

BRITISH COLUMBIA NEST RECORD SCHEME

49th Annual Report - 2003 Nesting Season



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

PARTICIPANT PROFILES

Having information from a specific locality from year-to-year over a long period of time is rare in the biological world. Four or five years of continuous data are the norm as it takes a huge mental and physical effort to search and check the same things each nesting season. We are fortunate that the team of Alice Beals and Vicky Atkins have contributed over 25 years of breeding information for birds in the northern Okanagan Valley, especially in the vicinity of Vernon. Such long-term information is critical in evaluating the impacts that various natural and human-induced forces can have on our birds.

Alice Beals

Over 20 years ago Alice was introduced to the challenge of nest-finding when she volunteered to help well known naturalist Jim Grant survey Western Kingbird nesting sites in the northern Okanagan Valley. At first the learning curve was steep and Jim filled out all the nest cards. But with his continued support, encouragement, and patience Alice was soon finding nests on her own and filling out her own cards.

Alice grew up with a love of nature and as a child enjoyed the “hands on” approach to wildlife. In the 1920s and 1930s she regularly picked wild flowers, had pet painted turtles, and raised bantams. She vividly remembers Mountain Bluebirds nesting in her yard and the constant efforts of her father to trap and evict House Sparrows who were competing for the nesting space. Her passion for nature continued throughout her life. With her blessing she watched anxiously as her son raised a tubful of tadpoles to froghood. She became involved in scouting and shared her knowledge of the outdoors with a cub pack for 10 years. It was through the scouting movement that she met Vicky Atkins.

About 15 years ago Alice became involved with monitoring nest boxes for a “Bluebird Trail” near Armstrong organized by the North Okanagan Naturalists Club. Like all nest box trails there are annual ‘highs’ and ‘lows’. Despite predation, fly infestations, starvation, and poor weather Alice was quick to point out that one successful brood was the only reward she required.

Today Alice is one of our most faithful and consistent participants. Her annual commitment to monitor nest boxes and document their contents and fledging successes is a major contribution to nesting biology and assists greatly in interpreting the impacts of global warming on birds.



Alice Beals and Vicky Atkins have shared 25 enjoyable years searching for nesting birds in British Columbia.

the information she gathers is being used to learn more about birds in the province. She enjoys finding and tracking the progress of nesting birds and mentions that the experience can be both exciting and at times sad. During the nesting season Vicky gets into the field 4-5 days a week looking for nests and recording her findings on cards.

The north Okanagan Valley is well covered each year especially one of her favourite birding spots in Kalamalka Lake Park that she has visited every week since 1989. She has learned that most birds show up in the same week as in previous years. Her “roadside” hotspots in the vicinity of Vernon include Rose’s Pond, Mackay Reservoir, Tompson Lake, and of course the Commonage. Her most rewarding experiences, however, are the times she spent in a canoe on Swan Lake.

Vicky is a great ambassador for the nest record scheme and has now encouraged her sons, Trevor and Kevin, Lloyd’s brother Alf, and friends Dan and Connie to contribute their cards. Many of Lloyd’s photographs accompany her cards.

Vicky Atkins

Vicky’s early interest in birds was kindled during her years on a small farm outside Lumby in the late 1960s. She and her husband, Lloyd, maintained bird feeders, coaxed chickadees to eat sunflower seeds from their hands, and fed mice trapped in the barn to waiting shrikes. She and Lloyd drove and hiked around the area, bought binoculars, and became “birdwatchers.”

By the 1980’s Vicky had become really interested in birds and started learning more about them. She had moved to Vernon and regularly visited the library for resource information. She started keeping notes and lists so she could remember ‘what’, ‘when’, and ‘where’. As her skill level in identifying and understanding birds increased Vicky became more involved in birding activities.

Through Alice Beals, Vicky became interested in the B. C. Nest Record Scheme and has been a regular and significant contributor since 1998. She is pleased that

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Compiled by

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PLEASE NOTE

In November 2003, prior to the Annual General meeting of the **Wild Bird Trust of British Columbia** (WBT), Dr. Fred Bunnell resigned as a WBT Director. Also, because of family health issues, Wayne Campbell had to temporarily step down as an active Director for a portion of the 2004 term. Soon afterwards, the WBT Wildlife Data Centre committee [of which Fred, Wayne and Mike Preston (*Data Centre Manager*) were not appointed members] decided to close the Wildlife Data Centre.

The North Vancouver-based group decided to concentrate their activities and resources on their flagship sanctuary at Maplewood Flats and continue to participate with other stakeholders in managing and acquiring other small sanctuaries in the Lower Mainland and southern Gulf Islands.

After lengthy discussions with non-government organizations, naturalists, biologists, academics, industry and government personnel, Wayne Campbell, Mike Preston, and Fred Bunnell quickly decided to form an independent non-profit organization to continue the vision of a centralized repository for British Columbia wildlife information. That organization, called the **Centre for Wildlife Studies**, will acquire a new facility to house the **Wildlife Data Centre**, in autumn 2004. A booklet outlining the concept, future, and business plan for the non-profit organization will be distributed to all past and future contributors later in the summer. As well, a new journal called *Wildlife Afield* will be available at that time. In the meantime, we want to assure everyone that all holdings and databases are secure.

While we realize that this is a temporary delay, our initial vision for a permanent and centralized repository for provincial wildlife information is continuing. Our prototype web page is presently being reviewed by a cross section of naturalists, biologists, and agencies throughout British Columbia. Once the final format and content is decided we will begin summarizing information for the 625 species of amphibians, reptiles, birds, and mammals in the province.

In the meantime, if you have any questions or concerns please contact the Centre for Wildlife Studies at Post Office Box 6218, Station C, Victoria, B.C. V8P 5L5.

FOCAL SPECIES 2004 - BARN SWALLOW -

Barn Swallow breeding populations, especially at some traditional nesting colonies have disappeared or have been reduced to alarmingly low numbers (Table 1). Jeff Price et al., in their book *The Summer Atlas of North American Birds*, note that the Barn Swallow may have declined by 24.1 % during the period 1984-1993. This is based on Breeding Bird Survey (BBS) data collected on 2,470 routes in North America. While the quality of the

data collected on BBS's is still being challenged and interpreted, the results clearly serve as an early warning system that a species might be in trouble.



Figure 1. Barn Swallow nesting colony on Road 22, north end of Osoyoos Lake, B.C.

Table 1. Change in total annual number of nests observed at the "Road 22 Barn" near Osoyoos, 1978 – 2001. Data provided by Mark Nyhof.

Date	Nests	Remarks
1978 (June 21)	32	highest numbers recorded
1982 (June 29)	27	decline of 5 nesting pairs
1983 (June 22)	20	decline of 7 nesting pairs
1984 (June 23)	20	nesting population unchanged
1988 (June 18)	6	decline of 21 nesting pairs
1989 (June 17)	11	Cliff Swallow nesting now
1996 (June 15)	10	most young just hatched
2000 (July 2)	10	most nestlings ready to fledge
2001 (July 4)	5	most nestlings small

In British Columbia, numbers of sightings and nestlings reported each year are also showing dramatic decreases both on the coast and in the interior. The trend is alarming! Over the next year or so we will gather available information, historic and current, and start

entering details into our occurrence and nesting databases. The task may take two years before we can actually analyze the information to suggest causes for the decline. However, we have a wonderful start as our occurrence database presently includes over 30,000 records dating back 120 years.

How you can help the Barn Swallow

In 2004, please:

- Make a concerted effort to locate and record the contents of all Barn Swallow nests. Be aware that many nesting birds have now moved from farmlands to large metal road culverts.
- Visit and survey historical nesting sites and colonies. Some of these are listed in the third volume of *The Birds of British Columbia* (page 183). The present status should be recorded even if the site/colony is no longer active.
- Extract historical breeding records from field notebooks and diaries and transfer them with full information to nest cards.
- Extract historical records from field notebooks and diaries and transfer them to the Centre for Wildlife Studies data sheets. An Excel template can be sent to those people who may want to enter their observations directly in a digitized form. Personal databases can also be submitted. Finally, photocopies of field notes can be sent directly to the Centre for entry. While analysis of nest cards is important in determining a probable cause of the decline single observations collected over a long period from throughout British Columbia are important.

Send information to the Centre for Wildlife Studies
P.O. Box 6218, Station C, Victoria, B.C. V8P 5L5.

THE 2003 NESTING SEASON

Summary

More is not always better but this year it certainly was! We covered the province more thoroughly than ever before and spent more time exploring remote back roads, isolated marshes, deep forests, and uncharted lakes. The number of cards and quality of information increased significantly, as did the total number of active contributors. Many people unselfishly helped mentor and encourage new nest finders which over time is a sound investment in the future of the Scheme. As well, a record number of historical records were transferred from our archives.

Nesting conditions again varied greatly around the province. More reports of drying ponds, sloughs, and marshes were recorded on cards but in some areas, like the western Peace River region, water-levels seemed normal but many species appeared not to breed. A search of 12 wetlands with pairs of Trumpeter Swans, showed that only 40% nested, despite being present for the entire summer. A few people reported the presence of Common Loons on traditional nesting lakes but in many cases they did not breed. As a result, many sites were abandoned in July.

In the **Telkwa** area, **Evi Coulson** reported that spring was late this year with very low temperatures (-29 degrees Celsius in March) and high snowfall. Insects also emerged late. The first hot spell occurred in early June followed by rain at regular intervals until the end of July after which hot and dry weather was the norm for another 10 days. Overall the region received adequate rainfall and more sunshine than in the past 2 years.

In general, there was again widespread concern about decreasing swallow numbers and nesting success around the province. **Janne Perrin** has been monitoring **Barn Swallows** in the **Harrison Hot Springs** area and noted that the number of nests on the Spa Motel decreased from 12 active nests in 2002 to 3 active nests in 2003. We are especially concerned about the current status and future of the Barn Swallow in British Columbia and have begun a research project to examine regional trends around the province (see this year's Focal Species account in this report). Some researchers have suggested that declines may be due to global warming but we feel that the solution is more complex and may, in part, be due to spraying programs on their wintering grounds. **Pat Janzen**, who has been checking Barn Swallow nests in the **Clinton** area for many years, is also concerned about the decline.

In future annual reports we highlight a species that we feel is of concern, and will encourage contributors to make an extra special effort to find nests, check old known colonies, and dig into their notebooks for historical records.

The nesting season lasted 266 days or 73 % of the year. **Linda Van Damme** and **Wayne Campbell** started the season with a **Rock Pigeon** and **Great Horned Owl** nest on **March 7** and it ended with a **Rock Pigeon** nest found by **Cyril Colonel** on **November 27**. Long-term monitoring projects established by the Wildlife Data Centre continued this season with inventories of aquatic and terrestrial nesting colonies. Raptor nests and nest box trails were also closely monitored.

This year's total of **13,487 breeding records** representing **260 species** was the highest-ever recorded since the Scheme began in the mid-1950s. Of these, **6,634 cards** were submitted by **537 active participants** for the 2003 nesting season. Another **6,854 nests** were added to our files from historical sources.

No new species were discovered in 2003 but first nest and eggs and several significant range extensions were reported. We "lost" one breeding

species as it is now believed that the Crested Myna has been extirpated from Vancouver.

Eighteen people, active this season, accounted for 52% of all nest records. Twenty-eight species were represented by more than 100 cards and together made up about 64% of the total.

Highlights

Families and Species

No new breeding species were discovered this year so our provincial list remains at 312 species - the highest in Canada. There were many surprises and exciting discoveries this year.

Linda Van Damme found the third inland nesting of **Double-crested Cormorant** in the **Creston Valley**. The other interior sites are at Stum Lake and near Burns Lake. Linda found three nests among an active Great Blue Heron colony in a stand of mature riparian black cottonwood trees. Together with **Cyril Colonel** they monitored the progress of both species from nest building through fledging. Cyril provided incredible documentation of the colonies with a photographic report showing entire colonies as well as individual nests. This report, having the most complete photo-documentation for any colonial-nesting species in the province, provides a permanent record for this nesting event. In addition, Cyril is starting to document nesting raptors in the Creston Valley. All of these photographs will be added to the provincial **Photo-Records File**, established in 1972 by Wayne Campbell and David Stirling. Each photo will be cross-referenced to the original nest card. At present the Photo Records File contains over 4,500 catalogued images and prints.

Roger Tremblay, a Parks Branch facilitator near **Muncho Lake** and a keen birder, found a brood of **Red-breasted Mergansers** for the province's first interior record.

For the past five years **Ralph Gerein** has had a pair of Pacific-slope Flycatchers nesting in an electrical box in his garage. Each year a single clutch of eggs has been laid and a brood of young fledged. This season the first brood fledged on July 8th. By July 18th an adult was sitting on another clutch of four eggs, with ambient temperatures hovering close to 40 °C. On August 2nd two young hatched, and the following day a third. But on August 5th Ralph discovered the nest had been abandoned with three dead young and one unhatched egg. Double-brooding for the Pacific-slope Flycatcher is known only for the coast, so this is unusual for the interior of the province.

Wayne Campbell discovered British Columbia's first Canada Warbler nest with eggs near Jackfish Lake north of Chetwynd. An incubating female was flushed from the ground in a brushy roadside area by a passing vehicle. This was quite a surprise because this species is usually difficult to flush when incubating. After watching the bird from a safe distance for 20 +/- minutes she finally flew to

the ground to resume her duties. The next day a beautiful, loosely constructed cup holding 4 creamy white eggs with dots and small blotches was found. Three weeks later all young successfully fledged.

At the time of *The Birds of British Columbia* (1990) there were no confirmed breeding records for the **Upland Sandpiper** in the province. Since then a record of adults with small chicks was uncovered from historical notes at **Pinto Lake**, near Kleena Kleene in 1968, and a predated



A sample of the Great Blue Heron colony documented by Linda M. Van Damme and Cyril Colonel in the Creston Valley digital photos and nest markers



Pacific-slope Flycatcher nest in an old BC TEL electrical box.

nest with 4 eggs was located on the **Junction Sheep Range Park**, south of Riske Creek, in 1998. The most recent nest, found this summer by **Wayne Campbell**, was the result of watching a male Northern Harrier hunting over disturbed agricultural land and brushy forest clearings north of Chetwynd. While foraging the hawk flushed an agitated adult Upland Sandpiper from a recent clearing. Shortly after, her mate appeared, calling from a nearby spruce tree. Once the threat had passed the female fluffed her feathers and within 10 minutes slowly walked to the site where she was flushed. Within minutes a lovely nest with 4 eggs was found among forbs. When last seen the adults were foraging in the clearcut with four chicks.

Two unexpected species were found breeding in the lower Fraser River Valley. A **Yellow-breasted Chat** was found feeding newly fledged young near Seabird Island and a pair of **Lewis's Woodpeckers** successfully raised 2 young in a stand of black cottonwoods near Harrison Hot Springs.

Historical records continue to provide information that has been overlooked and greatly contributes to assessing and understanding changes in the avi-fauna of the province. The earliest breeding record for the **Red-breasted Merganser** has been found in the collections at the Academy of Natural Sciences in Philadelphia. In 1930, bird collector **H S Drinker** shot an adult female and her brood of 3 young on the **Yacoun River** near Port Clements on the Queen Charlotte Islands. An **American Avocet** nest discovered at **Duck Lake** in the Creston Valley in 1966 was 2 years earlier than the first nesting reported for the province.

Again, a few range extensions were reported. A pair of **Greater Yellowlegs** raised at least two young on a small beaver pond south of **Hudson's Hope**. This is the first breeding record for the Peace River region although Mark Phinney (pers. comm.) has suspected this large shorebird to be breeding around Dawson Creek for a few years. **Doug Brown** was rewarded for his tireless efforts searching for breeding birds in B C Hydro transmission corridors near Gwillim Lake when he discovered a **Dusky Flycatcher** nest with eggs. This is the first record for the

Peace River region. A species overlooked in last year's report, this record is noteworthy. A **Least Flycatcher** nest, found by **Chris Charlesworth** near **Kelowna**, contained one young and may be the first for the Okanagan Valley. There is only a handful of breeding records for this species in southern parts of the province although a range extension appears to be occurring here.

Two new nesting sites for the **Lazuli Bunting** were discovered in the **Lower Mainland** bringing the total to 9 known locations. **Trumpeter Swans** continued to slowly expand their breeding range in the western **Peace River** region.

It is always a surprise when someone discovers a **Northern Waterthrush** nest. Less than 20 have been found in the province so a nest with eggs found by **Gary Davidson**, southeast of the **Pine River** in the Peace River, was noteworthy. The **American Dipper** must now be considered a secondary cavity-nesting species. **Glen Ryder** followed adults with food in their bills along a creek in **Aldergrove**. They disappeared into an old Pileated Woodpecker cavity in a 15-foot black cottonwood stump facing the creek. The nest contained 4 small nestlings. In **Nanaimo**, **Don Blood** found a **Dark-eyed Junco** nest in a cavity in a maple tree at the unusual height of 12 m.



