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Northern Gannet - White Horse Island, N.B.
(photo by Tony Diamond)
[First recent nesting record in province - small chick under brooding adult.]

Society of Canadian Ornithologists
Société des Ornithologistes du Canada

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BIRDS 2000 - LIVING ON THE EDGE

Joint Millenial Meeting of the American and British Ornithologists' Unions and Society of Canadian Ornithologists

Memorial University of Newfoundland, St. John's, Nfld.
14-19 August 2000

LIVING ON THE EDGE: The Edge of the Continent
The Edge of the North Atlantic
The Edge of the Arctic
The Edge of Extinction and Preservation
and
The Edge of the New Millenium

Dates to note: 5-13 August - pre-conference tours;
14 August - business meetings;
15-19 August - conference, including tours (17th) and banquet (19th);
20-31 August - post-conference tours.

For information on sessions, submitting abstracts, accomodations, etc., please contact (until further notice):

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PRESIDENT'S MESSAGE

My term as President comes to an end just when I was beginning to feel I had the hang of it and had some idea what to do! I am sure I am not the first to feel this way, and will not be the last - if we continue with two-year terms of office. My term was somewhat overwhelmed by editing and producing the Proceedings of the Fredericton meeting, which taught me a lot about time management; I would like to take this opportunity to thank everyone for their patience, and particularly the contributors who had to wait far too long to see their work in print. One consolation is that I can now provide reams of advice to the Publications Committee on pitfalls to avoid in producing subsequent publications. The volume goes to press this month and should be in members' hands by Christmas.

One result of this delay was to demonstrate that the strategy of building a journal on a succession of meeting-based publications had not worked for us; accordingly Council, at its meeting in Montréal, decided to proceed directly to journal production. I applaud this decision and will work hard to help implement it. To be successful, our journal will have to establish high standards and a strong clear profile from the outset; it will need solid support from its members, most obviously in submitting high-quality material. I look forward to working with our new President, Kathy Martin, the Publications Committee, Council, and all members, to make the journal something we can be proud of.

My term coincided with the establishment by the Society of regular Scientific Meetings, which I trust will continue. Council may decide (as discussed in Montréal) to meet separately in alternate years and jointly with another North American ornithological group in between; our next meeting, with the A.O.U. and B.O.U. in St. John's, would allow us to move smoothly into such a pattern. Whatever is decided, I hope the Society will continue to diversify its activities and begin to increase its membership to support and perpetuate its increasingly active role in Canadian ornithology.

I close by thanking Council for its support over my four years as Vice-President and President. I particularly wish to thank Peter Blancher for his assiduous patience as Recording Secretary, and our officers and editor - Tom Dickinson and Nancy Flood, Tony Erskine - for their continuing outstanding work as Treasurer and Membership Secretary, and *Picoides* Editor, respectively. Councillors (and especially Presidents) come and go, but it is the long-serving functionaries of the Society who keep the essential activities running smoothly. I am delighted they have all agreed to continue serving. To my successor Kathy Martin I wish a successful term, knowing that she will have solid support from these people and her Past-President.

18th ANNUAL MEETING and 4th CONFERENCE of the SOCIETY OF CANADIAN ORNITHOLOGISTS

McGill University, Montréal, Qué.

5-7 August 1999

SCIENTIFIC PROGRAM (chair: G. Seutin)

FRIDAY, 6 AUGUST 1999 / VENDREDI, LE 6 AOÛT 1999
(Redpath Museum, auditorium)

0900-0910 Introduction - G. Seutin
0910-1000 The demography of Marbled Murrelets of the Sunshine Coast, B.C.: An update - F. Cooke

Symposium I - Endangered species/Espèces en danger de disparition (Chair/Président: D. Bird)

1020-1040 Factors affecting Piping Plover productivity at Lake Diefenbaker, Saskatchewan - J.P. Goossen and T. Jung
1040-1100 Piping Plover recovery efforts in Atlantic Canada - A. Boyne and D. Amirault
1100-1120 The effects of predation and subsequent predator control at a Roseate Tern colony in Nova Scotia - B. Whittam et al.
1120-1140 Captive propagation of Loggerhead Shrikes at the Avian Science and Conservation Centre, McGill University - D.M. Bird et al.
1140-1200 Colonization followed by extirpation: the Greater Prairie-Chicken on the northern Great Plains - C.S. Houston

Symposium II - Species at risk/Espèces menacées (Chair/Président: J.-P. Savard)

1340-1400 Marbled Murrelet conservation: making effective decisions with a poorly understood species - G. Kaiser and L. Lougheed
1400-1420 Seasonal variation in body mass of Marbled Murrelets in British Columbia, Canada - C.L. Hull et al.
1420-1440 First incubation, rearing and release of a Marbled Murrelet (*Brachyramphus marmoratus*) - D.B. Lank
1440-1500 Using age ratio surveys to assess recruitment of Harlequin Ducks - C.M. Smith et al.
1500-1520 Near-extirpation: how we almost lost the Upland Sandpiper - C.S. Houston
1540-1600 Lake Erie Bald Eagles - L. Shutt and B. Whittam
1600-1620 Basal area preference of VTE and other forest songbirds in a managed forest in southwestern Ontario - J.D. McCracken et al.

1630-1815 ANNUAL GENERAL MEETING / RÉUNION ANNUELLE

SATURDAY, 7 AUGUST 1999 / SAMEDI, LE 7 AOÛT 1999

Symposium II (cont./suite) - (Chair/Président: P. Laporte)

0900-0920 Bicknell's Thrush in Québec: distribution, habitat and status - Y. Aubry et al.
0920-0940 Habitat preferences of Bicknell's Thrush in southern Québec - V. Connolly et al.
0940-1000 Distribution, feeding and nesting ecology of the Black-backed Woodpecker in the eastern boreal spruce forest - A. Nappi et al.
1000-1020 Habitat preferences and activity budgets of Dunlin (*Calidris alpina pacifica*) wintering in the Fraser River delta, and the influence of predation risk - P.C.F. Shepherd and D.B. Lank

Symposium III - Identifying endangered species/Identifier les espèces en danger (Chair/Président: S. Nadeau)

1040-1110 Saving the birds - twelve years on - A.W. Diamond

1110-1140 Towards a better understanding of the status of imperilled birds in Canada - C. Hyslop and M. Gosselin
1140-1200 Range data from bird field guides: a note of caution regarding their use in a conservation context - G. Seutin and C. Dyer

Symposium IV - Protection and recovery/Protection et rétablissement (Chair/président: E. Dunn)

1400-1420 Regional conservation related to seasonal biodiversity and rarity - A. Cyr and J. Larivée
1420-1440 Priorization: a potentially dangerous exercise - J.-P. L. Savard
1440-1500 Conservation of at-risk bird species by the Canadian Important Bird Areas (IBA) program - L. de Forest
1500-1520 Municipal planning and bird conservation - A. Couturier
1540-1600 Improving avian recovery in Canada: a role for researchers - S. Nadeau and K. Prior
1600-1620 Bird recovery in Australia - V.-J. Russell

1620-1720 Discussion - leader: G. Seutin

1720-1800 Conclusion - G. Seutin

Poster papers, presented throughout the sessions in a room adjoining the auditorium, are listed below (among Abstracts).

ABSTRACTS

Bicknell's Thrush in Québec: distribution, habitat and status. *Aubry, Yves* (Serv. can. faune, Ste-Foy, Qué.), *Gilles Seutin, Ghislain Rompré, Véronique Connolly* (Dep. Geogr., McGill Univ., Montréal, Qué.) and *Jean-Pierre Savard* (SCF, as above).

In Québec, the distribution of Bicknell's Thrush (*Catharus bicknelli*) is limited to the southern part of the province, east of 72°W and south of 50°N. As in other parts of its range, it has disappeared from some historical sites. In Québec, Bicknell's Thrush occurrence is intimately linked to balsam fir forests. Although balsam fir is widespread, the thrush is only found locally in mature coastal and subalpine fir-dominated forests, and in high-altitude balsam fir second-growth. The latter habitat is apparently occupied at a specific stage of succession, when trees are at least 2-3m high and the undergrowth extremely dense, corresponding to 10-20 years after logging. Precommercial thinning, which reduces stem density from about 30,000 to 3,000/ha, seems to modify the habitat to an extent that makes it unsuitable for Bicknell's Thrush. In both mature and second-growth forests, Bicknell's Thrush is found at densities of 0.75-1.25 males/ha. Gross generalizations about habitat preferences and population densities of this specialist have led to an overall misunderstanding of its status in Québec. Future research and monitoring efforts are needed to establish demographic parameters and obtain accurate population size estimates.

Use of vocalizations by Bicknell's Thrush (*Catharus bicknelli*). *Ball, Melanie*, and *Cynthia Staicer* (Dep. Biol., Dalhousie Univ., Halifax, N.S.) [POSTER PAPER]

Little is known about the vocal behavior of Bicknell's Thrush, which inhabits high-altitude, dense, stunted coniferous forest. Due to the difficulty of seeing Bicknell's Thrush in the field, vocalizations may prove key to future monitoring of this species. Goals of this project are: (i) to determine repertoire characteristics for Bicknell's Thrush, and (2) to quantify daily and seasonal activity patterns, to determine the best times to detect territorial males. Field work was conducted June-July 1999 on a population inhabiting mountain slopes of the Gaspé Peninsula, Québec. Focal males in this study included some fitted with radio-transmitters and color-banded as part of an ongoing population study conducted by G. Seutin (McGill Univ.) and Y. Aubry (Serv. can. faune, Qué.). Vocal activity patterns were quantified by counting songs and calls for 24-hr periods at intervals throughout the breeding season. A preliminary examination of song and call repertoires suggests males share call-types but have unique song-types and a repertoire of more than one song.

Captive propagation of Loggerhead Shrikes at the Avian Science and Conservation Centre, McGill University. *Bird, David M., Ian J. Ritchie, and Oliver P. Love* (Avian Sci. Cons. Cen., McGill Univ., Ste-Anne-de-Bellevue, Qué.)

