

A BIRD'S EYE VIEW OF CONSERVATION

Bird Conservation Workshop - From International to Local Perspectives

This document provides a summary of the presentations that were made at the Bird Conservation Workshop held at the Canadian Museum of Nature on May 6th, 2004. This event was sponsored by the Wildlife Festival, the OFNC/Fletcher Wildlife Garden and the Canadian Museum of Nature.

'A Bird's Eye View of Conservation' featured presentations and displays providing international, national, provincial and local perspectives on current issues related to bird conservation and monitoring.

Conservation of Canada's Birds - An International Context

Peter Blancher
Bird Studies Canada
May 2004

Working together for birds and people

BirdLife International (<http://www.birdlife.net/>) is a global alliance of conservation organisations working together for the world's birds and people.

State of the World's Birds 2004 - One in eight of the world's birds faces extinction.

Conservation Goals

- conserve all sites of global, regional and national importance to birds - IBA
- take action for globally threatened bird species – Red List

The Important Bird Areas Program

Identify, document and protect a network of sites critical for birds.

Site selection based on distribution of 'important' species:

- threatened
- geographically concentrated
- biome-restricted

Canada's Important Bird Areas program is a science-based initiative to identify, conserve and monitor a network of sites that provide essential habitat for Canada's bird populations. (<http://www.ibacanada.ca>) There are 597 IBAs in Canada.

2003-2004 Community Action Fund - ONTARIO

Discovering your IBA
Prince Edward Point Bird Observatory
Prince Edward South Shore IBA, Ontario
Interpretive kiosks for communities
Kingston Field Naturalists

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Napanee Limestone Plain IBA, Ontario

Avian Species at Risk

Hamilton Naturalists' Club

Twelve Mile Creek Headwater Forests IBA, Ontario

Habitat Perks

The Wilds of Pelee Island

Pelee Island IBA, Ontario

Number of Bird Species in Canada

All Birds	Breed in Canada	Migratory Breeding Birds
655	431	367
Landbirds	274	215
Waterbirds	78	75
Shorebirds	42	41
Waterfowl	37	36

Species Richness in North America is dwarfed by much higher species numbers in Central and South America. However, North America does have primary hemispheric responsibility for several large families of birds - breeding Sandpipers (Scolopacidae) are an example plus waterfowl (Anatidae), warblers (Parulidae), gulls (Laridae), finches and others.

In addition, North America is the hemispheric centre for migratory birds. Several billion birds migrate out of Canada each year after breeding, connecting us with countries throughout the hemisphere and other parts of the world

Landbird Species Shared with Canada via Migration

Country	Shared Species	% of All Species
United States	214	42%
Mexico	183	22%
Costa Rica	89	13%
Ecuador	50	4%

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Suriname	23	4%
Cuba	109	53%
Puerto Rico	72	42%
Barbados	43	62%

Shorebird Species Shared with Canada via Migration

Country	Shared Species	% of All Species
United States	39	63%
Mexico	37	77%
Costa Rica	33	77%
Ecuador	32	59%
Suriname	24	75%
Cuba	31	84%
Puerto Rico	33	80%
Barbados	32	73%

Canada's Intact Forests

Most of Canada's intact forests are in the northern boreal, taiga and cordillera

Countries With Most of the World's Remaining Frontier Forest

Global Rank	Country	Total Frontier Forest (000 Km ²)	Percent of the World's Total Frontier Forest
1	Russia	3,448	26
2	Canada	3,429	25
3	Brazil	2,284	17
4	Peru	540	4
5	Indonesia	530	4
6	Venezuela	391	3
7	Colombia	348	3
8	United States	307	2
9	Zaire	292	2
10	Bolivia	255	2
11	Papua New Guinea	172	1
12	Chile	162	1
Total of the top 12 countries as a % of the global total:			90

from - The Last Frontier Forests: Ecosystems and Economies on the Edge, World Resources Institute, 1997

Importance of Canada's Boreal Forest to Landbirds

A study commissioned by the Boreal Songbird Initiative and the Canadian Boreal Initiative (Peter Blancher, Bird Studies Canada)

The boreal forest is receiving increased attention for its importance to birds. Some 62% of Canada's landbirds breed in the boreal forest including 74% of warblers, 70% of vireos, 70 % of flycatchers and 67% of thrushes.