A rare find indeed! Gary Davidson located this Northern Waterthrush nest among the root mass of a fallen tree.

The **House Sparrow**, for some reason, is always under represented each year. **Hilary Gordon** was excited to report that this species was found nesting in **Revelstoke** for the first time since the late 1950s by veteran birders **Orville Gordon** and **Arnie Chaddock**.

Information on second and third broods for known pairs of adults is scant. In **Paterson**, 11 miles from Rossland, **June Slocombe** documented a second nesting for a pair of **Say's Phoebes**. She watched the male arrive and sing all day for 3-4 weeks before the female arrived. By June 1 the nest contained 2 newly hatched chicks and by the 17th the last young fledged. The same nest was reused and by July 2 it contained 2 nestlings. On July 10 a very young, still downy baby, was found on the ground

below the nest. She put it on top of feed bags so the female could feed it.

The previous altitudinal nesting limit of 1,000 meters for the **Common Merganser** was bettered by 600 m when **Chris Czajkowski** reported the species breeding at Nuk Tessli, west of **Nimpo Lake** for the past three years. Also in the interior, **Glen Ryder** found a pair of **Nashville Warblers** breeding on **Lichen Mountain** in the Shuswap Lake area at 1,495 m – an increase of nearly 500 m over previous reports.

Of the 51 families represented in this report, **waterfowl** (24 %), **grebes** (11 %), **gulls** and **terns** (10 %), and the **bluebirds** and **thrushes** (10 %) accounted for 55 % of all nests.

Over 100 cards were received for 27 species with four colonial-nesting waterbirds among the top 10. These were **Ring-billed Gull** (1,043 nests), **Eared Grebe** (681 nests), **Red-necked Grebe** (393 nests), and **American Coot** (380 nests). Nest box trails accounted for high numbers of **Mountain Bluebirds** (877 nests) and **Tree Swallows** (416 nests) while high numbers of waterfowl were the result of an active field season and transferring historical records from diaries and reports.

Other species with significant numbers of cards that greatly increased our holdings included **Barrow's Goldeneye** (627 cards), **Common Loon** (268 cards), **Pied-billed Grebe** (154 cards), **Ruffed Grouse** (153 cards), **Killdeer** (113 cards), **Spotted Sandpiper** (112 cards), **Peregrine Falcon** (101 cards), **Horned Grebe** (70 cards), **Gray Jay** (54 cards), **Hairy Woodpecker** (61 cards), **Long-billed Curlew** (54 cards), **Merlin** (48 cards), **Common Nighthawk** (37 cards), **Long-eared Owl** (37 cards), **Northern Harrier** (31 cards), **Western Screech-Owl** (30 cards), **Willow Ptarmigan** (31 cards), **Wilson's Phalarope** (25 cards), **White-throated Sparrow** (24 cards), **Golden Eagle** (24 cards), **Northern Goshawk** (23 cards), **Bobolink** (18 cards), **American Bittern** (12 cards), **Red-throated Loon** (11 cards), **Rock Ptarmigan** (11 cards), **Broad-winged Hawk** (5 cards), and **Surf Scoter** (2 cards).

Coverage

Six major regions of the province received almost total grid coverage. These included the Queen Charlotte Islands, Vancouver Island, the south-west

mainland coast, the entire south-central portion of the province from Prince George south to the international boundary, the southern Rocky Mountain Trench, and the Peace River region.

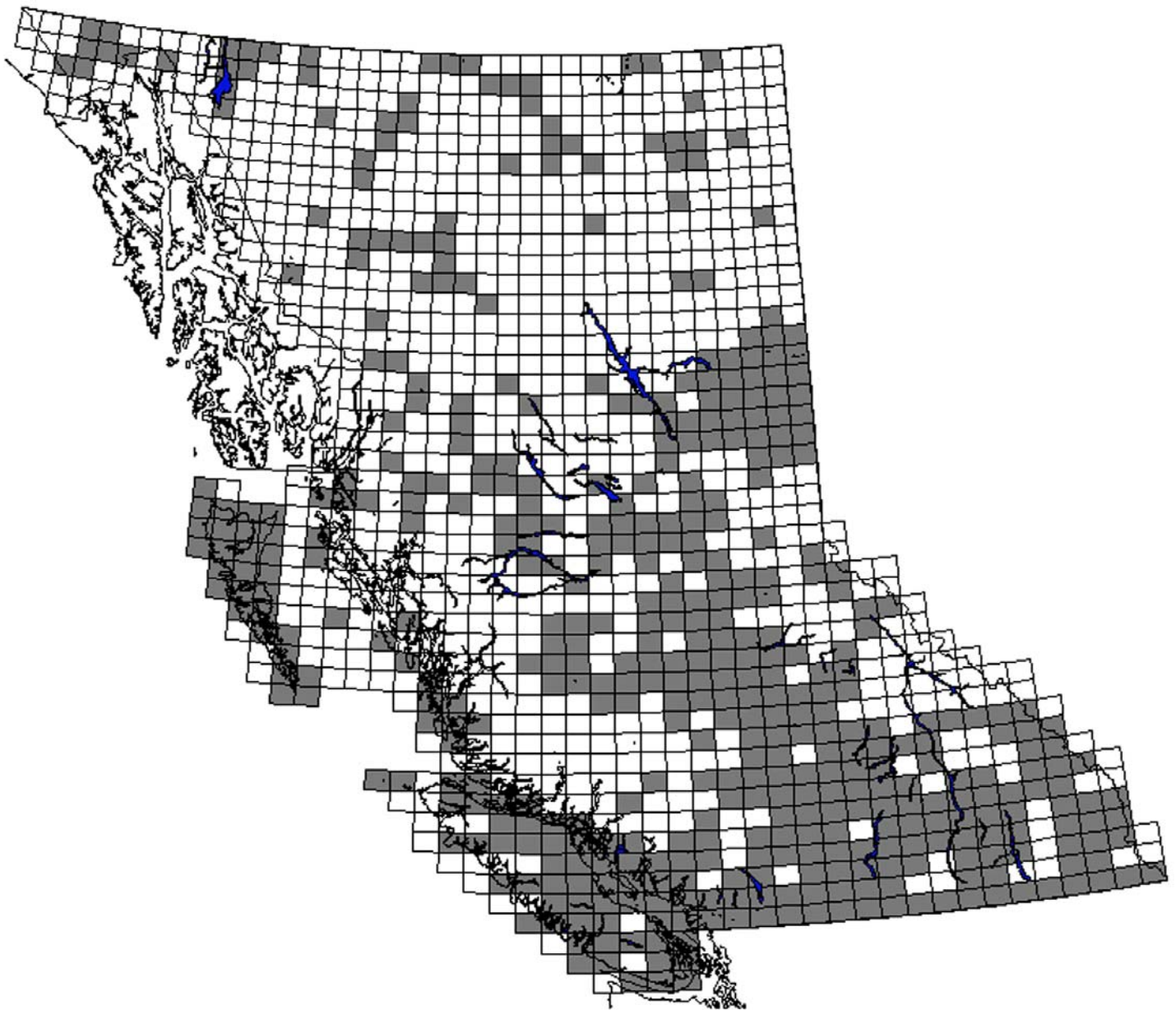
Within these areas most cards were received from widely separated areas across the southern third of the province and the western Peace River region. Remote forested regions of Vancouver Island were again well covered thanks to the efforts of **Mike** and **Joanna Preston** and **Mark Nyhof**. The western portion of the Peace River region, including the vicinity of Hudson's Hope, Chetwynd, and Tumbler Ridge, received the best coverage ever. Nearly 750 nests were located between May and July by **Doug Brown**, **Nick Ratzinger**, **Chris Siddle**, **Gary S. Davidson**, **Sandra Kinsey**, **Laird Law**, **Gerald Pringle**, and **Wayne Campbell**. Many of these nests included follow-up visits.

For many years, while living in Nelson, **Linda Van Damme** wanted to spend an entire nesting season, from February to September, investigating breeding birds of the Creston Valley. This year she and her farmer friend **Cyril Colonel** thoroughly combed the marshes, farmlands, and forests. By the end of the season they both realized that the task was immense and that it will probably develop into a 5-year project.

Chris Charlesworth made sure the central Okanagan Valley was well represented by visiting a wide variety of habitats from transmission corridors and city parks to sagebrush flats and high elevation forests. **Sandy Proulx** continued his thorough coverage of the **Quesnel** area with his extensive nest box trail. This season he submitted nearly twice as many **Mountain Bluebird** and **Tree Swallow** cards than last year, and spent more time searching for other nests while checking his boxes. And his efforts were rewarded with nests of **Vesper Sparrow** and **Western Meadowlark**. **Doug Brown** once again got into the spirit of nest finding by crawling on his hands and knees searching through patches of bramble, methodically walking the edges of forests, and wading in wetlands. As he travelled throughout the province, including the **Sunshine Coast**, **Queen Charlotte Islands**, and western **Peace River** region, he always stopped to get direct counts of breeding waterbirds. His cards were among some of the most complete we received.



The Ring-billed Gull was the most frequently reported nesting bird in 2003



Provincial coverage for the British Columbia Nest Record Scheme in 2003.

Hilary Gordon continued her coverage of the **Shuswap Lake** area, while **Chris Czajkowski** visited her remote alpine retreat in the Cariboo-Chilcotin region. **Hilary** and **Orville Gordon** searched little known areas along backroads near **Chase**, **Pritchard**, **Valemount**, **Little Fort**, and **Clearwater** and filled out cards for their brief visit to **McQueen Slough** near Dawson Creek. **Chris Charlesworth** needed a break from nest-finding in the Okanagan Valley so he took a short trip to the Peace River recording nests and broods along the way. The **Swan Lake Christmas Hill Nature Sanctuary** in Saanich was again well covered by **Geoff Barnard** who this year added considerable habitat information to his cards. The **Mackenzie** area was in good hands and represented by **Vi**, **John**, and **David Lambie**.

In total, **490 grids** were represented – an **all-time high** for the Scheme. The total increased 10 % (46 grids) over the 2002 total and showed that over 42% of all British Columbia grids were covered in this report. The top 10 general localities for both current and historical cards included the **Salmon Arm** and **Shuswap Lake** area (1,229 nests), **Creston Valley** (896 nests), **Fort St. John** (620 nests), **Vernon** (528 nests), **Surrey** (419 nests), **Okanagan Landing** (366 nests), **Riske Creek** (333 nests), **105 Mile House** (329 nests), **Penticton** and **Okanagan Falls** (297 nests), and **Quesnel** (234 nests).

Participants

We received a statement from one contributor with his cards that mentioned “not a terribly interesting

set of cards but I guess they all add to the database.” They certainly do and we fully appreciate and acknowledge that every card is useful. We can never go back in time to get information that we may require in the future.

Nineteen individuals spent a considerable amount of time afield, knowing that when the season was over the writing begins. Naturalists with writers cramp included **R. Wayne Campbell** (1,719 nests), **Hilary** and **Orville Gordon** (955 nests), **Sandy Proulx** (942 nests), **Linda M. Van Damme** (673 nests), **Chris Charlesworth** (485 nests), **Glenn R. Ryder** (435 nests), **Mark Nyhof** (379 nests), **Doug Brown** (288 nests), **Vicky Atkins** (223 nests), **Mike** and **Joanna Preston** (219 nests), **Gary S. Davidson** (213 nests), **Edward Hillary** (161 nests), **G. Allen Poynter** (135 nests), **Beverly H. Butcher** (112 nests), **Chris Siddle** (108 nests), and **Alice Beals** and **Vicky Atkins** (105 nests).

Hilary Gordon and **Linda Van Damme** continued to be faithful promoters of the BCNRS in the Shuswap Lake and Creston Valley areas respectively. At the same time they encouraged others to increase the quality and completeness of the information being recorded. In the North Okanagan, **Vicky Atkins** enlisted **Alf** and **Lloyd** to help look for nests this year making it a true family affair. At the same time, Vicky was always looking for new contributors. At **Williams Lake** **Steve Howard** encouraged birders like **Kris Andrews** to get involved in the Scheme. In the **Vanderhoof** and **Germansen Landing** areas, **Emily Müller** got her brothers and sisters, **Scott**, **Sarah**, **Naomi**, and **Heidi**, involved in helping find and check nests.

Janice Arndt spent time sharing the thrill that two young girls had in finding a **Chipping Sparrow** nest in **Prince George**. With her guidance, the girls recorded what they had discovered. Janice writes “ The girls who helped fill out these cards (my daughter **Bethany** and her friend **Robyn Edgar**) are each 7 years old. Robyn was living in Prince George and was so excited because she had a nest to show us when we came to visit. They enjoyed drawing the pictures – interesting to see their different perspectives. Robyn went back the following week to try to find out what the nest was made of, but the school gates were locked on that day, and her family moved away from Prince George shortly after.”

Glen McInnes, who was among the earliest contributors to the BCNRS when it started in the mid-1950s, received a copy of our 2002 report and decided to start contributing again. He wrote, “My wife and I will enjoy getting back into sending you information on proper cards and observation forms, not only for this year but going back previous years, based on records I have kept.”

Laurie Rockwell continued his personal research project on **Gray Flycatchers** near Summerland. Between April 21 and July 27 he made 11 6-km trips into the woods to look for nests and birds. **Morgan Anderson**, who is a busy undergraduate student at the University of Northern British Columbia,

still found time to look for nests and broods while travelling from her home in Nelson to school in Prince George. **Charles Helm** and his son **Daniel** found all three **ptarmigan** species breeding in alpine areas near Tumbler Ridge. **Beverly H. Butcher** (Williams Lake), **Vic Cousineau** (Creston), **Sandy Proulx** (Quesnel), **Lloyd** and **Vicky Atkins** and **Alice Beals** (north Okanagan Valley), and **Dirk Rinehart-Piddock** (Kaslo) continued their commitment to monitor nest boxes for Mountain and Western Bluebirds, Mountain Chickadees, House Wrens, and Tree and Violet-green Swallows. While travelling around Vancouver Island, **Mark Nyhof** checked abandoned and active gravel pits for **Belted Kingfisher** activity. At the end of the summer he actually had determined the contents of 12 nests using a flashlight. He also located five **Mew Gull** nests on different lakes. In Victoria he monitored 12 **Barn Swallow** nests at the University of Victoria.



A Mew Gull nesting island on Nahmint Lake, Vancouver Island.

Kris Andrews became intrigued with a pair of **Red-necked Grebes** and **Common Loons** nesting on **Williams Lake**. She watched them from her window, almost daily, and provided detailed notes on their outcome.

Linda Van Damme's summer of nest finding in the **Creston Valley** was exceptional. She found 673 breeding records for 72 species with notable numbers of **Red-necked Grebe** (43), **Wood Duck** (17), **Canada Goose** (59), **Redhead** (20), **Osprey** (24), **Killdeer** (9), **Tree Swallow** (74), and **European Starling** (44).

We welcome the following **29** participants who have submitted nest cards for the first time: **Kris Andrews**, **Bethany Arndt**, **Justin Arndt**, **Heather Baines**, **Arnie Chaddock**, **H. Churchill**, **Dan** and **Connie Chapman**, **F. Foster**, **Allan Fraser**, **Robyn Edgar**, **Jenny Goshaluk**, **Gwen Greenwood**, **David Helm**, **J. James**, **Neil Jenkins**, **Bill King**, **Jim Lawrence**, **Isabel McInnes**, **Daryl McNab**, **Arthur Morris**, **Heidi Müller**, **Naomi Müller**, **Sarah Müller**, **Scott Müller**, **John Norris**, **Karl Perrin**, **Daryl Torres**, and **Helga Vrabac**.

Quality of Information

Filling in the Blanks

Please remember to print or write legibly within the spaces and use dark ink, not pencil. The 4-letter code (see WBT Wild Bird Trust of B. C. Wildlife Report No. 2 – *Common and Scientific Names, Sequence 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).

Whenever possible, please try to describe the stage of development for nestlings (e.g., eyes closed, naked young, some down on head, pin feathers, left nest, etc.) or the estimated age of downy young, (e.g., loons, grebes, seabirds, waterfowl, grouse, and shorebirds). **Allen Poynter** included all such information on his cards.

Please refer to **Appendix 1** for drawings for different stages of development.

Comments provided by **Alice Beals** and **Allen Poynter** on the back of cards were very helpful in understanding the success or failure of some of her nests. For example, some comments included “field sprayed”, “weather extremely hot”, “box not shaded”, or “miserable cold weather.”

Some contributors are beginning to put GPS coordinates or UTM scores on cards. The more precise the location the more valuable the record. **Don Blood** added the street address as well as precise latitude and longitude co-ordinates on all of his cards.

