

BRITISH COLUMBIA NEST RECORD SCHEME

51st Annual Report - 2005 Nesting Season



R. Wayne Campbell, Michael I. Preston and Linda M. Van Damme

Biodiversity Centre for Wildlife Studies Report No. 6

April 2006

PARTICIPANT PROFILES

Both profiles (one on the inside front cover and one on the inside back cover) this year are of individuals who live on southern Vancouver Island and have a combined total of 60 years of birding experience that also includes note taking in other parts of the province. Only a handful of naturalists from the Greater Victoria area have ever really been active in documenting the breeding status of birds on southern Vancouver Island. These include Mark Nyhof, J. E. Victor and Margaret Goodwill, Ron Satterfield, Stuart Johnston, G. Allen Poynter, Geoff Barnard, Robert B. Hay, Tom and Gwen Briggs, Enid Lemon, David Stirling, Eleanor and Albert R. Davidson, Leila G. Roberts, K. Ray Beckett, Robert and Margaret Mackenzie-Grieve, and Ray and Barbara. Many of the “red dots” in *The Birds of British Columbia* volumes for southern Vancouver Island are attributed to these few individuals.

P. Ray Williams



As long as he can remember Ray has been an outdoor enthusiast but it wasn't until the late 1970s, while in his mid-thirties, that he became hooked on bird watching. At that time he enrolled in an evening bird course taught by Harold Hosford, a local naturalist who wrote a weekly newspaper column called “Stray Feathers.” Harold's enthusiasm and knowledge was contagious and so Ray followed up on his growing interest in birds by participating on local field trips with veteran birders David Stirling, Michael Shepard, Reuben Ware, and Marilyn Lambert.

Some of his most cherished memories on southern Vancouver Island are of Sky Larks singing over fields at the University of Victoria, Purple Martins hawking insects at “Purple Martin” pond, Western Bluebirds nesting at the “umbrella” tree at Tugwell Lake, the marsh birds of Hall's field in Langford, the time when there were more binoculars than surfboards at Jordan River, and when the “call of the wild” wasn't a cell phone.

Ray's birding bug has taken him over the ice cap to Herschel Island, in the Yukon, for the Black Guillemot and the Richardson Mountains, in the Northwest Territories, to find a Wheatear. He has also

spent time watching birds in Costa Rica, the Galapagos, Peru, *Amazonia*, New Zealand, and the Cook Islands. At the latter location he had to search remote caves for the tiny Atiu Swiftlet.

Closer to home he remembers hiking up a creek bed in the Sooke Hills and seeing a Red-breasted Sapsucker fly by with a huckleberry in its mouth. Following in the same direction he was able to find the nest tree and was delighted to find the male Red-breasted Sapsucker had a Red-naped Sapsucker for its mate! They raised at least one young at this site.

Ray is retired and lives in Victoria. He spends two or three days a week hiking the hills on the west coast of Vancouver Island with his pack of four “rescued” dogs. He and his wife Marg recently completed a walk, on weekends, along the Galloping Goose and Trans Canada Trail from Victoria to Cowichan Lake, a distance of 200 kilometres. He also enjoys fossil collecting and is an avid rock hound.

He got involved in the B C Nest Record Scheme partly because he thought it was important to record locations of bird species before the changes brought about by rapid development eliminated birds from these areas but mainly because he just enjoyed birding. He also appreciated the tireless efforts of Vic and Peggy Goodwill to encourage careful record keeping and participation in major projects like *The Birds of British Columbia*. Wherever he has travelled throughout British Columbia, Ray is always on the lookout for nests and broods. His nest cards are detailed and among the most complete submitted each year.

Ray says, “it is never a bad day if you spend it birding.”

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Compiled by

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PLEASE NOTE

Some participants are still using nest cards with our old address (P. O. Box 6218, Station C, Victoria, BC. V8P 5L5). Please use these cards but be sure that completed cards are sent to the address below. New cards, with our new address, are now available.

British Columbia Nest Record Scheme
P.O. Box 32128
3651 Shelbourne Street
Victoria, BC. Canada
V8P 5S2

THE 2005 NESTING SEASON

Summary

This was another exceptional nesting season. There was some concern that the wet spring and summer in parts of the province may have discouraged people from looking for nests and broods and that the effort would have diminished. But we are certainly a hardy bunch and maintained our level of searching and recording. The annual totals were again impressive.

Each year we receive enquiries about other Nest Record Schemes in Canada, including where they are located, their current status and activity, and whether they publish annual reports. There are eight **Nest Record Schemes** operating in Canada: **Alberta, British Columbia, Manitoba, Maritimes, Newfoundland, Ontario, Quebec, Saskatchewan,** and **Yukon**. The three prairie nest record schemes, Alberta, Saskatchewan, and Manitoba, were originally part of the umbrella Prairie Nest Record Scheme, but have recently formed provincial groups. We contacted each co-

ordinator and asked about their current status, a copy of their annual report, and totals for the 2004 and 2005 seasons. Unfortunately, most Schemes are in a state of flux and confusion and were not receiving the attention required to function properly and therefore could not provide annual totals.

Table 1 lists the totals for four Nest Record Schemes in Canada for the 2004 and 2005 seasons. Figures for the table were extracted from the following annual reports or from direct communication with the regional co-ordinator.

Campbell, R.W., M.I. Preston, and L.M. Van Damme. 2005. British Columbia Nest Record Scheme: 50th Annual Report – 2004 Nesting Season. Biodiversity Centre for Wildlife Studies Report No. 3, Victoria, BC. 26 pp.

Campbell, R.W., M.I. Preston, and L.M. Van Damme. 2006. British Columbia Nest Record Scheme: 51st Annual Report – 2005 Nesting Season. Biodiversity Centre for Wildlife Studies Report No. 6, Victoria, BC. 30 pp.

Erskine, A.J. 2005. Maritimes Nest Records Scheme: 45th Annual Report - 2004. Environment Canada, Sackville, NB. 20 pp.

Erskine, A.J. 2006. Maritimes Nest Records Scheme: 46th Annual Report – 2005. Environment Canada, Sackville, NB. 16 pp.

Peck, G.K. 2005. Ontario Nest Records Scheme: 36th Report (1956-2004). Royal Ontario Museum, Toronto, ON. 17 pp.

British Columbia had the highest number of cards, species, and observers for any Nest Record Scheme Program in Canada in 2004 and 2005, and has maintained that level of activity throughout most of its 51-year history. This is due, in part, to the long, unbroken tenure of the BCNRS, the commitment and dedication of our

Table 1. Summary of four Nest Record Scheme programs in Canada for the 2004 and 2005 nesting season.

Location	Cards		Species		Contributors	
	2004	2005	2004	2005	2004	2005
British Columbia	27,645	17,872	266	251	273	249
Maritimes	545	618	82	80	46	47
Ontario	3,089		186		156	
Quebec		117				

nest finders, the deep concern for keeping information on breeding birds in the province, centralized, and at arms-length from government, the informative annual reports, and the regular communication with participants on how breeding information is being used to help birds and their habitats in British Columbia. The major contribution of BCNRS information was publication of the four-volume set of *The Birds of British Columbia*. In addition, workshops regularly presented throughout British Columbia have helped immeasurably in promoting the BCNRS.

The unusually large number of cards submitted in 2004 was due to efforts to celebrate our 50th year by transferring historical records (20,661) to cards. Totals, however, can be deceiving. If the cards do not contain all the relevant information requested their value is quickly diminished. Also, the high totals for British Columbia represent, in part, our aggressive program to transfer historical breeding records from our archives.

Five thousand new cards were quickly printed in February 2005, with our new address, to meet demands for the coming season and another 10,000 cards will probably be required for the 2006 season. Again, the effort being taken to complete cards with detailed information is very encouraging.

This year **17,872 breeding records** were added to the British Columbia Nest Record Scheme for **251 species**. Of these, **7,162 cards** were submitted by **249 active participants** for the 2005 nesting season. Another **10,710 nests and/or broods** were added to our growing collection from historical sources. In total, 42 species were represented by more than 100 cards.

No new species were discovered in 2005. We did receive a nesting record for the **Flammulated Owl** north of Riske Creek that turned out to be the northernmost for Canada (see *Wildlife Afield* 2:82-83, 2005) and many **Turkey Vulture** nests, previously unavailable, for the update of the species account from *The Birds of British Columbia* published in 1990 (see *Wildlife Afield* 2:96-116, 2005). **Ryan Tomlinson** also published his record of an unsuccessful nesting attempt by a pair of **Black-necked Stilts** at Alki Lake near Kelowna, the third location for the province (see *Wildlife Afield* 2(1):19-20, 2005).

Other highlights included new breeding populations of **American Avocets** established in the Cariboo, early nesting dates, an unusual host for the **Brown-headed Cowbird**, a large colony of

Northern Rough-winged Swallows, late nesting dates, and unusual nest locations.

Long-term monitoring projects continued this season with inventories of aquatic and terrestrial nesting colonies, raptor nests, nest box trails, and isolated wetlands for terrestrial and aquatic species.

Over 21,000 occurrence records were added to our electronic database for **Barn Swallow**. Our **Turkey Vulture** database, the direct result of the species update published in *Wildlife Afield*, showed a 2,362 % increase for occurrence records and a 419 % increase for breeding records over the totals used to write the species account in *The Birds of British Columbia* in 1990. In 2006, we will concentrate on developing a **Common Nighthawk** database for a species profile to be published in the volume 3(1) edition of *Wildlife Afield*.

Highlights

Families and Species

The provincial list of breeding species still stands at 314. Finding a new species probably means searching the corners and boundaries of the province for something peripheral although we still believe that one or two species could surprise us from the interior or at higher elevations. We have always suspected that Surf-bird and Parasitic Jaeger may be nesting in the St. Elias Mountains in extreme northwestern British Columbia.

As might be expected three of the top four families with the most nest cards were of colonial-nesting species, partly the result of our long-term monitoring program for marine and fresh-water bird colonies. These groups were **Gulls and Terns** (4,911 nests), **Geese, Swans, and Ducks** (2,297 nests and broods), **Cormorants** (1,444 nests), and **Grebes** (1,195 nests and broods).

The top 10 species included **Glaucous-winged Gull** (2,890), **Pelagic Cormorant** (1,418), **Ring-billed Gull** (1,260), **American Coot** (798), **Canada Goose** (721), **Eared Grebe** (700), **Mallard** (622), **Barn Swallow** (572), **Cliff Swallow** (545), and **Tree Swallow** (406). Of these five were colonial-nesting species that accounted for 42% of all nests and broods reported in 2005. Individual nest counts were submitted for each of these species.

Over 100 cards represented an additional 32 species. Some of these were the result of a combination of the 2005 season cards and historical records such as **Killdeer** (150), **Common Loon** (148), **California Quail** (132),

Rock Pigeon (130), **Mew Gull** (123), **Great Horned Owl** (119), **Pied-billed Grebe** (117), **Red-necked Grebe** (117), and **Ruffed Grouse** (106), and **Dark-eyed Junco** (Figure 1).



Figure 1. The **Dark-eyed Junco** nests in a variety of sites, from hanging baskets and rockeries of homes to shrublands and recent clearcuts in forests. **Beaver Cove, Vancouver Island, BC. 15 June 2005 (Wayne Matkoski).**

Monitoring programs in 2005 accounted for high numbers of cards for terrestrial species including **Tree Swallow** (406), **Osprey** (270), **Red-winged Blackbird** (254), **Great Blue Heron** (145), **Mountain Bluebird** (145), **Western Bluebird** (139), and **Bald Eagle** (102). Researching Feature Species accounts published in *Wildlife Afield* resulted in large numbers of cards for **Common Nighthawk** (123) and **Turkey Vulture** (22).

Species for which cards were received in 2005 that greatly enhanced our collection included **American Dipper** (124), **Wood Duck** (121), **Black Oystercatcher** (74), **Mute Swan** (63), **Belted Kingfisher** (47), **Western Screech-Owl** (42), **Virginia Rail** (41), **Peregrine Falcon** (35), **Orange-crowned Warbler** (34), **House Sparrow** (30), **White-tailed Ptarmigan** (24), **American Avocet** (17), and **Forster's Tern** (13).

It isn't often we get notable range extensions for both members of the Family *Recurvirostridae* in the same reporting period. **Ryan Tomlinson** found a nest with four eggs of the **Black-necked Stilt** at Alki Lake, **Kelowna**, the third breeding location for British Columbia outside 150 Mile House and Kamloops. The **American Avocet** has been expanding its breeding range northward through the southern interior and has now reached the Cariboo. **Sandy Proulx** and **Phil Ranson** monitored several nests, which were successful, in ponds on **Bechers Prairie** north of Riske Creek.

Another pair nested successfully at **Dragon Lake** to the north.

Christopher Buis reported an early breeding date for a pair of **Wood Ducks** at **Mount Lehman**. He found an egg in a nest box on 17 March, 11 days earlier than reported in *The Birds of British Columbia*. On 20 March the female was on four eggs which successfully hatched but Bullfrogs in the pond consumed some of the ducklings. He promised to report the first date for 2006! **Doug Leighton** provided historical information on an expanding population of **Sandhill Cranes** breeding in the East Kootenay near **Bummer's Flats** and **Golden** (see *Wildlife Afield* 2(2):64-73, 2005).

The **Northern Rough-winged Swallow** usually nests singly, or in small numbers, and rarely in large numbers. **Allen Poynter** found a colony of 18+ pairs in a gravel road cut on the **White Lake Road** and wrote *I have never seen a Rough-winged Swallow nesting in a "colony". I thought they were Bank Swallows as they buzzed all over but definitely NRWS with the large round holes all well separated but close enough to call it a colony.*

At **Williams Lake**, **Jim Sims** reported a pair of **Red-necked Grebes** building their nesting platform on the late date of 27 August. To the north, at **Quesnel Lake**, **Phil Ranson** found a **Barn Swallow** nest on a dock that contained four young, "ready to fledge but being fed by adults, on the late date of 18 September.

Contributors reported **Brown-headed Cowbird** parasitism for many of their regular hosts (e.g., Pacific-slope Flycatcher, Song Sparrow, and Yellow Warbler) but **Jim Ginns** saw a young Brown-headed Cowbird being fed at his feeder in **Penticton** by a female **Black-headed Grosbeak**. This is the first instance in the province of young being fed by this species. All other records are of eggs(s) found in nests that are frequently tossed out by the grosbeaks or result in the birds abandoning the nesting attempt.