Although once considered a fairly common breeding bird in the eastern provinces and northeastern states, populations of the eastern subspecies of the Loggerhead Shrike (*Lanius ludovicianus migrans*) have drastically declined over the past 50 years. As a result, the eastern population was designated as endangered by Canadian federal and provincial governments, and measures were taken to preserve the dwindling population. In 1998, as part of the national shrike recovery program, three pairs of eastern Loggerhead Shrikes were bred in captivity for the first time, at the Avian Science and Conservation Centre. Pairs were kept in spacious outdoor planted aviaries, and one pair successfully fledged four young. Nests were built primarily by females of natural materials (twigs, grasses, hay and animal hair) in provided wire baskets; parents were fed a variety of foods including previously thawed day-old chickens, *Tenebrio* larvae and crickets, supplemented with multivitamins. In 1999, 9 pairs were bred at the Centre, providing the base for a large captive breeding colony in conjunction with the Toronto Zoo, the second partner in this important captive breeding effort.

Piping Plover recovery efforts in Atlantic Canada. *Boyne, Andrew, and Diane Amirault* (Can. Wildl. Serv., Sackville, N.B.)

Recovery of the endangered Piping Plover (*Charadrius melodus*) remains the focus of many conservation groups in Atlantic Canada. However, despite their efforts, results from international censuses undertaken in 1991 and 1996 showed that the numbers of plovers nesting in the region declined by more than 15%. During the same period, the number of Piping Plovers nesting in the eastern United States increased by almost 50%. Currently we do not understand why the population trends are so drastically different between the two regions. Predation, human disturbance, and habitat change are often cited as reasons for the decline in Atlantic Canada; however, no one is sure whether it is low fledging success, low adult or juvenile survival, a source-sink effect, or a combination of factors, that is actually driving the population decline. It has also been suggested that some birds may be short-stopping in Atlantic U.S. on their northward migration. In 1998 a banding project was initiated in Atlantic Canada to study the survival and dispersal of Piping Plovers from this region. We will discuss the ongoing Piping Plover recovery efforts in Atlantic Canada, provide some possible explanations for the regional decline, and briefly touch on some of the preliminary results from the banding study.

Habitat preferences of Bicknell's Thrush in southern Québec. *Connolly, Véronique, Gilles Seutin, Ghislain Rompré* (Dep. Geogr., McGill Univ., Montréal, Qué.) *Yves Aubry*, and *Jean-Pierre L. Savard* (Serv. can. faune, Ste-Foy, Qué.)

Bicknell's Thrush (*Catharus bicknelli*) is a candidate for designation as a species at risk in Canada. Formulation of effective management practices for its protection is impeded by a poor understanding of its ecology. Bicknell's Thrush is known to breed predominantly in high-elevation spruce-fir forests throughout its range; however, there is very little quantitative information on habitat preferences. We conducted a detailed habitat characterization of 42 sites occupied by Bicknell's Thrush and 19 unoccupied sites on Mt. Mégantic and Mt. Gosford, Estrie region, Québec. Occupied sites were dominated largely by balsam fir, whereas unoccupied sites had a larger component of hardwoods. Compared to unoccupied sites, occupied sites had lower percent ground cover of herbaceous plants, higher percent ground cover of mosses, more dead fallen trees >10 cm diameter, more snags and stumps, and higher tree density (Mann-Whitney tests; $p<0.01$). Although many habitat differences between occupied and unoccupied sites were consistent across both mountains, there were some clear differences between occupied sites on the two mountains. These results demonstrate local variation in habitat preferences of Bicknell's Thrush that are related to the forestry history of the region.

The demography of Marbled Murrelets of the Sunshine Coast, B.C.: An update. *Cooke, Fred* (Dep. Biol., Simon Fraser Univ., Burnaby, B.C.)

Scientists from the C.W.S./N.S.E.R.C. Chair of Wildlife Ecology, B.C. Environment Ministry, and Canadian Wildlife Service have been studying a population of the threatened Marbled Murrelet (*Brachyramphus marmoratus*) on the Sunshine Coast of British Columbia since 1994. The species presents major difficulties for study as it nests in remote sites in old-growth forests of the Pacific Coast. Up to 1993 only a single active nest had been found in Canada. Using a variety of capture techniques, including over-water mist netting and night-lighting, more than 1300 individual birds have been caught and banded, allowing Capture-Mark-Recapture (CMR) methods to be used to estimate survival rates. Our best estimate of annual adult survival is 85%. Fecundity has been estimated by finding over 70 nests during the past two years, using radio-telemetry. Birds are caught early in the nesting season, fitted with radio transmitters, and released. Their subsequent movement patterns allow us to locate nests and assess nesting success. About 28% of potentially nesting birds were estimated to be successful in fledging a chick. A surprisingly large number of birds caught made no attempt to nest, suggesting a considerable non-breeding population. Many nests were in inaccessible locations, often on steep slopes at high altitudes (500-1200 m). All nests located were in trees >100 years of age, but such sites were rare at low altitudes because of considerable logging early in the century. Birds were captured in mist-nets mainly from late June to mid-August and are

thought to be mainly birds feeding young or prospecting for nest sites. That sample was strongly biased towards males. Birds were caught by night-lighting over a longer period of time, in equal sex-ratio, and comprised adults at all stages of the breeding season and also newly hatched juveniles. Two juveniles recaptured in the area one year later suggested some degree of natal philopatry.

Municipal planning and bird conservation. *Couturier, Andrew* (Bird Studies Canada, Port Rowan, Ont.)

In Ontario, municipalities and other planning authorities are faced with the complex task of coordinating development activities without impairing the values and functions of natural heritage features, including those associated with significant wildlife habitat and significant woodlands. This paper describes an approach for targeting conservation efforts by identifying bird species (and associated habitats) that are significant within municipal planning units. Ranked lists of bird species are developed based on: breeding distribution, abundance, population trend, productivity, and area sensitivity. In addition to vulnerable, threatened, and endangered species, the method targets species which, although currently not in crisis, warrant consideration in land-use planning and development activities. Regionally specific lists of priority birds represent tools that planning authorities might use for: developing/revising Official Plans, evaluating development proposals, bio-regional planning, cumulative effects assessment, and identification of significant heritage features. Applications of the approach are illustrated with case studies from southern Ontario.

Regional conservation related to seasonal biodiversity and rarity. *Cyr, André* (Dep. Biol., Univ. Sherbrooke, Sherbrooke, Qué.) and *Jacques Larivée* (CÉGEP, Rimouski, Qué.)

Biodiversity has been considered for conservation purposes mainly with reference to breeding birds. The new atlas of breeding birds of Great Britain mapped drastically different conservation alternatives using all-species richness vs. number of red data birds per area. By a similar approach, we mapped species richness of birds in Québec at different seasons from the EPOQ database, as well as numbers of unusual species and of species with limited distribution. Comparing these maps, areas deserving conservation stood out at other seasons as well as for breeding birds, and for particular groups of birds as well as for all-species richness. New conservation efforts should consider the potential value of distributions of special groups of birds in decision-making for habitat protection.

Conservation of at-risk bird species by the Canadian Important Bird Areas (IBA) program. *de Forest, Leah* (Can. Nat. Fed., Ottawa, Ont.)

The Canadian Important Bird Areas (IBA) program seeks to identify and conserve a network of sites critical to the long-term health of Canadian bird populations, including sites that hold significant populations of endangered, threatened, and vulnerable Canadian birds. Canadian Nature Federation and Bird Studies Canada are national co-partners in this global BirdLife International program. Conservation of IBAs is site-based, forming part of an integrated approach to bird conservation. High-priority IBAs are being selected by provincial advisory committees, and IBA community conservation planners are developing and assisting in implementation of conservation plans for these sites with direct involvement of local communities and other stakeholders. The process is inclusive, cooperative, and locally driven, yet takes national and international bird conservation initiatives into account. An update on IBA conservation planning at sites containing at-risk species will be presented, highlighting progress and approaches taken.

Saving the birds - twelve years on. *Diamond, Antony W.* (ACWERN, Univ. N.B., Fredericton, N.B.)

In 1987 BirdLife International (then called International Council for Bird Preservation) published "Save the Birds" (released in 14 countries & 9 languages), relating bird conservation problems to the major ecosystems of the world. The book included detailed treatments of 50 of the world's most endangered species. Here I compare status of those species then and now, and ask the question, "Have modern conservation efforts focused on those species been effective in improving their status?" This paper provides a global perspective to bird conservation problems and solutions, to complement contributions focused on Canadian species.

An indirect estimate of mass loss between capture and weighing. *Dunn, Erica* (Can. Wildl. Serv., Hull, Qué.) [POSTER PAPER]

Mass loss between capture and weighing was estimated from multiple regression analysis of nearly 183,000 weights of 48 species of small birds banded during migration. In effect, the analysis compared mass of birds weighed immediately after capture to mass of birds captured at the same time but not weighed until later. No individual had to be captured or weighed more than once. Significant mass loss occurred in 36 of the 48 species, at a median rate of 1.18% of lean body mass/h, a rate of loss considerably less than from direct measures involving repeated weighing of the same individuals. Excretion and water loss comprised most of the decline in mass, but banders should take extra steps to minimize holding time in arid regions, in hot weather, and and when feeding conditions are poor.

Trends in numbers of land bird migrants at Long Point Bird Observatory, 1961-1998. *Francis, Charles M.* (Bird Studies Canada. Port Rowan, Ont.) and *David J.T. Hussell* (Min. Nat. Res., Peterborough, Ont.) [POSTER PAPER]

Numbers of land bird migrants stopping at 3 sites on Long Point, Ontario, were estimated daily during spring and fall migrations, 1961-1998. Annual indices of abundance for each of 64 species were estimated separately for each season using a multiple regression model, controlling for effects of weather, lunar cycle, date, and site-specific effects. Trajectories of the annual indices were modeled and trends estimated over selected time periods using up to 7th-order polynomials. We summarize changes from previous analyses with the addition of 1998 data, and present graphs of population trajectories and summary statistics for various species. Many species showed net decreases through 1988, but the majority increased subsequently and now show a net positive trend since 1961. Our trend estimates are correlated with estimates from the Breeding Bird Survey (BBS) in Ontario, but tend to be higher (more positive) than estimates from the BBS. We identify species showing major increases, decreases, and fluctuations, and discuss the significance of these changes. We draw attention to 9 species showing long-term declines that may be of conservation concern.