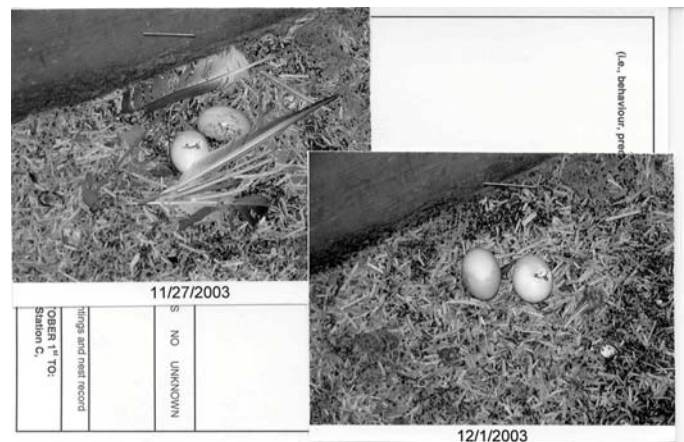
All species that lay eggs in the nests of other species, such as Brown-headed Cowbird, Redhead, American Coot, Lesser Scaup, and Ruddy Duck, should have two cards filled out.

Prints and Diagrams

More contributors than usual included a sketch on the back of a card showing the precise location for a nest as well as the exact location for major colonies. These are very helpful to have on file and become more useful with time as habitat changes.

Colour prints or slides accompanied some cards, including the actual nest site, general nesting habitat, adults and young in and out of the nest, and mortality of eggs and young. Each photo is filed with its respective card and later will be cross-indexed to the B C Photo File. Examples of photographs received include **Northern Waterthrush** (nest and young - Gary S. Davidson), **Herring Gull** (chicks at Scout Island) and

Chukar (foot prints in sand) - Steve Howard), **Solitary Sandpiper** (Karen Wiebe), **Barn Swallow** (Glen McInnes), **Great Horned Owl** and **Pygmy Nuthatch** (nests - Lloyd & Vicky Atkins), **Upland Sandpiper** (breeding habitat near Chetwynd - Wayne Campbell), **Red-tailed Hawk** (nest - Janice Arndt), **Mourning Dove** (ground nest site – Laurie Rockwell), **Gray Squirrel** (nests and mammals – Jennifer Bergen and Don Young), **Clay-colored Sparrow**, **Swainson’s Thrush**, **Dusky Flycatcher**, **Spotted Sandpiper** (Chris Charlesworth), and **Western Grebe** (chick on back of brooding adult **Red-necked Grebe** - Linda Van Damme).



Cyril Colonel attached photos from his digital camera and printer to dozens of his nest cards, including this one of a late, yet failed, **Rock Pigeon** nest in late November

Repeat Visits

Each year more people are realizing the significance of repeat visits to nests. This is a very encouraging trend because we can never go back to a nest for more information. We get one chance and we should make every effort to maximize the information we can get. Again a huge effort was expended this year.

In the north Okanagan **Lloyd** and **Vicky Atkins** followed a **Great Horned Owl** nest, from start to finish, with 30 regular visits. The number of well-timed visits for each nest found by **Jennifer Bergen** and **Don Young** ranged between 6 and 21. Near **Enderby**, **Helga Vrbac** provided good details of a nesting pair of **Bald Eagles** that she watched from January through late July. UNBC student **Morgan Anderson** visited a **Chestnut-backed Chickadee** nest in an apple tree 18 times to study its nesting behaviour.

Willie Haras made 12 well-timed visits to a nest box in **Kamloops** in which **Mountain Chickadees** raised two broods. They started building on April 14 and fledged their second clutch on July 20. **Glen McInnes** observed an **Osprey** nest near Mission over the summer and attached an extra page of behavioural observations to the nest card.

Many others, especially those involved in thorough coverage of specific areas (e.g., Creston Valley and Kelowna) or specific projects (e.g., bluebird trails, Ospreys, and raptors), carefully planned repeat visits to get additional information on clutch size, brood size, and fledging success. This important dataset was enhanced by the efforts of **Doug Brown, Clifford Day, P. Ray Williams, Wayne Campbell, Chris Siddle, Cyril Colonel, Vic Cousineau, Ed and Monica Dahl, Gary Davidson, Sandra Kinsey, Laird Law, Vicky Atkins, Alice Beals, Mike and Joanna Preston, Sandy Proulx, Chris Charlesworth, Geoff Barnard, and Linda Van Damme.**

Negative Information

Completing cards for species that have traditional nesting sites such as raptors, colonial-nesting swallows, swifts, waterbirds, colonial marine birds, and loons can be helpful in interpreting changes in distribution, effects of weather on breeding activities, chemical contamination, and disturbance. For example, many Trumpeter Swans were present all summer throughout the Peace River region this season but for some reason most did not nest. In 2002, the nesting population was 35% higher. A card was completed for each known site in 2002 and added to our files with the 2003 updates. The cards, of course, were not included in annual totals.



Morgan Anderson painted this rendition of a Swainson's Thrush in its interior B.C. nesting habitat.

Notes from the Field

Each nesting season, unusual, sensitive, or heart-wrenching events occur that should be shared with others. Here are some of the stories that were favoured this year.

No Chores Today

Need a good excuse not to do chores. **Daryl Torres** has the answer. She relates a story of her neighbour's experience with a determined **American Robin** who chose to build her nest on a weed-eater

hanging on the back of a pumphouse. With an acre of unruly cottonwood seedlings bursting from the ground, her neighbours were not keen to wait until the robin laid eggs and raised her young. So they moved the nest to a new location a foot away. In no time a new nest appeared on the weed-eater since it was hung in exactly the same place. This time her neighbours accepted defeat and resigned themselves to life without a weed-eater until the family of robins took wing.

The Arsonist Osprey – A Rural Myth!

In the summer of 2003, humans started more than 100 of the forest fires in British Columbia. In the South Okanagan, the Anarchist Mountain fire was attributed to hot brakes on a vehicle coming down the mountain. Lightning started the Okanagan Mountain fire. The **Vaseux Lake** fire was roaring along Hwy 97 and into the hills to the east when the media said that an **Osprey's** nest on a power pole had caught fire and dropped burning twigs on the ground. Some might think this is just another case of smoking in bed, but the media meant that twigs had touched the two wires, causing a short that set the twigs afire.

Jim Ginns was perplexed because there was no known Osprey nest in the area. A few days later the media reported that a live Osprey, on touching two live wires, had been fried. But the idea of a flaming ball of feathers falling to the ground made Jim even more skeptical. One could say that idea stunk!

Then in November a plausible explanation was making the rounds. Because the Okanagan Mountain fire had cut a major powerline, there was excess demand on the powerline east of Hwy 97 along the lake. As a result, the line was sparking and dropping hot sparks to the dry grass below. People living near the Vaseux Lake campground had already snuffed out several of the small blazes, while the Aquila Power Co. was attempting to solve the problem. But one spark got away and led to a large army encampment and six yellow Duck water tankers near Okanagan Falls. The tankers flew over Christie Beach at tree top level to scoop water and swing away to the east to bomb the fire. The Osprey was acquitted.

Winter Weight Gain?

Prue Spitman of **Surrey** observed a **Black-capped Chickadee** pecking away at the entry hole of a nestbox on February 11. This behaviour was not new to her, but the unusual thing she noticed about this particular bird was that after numerous attempts it was unable to enter the box. Since the box had been used successfully in the past, Prue decided it was clear that her little visitor was rather "round". She asked herself "could it be with the mild winter and abundance of food (which she was guilty of providing) that the birds were carrying more fat than they normally would after a long cold winter?"

From Tooth Cavity to Building Duct

On July 15, while in the dentist's chair between freezing and filling, **Allen Poynter** was able to look out of a window onto the back of buildings in **Parksville** and collected Nest Record Card data. He watched two pairs of adult **House Sparrows** entering a wall through a small vent duct to feed their young. He relates, "I couldn't believe I was really doing it."

Snuggled in for the Evening

Sometime ago **Jim Patterson** found a **Swainson's Thrush** nest on a dense forested slope in the **Slocan Valley**. On July 23 the unusually deep nest was empty and three days later an adult thrush was sitting on the nest. He rechecked the nest again on July 28 and was surprised to find two Winter Wrens huddled together deep in the nest. They had apparently spent the night in the nest as their droppings dotted its edge. One wren was still using the nest as an evening roost on August 2.

Rescued by a Bush Pilot

In far northern BC a helicopter pilot returning to base one day noticed a boldly marked bird with two breast stripes displaying frantically on his landing pad. He suspected the bird was nesting so he carefully searched the gravel base and soon found four eggs in a shallow nest. He immediately set up a mitigation protocol. Before he took off and returned the ground crew had to put a wooden crate over the **Killdeer** nest to prevent it from being crushed or blown away. All four eggs hatched but the babies may need hearing aids later in life!



A Killdeer feigns injury to lure potential danger away from the nest or young.

Persistent Cowbird (s)

An old letter discovered in our archives from **Violet Gibbard** in 1966 tells of the frustration of dealing with **Brown-headed Cowbird** parasitism in **Naramata**. On

July 8 Violet discovered a lone Brown-headed Cowbird egg in a **Lazuli Bunting** nest. She removed the egg but found 2 more in the nest on the July 11th and 3 more on the July 13th, all of which were removed. Single eggs were also removed on July 25th and 31st and on August 2nd. Finally, on August 3rd the cowbird (or cowbirds) gave up after laying 9 eggs. The Lazuli Buntings never did use the nest.

A Versatile Predator

While burning one of his hayfields in the **Creston Valley**, **Brad Studer** discovered a **Bald Eagle** defending its cache of prey piled up on the ground. He identified the remains of 7 young Ospreys, 1 racoon, and a coyote pup. Another farmer in the area had actually seen an eagle earlier in the week snatch a young Osprey from its nest.

In another part of the Valley, a different Bald Eagle was busy preying on other birds. In May, **Linda Van Damme** was alerted to the alarm calls of **Great Blue Herons** and **Ospreys** coming from a nearby heronry. She scanned the nests and found an immature Bald Eagle tugging at a young heron in the nest. Six adult Ospreys circled and dove at the eagle as it mantled its prey. Then the herons fell silent. As soon as the eagle had plucked its prey and gorged on its meal it flew off, pursued by an Osprey.

Caring Trucker

In early April, while working in the industrial area of **Annacis Island** in the Lower Mainland, a truck driver noticed an agitated **Killdeer** dragging its body over a gravel parking lot. He reported the odd behaviour to staff at the Wildlife Rescue who informed him that the broken wing act was an attempt to lure him (and his truck) away from its nest. After a short search the truck driver found the nest, carefully scooped it up in a shovel and transplanted it 20 feet away to a safe area. He happily reported that the chicks hatched April 13 and quickly moved to a grassy area to feed.

Submarine Clutch

M. N. Jackson found a **Killdeer** nest with 4 eggs on the lower beach at **Fanny Bay**, Vancouver Island, in early June. She was concerned that high summer tides might not give the female a chance to complete incubation duties. She watched helplessly as the eggs were submerged by high tides for 1 ½ hours a day for 5 consecutive nights. The female continued to sit on her eggs between high water levels and it paid off; all hatched and departed for higher ground.

Nest Cleaning?

Gary Davidson has been monitoring **Osprey** nests in portions of the **West Kootenay** for the BCNRS for many years. On August 10 he checked a nest that earlier

contained 3 large young that should have fledged. He noticed an adult Osprey arrive at the nest with a stick and began working it into the nest structure. Then the adult was observed tugging on something heavy in the nest. Gary was able to see one full-grown young dead in the nest that the parent was trying unsuccessfully to drag off. Eventually the Osprey abandoned the effort and flew away.

It will be noteworthy to find out if this nest is used in the 2004 season.

Yeeeeouch!

Loraine Scott and **Sharon Laughlin** were quietly canoeing along the shore of **Vaseux Lake** when a pair of **Canada Geese** and their downy yellow goslings left their roost on shore and walked into the water and swam away. Suddenly, they noticed that one gosling was swimming in circles unable to follow the family. Thinking that it might be injured Lorraine and Sharon went to investigate. While lifting the "fuzz ball" into the canoe they were surprised to see a prickly pear cactus stuck to its bottom. The cactus was removed and the gosling swam off to join its family.

Owl versus Coyote

While walking through fields near **Celista** in very early May naturalist **Glen Ryder** heard a commotion and noticed a **Great Horned Owl** on its back defending itself from a **coyote**. Everytime the coyote tried to get close to bite the owl's body it was met with clutching talons and a biting beak. After a few painful strikes on its nose the coyote gave up on the meal and ran off into the woods. The owl's feathers looked badly messed but after a few good shakes of its body everything was back in order and the bird flew back to its nest in the nearby aspen woods.

Whose Nest is this Anyway?

For the past three years in early January **Donna Hill** watched a pair of **Bald Eagles** adding a few sticks to their nest built in a 400 year old tree at the edge of a trout-stocked reservoir in **Nanaimo**. It wasn't long before a pair of relentless resident Common Ravens noticed the nest and drove the eagles away. Then in March a pair of **Osprey** returned and became interested in the nest. They continually dived at the nesting ravens and successfully drove them from the nest site.

Surprisingly 3 Ospreys were seen at the nest for extended periods and 2 males were observed copulating with the female. Two young were successfully raised but one wonders what their DNA profile would show?

No Place Like Home

Early in the spring 2002 **Janice Arndt** was thrilled to find a pair of **Pileated Woodpeckers** starting to excavate a cavity in an aspen just a few hundred metres from her home. Knowing that woodpeckers often begin

excavating more than one hole prior to nesting she waited to see if this would be the one to raise a family. Indeed, after the pair had worked for 3 weeks the female laid her eggs and the pair began the long task of incubation. Incubation shifts changed to feeding bouts and soon 2 healthy chicks were begging food from the nest entrance. The female nestling left the nest on June 21 or 22 and the male flew for the first time precisely at 0700 hrs on June 23.

During early April 2003 Janice scoured the woodland for her woodpeckers and on the 10th she discovered the birds beginning a new nest hole in the same tree used the previous year. Diligently they worked on the hole for 19 days and then suddenly everything became quiet for another 2 weeks. To her amazement the Pileated Woodpeckers were incubating eggs in the old cavity. Janice checked literature and learned that individuals of this species rarely re-use a previous cavity. She also found it remarkable that the male nestling in 2003 left the nest between June 21 and 24, the same period as in 2002.



Bald Eagles are often loyal to their nests, using them for many years, adding a few sticks each time.

Surprise on the Farm

On a farmland morning of April 30 in the Creston Valley **Cyril Colonel** climbed into the seat of his tractor that had been idle all winter. As the tractor fired up he noticed something flew out of the exhaust pipe. Jumping down he searched the ground and discovered the remains of an **American Robin** nest with 4 broken eggs that were close to hatching. Two days later Cyril returned to the tractor, started it up and again, and more nesting materials spewed out of the pipe. Not deterred it appeared that the robin had started a replacement nest.

Cyril, and other farmers in the Creston Valley, now have plans to check all exhaust pipes on machinery at spring start-up.

Hummingbird Colony?

How many nests constitute a colony? In the hummingbird world how about 2!

K C Smith discovered a **Calliope Hummingbird** nest with 2 eggs in a birch tree near **Tamarack Lake**, in the East Kootenay, on June 13. While checking the nest another hummingbird always created a fuss. Four days later **Glen Ryder** found a second nest containing 2 eggs in the same tree only 7 feet away.

Both nests were successful. Glen reported that he had always believed that a female hummer “would never stand for a second female in her nesting area.”

Marsh Playpen or Home?

Janice Arndt and her family know that **Great Horned Owls** typically lay their eggs in the old nests of other large birds and sometimes in the broken tops of old trees. It was a complete surprise then when they discovered an adult Great Horned Owl with a large downy young on a goose-nesting platform in the middle of a cattail marsh in the **Creston Valley** on May 19. The youngster was confined to the “box” so to speak until it was ready to fly. When temperatures soared to 30 degrees Celsius during the third week of May its parent spent much of the day shading its baby with spread wings. By the end of May the young owl took flight to solid ground where it was found roosting beneath a dogwood shrub.

Floating Nest

Each year **Ospreys** nest on wooden pilings in **Carpenter Lake** north of Pemberton. BC Hydro controls the water level here and some nests become perilously close to being flooded. This year a nest built on a piling had to be cut free as water started to flood the eggs. The now floating structure was towed back and anchored near the original nest site and the Ospreys continued their nesting season and successfully raised 3 young!

Chickadees Don't Read the Books

On February 23 **George Clulow** noticed a lot of **Black-capped Chickadee** activity in his yard in **Burnaby** so he decided it was time to clean out his nest box. He tugged at the box, removing it from its support and peered inside to find 5 eggs. He assumed that the clutch was left over from last year but he noticed 2 cracked eggs and one with a fresh well-developed embryo. Initially he felt surprised, then sick and somewhat annoyed with himself for damaging the eggs.

George calculated that the eggs were probably laid on the 10th or 11th of February, two weeks earlier than the earliest date of March 2 listed in *The Birds of British Columbia*.