Elsie Stanley found a family of three begging recently fledged **Gray-crowned Rosy-Finches** on Mount Lucille, near McBride, for a noteworthy provincial record. **Chris Czajkowski** continued recording wildlife from her year-round alpine retreat near **Nimpo Lake** and this year enjoyed the company of families of **Barrow's Goldeneye** and **Blue Grouse**. **Dark-eyed Juncos** appear to have an affinity for nesting in hanging flower baskets. **Sue McLean** reported them from **Nakusp**, **Wayne Campbell** from **Sardis**, and **John Anderson** from **Victoria**. **Rick Howie** reported a new elevation limit for the **Wilson's**

Phalarope. He found a pair nesting at 1,485 metres near a tailing pond at Highland Valley Copper near **Kamloops.** **Geoff Barnard** again spent the summer around **Swan Lake** (Victoria) looking for breeding birds. His records for **Bewick's Wren** add to our knowledge of birds in British Columbia with restricted ranges.

Other noteworthy species reported were **Gray Flycatcher** (**Laurie Rockwell**), **Cliff Swallow** (**Ed Silkens**), and **Harlequin Duck** (**Wayne Matkoski** and **Trevor** and **Loila Atkias**).

The **Creston valley** was again well represented thanks to the efforts of **Linda Van Damme**, **Cyril Colonel**, and **Marcia Long**. This year the group mainly concentrated on obtaining specific natural history information on **Double-crested Cormorants**, **Great Blue Herons**,

raptors, and **colonial waterbirds.**

Coverage

In total 414 National Topographic Grids (37 %) were represented in 2005. All coastal areas, including Vancouver Island and Queen Charlotte Islands, and the Lower Mainland to Hope, had nearly complete representation. Manning Park, the entire Okanagan valley, accessible parts of the Cariboo-Chilcotin, West and East Kootenay, Thompson-Nicola, Shuswap Highland, the Prince George to Terrace region, and much of the Peace River region were also very well covered. The entire north central portion of the province was poorly documented (Figure 2).

Remote forested regions of **Vancouver Island**

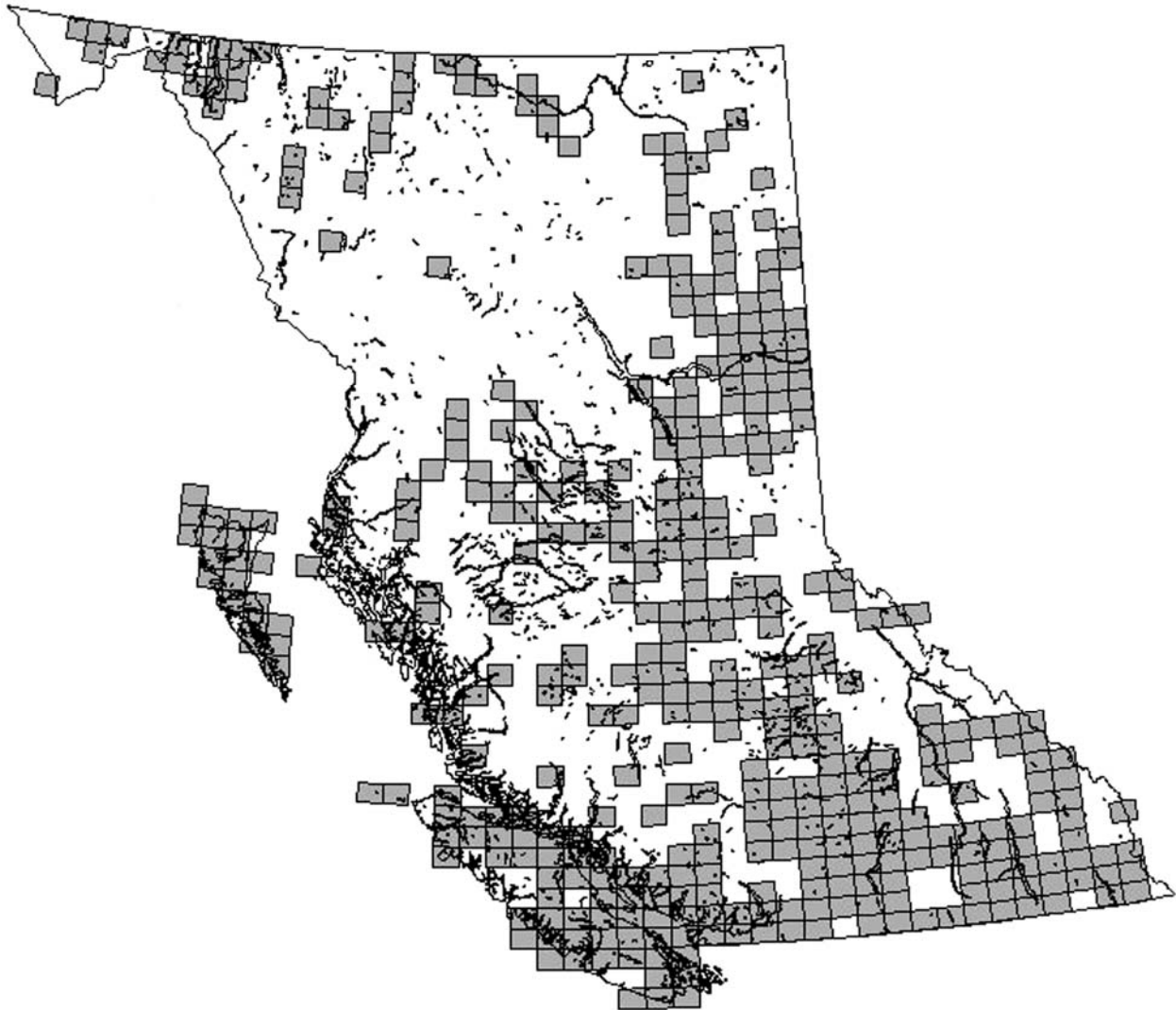


Figure 2. Provincial coverage for the British Columbia Nest Record Scheme in 2005.

and the **Queen Charlotte Islands** were again well covered thanks to the efforts of **Mark Nyhof**. The southern **Peace River region**, including the vicinity of Hudson's Hope, Chetwynd, Tumbler Ridge, Fort St. John, Cecil Lake, Boundary Lake, Swan Lake, and Dawson Creek received the best coverage ever partly due to the co-operation with **Mark Phinney** in his final year of gathering information for his breeding bird atlas. **Linda Van Damme**, **Cyril Colonel**, and **Marcia Long** continued their exploration and monitoring activities in the **Creston valley**. The northern **Okanagan valley** was thoroughly covered by **Vicky Atkins** and **Alice Beals**.

Other areas especially well covered included Salmon Arm (mainly **Ted Hillary** and **Hilary Gordon**), Burnaby and Deer lakes (**Verena Shaw**), Harrison and Agassiz (**Janne Perrin**), Okanagan Valley (**Jim Ginns**), Mackenzie (**Vi** and **John Lambie**), Swan Lake (Victoria; Figure 3) (**Geoff Barnard**), Revelstoke (**Orville Gordon**), and the West Kootenay region (**Elaine Moore**, **Gary S, Davidson**, **Janice Arndt**, **Rita Wege**, **Larry Prosser**, and **Lorraine Symmes**).

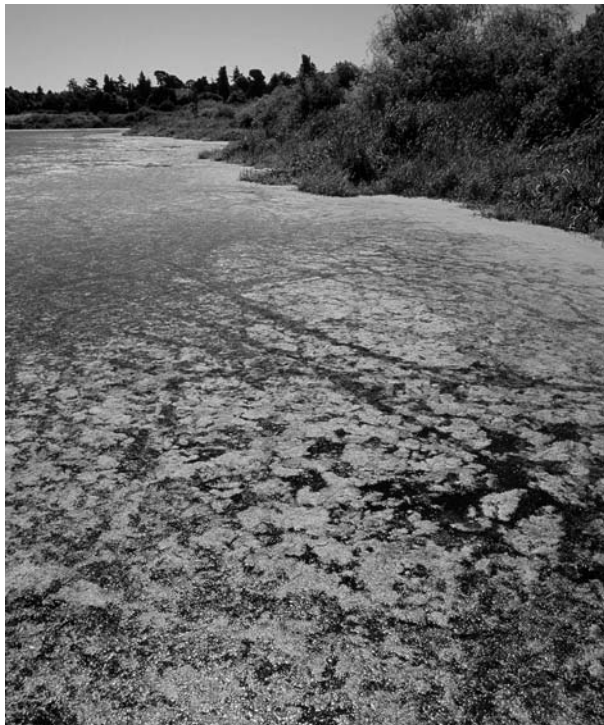


Figure 3. Swan Lake, near Victoria, BC. is a favourite nest-finding location for **Geoff Barnard** who annually submits cards for riparian and marsh-nesting species. 15 July 2000 (**R. Wayne Campbell**).

Participants

We appreciate the efforts of everyone to cover as much of their area, and other areas of the province, during the short nesting season. We rarely get cards from graduate students so we were grateful to **Holly Middleton**, who was encouraged by field assistant **Joanna Preston**, to submit their cards on **American Dipper**. The total, 124 cards, doubled our present holdings. In the past, single-species collections have been received for **Brewer's Sparrow** by **Nancy Mahoney** and **Eastern Kingbird** by **Joanne Siderius** during graduate work.

Vicky Atkins and **Alice Beals** did it all – a nice balance among covering the north Okanagan valley, attaching prints to many cards, recording negative information, promoting the Nest Record Scheme, transferring records from the North Okanagan Naturalists Newsletter, recording age classes for broods and nestlings, getting more of their families involved in the nesting season, making repeat visits to nests, monitoring nest boxes and raptor nests, filing their cards in species order, and even recording amphibians, reptiles, and mammals during their wanderings. **Thank You!**

Hilary Gordon, one of our most active regional co-ordinators, served as a clearinghouse for nest cards and when the summer was over she had submitted over 1,300 cards for the **Shuswap** region.

Every card is important and the information recorded can be used for a variety of purposes. Some of the very early breeding records from the late 1890s contained little more than a name, date, place, and what was collected but the information helped with developing the breeding distribution for the species. Fortunately we are more rigorous today and know that additional information is required in our efforts to protect habitats for birds.

Looking for nests and broods is certainly fun, and rewarding, but transferring the observations to cards is tedious. Some, however, have said they enjoy the season-end activity because it gives them a chance to relive their summer experiences. The following 12 active individuals submitted more than 100 nests and/or broods in 2005: **R. Wayne Campbell** (3,459), **Hilary Gordon** and **Arne Moen** (1,083), **R. Wayne Campbell** and **Eileen C. Campbell** (881), **Glenn R. Ryder** (831), **Mark Nyhof** (563), **Linda Van Damme** (483), **Michael I. and Joanna Preston** (377), **Michael I. Preston** and **R. Wayne Campbell** (163), **Vicky Atkins** (182), **Michael I. Preston** (163), **Joanna Preston** (136), **Vicky and Lloyd Atkins** (126), and **Ted**

Hillary (102). Historical records for individuals with over 100 cards included **Robert G. Footitt** (2,153), **J. E. Victor Goodwill** (1,079), **James A. Munro** (533), **Rudolph H.** and **Jan Drent** (345), and **Robert W. Butler** (255).

While travelling the length of the British Columbia coast **Mark Nyhof** noted 563 nests and broods for an impressive 89 species. During her research and monitoring activities in the Creston valley, **Linda Van Damme** tallied 483 cards for 53 species. Noteworthy totals were **Canada Goose** (55 nests/broods), **Osprey** (38 nests), **Red-necked Grebe** (24 nests/broods), **Redhead** (14 broods), **Red-tailed Hawk** (13 nests), **Long-eared Owl** (1 nest), and **Least Flycatcher** (1 nest).

Nothing got by **Carolyn McGhee** in **Prince George**. She completed a nest card for a **Dark-eyed Junco** that appeared in a newspaper clipping! **Janice Arndt** had her children, **Bethany** and **Justin**, fill out their own cards. **Jim Ginns** submitted a nice collection of cards, from single nests to colonies, mostly from the **Okanagan valley**.

Quality of Information

Filling in the Blanks

Again, the interest in recording additional information on cards is encouraging (Figure 4). Specific information is not “overload” information and our electronic databases have been developed to include and sort additional details that relate to the card. Especially helpful was the number of participants who recorded the estimated age and sex (when possible) of broods and fledged young.

Please remember to print or write legibly within the spaces and use dark ink, not pencil. The 4-letter code (see Biodiversity Centre for Wildlife Studies Report No. 4 – British Columbia Birds – 2005 Species List (Common and Scientific Names, Taxonomic Order, and 4-Letter Codes) can be used for species names and subspecies (races).

For example, if a **Yellow-rumped Warbler** nest is found please indicate either “**Audubon**” **Warbler** (AUWA) or “**Myrtle**” **Warbler** (MYWA). Other species with easily identifiable subspecies include **Dark-eyed Junco** (e.g., “**Oregon**” or “**Slate-colored**” Junco), **Horned Lark** (e.g., “**Arctic**” and “**Dusky**” Horned Lark), **Northern Flicker** (e.g., “**Red-shafted**” or “**Yellow-shafted**” Flicker), and **White-crowned Sparrow** (e.g., “**Gambel’s**” and “**Puget**” White-crowned Sparrow).

Colour phases are also important to record especially for raptors like **Red-tailed Hawk** and **Swainson’s Hawk**. The phases can be described as “**light**”, “**intermediate**”, “**rufous**”, or, “**dark**”. Most Red-tailed Hawks nesting in the Atlin area of north-western British Columbia are “**dark**” morphs.

Whenever possible, please try to describe the stage of development for nestlings (e.g., eyes closed, naked young, some down on head, pin feathers, well feathered, left nest, etc.) or the estimated age of downy young, (e.g., loons, grebes, seabirds, waterfowl, grouse, and shorebirds). Please refer to **Appendix 1** for drawings for different stages of development. **Rita Wege** and **Larry Prosser** were especially diligent in recording the age of young for “value added” information.

