

Notes

Breeding Bird Survey – Ontario Summary for 1986

The Breeding Bird Survey (BBS) was initiated in 1965 in the United States. In Ontario, the first year with a good route coverage was 1968. The survey involves travelling a randomly selected route, starting exactly one half hour before local sunrise, stopping at half mile (0.8 km) intervals for exactly three minutes over a 50-stop route (24.5 miles or 39.2 km) and recording all birds identified by sight or song only at the stops along the route. The intent is to survey at least one route in each degree square, usually two in southern Ontario. Maps showing the average values for each species during the first ten years of the survey were published in Speirs (1985). Robbins *et al.* (1986) published a 15-year summary covering the United States and Canada, with maps showing relative densities for some of the species and tables summarizing results for all species. This note summarizes some of the highlights of the Ontario survey in 1986.

In overall abundance the European Starling again ranked first, followed in decreasing order of abundance by Red-winged Blackbird, American Robin, American Crow, Ring-billed Gull, Barn Swallow, White-throated Sparrow, Bobolink, Red-eyed Vireo, and Song Sparrow. All ten of these species occurred in all six main regions of Ontario in 1986.

The three most abundant species encountered in each of the various regions were as follows: in southwest-

ern Ontario they were the European Starling, Red-winged Blackbird, and Common Grackle. In the southeastern region the order was Red-winged Blackbird, European Starling, and American Crow. In west-central Ontario the Ring-billed Gull ranked first, followed by European Starling and White-throated Sparrow. In east-central Ontario the European Starling again ranked first, with Red-winged Blackbird and Bobolink next. In northwestern Ontario the Red-eyed Vireo was most abundant, followed by American Robin and White-throated Sparrow. The White-throated Sparrow was by far the most numerous bird in northeastern Ontario, with Swainson's Thrush and Red-eyed Vireo next in abundance.

Species found only on southwestern Ontario routes were: Double-crested Cormorant (four on the Dunnville route and four on the Port Dover route); Great Egret and Black-crowned Night-Heron (single birds on the Kingsville route); Orchard Oriole (also on the Kingsville route); and Yellow-breasted Chat (one on the Port Dover route).

Unique species on southeastern routes were: Least Bittern (one on the Wilfrid route); Northern Goshawk, Sora, and Blue-gray Gnatcatcher (single birds on the Roblin route); Northern Bobwhite (one on the Streetsville route); and Blue-winged Warbler (one on the Mount Julian route).

Three duck species were encountered only on the Sudbury route (six Green-winged Teal, one Northern Shoveler, and four American Wigeon). Other unique species were the two Ospreys on the Manitowaning route and the six Red Crossbills on the Massey route.

In east-central Ontario the unique species were: Northern Pintail (two on the Eganville route), Marsh Wren (four on the Mayhew route), Cerulean Warbler (one on the Port Carling route); and Henslow's Sparrow (one on the Bourget route).

Eight species were found only on northwestern Ontario routes: Ring-necked Duck (four on the Atikokan and seven on the Kenora routes); Hooded Merganser (single birds on the above two routes); Bald Eagle (single birds on the Eagle River and Kenora routes); Palm Warbler (single birds on the Suomi and Stratton routes); Connecticut Warbler (two on the Atikokan, six on the Kenora, and seven on the Stratton routes); and finally, two LeConte's Sparrows on the

Thunder Bay route.

Two unique species were reported from northeastern Ontario in 1986: single Rusty Blackbirds on the Larder Lake and Chapleau routes and two White-winged Crossbills on the Chapleau route.

Of the 13 species of warblers that occurred on more than ten routes, seven showed increases (four significant) and six showed decreases (two significant). The four with significant increases were Magnolia and Mourning Warblers, American Redstart, and Ovenbird. The two with significant decreases were Black-throated Green and Canada Warblers.

Literature Cited

- Speirs, J.M. 1985. Birds of Ontario, Vol. II. Natural Heritage/Natural History Inc., Toronto. 986pp.
- Robbins, C.S., D. Bystrak, and P.H. Geissler. 1986. The Breeding Bird Survey: its First Fifteen Years, 1965-1979. United States Fish and Wildlife Service Resource Publication 157. Washington, D.C. 196pp.

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Monitoring an Urban Population of Aerial-foraging Insectivorous Birds

Populations of Common Nighthawks (*Chordeiles minor*) and Chimney Swifts (*Chaetura pelagica*), species which to a significant degree utilize urban environments for breeding and foraging, are likely not well censused by traditional breeding bird surveys which rely on roadside transects in rural areas or repeated counts in relative, small survey areas. For this reason, and the possibility of using birds as indicators of environmental change, a study of aerial-foraging

insectivorous birds in an urban setting was established in 1971. The study involved counts of Common Nighthawks, Chimney Swifts and other aerial-foraging birds along a 3.33 km (2.07 mile) walking route in downtown Kitchener, Regional Municipality of Waterloo, Ontario. The surveys began approximately one-half hour before sunset and concluded approximately one-half hour after sunset. Results of surveys in 1971 and 1976 were published by

Francis (1977). The survey was repeated in the summer of 1981 by Francis, and again in the summer of 1986 by Weller and Francis. The results of all four surveys are summarized in Table 1.