Site fidelity in Tree Swallows. *Francis, Charles M.* (Bird Studies Canada. Port Rowan, Ont.) and *David J.T. Hussell* (Min. Nat. Res., Peterborough, Ont.) [POSTER PAPER]

Although it is well-known that many species of cavity-nesting birds, including Tree Swallows (*Tachycineta bicolor*), often return to the same or nearby nest-boxes in subsequent years, little quantitative information is available on the proportion of birds that are site-faithful. At Long Point Bird Observatory, grids of nest-boxes at up to 3 locations each year have been monitored regularly, and the precise location of each box recorded. From 1970 to 1998, about 16,500 nestling and 3,000 adult Tree Swallows were banded in these nest boxes, yielding about 4,000 recaptures in subsequent years. We examined among-year site-fidelity at three scales. First, we estimated the proportion of birds that returned to the same box where they had previously bred. Second, for birds that changed boxes but remained within a study grid, we tested whether they selected boxes that were closer to their original box than might be expected based on availability of boxes. Third, we estimated the proportion of birds that moved among study grids, and whether this was influenced by distance between grids (which were from 4 to 34 km apart). Where appropriate, analyses were based on capture-recapture methods to correct for the fact that some birds were not captured every year. We also tested whether these measures of site-fidelity were influenced by the bird's age, sex, or breeding success in the previous year.

Factors affecting Piping Plover productivity at Lake Diefenbaker, Saskatchewan. *Goossen, J. Paul* (Can. Wildl. Serv., Edmonton, Alta.) and *Thomas S. Jung* (Nature Sask., Regina, Sask.)

We investigated the factors affecting reproductive success of Piping Plovers (*Charadrius melodus*) at a reservoir in south-central Saskatchewan. We documented clutch fate and chick survival from 104 nests and compared them to habitat and water-level data during 1997-98. In both years, productivity was well below the suggested population stability level of 1.13 chicks fledged/pair (0.32 c.f./pr in 1997, 0.09 c.f./pr in 1998). Hatching success was low in both years (41.5% and 48.3% in 1997 and 1998, respectively. However, the cause of low hatching success differed between years. Flooding was the primary cause of nest failures in 1997, whereas in 1998 predation accounted for largest proportion of nest failures. In both years, little of the original habitat remained for brood-rearing by mean fledge date (>18%). We attribute these differences to differential timing of water-level rises in the two years ($P<0.001$). Few chicks survived to fledging in both years (<20%). We developed predictive statistical models of habitat factors influencing nest predation, and used a simulation model (with 3,500 simulated nests) to explore how adjustments in water-level operations might be used to enhance Piping Plover productivity. Our approach provides a basis for developing effective long-term conservation plans for Piping Plovers at this important breeding site.

Translocating Piping Plover clutches threatened by flooding. *Goossen, J. Paul* (Can. Wildl. Serv., Edmonton, Alta.), *Thomas S. Jung*, and *Isabelle-Anne Bisson* (Nature Sask., Regina, Sask.) [POSTER PAPER]

At Lake Diefenbaker, Saskatchewan, Piping Plover (*Charadrius melodus*) reproductive efforts are often threatened by rising waters, which originate primarily from snow-melt in the Rocky Mountains. Increasing water-levels at this large reservoir can flood nests and reduce or eliminate brood-rearing habitat. A technique, using artificial nests, was developed to aid moving clutches to higher ground. During 1997 and 1998, 13 clutches were moved. All pairs accepted the artificial nest and nearly all translocation efforts. Few nests hatched, however, owing to rising water. As a management tool, clutch translocations will only be of value if eggs can be moved far enough to avoid flooding and if brood-rearing habitat remains available.

A GIS approach to evaluate Loggerhead Shrike habitat availability in southern Québec, Canada. *Grenier, Marcelle, Benoît Jobin*, and *Pierre Laporte* (Serv. can. faune, Ste-Foy, Qué.) [POSTER PAPER]

At the turn of the century, the Loggerhead Shrike (*Lanius*

ludovicianus migrans) was well-established in the rural landscape of eastern Canada along the St. Lawrence valley. However, population estimates showed decreasing trends from the late 1940s, so drastic that the species is listed among Québec's endangered species since the late 1980s. In 1992, only 2 breeding pairs were reported in Québec, and the last shrike nest was recorded in 1993. In 1993, a national recovery program was undertaken to rehabilitate Loggerhead Shrike populations. In 1999, we started a project to assess availability of suitable breeding habitats in Québec. From known nesting sites in Ontario and analysis of Landsat-TM images, we developed regional landscape criteria in 100 km^2 plots and patch indices criteria at the pasture level to evaluate pasture suitability for breeding Loggerhead Shrikes. These results were applied to images covering a portion of the St. Lawrence valley in southern Québec to evaluate availability of remaining shrike breeding habitat in this province as part of a possible reintroduction program.

Near-extirpation: how we almost lost the Upland Sandpiper. *Houston, C. Stuart* (Univ. Sask., Saskatoon, Sask.)

The Upland Sandpiper (*Bartramia longicauda*), once one of the commonest grassland birds in southern Manitoba and Saskatchewan, declined drastically and rapidly at the turn of the century as settlers arrived and grass succumbed to the plough. In the northern United States and in Argentina, 1870-1900, it replaced the Eskimo Curlew (*Numenius borealis*) and Passenger Pigeon (*Ectopistes migratorius*) as a prime market delicacy, and came close to following those two species into extinction. Although adults and their unusually large eggs provided food for hungry settlers, from May through August, habitat loss, not hunting, was the major factor contributing to their decline in Canada. Lowest numbers probably occurred in the 1920s. Continuing habitat loss, and whatever other factors are contributing to the decline of other grassland species, together explain the Breeding Bird Survey downward trend of over 2% per year in Canada, 1966-1994. Anecdotal historical data from many sources allow a fairly comprehensive but non-numerical appreciation of their pre-agriculture abundance.

Colonization followed by extirpation: the Greater Prairie-Chicken on the northern Great Plains. *Houston, C. Stuart* (Univ. Sask., Saskatoon, Sask.)

In western Canada, the Greater Prairie-Chicken (*Tympanuchus cupido*) has come and gone, but few details of this saga have been published. Following closely on agricultural settlement, thriving on grain as an alternate food, the 'Pinnated Grouse' reached Winnipeg in 1881 and Carberry, Manitoba, in 1886; Saltcoats, Saskatchewan, in 1897; and Red Deer, Alberta, in 1914. It spread as far northwest as Lac la Biche, Alberta. Once half the land in a given area was broken, this species diminished in numbers, retreating to local areas of thick grass around sloughs and lakes. By the late 1930s, almost all were gone. Habitat factors such as fragmentation and separation of grasslands were further accentuated by cattle overgrazing, burning, and drought, and then by hybridization of surviving isolated birds. By accessing unpublished records for the Prairie Provinces, and by cataloguing 116 northern Great Plains egg sets from 46 North American collections, I was able to fill some of the gaps in knowledge, including unpublished sightings from northwestern Ontario.

Seasonal variation in body mass of Marbled Murrelets in British Columbia, Canada. *Hull, Cindy L., Brett Vanderkist, Lynn Lougheed*, and *Fred Cooke* (Dep. Biol. Sci., Simon Fraser Univ., Burnaby, B.C.)

Body mass variation was measured in Marbled Murrelets (*Brachyramphus marmoratus*) May-August 1994-97, at Desolation Sound, and Mussel Inlet (1997 only), British Columbia. Birds were captured using a floating mist-net system during all years, and by night-lighting in 1997. Birds were weighed, and then sexed using a molecular sexing technique. A total of 426 adults was captured (273 males, 153 females) and 28 recently fledged juveniles (1997 only). Males (201.8 $\pm$ 14.3 g) were significantly heavier than females (195.1 $\pm$ 13.7 g), females averaging 96.7% of male mass. Juvenile males were 160.9 $\pm$ 23.8 g and females 151.5 $\pm$ 26.1 g, thus 80% and 78% of adult male and female masses, respectively. Using date as a covariate, no significant differences were found in adult mass across years of the study within each sex. The mass of females declined across the breeding season, but male mass did not. The decline in female mass was observed only in birds caught in the morning, and in birds caught by night-lighting. This decline in mass is most likely related to laying of the one large egg and associated changes in mass of organs. It appeared that the two capture techniques sampled different parts of the population at Desolation Sound, with night-lighting sampling more breeding birds. There was no evidence of programmed mass loss in this species, although this has been suggested as an ancestral trait in the alcids.

Towards a better understanding of the status of imperilled birds in Canada. *Hyslop, Colleen* (Can. Wildl. Serv., Ottawa, Ont.) and *Michel Gosselin* (Can. Mus. Nature, Ottawa, Ont.)

COSEWIC is the official body for the designation of imperilled species in Canada, and status reports constitute the basis for such designations. Because status reports are prepared almost exclusively after suggestions of committee members, there is a need for a summarized overview of the trends and threats affecting all Canadian bird species in order to focus the commissioning of status reports on the most appropriate species. One difficulty in creating such a summary comes from the definition of "species" by COSEWIC (i.e. species,

subspecies, or isolated population of "national significance"). About 25% of the imperilled bird "species" now recognized by COSEWIC are in fact taxa below the species level. So far, the taxonomic units that have been subject to designations have been decided on an ad hoc basis, often during or after report preparation (Yellow-breasted Chat, for example, is split in three separate units). In order to ensure the credibility of the whole exercise, we believe it is necessary to identify a priori the taxa that will be looked at, should their status warrant it. We present an attempt to arrive at a clearer definition, and hence a list, of the taxa to be examined, based upon both the geographic isolation and the phenetic (and presumed genetic) differentiation of the various bird populations.

Marbled Murrelet conservation: making effective decisions with a poorly understood species. *Kaiser, Gary W.* and *Lynn Lougheed* (Can. Wildl. Serv., Delta, B.C.)