British Columbia Nest Record Scheme									
Species: AMRO		Map Grid: B2 F/6		Name of Observer: J.E. Arndt 05-19					
Locality: (place name and specific location) Taghum Spruce Creek at Rebin Rd		Covbird Parasitism: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		REMARKS (building, incubating, eggs cold, just hatched, fledged, yng. dead, etc.)					
Habitat: (vegetation type) Man-influenced, transportation roadside		Altitude: 540 m		NUMBER OF EGGS OR YOUNG per VISIT					
T: _____ C: _____ S: _____		Eco-section: _____ Zone: _____		Day: _____ Month: _____ Year: _____		Eggs: _____ Yng: _____			
Subzone: _____ Variant: _____		13 APR 2005		—		—		NB.	
		16 APR 2005		—		—		NB; appears complete	
		21 APR 2005		0		0			
		27 APR 2005		0		0			
		04 MAY 2005		2		0		ON. Plus eggshell below nest.	
		06 MAY 2005		2		0		No bird near nest	
If more than 7 visits are paid to a single nest use another card for further visits									
General Location: Lodgepole pine		NEST DESCRIPTION							
Position: against trunks of two pines growing together.		Materials: coarse and fine stems, a few bits of moss. Lining: grass + mud.							
		Height above ground/cliff base/water: 1.4 m							
Gen. Loc.:		Spec. Loc.:		Materials:					

Figure 4. An example of a completed nest card received in 2005 by Janice Arndt showing the kinds of information important to record.

Documentation with Photographs

We received more images with nest cards than ever before. Part of this is related to the convenience of digital photography. Most images remain with the cards while a few, because of their significance, are catalogued and cross-referenced in the **B C Photo File for Wildlife Records**. A “picture is worth a thousand words” certainly still applies as the photographs compliment information on the card.

Cyril Colonel again thoroughly documented nest sites for **Double-crested Cormorants**, **Great Blue Herons**, **Ospreys**, **Red-tailed Hawks**, and **Great Horned Owls**, found in the Creston valley (Figure 5). Each nest site was fully documented with appropriate information to accompany each nest card. He, and field partner **Linda Van Damme**, plan to continue their efforts in 2006.



Figure 5. Each year Cyril Colonel photographs the nesting activities of Double-crested Cormorants, Great Blue Herons (top left and bottom right), Ospreys (middle), Bald Eagles, Red-tailed Hawks (top right) and Great Horned Owls (bottom left) in the Creston valley. The photos accompany nest cards submitted by Cyril and Linda Van Damme and become a permanent reference to the precise location and substrate used for each nest (Cyril Colonel).

All photographs are helpful but again, in 2005, we received some that were significant. These included images by **Wayne Matkoski** (Harlequin Duck), **Rita Wege** and **Larry Prosser** (Bank Swallow), **Steven Lawrence** (American Dipper), **Linda M. Van Damme** (Great Horned Owl), **Anna Roberts** (Hermit Thrush), **Ryan Tomlinson** (Black-necked Stilt), **Sue McLean** (Dark-eyed Junco), **Steve Howard** (several species), **Laurie Rockwell** (Brown-headed Cowbird), and **Nancy Krueger** (Chestnut-backed Chickadee).

More contributors are adding GPS coordinates or UTM scores on cards. The more precise the location the more valuable the record.

ALL species that lay eggs in the nests of other species, such as **Brown-headed Cowbird**, **Redhead**, **American Coot**, **Lesser Scaup**, **Canvasback**, and **Ruddy Duck**, should have two separate cards filled out. It is useful to put both species name on each card for easy cross-referencing. This also includes feeding of fledged **Brown-headed Cowbirds** by their host as **Laurie Rockwell** pointed out.

Diagrams

For many species additional information, like diagrams, helps in understanding the significance of the record or the importance of a specific site for its breeding activities. A sketch on the back of a card, a general layout of an area searched and extracted from field notes, the precise location for a nest, the exact location for a major nesting colony, or the distribution of species nesting in a confined area are some of the "artwork" received this season. These are very helpful to have on file and become more significant with time as habitats are altered.

Figure 6 shows the kind of map that has been invaluable to us when transferring Glenn Ryder's notes to our databases. He moved to Celista, in the North Shuswap area, in 1947 and immediately sketched a map of his "study" area. For the following two decades he searched parts of the area almost daily recording the plants and animals he encountered. As a result, for each observation, we were able to add the precise location and habitat for the record. Over time we could also look at nesting populations, use of the area seasonally by wildlife, changes in abundance and distribution, and get a real sense of what animals required to survive.

If we visited the area today, 58 years later, we would be able to compare, with some accuracy,

species diversity, bird numbers, and distribution with changes in habitat.

Extra notes and diagrams that were very helpful were received from **G. Allen Poynter**, **Jennifer L. Berger**, **F. Don Young**, **Willie Haras**, **Hilary Gordon**, **Jim Ginns**, **Lorraine Symmes**, **Nancy Krueger**, **Orville Gordon**, **Glenn R. Ryder**, and **P. Ray Williams**.

Repeat Visits

The enhanced value and usefulness of any Nest Record Scheme not only depends on the number of cards and their location but in details accompanying each breeding record along with follow-up visits. Most cards submitted are of single visits because we are usually travelling from place-to-place and cannot return to visit the site again. It is encouraging again to see that in 2005 more repeat visits were being made by participants.

A few people found nests and followed the outcome from start to finish. **Glen** and **Isabel McInnes** recorded daily activities for a pair of **Ospreys** nesting at Stave Lake from 21 March when they arrived to 18 August when the family departed. **Janice Arndt** patiently watched a pair of nesting **Belted Kingfishers** and finally on visit 24 five young appeared from their burrow. **Barbara Begg** recorded the nesting activities of a pair of **Great Horned Owls** on the Saanich Peninsula for 91 days from 21 February to 22 May. **Sue McLean** found a **Dark-eyed Junco** nest and after 17 visits the young fledged. **Jennifer L. Bergen** and **F. Don Young** had to staple three cards together to fit in their 22 visits to a nest.

Others who put in a big effort to return to nests for additional information included **Beverly H. Butcher**, **Cyril Colonel**, **Gary S. Davidson**, **Jim Ginns**, **Willie Haras**, **Ted Hillary**, **Nancy Krueger**, **Pat Levitt**, **Dirk Rinehart-Pidcock**, **I. Laurie Rockwell**, **Linda Van Damme**, and **Betty Walker**. **Vicky Atkins** was able to follow the success of a **California Quail** brood from 29 May, when it had nine young to 6 June when the family dwindled to four young.

Many others, especially those involved in thorough coverage of specific areas (e.g., Burnaby Lake, Deer Lake, Salmon Arm, Harrison, Vancouver Island, Agassiz, Creston valley, west Kootenay region, Cranbrook, and southern Peace River region) as well as monitoring activities that included bluebird trails, Ospreys, and raptors, carefully planned repeat visits to get additional information on clutch, brood size, and productivity.

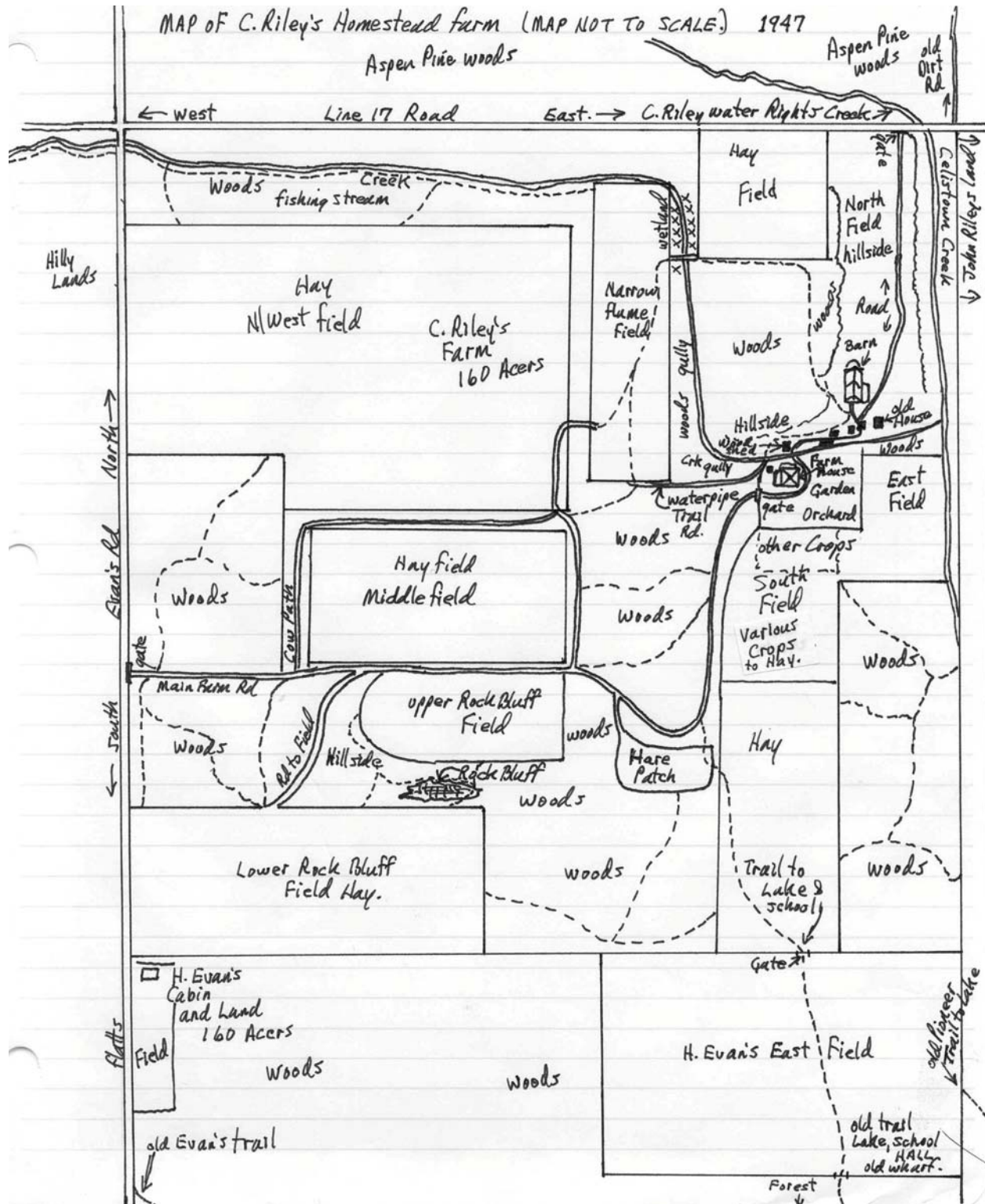


Figure 6. Detailed sketch of C. Riley's homestead and environs at Celista, BC. as drawn by Glenn R. Ryder in 1947 for his studies and documentation of wildlife in the area from 1947 to 1963.

Negative Information

Completing cards for species that have traditional nesting sites such as birds of prey, colonial-nesting swallows, swifts, some waterbirds, colonial marine birds, American Dippers, and loons can be helpful in interpreting changes in distribution, effects of weather on breeding activities, chemical contamination, and disturbance. For example, the Eared Grebe colony on Cecil Lake, in the Peace River region, fluctuates greatly between years from no nesting to a colony of several thousand nesting pairs. Fortunately, people working on monitoring programs, especially for Ospreys are now completing cards for nests without activity. All of these cards are filed for reference but are not included in the report summary.

Notes from the Field

Time in the field is precious and recording breeding information on birds is an activity that benefits both the observer and the species being ogled. Sometimes things happen that are a complete surprise and make us marvel at the complexities of nature. Here are some of our favourite stories from this year's cards.

Private Flight

The following remarkable story is from **Evan** who works at **Williams Lake Flight Services** in the Cariboo:

"I had a twin engine light aircraft fly in from a private strip south of Kamloops today. As he [the pilot] was setting up for landing, his gear indicator malfunctioned, and he spent about 20 minutes flying around recycling it until it finally worked properly. He landed, and pulled up to the pumps. Tim Lussier, who had been driving the fire truck, went over after he shut down. While they were talking, a baby bird fell out of the engine cowling onto Tim's foot. While they were looking at it, they could hear faint peeping. So they removed the cowling, and found a large bluebird nest with five baby bluebirds. Two had died, but the other three were alive and well and are now eating us out of worms in my living room. The pilot was VERY embarrassed."

Postscript: Two of the three remaining **Mountain Bluebirds** were reared at the local Raptor Rehabilitation Centre to fledging and released. They spent a couple of days in the area and were never seen again.

A True Opportunist

Trevor Forder was bemused when a juvenile **American Crow** landed on his son's back while he was harvesting carrots from his garden in **Kelowna**. The crow then hopped down and proceeded to pick worms from the freshly disturbed soil right in front of him. He and his son scratched up some worms and the crow walked right over and took them from their fingers. It went back and forth between the two of them whenever they found something. This went on for about half an hour. Presumably, when it became full, the opportunist flew away to join the many crows that fly over their yard every night to roost near Bata Forestry Road on the eastern slope of the valley. It did not appear injured or unhealthy in any way.

Talk of the Pumps!

The late **Allister Muir** provided a heartening story in his notes about a pair of **Barn Swallows** and interactions with staff at **Abbotsford Chrysler Ltd**. On July 9, 1989, a pair of Barn Swallows was noticed flying around the lot at this car dealership and soon showed interest in a ledge under a canopy. The birds decided the spot met their needs and started to build a nest directly over the gas pumps. As people filled up they noticed the nest and many were surprised that a family could be raised in such a busy place. Everyone wanted to help the pair and staff discussed closing the pumps, putting up a droppings platform, or wooden divider that would decrease disturbance. Finally, Allister, the local birdman, was contacted and he suggested that "business as usual" was fine and that by the August 25 the young would leave their nest, the family might hang around for a couple of weeks, and finally migrate south knowing that Abbotsford was a very hospitable place to visit. Three young fledged and during their eight weeks residence the swallows were the "talk at the pumps."

Fore!

Vic Cousineau was doing a routine check of his nest boxes in the **Lister** area. **Mountain Bluebirds** had once again built a nest in box # 25 and he was checking to see if the female had started laying. When the box was opened he was quite surprised, and a little perplexed, when instead of a clutch of pale blue eggs he found a shiny white golf ball (Figure 7). Since the nest box entrance faced the local golf course, Vic thought, for a moment, a very talented golfer had shot a



Figure 7. As a practical joke, someone placed a golf ball in one of Vic Cousineau's Mountain Bluebird Boxes. 23 April 2005 (Vic Cousineau).

hole in one. However, the golf ball did not fit through the hole. Realizing that someone had played a practical joke on him, and the bluebirds, he had a good laugh and removed the golf ball.