Cranes and Clever Coyotes

This year a pair of **Sandhill Cranes** attempted to nest in the **Creston Valley**. In the early spring they could be heard trumpeting loudly and observed carrying billfulls of dry grasses as part of their elaborate courtship behaviour. It wasn't long before a wandering **coyote** caught notice of the birds and was watched slinking toward the nest site. When the coyote barked, the cranes jumped up loudly to protest the intrusion and the coyote trotted away.

But the coyote remembered the event and returned to the area another day. It boldly walked to a spot in the wet meadow and hunkered down in an eating position amidst the frantic calling and jumping of the parent cranes. Did it find eggs or young?



Among the many mammalian predators of bird nests, the Coyote is a common one.

A Heavy Sibling?

Chris Charlesworth was excited to find a **Dusky Flycatcher** nest near **Kelowna** but was not overjoyed to learn that it contained a big, fat, Brown-headed Cowbird chick. The next day the cowbird chick had fledged but he discovered another smaller, pink and unfeathered chick, with large bulging eyes, being brooded by the female flycatcher. He was astonished that the flycatcher chick had survived under its much heavier interloper.

Burned Home Replacements

The summer fires in BC's interior destroyed thousands of natural nest sites and threatened power poles and other electrical structures. Habitat biologist **Rick Howie**, who monitors **Osprey** nests in the **Thompson-Nicola** region of the province, contacted B C Hydro concerning nest losses on poles that had to be replaced for safety reasons. As tired as the Hydro crews were, they installed new nesting platforms on all poles that had Osprey nests before the fires. As Rick said, “It

is a benefit to Hydro employees to learn to live with birds as opposed to trying to discourage them so everyone wins in the end.”

A Second Chance

In the late summer of 2002 a pair of injured **Barn Owls** were brought to a Lower Mainland rehabilitation centre for care. Over the winter and spring the owls gained strength and weight and on June 14 they were banded and released in a barn in **Richmond**. The following year, on June 5, the pair was proudly attending 6 eggs and 3 nestlings in the same barn. By September 4, 3 young were still roosting in the barn.

Water –The Substance of Life

On July 22 a **Pied-billed Grebe** nest with 6 eggs was found in a drying marshy bay of a much larger wetland near **Chetwynd**. At the time, the nest was in 6 inches of water and the eggs were about half incubated. At the rate of evaporation the eggs would be high and dry in a few days. **Bob Roberts**, a local hunter and trapper, returned to the area and dug out a small winding water channel that connected the nest to the nearby deeper wetland. On August 15 he reported watching a brood of 4 youngsters busy feeding with their parents among pond lilies with other waterbirds.

Owls in a Hubcap

Lloyd and Vicky Atkins have an adopted **Great Horned Owlet** that was the product of an unfortunate set of events. When they heard that a local farmer in the **Vernon** area was insisting on moving hay bales in which a family of Great Horned Owls had built a nest, they investigated. The hay bales were stored in two large open-sided hay sheds that are about 40 feet apart. As they approached the nest site one adult flew from the bales in the north shed to support rafters in the south shed joining its concerned mate. The nest was about seven feet from the ground and about three feet inside a 10-inch gap between the hay bales. There were four warm eggs in the nest. The Atkins quickly left and were pleased to see the brooding owl return to its nest.

The results of doing nothing would result in the destruction of the nest. A plan to move the nest, which in hindsight was naive, seemed the only option. The plan was to make a hay-bowl nest in a low wooden crate and then transfer the eggs. The portable nest would then be incrementally moved over a matter of days and finally be attached to a wooden structure of the hay shed. The plan was implemented but unfortunately the owls rejected it. Perhaps the first move was too far from the original nest or perhaps any move would have been too much as far as the parents were concerned. After two days, on March 6, the Atkins returned to the portable nest to find four frozen eggs.



In years with low water levels, wetland nesting species are at risk of failing to breed successfully due to drying.

Several days later the Atkins noticed what they took to be one of the hay-shed owls in a tree copse nearby. Beneath the roosting tree were numerous pellets. A new plan was hatched. A large plastic hubcap was modified with holes for water drainage and Virginia creeper vines were shaped as a bowl and then attached to the hubcap with electrical wire. Hay from the rejected portable nest was added to this nest. On March 24 the hubcap nest was attached to supporting branches in the tree in which the owl had been spotted. Several days later Lloyd and Vicky were elated to see the owl sitting in the hubcap nest. They tracked the slow incubating progress and just as a watched kettle seems to take forever to boil, a brooding owl also seems to suspend time. Finally, two small woolly heads were spotted protruding from their mother’s feathers on May 14. Later, disappointment would return when the two owlets became one. At last observation, the surviving owlet was large enough that the youngster should have a reasonable chance at fledging.

Although Lloyd and Vicky feel they failed miserably in their first attempt with the portable nest, watching the growth of their “hubcap” owlet was a rewarding experience indeed. Perhaps others may also be rewarded if they place a similar type of nest in an area frequented by Great Horned Owls.

Historical Information

The never-ending task of extracting breeding information from government and consultant reports, field notes, wildlife surveys, correspondence, museum catalogues, naturalist club newsletters, books, and scientific journals continued. The effort has uncovered a

few real surprises such as a pair of **Upland Sandpipers** nesting at Pinto Lake, in the Cariboo, in 1968 and an earlier record of an **American Avocet** on eggs at Duck Lake in the Creston Valley.

Occasionally people find time to transfer nesting information from earlier field notebooks or personal surveys. Prior to departing for Tasmania for a year, commencing in 2004, **Gary Davidson** transferred his **Osprey** nest survey results from 1996 to 2003 for the West Kootenay region. All cards contained detailed information including nest numbers with GPS locations. In addition, while packing, he discovered his 1999 cards that he thought had been sent in.

All breeding records have now been transferred from 225+ issues of the **Muskrat Express**, the newsletter of the **Williams Lake Field Naturalists**. Although the information is not as complete as what would be recorded on nest cards at the time of discovery, the long-term information still adds value to our files. Pulling out breeding records from the **Victoria Naturalist** (Victoria Natural History Society) and **The Wandering Tattler** (Vancouver Natural History Society) has recently commenced.

MUSKRAT EXPRESS
 WILLIAMS LAKE FIELD NATURALISTS
 JANUARY 1980



Journals like the **Muskrat Express** are an important source for historical nest records.

The catalogues of seven North American museums with British Columbia holdings containing breeding information were searched. Although not yet complete, information was transferred from the **Field Museum of Natural History** (Chicago – A C Wilk and R A Cummings on the Queen Charlotte Islands in 1930 and 1940), **Florida State Museum** (Gainesville – C F

Newcombe for Seabird Rocks in 1892), **Museum of Vertebrate Zoology** (Berkeley, CA – H S Swarth for Nootka Sound, Kispiox Valley and Flood Glacier in 1910 and 1919), **National Museum of Canada** (Ottawa – William Spreadborough for Richter Pass in 1905), **University of Michigan Museum of Zoology** (Ann Arbor – F M Carryl and R M Stewart for Masset and Port Simpson 1916 and 1939), and **United States National Museum** (Washington – C R Young and R R MacFarlane for Arrowhead and Fort St. James in 1889 and 1909).

The extensive field notes and reports of the late **James A. Munro**, our Chief Migratory Bird Officer in the first half of the 20th Century, continue to be searched and will so for the next several years. This year we transferred nearly 900 breeding records to our cards. Most of these represent waterfowl but during his annual brood counts he also recorded **Black Tern** colonies, **American Bittern** nests, grebe and blackbird colonies, and rails.

Thirteen years of notes (1964-1976) from the daily logs of biologist **Ralph W. Ritcey**, while visiting Kamloops, Wells Gray Park, Clinton, Cache Creek, and Barriere, were transferred to cards.

Ian D. Smith extracted a large number of **Peregrine Falcon** cards from a report on the **Queen Charlotte Island Falcon Survey**. The 163-page document summarized all known aerie sites through 1975.

Other significant numbers of historical records that were extracted from reports and put on our nest cards included **Ducks Unlimited Canada** (148 cards), **Allan C. Brooks** (121 cards), **Charles J. Guiguet** (100 cards), **Winifred Bennie** (89 cards), **Walter S Maguire** (89 cards), **Canadian Wildlife Service** (75 cards), **Ian McTaggart-Cowan** (73 cards), **S. J. Darcus** (59 cards), and **David A. Munro** (59 cards).

Next year we will start transferring breeding information from the summer reports of park naturalists who worked with B C Parks in the 1960s and 1970s, more early bird collectors, and consultant reports.

List of Species with Total Breeding Records by Family

Family Gaviidae – Loons (279) : Red-throated Loon – 11, Common Loon – 268

Family Podicipedidae – Grebes (1,457) : Pied-billed Grebe – 154, Horned Grebe – 70, Red-necked Grebe – 393, Eared Grebe – 681, Western Grebe – 158, Clark's Grebe – 1

Family Hydrobatidae – Storm-Petrels (20) : Fork-tailed Storm-Petrel – 13, Leach's Storm-Petrel – 7

Family Phalacrocoracidae – Cormorants (19) : Double-crested Cormorant – 16, Pelagic Cormorant – 3



Grebes were among the most common nesting family this year with 1,457 cards submitted.

Family Ardeidae – Bitterns, Herons, Egrets, and Night-Herons (128) : American Bittern – 12, Great Blue Heron – 106, Green Heron – 10

Family Cathartidae – New World (American) Vultures (2) : Turkey Vulture – 2

Family Anatidae – Geese, Swans and Ducks (3,202) : Canada Goose – 549, Mute Swan – 11, Trumpeter Swan – 7, Wood Duck – 106, Gadwall – 98, American Wigeon – 123, American Black Duck – 1, Mallard – 519, Blue-winged Teal – 47, Cinnamon Teal – 6, Northern Shoveler – 85, Northern Pintail – 10, Green-winged Teal – 118, Canvasback – 28, Redhead – 29, Ring-necked Duck – 50, Lesser Scaup – 218, Harlequin Duck – 17, Surf Scoter – 2, White-winged Scoter – 31, Bufflehead – 86, Common Goldeneye – 161, Barrow's Goldeneye – 627, Hooded Merganser – 85, Red-breasted Merganser – 2, Common Merganser – 120, Ruddy Duck – 65

Family Accipitridae – Osprey, Kites, Eagles, Hawks and Allies (495) : Osprey – 219, Bald Eagle – 62, Northern Harrier – 31, Sharp-shinned Hawk – 2, Cooper's Hawk – 7, Northern Goshawk – 23, Broad-winged Hawk – 5, Swainson's Hawk – 16, Red-tailed Hawk – 106, Golden Eagle – 24

Family Falconidae – Falcons (223) : American Kestrel – 62, Merlin – 48, Gyrfalcon – 4, Peregrine Falcon – 101, Prairie Falcon – 8

Family Phasianidae – Partridges, Pheasant, Grouse, Ptarmigan and Turkey (455) : Chukar – 14, Gray Partridge – 7, Ring-necked Pheasant – 78, Blue Grouse – 69, Willow Ptarmigan – 31, Rock Ptarmigan – 11, White-tailed Ptarmigan – 28, Ruffed Grouse – 153, Spruce Grouse – 48, Sharp-tailed Grouse – 10, Wild Turkey – 6

Family Odontophoridae – American Quail (93) : Mountain Quail – 1, California Quail – 92

Family Rallidae – Rails, Gallinules and Coots (431) : Virginia Rail – 23, Sora – 28, American Coot – 380

Family Gruidae – Cranes (13) : Sandhill Crane – 13

Family Charadriidae – Plovers (123) : Semipalmated Plover – 10, Killdeer – 113

Family Haematopodidae – Oystercatchers (40) : Black Oystercatcher – 40

Family Recurvirostridae – Stilts and Avocets (2) : American Avocet – 2

Family Scolopacidae – Sandpipers, Phalaropes and Allies (258) : Greater Yellowlegs – 4, Lesser Yellowlegs – 1, Solitary Sandpiper – 8, Spotted Sandpiper – 112, Upland Sandpiper – 4, Long-billed Curlew – 54, Sharp-tailed Sandpiper – 1, Short-billed Dowitcher – 1, Common Snipe – 28, Wilson's Phalarope – 25, Red Phalarope – 20

Family Laridae – Jaegers, Skuas, Gulls, Terns and Allies (1,385) : Bonaparte's Gull – 6, Mew Gull – 61, Ring-billed Gull – 1,043, California Gull – 9, Herring Gull – 114, Glaucous-winged Gull – 88, Common Tern – 1, Arctic Tern – 9, Forster's Tern – 20, Black Tern – 34

Family Alcidae – Auks, Murres and Puffins (160) : Common Murre – 53, Pigeon Guillemot – 46, Marbled Murrelet – 7, Ancient Murrelet – 26, Cassin's Auklet – 25, Tufted Puffin – 3

Family Columbidae – Pigeons and Doves (65) : Rock Pigeon – 40, Band-tailed Pigeon – 2, Mourning Dove – 23

Family Tytonidae – Barn Owls (15) : Barn Owl – 15

Family Strigidae – Typical Owls (148) : Western Screech-Owl – 30, Great Horned Owl – 52, Northern Hawk Owl – 3, Northern Pygmy-Owl – 2, Barred Owl – 6, Great Gray Owl – 2, Long-eared Owl – 37, Boreal Owl – 1, Northern Saw-whet Owl – 15

Family Caprimulgidae – Goatsuckers (40) : Common Nighthawk – 37, Common Poorwill – 3

Family Apodidae – Swifts (4) : White-throated Swift – 4

Family Trochilidae – Hummingbirds (60) : Black-chinned Hummingbird – 2, Anna's Hummingbird – 5, Calliope Hummingbird – 4, Rufous Hummingbird – 49

Family Alcedinidae – Kingfishers (28) : Belted Kingfisher – 28

Family Picidae – Woodpeckers (328) : Lewis's Woodpecker – 23, Yellow-bellied Sapsucker – 10, Red-naped Sapsucker – 34, Red-breasted Sapsucker – 67, Williamson's Sapsucker – 3, Downy Woodpecker – 27, Hairy Woodpecker – 61, Three-toed Woodpecker – 18, Black-backed Woodpecker – 5, Northern Flicker – 65, Pileated Woodpecker – 15

Family Tyrannidae – Tyrant Flycatchers (169) : Olive-sided Flycatcher – 4, Western Wood-Pewee – 9, Alder Flycatcher – 13, Willow Flycatcher – 11, Least Flycatcher – 2, Hammond's Flycatcher – 3, Gray Flycatcher – 3, Dusky Flycatcher – 8, Pacific-slope Flycatcher – 8, Eastern Phoebe – 5, Say's Phoebe – 8, Western Kingbird – 64, Eastern Kingbird – 31

Family Vireonidae – Vireos (41) : Blue-headed Vireo – 1, Hutton's Vireo – 13, Warbling Vireo – 18, Red-eyed Vireo – 9

Family Corvidae – Jays, Magpies and Crows (240) : Gray Jay – 54, Steller's Jay – 22, Blue Jay – 3, Clark's Nutcracker – 3, Black-billed Magpie – 55, American Crow – 49, Northwestern Crow – 12, Common Raven – 42

Family Alaudidae – Larks (10) : Skylark – 3, Horned Lark – 7

Family Hirundinidae – Swallows (699) : Purple Martin – 14, Tree Swallow – 417, Violet-green Swallow – 44, Northern Rough-winged Swallow – 15, Bank Swallow – 21, Cliff Swallow – 95, Barn Swallow – 94

Family Paridae – Chickadees (136) : Black-capped Chickadee – 43, Mountain Chickadee – 25, Chestnut-backed Chickadee – 66, Boreal Chickadee – 2

Family Aegithalidae – Bushtit (23) : Bushtit – 23

Family Sittidae – Nuthatches (45) : Red-breasted Nuthatch – 23, White-breasted Nuthatch – 1, Pygmy Nuthatch – 21

Family Certhiidae – Creeper (9) : Brown Creeper – 9

Family Troglodytidae – Wrens (90) : Rock Wren – 1, Canyon Wren – 5, Bewick's Wren – 17, House Wren – 14, Winter Wren – 42, Marsh Wren – 11

Family Cinclidae – Dipper (18) : American Dipper – 18

Family Regulidae – Kinglets (46) : Golden-crowned Kinglet – 44, Ruby-crowned Kinglet – 2

Family Muscicapidae – Bluebirds, Thrushes and Allies (1,300) : Western Bluebird – 29, Mountain Bluebird – 877, Townsend's Solitaire – 11, Swainson's Thrush – 83, Hermit Thrush – 6, American Robin – 283, Varied Thrush – 11

Family Mimidae – Mockingbird, Thrashers and Allies (27) : Gray Catbird – 20, Northern Mockingbird – 1, Sage Thrasher – 6

