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LIVING

Warning call for birds' future

More than 40% of species are in decline, some seriously so, newest report shows

It will come as no surprise to most people that Canada's bird populations have been heavily influenced by human activity. Urbanization, agriculture, forestry and other forms of development have helped some species but hindered many others, according to a first-of-its kind national report on the state of Canada's birds.

Drew Monkman
OUR CHANGING SEASONS

The State of Canada's Birds report draws on 40 years of data – from professionals and citizen scientists – to present an overview of how Canada's birds are faring. It summarizes the status of Canada's bird populations for all eight regions of the country, including the Arctic and even the oceans. This scientific report also identifies the most significant conservation opportunities for Canadians to ensure healthy bird populations.

The report finds that there are fewer birds now than in the 1970s – on average, Canadian bird populations have declined by 12% since 1970, the year effective monitoring began for most species.

Overall, more species are decreasing (44% of species in Canada) than increasing (33%). Another 23% have shown little overall change.

KARL EGRESSY photo

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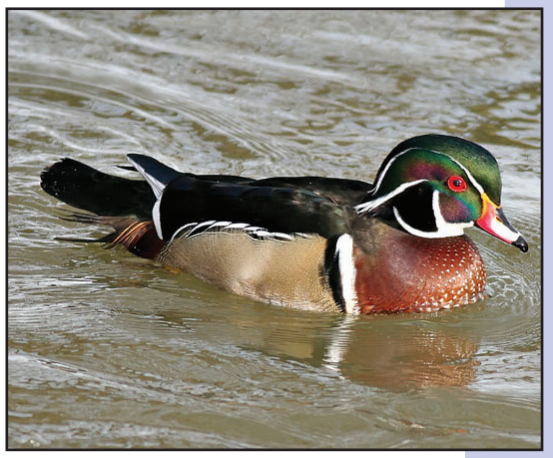

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The purple martin and chimney swift (top left and above) are two of many North American bird species common to the Kawarthas that are in decline. On the positive side, the merlin and wood duck (top right and above) and thriving.

SUMMARY OF FINDINGS

The report highlights the following, most significant changes in Canadian bird populations.

• Grassland birds, including meadowlarks, bobolinks and others, have declined by more than 40% on average, due largely to a loss of habitat.

• Aerial insectivores – swallows, martins, swifts, whip-poor-wills, nighthawks and flycatchers –are declining more steeply than any other group of birds. These birds depend entirely on flying insects for food and any decrease in flying insects from pesticides or other contaminants – in Canada, along migration routes or in their wintering grounds – could have a large impact on survival. Even a minor shift in the seasonal timing of insect emergence due to climate change, could result in mismatched seasonal cycles of birds and their insect prey that could be disastrous for species with no alternative food source. Some formerly abundant species like the barn swallow have declined to less than a quarter of their 1970-level populations. Research is urgently needed to understand and reverse the causes of these declines to ensure these species are not lost.

• Shorebirds have declined by almost half overall, while Arctic shorebirds in particular, including the endangered red knot, have declined by 60%. Most shorebirds migrate very long distances and are being affected by loss and alteration of wetlands, estuaries, deltas and mudflats at all stages of their journey. Two stopover sites close to Peterborough include Presqu'ile Provincial Park and the Nonquon Sewage Lagoons at Port Perry. Ongoing international cooperation is vital to identify and conserve the key sites needed by shorebirds throughout their long migrations.

• Increasing raptor populations, such as the peregrine falcon, bald eagle, osprey and merlin, point to the success of direct conservation actions, including pesticide controls. Many raptor populations were hard hit by contamination in the mid-1900s. Banning persistent pesticides such as DDT, combined with species-specific recovery programs for species such as the peregrine falcon, have enabled dramatic recoveries since 1970.

• Waterfowl populations have increased in part due to successful management of hunting and wetlands. International cooperation among governments and conservation organizations, through the North American Waterfowl Management Plan, has led to more sustainable management of waterfowl hunting and protection or restoration of wetlands – important habitat for waterfowl and other wetland birds. These successes demonstrate that habitat management can work to conserve birds. However, wetlands still face many threats including draining for agriculture and development, pollution, invasive non-native species and droughts due to climate change.

SITUATION IN THE KAWARTHAS

The Kawarthas overlap two of the regions covered by the report: the Lower Great Lakes-St. Lawrence region in the south and the Southern Shield in the north. In the Southern Shield, most characteristic species populations have declined since 1970 due to a combination of factors acting both inside and outside this region. About one-third of these species are in a disturbingly rapid decline. Changes in age and species composition of forests; loss and degradation of wetland, grassland and shrub habitats; acid rain coming from various regions; and habitat loss in southern wintering areas – are all having a major affect. Aerial insectivores, which are declining across North America, show their steepest declines in this region – by almost 70% overall. That is why you may no longer be seeing barn swallows or whip-poor-wills at your farm or cottage.