Lunch is Coming

While checking on a Bald Eagle nest near the **Corra Linn Dam** along the Kootenay River, **Rita Wege** and **Larry Prosser** witnessed an adult **Bald Eagle** attacking an adult **Canada Goose**. For 10 minutes they watched while the eagle swooped low over the goose as it dove under water to avoid the eagle. Eventually, the goose tired and could dive no more. The powerful eagle grasped the goose in its talons and swam to the nearest shore where it started plucking feathers. The goose, still alive and managing to escape and swim a short distance was quickly subdued by the eagle that eventually dragged it back to shore. The nest Rita and Larry stopped to observe had at least one juvenile eaglet in it, eagerly awaiting delivery of its lunch.

From the Cab of a Locomotive

Greg Ross, who works for the Canadian Pacific Railway in **Golden**, often witnesses wildlife events at the South Yard Switch most of us would like to experience. He and his work mates were

watching a spot they thought to be a nest site for a bird, when suddenly a brown backed owl flew up to a rugged snag 25-30 feet from the ground. They suspected the bird was a **Great Horned Owl** and that it was nesting in the snag. About a week later, the train conductor, while on the ground setting switches ahead of the train around 0500 hours, reported missing two Great Horned Owls with the train as they flew over him, one carrying a muskrat. As extra work perks the train gang got to see two young owls on the nest snag.

Quail Saga Continues

You may remember **Dick Cannings** tale of a **California Quail** nest with 27 eggs last year; a nest that no quail ever incubated. It was suspected then that two or three females were involved in laying all those eggs (they were being laid at a rate of 2 to 3 per day) and that they simply couldn't decide who was supposed to sit on them. Anyway, it looks like a similar situation has happened in 2005. A new quail nest was discovered within one foot of last year's site (right below the bathroom window; covered by a short, small table). It had 21 eggs on 30 May and still had that number of eggs, and nobody was sitting on it. It seems Dick has one or more local pairs of quail that lack the normal parenting behaviours that have kept this species burgeoning in the Okanagan valley.

Father Hen

Vic Cousineau has 35 nest boxes in **Lister** that he monitors each season. He has a special affinity for **Western Bluebirds** that have occupied the same box for nine years in a row. So, when the heavy rains in June came, he was so worried about the bluebirds being able to feed their young that he and his wife Cecile dug worms from their garden and placed them in a container on top of the nest box. When the weather warmed, the worms dried out and Vic wasn't sure if the bluebirds had taken advantage of his offerings. Later, he was elated that all the young had survived. Only one pair of Western Bluebirds nested in 2005 so special *care and attention* was given this special family.

A Helping Hand for "Steve"

Saturday, June 11th was no ordinary weekend day. In **Kelowna**, **Trevor Forder** and **Richard Mooney** were entertaining visiting birders from South Africa when they all noticed a **Rufous Hummingbird** feeding her young on the ground

(Figure 8). After the guests departed, Trevor watched the hummer (named “Steve”) for a couple of hours but it sat immobile and was not fed again. “My normal course of action in these scenarios is to stay back and hope that it would get looked after by its mother but, a storm broke and rain started pelting down on this exposed fellow, so I gathered him up, and took him inside. I looked hard but could not locate a nest that it fell out of. He readily consumed sugar water from a syringe. I made a makeshift nest in a teacup and warmed and dried him. The next morning the hummingbird seemed a bit perkier and I really did not know what to do with him, so I took him back where I found him. No female Rufous attended to it so I propped him up by the feeder so he could watch the action. By the end of the day he was fluttering his wings and seemed quite a bit stronger, but still very helpless. My son’s girlfriend and her mother have looked after quite a few birds in similar situations and took him home last night. They have some protein mix etc. that they provide, and today I hear that he is fluttering quite a bit, and hopefully will be able to fly tomorrow or the next day.”

My son Brent, and his girlfriend Courtney, built a small indoor aviary for “Steve” and after much consultation with wildlife rehabilitator Carol Pettigrew, were able to care for the hummer. Eventually “Steve” was able to feed from flowers and within 3 weeks was released back into the wild. A happy ending to a hummer story!



Figure 8. “Steve”, the rescued Rufous Hummingbird, found in Kelowna, BC. 11 June 2005 (Trevor Forder).

Spring Attack

In early April each year **Northwestern Crows** on southern Vancouver Island are preoccupied with gathering sticks and twigs for their nests. By the end of the month eggs are being incubated and by late May nests contain young. It is at this time, and throughout June, some individual crows become very protective of their “real estate” and attack whoever crosses the line. In 2005, we had reports of people being attacked by crows in Beacon Hill Park, a downtown treed boulevard, and in **Sidney**. The attacks were so frequent, unpredictable, and threatening in Sidney that a very conspicuous sign (Figure 9) was posted to warn people passing by.



Figure 9. In Sidney, the town took a proactive approach to warn people and protect a pair of nesting Northwestern Crows in town. 24 April 2005 (Michael I. Preston).

Ravens Not as Black (er, White) as They are Painted

Lucille Campbell sent in this story of two white ravens in **Brisco**.

These birds [albino **Common Ravens**; Figure 10] were first seen about the Mother’s day weekend, Mrs. Mitchell said. They are from the nest tree on the Bob Mitchell place. They are truly awesome to see, an amazing pair. They have black parents, which are regular ravens. They can be seen at the farm, directly west, across from the Brisco Community Hall. The parking lot is a great place to set up a scope to find these birds and to view them. They can be easily seen from the highway as well. We were there on Sunday and watched them in the tree, and as they flew back and forth, landing on top of a shed, a post, etc.

with their black parents and others around. They seem to stick around the nest tree, which is directly behind the farmhouse and a few out buildings, with an old red car behind the tree.

Post script. On October 8, 2005, Greg Ross, and the crew on the Canadian Pacific Railway line, reports that the two young albino Common Ravens have now split up, one has been spotted between Edgewater and Radium and the other is flocking with a bunch of other ravens and Bald Eagles feeding on the Kokanee south of Luxor.



Figure 10. Two young albino ravens with their 'normal-coloured' parents at Brisco. 14 June 2005 (Don and Patsy Wolfenden).

Historical Information

Our program to annually extract breeding information from historical sources such as field notebooks, museum catalogues, old reports, correspondence, naturalist club newsletters, books, and scientific journals continued but at a reduced level. The task is very time-consuming and in 2005 compilation and electronic entry of data for the Turkey Vulture species account and production of two issues of *Wildlife Afield* consumed much of our spare volunteer time.

We started extracting breeding information from the extensive personal field notes by the late J. E. Victor Goodwill that we received last year. Already 1,079 cards were completed for areas across southern BC for only a handful of years. We also continued transferring material from egg and skin collections in museums including the **Cowan Vertebrate Museum** (Vancouver, BC), **Royal British Columbia Museum** (Victoria, BC), **Field Museum of Natural History** (Chicago, IL), **National Museum of Canada** (Ottawa, ON),

United States National Museum (Washington, DC), **Academy of Natural Sciences of Philadelphia** (Philadelphia, PA), **Museum of Vertebrate Zoology** (Berkley, CA), **Provincial Museum of Alberta**, Edmonton, AB), and **University of Michigan Museum of Zoology** (Ann Arbor, MI).

In addition, thousands of cards were transferred mainly from the historical notes of British Columbia Fish and Wildlife Branch, R. Wayne Campbell, Ducks Unlimited Canada, Maurice Ellison, Charles deBlois Green, David F. Hatler, Keith Hobson, R. R. MacFarlane, Stuart Johnston, Jack V. MacKill, Patrick W. Martin, David A. Munro, James A. Munro, Kenneth Racey, Glenn R. Ryder, Ron Satterfield, and William Spreadborough.

Elaine Moore transferred historical breeding records for the west Kootenay region, **Trevor Forder** for the Kelowna area, **Ryan Tomlinson** for the Alki/Robert Lake area, and **Glenn R. Ryder** for the central Fraser River valley.

We had annual representation for the period 1889-2005 for a total of 113 years with missing only the years 1920, 1994, 1999, and 2000.

The 1980s still remain our weakest decade and are important to be represented for analyses of the effects of climate change on birds. If you have field notes for that period please let us know. Transferring information from the "gray" literature, like unpublished government, consultant, and student reports continued.

The top five years for historical records were **1970** (2,425 cards), **1978** (1,280 cards), **1968** (711 cards), **1974** (540 cards), and **1973** (495 cards). Figure 11 shows the number of cards compiled in 2005 by decade.

List of Species with Total Breeding Records by Family

Family Anatidae - Geese, Swans and Ducks (2,297): Canada Goose - 721, Mute Swan - 63, Trumpeter Swan - 3, Wood Duck - 121, Gadwall - 70, American Wigeon - 52, Mallard - 622, Blue-winged Teal - 24, Cinnamon Teal - 16, Northern Shoveler - 23, Northern Pintail - 2, Green-winged Teal - 30, Canvasback - 32, Redhead - 65, Ring-necked Duck - 60, Lesser Scaup - 54, Harlequin Duck - 8, White-winged Scoter - 3, Bufflehead - 73, Common Goldeneye - 72, Barrow's Goldeneye - 57, Hooded Merganser - 24, Common Merganser - 66, Ruddy Duck - 36.

Family Phasianidae - Partridges, Pheasant, Grouse, Ptarmigan and Turkey (343): Chukar -

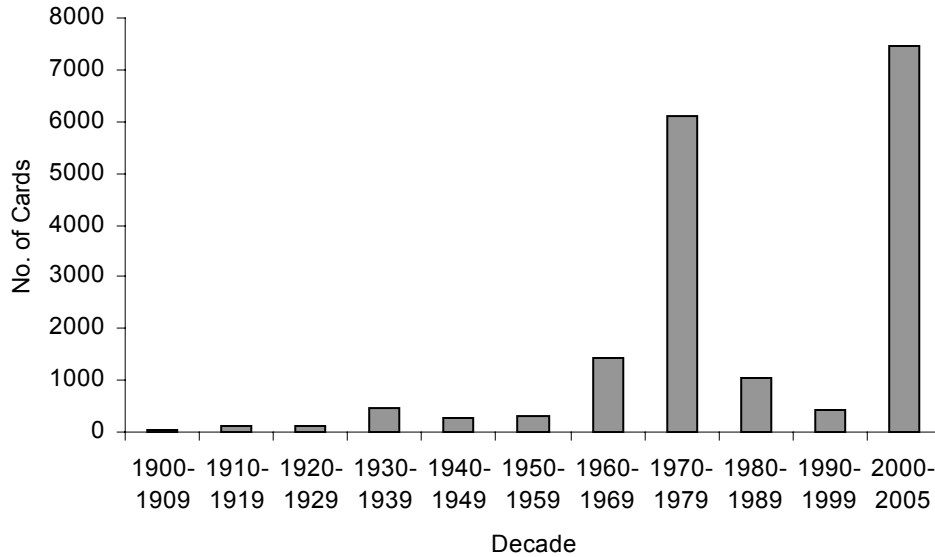


Figure 11. Summary of historical nest records by decade transferred to the British Columbia Nest Record Scheme by volunteers in 2005.

3, Gray Partridge - 2, Ring-necked Pheasant - 44, Ruffed Grouse - 106, Spruce Grouse - 63, Willow Ptarmigan - 14 (Figure 12), Rock Ptarmigan - 7, White-tailed Ptarmigan - 24, Blue Grouse - 64, Sharp-tailed Grouse - 13, Wild Turkey - 3.



Figure 12. Willow Ptarmigan eggs are among the most heavily patterned of any species in British Columbia. Kusawak Lake, BC., 20 June 1989 (R. Wayne Campbell).

Family Odontophoridae - American Quail (134): Mountain Quail - 2, California Quail - 132.

Family Gaviidae - Loons (172): Red-throated Loon - 12, Pacific Loon - 12, Common Loon - 148.

Family Podicipedidae - Grebes (1,195): Pied-billed Grebe - 117, Horned Grebe - 65, Red-necked Grebe - 286, Eared Grebe - 700, Western Grebe - 27.

Family Hydrobatidae - Storm-Petrels (17): Fork-tailed Storm-Petrel - 17.

Family Pelecanidae - Pelicans (289): American White Pelican - 289.

Family Phalacrocoracidae - Cormorants (1,444): Brandt's Cormorant - 2, Double-crested Cormorant - 24, Pelagic Cormorant - 1,418.

Family Ardeidae - Bitterns, Herons, Egrets, and Night-Herons (159): American Bittern - 6, Great Blue Heron - 145, Green Heron - 8.

Family Cathartidae - New World (American) Vultures (22): Turkey Vulture - 22.

Family Accipitridae - Osprey, Kites, Eagles, Hawks and Allies (445): Osprey - 270, Bald Eagle - 102, Sharp-shinned Hawk - 4, Cooper's Hawk - 2, Northern Goshawk - 3, Broad-winged

Hawk - 1, Swainson's Hawk - 4, Red-tailed Hawk - 55, Golden Eagle - 4.

Family Falconidae - Falcons (71): American Kestrel - 22, Merlin - 12, Peregrine Falcon - 35, Prairie Falcon - 2.

Family Rallidae - Rails, Gallinules and Coots (871): Virginia Rail - 41, Sora - 32, American Coot - 798.

Family Gruidae - Cranes (22): Sandhill Crane - 22.

Family Charadriidae - Plovers (152): Semipalmated Plover - 2, Killdeer - 150.

Family Haematopodidae - Oystercatchers (74): Black Oystercatcher - 74.

Family Recurvirostridae - Stilts and Avocets (18): Black-necked Stilt - 1, American Avocet - 17.

Family Scolopacidae - Sandpipers, Phalaropes and Allies (152): Greater Yellowlegs - 6, Lesser Yellowlegs - 3, Solitary Sandpiper - 7, Wandering Tattler - 1, Spotted Sandpiper - 89, Long-billed Curlew - 5, Western Sandpiper - 1, Ruff - 1, Wilson's Snipe - 5, Wilson's Phalarope - 33, Red-necked Phalarope - 1.

Family Laridae - Jaegers, Skuas, Gulls, Terns and Allies (4,911): Bonaparte's Gull - 15, Mew Gull - 123, Ring-billed Gull - 1,260, California Gull - 5, Herring Gull - 379, Glaucous-winged Gull - 2,890, Arctic Tern - 23, Forster's Tern - 13, Black Tern - 203.