The data suggest that the Common Nighthawk population in downtown Kitchener has remained relatively stable since the original survey in 1971. The average count of nighthawks in 1986 was almost identical to what it was in 1971. Average counts in 1976 and 1981 were both above the 1971 average, although the average number seen declined in the most recent five-year period. These findings differ somewhat from those of *American Birds*, which has found Common Nighthawk populations in major areas of North America, including the northeast, dropping since at least the early 1970s. *American Birds*, therefore, continues to list the Common Nighthawk on the "Blue List of North American Birds" (Tate 1986). The average count of Chimney Swifts in 1986 was almost double what it was in 1971 (Table 1). An improvement in the air quality of the city (Elkin *et al.* 1986) and colonization of new nest sites may provide explanations for this increase. Purple Martins (*Progne subis*) have not been seen on the census route since 1971.

The results from one census route are only suggestive of larger popula-

tion trends. Similar censuses in other Ontario and North American cities would provide a clearer picture of the changes in populations of urban aerial-foraging insectivorous birds.

Literature Cited

Elkin, T.J., S. Couture, and J. Palmer.
1986. State of the Environment Report for Waterloo Region. Faculty of Environmental Studies, University of Waterloo.

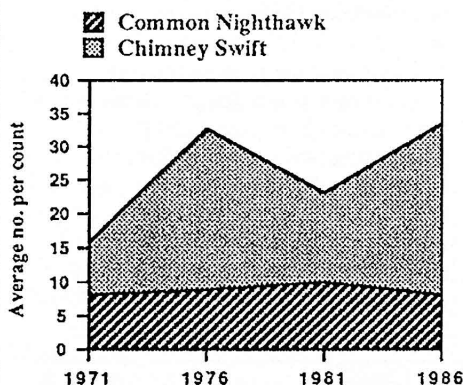


Figure 1: Average number of Common Nighthawks and Chimney Swifts recorded in downtown Kitchener, Regional Municipality of Waterloo, 1971-1986.

DATE	# OF COUNTS	COMMON NIGHTHAWK	CHIMNEY SWIFT	PURPLE MARTIN
1971 June 15-Aug 12	14	8.2 (4-11)	15.9 (4-30)	1.2 (0.7)
1976 June 14-Aug 16	9	8.9 (3-12)	32.6 (15-54)	0
1981 June 7-Aug 9	8	10 (8-12)	23 (16-29)	0
1986 June 23-July 28	8	8.1 (3-14)	33.3 (21-38)	0

Table 1: Average number and range (in parentheses) of aerial-foraging insectivorous birds, Kitchener, Regional Municipality of Waterloo, 1971-1986.

Francis, G. R. 1977. An urban census of aerial-foraging insectivorous birds. Ontario Field Biologist 31:77.

Tate, J. Jr. 1986. The Blue List for 1986. American Birds 4: 227-235.

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Selective Feeding by the American Crow

Several studies have revealed the omnivorous feeding habits of the American Crow (*Corvus brachyrhynchos*). Kalmbach (1918) identified 656 different food items in crow's stomachs.

My observations of crows in Guelph, Wellington County, over the past few years indicate that large earthworms (Lumbricidae) are often fed upon by crows. On 7 March 1987, a day with temperatures reaching 15°C, large areas of lawn were quickly exposed and saturated from the melting snow. At 1630h a family of three crows were observed lawn feeding about 200 m from their nest site. I watched them with 7X binoculars from distances of only 5-30 m. Twice a crow pulled out an entire earthworm, stepped on it, and then tore off and ate 2-3 cm from the

worm's head. On both occasions the crow then resumed feeding, leaving the remainder of the worm (which I collected) on the surface of the lawn. No caching was attempted in either case. I was unable to determine if the same crow carried out this selective feeding or two different birds.

Since the "lean" winter period was easing and nest-building underway, this apparent wasting of protein is puzzling. In summer, I have watched a crow pull out a large earthworm from a pasture, drop it, then collect another and fly off with the latter to feed its young.

Selective feeding behaviour in crows is also mentioned by Aleksiuik (1977). He noted that in Manitoba when thousands of Red-sided Garter Snakes (*Thamnophis sirtalis parietalis*) emerge from their limestone sinks in May, nesting crows are attracted. The birds open a 4 cm long section of the snake's skin and eat only the liver.