Family Sturnidae – Starling and Allies (108) : European Starling – 108

Family Motacillidae – Wagtails and Pipits (6) : American Pipit – 6

Family Bombycillidae – Waxwings (63) : Bohemian Waxwing – 7, Cedar Waxwing – 56

Family Parulidae – Wood-Warblers (188) : Tennessee Warbler – 2, Orange-crowned Warbler – 24, Nashville Warbler – 6, Yellow Warbler – 43, Magnolia Warbler – 5, Yellow-rumped Warbler – 35, Black-throated Gray Warbler – 1, Townsend's Warbler – 13, Blackburnian Warbler – 8, Black-and-white Warbler – 2, American Redstart – 22, Northern Waterthrush – 5, Connecticut Warbler – 1, MacGillivray's Warbler – 2, Common Yellowthroat – 16, Wilson's Warbler – 2, Canada Warbler – 1

Family Thraupidae – Tanagers (7) : Western Tanager – 7

Family Cardinalidae – Cardinals, Grosbeaks and Allies (26) : Rose-breasted Grosbeak – 6, Black-headed Grosbeak – 13, Lazuli Bunting – 7

Family Emberizidae – Towhees, Sparrows, Longspurs and Allies (387) : Spotted Towhee – 30, American Tree Sparrow – 1, Chipping Sparrow – 49, Clay-colored Sparrow – 9, Brewer's Sparrow – 11, Vesper Sparrow – 13, Lark Sparrow – 7, Savannah Sparrow – 31, Fox Sparrow – 13, Song Sparrow – 63, Lincoln's Sparrow – 16, White-throated Sparrow – 24, White-crowned Sparrow – 24, Golden-crowned Sparrow – 10, Dark-eyed Junco – 86

Family Icteridae – Blackbirds, Orioles and Allies (303) : Bobolink – 18, Red-winged Blackbird – 123, Western Meadowlark – 5, Yellow-headed Blackbird – 13, Rusty Blackbird – 4, Brewer's Blackbird – 36, Common Grackle – 7, Brown-headed Cowbird – 74, Bullock's Oriole – 23

Family Fringillidae – Cardueline Finches and Allies (54) : Gray-crowned Rosy-Finch – 3, Pine Grosbeak – 2, Purple Finch – 7, Cassin's Finch – 1, House Finch – 15, Red Crossbill – 8, White-winged Crossbill – 2, Pine Siskin – 7, American Goldfinch – 6, Evening Grosbeak – 3

Family Passeridae – Old World Sparrows (19) : House Sparrow – 19

**Total nests/broods – 13,487; 260 species
(2003 season – 6,634; historical – 6,854)**

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

A Arti Ahie - 1, David Alcroft - 1*, A.M. Alexander - 2, A. Anderson - 3, B. Anderson - 1, E.M. Anderson - 17*, Errol Anderson - 18, Errol Anderson and George P. Sirk - 1, Morgan Anderson - 46, William Anderson - 1, Kris Andrews - 2, Anonymous - 15, Ted Antifeau - 1*, Cathy Antoniazzi - 1*, Bethany Arndt - 1, Janice E. Arndt - 25, Janice E. Arndt and Elaine Moore - 12, Justin Arndt - 3, B. Arnold - 1, Ingolf Askevold - 1, R.N. Askevold - 1*, D. Atherton - 1, Alf Atkins - 1, Lloyd and Vicky Atkins - 1, Vicky Atkins - 223, Vicky Atkins and Alice Beals - 105, and R.N. Atkinson - 6*.

B B.C. Department of Highways - 1, B.C. Falconry Association - 11*, B.C. Fish and Wildlife - 27*, B.C. Ministry of Environment - 3*, B.C. Parks - 8, B.C. Provincial Museum - 1*, B.C. Waterfowl Society - 3, John Bailey - 1, Steve Baillie - 1, Robert Baker - 1, Stan Baker - 1, Anthony Barnard - 1*, Geoff Barnard - 43, Avery and Letty Bartels - 12, Daniel Bastaja - 1*, F. Bath - 1, Heather Baynes - 3, Alice Beals - 70, Dick Beard, Jim Wisnia and Len Goldsmith - 1*, Grant Beaumont - 1, Frank L. Beebe - 37*, Margaret Beecher - 1, Barbara Begg - 7, Kevin M. Bell - 4*, Kevin M. Bell and Tom Plath - 1*, Jim Bendell - 1*, Roger Bennet - 1, Winnifred Bennie - 89*, Jennifer Bergen and F. Don Young - 12, A. Berger - 1, Edward Bernont - 2, Edward Beynon - 74, M. Biggs - 1*, L.B. Bishop - 1*, Peter Blokker - 17, Donald A. Blood - 43, Rick Bonar - 1*, Talbot H. Bond - 2, Myrna Bosomworth - 2, Jack Bowling - 17*, Robert Bowman - 2, Kenneth C. Boyce - 5*, Allan C. Brooks - 121*, Betty Brooks and Vicky Hansen - 1*, Barbara Brown - 1, Betty Brown - 1, Doug Brown - 288, Gary Brown - 24, Quentin Brown - 4*, Daniel F. Brunton - 1*, Don Bryant - 1, Nancy Buck - 1*, Jim and Joan Burbridge - 1*, Clyde Burton - 6, W. Burton - 3*, E. Bush - 1, Beverly H. Butcher - 112, Bruce Butler - 1, Robert W. Butler - 30*, and Don Byers - 12.

C Giff Calvert - 2*, Carol Campbell - 1, John Campbell - 2, Lucile Campbell - 5, R. Wayne Campbell - 1719, R. Wayne Campbell and Evan Davidson - 1, R. Wayne Campbell and John Brigman - 1, R. Wayne Campbell and Mike Preston - 1, R. Wayne Campbell and Sean Campbell - 1, Canadian Wildlife Service - 75*, G. Clifford Carl - 5*, G. Clifford Carl and Frank L. Beebe - 1*, F.M. Carryl - 1, Brian Carter - 1, Harry R. Carter - 9*, R. Carter - 1, Janice Casling - 1, W. Caspell - 53, Alice Cassidy - 1*, Donald G. Cecile - 1*, Linda Chambers - 1, Dan and Connie Chapman - 2, R.A. Charbonneau - 1, Chris Charlesworth - 485, M.J. Christman - 1, Gayle Chrysler - 1*, H. Churchill - 1, Myke Chutter - 1*, Murray Clark - 1*, J.O. Clay - 4*, D. Code - 9*, Joan Coldwell - 1, Mary Collins - 1*, Cyril Colonel - 43, Cyril Colonel and Linda M. Van Damme - 17, Cyril Colonel and Lorraine Scott - 1, John Comer - 6*, Donald Conner - 1, John K. Cooper - 22*, John K.

Cooper and Arthur L. Meugens - 1*, John M. Cooper - 9*, Stan Cooper - 3, Darren Copley - 3*, Carol Cossentine - 2, E.R. Cossentine - 1, Evi Coulson - 2, Evi and Mel Coulson - 3, Mel Coulson - 2, Mel and Evi Coulson - 2, E. Courtnall - 21*, Vic Cousineau - 32, Larry Cowan - 3, Terry Cox - 1, Creston Valley Nature Centre - 7*, Lyle Crowe - 5, R.A. Cumming - 22*, J.A. Cunningham - 1, Bill Curtis - 1, and Chris Czajkowski - 18.



Bethany Arndt scopes a Great Horned Owl nesting oddly in a goose platform at Duck Lake, Creston Valley.

D Ed and Monica Dahl - 11, Mark K. Daly - 2*, Milo D'Angeles - 1, S.J. Darcus - 59*, Evan Davidson - 6, Gary S. Davidson - 213, Gary S. Davidson and Chris Siddle - 38, John Davidson and Martin Charles - 2, Brian Davies - 2*, Rick Davies - 1*, John Davis - 2, Rick Davis - 1, Neil K. Dawe - 4*, Charles de B. Green - 36*, Alec Deas - 1, Gwen DeCamp - 3*, Bruno Delesalle - 1, Ray Demarchi - 5*, Barry Dennison - 2, Dorothy Diduck - 4, Jenny Dillon - 1, J. Dixon - 1*, Edward Dobyns - 1, Adrian Dorst - 15, Douglas D. Dow - 1*, H.S. Drinker - 2*, Ducks Unlimited

Canada – 148*, Eva Durrance - 4, Linda Durrell – 16, and Michael Dyson – 7.

E Michael Easton – 6*, Robyn Edgar - 1, Al Edward - 1, Mark Edwards - 1, Neil Edwards - 3, R. Yorke Edwards – 10*, K. Egger - 3, Harold Elliot - 1, P. Elliott - 12, David Ellis – 1*, Maurice Ellison – 4*, D.R. Endicott - 2, Peter D. Endwick - 1, A. Enkessburger - 1, and W. Erickson – 1*.

F A. Farrer - 1, Deborah Fast - 1, John Ferguson - 1, Jim Ferry - 1, Joyce Fitz-Gibbon – 1*, R. Flahaut – 1*, J. Fleming - 3, J. Forbes - 1, E.H. Forbush – 1*, Michael Force – 2*, Bruce Ford - 1, Trevor Forder - 5, Thelma Forty - 2, F. Foster - 1, J. Bristol Foster – 20*, John Foster - 2, Lee Foster – 2*, J.G. Fowle and James Grant – 1*, G. Fox - 1, John Franken - 1, Tom Franklin - 2, David F. Fraser – 6*, T. Allan Fraser - 8, Bruce G. Fredrick – 1*, Martina Frey - 1, Nickie Fried - 1, H. Friedman – 2*, Bruce Friesen - 1, David Lorne Frost – 40*, and Ralph Fryer and C.W. Morehen – 3*.



A juvenile Arctic Tern stretches its wings in preparation for a life at sea, Atlin Lake.

G George Galicz – 5*, Ron Garcia - 1, George Gardiner and Andy Raniseth – 1*, C.B. Garrett - 1, Jeff Gaskin – 28*, Tony Geenfield - 2, Calvin Gehlen - 4, Val George - 3, Ralph Gerein - 1, Jaclynn Gereluk - 1, L.A. Gibbard – 6*, Violet Gibbard – 11*, Violet and Les Gibbard – 1*, R. Gibbs – 2*, Janet Gifford – 1*, J. Ginns - 20, W.E. Godfrey – 10*, Tom Godin - 1, Luther J. Goldman – 10*, Len Goldsmith and Tom Plath – 4*, J. E. Victor Goodwill - 18, J.E. Victor and Margaret E. Goodwill - 3, Margaret E. Goodwill - 1, Lance Goodwin – 1*, J. Paul Goossen – 10*, Hilary Gordon - 84, Hilary Gordon and Barb and Ted Hillary - 1, Hilary Gordon and Frank Kime - 9, Hilary and Orville Gordon - 35, Hilary Gordon and Orville Gordon - 955, Hilary and Orville Gordon and Barb and Ted Hillary - 2, Orville Gordon - 28, Orville Gordon and Arne Chaddock - 1, Orville and Hilary Gordon - 3, Wynne Gorman – 1*, C.V. Gorsuch - 1, Ted Goshaluk - 1, B. Max Gotz - 7, Carl

Gough - 5, Trevor Goward – 1*, Douglas J. Graham – 10*, James Grant – 14*, Tunie Grant - 4, Al Grass - 3, Jude Grass - 3, Sandra Gray - 6, Gary Grayson - 1, Bill Green - 1, David M. Green – 1*, Ralph Gerein - 1, G. Greene - 1, Gwen Greenwood - 1, Deirdre Griffith – 1*, Jim Groome - 1, Charles J. Guiguet – 100*, Charles J. Guiguet and Clifford Carl – 19*, and Les Gyug – 1*.

H Doug Haddow – 1*, Penny Haering - 36, Connie Hall - 2, Ken Hall - 1, Ray Halladay – 1*, Larry Halverson - 5, A.M. Hames - 2, Daphne Hamilton - 2, Jason Hamilton - 1, David Hancock - 1, Willie Haras - 58, George A. Hardy – 2*, Alton S. Harestad - 5, Barry Harman – 3*, Bill Harpur – 2*, Fred Harpur – 7*, John Harris - 1, R.C. Harris - 1, F. Hart - 1, John Hart - 1, Sharon Hassell – 2*, David F. Hatler – 7*, J. Hatter – 1*, Robert B. Hay – 1*, Jack Hayhurst - 1, Grant Hazlewood - 3, Dorothy Hearn – 1*, Ruth E. Hellevang - 11, Charles Helm - 3, Charles and Daniel Helm - 9, Phil S. Henderson – 6*, Ed Hennan – 42*, J.E. Heriot - 4, R. Jerry Herzig – 30*, Werner H. Hesse - 2, Werner H. and Hilde Hesse - 6, Werner H. Hesse and Hilde Hesse - 3, B. Hill and B. Angus - 7, Edward Hillary - 161, Edward Hillary and Hilary Gordon - 1, Mark Hobson - 13, Mark Hobson and J. Bristol Foster - 1, Ralph Hocken - 1, Keith Hodson – 2*, Martin W. Holdom – 1*, M. Hollington – 31*, J. and M. Holman - 1, J.H. Holman - 1, Tracy D. Hooper – 22*, Jeremy Hopkins - 4, Dennis Horwood - 2, Steve Howard - 11, Robert W. Howe - 1, Rick Howie – 19*, Rick Howie and Syd Roberts – 1*, and John B. Hurley – 1*.

I Ken and Hanna Imes - 12, Doug Innes – 14*, Douglas and Marion Innes - 16, Marion Innes - 3, John Ireland - 2, and Jean Iverson – 1.

J F. Jackson - 1, Joan Jackson - 1, Tom Jacobson – 17*, Fred James - 1, J. James - 1, Ken James - 1, Linda James - 1, Ross D. James – 4*, Peter Jamieson - 1, Ron Jamieson - 3, Pat Janzen - 11, Janice Jarvis - 11, Len Jellicoe - 1, J. Jenkins - 1, Mildred Jenkins - 2, Neil Jenkins - 1, Ron Jenkins - 1, Brian Jennings - 1, Hugh Jennings - 2, Peter Jennings - 1, Richard S. Jerema – 3*, Richard S. Jerema and Jane Jenkins – 1*, Leo Jobin – 10*, Chris Johnson - 1, Daryl Johnson - 1, K. Johnson - 1, Stuart Johnson – 2*, Walter B. Johnstone – 59*, Ann M.N. Jones – 1*, Bill Jones - 1, Donna Jones - 1, and Jeffrey Joy – 1*.

K Brian Kautesk – 2*, G.W. Keiser – 2*, Robert Keith - 1, K. Kelleher - 1, L. Kellogg - 2, John Kelly - 1, J. Kelso – 12*, Ken Kennedy - 8, Roger Kennedy - 1, Elspeth Kerr – 3*, Bill King - 1, David G. King - 2, S. King - 3, Bill Kinkade - 3, Bill and Donna Kinkade - 5, Sandra Kinsey - 8, Sandra Kinsey and Laird Law - 41, Mary Kirchner – 1*, Brian Knight - 1, Anne Knowles – 1*, John Koren - 1, Marika Korompai - 1, and Nancy Krueger – 7.

L J. Labatt - 1, Elsie Lafreniere - 6, Hamilton M. Laing - 9*, F. Lambert - 1, David Lambie - 2, David and Vi Lambie - 2, John and Vi Lambie - 76, John, Vi, and David Lambie - 1, Vi and David Lambie - 3, Vi and John Lambie - 10, P.A. Larson - 4, Judy Latta and Chris Charlesworth - 1, Laird Law - 1, Laird Law and Sandra Kinsey - 43, Frank Lee - 1, J. Lee - 1, Martin C. Lee - 20*, Sybyl Lees - 1*, Sybyl Lees and Elspeth Kerr - 1*, Douglas Leightin - 5*, Enid Lemon - 3*, Pat Levitt - 11, Andrew Long - 1, A. Low - 2, Frank Low - 2, David Lowe - 3, Betty and Jim Lunam - 1, and Robert E. Luscher - 10*.