Family Alcidae - Auks, Murres and Puffins (11): Pigeon Guillemot - 6, Marbled Murrelet - 1, Cassin's Auklet - 1, Tufted Puffin - 3.

Family Columbidae - Pigeons and Doves (156): Rock Pigeon - 130, Band-tailed Pigeon - 3, Mourning Dove - 23.

Family Tytonidae - Barn Owls (6): Barn Owl - 6.

Family Strigidae - Typical Owls (304): Flammulated Owl - 2, Western Screech-Owl - 42, Great Horned Owl - 119, Northern Hawk Owl - 6, Northern Pygmy-Owl - 10, Burrowing Owl - 7, Barred Owl - 22, Great Gray Owl - 1, Long-eared Owl - 28, Short-eared Owl - 22, Boreal Owl - 2, Northern Saw-whet Owl - 43.

Family Caprimulgidae - Goatsuckers (127): Common Nighthawk - 123, Common Poorwill - 4.

Family Apodidae - Swifts (2): Black Swift - 1, White-throated Swift - 1.

Family Trochilidae - Hummingbirds (71): Black-chinned Hummingbird - 2, Anna's Hummingbird - 6, Calliope Hummingbird - 10, Rufous Hummingbird - 53.

Family Alcedinidae - Kingfishers (47): Belted Kingfisher - 47.

Family Picidae - Woodpeckers (195): Lewis's Woodpecker - 3, Williamson's Sapsucker - 6, Yellow-bellied Sapsucker - 8, Red-naped Sapsucker - 32, Red-breasted Sapsucker - 50, Downy Woodpecker - 21, Hairy Woodpecker - 25, White-headed Woodpecker - 3, American Three-toed Woodpecker - 8, Black-backed Woodpecker - 2, Northern Flicker - 29, Pileated Woodpecker - 8.

Family Tyrannidae - Tyrant Flycatchers (165): Olive-sided Flycatcher - 2, Western Wood-Pewee - 6, Alder Flycatcher - 1, Willow Flycatcher - 4, Least Flycatcher - 4, Hammond's Flycatcher - 2, Gray Flycatcher - 2, Dusky Flycatcher - 3, Pacific-slope Flycatcher - 9, Eastern Phoebe - 11, Say's Phoebe - 9, Western Kingbird - 70 (Figure 13), Eastern Kingbird - 42.



Figure 13. A pair Western Kingbirds knew how to avoid detection by building their nest between two security cameras. Penticton airport. 15 June 2005 (Laure W. Neish).

Family Vireonidae - Vireos (32): Cassin's Vireo - 7, Hutton's Vireo - 6, Warbling Vireo - 16, Red-eyed Vireo - 3.

Family Corvidae - Jays, Magpies and Crows (183): Gray Jay - 57 (Figure 14), Steller's Jay - 32, Blue Jay - 1, Clark's Nutcracker - 4, Black-billed Magpie - 33, American Crow - 18, Northwestern Crow - 12, Common Raven - 26.



Figure 14. Most of our breeding records are of fledged young in family groups. On 4 May 2005 this Gray Jay nest near St. Mary Lake in the East Kootenay contained three near-fledged young. 4 May 2005 (Michael I. Preston).

Family Alaudidae - Larks (5): Horned Lark - 5.

Family Hirundinidae - Swallows (1,708): Purple Martin - 20, Tree Swallow - 406, Violet-green Swallow - 57, Northern Rough-winged Swallow - 79, Bank Swallow - 29, Cliff Swallow - 545, Barn Swallow - 572.

Family Paridae - Chickadees (110): Black-capped Chickadee - 33, Mountain Chickadee - 9, Chestnut-backed Chickadee - 65, Boreal Chickadee - 3.

Family Aegithalidae - Bushtit (25): Bushtit - 25.

Family Sittidae - Nuthatches (28): Red-breasted Nuthatch - 22, White-breasted Nuthatch - 1, Pygmy Nuthatch - 5.

Family Certhiidae - Creeper (7): Brown Creeper - 7.

Family Troglodytidae - Wrens (94): Rock Wren - 1, Bewick's Wren - 11, House Wren - 37, Winter Wren - 26, Marsh Wren - 19.

Family Cinclidae - Dipper (124): American Dipper - 124.

Family Regulidae - Kinglets (57): Golden-crowned Kinglet - 55, Ruby-crowned Kinglet - 2.

Family Turdidae - Bluebirds, Thrushes and Allies (522): Western Bluebird - 139, Mountain Bluebird - 145, Townsend's Solitaire - 5, Veery - 2, Swainson's Thrush - 5, Hermit Thrush - 12, American Robin - 194, Varied Thrush - 20.

Family Mimidae - Mockingbird, Thrashers and Allies (14): Gray Catbird - 10, Sage Thrasher - 4.

Family Sturnidae - Starling and Allies (102): European Starling - 102.

Family Bombycillidae - Waxwings (34): Bohemian Waxwing - 4, Cedar Waxwing - 30.

Family Parulidae - Wood-Warblers (148): Tennessee Warbler - 1 (Figure 15), Orange-crowned Warbler - 34, Nashville Warbler - 5, Yellow Warbler - 17, Magnolia Warbler - 1, Yellow-rumped Warbler - 27, Black-throated Gray Warbler - 3, Townsend's Warbler - 31, Blackpoll Warbler - 1, American Redstart - 10, Northern Waterthrush - 1, MacGillivray's Warbler - 2, Common Yellowthroat - 7, Wilson's Warbler - 8.



Figure 15. Tennessee Warbler nest and eggs found along the Sukunka Forest Service Road, south of Chetwynd, BC. 23 June 2002 (R. Wayne Campbell).

Family Thraupidae - Tanagers (3): Western Tanager - 3.

Family Emberizidae - Towhees, Sparrows, Longspurs and Allies (255): Spotted Towhee - 33, Chipping Sparrow - 24, Clay-colored Sparrow - 1, Vesper Sparrow - 3, Lark Sparrow - 1, Savannah Sparrow - 6, Fox Sparrow - 3, Song Sparrow - 36, Lincoln's Sparrow - 11, Swamp Sparrow - 1, White-throated Sparrow - 1, White-crowned Sparrow - 21, Golden-crowned Sparrow - 1, Dark-eyed Junco - 103, Black-headed Grosbeak - 6, Lazuli Bunting - 4.

Family Icteridae - Blackbirds, Orioles and Allies (446): Red-winged Blackbird - 254, Western Meadowlark - 10, Yellow-headed Blackbird - 18, Rusty Blackbird - 1, Brewer's Blackbird - 74, Common Grackle - 27, Brown-headed Cowbird - 53, Bullock's Oriole - 5, Baltimore Oriole - 4.

Family Fringillidae - Cardueline Finches and Allies (73): Gray-crowned Rosy-Finch - 2, Pine Grosbeak - 2, Purple Finch - 19, Cassin's Finch - 1, House Finch - 33, Red Crossbill - 5, Pine Siskin - 7, American Goldfinch - 3, Evening Grosbeak - 1.

Family Passeridae - Old World Sparrows (30): House Sparrow - 30.

*Total nests/broods – 17,872 ; 251 species
(2005 season – 7,162 ; historical – 10,710)*

List of Active (in bold) and Historical Contributors in Alphabetical Order

A Robert Addison - 1, **David Allison** - 1, Alex Anderson - 2, **C. Anderson** - 1, E. M. Anderson - 14, **Errol Anderson** - 34, **John Anderson** - 1, K. Mary Anderson - 1, **Lorinne Anderson** - 4, **Morgan Anderson** - 8, **R. Anderson** - 1, **T. M. Anderson** - 7, **Andy Andresen** - 15, **Kris Andrews** - 1, **Kris Andrews and Michael I. Preston** - 4, Anonymous - 41, **Cathy Antoniazzi** - 1, **Cathy Antoniazzi and Nancy Krueger** - 1, **Bethany Arndt** - 2, **Janice E. Arndt** - 30, **Justin Arndt** - 6, **E. Arnold** - 1, R. Askevold and B. Keating - 1, **Alf Atkins** - 2, **Kevin Atkins** - 4, **Lloyd Atkins** - 3, **Trevor and Laila Atkins** - 8, **Vicky Atkins** - 182, **Vicky Atkins and Alice Beals** - 50, **Vicky and Lloyd Atkins** - 126, **Vicky Atkins and Terry Hurst** - 16, R. N. Atkinson - 9, R. N. Atkinson and G. W. Marshall - 1, and **Lorne Audia** - 1.

B British Columbia Fish and Wildlife Branch - 8, Bona Baillie - 2, **Geoff Barnard** - 36, **Jim Barnett** - 1, **Avery Bartels** - 7, **Letty Bartels** - 2, **Mrs. F. Bath** - 2, **Brent Beach** - 5, **Alice Beals** - 36, **Alice Beals and Betty Kerr** - 11, Marc-Andre Beaucher - 3, **Lesley Beaulieu** - 2, K. R. Beckett - 1, **Frank L. Beebe** - 3, **Barbara Begg** - 14, F. M. Bell - 15, Ron Bellamy - 1, **Winnifred M. Bennie** - 9, **Jennifer Bergen and F. Don Young** - 5, P. Berrow - 1, **Raymond V. Best** - 1, Robin C. Best - 5, **E. Beynon** - 10, Ray Billings - 1, Anne and Jim Birkell - 1, L. B. Bishop - 2, Sylvia Blackburn - 1, **Peter Blokker** - 7, Donald A. Blood - 3, Donald A. Blood and Ed Bigelow - 1, **Rick Bonar** - 2, Tracy Bond - 1, John Borden - 1, Maurice Borrelly - 1, Neil Bourne - 1, **Jack Bowling** - 1, W. H. Boyd - 1, Dorothy Bradley - 5, **Mark Bradley** - 1, **Jan Bradshaw** - 7, **J. Breadon** - 1, Tom Briggs - 1, Tom and Gwen Briggs - 1, W. Brocton - 1, Allan C. Brooks - 54, **B. Brooks** - 1, **J. F. D. Broomfield** - 3, Gordon Brown - 1, **Quentin Brown** - 1, Victor Brown-John - 1, **Christopher A. Buis** - 1, **Corey and Fred Bunnell and Anthea Farr** - 1, A. C. Burton - 1, **Clyde H. Burton** - 15, Walter F. Burton - 9, David Bustard - 1, **Beverly H. Butcher** - 7, and Robert W. Butler - 255.

C Andrew Calder - 2, **Giff Calvert** - 2, **Eileen C. Campbell and Jim McCammon** - 21, **Lucille Campbell** - 1, R. Wayne Campbell - 3,459, R. Wayne Campbell and Bruce Kennedy - 1, R. Wayne Campbell and Eileen Campbell - 881, R. Wayne Campbell and Gary S. Davidson - 1, R. Wayne Campbell and Ken Sutton - 1, C. Camsell - 1, Canadian Wildlife Service - 2, **Peter Candido** - 1, G. Clifford Carl - 16, G. Clifford Carl and Charles J. Guiguet - 1, G. Clifford Carl and Frank L. Beebe - 1, Harry R. Carter and Michael S. Rodway - 1, **Dan and Connie Chapman** - 2, **Chris Charlesworth** - 1, Myke Chutter - 1, A. C. Cober - 7, **Cyril Colonel** - 27, John Comer - 2, Sergei Condrashoff and Kay Bartholomew - 1, W. M. Congreve - 1, **A. Cooper** - 1, **D. Cooper**-9, John K. Cooper - 7, John K. Cooper and Arthur L. Meugens - 3, Nancy Coppin - 2, **Evi and Mel Coulson** - 2, **Mel Coulson** - 1, **Mel and Evi Coulson** - 1, **Vic Cousineau** - 42, R. A. Cummings - 7, Earl Cummins - 1, H. H. Currie - 1, and **Chris Czajowski** - 14.

D Mark Daly - 1, S. J. Darcus - 61, S. J. Darcus and E. M. Tait - 1, A. R. Davidson - 10, **Gary S. Davidson** - 68, **Gary S. Davidson and Chris Siddle** - 17, **John Davidson** - 2, Brian Davies - 1, Neil K. Dawe - 2, Phil Dawson - 1, **Clifford A. Day** - 22, Charles de Blois

Green - 44, Mel Deanna - 1, **Brent Diakow - 1, J. A. Dick - 1, Dorothy Diduck - 19**, J. K. Dillon - 1, **Adrian Dorst - 12**, Adrian Dorst and George P. Sirk - 1, Sid Draper - 1, Rudolph H. and Jan Drent - 345, Betty Drew - 1, Ducks Unlimited Canada - 48, Walter Dunnet - 7, Walter Dunnet and Marg Hooper - 1, and **Linda Durrell - 1**.

E Peter Elliott - 8, Maurice Ellison - 20 (Figure 16), **Anna and Ken Emes - 1, Colleen Erickson - 3**, Anthony J. Erskine - 1, and Lorna Esouloff - 2.



Figure 16. The late Maurice Ellison's field notes have been a major source of historical breeding information for the Trail area for 43 years. 27 January 1990 (R. Wayne Campbell).

F Jamie Fenneman - 1, Joyce Fitz-Gibbon - 6, Robert G. Footitt - 2,153, Michael Force, Gary S. Davidson and Chris Siddle - 1, **Trevor Forder - 79, Trevor Forder and Viola Kruger - 69**, Bristol Foster - 5, D. Fraser - 2, T. A. Fraser - 2, D. Fredricks - 1, D. Lorne Frost - 19, and Ralf Fryer - 1.

G C. B. Garrett - 3, George N. Gartrell - 1, Brian R. Gates - 1, Jeremy Gatten - 2, **Ralph Gerein - 1**, Violet Gibbard - 2, Richard E. Gibbs - 1, Janet Gifford - 3, **Jim Ginns - 96, Carlo Giovanella - 1**, W. Earl Godfrey - 7, **Tom Godin - 2**, J. E. Victor Goodwill - 1,079, J. E. Victor and Margaret E. Goodwill - 12, **Margaret E. Goodwill - 2**, J. Paul Goossen - 2, **Hilary Gordon - 73, Hilary Gordon and Arne Moen - 1,083, Hilary Gordon and Joyce Henderson - 24, Hilary Gordon and Marie Bruce - 2, Hilary and Orville Gordon - 24, Hilary and Tim Gordon - 1, Orville Gordon - 40, Orville and Hilary Gordon - 1, Ted Goshulak - 4, Gordon Goslin - 1, Douglas**

J. Graham - 22, James Grant - 13, **Tunie Grant - 1, Al Grass - 6, Sandra Gray - 1**, Arthur Green - 1, **Tony Greenfield - 1**, Rita Greyell - 5, Charles J. Guiguet - 23, and Charles J. Guiguet and Patrick W. Martin - 2.