The "wasteful" feeding behaviour observed in the Guelph crows raises a few questions. Does the head region of the earthworm at this time of the year contain certain nutrients which the crows need, or does it taste better? Is it the omnivorous diet of the crow which permits this style of feeding or does this represent the simple predatory act of a crow decapitating its prey?

Literature Cited

Aleksiuk, M. 1977. Sources of mortality in concentrated garter snake populations. Canadian Field-Naturalist 91:70-72.

Kalmbach, E.R. 1918. The crow and its relation to man. U.S. Dept. of Agriculture. Bulletin No. 621.

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An Observation of Scavenging Behaviour by a Northern Shrike (*Lanius excubitor*)

Although there is considerable known about the food eaten by shrikes, the information seems to come largely from an examination of stomach contents. The number of observations of foraging behaviour is not great, except perhaps for insect prey (Craig 1978). This is particularly true for the Northern Shrike, which spends most of its life in more remote areas.

The North American shrikes are widely characterized as predators and there is a general feeling that they are very opportunistic, taking almost any living creature that they can overpower (Miller 1931). However, there is little evidence that they might also take advantage of carrion. That they should do so seems reasonable, since they return to carcasses of animals they have killed and impaled.

However, we have been able to find only a couple of brief mentions of shrikes taking food from animals that they have not killed themselves. Bent (1950) cites a single example of scavenging behaviour for a Loggerhead Shrike (*L. ludovicianus*) which fed on a sheep carcass. He also includes a sentence from an observer that claimed to have seen a Northern Shrike tear meat from the carcass of a cow. We could find no mention of scavenging in Miller's (1931) mono-

graph on American shrikes and no mention in the literature of the congeneric Great Gray Shrike (*L. excubitor*) of Eurasia. The following incident then, is interesting in view of the paucity of observations of scavenging behaviour.

On 3 January 1987 we were driving along a gravel sideroad covered with hard packed snow about 3 km west of Norland in northern Victoria County. As we passed through a wooded section, an American red squirrel (*Tamiasciurus hudsonicus*) suddenly dashed across the road and was inadvertently killed under the wheels of our vehicle. To retrieve the squirrel, we slowed down and turned around about 100 m from it. As soon as we began driving back we noted a bird at the squirrel carcass, and as we approached, easily identified it as a Northern Shrike in adult plumage.

We were able to drive within a couple of metres of the squirrel, stop and watch for a minute, while the shrike pulled at the eyes and bits of bloody flesh on the crushed head of the squirrel. The shrike was not observed trying to hold the prey down with a foot. Only the weight of the squirrel held it while the shrike tried to pull bits loose. Several times it grasped a bit of the squirrel in its beak

and attempted to fly. The squirrel was too heavy to be moved more than a few centimetres, but this action may have pulled a bit of flesh loose for eating.

The fact that the shrike immediately pounced on the squirrel, within seconds of it being killed, suggests that these birds readily accept carrion if they can find it, even though this is not their usual method of hunting. The squirrel was very fresh, however, and perhaps was even seen when still alive, and the birds might be more reluctant to feed on something that had been dead for some time.

If Loggerhead Shrikes readily approach roads for dead, as well as for injured animals as suggested by the observations of Robertson (1930), then their present decline in North America (Cadman 1986) may be related, in part at least, to vehicle related mortality. This Northern Shrike, which would be expected to live most of the year where no roads are found, certainly did not hesitate to

take advantage of food on the road, and exhibited little fear of an approaching vehicle.

Literature Cited

- Bent, A.C.* 1950. Life histories of North American wagtails, shrikes, vireos and their allies. United States National Museum Bulletin 197.
- Cadman, M.D.* 1986. Status report on the Loggerhead Shrike in Canada *Lanius ludovicianus*. COSEWIC, Ottawa.
- Craig, R.B.* 1978. An analysis of the predatory behavior of the Loggerhead Shrike. *Auk* 95: 221-234.
- Miller, A.H.* 1931. Systematic revision and natural history of the American shrikes (*Lanius*). University of California Publications in Zoology 38: 11-242.
- Robertson, J.M.* 1930. Roads and birds. *Condor* 32: 142-146.

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First Confirmed Record of Eastern Screech-Owl (*Otus asio*) in Sudbury District

On 2 December 1985, an Eastern Screech-Owl (*Otus asio*) was found at the CNR repair track at Capreol (46° 42' W 80° 56' N), Sudbury District. The bird, apparently in poor condition, was easily captured, and determined to be an adult grey phase female screech owl. Its initial weight was 174 g. Earhart and Johnson (1970) give the weight range of the

larger female screech owl from 126 g to 252 g. This bird reached 205.5 g (an 18% increase) after ten days of free feed. Food intake tapered off to a lesser frequency after this. The owl was subsequently rehabilitated and released.

This record appears to constitute the first confirmed record of the Eastern Screech-Owl in Sudbury District.