At least 60 species rely on the boreal forest for most of their Western Hemisphere population. Some have close to 100% of world population breeding in the boreal forest (e.g. Tennessee and Palm Warblers, Black-backed Woodpecker).

Canada's boreal landbirds are highly migratory. 90% leave Canada for the winter (compared to 76% of non-boreal landbirds) and 3-6 billion boreal landbirds leave Canada each fall. 2/3rds of landbirds leaving Canada are from the boreal forest.

Long-distance (neotropical) migrant landbirds are most concentrated in the boreal forest in their breeding distribution. In migration, these same species are particularly reliant on eastern and mid-western United States. While in winter these species are concentrated from Mexico through to northern South America. Canada has responsibility to safeguard these species during their stay in the boreal forest.

High Percent of Canadian Migrants

FALL Migration - % from Canada		SPRING Migration - % from Canada	
Georgia	41%	Georgia	53%
Tennessee	37%	Missouri	50%
Missouri	37%	Tennessee	40%
Alabama	30%	Alabama	39%
North Carolina	28%	South Carolina	35%
Kentucky	28%	Louisiana	32%
Mississippi	25%	Arkansas	32%
Louisiana	23%	Mississippi	29%
South Carolina	23%	Texas	29%
Texas	18%	North Carolina	27%
Florida	13%	Florida	24%

Declines in Boreal Bird Populations

- some species with steep declines
- others increasing, no overall pattern of declines
- poor knowledge of trends for most boreal species

Status of Knowledge of Boreal Birds

Distribution	Fair
Abundance	Poor to Fair
Population Trend	Poor to Fair
Productivity & Survival	Largely unknown
Ecology	Poor to Fair (knowledge is patchy by species and by place)
Impacts	Poor to Fair (small-scale effects best studied, little boreal work at landscape scale, causes of declines??)
Modeling the Future	Early stages of research (promising but restricted in scope)

Species with Declining Populations in North America - Breeding Bird Survey (BBS)

Trends

Further south in the Prairies, we are in a more reactive mode. MOST grassland birds have shown significant declines over the past 35 years – declines are more prevalent among grassland birds than in any other habitat guild, according to BBS trend data.

The geographic pattern of population declines highlights the central grasslands as THE area of most pervasive declines (PIF PT score maps) and most landbirds that are highly dependant on grasslands have shown declines.

North American Bird Conservation Initiative (NABCI)

http://www.cws-scf.ec.gc.ca/birds/nabci_e.cfm

- Canada, United States and Mexico
- all Birds and all Habitats

NABCI – Integrated bird conservation for all of North America (Canada, United States, Mexico). Launched by the CEC (Commission for Environmental Cooperation) in 1999.

Bird conservation planning in North America is now tending to take place at two scales, all of North America (Canada, U.S.A., Mexico) and by Bird Conservation Region or slight variations of these regions.

Many bird conservation plans have been produced in the last few years, with "continental" and national plans for waterfowl, waterbirds and shorebirds.

PIF North American Landbird Conservation Plan

- help species at risk
- keep common birds common
- voluntary partnerships for birds, habitats and people

PIF Species of Continental Importance

PIF Watch List (100 species)

- High Vulnerability - Combination of small population, narrow distribution, high threats and declining trend

Stewardship Species (95 additional species)

- High Responsibility - High % of global population within single biome

PIF has added a second type of Important Species to help keep common birds common, referred to as Stewardship Species. These are species that have a very high proportion of global population in a single North American biome, i.e. they are characteristic species of that biome, regardless of current population vulnerability. The assumption is that by paying attention to the status and needs of these Stewardship Species, PIF will be more proactive in maintaining abundance and diversity of birds across the continent.

