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LIVING

Worrisome numbers

Many species of birds that forage on the wing for insects are in decline

At 4:54 a.m., as the marsh and distant hillsides slowly become visible in the misty twilight, it takes all the effort you can muster to



OUR CHANGING SEASONS
Drew Monkman

shake the cobwebs from your head and to focus on the diverse birdsong filling the air. Wichety-wichety-wichety! - "Common yellowthroat," I tell Jerry. Swee-swee-swee-tititi-swee! "One yellow warbler. No. Make that two."

Over three minutes of intense listening, 12 species make their presence known in the pre-dawn cacophony. Others probably go undetected with so much acoustic overload. "There's a winter wren," I yell out. "Add another chipper...There's a chickadee...ovenbird...robin...red-wing...song sparrow...chestnut-sided warbler...wood-pewee...and add one more veery."

Evolution has been kind to us. Not only has it made birds the most vocal of all animals, but it has resulted in different species having different songs. Birds distinguish and identify themselves by the sounds they make. Each species — and sometimes even individual birds within species — sings with a voice that is entirely unique. With practice, we can learn these songs and use them as a very accurate tool of identification. Knowing the songs also greatly enhances our enjoyment of the natural world. You quickly become extremely aware of all the avian diversity around you without even having to look up!

Once migration has ended, a male bird heard singing during the breeding season usually signifies the presence of a nesting pair. For this reason, surveys of the abundance of breeding species are conducted every year at this time, but primarily in June. The Breeding Bird Survey (BBS) is a major information source for population changes of terrestrial birds along roadsides in North America.

Bird populations continue to be subjected to numerous threats. Probably the most serious and widespread problems are habitat loss and habitat fragmentation, both on the breeding and overwintering grounds. To this list we can also add collisions with windows, predation by cats, land-use changes, chemical contaminants and, what is quickly becoming a large-scale menace, climate change. Against this backdrop, the BBS closely monitors bird populations. The data provide an index of population abundance that can be used to estimate population trends and the relative abundances of different bird species. The results are used to inform researchers and wildlife managers of bird conservation priorities. The causes of the population changes can hopefully be identified and appropriate actions taken to try to reverse them before bird numbers reach critically low levels. Grassland species, for example, have been of particular concern for at least 10 years. Aerial for-



Karl Egressy, special to The Examiner

A barn swallow (above) and a tree swallow (below). Swallows are still a common sight in the Kawarthas, but numbers are in a serious decline. A veery (bottom photo) one of the most common birds on Drew Monkman's Breeding Bird Survey route.

agers, too, are showing a steady decline.

The BBS depends on the participation of volunteers who are able to identify birds by song. Usually during the peak breeding season of the first three weeks of June, they survey a 40-kilometre route determined by the Canadian Wildlife Service. The routes are chosen randomly but are designed to sample a range of habitats. Travelling by car, participants start 30 minutes before sunrise and make a total of 50 stops, .8 kilometres apart. A three-minute count is conducted at each stop, during which time the observer identifies and counts all of the birds heard — the vast majority — or seen. A volunteer records the data. In order to produce comparable data from one year to the next, it is important to stop in precisely the same spot each year and to conduct the survey under suitable weather conditions. More than 3,000 routes in the continental U.S. and Canada were completed in 2005. Of these, approximately 70 were done in Ontario.

Since 1996, I have been doing a route that runs along County Road 46 from Lasswade, located east of Apsley, to just north of Havelock. I record roughly 70 different species each year. I am pleased to say that for the most part, the same species seem to be present in roughly comparable numbers at the same locations along the route. Year in and year out, the most common birds are red-eyed vireos, ovenbirds and veeries. Some other species that consistently make strong showings include blue jays, red-winged blackbirds, swamp sparrows, chestnut-sided warblers, yellow-bellied sapsuckers, indigo buntings and common yellowthroats.

In addition to the birds, the sounds and sights of many other animals are part of the experience. Each year we see snapping turtles laying their eggs in the roadside gravel, white-tailed deer grazing in



nearby meadows and porcupines lumbering across the road. More than anything else though, it is the non-stop chorus of frog song that typifies the route...mink frogs sounding like horses' hooves on cobblestone, bullfrogs bellowing their deep, bass "jug-o-rum" calls and countless green frogs uttering their short, throaty "boinks," like the pluck of loose banjo strings. The same flowers are there to

greet us each year, as well: yellow hawkweed, ox-eye daisy, Canada anemone, blue flag, dogbane and, a rare but beautiful roadside denizen, the wood lily. This year, we couldn't get over the huge crop of seeds on nearly all of the trees. Abundant cones on the conifers caught our attention as well. Standing vertically on the twigs like little soldiers, the fresh purple-coloured cones of the balsam fir

were particularly attractive.

Data gathered between 1994 and 2004 on Breeding Bird Surveys indicate that several species of aerial foragers (barn swallow, tree swallow, northern rough-winged swallow and common nighthawk) are among those birds that are suffering the greatest decline in number. All of these species feed by capturing insects as they fly. The decline is especially serious in western Canada and in the boreal hardwood transition zone, a region that encompasses northern Peterborough County. Aerial foragers are also declining in many other parts of the world although the reasons for this are largely unknown. There is some evidence that increasing levels of exposure to ultraviolet radiation, resulting from the thinning of the ozone layer, is proving lethal to the aquatic life stages of some important aerial insects like midges. There simply may not be as much food for these birds as there once was.

The whip-poor-will, an aerial forager that used to be a very familiar sound throughout much of rural Peterborough County and cottage country, is also experiencing a severe population decline across its North American breeding range. According to BBS data, the continental population of whip-poor-wills declined by an average of 2.3 per cent per year from 1966 to 2004. Data gathered during the Ontario Breeding Bird Atlas, a five year intensive census of breeding birds that scoured the entire province, indicate that whip-poor-wills may have declined by as much as 45 per cent in 20 years. The common nighthawk, too, is experiencing a similar drop in numbers. The nasal call of the nighthawk used to be one of the most common sounds of downtown Peterborough on summer nights. For the most part, its voice has now fallen silent.

The golden-winged warbler is another species of major concern. The declining availability of shrubland habitat and the range expansion of the closely-related blue-winged warbler are among factors thought to have contributed to its decline.

As for species that are showing a significant increase in number in the two regions that include the Kawarthas, we find turkey vulture, wild turkey, mourning dove and common raven. All of these species benefit from human activity.

Volunteer-based projects like the Breeding Bird Survey are an essential means of monitoring what is happening to bird populations. Right now they are confirming what so many people have noticed themselves — that the many species that forage on the wing for insects are suffering a very worrisome downturn in numbers.

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