M Bruce MacDonald - 1, Jim Mack - 2*, Mary E. Mack - 1, J.A. MacKenzie - 1, A.C. Mackie - 2*, D. Mackie - 1, Alan L. MacLeod - 1, J. Macoun - 2*, D.A. Mactulick - 1, Walter S. Maguire - 89*, Joseph Maillard - 1*, Diana Maloff - 21, Don Manning - 1, Murray Mark - 4*, Patrick W. Martin - 25*, Derek Marven - 11*, John Mason - 1, Tim Mattews - 1, R. Maynard - 1, Peter McAllister and Kenneth G. Wright - 1*, Thomas T. McCabe - 2*, Bette McClellan - 1, Jim McDonald - 1, S. McDonald - 3, D.E. McFarland - 1*, George McFarland - 1, R.R. McFarlane - 11*, Caroline and J. McGhee - 1, J. McGhee - 1, Barb McGrenere - 1*, Mike and Barb McGrenere - 3*, Glen McInnes - 5, Nelson McInnis and Art Morgan - 1, D. McIntosh - 1, Robert McIntyre - 1, H. McKay - 10, R.W. Mckenzie-Grieve - 2*, Patricia McKim - 1, Bill McLaren - 2, D. McLaren - 16, Karen McLaren - 3, Susan McLean - 1, Bette McLennan - 1, Ed McMackin - 30, Michael McMann - 1*, Fred McMechan - 1*, Daryl McNab - 1, Sandy McRuer - 3*, Ian McTaggart-Cowan - 73*, B. Meredith - 1, Arthur L. Meugens - 2*, Arthur L. Meugens and John K. Cooper - 23*, Harry Middleton - 9*, W. Milford - 1, Donald Miller - 1, Hettie Miller - 5*, Robert Miller - 2, Shawn Miller - 3, Bill Milne - 2, Andy Milton - 1, Marilyn Miner - 2, Guy L. Monty - 22, Dwight Moore - 4*, Elaine Moore and Janice E. Arndt - 11, W.S. Moore - 1, Cy Morehen - 1*, Pearl Morgenstern - 1*, Michael Morrell - 1*, Arthur Morris - 6, Bob Morrison - 2, Ken P. Morrison - 3*, Norma Morton - 1, G. Moyie - 2, Ken Moyie - 1, Alexander Muir - 15, Emily Muller - 20, Emily and Heidi Muller - 1, Emily and Naomi Muller - 1, Emily and Sarah Muller - 2, Naomi Muller - 2, Scott Muller - 2, David A. Munro - 59*, James A. Munro - 870*, James A. Munro and David A. Munro - 18*, Ken Munro - 3, and O.J. Murie - 36*.

N Eve J. Neale - 22, F. Neave and W.E. Ricker - 3*, Laure Neish - 16, R.Wayne Nelson - 6*, C.F. Newcombe - 11, W.A. Newcombe - 2, George Newell - 1, Gwen Nicol - 6, V. Nordman - 1, John Norris - 14, Ivar Nygaard-Peterson - 10, Mark Nyhof - 379, and Elsie Nykyfork - 42*.

O Derek O'Brien - 2*, Derek O'Brien and Kevin M. Bell - 1*, Brent Olsen - 1*, Stan Olson - 3, Ed O'Neill - 1, and Ted Osmond-Jones - 3*.

P Calvor Palmateer - 2*, Calvor Palmateer and Daryl Payne - 4*, Parks Canada - 2, D.K. Parsons - 1, M. Parsons - 1, R. Parsons - 1, Mary Pastrick - 30*, Trudy Pastrick - 11*, Brian Patterson - 1, Jim Patterson - 5, W.A.B. Paul - 24, Leon E. Pavlick - 1*, Arthur Peake - 1*, Theed Pearse - 32*, Janne Perrin - 39, Karl Perrin - 2, Jim Perry - 10, Ronald M. Peterson - 39, B.J. Petrar - 3*, Alec Phillips - 2, Roy W. Phillips - 2*, Mark Phinney - 12, Allison Pizzay - 1, J. Plowden-Wardlaw - 2*, Rosamond Pojar - 4*, John E. Polson - 3*, Bill Porter - 1, Douglas Powell - 2*, Damian Powers - 2, Gerry Powers - 1, G. Allen Poynter - 135, G. Allen and Helen Poynter - 6, B. Preston - 2, Jill Preston - 2, Joanna Preston - 1, Joanna Preston and R. Wayne Campbell - 1, Marilyn Preston - 1, Mike and Joanna Preston - 219, Mike and Joanna Preston and Amber Robinson - 1, Mike, Joanna, Ian, and Joyce Preston - 5, John Pritchard - 1, Sandy Proulx - 942, Provincial Game Warden - 1*, and Margaret Purdy - 8*.

R Kenneth Racey - 11*, R.C. Racey - 10, Kurt Rack - 1, Marilyn Rack - 2, Walter Rainer - 1*, Bob Ramsey - 1, Jim Ramsey - 1, A.L. Rand - 1*, T.E. Randall - 1*, D. Ransom - 1*, M. Ransom - 1, Phil Ranson - 1, Trish Reid - 3, George C. Reifel - 3*, Tom E. Reimchen - 39*, B. Reynolds - 1, S.N. Rhoads - 10*, Louise Rice - 4, Diane Richardson - 3*, Gillian and Trevor Richardson - 7, Dirk Rinehart-Pidcock - 35, Ralph W. Ritcey - 37*, Anna Roberts - 40*, Gerry Roberts - 1, Leila G. Roberts - 1*, Sid Roberts - 11, Ian Robertson - 1*, Amber Robinson - 5, D. Robinson - 6, F. Robinson - 1, H. Robinson - 1, Jim Robinson - 2, Marcia Robinson - 2, Neil Robinson - 5, Robin D. Robinson - 2*, Wilma Robinson - 2*, I. Laurie Rockwell - 14, Michael S. Rodway - 17*, Thomas H. Rogers - 1*, Manfred Roschitz - 3*, Royal Ontario Museum - 3*, Craig S. Runyan - 1*, Judy Russell - 2, Linda Russell - 1, Karen Ryall - 12, Carolyn Ryan - 1, and Glen R. Ryder - 533.

S John G. Sarles - 2, Joy Satterfield - 1*, Ron Satterfield - 39*, Walter Schick - 1, Marian Schmidt - 1, Gregg Scott - 1, K.E. Seal - 1*, Barbara M. Sedgwick - 5, Brian G. Self - 9, Brian G. Self, Alan Russell and Tammy Proctor - 1, Brian G. Self, Reto Riesen*, Len Goldsmith and Jim Wisnia - 1*, T. Sharp - 1, Verna Shaw - 1, R. Sheer - 5, A. Shepard - 2, Colin Shepard - 3, F.M. Shillaker - 4*, Rick Shortinghuis - 1, A.C. Shutz - 1*, Ervio Sian - 2*, Chris Siddle - 108, Chris Siddle and Gary Davidson - 31, Ed Silkens - 5, A. Simpson - 1, Dave Simpson - 1, Fred Simpson - 8*, Roger Simpson - 1, Jim Sims - 7, Phil Sinclair - 1, Ed Sing - 1*, George P. Sirk - 3, Arnold Skei - 1, June Slocombe - 3, Brian Smith - 2, Bud Smith - 2*, Don Stace-Smith - 1*, Glen Smith - 1, Ian D. Smith - 6*, Jeremy Smith - 6, R.H. Smith - 39, Clint Smyth - 1, William Spreadborough - 12*, Elsie Stanley - 13, J.H. Stanwell-Fletcher - 2*, R.C. Stein - 3*, H.A. Stelfox - 4*, Tom Sterling - 6, Doreen Stevens - 1, Glen Stevens - 1, Tom Stevens - 1, E. Stewart - 1, Jerry Stewart - 5,

Ronald M. Stewart – 1*, David Stirling - 9, Ian Stirling – 2*, B. Stockman - 1, Bruce Stotesburg – 1*, Jim Strat - 3, W.D. Strong – 2*, Dan Sturman - 2, B. Sullivan - 1, Gail Sullivan - 2, Ken R. Summers – 6*, Richard Swanston - 4, H.S. Swarth – 15*, and H.S. Swarth and W.D. Strong – 14*.

T E.M. Tait – 14*, J.B. Tatum – 1*, P.A. Taverner – 3*, G.W. Taylor - 2, W.A. Taylor - 1, Howard A. Telosky - 25, David Thomas - 1, D. Thomson - 1, Jack Todd – 1*, J.W. Tolmie - 1, Rick Tootchin – 8*, Daryl Torres - 1, Colin J. Trefry – 2*, Roger Tremblay - 17, Neil S. Trenholme – 1*, B. Trethewey - 7, D. Trethewey – 1*, Bill Turner - 1, and Danny Tyson – 10*.

U University of British Columbia – 6*.

V Linda M. Van Damme - 673, Linda M. Van Damme and Cyril Colonel - 1, Ben Van Drimmelin – 1*, Kevin J. Van Tighem – 4*, G.W. Vandersteenhuis - 1, N.A.M. Verbeek – 4*, Victoria Natural History Society - 10, Helga Vrabac - 2, and Frances Vyse – 2*.

W Mary Wainwright – 1*, Jean Waite – 1*, Ron Walker - 1, Stephen Walker – 1*, G.R. Waters – 1*, Allison Watt and Mark Hobson – 1*, B. Watts – 1*, Brian Weaver - 1, Jim Weaver - 1, Scott Webb – 1*, Walter Weber - 4, Wayne C. Weber – 71*, Robert B. Weeden - 9, Rita Wege - 1, Rita Wege and Daryl Torres - 7, Rita Wege and Larry Prosser - 20, Don Wells – 1*, Don Wells and Elsie Nykyfork – 2*, Ray M. Wershler – 3*, Rick West - 1, Elizabeth Weston – 1*, Mary Weston - 1, Edward G. White – 11*, Fred White - 1, Mildred V. White – 8*, Karen Wiebe – 5*, Doreen Wierenga and Joyce Mervyn - 1, A.C. Wilk – 3*, Derek Williams - 2, E.M. Williams - 1, Jack E. Williams – 1*, John Williams - 1, M.Y. Williams – 8*, Murray Williams - 4, P. Ray Williams - 40, William's Lake Field Naturalists – 60*, David Williamson - 2, Cathy Williston - 2, A. Wilson - 2, Douglas Wilson – 8*, Jack Wilson - 1, J. Windlaw - 1, Ben P. Wintermute – 6*, John S. Wise - 1, Marcus Womersley - 3, Marjorie Wood - 1, Susan Wood - 1, John G. Woods – 3*, David Woolgar – 11*, Edward Woolman - 1, Gwen W. Wright – 1*, Kenneth G. Wright - 5, M. Wright - 1, and J. Wynne – 11*.

Y C.J. Young – 6*, G.W. Young - 1, and Jan Ytsma – 1.

Total Contributors – 822
(Active - 537 ; Historical - 285)



Not all bird boxes are used by birds. This Northern Flying-Squirrel was a big surprise.

USE OF THE B. C. NEST RECORD SCHEME AND DATA BASES IN 2003

Requests for Information

In 2004, the Centre for Wildlife Studies will be formalizing its Data Request and Data Sharing protocols for the Wildlife Data Centre. This document will be printed as a special publication and published on our website so that everyone has the same information. The document, which will be reviewed by a number of consultants, government agencies, academics, and naturalists, will cover Data License Agreements (between contributor and the Centre), Data Sharing Agreements (between clients and the Centre), a Data Request Protocol, and a mandate and business plan outlining the Centre for Wildlife Studies agenda for continued success as the only formal and regional repository for wildlife information in Canada.

The following list is a sample of the kinds of requests we receive for wildlife information each year. The names of individuals, their affiliation or residence, and species or topic of interest for which information was provided are listed below.

Richard Adams (Victoria – Great Horned Owl), **R. Alexander** (Sidney – Pacific Treefrog), **Ed Andrusiak** (Greater Vancouver Regional Parks, Burnaby – Lazuli Bunting), **William J Anderson** (Calgary, AB – Bald Eagle), **Errol Anderson** (White Rock – American Avocet), **Peter Arcese** (University of B C – Song Sparrow), **Chris Atkinson** (Campbell River – Mitlenatch Island), and **Janice Arndt** (Nelson – Warbling Vireo).

Tom Bailey (B C Hydro, Surrey – Steller's Sea Eagle), **Jeff Barnard** (Victoria – B C Nest Record Scheme), **Frank Bennett** (Invermere – B C Nest Record Scheme), **M Black** (Vancouver – Crested Myna), **George Bradd** (Tofino – bird checklists), **Sue Bradley** (Victoria –

Anna's Hummingbird), **Jan Bradshaw** (Chase – American Avocet), **Heather Brown** (Vancouver Sun, Vancouver – Northwestern Crow, **Carol Bryan** (Cache Creek – Bighorn Sheep), and **Dr. Fred Bunnell** (Centre for Applied Conservation Biology, UBC – Red-breasted Merganser, Surfbird, Red Knot, Rock Sandpiper, Upland Sandpiper, Wilson's Phalarope, Pomarine Jaeger, Parasitic Jaeger, Long-tailed Jaeger, Mew Gull, Thayer's Gull, Glaucous Gull, Sabine's Gull, and Arctic Tern).

Mildred Campbell (Maple Ridge – Spotted Owl), **Dr. Tessa N. Campbell** (University of Victoria – Anna's Hummingbird), **Dan Carson** (Victoria – wildlife slides), **Dr. Anne Chan-McLeod** (Centre for Applied Conservation Biology, Vancouver – Common Loon, Gadwall and waterfowl), **Chris Charlesworth** (Kelowna – Alder Flycatcher), **Rod Chilton** (Central Saanich – American Robin), **Brian Clarke** (Kamloops – Black-necked Stilt), **Stan Coleman** (Weyerhaeuser, Nanaimo – *Birds of B C sets*), and **Aldo Congrossi** (Ruby Lake – Turkey Vulture).

Doris Davies (Nelson – seagulls), **Lorraine Dawson** (Surrey – hummingbirds), **Tim Douglas** (Nanaimo – American Bittern), **Adrian Dorst** (Tofino – West Coast birds for book), **Sarah Dubois** (University of B C – rehabilitated wildlife), **Peter Doyle** (Victoria – data recording), **Terry Dunn** (Campbell River – Marbled Murrelet), and **Jill Dueling** (Greater Vancouver Regional District – Boundary Bay birds).

Chris Edwards (Prince George – Boreal Owl), **Greg Eligh** (Victoria – bird photographs), **Norman Elliott** (Hope – Bald Eagle), **Harry Edwards** (Victoria – Sky Lark), and **Anthony J. Erskine** (Sackville, NB – B C Nest Record Scheme).

Lisa Fairley (Pacific Biological Station, Nanaimo – Leatherback), **Robert Finley** (Duncan – Marbled Murrelet), **Anthea Farr** (Surrey – Rock Pigeon), **Gordon Fenske** (Victoria – B C Nest Records Scheme), **Don Ferguson** (Osoyoos – Mountain Bluebird), **Cam Finley** (Victoria – early naturalists), **Doug Forster** (Seattle, WA – Merlin), **Betty Forsyth** (San Diego, CA – Spotted Owl), and **Michael Foster** (Vancouver – Crested Myna).

George Gardner (Kamloops – Lewis's Woodpecker), **J. E. Victor Goodwill** (Victoria – Bald Eagle), **Hilary Gordon** (Salmon Arm – wildlife workshop), **Gordon Head Elementary School** (Victoria – owls), **Bill Grant** (Surrey – Oregon Spotted Frog), **Jude Grass**

(Vancouver – raptors), **Dorothy Green** (Regina, SK – Double-crested Cormorant), and **Tony Greenfield** (Sechelt – Surfbird).

Larry Halverson (Parks Canada, Radium – Northern Goshawk, Rubber Boa), **Cory Harrison** (Gibsons – Steller's Jay), **Susan Hart** (Salmon Arm – wildlife lecture), **Ed Hill** (B C Hydro, Burnaby – Cliff Swallow), **Charles Helm** (Tumbler Ridge – Bullmoose Marsh birds), **Peter Hooper** (Mission – Red-tailed Hawk), **Dennis Horwood** (Kitimat – Wandering Tattler), **Isabelle Houde** (Centre for Applied Conservation Biology, Vancouver – Upland Sandpiper, American Bittern, Lewis's Woodpecker, Broad-winged Hawk, Connecticut Warbler, Nelson's Sharp-tailed Sparrow, Black-throated Green Warbler, Short-eared Owl and Canada Warbler), **Stuart Houston** (Saskatoon, SK – B C Nest Record Scheme), **Rick Howie** (B. C. Ministry of Water, Land and Air, Kamloops – Rough-legged Hawk, Barn Owl, Tundra Swan and Trumpeter Swan), **Mathew Hume** (Vancouver – river birds), and **Janice Hughes** (Penticton – Burrowing Owl).

Marian Innes (Courtenay – Bald Eagle) and **Ruth Irwin** (Victoria – hummingbirds).

Elaine Jaltema (Burnaby – owls and marine life), **Mark James** (Victoria – birds Esquimalt Lagoon), and **Bob Johnstone** (Cache Creek – Common Nighthawk).

Terry Kaiser (Portland, OR – B C checklist of birds), **David Keith** (Victoria – hummingbirds), **Ann Kelly** (Sidney – marine oil spills), **Frank Kennedy** (Langley – Peregrine Falcon), **Marilyn Kennedy** (Kamloops – Long-billed Curlew), **Margaret Kerr** (Sooke – owls), **Frank Kime** (Tappen – shorebirds), **Glen King** (Surrey – Common Raven), and **Helen Knight** (Duncan – Wood Duck).

Jim Lawrence (Prince George – Short-eared Owl), **Doreen Lawson** (Burnaby – Burnaby Lake wildlife), **Peggy Leslie** (Vancouver – Anna's Hummingbird), **Al Lewis** (Abbotsford – frogs), **Robert Lincoln** (Vancouver – Crested Mya), **Peggy Little** (Penticton – American White Pelican), and **Charles Lyons** (West Vancouver – Northern Pygmy-Owl).