Although many waterfowl populations have increased (e.g., mallard, wood duck, Canada geese), wetlands are still being lost and degraded in many areas, particularly near urban and agricultural centres. In contrast to waterfowl, other water birds have declined by almost 25% overall – Wilson's snipe and American bittern populations by more than 50%.

Almost 60% of once common birds that use shrub and forest-edge habitats (e.g., brown thrasher, loggerhead shrike) have declined. This may be due to habitat loss from urban development and maturation of shrub habitats on abandoned agricultural land into forests. In some areas, heavy browsing by over abundant deer has reduced the shrub layer. As for birds that dwell within the forests themselves (e.g., great horned owl), they have declined by 10%. Many forest and forest-edge birds from the Southern Shield winter in Central America, Mexico, and the Caribbean where forests are being converted to farmland at alarming rates.

As for the southern Kawarthas, located in the Lower Great Lakes-St. Lawrence Region, forest birds, water birds and waterfowl have all increased, demonstrating that people and birds can live together. Substantial reductions in environmental pollution are reflected in increases in populations of many raptors. Nevertheless, some species have declined dramatically, including aerial insectivores such as purple martins and chimney swifts, both of which have decreased by an astounding 95%. Grassland birds such as bobolinks have declined by 70%, with several species at risk of extirpation (local extinction). Changing agricultural practices are making farmlands less suitable as habitat, and forests have re-grown on abandoned agricultural grasslands.

CONSERVING OUR BIRDS

Ensuring healthy populations of all species of Canada's birds requires a concerted effort by all levels of society including government, non-government organizations, the scientific community, the commercial-industrial sector and individuals. Here are a few key areas for conservation action.

• Practices have been developed for hay and forage production that can benefit grassland birds. Delay of haying until after young birds fledge, well managed grazing, maintenance of hedgerows and other bird-friendly practices should be encouraged. For example, bobolink populations can thrive in agricultural areas, provided that bird-friendly agricultural practices are followed.

• Urban expansion, housing and industrial developments, and new transportation corridors should respect existing limits to development, and be planned to conserve as much of the natural landscape as possible and avoid key areas for birds, especially around wetlands. In many urban and agricultural areas, wetlands have been reduced to a small fraction of their initial area.

• Increasing existing forest cover, expanding and linking larger forest patches (e.g., Kawarthas – Naturally Connected project) and ensuring sound forest management practices will all help the forest birds that are most sensitive to nearby development. We need to support forest management and protection guidelines that recreate the natural age structure of the forest and more closely emulate patterns of natural disturbances, such as fire, and allow for periodic pulses in insect populations. All of these measures would benefit many forest dependent bird species.

• Canadians must also work internationally to achieve conservation success and be mindful that we share "our" birds with many other countries. Only 22% of Canadian bird species spend the whole year in Canada. Most others migrate to the United States (33%), to Central America, Mexico and the Caribbean (23%) or to South America (15%). The greatest concern for many migratory species is loss of habitat. With growing development pressures in many countries in the Caribbean and Latin America and global demand for products from these countries, natural habitats are rapidly being converted for human use. Agriculture is replacing both natural forests and grasslands. Beach-tourism and shrimp aquaculture are replacing coastal habitats, including mangroves and salt marshes. In order to reverse some of these trends, many successful cooperative programs have already been developed. Nature Canada and its regional partners in Haiti, the Dominican Republic and Cuba are working with rural communities to develop economic activities that conserve bird habitat, such as agro-forestry and ecotourism.

CATS ARE KILLERS

• Outdoor cats kill more than 100 million birds every year in Canada. Reducing or eliminating stray cat populations and keeping domestic cats indoors will protect many birds. Research has shown that cats kill many more birds than their owners realize and that bells on collars do not save birds.

• Climate change is already having measurable effects on bird populations through mortality during severe weather events, mistimed insect emergence, disappearing Arctic ice, changing ocean temperatures and collapsing food-webs; and many more effects are predicted. Reducing these threats requires urgent action to prevent further climate change and to mitigate and adapt to the effects that are inevitable.

• Our personal choices can benefit bird populations directly. These include keeping cats indoors and choosing products that support bird-friendly agricultural (e.g., shade-grown coffee), fisheries and forestry practices. You can also contribute to bird conservation by supporting your local naturalist groups and other conservation organizations such as Nature Canada. Help your children or grand-children to experience and appreciate the natural world. The future of conservation depends upon them.

The State of Canada's Birds report is available online at www.stateofcanadasbirds.org.

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