H Mrs. F. W. Hack - 2, **Penny Haering - 49, Barry and Patricia Hagen - 1, Harry Hall - 2, Larry Halverson - 8**, Catherine Handley - 1, **Willie Haras - 10**, George A. Hardy - 12, **L. Harmsworth - 27, Fred Harper - 1, Willie Haras - 18, Willie Haras and Joan Best - 31**, M. Harris - 7, Pat Harris - 1, Peg Harris - 2, S. S. Hart - 1, David F. Hatler - 19, David and Myrna Hawes - 1, Robert B. Hay - 3, W. Grant Hazelwood - 5, **Ruth E. Hellevang - 9**, Edward G. Hennan - 5, **Nathan Hentze - 1**, J. Hepburn - 1, **Joan E. Heriot - 2, Werner and Hildegard Hesse - 4, Ted Hillary - 112**, Keith Hobson - 63, Ralph Hocken - 1, Madge Hollington - 1, **Margaret Holmes - 1**, Mr. and Mrs. J. Holman - 1, Margaret Hooper - 3, James Hopkins - 1, Steve Hornby - 1, Otto Horvath - 1, **Dennis Horwood - 2**, Harold Hosford - 2, **Steve Howard - 17**, Louise Howes - 2, **Richard R. Howie - 20**, Margaret Hubble - 1, **M. Hughes - 2**, and Brian Hutchinson and Kevin Sadler - 1.

I Dave Ingram - 2, Douglas J. Innes - 2, Doug and Marian Innes - 1, Doug Innes and Ralph Escot - 1, and **John Ireland - 1**.

J Ross D. James - 2, **Pat Janzen - 2**, Jane Jenkins and Richard S. Jerema - 2, **Ron Jenkins - 1**, Richard S. Jerema - 1, Leo Jobin - 3, **Ann Johnson - 2, Dale Johnston - 1, Joan Johnston - 1**, Stuart Johnston - 89, **Marlene Johnstone - 55**, Walter B. Johnstone - 15, **S. Jordan - 1**.

K B. Keating - 1, J. Keizer - 1, K. E. Kelleher - 1, W. Keller - 1, L. Kellog - 1, **Brian Kennedy - 22, Bruce Kennedy - 1, Ken Kennedy - 3, Margaret Kennedy - 1**, F. Kermode - 2, David G. King - 8, **G. King - 1, Sandra Kinsey - 2, Sandra Kinsey and Laird Law - 2**, Ethel Kippin - 593, **Kootenay Park Naturalists - 1, Nancy Krueger - 44, Nancy Krueger and Jack Bowling - 5, Nancy Krueger and Steven Lawrence - 6, and Nancy Krueger, Steven Lawrence and Elsie Lafreniere - 1**.

L Jules La Barthe - 1, **Elsie Lafreniere - 7, Elsie Lafreniere and Christopher Coxson - 2**, Hamilton M. Laing - 16, **John and Vi Lambie - 90, John and Vi Lambie & Jeanne**

Wysoski - 1, Barry Lancaster - 1, Steven Lawrence - 27, Steven Lawrence and Nancy Krueger - 1, Adrian Leather - 9, Ray Lebel - 1, Martin C. Lee - 10, Enid Lemon - 1, Pat Levitt - 9, Marcia Long - 22, David Low - 3, Nancy Lowrey - 1, Ursula Lowrey - 1, Al Luckhurst - 1, Robert E. Luscher - 34, and Robert Lyske - 1.

M S. D. Macdonald - 1, S. D. Macdonald and I. Stirling - 1, R. R. MacFarlane - 14, James Mack - 1, Mary Mack - 1, Mrs. F. W. Mack - 5, Cheryl Mackie - 1, Jack V. MacKill - 13, J. Macoun - 2, Walter S. Maguire - 69, J. Mailliard - 1, **Malaspina College - 3, Manning, Cooper, & Associates - 2, Chris Marchant - 2, Murray Mark - 6, George Markin - 3, Patrick W. Martin - 14, Wayne Matkoski - 8, R. Maynard - 2, Ron Mayo - 1, T. T. McCabe - 2, James McCammon - 1, D. McCaughran - 1, Carolyn McGhee - 24, J. M. McGhee - 48, Jack McGhee - 1, Jane McGhee - 1, Glen and Isabel McInnes - 1, A. R. McIntosh - 3, George McKay - 1, John McKay - 1, Richard W. McKelvey - 2, Bob McKenzie - 1, R. R. McKenzie-Grieve - 1, Karen McLaren - 1, Sue McLean - 1, Sue McLean and Eloise Harding - 1, **Alan L. McLeod - 1, C. F. McLeod - 1, J. F. McLeod - 3, Ed McMackin - 8, Martin K. McNicholl - 3, Anita McWilliams - 1, Shawna Meade - 3, Arthur L. Meugens - 45, Harry Middleton - 13, Holly Middleton - 69 (Figure 17), Holly Middleton and Joanna Preston - 38, Tom Middleton and Michael I. and Joanna Preston - 1, Richard Mooney - 1, Elaine Moore - 7, Elaine Moore and Janice Arndt - 31, Elaine Moore and Jeannette and Derek Claridge - 3, Cy W. Morehen - 5, Norma Morton - 7, John Mottishaw - 1, Allister Muir - 2, Alice Munro - 2, David A.****



Figure 17. Simon Fraser University graduate student Holly Middleton carefully places a nestling American Dipper back in its nest at the end of an old log. (Darren Lissimore).

Munro - 59, James A. Munro - 533, James A. Munro and C. L. Patch - 1, O. J. Murie - 4, and **Lillian and Steve Myers - 1.**

N **Eve J. Neale - 16, Laure W. Neish - 7, R. Wayne Nelson - 2, Linda Newall - 1, C. Newcombe - 2, F. Newcombe - 1, Dean Nicholson - 1, A. L. Nicol - 2, Gwen Nicol - 2, Mark Nyhof - 563, and Elsie Nykyfork - 1.**

O Derek O'Brien - 4, Derek O'Brien and Kevin M. Bell - 3, Gordon Odum - 2, **Stan Olson - 3, W. H. Osgood - 1, Ted Osmond-Jones - 1, and Gerry Owens - 19.**

P **R. E. Park - 2, Parks Canada Staff - 1, David Parnell - 2, Ray Parnell - 1, Mary Pastrick - 8, C. A. Patch - 6, Stanley Paterson - 2, Jerry Patterson - 1, Jim Patterson - 1, W. A. B. Paul - 6, Theed Pearse - 17, James A. Pearson - 1, Michael Perone - 1, Janne Perrin - 42, Janne Perrin and L. Gravill - 3, Carol Pettigrew - 1, P. B. Phillip - 1, Mark Phinney - 2, George Phipers - 1, Mrs. Rae Pitt - 1, W. Pollard and J. Comer - 3, John Polson - 2, A. L. Porcher - 2, Ilya Povalyaev - 1, Gerry Powers - 3, G. Allen Poynter - 26, Jim Preston - 2, Joanna Preston - 136, Joanna Preston and Holly Middleton - 54, Margaret and Al Preston - 1, Michael I. Preston - 163 (Figure 18), Michael I. and Joanna Preston - 377, Michael I. Preston and R. Wayne Campbell - 163, and Shirley Prince - 1.**

R Kenneth Racey - 27, Kenneth Racey and Robert E. Luscher - 2, Kenneth Racey and Walter S. Maguire - 1, Marilyn Rack - 2, W. Raine - 1, C. Rainville - 1, **Phil Ranson - 23, Phil and Howard Ranson and Tom Godin - 1, Jerry Raymond - 12, R. Reynolds - 1, Sheila Reynolds - 3, D. Richardson - 1, Dirk Rinehart-Pidcock - 33, Ralph W. Ritcey - 1, Ralph W. Ritcey and Nicholas A. M. Verbeek - 1, Neil Robbins - 2, Anna Roberts - 4, Leila G. Roberts - 5, M. Roberts - 2, Ian Robertson - 6, Joan Robertson - 2, Neil Robins - 3, Steve H. Robinson - 1, Wayne Robinson - 1, Wilma Robinson - 1, I. Laurie Rockwell - 19, Michael S. Rodway - 31, Michael S. and Joy A. Rodway - 21, Michael S. Rodway and Nancy Hills - 1, Thomas H. Rogers - 1, **Manfred Roschitz - 10, Royal Canadian Mounted Police - 1, Royal Ontario Museum - 2, Holly Rubinsky - 1, Karen Ryall - 12, and Glenn R. Ryder - 831.****



Figure 18. Michael Preston checking a Barn Swallow nest under a bridge along the Haystack Forest Service Road near Wonowon, BC. 30 June 2005 (R. Wayne Campbell).

S Jim R. Salt - 9, Ron Satterfield - 31, Ron Satterfield and J. E. Victor Goodwill - 3, Ron Satterfield and Margaret E. Goodwill - 2, Ron Satterfield and Stuart Johnston - 1, **Chris Saunders** - 6, Roger Saunders - 1, W. E. Saunders - 1, Greg Saxon - 1, Carol Schmidt - 1, Zella Schultz - 1, Greg Scott - 2, **Lorraine Scott** - 6, **Scout Island Nature Centre** - 1, Spencer G. Sealy - 1, **Barbara Sedgwick** - 1, **Brian Self** - 1, Gerry Shaver - 3, **Verena Shaw** - 72, Michael G. Shepard - 2, C. Shepard - 1, G. Shepard - 2, Thomas Shermer - 3, **Katherine Shewchuk** - 2, Gerri Shuler - 1, M. Shunter - 1, **Chris Siddle** - 3, Joanne Siderius - 1, **Ed Silkens** - 19, F. Simpson - 1, Fred Simpson - 1, Paul Simpson - 1, **Win Simpson** - 72, **Jim Sims** - 10, Geoff Sinclair - 1, **George P. Sirk** - 3, Bud Smith - 1, Gordon Smith - 3, H. Smith - 1, Ian D. Smith - 1, W. S. Smith - 1, Wayne Smith - 10, Don Spencer - 1, Jim Spencer

- 4, **Bernie and Prue Spitman** - 1, William Spreadborough - 12, S. Stachera - 1, J. Stainer - 6, **Elsie Stanley** - 7, J. and T. Stanwell-Fletcher - 1, **Julie Steciw** - 23, H. A. Stelfox - 1, Andrew C. Stepniwski - 1, **Tom Stevens** - 2, G. Stewart - 1, Ronald M. Stewart - 1, **David Stirling** - 17, B. Stockman - 1, Linda Stordeur - 1, **Bob Straith** - 1, Hazel and Jim A. Street - 8, **George Stuart** - 9, Brian Stushnoff - 1, Kenneth R. Summers - 1, Mabel Swan - 19, Richard Swanston - 3, Harry S. Swarth - 6, Harry S. Swarth and W. D. Strong - 1, Anne Switzer - 2, and **Lorraine Symmes** - 7.

T E. M. Tait - 3, **Kiyoshi Takahashi** - 1, Faith Takishita - 1, Jeremy B. Tatum - 1, Ernie W. Taylor - 2, **F. W. Taylor** - 2, G. W. Taylor - 2, **Howard A. Telosky** - 6, Diana Thompson and Michael Wolfe - 1, **Jack Todd** - 1, **Ryan Tomlinson** - 17, Frank Tompa - 1, Peter and Win Tonge - 1, A. Torrer - 1, W. E. Traile - 3, Neil Trenholme - 1, Neil Trenholme and David F. Hatler - 1, F. W. True and D. W. Prentiss - 1, Chris Tunnock and Dave Mark - 1, and J. D. Turnbull - 1.

U J. Edward Underhill - 1.

V Linda M. Van Damme - 483, Linda Van Damme and Cyril Colonel - 26, Linda Van Damme, Cyril Colonel and Marcia Long - 2, Linda Van Damme and Marcia Long - 6, Gerry F. Van Tets - 1, **Vancouver Natural History Society** - 1, **Vancouver Province** - 1, **Victoria Natural History Society** - 3, and **John Voys** - 2.

W Lynne Wade - 1, **Betty Walker** - 8, Janice Walker - 1, Nora Walker - 1, Ruth Waterfield - 1, G. Ross Waters - 18, K. Watson - 1, **Wayne C. Weber** - 11, **Rita Wege** - 75, **Rita Wege and Larry Prosser** - 41, Diane Weismiller - 2, Ray M. Wershler - 2, Rick West - 1, H. J. Westheuser - 1, Jim Weston - 1, Edward G. White - 7, Peter White - 1, S. D. Whitman - 1, **Karen Wiebe** - 1, B. L. Williams - 1, Jack E. Williams - 1, John Williams - 1, M. Y. Williams - 2, Murray Williams - 2, **P. Ray Williams** - 28, **Brian Wilson** - 8, **Joan Wilson** - 1, Norma Wilson - 1, Ben P. Wintemute - 10, **Marcus Womersley** - 9, Douglas Wood - 1, Michael Woolfe - 1, David Woolgar - 7, Glenn Wootton - 1, Joan Wootton - 4, E. M. Wright - 7, and J. Wynne - 17.

Y Mike Yip - 6, C. H. Young - 5, C. J. Young - 6, and C. J. Young and S. J. Darcus - 1.

Total Contributors - 610
(Active - 249; Historical - 361)

Wildlife Workshops and Extension

The constant urging to record relevant information for each nest and brood found is accomplished through our web page (www.wildlifebc.org), publications, telephone conversations, correspondence, workshops, and lectures. We were very busy in 2005 with extension programs with the most favourable response coming from participants in "Wings Over The Rockies" wildlife festival in Invermere. As time and opportunity permits we hope to visit other areas of the province in 2006.

WILDLIFE ALERT

Common Nighthawk

Almost all of the nest cards for Common Nighthawk (Figure 19) we received over the past decade are historical. They have been gathered from old collections, publications, diaries, and research. It is the general consensus among individuals that have lived in one area of British Columbia for a long time that Common Nighthawks are disappearing. Ray Williams, a Victoria naturalist, mentioned he went through 2005 without seeing or hearing a bird even though he travelled around the province.