PIF Continental Priority Species

Watch List	Stewardship List
Bay-breasted Warbler	Black-backed Woodpecker
Canada Warbler	Black-throated Green Warbler
Cerulean Warbler	Cape May Warbler
Golden-winged Warbler	Chestnut-sided Warbler
Olive-sided Flycatcher	Magnolia Warbler
Rusty Blackbird	Mourning Warbler
Wood Thrush	White-throated Sparrow

Examples of landbirds identified as high continental priority by PIF, and which have important proportions of global population in Ontario. “Watch List” species are those with significant population concerns or vulnerability at the continental scale. “Stewardship Species” are important by virtue of their concentration in one part of North America, in this case those breeding almost entirely in northern forests.

Overall, the highest concentration of PIF Watch List Species in the breeding season is in Southwestern USA, with none in the high arctic. Most Watch List species in Canada are in the south, where Species at Risk programs are already operating. Does this mean there is little need for landbird conservation in central and northern Canada? The situation of species for which long-term planning and stewardship responsibility are seen as the most appropriate actions (stewardship species) is seen as the most prevalent need for much of Canada.

There are four Bird Conservation Regions (BCRs) in Ontario. Ontario shares its four BCRs with seven U.S. states, five other provinces and two territories.

The Canadian Landbird Monitoring Strategy

Connie Downes

National Wildlife Research Centre

Canadian Wildlife Service

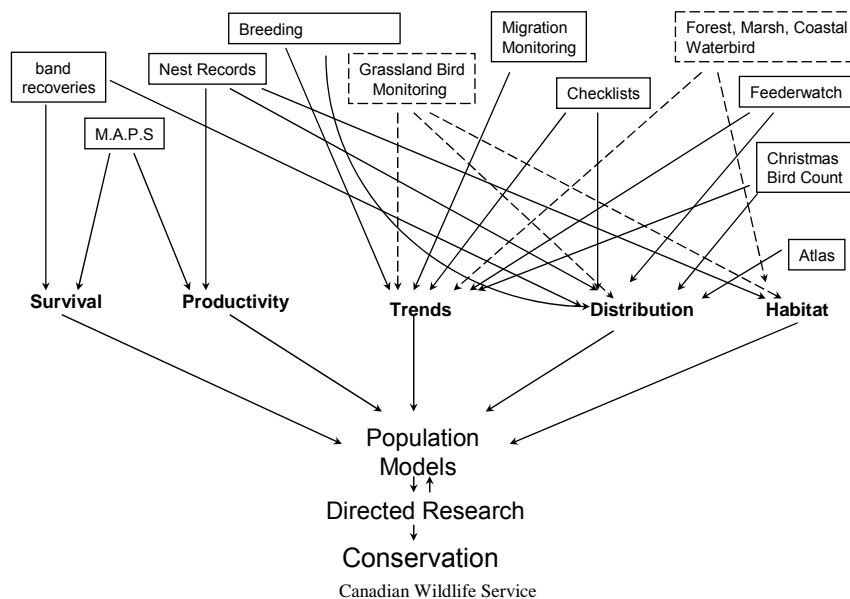
May 2004

Canadian Landbird Monitoring Strategy

- Goals
 - monitor the status of all Canadian landbirds
 - information available and used for research and conservation
- Website : http://www.cws-scf.ec.gc.ca/nwrc-cnrf/migb/01_1_3_e.cfm

British example - Lapwing

- declining on multiple surveys
- nest records showed clutch size stable/ brood size declining
- banding showed adult survival had not declined
- directed research showed egg loss resulted from switch to autumn sown crops & intensive grazing
- conservation now concentrating on finding field practices that promote egg survival