Jack MacDonald (Delta – Barn Owl), **Neil MacPherson** (Surrey – Lazuli Bunting), **Cy Marney** (Vancouver – birdwatching), **Karen Martin** (Chemainus – Purple Martin), **Rita McIntyre** (Victoria – hummingbirds), **Ron McLaughlin** (Nanaimo – Northern Goshawk,



Northern Flicker nesting in a split trunk rather than a typical circular cavity.

ecotours and wildlife teaching), **Hugh Mitchell** (Nanaimo – Marbled Murrelet), **Allister Muir** (Mission – Bewick's Wren and frogs), and **Stephen Myers** (Edmonton, AB – shorebirds).

Eve J Neale (Tatla Lake - House Sparrow and Dark-eyed Junco hybrids), **Gail Nelson** (Victoria – hummingbirds), **Stan Nicholls** (Victoria – bird photography), **Ken Nielson** (Sooke – Brown Pelican), **Ted Norman** (Victoria – Sky Lark and eagles), and **Jeremy North** (Surrey – Steller's Jay).

Joanne Outerbridge (Shangri-la, Victoria – hawks, California Quail and Blue Jay) and **Robert Owen** (Campbell River – Northern Goshawk).

Ron Parsons (Oliver – owls), **Trudy Patterson** (Victoria – hummingbirds), **Alan Petersen** (Whistler – Gray Jay nesting), **Gary Phillips** (Penticton – wildlife conservation), **Kelly Pierce** (Simon Fraser University, Burnaby – birds killed by windows), **Jane Porter** (Greater Vancouver Regional Parks, Vancouver – Boundary Bay birds, Black-headed Grosbeak, Hutton's Vireo, American Robin), **Gerry Powers** (Mount Lehman – Barred Owl), **Joanna Preston** (Victoria – national parks and wildlife), and **Greg Price** (Surrey – amphibians).

Dale Reid (Quesnel – Long-billed Curlew), **Eileen Richmond** (Cranbrook – Lewis's Woodpecker), **Laura Riley** (Vancouver – Crested Myna), **Amber Robinson** (University of Manitoba, Winnipeg – Brown-headed Cowbird), **Sherry Robinson** (Williams Lake – American White Pelican), **Ian Robertson** (Robertson Environmental Services Ltd., Langley – bird research in Columbia Valley), **Rene Roddick** (B C Hydro, Surrey – Bald Eagle), **Dennis Rogers** (Burnaby – House Sparrows and bird feeding), **Kristen Ruegg** (University of California, Berkeley, California – Swainson's Thrush), **Alan Russell** (Prince George – hawks and falcons), **John Ross** (Maple Ridge – Great Blue Heron), and **Glenn R. Ryder** (Aldergrove – Yellow-breasted Chat and Lewis's Woodpecker).

Robert Sanders (Victoria – Tufted Puffin), **Dr. Tim Schowalter** (University of Regina, SK – owl pellets), **David Schutz** (Coquitlam – hummingbird feeding), **Andrew Scott** (Sandspit – Northern Saw-whet Owl), **Dr. Spencer G. Sealy** (University of Manitoba, Winnipeg – Brown-headed Cowbird), **George Smith** (Smithers - Wolverine), and **Abby Schwartz** (Vancouver – raptors).

Judy Taylor (Saanich – hummingbirds), **Howard A. Telosky** (Campbell River – Bonaparte's Gull), **George Thompson** (Vernon – Great Blue Heron), **Richard Thomas** (Prince George – rare wildlife species), **Graham Turnbull** (B C Ministry of Water, Land and Air, Nanaimo – Northern Goshawk and falcons), and **Andrew Turner** (Surrey – amphibians).

Linda M. Van Damme (Creston – Double-crested Cormorant, Great Blue Heron, Forster's Tern, Barn Owl, Rock Pigeon and Northern Shrike).

Bruce Walker (Kamloops – Flammulated Owl), **Linda Walton** (Victoria – birdwatching), **Jackie Ward** (Maple Ridge – Great Blue Heron), **June Weston** (Victoria – bird photography), **Eric White** (Surrey – frogs), **Dorothy Williams** (Vancouver – endangered species), **June Wilkes** (Seattle, WA – birds and global warming), **Marg Wilson** (Victoria – hummingbirds), **Brenda Wood** (Victoria – American Dipper), **Barry Wright** (Victoria – birds and sewage).

Tim Zurowski (Victoria – bird slides and data centre).

Recent Publications and Reports

Information from collections housed in the provincial **Wildlife Data Centre**, including electronic databases, library, and special collections, were acknowledged in the following scientific papers, books, reports, articles, brochures, and theses.

After a decade of intensive research and writing ornithologists have now completed *The Birds of North America* series that includes summary life history information for all North American and Hawaiian species. The Wildlife Data Centre has played the leading role in providing current information for British Columbia species.

Brisbin, L. L., H. D. Pratt and T. B. Mowbray. 2002.

American Coot (*Fulica americana*). *In* The Birds of North America, No. 697 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 44 pages.

Brua, R. B. 2001. **Ruddy Duck (*Oxyura jamaicensis*).** *In* The Birds of North America, No. 696 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 32 pages.

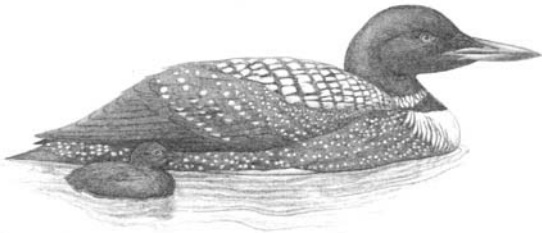
Bunnell, F., G. Dunsworth, D. Huggard, and L. Kremsater. 2003. **Learning to Sustain Biological Biodiversity on Weyerhaeuser's Coastal Tenure.** Weyerhaeuser, Nanaimo, British Columbia.

Campbell, R.W., M.I. Preston and L.M. Van Damme. 2003. **British Columbia Nest Record Scheme – 48th Annual Report – 2002 Nesting Season.** WBT Wild Bird Trust of British Columbia Wildlife Report No. 9, Victoria, B. C. 30 pages.

Curry, R. L., A. T. Peterson and T. A. Langen. 2002 **Western Scrub-Jay (*Aphelocoma californica*).** *In* The Birds of North America, No. 712 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 36 pages.

BRITISH COLUMBIA NEST RECORD SCHEME

48th Annual Report - 2002 Nesting Season



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

Copies of past nest record reports are available in limited quantity from the Centre for Wildlife Studies.

Dahlsten, D. L., L. A. Brennan, D.A. McCallum and L. L. Gaunt. 2002. **Chestnut-backed Chickadee (*Poecile rufescens*)**. In The Birds of North America, No. 689 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 20 pages.

Danby, Ryan K. 2003. **Birds and Mammals of the St. Elias Mountain Parks: Checklist Evidence for a Biogeographic Convergence Zone**. Canadian Field-Naturalist 117:1-18.

Gill, R. E., P. S. Tomkovich and B. J. McCaffery. 2002. **Rock Sandpiper (*Calidris ptilocnemis*)**. In The Birds of North America, No. 686 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 40 pages.

Hartwig, C. L., D. S. Eastman and A. S. Harestad. 2004. **Characteristics of Pileated Woodpecker (*Dryocopus pileatus*) Cavity Trees and Their Patches on Southeastern Vancouver Island, British Columbia, Canada**. Forest Ecology and Management 187:225-234.

Hatch, J. J. 2002. **Arctic Tern (*Sterna paradisaea*)**. In The Birds of North America, No. 707 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 40 pages.

Helm, C. 2003. **Bullmoose Marshes – Hiking Trail and Wetland Interpretive Area**. Tumbler Ridge, British Columbia. Brochure.

Jackson, J. A., H. R. Ouellet and B. J. S. Jackson. 2002. **Hairy Woodpecker (*Picoides villosus*)**. In The Birds of North America, No. 702 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 32 pages.

Kochert, M. N. K., K. Steenhof, C. L. McIntyre and E. H. Craig. 2002. **Golden Eagle (*Aquila chrysaetos*)**. In The Birds of North America, No. 684 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 44 pages.

Kremsater, L., F.L. Bunnell, D. Huggard, and G. Dunsforth. 2003. **Indicators to Assess Biological Diversity: Weyerhaeuser's Coastal British Columbia Forest Project**. The Forestry Chronicle 79:590-602.

Moskoff, W. and L. R. Bevier. 2002. **Mew Gull (*Larus canus*)**. In The Birds of North America, No. 687 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 28 pages.

Mowbray, T. B., C. R. Ely, J. S. Sedinger and R. E. Trost. 2002. **Canada Goose (*Branta canadensis*)**. In The Birds of North America, No. 682 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 44 pages.

Piatt, J. F. and A. S. Kitaysky. 2002. **Tufted Puffin (*Fratercula cirrhata*)**. In The Birds of North America, No. 708 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 32 pages.

Poole, A. F., R. O. Bierregaard and M. S. Martell. 2002. **Osprey (*Pandion haliaetus*)**. In The Birds of North America, No. 683 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 44 pages.

Snell, R. R. 2002. **Iceland Gull (*Larus glaucooides*) and Thayer's Gull (*Larus thayeri*)**. In The Birds of North America, No. 699 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia. PA. 36 pages.

Tracey, D. M., D. Schamel and J. Dale. 2002. **Red Phalarope (*Phalaropus fulicarius*)**. In The Birds of North America, No. 698 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 32 pages.

Tranquilla, L., F. Huettmann, C. Loughheed, L. Loughheed, N. Parker, and G. Kaiser. 2003. **Sightings of Vagrant Pacific Alcids in Desolation Sound, British Columbia**. *Canadian Field-Naturalist* 117:53-56.

Wheeler, B.K. 2003. **Raptors of Western North America**. Princeton University Press, Princeton, New Jersey. 544 pages.

Whitmer, M. C. 2002. **Bohemian Waxwing (*Bombycilla garrulus*)**. In *The Birds of North America*, No. 714 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 20 pages.

Woodin, M. C. and T. C. Michot. 2002. **Redhead (*Aythya americana*)**. In *The Birds of North America*, No. 695 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, PA. 40 pages.

Wildlife Workshops and Extension

Fragmentation of information from British Columbia to databases outside the province, lack of commitment to gather and store historical information, inconsistency in the kinds of standard information currently being recorded and submitted, and the desperate need to centralize wildlife information so the "big picture" can be presented has prompted a series of workshops and lectures on protocols for data-gathering this year.

Each session lasted 1-2 days and included in-house lectures, discussions, and hands-on activities as well as some field time. The results were very encouraging. Every participant agreed that we should all be working together, on a united front, in gathering and presenting information for conservation issues in British Columbia.

Five major workshops were given in **Delta, North Vancouver, Port Coquitlam, Quesnel, and Vancouver**. In addition, six complementary evening lectures entitled "*Taking Wildlife Conservation in a New Direction*" were presented in **Burnaby, Osoyoos, Surrey, Vancouver, Vernon, and William's Lake**.

Long-term Monitoring and Inventory Projects

The **Centre for Wildlife Studies** will continue the long-term monitoring programs, species inventories, and wildlife surveys that have been established in the province over the past 50 years. Current and historical information will be brought together for each of these areas of study and permanently housed in the **Wildlife Data Centre** in Victoria.

Some of the projects related to the **Nest Record Scheme** have included regular and systematic surveys of

all **marine**, (e.g., Glaucous-winged Gull), **fresh-water** (e.g., Black Tern), and **terrestrial** (e.g., White-throated Swift) bird colonies, monitoring **raptor nests** (e.g., Osprey), **wetland surveys** (e.g., American Bittern), **owl surveys** (e.g., Barn Owl and Long-eared Owl), **loon surveys**, and exhaustive searches of specific regions for nesting birds.

Nest Box Trails

Thousands of nest boxes have been erected around the province for bluebirds. Other cavity-nesting species, including some small mammals, utilize these nest sites. Each year an army of committed naturalist's visit these boxes to document breeding activity and nest success. Individuals monitoring nest boxes this year included **Cliff Day** (Vernon), **Sandy Proulx** (Quesnel), **Dirk Rinehart-Pidcock** (Kaslo), **John, David and Vi Lambie** (Mackenzie), **Lloyd and Vicky Atkins** (north Okanagan), **Alice Beals** (north Okanagan), and **Vic Cousineau** (Creston Valley).

It was encouraging to read that this year Cliff Day had the highest number of **Western Bluebirds** ever fledged.



At Burnaby Lake, the BCNRS has detailed information for Wood Duck and swallow boxes dating back to 1968.

Wetland Monitoring

Part of our continuing wetland monitoring program around the province includes direct counts and scientific estimates of colonial-nesting birds like grebes, cormorants, geese, herons, coots, gulls, terns, wrens, and blackbirds.

We received excellent information and coverage for the **Creston Valley** (Linda Van Damme and Cyril Colonel), **Shuswap Lake** area (Hilary Gordon), **Robson** area (Ed Beynon), north **Okanagan Valley** (Peter Blökker), the **Hudson's Hope-Chetwynd-Tumbler Ridge** region (Wayne Campbell), **Williams Lake** (Steve Howard), **Swan Lake, Vernon** (Vicky Atkins), **Cecil Lake** (Wayne Campbell), **Kamloops** (Willie Haras), **Vancouver**

Island (Mark Nyhof), and the vicinity of **Parksville** (Allen Poynter).

It is also helpful to make general comments on the situation or long-term trends you may have noticed for various wetlands. This year **Vicky Atkins** wrote, "Each year there are fewer Red-necked Grebe nests on Swan Lake [Vernon]. High winds sometimes wash away the nests. Motor boats and water skiing may be a factor in this decline. Although there were eight nests with at least 23 eggs I didn't see any young on the lake."

Western Grebes

Linda Van Damme reported that once again the grebe nests were flooded early in the season after a June 8th storm on **Duck Lake**, Creston. Nests were rebuilt within a week. Water levels were lower this year and floating aquatic vegetation provided good anchoring for the majority of nests. Another big storm hit on July 6th and several nests were blown to shore. Common Ravens and Ring-billed Gulls predated the eggs. It was obvious the grebes rebuilt as adults were still sitting on nests in the second week of August, and unlike 2002, adults with young were observed well into the second week of September.

Ospreys

Annual monitoring continued throughout many regions of the province. Contributors recorded individual nests found while afield, while others combed areas with small but widely distributed nesting populations like those in the Mackenzie area. Three southern areas were monitored again.

West Kootenay (Nakusp to Fauquier)

Gary Davidson started to monitor Osprey nests in this region in 1994. As usual, he covered the area along Highway 6 that traverses sections of Upper and Lower Arrow Lakes. Most nests in this region are built on transmission poles in B C Hydro right-of-way corridors. Gary also completed cards for some of his earlier surveys so we now have on file some history for Ospreys nesting in this area.

West Kootenay (Balfour to Waneta)

Rita Wege, Larry Prosser, Elaine Moore and **Janice Arndt** continued their West Kootenay monitoring program. This year (7th) they provided diagrams of the exact location for each nest and tried to determine productivity for the area.

Creston Valley (U S Border to South Kootenay Lake)

Linda Van Damme and **Cyril Colonel** completed their 6th season of monitoring with the discovery of new nesting sites this year. Cyril completed a photo album of all

nest sites while Linda recorded GPS co-ordinates. This season they observed that far more nests were active early on, but did not remain active throughout the season. The average number of young per nest was 1.8.

Rare and Sensitive Species

We received some requests this year from consultants, bird-listers, writers, television stations, government personnel, and photographers who requested the specific location and breeding information for locally rare species or species that we consider sensitive to disturbance. Species of interest included **Upland Sandpiper, Black-throated Green Warbler, Yellow-breasted Chat, Caspian Tern, Black Tern, Lewis's Woodpecker, Cooper's Hawk, Barn Owl, Northern Goshawk, Baird's Sandpiper, Gray Catbird, Long-billed Curlew, Marbled Murrelet, Spotted Owl, Bay-breasted Warbler, Gyrfalcon, American Bittern, Ferruginous Hawk, Bald Eagle, Hairy Woodpecker (QCI), and Golden Eagle.**

As always, information was provided with the welfare of the species in mind, land ownership issues, and conservation value of the information being released.



A Dusky Flycatcher sits tight on its nest in the Okanagan Valley.

Field Tips and Techniques

Locating Hummingbird Nests

Hummingbird nests are very small and usually difficult to locate unless you are familiar with their nesting sites and habitats. For example, in south coastal forests the tips of low limbs on western redcedars, western hemlocks, and Douglas-firs can methodically be searched for "bumps" on the branches.

In the interior the challenge is greater. But D. Code used a hummingbird's behaviour to locate its nest near 100 Mile House. He was well aware that female hummingbirds chase all birds, large or small, away from the vicinity of their nests. By being patient and watching

the birds during their brief squabble he watched the hummingbird return directly to its nest and continue its activities.