Since 1988 the Marbled Murrelet (*Brachyramphus marmoratus*) has been the subject of a large number of research and survey projects along the whole Pacific Coast, costing millions of dollars annually. The main thrust of this effort has been to determine the characteristics of preferred nesting habitat. There have been two main approaches: surveys and behavioral studies (mostly in the United States), and banding studies for radio-telemetry (mostly Canadian), which have also allowed attempts at demographic analysis, endocrinology, genetics, and behavioral ecology. From the start, radio-telemetry was recognized as a less-biased approach to the determination of nesting habitat preference, because birds are captured on the water more or less randomly. However, most jurisdictions have used tree-by-tree searches to determine nest locations, which is laborious, often unproductive, and prone to subjective bias. Unfortunately, weak knowledge of the birds led to strategic errors which slowed the development of telemetry as a tool. In addition, the success of mist-netting operations obscured unexpected gender and seasonal biases. In 1998 and 1999, active pursuit of birds loafing on the water at night provided a new approach, which paid off immediately by leading to location of more than 65 nests scattered through undisturbed habitats and doubling the number of known nests for this species. Broader application of this technique and its linkage to forest-cover maps will facilitate landscape-scale decision-making in many parts of British Columbia.

First incubation, rearing and release of a Marbled Murrelet (*Brachyramphus marmoratus*). *Lank, David B.* (Dep. Biol. Sci., Simon Fraser Univ., Burnaby, B.C.)

Two Marbled Murrelet eggs collected inadvertently when females were captured as part of a radio-telemetry project aimed at finding nest-sites in the Bunster Range on Desolation Sound, B.C., were incubated. Both eggs pipped after 28 days incubation at 37.5°C and 67% humidity. One chick was reversed in the egg, perhaps as a result of transport between the field-site and the lab, and failed to hatch. The other hatched after 30 days incubation, grew normally, was transported back to the field-site, and released into the wild at fledging. After hatch, the bird was left in a hatcher for 24 h, and then moved to a dark warm box at ca.32°C for one day. Thereafter the bird appeared comfortable at room temperature. The chick was remarkably easy to feed and maintain. For the first 24 days of life, it was fed sandlance, a 1-2g ocean fish captured and frozen at the field-site, which makes up a large component of the bird's natural diet at that site. We fed it during 2-4 ad libitum sessions per day. Begging behaviour was limited to shivering-like body movements, and a quiet trill when more hungry. It ate from ca.10g/d as a 33g bird after hatch to a plateau of ca.50g/d from day 14 through fledging. The chick's growth-curve paralleled those published for two wild chicks from Alaskan populations. During the growth phase, the bird remained remarkably still, sitting on astroturf carpeting in a shallow bowl kept within a cardboard box. As reported from the wild, the bird maintained its downy exterior appearance while growing contour feathers underneath. Prior to fledging, it stripped the down off the ends of its feathers. Our success demonstrates that captive rearing of this threatened species can be relatively straightforward.

Basal area preference of VTE and other forest songbirds in a managed forest in southwestern Ontario. *McCracken, Jon D., Charles M. Francis*, and *Becky M. Whittam* (Bird Studies Canada, Port Rowan, Ont.)

For each of 9 target species (Acadian Flycatcher, Cerulean Warbler, Hooded Warbler, American Redstart, Ovenbird, Red-eyed Vireo, Scarlet Tanager, Veery, Wood Thrush), we compared habitat around nest-sites with habitat at systematically selected control sites located throughout a large, managed forest block in southwestern Ontario. For all species, one or more of the following variables differed significantly (either positively or negatively) from control points: habitat heterogeneity, ground cover, density of shrub/sapling layer, canopy cover, tree species diversity, tree densities, tree basal areas. For most species, total basal area of trees was not a good predictor of nest sites, but breakdown of basal area provided an important predictor; nest-sites were more strongly dominated by larger trees than control sites. We concluded that expressions of total basal area alone do not provide enough information for the effective management of VTE (vulnerable-threatened-endangered) forest birds, and it is necessary to have prescriptions, forestry assessments, and habitat models that break total basal area down into its component size-classes. Retention of many species of forest-interior birds, including VTE birds, will rely upon retaining an adequate number of

large trees in the forest stand. Hence, of the variety of cutting prescriptions available to forest managers in southwestern Ontario, the increasingly popular practice of "diameter-limit cutting" (high-grading) will likely have the most serious negative impacts on VTE forest birds like Acadian Flycatcher, Cerulean Warbler and Hooded Warbler, as this practice removes all or most of the trees in the larger size-classes.

Improving avian recovery in Canada: a role for researchers. *Nadeau, Simon, and Kent Prior* (Can. Wildl. Serv., Ottawa, Ont.)

Nineteen of 25 endangered and threatened birds in Canada are objects of recovery efforts. The broad public appeal of birds, the wealth of available ornithological research information and capacity, and federal obligations to conserve migratory birds are among the reasons why Canadian birds at risk receive relatively high attention compared to other taxa. However, the new Accord for the Protection of Species at Risk in Canada requires that all endangered and threatened species receive attention. Thus, avian conservation will have to become more efficient and priority-driven. Among other things, this will require that recovery planning for multiple species and ecosystems become more common and that species whose geographic ranges fall largely within Canada receive preferential attention. This paper illustrates examples of such applied research under specific bird recovery initiatives, and outlines opportunities in the evolving National Wildlife Recovery Program.

Distribution patterns of birds associated with snags in different boreal forest landscapes. *Nappi, A., P. Drapeau, J.-F. Giroux*, and *A. Leduc* (Groupe res. écol. for. interuniv. (GREFi), Dep. sci. biol., Univ. de Québec à Montréal, Qué.) [POSTER PAPER]

In boreal forests, several bird species use snags for feeding or nesting and depend on them for their survival. Some studies have shown that availability of snags is greatly influenced by age of the forest and type of perturbations (natural vs. anthropogenic). In North American boreal forests, relationships between birds and dead wood availability have been documented predominantly in western forests. The dynamics of dead wood and distribution patterns of birds associated with this habitat feature remain largely unknown in eastern black spruce forests. We documented distribution patterns of birds associated with dead wood in natural forest landscapes that were disturbed by different fire events (<2 yr, 20 yr, 95 yr, >200 yr). We then examined the effect of forest management on this avian guild by comparing bird patterns and dead wood availability between natural and managed forest landscapes of equivalent ages (20 yr, 80-95 yr). Birds were surveyed in 348 point-counts in the 6 different forest landscapes. Standing dead trees and coarse woody debris were sampled with vegetation plots centred at each point-count. Mature forest mosaic showed a greater species richness and abundance of cavity-nesting birds than the other forest mosaics. Results also indicated that recently burned forests are especially important for woodpeckers, given the greater availability of dead trees. Single-species models showed species-specific responses to abundance and quality of snags. Black-backed Woodpecker (*Picoides arcticus*) was the species that responded most to availability of dead wood; it was mainly restricted to the recently burned forest mosaic. Management implications of these findings for this avian guild are also discussed.

Distribution, feeding and nesting ecology of the Black-backed Woodpecker in the eastern boreal spruce forest. *Nappi, Antoine, Pierre Drapeau, Jean-François Giroux* (GREFi, Dep. Sci. Biol., Univ. Québec à Montréal, Qué.), and *Jean-Pierre Savard* (Serv. can. faune, Ste-Foy, Qué.)

The Black-backed Woodpecker (*Picoides arcticus*) is a Nearctic species associated with coarse woody debris in boreal forests. Rare throughout its range, recent studies have shown it can reach high densities in areas disturbed by fire and insect outbreaks. In eastern boreal forests its distribution and ecology are poorly documented. This study aimed (i) to quantify the species' distribution in forest landscapes disturbed by different fire events (1 yr, 20 yr, 95 yr, >200 yr), and (ii) determine snag use for feeding and nesting. Point-counts and playbacks were used to census the species across an age-gradient of black spruce forests in NW Québec. Intensive nest-search and field observations of individual birds feeding on snags were conducted in the recently burned forest mosaic. Feeding activities (small holes, bark flaking) were recorded in plots of 700m^2. Trees used by birds were compared with non-used snags. Twenty-five active nests were found. Habitat variables were measured around nest-sites, at non-used sites (within territories) and at random sites (outside territories). Results indicated that (i) the species is clearly restricted to recently burned forests, (ii) within this habitat, snags used for feeding were larger and less decayed than non-used snags, and (iii) availability of large snags (DBH>15cm) was the most important variable in selection of nesting sites. Our results suggest that intensification of salvage logging in recently burned forests may become a serious threat to maintenance of viable Black-backed Woodpecker populations. This occurs while Quebec's Ministry of Natural Resources (QMNR) is subscribing to Canadian Council of Forest Ministers "Criteria and indicators of sustainable forest management" that include maintenance of biodiversity. Under QMNR's present regulation, forest industries are constrained to undertake intensive salvage logging in recently burned areas of their forest management unit. This is done without consideration of

potential impacts of such a practice on maintenance of biodiversity.

On the function of male-female chases in the Red-winged Blackbird. *Pribil, Stanislav* (Dep. Biol., Univ. Miami, Miami, Fla., U.S.A.) [POSTER PAPER]

A conspicious feature of Red-winged Blackbird (*Agelaius phoeniceus*) social behaviour is male-female chases. During the chases, one to several males fly at top speed as they pursue a female across a marsh. These have been called "sexual chases" in the literature, but they seldom result in mating between the female and her pursuer(s). To elucidate the function of such chases, I recorded detailed information on 54 chases in an eastern population of the Red-winged Blackbird. Most (80%) of the observed chases involved a single male pursuing a female, although chases involving up to 7 males were also seen. Based on the identity of the individuals, their nesting stage and the context in which the chases occurred, I classified their putative function in five categories: (i) 56% involved a male evicting a non-resident from his territory, presumably to prevent her from foraging there; (ii) 19% involved a male trespassing on another male's territory and harassing the resident female there; (iii) 19% occurred when a male interfered with his mate's attempt to evict a new female from the territory; (iv) 9% involved a male chasing his mate away from the territory of a neighbour, presumably to prevent her seeking extra-pair copulations there; (v) 7% of chases had other functions. These results suggest that the single most important function of the chases is to prevent non-resident females from foraging on a territory. Consequently, the term "sexual chases" should not be used to describe male-female chases in this species.