Uses of CLMS

- species assessments (COSEWIC)
- conservation priorities (PIF, NABCI)
- setting conservation targets (NABCI)
- assessing conservation action
- national indicators
- environmental assessments

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BBS (Breeding Bird Survey) methods

- started in 1966 by Chan Robbins, USGS (US Geological Survey)
- continent wide, long term, standardized
- volunteers run 40 km route, 50 3-min point counts
- 4,000 route locations
- trends for 256 landbirds (varying precision)

North American BBS data set

- 37 years of bird population data
- 3.7 million species records
- 200,000 species records added per year
- mainly landbirds (some waterfowl, shorebirds)
- Canadian records about 20 % of these

Canadian BBS trends - Annual % change (1967 - 2002)

Grassland	-1.7 p<0.05
Woodland	0.1
Scrub/successional	-0.6 p<0.05
Urban	-0.8 p<0.05
Neotropical	-0.5 p<0.05
Temperate	-0.8 p<0.05
Resident	-0.1

BBS instrumental in

- raising issues of neotropical declines in east in 1980s
- detecting grassland declines in 1990s
- spurred research and conservation action

BBS disadvantages

- in Canada covers < half country (arctic and boreal not covered)
- nocturnal, early-nesting, rare and secretive birds not well covered
- some habitats not well covered e.g. wetlands, grasslands
- volunteers must be highly skilled (difficult to recruit)

Breeding Bird Atlases (and atlas-like projects)

- atlas : area divided into uniform "blocks and squares" surveyed by volunteers
- "atlas-like" : published reports, museum records, surveys, bird surveys, field observations
- results
 - snapshot of distribution and relative abundance
 - repeated atlases document changes in ranges and new breeding species
 - changes assessed in relation to environmental factors and human activities

Breeding Bird Atlases

- completed: all provinces except NF
Yukon
- in progress: Newfoundland
- 2nd version: Ontario
Alberta - update

Ontario Atlas achievements to date

- 2,000 people registered
- > 86,000 field hours
- > 37,000 point counts
- 285 species reported for the province
- regional coordinator (Ottawa) - Christine Hanrahan
- web site: www.birdsontario.org

Data have already been used for:

- Species at Risk Recovery Team research and planning,
- Short-eared Owl research,
- Northern Goshawk research,
- environmental assessments and life science inventories,
- nature reserve management plans,
- Ontario Parks park management and planning purposes.

Nest Record Scheme

- fill out card for any nests found
- data include
 - species
 - location
 - # eggs, # young, behavior etc.
 - habitat
- multiple visits most useful

Nest Record Scheme - potential products

- breeding distribution maps
- breeding phenology information
- productivity trends (by habitat)

Nest Record Scheme

- Progress
 - started entering existing records (2000)
 - converting coding system to BTO standard
 - meeting
 - >>> rejuvenated interest by NGOs
- Future
 - more existing records entered
 - web based entry
 - products >> integrated monitoring

CLMS promotes...

- coordination
- assessment
 - data gaps, quality, peer review
- availability of data and results
- integration

Species at risk in Eastern Ontario

Shaun Thompson

Ontario Ministry of Natural Resources

May 2004

Status overview

300 +/- breeding in Ontario

477 listed in NHIC Natural Heritage Information Centre Database -

<http://www.mnr.gov.on.ca/MNR/nhic/nhic.cfm>

- 1 extinct
 - 1 extirpated
 - 11 endangered (COSEWIC = 10)
 - 1 threatened (COSEWIC = 3)
 - 9 special concern (COSEWIC = 8)
 - 75 tracked
 - S1 = 12; S1S2 = 6; S2 = 12; S2S3 = 13; S3 = 16; S3S4 = 9
- <http://www.ontarioparks.com/english/sar.html>