Because of the twilight feeding habits of the species most standard survey programs, like the Breeding Bird Survey, do not adequately represent nighthawk numbers and distribution. Also, the species is unfortunately little known and studied. Dr. Mark Brigham, a professor from the University of Regina, has studied Common Nighthawks in British Columbia at Okanagan Falls. But he is a "rara avis" among North American ornithologists. Many states and provinces are now trying to obtain reliable information to provide a conservation status for management purposes.

A reliable method to analyze changes in numbers, distribution, and populations is to amass records kept for a specific location over a long period of time. The minimum kinds of information that are useful are the annual arrival and departure dates. Over time we can look at how

these change along with the nighthawk's average length of stay.

We are presently pulling together a database to help determine the provincial status of our "thunderbirds". If you have sightings or breeding records for the Common Nighthawk in the province, PLEASE send them to us. We will update the account published 15 years ago in *The Birds of British Columbia* in the next issue of *Wildlife Afield*. It would also be useful to let us know if you have a "gut feeling" or information concerning the status (e.g., increasing, decreasing, stable, or unknown) in your area along with the time periods you suspected the change to have taken place.



Figure 19. In many regions of British Columbia the Common Nighthawk has been decreasing at alarming rates. 8 July 2004 (Laure W. Neish).

LONG-TERM MONITORING AND INVENTORY PROJECTS

The **Biodiversity Centre for Wildlife Studies**, with help from field naturalists, continued its long-term wildlife monitoring programs (e.g., wildlife road mortality and roadside raptor counts) throughout 2005. We actively survey areas every year while at the same time, in the off-season, historical information is being transferred to various databases.

In 2005, projects related to the **Nest Record Scheme** included surveys of **colonial-nesting fresh-water birds** (e.g., Eared Grebe, Western Grebe, Double-crested Cormorant, Great Blue Heron, Forster's Tern, and Black Tern, and **terrestrial bird colonies** (e.g., Bank and Cliff Swallows), monitoring **nest box trails** and **raptor nests** (e.g., Osprey, Bald Eagle, and Red-tailed Hawk), **wetland** surveys (e.g., Pied-billed Grebe,

American Bittern, and blackbirds), **owl surveys** (e.g., Barn Owl, Great Horned Owl, and Long-eared Owl), **loon surveys**, and searching **specific habitats** in select areas of the province (e.g., alpine, riparian, and grasslands) for nesting birds.

Nest Box Trails

Thousands of nest boxes (Figure 20) have been erected around the province for bluebirds, waterfowl, and owls. A small group of committed naturalists visit the boxes to document activity and nest success and deposit their findings with us.



Figure 20. This Western Bluebird nestbox, equipped with an anti-predator / anti-House Sparrow cage, contained 4 eggs. Kimberley, BC. 13 May 2005 (Michael I. Preston).

We are grateful to the following Individuals who monitored nest boxes in 2005: **Verena Shaw** (Burnaby and Deer lakes), **I. Laurie Rockwell** (Summerland), **Ed Silkens**, **Vicki Hansen**, and

David Drummond (Campbell River), **Hilary Gordon** (Chase to Pritchard), **Betty Walker** (Okanagan valley), **Willie Haras** (Kamloops), **Beverly H. Butcher** (Cariboo), **Clifford A. Day** (Vernon), **Dirk Rinehart-Pidcock** (Argenta and Kaslo), **Vicky Atkins** and **Alice Beals** (north Okanagan valley), **Vic Cousineau** (Lister), **Linda Van Damme** (Creston valley), **Glenn R. Ryder** (Fraser River valley) **John** and **Vi Lambie** and **Jeanne Wysoski** (Mackenzie), and **Michael I. Preston** and **R. Wayne Campbell** (east Kootenay region).

Trevor Forder made a special effort to compile and provide us with all of his nest records from 2002-2005 from his nest box trail in the **Kelowna** area. For the four years these are the number of boxes used: **Tree Swallow** (67), **House Wren** (8), **Violet-green Swallow** (1), and **Black-capped Chickadee** (1).

In total, 12 species were found using the nest boxes. These were Wood Duck, Barrow's Goldeneye, Western Screech-Owl, Tree Swallow, Violet-green Swallow, Black-capped Chickadee, Mountain Chickadee, Red-breasted Nuthatch, White-breasted Nuthatch, House Wren, Western Bluebird, and Mountain Bluebird.

Wetland Monitoring

Due to poor weather many of the traditional wetlands monitored in the past were not censused this summer. Most of the effort was spent surveying marshes, ponds, and sloughs in the southern Peace River region (Figure 21). A thorough canoe survey of **Elizabeth Lake**, near Cranbrook was completed for grebes, American Bittern, rails, waterfowl (especially Canada Goose), American Coot, Black Tern, Marsh Wren, and blackbirds.

Counts and estimates for many small roadside wetlands were received from throughout the province as people travelled to and from their destinations.



Figure 21. Wayne Campbell checking cattails for nesting marsh birds at Inga Lake, BC. 3 June 2005 (Michael I. Preston).

Ospreys

Annual monitoring continued in select regions of the province by long term contributors. In addition, many contributors recorded nests found while on trips to other parts of the province. Three major areas were surveyed in the 2005-breeding season.

West Kootenay (Arrow Lakes)

Gary Davidson has monitored Osprey nests in this region since 1994. He covers the area along Highway 6 that traverses sections of the Upper and Lower Arrow Lakes. All but one of the nests is built on transmission poles in the BC Hydro right-of-way corridors. The Osprey had a good year on the Arrow Lakes with 19 active nests producing 27 young.

West Kootenay (Balfour to Waneta)

For the 9th consecutive year **Janice Arndt, Elaine Moore, Larry Prosser** and **Rita Wege** continued their Osprey survey in the West

Kootenay along the West Arm of Kootenay Lake from Balfour to Waneta, and along the Kootenay and Columbia rivers. Out of a potential 75 nest sites (where nesting material was already present), 33 nests were determined to be active (copulation, incubation, and/or active nest-building was witnessed). Of these, a total of 35 young were fledged from 23 nests. The 2005 average of 1.5 fledged young per nest was slightly below the nine-year average of 1.7.

Of the 23 productive nests, 83 % (19 nests) were on human-made structures such as poles or pilings. When the survey began in April, about 41 % (31 nests) of the 75 potential sites had Canada Geese sitting in them. Of those 31 nests, 10 went on to fledge young Ospreys.

Creston Valley (US Border to South Kootenay Lake)

Linda Van Damme and **Cyril Colonel** completed their 8th consecutive season of monitoring. The majority of nests are located on power poles in the agricultural regions of the valley and on cottonwood snags along the Kootenay River. Four times a season they must traverse the river by boat to monitor these riparian nests. With only 36 productive nests this season, the annual average dropped to 1.4 fledged young per nest, down from the long-term average of 1.8.

Bald Eagles

Over 100 nests known to contributors around the province were checked this year. **Janice Arndt**, who regularly monitors nests, wrote: "*There were many active eagle territories on the West Arm this season but fewer successful attempts than last year for those upstream of Nelson. I was very surprised and pleased, however, to discover that one nest I thought had failed was actually more than a month behind - the chicks were still quite small during the time others were fledging. The young at the late nest successfully left the nest tree about the 23rd of August!*"

Western Grebes

Linda Van Damme completed her 11th year of monitoring Western Grebe productivity on **Duck Lake** near Creston (Figure 22). Once again, weather had a major impact on nesting grebes as storms during June, July and August wreaked havoc on the exposed floating nests resulting in low reproductive success.

The Western Grebe colony in **Salmon Arm Bay** was again well represented thanks to the diligence of **Hilary Gordon** to compile the survey results and send them to us.



Figure 22. Adult Western Grebe at Duck Lake in the Creston valley. 5 October 2005 (Linda M. Van Damme).

Cliff and Bank Swallows

A few colonies were surveyed this summer but actual nest counts were not made. Activity and good estimates of active burrows were completed for some colonies in southern Peace River region, Cariboo, Okanagan valley, easy Kootenay region, and Prince George.

Rare and Sensitive Species

Each year we receive requests from a variety of different organizations and individuals for specific location and breeding information for locally rare species or species that are considered sensitive to disturbance. The demand is especially great now with all of the interest in SARA (Species At Risk Act) and the provincial government programs relating to peripheral species.

Most requests come from wildlife consultants and photographers. As always, information is provided with the welfare of the species in mind, land ownership issues, and conservation value of the information being released.

Species of interest included Williamson's Sapsucker, Barn Owl (nesting), Sage Thrasher (nesting), Bald Eagle, American Avocet, Brandt's Cormorant, Great Blue Heron, Nelson's Sharp-tailed Sparrow, American Bittern, Yellow Rail, Sky

Lark, White-headed Woodpecker, Western Screech-Owl (nesting), Palm Warbler, Canyon Wren, Townsend's Warbler, Yellow-breasted Chat, Northern Goshawk, Long-billed Curlew, Canada Warbler (nest site), Gray Flycatcher, Red-throated Loon, Northern Pygmy-Owl, Ancient Murrelet, Marbled Murrelet, Black-backed Woodpecker, Double-crested Cormorant, Western Grebe, Broad-winged Hawk (nesting), Blue Grouse, Black Oystercatcher, Sage Grouse, Sharp-tailed Grouse, Short-eared Owl (nesting), and Harlequin Duck (nesting).

Field Tips and Techniques

Ageing Waterbirds

Broods of waterbirds, especially waterfowl, can be aged quite accurately using the criteria on plumage development in Appendix 1 (Figure 23). This information enhances the value of the record and allows us to calculate the hatching date. This can be used to develop regional breeding chronology profiles and determine the change in breeding dates over time that may be an important contribution to understanding the effects of climate change on the breeding biology of birds.

The drawings in Appendix 1 can be reduced and added to field notebooks for quick reference.



Figure 23. Canada Goose gosling. Burnaby Lake, BC. 11 May 2004 (R. Wayne Campbell). Plumage development is Class I A with uniform fresh down-covered plumage. Age in the Class ranges between 1 and 7 days old.

Using Droppings as a Clue to Nest Finding

Finding the nests of grassland species, such as Savannah Sparrow, Horned Lark, Grasshopper Sparrow, and Vesper Sparrow, is mostly luck. It usually requires a systematic search of an area that results in flushing an incubating or brooding parent.

A reliable method to locate nests, without the tedious ground search, requires examining the tops of posts, poles, and rocks for fresh bird droppings (Figure 24). This is most effective during the nestling stage when adults are busy feeding their family. An adult will often land on a favourite perch before delivering food. If you are patient and remain motionless, or hidden by shrubs or a car door, the bird will fly directly to its nest.



Figure 24. Savannah Sparrow droppings on fence post near Dawson Creek, BC. 25 June 2005 (R. Wayne Campbell).

The time before feeding varies depending on the species, the age of the young, and the sensitivity of individual birds to the immediate environment. We have had Horned Larks fly to their nests within 15 seconds and have waited for

Savannah Sparrow (Figure 25) for 12 minutes. The other benefit is that you reduce the possibility of trampling nests during physical ground searches.



Figure 25. This Savannah Sparrow nest containing four nestlings was located using the “droppings on posts” field technique near Boundary Lake, BC. 21 June 2004 (R. Wayne Campbell).

From the Scientific Literature

Apparent predation by cattle at grassland bird nests

We usually consider cattle and other domestic range animals as threats to ground-nesting birds from trampling and flattening nests and nestlings while lying down to chew their cuds. Since they are herbivores we would never suspect that they might be potential predators.

Biologists James Nack and Christine Ribic, during studies of grassland birds in Wisconsin, actually watched cattle remove several Savannah Sparrow eggs from a nest, four Eastern Meadowlark nestlings from another, and three Savannah Sparrow nestlings from a third nest. The events were captured on videotape otherwise James and Christine would have blamed the loss of eggs and young to traditional predators like crows and small mammals.

Wilson Bulletin 117(1):56-62, 2005.

Water level dynamics in wetlands and nesting success of Black Terns in Maine

All nesting waterbirds are prone to water level fluctuations and many lose nests and their contents to flooding. In a study in Maine, Andre Gilbert and Frederick Servello, discovered that annual losses varied from 30% to 94% depending on the amount of rainfall and the location of the colony. Flooding is a common event for the nesting terns but the researchers were unable to predict the ultimate effects on breeding productivity.

Waterbirds 28:181-187, 2005.

What preys on Piping Plover eggs and chicks?

Reducing predators on the eggs and young of the Piping Plover in North America is one consideration to recover some of the imperilled populations. Research by Jacob Ivan and Robert Murphy showed that nest success increased significantly when nests were protected from mammalian predators but did not increase when avian predators were excluded from nests. Nearly all predation on chicks, however, was attributed to avian predators. It was recommended that large gulls and American Crows should be reduced to sustain increased levels of plover success.

Wildlife Society Bulletin 33:113-119, 2005.

Breeding chronology of Marbled Murrelets varies between coastal and inshore sites in southern British Columbia

Researchers at Simon Fraser University compared the breeding chronologies of Marbled Murrelets breeding at Desolation Sound, inshore of the Strait of George, with birds nesting at Clayoquot Sound on the west coast of Vancouver Island. They found that birds breeding at Desolation Sound bred about 30 days later than at Clayoquot Sound.

Journal of Field Ornithology 76:357-367.

Birds and golf courses

This special issue probes "Can golf courses enhance bird conservation? through 10 papers (99 pages) on habitat use, role in conservation, species reproductive success, surrogate riparian habitats, effect of chemical applications, and species assemblages. The general findings are "golf courses can support birds that are of conservation concern and sometimes provide

surrogate habitats for species of high management priority."

Wildlife Society Bulletin 33:407-506, 2005.

The effects of the 1997-1998 El Nino on Rhinoceros Auklets on Protection Island, Washington

Rhinoceros Auklets showing up off southern Vancouver Island come from a nesting colony on Protection Island in the Puget Sound region of Washington state. During the El Niño of 1997-1998 their behaviour changed in the Strait of Juan de Fuca as sea surface temperatures and sea levels increased. Biologist Ulrich Wilson showed that chick growth rates were significantly lower during this warming period. The chicks were, however, able to adapt and compensate for this scarcity of prey by extending their time in the burrows. The species is adaptable and can respond well during oceanic climatic fluctuations.

Condor 107:462-468, 2005.

The biology and conservation of the American White Pelican

This special issue, the Society's first, includes 15 papers by pelican biologists and researchers and wildlife managers from around North America. It is the result of a symposium held on the species in Santa Barbara, CA in February 2002.