Satellite tracking of Barrow's Goldeneye in eastern North America: first breeding evidence and location of moulting sites. *Robert, Michel, Jean-Pierre L. Savard* (Serv. can. faune, Ste-Foy, Qué.), *Guy Fitzgerald* (Union qué. rehab. ois. de proie, St-Hyacinthe, Qué.), and *Pierre Laporte* (SCF, Ste-Foy) [POSTER PAPER]

A few thousand Barrow's Goldeneyes (BAGO; *Bucephala islandica*) winter in northeastern North America, particularly along the St. Lawrence River, Qué., and a breeding population has long been suspected in Labrador and/or interior Québec. In February and April 1998, we captured seven BAGO drakes along the St. Lawrence estuary and implanted them with Argos PTT-100 satellite transmitters; this involves general anesthesia and aseptic surgical techniques to place the transmitter in the abdominal cavity with the antenna exiting dorso-caudally. Beginning in the last week of April, five males moved 60-140 km inland along the north shore of the St. Lawrence estuary and gulf, where they spent an average 44 ± 2.9 d (range 34-50 d), presumably with their mates. Subsequent ground surveys in these areas allowed us to document breeding for the first time in eastern North America. All paired males (n=5) departed from their breeding areas 29 May-28 June and flew an average of 948 ± 130 km (range 800-1120 km) northward to reach moulting grounds. Two moulted in Hudson Bay, two in Ungava Bay, and one on the northern coast of Labrador. Another male, probably a non-breeder, stayed along the St. Lawrence corridor until 5 June and then flew 1080 km to Ungava Bay, presumably to moult. Movements toward moulting sites were direct and usually quite rapid, and birds remained in moulting areas throughout the summer. Two males were tracked until they flew back to their wintering grounds; one reached the St. Lawrence estuary 26 October, covering 1200 km in less than two days, and the other reached the St. Lawrence between 14 and 28 November. Our study indicates that male BAGO have well-developed moult migrations in eastern North America, and raises interesting questions about how moulting sites are selected.

Estimating breeding densities of Bicknell's and Swainson's Thrushes in southern Québec. *Rompré, Ghislain, Véronique Connolly, Gilles Seutin* (Dept. Geogr., McGill Univ., Montréal, Qué.), *Jean-Pierre Savard*, and *Yves Aubry* (Serv. can. faune, Ste-Foy, Qué.) [POSTER PAPER]

Few data exist on population densities for Bicknell's Thrush (*Catharus bicknelli*) and Swainson's Thrush (*C. ustulatus*) in Québec. Previous data, based on spot-mapping in small (4 ha) plots visited 5 or 6 times, provided relatively low density estimates for both species (0.25-0.75 pr/ha). Our study, conducted in the mountains of the Eastern Townships (SE Québec), using plots of 5-10 ha which were visited 8 or 9 times each, showed greater densities (up to 1.52 and 1.62 pr/ha) than the previous studies. These estimates are close to those obtained in New England using similar methods. Density estimates obtained through point-counts in the same areas revealed densities of 0.87 and 1.56 pr/ha for the two species. Recent observations indicate that Bicknell's Thrush might have an unorthodox mating system. It is unclear whether or not this implies that our density estimates are in error.

Bird recovery in Australia. *Russell, Vicki-Jo* (Conservation Centre, Adelaide, So. Australia)

Australia has a rich avifauna with an estimated 650 resident species (45% endemic) and regular visitors, and another 300 species recorded as rare vagrants. Since European settlement in Australia in early 1800s, the fauna has been under increasing pressure from habitat loss and modification, introduced species such as the red fox and a combination of other direct or indirect human impacts. About 12% of Australia's avifauna is considered threatened and many other bird species and particular populations are thought to be in decline. Recovery of

threatened birds in Australia is spearheaded by the Recovery Plan process established in the nation's Endangered Species Protection Act 1992. State and municipal governments have also initiated programs within their jurisdictions. Underpinning the recovery effort though are the contributions of naturalists' clubs and the broader Australian community. Community surveys and environmental monitoring projects, rural outreach programs, habitat revegetation and restoration projects, land acquisition of important bird areas and the establishment of a comprehensive inventory on the birds of Australasia are just some of these contributions. This presentation will give its audience a whirlwind tour of some of Australia's most threatened birds and their habitats, including orange-bellied parrot, malleefowl, black-eared miner, and Mt. Lofty Ranges southern emu-wren, and will outline some of the diverse efforts of Australians to save their birds.

Priorization: a potentially dangerous exercise. *Jean-Pierre Savard* (Serv. can. faune, Ste-Foy, Qué.)

Priorization exercises have become a common feature in wildlife and habitat conservation. They are quite similar to modeling exercises which vary greatly in terms of performance, links with reality, and power. It is a common practice now to evaluate models critically, but unfortunately this is not yet the case with priorization exercises, which are seldom evaluated. Indiscriminate and improper use of priorization exercises can have insidious short-and long-term effects (i.e. lack of pro-active actions within a conservation agency). Common mistakes in priorization exercises include: (i) lack of evaluation of biological relevance of the model used and its rankings; (ii) lack of data for the criteria used; (iii) improper weights given to criteria; (iv) no justifications given for weights given to criteria; (v) utilization of too many criteria; (vi) priorization of items that should not be priorized together; (vii) priorization at different scales; (viii) use of databases of poor or unknown reliability; (ix) improper use of a given ranking. Priorization schemes using a matricial approach (i.e. Partners in Flight bird priorization, Nature Conservancy priorization) are quite vulnerable to these errors. Hierarchical priorization techniques are much superior and should be preferred or used conjointly with matricial approaches. Priorization should be one of many tools used to orient actions, not a constraining structure directing them.

Range data from bird field guides: a note of caution regarding their use in a conservation context. *Seutin, Gilles, and Christian Dyer* (Dep. Geogr., McGill Univ., Montréal, Qué.)

Range information is used in several ways in conservation biology. The extent of a species' range is often used to quantify responsibility of a jurisdiction in its protection; the larger the proportion of a species' global range within a jurisdiction, the greater the responsibility of that jurisdiction for its conservation. Range size is also used to identify the rarity and presumably the risk of extirpation of a taxon; restricted-range species are given higher conservation priority than widespread species. Finally, distribution data on rare or indicator species are often used to identify biomes, ecoregions or other areas in need of protection. For all this, accurate range information is needed. We digitized distribution maps of 20 Canadian bird species (selected at random) shown in four widely used field guides. Range sizes were generally consistent among sources (discrepancies <30%), but differences greater than 50% were noted for some narrowly distributed species. This could lead to erroneous conservation ranks being given to these taxa, unless a gross scale of range occurrence is used. Accuracy of range-mapping was verified by overlaying maps from the four sources. Pairwise overlaps varied among species, but were generally greater than 70%. Overlap of less than 50% was noted for some narrowly distributed taxa. Conservation managers should be careful in selecting range information for priorization exercises.

Habitat preferences and activity budgets of Dunlins (*Calidris alpina pacifica*) wintering in the Fraser River delta, and the influence of predation risk. *Philippa C.F. Shepherd, David B. Lank* (Dep. Biol. Sci., Simon Fraser Univ., Burnaby, B.C.), and *Bob Vernon* (Agric. Canada, Agassiz, B.C.)

We examined winter habitat preferences and activity budgets of Dunlins in the Fraser River Delta, the largest river-outlet on Canada's Pacific coast. The Fraser Delta, adjoining the rapidly expanding city of Vancouver, B.C., hosts the country's highest winter densities of waterbirds, shorebirds, and raptors, as well as some of its most productive agricultural lands. We used radio-telemetry and behavioural observations to monitor locations and activity of individual Dunlins of known sex (and where possible age) at high and low tides, both by day and by night, under a variety of environmental conditions. We analysed 2nd and 3rd order habitat selection, and as expected Dunlins preferred mudflats, but they also foraged and roosted in the nearby agricultural habitats, primarily at night. Dunlins occasionally used the agricultural habitat during the day and, when they did, their flock size was smaller, they were more vigilant, and they fed less than on the mudflats. This may be due to day and night differences in predation risk between the two areas. Most of the agricultural habitats are surrounded by hedgerows and trees, so it is easier for aerial predators to surprise them on the ground there than on the mudflats. Dunlins moved less at night than during the day. This may in part be because during the day they gathered into large flocks and spent a significant amount of time in the air when tide was high (68.2 min $\pm$ 12.3 min SE) even though plenty of adjacent

agricultural habitat was available for roosting. Dunlins spent similar proportions of time foraging in both marine and terrestrial habitats (appr. 60%), as well as both day and night (also appr. 60%). This study illustrates the importance of examining habitat use and activity throughout the 24-hr day. The significance of the agricultural zone to wintering Dunlins may otherwise have been missed.

Lake Erie Bald Eagles: their decline and recent recovery. *Shutt, Laird* (Can. Wildl. Serv., Hull, Qué.) and *Becky Whittam* (Bird Studies Canada, Port Rowan, Ont.)

Productivity and contaminant levels in eggs and juvenile plasma are reported for a recovering population of Bald Eagles (*Haliaeetus leucocephalus*) around Lake Erie, Ontario. This population, largely extirpated by the 1960s, was monitored annually from 1980 to the present. Productivity averaged 1.1 yg/active nest between 1982 and 1996 while the number of active nests increased from 3 to 15. Concentrations of organochlorine contaminants in unhatched eggs and chick plasma declined over the study period. The concentrations of contaminants detected do not appear to be adversely affecting productivity in the Canadian Lake Erie Bald Eagle population. The increase in number of active nests during this period indicates that the population is expanding and might be expected to do so until suitable habitat becomes limiting. Reductions in organochlorine levels, reintroduction efforts, immigration from other populations, and changes in habitat quality have likely contributed to the observed growth in the number of breeding pairs.