Eastern Ontario

Peregrine Falcon

Least Bittern

Yellow Rail

Loggerhead Shrike

Great Black-backed Gull

King Rail

Henslow's Sparrow

Caspian Tern

Red-headed Woodpecker

Bald Eagle

Cerulean Warbler

Trumpeter Swan

Black Tern

Red-shouldered Hawk

Supporting tools and people

Legislation

- SARA - Species at Risk Act
http://www.speciesatrisk.gc.ca/default_e.cfm
- ESA - Endangered Species Act
<http://www.ontarioparks.com/english/sar-protection.html>
- FWCA - Fish and Wildlife Conservation Act
http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/97f41_e.htm
- Planning Act - PPS
http://www.mah.gov.on.ca/userfiles/HTML/nts_1_3171_1.html
- MBCA - Migratory Birds Convention Act
http://www.cws-scf.ec.gc.ca/legislations/laws1_e.cfm
- CFSA - Crown Forest Sustainability Act
<http://ontariosforests.mnr.gov.on.ca/regulatedmanuals.cfm>
- EAA - Environmental Assessment Act
http://www.ene.gov.on.ca/envision/env_reg/ea/english/General_info/What_is_the_Ontario_Environmental_Assessment_Act.htm
- aggregates
- parks – federal and provincial
- CITES - Convention on International Trade in Endangered Species
<http://www.cites.org/>

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Others:

- government programmes
- protected areas
- NGO's
 - FON - Federation of Ontario Naturalists
<http://www.ontarionature.org/index.php3>
 - BSC - Bird Studies Canada
<http://www.bsc-eoc.org/>
- field naturalist groups
- other volunteers
- aboriginal communities
- recovery teams / strategies
- monitoring programs
- CLTIP - Conservation Land Tax Incentive Programme
<http://www.mnr.gov.on.ca/MNR/cltip/>
- CFWIP - Community Fisheries and Wildlife Involvement Programme
<http://www.mnr.gov.on.ca/fishing/cfwip.html>
- WHF - Wetland Habitat Fund
<http://www.wetlandfund.com/>
- NAWMP - North American Waterfowl Management Plan
<http://www.nawmp.ca/>

Recovery

- planning
- education
- research & monitoring
- habitat improvement
- reintroduction
- land stewardship
- legislation
- other conservation actions

A Local Perspective from the Ontario Wetland Habitat Fund

Conserving wetlands and significant bird habitat in the National Capital Region

Katherine-Ann Laman

Ontario Wetland Habitat Fund

May 2004

About the Wetland Habitat Fund

- Landowner-driven wetland stewardship projects
- Technical guidance for planning projects - on-site visits
- Cost-sharing with landowners - the Fund may provide 50% of the total project cost up to \$5,000. Landowner contributions are considered in the total project cost
- Wetland Conservation Plan - completed by the landowner, an inventory of their property and listing of goals and objectives for land use on the property
- Conservation Agreement with Wildlife Habitat Canada - 10 year agreement
- All birds, all habitats initiative - upland bird species

WHF links local landowners to international bird conservation efforts:

- North American Waterfowl Management Plan
- North American Bird Conservation Initiative
- Wildlife Habitat Canada - NGO
- Ontario Ministry of Natural Resources
- U.S. Fish & Wildlife Service
- Eastern Habitat Joint Venture
- North American Waterfowl Management Plan
- North American Bird Conservation Initiative
- Partners in Flight
- Partners include Ducks Unlimited, Nature Conservancy of Canada, Wildlife Habitat Canada, Canadian Wildlife Service, Ministry of Natural Resources, Ministry of Agriculture and Food

Constance Bay to Shirleys Bay - A Special WHF Project

In late 2001, the Bay to Bay project was established. The area is on the west end of Ottawa, including West-Carleton and March townships and the northern portion of Nepean. This area was chosen to concentrate efforts due to its significance and pressures.

Significant natural corridor for birds and other wildlife...

