology and habitat requirements for birds in the province. A unique part of the information is the ability to develop breeding chronologies for various regions of the province which have different management regimes.

Plumage Development of Young Waterfowl



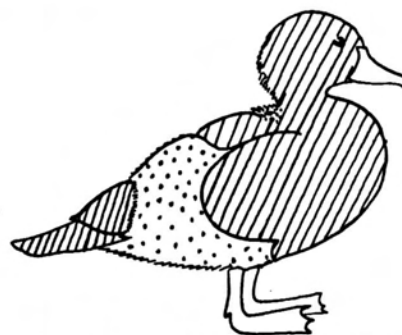
Adult Dabbling Duck



*Class II A, first feathers appear, replacing down on sides and tail;
19-27 days of age*



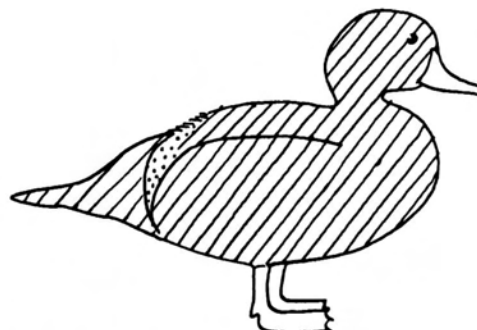
*Class I A, young are down-covered;
1-7 days of age*



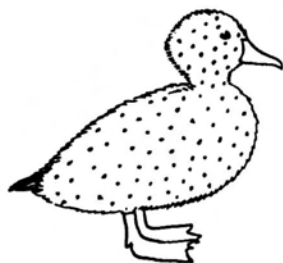
*Class II B, over half of body covered with feathers;
28-36 days of age*



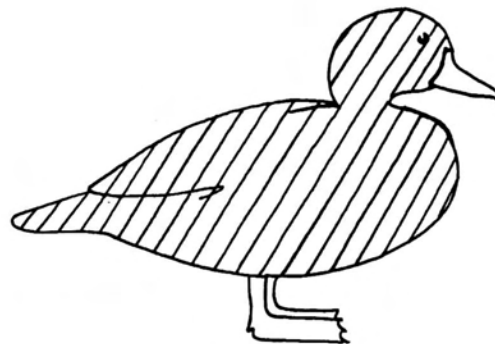
*Class I B, young down-covered, but color fading;
8-13 days of age*



*Class II C, small amount of down remains, among feathers of back;
37-42 days of age*



*Class I C, young down-covered, but color faded, body elongated;
14-18 days of age*



*Class III, fully feathered but incapable of flight;
43-55 days of age, flying at 56-60 days*

REQUESTING AND SUBMITTING CARDS

The *British Columbia Nest Record Scheme Instruction Manual* and new nest record cards can be obtained from:

BCNRS
WBT Wild Bird Trust of B.C.
P.O. Box 6218, Station C
Victoria, B.C. V8P 5L7
Tel\Fax (250) 477-0465

Please return completed cards by October 1 so the annual report can be compiled, published and delivered early in the new year.

ACKNOWLEDGEMENTS

We are grateful to the following people and supporters:

- Dr. John E.R. Stainer provided biographical information on his late father for the Dedication.
- Patricia M. Banning-Lover, Audrey Hoeg, and Eileen Campbell provided editorial comments.
- Vancouver artist Lex Alfred Hedley graciously provided the shorebird image on the cover.
- Brigitta M. Van Der Raay and Keith Taylor provided sketches throughout the report.
- Volunteer Marion Becevel cheerfully maintained sequence and order in filing new cards into a growing data base.
- WBT Wild Bird Trust of British Columbia, the Federation of British Columbia Naturalists, and MacMillan Bloedel Limited provided support for compiling and producing this annual report.

WBT Wild Bird Trust of British Columbia
Wildlife Reports

Number	Title	Price
1.	British Columbia Nest Record Scheme Instruction Manual. By R. Wayne Campbell. 46 pages. April 1997. [No charge to participants in <i>Birds in the New Millennium</i> projects]	\$5.00
2.	British Columbia Birds: A Species List - 1997 (Common and Scientific Names, Sequence, and 4-Letter Codes). By R. Wayne Campbell. 22 pages. January 1998. [No charge to participants in <i>Birds in the New Millennium</i> projects]	\$5.00
3.	British Columbia Nest Records Scheme: 43rd Annual Report ~ 1997 Nesting Season. By R. Wayne Campbell, Maureen L. Funk and Lyndis Davis. 22 pages. March 1998. [No charge to participants in <i>Birds in the New Millennium</i> projects]	\$5.00

Special Reports

1.	The Complete Birder's Life Checklist of British Columbia Birds (Including Mainland and Offshore Waters). By R. Wayne Campbell. Leaflet.	Spring 1998
2.	Four Trip Field List for British Columbia Birds (Including Mainland and Offshore Waters). By R. Wayne Campbell. 22 pages.	Spring 1998
3.	Spring and Summer Birds of Dawson Creek, 1991-1995 By Mark Phinney.	Summer 1998

WBT Wildlife Reports provide quick, up-to-date, and peer-reviewed information on British Columbia's wildlife for use by professionals, naturalists, and the general public. Publications are available from WBT Wild Bird Trust of B.C., 124 - 1489 Marine Drive, West Vancouver, B.C. V7T 1B8. (Tel/Fax 604-924-2581). Prices, which include postage and handling, help offset publication costs.