Using age ratio surveys to assess recruitment of Harlequin Ducks. *Smith, Cyndi M.* (Dep. Biol. Sci., Simon Fraser Univ., Burnaby, B.C.), *R. Ian Goudie* (Harlequin Cons. Soc., St. John's, Nfld.), and *Fred Cooke* (Biol., Simon Fraser U., Burnaby)

Waterfowl exhibit a sequence of plumages, from natal downy feathers through to definitive alternate. Most adult male ducks thereafter show two adult plumages a year, a basic plumage, and a usually brightly coloured definitive alternate plumage. This sequence of plumages allows the proportion of immature males to adult males in autumn and winter populations of waterfowl to be used as an index of recruitment. Obtaining this ratio can be particularly important for species such as Harlequin Ducks (HADU; *Histrionicus histrionicus*) that are difficult to study during the breeding season. Age ratios may also be used to determine age-specific mortality rates. Age counts are subject to several sources of error, including variable flock structure, timing of migration, behavioural differences between age groups, habitat use, and ecographic location. Age counts are only useful if age-classes can be accurately identified. We used known-age HADU to show that (i) males are distinguishable in the autumn of the hatch year, and (ii) males attain definitive alternate plumage in the second calendar year. To assess recruitment of immature HADU into the population, we conducted age ratio surveys in the Strait of Georgia, B.C., in October to March, 1994-99 (except 1996-97). The proportion of immature males in the wintering population varied from 14% (1994-95) to 6% (1997-98), mean 9.6% over four winters. The proportion of immature males varied considerably between sites and months. If areas where high numbers of immature males winter (separate from adults) were not covered in our surveys, this may skew our data. In related research, we found an annual mortality rate of 14-18% for males and 27% for females. It appears that annual adult mortality is not balanced by recruitment in the Strait of Georgia, in contrast to Maine and Newfoundland, where the populations appear to be stable or increasing.

The effects of predation and subsequent predator control at a Roseate Tern colony in Nova Scotia. *Whittam, Becky, Marty Leonard* (Dep. Biol., Dalhousie Univ., Halifax, N.S.), *Andrew Boyne* and *Julie Paquet* (Can. Wildl. Serv., Sackville, N.B.)

Predation limits reproductive success of many colonial seabird species. Our goal was to determine how predation affects the success of endangered Roseate Terns (*Sterna dougallii*) nesting on Country Island, N.S., and subsequently to control predators using non-lethal methods. Country Island is one of three main breeding sites for Roseate Terns in Canada. Forty-five pairs of Roseate, 330 pairs of Arctic (*S. paradisaea*) and 130 pairs of Common (*S. hirundo*) terns nested in 1996. Corvids (*Corvus brachyrhynchos* and *C. corax*) were the main egg predators, taking 24% of Roseate eggs in 1996. Gulls (*Larus argentatus* and *L. marinus*) were the main chick predators, taking 77% of Roseate chicks. Only 0.08 Roseate chicks/nest fledged in 1996, and no Arctic or Common chicks fledged. In 1997 only one pair of Roseate Terns bred, and Arctic and Common nests declined by over 50%. Predation continued to be the primary source of tern nest failure. In 1998 (continuing in 1999) we used noisemakers to scare predators before terns arrived, and we destroyed all predator nests. As a result, predation by corvids on eggs was almost eliminated, and gull predation on chicks decreased by 50%. Furthermore, numbers of Arctic and Common Tern nests increased to near-1996 levels, and three pairs of Roseate Terns nested. Clutch size and hatching success of Arctic and Common Terns were significantly higher after control was implemented. We discuss implications of our results for conservation of Roseate Terns in Canada.

REPORTS FROM 1999 ANNUAL MEETING/RAPPORTS DE LA RÉUNION ANNUELLE DE 1999 (mostly edited/condensed, to varying degrees)

PRESIDENT'S REPORT/RAPPORT DU PRÉSIDENT:

Several of my activities over the last year are covered in reports of the Nominating and Publications committees. These took up more time than anticipated, as outlined in those reports.

The Society sent two communications to governments in the past year. The first - on the "Lands for Life" issue in Ontario - was discussed in the April 1999 issue of *Picoides*. The second was a letter drafted on our behalf by Ellen Paul of the Ornithological Council urging our own federal government to ensure designation of species status by COSEWIC will continue to be on purely scientific grounds under proposed new legislation, as in the past. A copy of that letter follows this report. The Ornithological Council has taken a lead role on our behalf in this issue, and I believe it entirely appropriate for us to accept help and support of the North American ornithological community to address issues on conservation of migratory birds which, as we all recognize, do not recognize national borders. I agree with Dr. Erskine's editorial musings in the April *Picoides* to the effect that we must fight our own battles on our own ground; however, I do not believe we should do so alone. Rather, I maintain that we should use all the allies we can recruit. Let us hope that our various governments prove as sensitive to views expressed south of the border on issues of avian conservation, as they seem to be on other issues. In our first year of membership in the Ornithological Council I found the relationship beneficial and positive, and I trust they will be able to continue to provide us with similar extent and quality of support in future.

The last year has been very busy and has involved the Society in some new activities. My approach to letters and resolutions - articulated in the April 1999 *Picoides* - has been to communicate the issue, the proposed action, and my own opinion to Council and Officers before proceeding formally on behalf of the Society. It has been most encouraging to receive full support of Council and Officers in all cases; the rare responses from members have also, with one exception, been similarly supportive.

The coming year offers us more opportunities for continued growth. The Millenial Bird Meeting, to be held jointly with the A.O.U. and the B.O.U. in St. John's, will allow us to highlight the particular flavour of Canadian ornithology - as soon as we can decide what that is! Your Meetings Committee will wrestle with this task over the next few months, and will be seeking members' ideas and offers of help; this meeting will present an unparalleled opportunity for us to showcase our special ornithological heritage. Whether presenting papers or posters, organizing workshops or round-table discussions, or running field-trips, we should make the most of this opportunity to raise the Society's profile internationally.

To: Minister, Environment Canada

The Ornithological Council has been made aware of a proposal to remove scientists from the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). As we understand it, there have been discussions of this nature for several years. As an organization representing the scientific ornithological societies of North America - including the Society of Canadian Ornithologists - we would like to express concern about this proposal.

The National Accord for the Protection of Species at Risk recognizes COSEWIC as a source of independent advice on the status of species at risk nationally. A critical component of the independent advice that a body such as COSEWIC provides is scientific information. By definition, scientific information is independent. It is free from political influence, free from personal or societal judgments and fashions, and free from personal bias. Scientists are trained to design and conduct research and interpret their findings so as to avoid these outside influences.

Scientific information is also the critical, defining information for the determination that a species is endangered or threatened. Scientists conduct the studies that answer the questions about the status of a species. The most basic of these is population trends. A small population size does not mean that a species is endangered or threatened. Some species have small populations, locally or globally, due to their ecological requirements or behavioral traits. Changes in population size are the rule in nature. Establishing that a species is declining is not a simple

matter. If one could count all individuals on an annual basis, it would be easy to make this assessment. In fact, it is not possible to do that. Most information on species numbers comes from surveys and censuses that cover only limited areas. Scientists determine the appropriate methodologies for conducting those processes. They determine how those samples reflect the status of the entire population. It is also necessary to evaluate the reproductive performance of a population, because the number of adults does not necessarily indicate population trends. In the case of long-lived species, the size of the adult population may remain fairly stable, but limited reproduction will result in a fairly abrupt decline. Scientists have the specialized training to use these data to identify population trends, determine if there are significant changes in population sizes, and evaluate the significance of those changes. Some species experience significant, periodic, and rather dramatic changes in population size.

It is also scientists who determine critical information such as minimum viable population sizes, after assessing disease risks, risks of stochastic events such as natural disasters, life histories of the species, and the genetic structure of the population. Scientists use taxonomic methods, such as comparisons of genetic differences, to determine whether a group of individuals is a distinct subspecies, or within the normal range of variation shown by any species. Changes in geographic range can be determined by scientists. Science, which strives to be predictive in nature, can suggest the response in population size to changes in habitat quality and quantity by studying the behavioral ecology of an organism.

Science has a rigorous system of quality-assurance known as peer review. If research is published in a respected journal, it has been critiqued by several scientists who have expertise in the fields to which that research pertains. Peer-review is usually conducted anonymously, which is further guarantee against the incursion of political and personal bias.

It is often the case that there is a dearth of published, peer-reviewed literature regarding the status of a species. In such cases, scientists must rely upon what is known as the "gray literature" and unpublished data. Using this type of information for decision-making requires the detached perspective of science, as well as the ability to interpret such data and understand its limitations.

The scientists who serve on the COSEWIC subcommittees are trained to find, evaluate, and use peer-reviewed research findings, gray literature, and unpublished data. They are uniquely equipped, by virtue of their training, to make recommendations that are based on science, rather than on emotion or personal perception. There is clear and extensive evidence that this is true in the history of the U.S. Fish and Wildlife Service's (FWS) decision-making process on endangered and threatened species. Time and again, environmental groups have fought for listings (often with litigation) for species that they perceive to be declining. Where the FWS has been unable to make a scientific determination that the listing is warranted, it has refused to take that action.

It is hard to imagine how COSEWIC could function without scientists. Writing of the United States Endangered Species Act, noted ecologist Gordon Orians said that "any federal legislation capable of functioning as the basis upon which the biological resources [of the United States] can be preserved and passed along in undiminished form to future generations must contain the following provisions...Recognition that 'listing' is a scientific decision and that the only appropriate listing criteria are scientific ones."

In 1996, the Canadian provinces and territories committed themselves to preventing species in Canada from becoming extinct as a consequence of human activity. That commitment dictates that decisions to protect species be based on science, which, in turn, means that the scientists on COSEWIC are integral to its functioning and to the fulfillment of the commitment expressed in the National Accord for the Protection of Species at Risk.

The Ornithological Council consists of ten leading scientific ornithological societies in North America - the American Ornithologists' Union, Association of Field Ornithologists, CIPAMEX, Cooper Ornithological Society, Pacific Seabird Group, Raptor Research Foundation, Society of Canadian Ornithologists, Society for Caribbean Ornithology, Waterbird Society, and Wilson Ornithological Society - that together have a membership of nearly 6,500 ornithologists. It is our mission to provide scientific information about birds to legislators, regulatory agencies, industry decision makers, conservation organizations and others, and to promote the use of that scientific information in the making of policies that affect birds. We also represent the concerns of ornithologists to the regulatory agencies and other organizations that authorize research activities involving wild birds. We hope that our comments help to illuminate the indispensable role of science in the protection of endangered species, and will persuade you to develop regulations or other procedures that expressly provide for the continued participation of scientists on COSEWIC.

signed by Ellen Paul (for O.C.) & A.W. Diamond (for S.C.O.)

S.C.O. TREASURER'S REPORT/RAPPORT DU TRÉSORIER DE S.O.C.