- Three Provincially Significant Wetland Complexes - Shirleys Brook, Mud Pond, Constance Creek
- Area of Natural and Scientific Interest - Shirleys Bay - Constance Creek
- Species at Risk Habitat - more than 30 species
- Migration Route - more than 30 species
- Dedicated Landowners

...Under Pressure

- Urban Sprawl
- Recreation
- Aggregate Extraction
- Agriculture Practices

Wetlands in Ottawa

The wetlands in Ottawa are experiencing the same pressures as the Bay to Bay corridor. Concentrated efforts in Ottawa will help to benefit more wetlands in Ottawa, such as:

- Mer Bleue
- Carp River
- Constance Creek
- Leitrim Wetlands
- Stevens Creek
- Rideau River
- Richmond Fen
- Poole Creek
- Greens Creek
- Castor Rivers
- Bear Brook

Securement Programs in and around Ottawa

- City of Ottawa
- Nature Conservancy of Canada
- Ducks Unlimited Canada
- Conservation Authorities
- Land trust movement
- Others!!

Stewardship Programs in and around Ottawa

- Clean Up Rural Beaches - early 90's
- Wildlife Habitat Canada - early 90's
- Rideau Valley Conservation Authority - ongoing
- Rural Clean Water Program - 2000 - present
- Wetland Habitat Fund 1997 - present, with concentrated efforts from 2001 onwards

Wetland Habitat Fund Goals for 2001 - 2003

- Secure and enhance 550 acres of wetland and connective uplands
- Influence management practices
- Develop connective corridors
- Raise awareness and engage landowners

WHF Projects in Ottawa

- Nesting Structures
- Tree Planting
- Restoring open water communities (open cells)
- Developing connective corridors
- Livestock Restriction

Other Eligible Projects

- Creating and enhancing wetland buffers
- Small-scale water control structures
- Adding in-wetland nesting sites or islands
- Improving grassed waterways

Current WHF Projects in Ottawa

- +40 landowners with signed agreements
- +400 acres of wetland enhanced
- +300 acres of upland enhanced
- +1,500 acres under securement
- Over \$120,000 of project enhancement spent in Ottawa

Nepean National Equestrian Park

- Friends of Equestrian Park
- Fenced Stillwater Creek from horses
- Spring tree planting
- Erected Wood Duck boxes

Strengthening Our Ongoing Relationships with Ottawa Landowners

- Monitoring program – online soon!
- Encouraging additional monitoring and restoration work
- Tours and workshops
- Profile, promotion and recognition

Duck Box Workshop

- Landowners sharing stewardship practices
- Stewards attended:
 - Friends of the Equestrian Park
 - Ottawa Duck Club
 - Landowners
 - Canadian Wildlife Federation
 - Ottawa Stewardship Council
- Thirty new structures for duck nesting!
- Over 80 new structures in the past two years

Duck Nesting from Start to Finish

Visual of five pictures: A male and female Wood Duck are checking out the nesting box. Eggs are laid in the box. Upon hatching, the ducklings climb out of the box and jump out... in hopes of a safe landing. Shavings are used in the duck boxes and are changed annually, usually in the winter.

2004 in Ottawa

- Continue work with landowners to develop projects across the region
- West Ottawa Wetlands tabloid
- Mississippi River/Ottawa Valley Canoe and Kayak Co. site - tree planting, dead tree planting and artificial nesting structures
- Developing partnerships with Duck Clubs, Conservation Clubs, Ducks Unlimited, Soil & Crop members
- Continue with National Capital Commission projects
- All-birds, all habitats projects
- National Capital Commission

Ottawa Region Partners

We would like to thank the agencies who supported the Bay to Bay project.

- City of Ottawa
- National Capital Commission
- Conservation Authorities - Mississippi Valley, Rideau Valley, South Nation
- Environment Canada - Canadian Wildlife Service
- Ducks Unlimited Canada
- Community Foundation of Ottawa
- Ottawa Stewardship Council
- Macnamara Field Naturalists
- Ontario Trillium Foundation
- 40+ Landowners!

Interested in Participating?

Contact Katherine-Ann Laman

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