WBT WILD BIRD TRUST OF BRITISH COLUMBIA

WHO WE ARE!

WBT Wild Bird Trust of British Columbia, established in 1993, is a provincial, charitable, non-profit organization concerned with the conservation of wild birds and their habitats. It undertakes research and educational activities to increase our knowledge of British Columbia birds and to establish a sound basis for conservation.

It has active programs to acquire, protect, and enhance wildlife habitats. It provides results of field research to professional and general audiences through a variety of scientific and popular publications. WBT also participates in developing and carrying out educational programs in co-operation with government agencies, students, conservation groups, industry, sportsmen, and naturalists.

WHAT WE ARE DOING!

Wildlife Habitats

- **Maplewood Flats** (North Vancouver) - established a Wildlife Conservation Area to protect the largest remaining wetland on Burrard Inlet. As stewards, the WBT have enhanced habitat for the largest colony of **PURPLE MARTINS** on mainland B.C. and restored an important wetland.
- **McFadden Creek** (Salt Spring Island) - acquired and secured the largest **GREAT BLUE HERON** nesting colony in coastal British Columbia.

Research Activities

- Developed a visionary project **BRITISH COLUMBIA BIRDS IN THE NEW MILLENNIUM** in which conflicts between humans and birds will be presented in a series of innovative and popular field guides, reference books on vulnerable and persecuted species, and regional books to address conservation and management concerns.
- Established a **SPECIAL PUBLICATION** and **WILDLIFE REPORT** series for distribution of current information on the fast-moving world of birds.
- Developed a protocol for a provincial **BIRD CONSERVATION CENTRE** which will house electronic wildlife data bases, such as the B.C. Nest Record Scheme. This is the largest ornithological reference library in the province and is based on original field notes, diaries, field survey data, banding information, and a collection of colour and black-and-white photographs. It will provide research space for visiting professional and amateur ornithologists.

Education Programs

- Steering **NATURESCAPE BRITISH COLUMBIA**, a program promoting caring of wildlife habitat at home.
- Operating the **GREENING OF SCHOOL GROUNDS**, a program to enhance school yards for wildlife.
- Operating **WILDLIFE WATCH** which alerts and informs the public about the best wildlife viewing places in the Lower Mainland.

This is only the beginning! With your help the WBT can protect many areas throughout the province and be an informed and effective **VOICE FOR BIRDS IN BRITISH COLUMBIA**. A large membership is the key to making this happen. Please **Join Us** and **GIVE WILDLIFE A CHANCE!**

This Report is Dedicated To:

REVEREND JOHN STAINER

Teacher, Minister, Naturalist, and Writer

(1915 - 1997)

Reverend John Stainer was born November 23, 1915 in Epsom, Surrey, England the first son of John Frederick Randall Stainer and Ruth Alice (Mallam).

He attended St. Edmund's and Marlborough schools, followed by Magdalen College, Oxford, where he obtained an M.A. degree in geography. In the 1930s he was active in the British Schools Exploration Society, participating in expeditions to Finnish Lapland, Labrador, and Newfoundland. He was elected a fellow of the Royal Geographical Society.

He moved to Canada in 1938, working for his uncle in Okanagan Mission, and then as a teacher at St. George's School in Vancouver. Next he moved to Cherry Point, B.C. where he worked as a free-lance journalist. In 1951 he began a new career as an Anglican minister, serving as a deacon at St. Paul's, Nanaimo, and then becoming vicar of Parksville-Errington.

In 1961 he became rector of St. Edward's, Oliver and St. Barbara's, Okanagan Falls, where he served 10 years, and another year later, after his retirement. He went on to the shared Anglican and United Church parish of Arrow Lakes. His last parish was another shared charge based in Invermere.

On retirement he moved back to Oliver. He was a 52-year member of the Royal Canadian Legion and was past president of Branch 97 (Oliver) in addition to being chaplain for the past 10 years. He joined Rotary during his first period in Oliver and was a past president of that organization in Oliver. He was awarded a Paul Harris Fellowship through the Invermere branch.

He was author of several books and started writing with published accounts of expeditions in the 1930s. One book, *The Way of the Wild Olive*, which was a composition of sermons, provided a basis for many a discussion.

One of his favourite activities was watching birds. He knew all the back roads around Oliver, and exactly where the interesting birds were to be found. There were always binoculars and a spotting 'scope in the trunk of his Volvo, and bird books and maps in the door pockets. He often carried a camera with him, although he tended to photograph scenery more than birds. He would drive slowly along the road, stopping every now and then for anything of special interest. All his life, he gained great pleasure from the birds.

And he was willing to share his discoveries with others. He was a regular and faithful contributor to the B.C. Nest Record Scheme since its inception in the mid-1950s and eagerly participated in data collection for the 4-volume set *The Birds of British Columbia*. His passion for birds, and unselfish contributions to ornithology, have increased our appreciation and level of understanding of birds in the province.