The Society's finances remained healthy in 1998, with no significant changes from previous years. Again we were able to publish two excellent issues of *Picoides*. Two Taverner Awards supported graduate research by Celia McLaren and Barb Glassey. We honoured Dr. Ian McTaggart Cowan's career contributions to Canadian ornithology with the 1998 Speirs Award.

As in the past, income from investments provided funds for the Society's awards, and membership fees offset costs of publishing our bulletin. The Society's assets are invested in term deposits, currently plagued by low yields. Our move last year to higher membership fees helps free us from limitation by low interest rates, and this lets us pursue some new initiatives. To date, no negative comments re higher dues were received.

Organizers of the last two meetings transferred the surplus to me so some "seed money" was available for this year's conference. My intent is to hold such funds in a separate account that may be drawn on by future conference organizers. These funds may also contribute to publication of conference proceedings.

Over the next year our organization will have opportunities to work on important conservation efforts, and to support talented young Canadians. Our ability to pursue these activities depends on keeping current members and recruiting new ones. I reiterate a challenge from past presidents to bring colleagues across Canada together through our Society.

Tom Dickinson
Treasurer S.C.O.

1998 Financial Statement (audited by L.J. Peatt, 16 July 1999)

Opening balances & investments (1 Jan. 1998)		
	Savings	$622.73
	Chequing	68.85
	G.I.C. Investments	21,257.40
	Total	**$21,948.98**
Income:	Donations	$355.00
	Transferred from other charities	175.65
	Membership fees	3,352.69
	Interest on investments	1,006.61
	Total	**$4,889.95**
Disbursements:	Speirs Award	$108.36
	Taverner Awards (McLaren, Glassey)	1,000.00
	Picoides: Spring 1998*	1,236.25
	Postage & stationery (Membership)	245.00
	Society Registration	30.00
	Total	**$2,619.61**
Closing balances (31 Dec. 1998)		
	Cash	$100.00
	Savings	80.30
	Chequing	2,289.02
	G.I.C. Investments (Principal)	21,750.00
	Total	**$24,219.32**

* cost of Fall 1998 *Picoides* included in statement for 1999

1999 **Interim** Financial Statement

Opening balances (1 Jan. 1999): total	$24,219.32
Income (through 15 July 1999): total	4,983.03
Disbursements (through 15 July 1999): total	3,810.91
Closing balances (15 July 1999): total	25,391.44

COMMITTEE REPORTS/RAPPORTS DES COMITÉS

MEMBERSHIP (report by Nancy Flood - originally included many figures, now only summarized in text)

As of 15 July 1999, membership of S.C.O. stands at 257, including 13 libraries, museums or societies. Of these, 71 (28%) have not yet renewed for 1999, but 50 (20%) are paid up through 2000 or farther. The Society is thus down from its peak of over 300 members, partly from continued difficulty in retaining new members (few who joined in 1996 or 1997 are paid-up). I predict a further decrease when members in arrears are dropped from the list at year-end.

Many members renew for more than one year, and some have enquired about life membership. I encourage Council to consider adding this category. Several individuals contribute generously, through "sustaining" memberships or donations.

Affiliation of members included 35% at universities or colleges, 18% with C.W.S., 21% with other federal, provincial, or private agencies. 17% gave no affiliation, presumably including mostly retirees and interested volunteers.

Geographical distribution of members showed decreases since last year in all provinces except B.C. (1998 meeting site) and N.B. (President's base?). Almost one-third of members are from Ontario, and some listed under Québec work there but live in Ontario. The 2000 meeting in Newfoundland may attract more members from the Atlantic Provinces.

An interesting comparison is the years when current members joined S.C.O., thus:

"Founder"*	25	1988	4	1994	10
1983	39	1989	39	1995	11
1984	0	1990	5	1996	36
1985	1	1991	7	1997	13
1986	1	1992	3	1998	18
1987	8	1993	25	1999	9

* "Founder members" paid extra to give the Society start-up funding. However, not all our "Founders" are still members...

1999 DORIS HUESTIS SPEIRS AWARD FOR OUTSTANDING CONTRIBUTIONS IN CANADIAN ORNITHOLOGY

The Society's award for outstanding contributions to Canadian ornithology, The Doris Huestis Speirs Award, was made posthumously to Dr. Henri R. Ouellet (1938-1999), and announced at the annual general meeting of the Society in Montréal. Dr. Ouellet, S.C.O. Past-President, and former Curator of Birds and Chief of Vertebrate Zoology Division, of the National Museum of Natural Sciences, made many contributions to Canadian ornithology during his 40-year career, as outlined in the extended obituary published recently (*Picoides* 12(1): 14-18, 1999). The award was formally sent to Henri's wife Yvette soon afterwards.

S.C.O. RESEARCH AWARDS - 1999 report

For the 1999 competition, eleven students - representing six universities (Alberta 1, Brock 1, Manitoba 3, Queen's 3, Trent 2, York 1) - submitted complete application packages. Virtually all the students and their projects exhibited excellence, and it was not easy for the committee (Rodger Titman of McGill U., Jean-Francois Giroux of U. de Québec à Montréal, and David Bird (chair) of McGill U.) to render its judgements.

The original selection was complicated in late July 1999 when one successful candidate changed supervisors and projects, and asked to apply that award to a new project starting in 2000. The Awards chair suggested, and Council (meeting in Montréal) agreed, that terms of these awards did not cover transfer of awards between projects and years. Therefore the returned award was assigned to the next-ranked candidate, without restricting in any way the opportunity of the disappointed individual to apply for an award again in 2000.

The James L. Baillie Student Research Award, funded by Bird Studies Canada (from proceeds of the Baillie Birdathon) and administered by S.C.O., was presented to Scott Tarof (Queen's U.) for a project "Natural and sexual selection in Least Flycatchers (*Empidonax minimus*): why do breeding birds cluster?"

Two Percy A. Taverner Awards of the Society of Canadian Ornithologists were made to Grace Bottita (Trent U.) for "Energetics constraints during incubation in Arctic-nesting Common Eiders", and Ryan Norris (York U.) for "The effect of forest fragmentation on the extra-pair mating system of the Hooded Warbler (*Wilsonia citrina*)".

Reports on these projects will appear in a subsequent issue of *Picoides*.

Thanks are due to the previous Awards Chair, Ross Lein, for leaving a well-organized and smoothly functioning operation, which made this year's work easy for the new Chair. Winners of the 1998 awards also kept their part of the bargain and submitted progress reports (published in the preceding *Picoides*) and expense summaries.

Best Student Papers: In view of the very few papers (3) offered by students in the Montréal conference, Council decided against making any student-presentation awards at the 1999 meeting.

PUBLICATIONS

Committee Report (by A.W. Diamond) The Committee has not met since the last Annual Meeting. As Chair, I regret not involving members more in editing and compiling (with D.N. Nettleship) the Proceedings of the Fredericton conference, of which a draft mock-up is now available. Publication of subsequent Proceedings should benefit from hard lessons learnt on this one - and thus proceed more swiftly and efficiently. Review should be handled by an Editorial Board, to allow separation of tasks into more manageable assignments.

A draft **Business Plan for Journal** publication will be attached to the mailing, as an insert.

EDITOR'S REPORT - 1998-99 YEAR

This report covers my sixth year as Editor of *Picoides*. We produced two issues, more or less on schedule, neither being exceptional in size nor especially innovative as to content. A substantial - and bilingual - obituary of Past-President Henri Ouellet, achieved through collaboration of several people, was the first on that scale in our bulletin.

Publication of our 1998 Vancouver conference program & abstracts, with citation and lecture text for Speirs Awardee, and "conservation features" in each issue, were other major items of content. Volunteered text, other than as news/info items, or written by the Editor, remained scarce.

We featured attractive cover photos, volunteered by members, on both issues. When people submitting text have something suitable, it would be nice to match cover photos with content; there's seldom time to hunt up an apposite photo after receiving a text.

Again, I suggest that some kind of round-table discussion of *Picoides*, at the Montréal conference, might be helpful. It could provide feedback and suggestions to the Editor and Publications Committee, and also allow explanation to interested SCO members - at greater length than we can afford to print - why *Picoides* is the way it is, and some possibilities for improving it. We might even find ways to save on publication costs, which continue to increase.

I am willing to continue as Editor for another year or three, if Council chooses to re-appoint me. If anyone else wants to share in the fun, don't let me hog it! I plan to be in Montréal to present this report personally - and also in St. John's in "Y2K".

NOMINATIONS (by A.W. Diamond)

V-P Kathy Martin was on sabbatical leave, so we shared the task of nominating a slate of Candidates for Council and I handled the ballot. Results (persons taking office for 1999) were announced in the spring *Picoides*. We discussed possible nominees for this fall's elections, and further suggestions are solicited. We hope that ballots and profiles of members will accompany the fall *Picoides*. Erica Nol, J.-P. Savard, and Fred Cooke have agreed to stand for second terms, leaving two places to be filled on Council as well as the position of Vice-President (President-elect).

LOGO FOR S.C.O.

The question was raised in the spring 1999 *Picoides* [12(1): 19] whether S.C.O. should have a logo separate from that for its bulletin. The Society records indicate that the woodpecker logo was proposed and approved for the Society, and the bulletin took its name from that - but that's only history.

Michel Gosselin, who created the "Canada Jay" logo for the 1986 Ottawa I.O.C., has sent us that drawing and another as possible alternatives. These are reproduced, with the *Picoides* woodpecker, on a separate sheet.

Please express your choice, with any comments, to Tony Diamond (addresses on inside front cover). The verdict, which will appear in the next *Picoides*, will close this matter, one way or other - until next time!

REPORT OF S.C.O. REPRESENTATIVE TO NORTH AMERICAN BANDING COUNCIL

(by Brenda Dale, songbird biologist, C.W.S. - Prairie & Northern Region, Edmonton, Alta.)

The Council meeting 5 March 1999 at Archbold Research Station, Lake Placid, Florida, was a key stage in development of NABC. The Council has been discussed on a banding "chat line", and a lot of misconceptions had to be addressed. Concerns ranged from: not wanting government (or tax dollars) involved; rejecting the idea of required standards; worry about certification being required for a permit; & anger/rejection over appointment of a limited group of "initial certified trainers". Those with negative views may be more prone to comment than those who see NABC as a positive step. Meetings with Canadian prairie banders suggested support for most points noted above as criticized by others.