Sentinel Jays and Robins

Chickadees, kinglets, bushtits, jays, robins, nuthatches, thrushes, wrens, and squirrels all loudly proclaim the presence of a perching owl. During the nesting season it is always wise to investigate the commotion.

On June 2, at the Woodhaven Nature Conservancy in Kelowna, Jim and Joan Burbridge discovered Steller's Jays mobbing something in a tree. They carefully investigated the area and found a female Western Screech-Owl with 4 "branchers" huddled together trying to remain inconspicuous!

At Chezacut, in the western Chilcotin region, F. M. Shillaker was attracted to a wooded spot by the screaming alarms and frantic chatters of robins and squirrels. After a short search he found two partly grown Great Horned Owls attended by one adult. Although he was not able to locate their nest he had obtained a good nesting record.

Ageing Woodpecker Nestlings by Light

Knowing the age of cavity-nesting nestlings is difficult to gauge unless the chamber is excavated or a nest snooper and flashlight is used. It would be useful to know the age of young so breeding periods could be calculated.

Jerome Jackson, during his studies on Downy Woodpeckers, determined that nestlings "can sense light changes through translucent eyelids; until eyes open, the primary stimulus that elicits a begging response is a change from lighter to darker as a parent blocks light upon entering the nest. A human can elicit the begging response by placing a hand over the entrance. Once the eyes are open, response to change in light intensity stops and young respond to visual presence of the parent.

So if there is a response to light the nestlings are less than four days old.

From the Scientific Literature

RODENTS AS NEST PREDATORS: INFLUENCES ON PREDATORY BEHAVIOR AND CONSEQUENCES TO NESTING BIRDS

The primary cause of nest failure among birds is nest predation. University of Washington researchers Jeffrey Bradley and John Marzluff investigated the potential of northern flying squirrels and deer mice as predators of forest canopy-nesting species like the Marbled Murrelet. They discovered that cracking of eggs by squirrels and mice were limited by egg size, although both small and large nestlings were regularly eaten. Both

of these mammals are now known predators of canopy-nesting passerines and must be considered in future life history studies of forest birds.

Auk 120(4):1180-1187, 2003.

COLONY CHOICE IN CLIFF SWALLOWS: EFFECTS OF HETEROGENEITY IN FORAGING HABITAT

It has been suggested that the size of Cliff Swallow colonies is related to local availability of food near the nesting site. Charles Brown and his colleagues compared colony size to land use diversity, plant species diversity, and different habitat types. They concluded that colony size increased with diversity in land use activities, plant diversity had no strong effect on colony size, and that flowing water within habitats had a positive correlation in colony size. They concluded that land use diversity might influence insect distribution within the foraging range of the swallows.

Auk 119(2):446-460, 2002.

GROWTH OF LATE-HATCHED, COMPETITIVELY DISADVANTAGED NESTLING HOUSE WRENS RELATIVE TO THEIR OLDER, LARGER NESTMATES.

The growth of late-hatched to first-hatched House Wren nestlings were compared by ornithologists Kathleen Lago et al. in Maryland. Their study showed that late-hatched nestlings had reduced rates of weight gain and tarsus growth but that feather growth was about normal allowing them to fledge and travel with older nest mates and survive to independence.

Journal of Field Ornithology 71(4):676-685, 2003.

DOES INTERCOLONY COMPETITION FOR FOOD AFFECT COLONY CHOICE IN CLIFF SWALLOWS?

Charles and Mary Brown investigated whether colony size in Cliff Swallows in Oklahoma was influenced by competition for food from birds in nearby colonies. It is generally assumed that local food availability may limit the number of birds nesting in colonies. They determined that competition for food between nearby colonies may be important only for certain sites or for colonies established later in the year.

Condor 104:117-128, 2002.

*COPPER'S HAWKS, *Accipiter cooperii*, SUCCESSFULLY NEST AT HIGH DENSITIES IN THE NORTHERN GREAT PLAINS*

Throughout North America the Cooper's Hawk has been considered as a species of management concern mainly because of the lack of field data and poor understanding of its breeding range. Biologists Melvin Nenneman, Robert Murphy, and Todd Grant studied the nesting density and reproductive success of this forest raptor in an area of the northern Great Plains region. Over a 6-year period they determined that the

population was stable, the number of young successfully fledged reached 69%, and that nest success differed among woodland types. The nesting density was calculated at one occupied nest/395 hectares. They suggest that the Cooper's Hawk may be a common breeding species wherever deciduous woodlands are an important part of the landscape.

Canadian Field-Naturalist 116(4):580-584, 2002.

USE OF NEST BOXES BY VAUX'S SWIFTS

The loss of large-diameter hollow trees in northeastern Oregon prompted an investigation into the use of nest boxes for Vaux's Swifts between 1999 and 2000. Biologists compared nesting attempts and successes in boxes between 3 different habitats and monitored internal temperatures in each box to determine any resulting effect on productivity.

Thirty of the 103 nest boxes were used by Vaux's Swifts for at least one year. Of the 51 nesting attempts, 53% successfully fledged from 1 to 6 young. Swifts used all habitats including late seral stage grand fir, harvested stands of grand fir, and ponderosa pine forests.

Journal of Field Ornithology 74(4):395-400, 2003.

NORTHERN FLICKER INCUBATES HOODED MERGANSER EGG

Misdirected incubation has been reported for a few species of secondary cavity-nesting birds, presumably resulting from intense competition for nest sites. Karen Wiebe reports a case of a Northern Flicker pair, primarily considered cavity excavators, incubating an egg of a Hooded Merganser at Riske Creek, British Columbia. The flickers probably suffered a high reproductive cost as a result of this behaviour as they fledged only two young from their seven eggs. The Hooded Merganser embryo reached an advanced stage of development, but did not hatch.

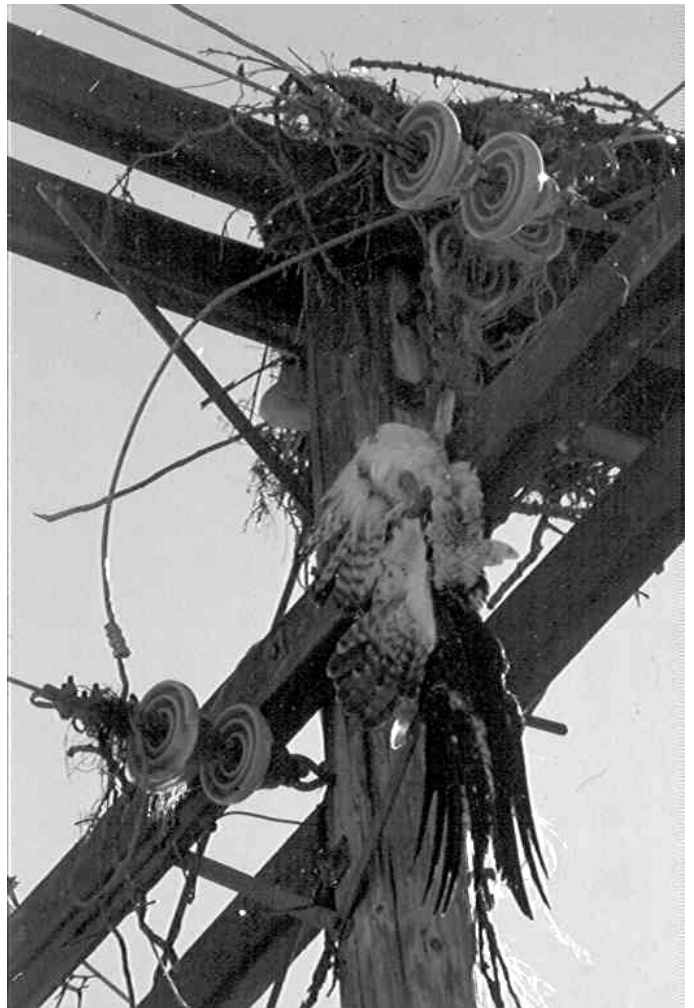
It is unclear why a woodpecker with the ability to excavate a new nest would incubate a foreign egg and suffer high reproductive failure.

British Columbia Birds 10:13-15, 2000.

TWINE CAUSES SIGNIFICANT MORTALITY IN NESTING OSPREYS

It is well known that Ospreys infrequently incorporate agricultural baling twine into their nests. As nestlings grow and become more active they sometimes become entangled in the twine and perish. During a three-year study involving 260 Osprey nests throughout Montana wildlife biologists discovered 12 instances of nestling entanglement. They suggested that disposing of the twine or cutting it into smaller pieces when removing it from hay bales could reduce or eliminate the problem.

Wilson Bulletin 114(4):465-467, 2002.



Baling twine used for hay commonly gets wrapped in Osprey nests. Some Osprey young get tangled and die.

APPENDICES

Appendix 1. Plumage Development of Young Waterfowl

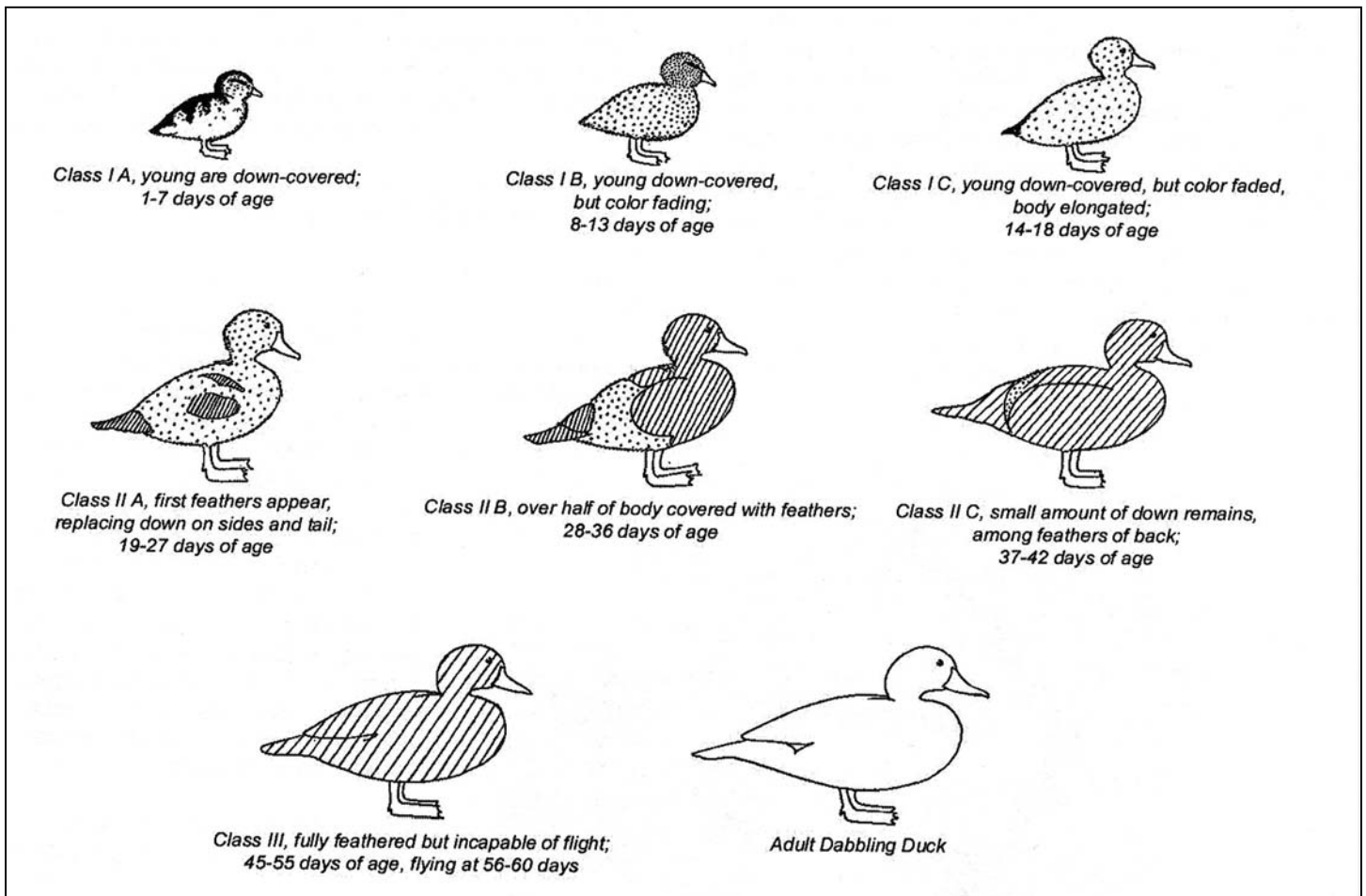
In the spring of 1997, the first B. C. Nest Record Scheme manual was issued by the WBT Wild Bird Trust of British Columbia, along with participating partners, as WBT Wildlife Report No. 1. An important omission in that manual was the inclusion of plumage changes of waterfowl developed by J.B. Gollop 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 begin to appear among the down. It usually lasts about three weeks.

CLASS II – (Levels A, B and C) – this stage, from about the fourth week through the sixth week, covers the period when the body feathers gradually replace 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 F.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 schedule	No. of eggs, warm or cold; parent at nest or not
1 – 3 eggs	3 – 5 days later, to confirm completion of clutch	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)		

Our Apologies

We are sorry that editing did not pick up the following errors published in the 2002 report for **Jennifer Bergen** and **F. Don Young**. The correct names should have appeared on page 5 following the mention of the Pacific-slope Flycatcher photo. Also on page 5, Bergerjon should be Bergen. The species total for the 2002 report was 257.

REQUESTING AND SUBMITTING CARDS

We have now developed and listed several species' prototypes for our web page that is presently under review. We hope that by autumn, information concerning the B C Nest Record Scheme will be on-line and available to a much larger audience. This will include our instruction manual and annual reports although paper copies of both will still be sent to participants.

Nest cards for the 2004 season can be obtained from:

B. C. NEST RECORD SCHEME

P.O. Box 6218, Station C
Victoria, B. C. V8P 5L5
Tel/Fax: (250) 477-0465

We prefer to have nest cards completed and submitted by October 1st 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 March the following year. This year, compiling the cards into species and participant order took nearly 3 months! We again appreciated the efforts of **Hilary Gordon** in sending cards to us in batches as they were completed. The first cards arrived May 7! **Ed Beynon** and **Doug Brown** also submitted completed cards very early.

Some cards were delivered directly to the Wildlife Data Centre. **Chris Charlesworth** carried his batch of cards as carry-on baggage during his plane flight from Kelowna. **Sandra Kinsey** and **Laird Law** also delivered their cards in person, as did the late **Allister Muir**.

Most people had put their cards in species order, which was a great help during the sorting process. We also appreciated the thoughtfulness (and extra cost) to send cards by **Express Post** so they would arrive on time.

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.

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

ACKNOWLEDGEMENTS

The huge number of cards were sorted and compiled over many weeks by Wayne and Eileen Campbell and Mike and Joanna Preston. We want to thank everyone who submitted their cards in species order.

Mark Nyhof selected the Barn Swallow as the cover illustration in hopes that contributors will make an extra effort to document nests and young this season. We thank Glenn Ryder for use of his Eared Grebe and American Dipper nest site drawings, and Morgan Anderson for her painting of a Swainson's Thrush.

Photographs were kindly provided by:

<u>Name</u>	<u>Page #</u>
Janice Arndt	17
Stewart Clow	30
R. Wayne Campbell	1, 5, 10, 11, 15, 21
Chris Charlesworth	25
Cyril Colonel	3, 8
Gary S. Davidson	4 (right)
Michael I. Preston	7, 12, 18, 24
Linda M. Van Damme	4 (left), 20, 27

Weyerhaeuser and BC Hydro continued their support in our vision of retaining information in British Columbia in a central repository, and to make summary information available through the publications, lectures, and the internet.

50 YEARS OLD!

The 2004 season will be our 50th year of operation. To celebrate, we are producing a **history** of the **British Columbia Nest Record Scheme** summarized year-by-year so everyone can fully appreciate the volunteer effort that was required to keep it active and growing. A copy will be mailed to all contributors in the summer of 2004.

Millions of dollars in volunteer time, including out-of-pocket expenses, and hundreds of thousands of

hours has gone into searching for nests and broods, recording the information, submitting the cards, and ensuring that the BCNRS is being properly maintained and used. We have successfully managed to develop the largest and most heavily used Nest Record Scheme on the continent. The 4-volume set of *The Birds of British Columbia* attests to some of the products resulting from our breeding information.

During its long history, the BCNRS has been supported primarily by volunteers, not government agencies, industry, or other sources. Our continued future depends on the passion we exhibit for a unique and significant dataset.

Let's celebrate the 2004 season, and our 50th anniversary, with enjoyment, new discoveries, and lots of nest cards.



Throughout the 50-year history of the BCNRS, hundreds of people have experienced bird-nesting moments they will never forget. Stewart Clow will certainly remember the first successful nesting of a Boreal Owl in one of his boxes.