Papers were diverse, from the use of culmen length to sex pelicans to the impact of disease and organochlorine contaminants in breeding pelicans. The result, however, was that the exchange of information and research needs are prioritized to consider the biology and conservation of the American White Pelican on the continent.

Waterbirds 28:1-112, 2005.

APPENDICES

Appendix 1. Plumage Development of Young Waterfowl

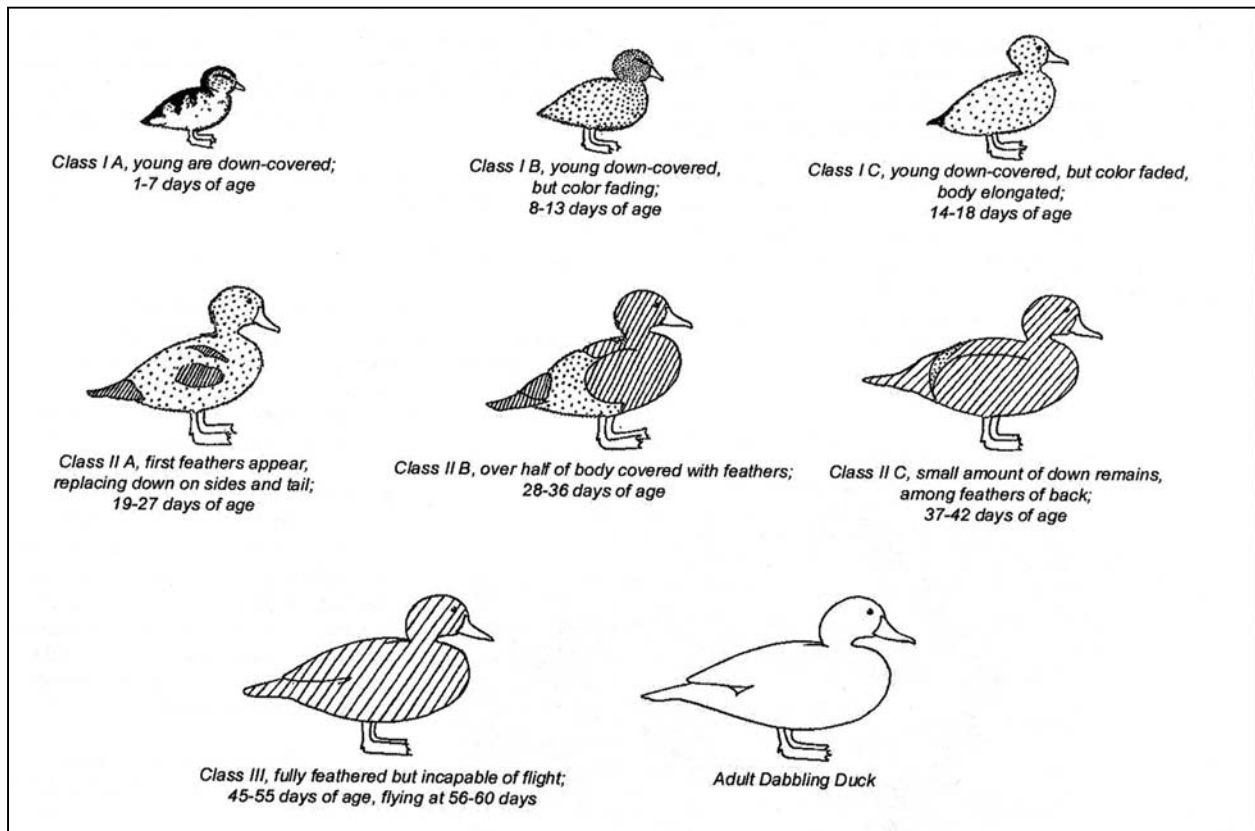
In the spring of 1997, the first B. C. Nest Record Scheme manual was issued by the WBT Wild Bird Trust of British Columbia, along with participating partners, as WBT Wildlife Report No. 1. An important omission in that manual was the inclusion of plumage changes of waterfowl developed by J. B. Gollop and W. H. Marshall in their 1954 publication *A Guide for Ageing Duck Broods in the Field*. This information, when recorded on nest cards, is very useful in determining breeding chronology and mortality figures as the young pass from the downy stage to the flight stage. Brood ages are 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 begins 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 the down plumage.

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

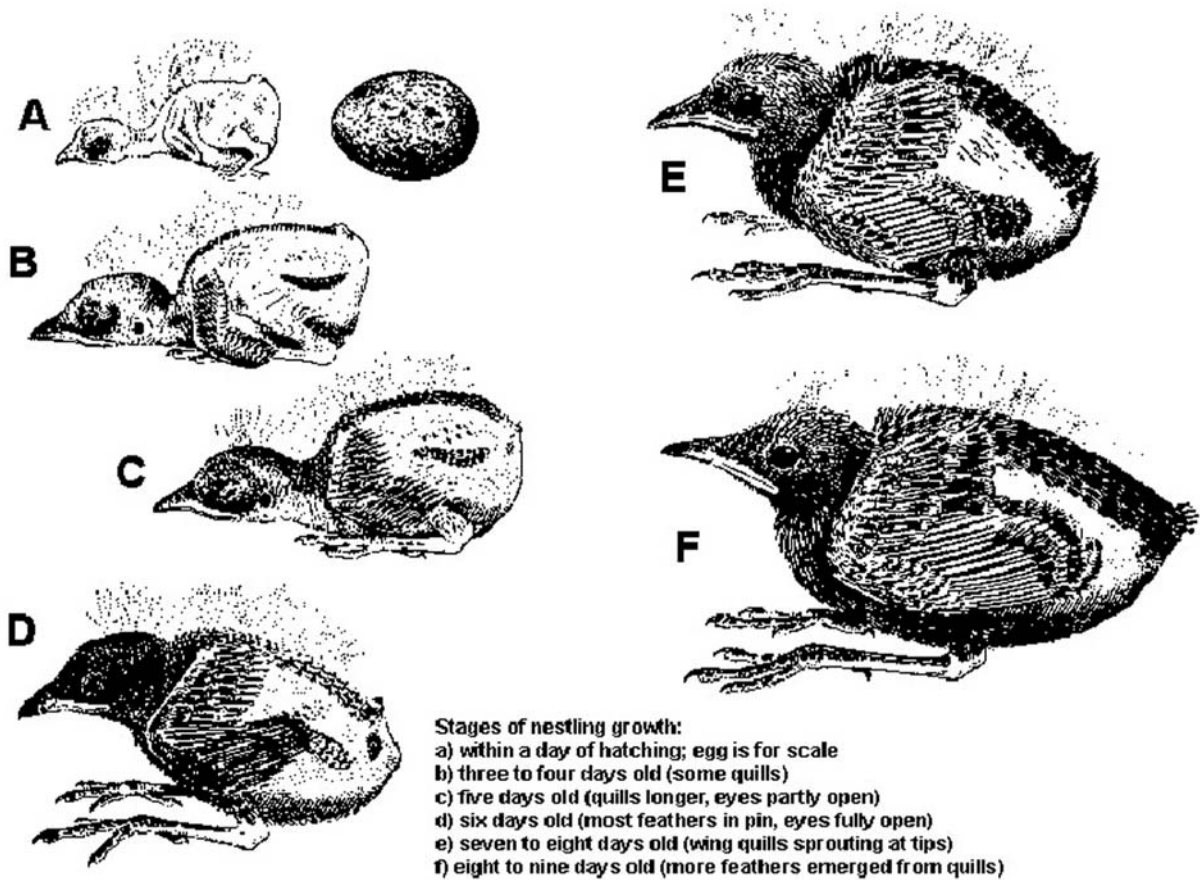
Information for each brood can simply be recorded on each nest card as I-A, I-C, II-B, III, etc. The drawings, which have been modified from Frank C. Bellrose's *Ducks, Geese and Swans of North America*, should be used as the reference.



Appendix 2. Guide to Timing of Visits to Nests of Passerine (Song) Birds.

Contents of nest when found or last visited	Next visit should be	Notes needed at next visit
Nest under construction	2 - 4 days later, to determine laying	No. of eggs, warm or cold; parent at nest or not
1 - 3 eggs	3 - 5 days later, to confirm completion of	No. of eggs, warm or cold; parent at nest or not
4 - 7 eggs	3 - 5 days later, to check clutch size	No. of eggs, warm or cold; parent at nest or not
Eggs and newly hatched young	6 - 8 days later, to check survival of young	Number, size, and degree of feathering on young
Young, naked or downy	5 - 7 days later, to check survival of young	Number, size, and degree of feathering on young
Young, pin-feathered	3 - 5 days later, to check survival of young	Number, size, and degree of feathering on young
Young, mostly feathered	2 - 4 days later, to check on fledging	Number and flying ability of young
Young which fly when approached	7 - 10 days later, to check on reuse of nest	
Evidence of Failure (if nest contained eggs or live young at an earlier visit)		
Evidence of failure		Notes needed
Broken eggs		Evidence of predator (tracks, droppings, condition of nest)
Dead young, in or near nest		Evidence for desertion (young unharmed), or predation (young injured, predator sign)
NOTE: Most passerines have a clutch of 4 - 7 eggs, laid at daily intervals; incubation periods of up to 12 - 15 days; nestling periods of 11 - 19 days (open nesters near lower figures, cavity nesters near upper figures)		

Appendix 3. Stages of Nestling Growth.



REQUESTING AND SUBMITTING CARDS

A REMINDER – OUR NEW ADDRESS

B. C. NEST RECORD SCHEME
P.O. Box 32128
3651 Shelbourne Street
Victoria, B. C. V8P 5S2
Tel/Fax: (250) 477-0465
e-mail: editor@wildlifebc.org

All enquiries including requesting and submitting cards can now be sent to the address above.

Single nest and colonial cards as well as an Instruction Manual are available from the address above. Our web site (www.wildlifebc.org) also has instructions and material available to participants.

We prefer to have nest cards completed and submitted by October 1 so the growing task of compiling and publishing the report can be completed by the end of the year and distributing the annual report can begin in spring the following year. This year, compiling 17,000+ cards into species, grid, and contributor order took nearly three months!

For species acting as hosts for **Brown-headed Cowbird** eggs or young please fill out a separate card for the **BHCO** and cross-reference it to its host. For young or recently fledged BHCO young be sure to indicate if the young was in the nest (i.e., nestling) on the front of the new nest card.

Other species, including some waterfowl, are also parasitized during their nesting season. For example, it is not uncommon to find **Ruddy Duck** eggs in **Redhead** nests or **American Coot** eggs in **Lesser Scaup** nests. If this occurs please complete separate cards for each species and cross-reference to each nest or brood.

Common species (e.g., **Canada Goose**, **Mallard**, and **American Robin**) and introduced species (e.g., **Rock Pigeon**, **European Starling**, **House Sparrow**; Figure 25) are still important to record.

Also, **PLEASE** use a dark ballpoint pen or dark ink (not pencil) and write clearly.

Thanks to **Pat Levitt**, **Hilary Gordon**, **Ted Hillary**, **Joyce Henderson**, **Tim Gordon**, **Arnie Moen**, **Marie Bruce**, and **Betty Walker** who were the earliest to send in cards. Each year the task of sorting, compiling, and entering the cards into an electronic database for the annual report is a huge job and we are grateful to get a jump-start on the process.



Figure 25. After 51 years of recording bird nests in British Columbia our collection of House Sparrow nest cards still remains low. Creston, BC. 10 May 2003 (Linda M. Van Damme).

ACKNOWLEDGEMENTS

A big heartfelt **thank you** to all our contributors. We greatly appreciate each and every person who is challenged by seasonal weather, takes time to fill out cards, and incurs the ever rising costs of fuel to record and monitor breeding birds throughout the province. We hope you will continue to support this important activity!

All cards (current and historical) were sorted by contributor, grid, and species from November 2005 through January 2006 by **James W. McCammon** and **Eileen C. Campbell**. Eileen also entered the information electronically into an Excel spreadsheet for use in preparing the report.

We are grateful to everyone who submitted cards in species order. It was a great help!

Mark Nyhof graciously provided the cover illustration of the juvenile Great Horned Owl. Photographers are acknowledged with their images in the text.

The following people provided information for the 2004 and 2005 nesting season in Canada: **Anthony J. Erskine** (Maritimes), **Michel Gosselin** (Quebec), and **George K. Peck** (Ontario).

Barbara Begg

Barb was born in Victoria in August 1936 and has lived most of her life on the Saanich Peninsula. She has always been an outdoor person but in her early years she had to be content with the local names for birds such as “wild canary” [American Goldfinch] and “crane” [Great Blue Heron] that frequented the family farm. It wasn't until she was an adult, married with three children, that she really became interested in details about birds. Watching a male House Finch eating at a hummingbird feeder precipitated this and she wondered how she could have lived that long without noticing “that pretty pink bird before”.

Barb joined the Victoria Natural History Society in the early 1980s, and like Ray, took Harold Hosford's birding course. Soon she was participating in Christmas Bird Counts in Victoria, Sooke, and the inaugural Saltspring Island/Saanich Peninsula count, and still maintains that commitment today. She is actively involved in a wide variety of volunteer efforts including the British Columbia Nest Record Program, Breeding Bird Surveys (8 years), Beached Bird Survey (10 years), and Wildlife Tree Stewardship Program and has served on the Victoria Rare Bird Records Committee (10 years) and British Columbia Rare Bird Records Committee (7 years). She regularly submits detailed records for rare birds, and other observations, to the Wildlife Data Centre, and serves as a contact person for the Victoria Rare Bird Alert.

She is affectionately known as the “Sky Lark” lady to ornithologists and hundreds of North American birders. She has been watching and monitoring Sky Larks from her home in North Saanich for 20 years and produced much of the information for the species account in *The Birds of British Columbia*. It gives her a great deal of pleasure to show Sky Larks to visiting birders that now total over 800 originating from most provinces and states.

One of her birding highlights occurred on April 21, 1992. While looking out of her kitchen window behind her Cresswell Road property near the Victoria International Airport she noticed a crow-sized, white and gray bird hovering over a field on pointed wings. She quickly recognized the bird from her past birding trips as a Black-shouldered [now White-tailed] Kite, the first record for Vancouver Island! Another highlight was discovering Vancouver Island's second record of the Grasshopper Sparrow in Central Saanich on 25 November 1992.

Barb likes to travel and has visited all seven continents to see new birds and landscapes and to experience different cultures. During those trips she has identified over 2,600 species of birds.



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