I am not surprised at backlash against the apparent "old boys" club of initial trainers, which I opposed at the 1997 meeting. Increased public interest in NABC influenced most of the meeting. NABC had done little outreach, as they didn't want to talk up the process before training materials and procedures were finalized. The banding community is apprehensive, as it knows something is coming but little or nothing about it. Appointing certified trainers two years before they could begin work fueled an elitist image.

Committee reports followed:
(i) Outreach - plan for preparation/update of poster, fact sheet, web site, journal, oral presentations, accepted with minor changes;
(ii) Evaluation (BD a member) - little progress in assembling questions for written exams or finalizing practical evaluations;
(iii) Trainers - still trying to fill out geographic and species-group gaps among nominated trainers. [BD opposes nominations based on "I think they are good", and uses performance at trainers' workshops; no other Council member used a standardized evaluation.]
(iv) Publications - not much progress; changed sequence of items in manuals, several now in preparation. Canadians involved included Norm North & Randy Hicks on waterfowl, Cheri Gratto-Trevor on shorebirds; BD asked to see raptor draft without response.

Increased public interest created a feeling on Council that evaluation and certification of banders should begin. Plans are to begin this at joint Inland BBA/AFO and Western BBA meetings in September. [BD opposed this, unsuccessfully, arguing that the point of the process is to improve training/evaluation, not to meet a deadline.] Both Evaluation & Trainers committees independently concluded that Trainer workshops (like those held by CWS in prairies) are needed.

BD received no feedback from S.C.O. membership or executive either for or against her positions vis-a-vis NABC, following publication of her previous report in *Picoides*.

Call for Applications - STUDENT RESEARCH AWARDS IN 2000

Applications are invited for two Taverner Awards (up to $500 each) and one Baillie Award ($1,000) for 2000.

Taverner Awards are offered by the Society of Canadian Ornithologists to honour Percy A. Taverner and to further his accomplishments in increasing knowledge of Canadian birds through research, conservation and public education. The awards are aimed at people with limited or no access to major funding, regardless of professional status, who are undertaking ornithological work in Canada.

The James L. Baillie Student Research Award is open to any student conducting ornithological research at a Canadian university. It honours the memory of James L. Baillie and will support field research on Canadian birds. The James L. Baillie Student Research Award is funded by Bird Studies Canada/Long Point Bird Observatory from proceeds of the Baillie Birdathon, and is administered by the Society of Canadian Ornithologists.

A single application may be made for both awards, but only one award can be won by an applicant in a given year. Taverner Awards are given only once for the same project; Baillie Awards only once to the same person. However, past winners of either award may apply for the other. Funds are not awarded for stipends.

Application procedures changed in 1997 from those used in previous years. All applicants must use a standard application form, which may be obtained by contacting the chair of the committee. Completed applications must reach the following address before 15 January 2000:

Dr. David M. Bird, Chair,
S.C.O. Research Awards Committee,
Macdonald College, McGill University,
21,111 Lakeshore Rd., McDonald Stuart Bldg MS2072,
Ste-Anne-de-Bellevue, Qué. H9X 3V9

Awards will be announced by 1 April 2000. For application materials or additional information, contact D.M. Bird,
PH 514-398-7760; FX 514-398-7990; EM bird@nrs.mcgill.ca

Call for Nominations - DORIS HUESTIS SPEIRS AWARD

The Speirs Award is presented annually to an individual who has made outstanding lifetime contributions to Canadian ornithology. If you wish to nominate someone, please contact:

Society of Canadian Ornithologists, Speirs Award,
c/o Dr. D.N. Nettleship, Canadian Wildlife Service, DOE,
45 Alderney Dr., Dartmouth, N.S. B2Y 2N6
(see inside back cover for phone, fax, and e-mail).

NEWS ITEMS AND ANNOUNCEMENTS

Raptors 2000

A joint meeting of Raptor Research Foundation and World Working Group for Birds of Prey will be held 2-8 April 2000 at Eilat, Israel, a major conference in a major raptor concentration area. David Bird of Canada is on the scientific program committee. Early registration & submission of abstracts are due by 1 December 1999. For details contact: ORTRA Ltd., 1 Nirim St., POB 9352, Tel Aviv, Israel [ph: +972-3-6384444; fx: +972-3-6384455; em: raptors@ortra.co.il; web site: www.ortra.com/raptors2000.

EDITOR'S MUSINGS: Who are the volunteers?

The number of programs that depend on volunteers increases all the time. Traditionally, it was mostly social services that relied on volunteers; some people with independent means devoted much time to "good works", and far more worked part-time as opportunity or inclination allowed. In recent decades many other agencies enlisted efforts of interested people in an increasing variety of activities. Much of this work now is viewed by the public as responsibility of some level of all-powerful governments - which implies it is paid for by the public. Obviously there are limits to how much governments can spend on most things. Bird conservation, and the research and surveys on which it is based, is an area that depends heavily on volunteers, particularly for work on "non-game" birds. But who are these "volunteers"?

First of all, these people are interested in birds, to the point of devoting (often substantial) time at intervals recurring every year, each month, or even several times a week. Recently I considered the people who sent in nest record cards to the Maritimes program (sponsored by C.W.S.) in 1998, re their continued participation in nest-recording vs. "principal occupation" at other times. Of 54 participants in 1998, 14 had contributed in 15 or more years, one for 29 consecutive years. The 14 long-time participants included a farmer, a rural mail-driver, and two office-workers, and one who had been retired for 15 years. Nine were employed (currently or before retirement) as biologists or technicians in wildlife or parks agencies! All the latter devoted some "free time" to birds, as well as using opportunities to note nests during their work. That small sample is not exceptional.

When I coordinated the Breeding Bird Survey across Canada (in 1969-77), I noted that many BBS observers were employed in natural resource or parks agencies, though some did BBS routes only at weekends. Many of the small numbers of people who work in such agencies are dedicated individuals, for whom birds are a fascination, an avocation, as well as a job. Their work, and the training for it, makes a trip into the wilds (to count birds, record nests, or whatever) less adventurous for them than for many other people, but not less enjoyable. What may count most for such people is that these "volunteer" activities involve direct contact with birds, unlike much of their official work. Another large group of "volunteers" includes professionals from other fields: physical scientists and medical doctors turn up unusually frequently, but most professional groups are represented among unpaid bird workers. People whose work regularly takes them outdoors have opportunities not open to office- or factory-workers. In the prairies particularly, many farmers are birders, some are bird-banders, and a number regularly do Breeding Bird Surveys - after ploughing and seeding are finished. Forest technicians and park wardens are also involved.

Only in Ontario, Canada's most urbanized province, are outright volunteers in the majority in most bird projects. Partly that reflects larger human population there; people sufficiently interested in birds to become involved in project work comprise a small proportion of the total everywhere, but there are more birders where more people live. Mutual stimulation, through participation in clubs or work-groups, helps too, and such groups arise more frequently where the human population is concentrated.

Those of us who organize bird-counting exercises and other kinds of bird study involving "volunteers" recognize that we are making use, for bird conservation, of the skills of unpaid individuals. Those people are rewarded for their efforts by enjoyment of time spent afield among the birds they love, and by a feeling of satisfaction in contributing to worthy causes, as well as by any information we feed back to them to show that data they collected are useful - and used. The last may not be the least important. If data cannot be used, we should not go on requesting them of busy people whose time might be spent more usefully in other ways. The kind of useful information you'd like to see coming out of your own contributions to a bird-counting exercise is what should be in all reports to "volunteers".

Society of Canadian Ornithologists
Société des Ornithologistes du Canada
Standing Committees and Representatives

	voice:	fax:	e-mail:
Doris Huestis Speirs Award Committee			
(excellence in Canadian Ornithology)			
David N. Nettleship (chair)	902-426-3274	902-426-4457	david.nettleship@ec.gc.ca
Tony Diamond	506-453-5006	506-453-3583	diamond@unb.ca
Spencer G. Sealy	204-474-9459	204-275-6352	sgsealy@cc.umanitoba.ca
Research Awards Committee			
(James L. Baillie [1K$] & 2 Taverner [0.5K$] Research Awards)			
Chair - David Bird	514-398-7760	514-398-7990	bird@nrs.mcgill.ca

Mandate: annual selection of candidates;
Actions: (a) fall call for applications, review, & announcement of awards 1 April each year; (b) membership appointment and maintenance of rotational committee structure.

Conservation Committee			
David Bird	as above		
Rob Butler	604-940-4672	604-946-7022	rob.butler@ec.gc.ca
Mike Cadman	519-826-2094	519-826-2113	mike.cadman@ec.gc.ca
Keith Hobson (chair)	306-975-4102	306-975-4089	hobson@sask.usask.ca
David Nettleship	as above		
Publications Committee (*Picoides* and journal)			
Tony Diamond	as above		
David N. Nettleship	as above		
Spencer G. Sealy	as above		
Finance and Investment Committee			
Tom E. Dickinson	250-828-5447	250-828-5450	tdickinson@cariboo.bc.ca
Bird Studies Canada			
André Cyr	819-821-7074	819-821-8049	acyr@courrier.usherb.ca
Tony Diamond	as above		
Canadian Landbird Conservation Program			
Peter Blancher	819-997-6086	819-953-6612	peter.blancher@ec.gc.ca
North American Banding Council Representative			
Brenda Dale	403-951-8686	403-495-2615	brenda.dale@ec.gc.ca

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MEMBERSHIP INFORMATION

If you would like to be a member of the Society of Canadian Ornithologists, please send your name, address, phone number, and a cheque or money order (payable to S.C.O.) for $15.00 [$10.00 for students] to the Membership Secretary:

Dr. Nancy Flood, Dept. of Biological Sciences,
University College of the Cariboo,
900 McGill Rd. (Box 3010), Kamloops, B.C. V2C 5N3

Si vous désirez devenir membre de la Société des ornithologistes du Canada, faites parvenir vos coordonnées ainsi qu'un chèque ou mandat-poste (à S.O.C.) au montant de 15,00$ [10,00$ pour les étudiants] à l'adresse ci-haut.

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