James *et al.* (1976) place the species in North Bay, Nipissing District, and Ottawa, Regional Municipality of Ottawa-Carleton. Speirs (1985) cites records at Lake Nipissing and North Bay and one record for Sault Ste. Marie, Algoma District, dating between 1938 and 1942. Nicholson (1974) does not mention the species as present in the Sudbury District. The recent completion of the Atlas of the Breeding Birds of Ontario recorded no confirmed screech owl sightings in the district (C. Bell, pers. comm.; H. Baines, pers. comm.). The adjacent Manitoulin District has four records over the past 16 years (Nicholson 1981).

Literature Cited

Earhart, C.M. and Johnson, N.K.

1970. Size dimorphism and food habits of North American owls. *Condor* 72:251-264.

James, R.D., P.L. McLaren and J.C. Barlow. 1976. Annotated Checklist of the Birds of Ontario. Life Sciences Miscellaneous Publications, Royal Ontario Museum, Toronto. 75pp.

Nicholson, J.C. 1974. The Birds of the Sudbury District - a Species Accounts Summary. Acme Printers, Sudbury.

Nicholson, J.C. 1981. The Birds of Manitoulin Island and Adjacent Islands Within Manitoulin District. Acme Printers, Sudbury.

Speirs, J.M. 1985. Birds of Ontario. Volume II. Natural Heritage/ Natural History Inc., Toronto. 986pp.

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Red-winged Blackbirds Nesting in Urban Downtown Toronto

Although seasoned naturalists learn to associate each species with specific habitats, birds sometimes show their adaptability through changes in habitat selection (Wardhaugh 1983:98).

In North America, the Red-winged Blackbird (*Agelaius phoeniceus*) is generally associated with marshes (Bent 1958; Orians 1980; Nero 1984). Bent (1958:123) referred to the presence or "at least proximity" of water as "essential" for nesting by this species, although he continued to describe a variety of nesting habitats including (p. 130) dry uplands "sometimes considerable distances from water." Nero (1984:33) noted nesting

in damp meadows often "a long way from water," and Miller (1968) compiled a wide variety of both marsh and dry upland sites. Campbell (1948) even found them to be the dominant passerine on a marshless island in Lake Erie. Nesting in upland, non-marsh habitats appears to be a relatively new adaptation (Case and Hewitt 1963), although one which is becoming increasingly more common (Orians 1980; McNicholl 1981). Comparative studies have shown that wetland areas are generally occupied first (Albers 1978) and more densely (Brown and Goertz 1978), and that nesting success tends to be higher in wetland sites (Case and Hewitt 1963),

although average reproductive success in upland sites is at times within the range of variation in marsh sites (Dolbeer 1976).

During the spring of 1984, I spent considerable time on the campus of the University of Toronto, Regional Municipality of York, and noticed that Red-winged Blackbirds were nesting there (McNicholl 1985). Evidence consisted of territorial songs by both males and females in early spring, and alarm notes near various shrubs later in the season. Most sites were in shrubs bordering lawns, especially near the Bio-medical Library and the Legislative Building, but one female was repeatedly seen leaving a tree in front of the Faculty of Management Studies on Bloor St. W. and Bedford Rd., about as urbanized a site as one can find. Time did not permit a search for nests then, or in 1985, when I noticed territorial birds in the same areas. On 6 May 1986, I observed agitated behaviour by a female in front of University College on King's Circle, and determined to search for a nest on my next visit. I was not able to return for a month, but on 6 June, my searching of a Carigana-Lilac complex in the vicinity of a singing male by Hart House quickly brought agitated behaviour by two males and three females, and at 0745h a full-sized fledgling flew with wobbly flight into a tree, closely followed by one of the females. My return at 1040h was greeted by considerable agitated behaviour, and I soon found a nest about 3.5 m up in a large lilac. Two smaller bob-tailed young left the nest, accompanied by a shrieking female. A search of a wide variety of bushes near Philosopher's Walk at Harbord St. and Queen's Park Circle brought agitated behaviour by another male,

but I was not able to find a nest or young there. Singing birds of both sexes were also heard in the park within the circle. These observations and those of the previous two years suggest that the species is well established as a nesting bird over much of the campus, and a male uttering alarm notes on Homewood Ave. near Carlton St. on 7 June suggests that nesting may be spread over a wider area in downtown Toronto.

Although situated in a highly urbanized area, much of the campus contains considerable shrubbery and well-watered lawns reminiscent of shrub-bordered wet meadows that were colonized by Red-winged Blackbirds when they began to occupy upland sites (see Miller 1968). Their urbanization can be regarded as a natural continuation of their well established adaptation to new habitats. This adaptability has no doubt contributed to the increase in this species (Case and Hewitt 1963), to the point where it may be the most abundant passerine on this continent (Nero 1984). Studies of its reproductive success in its newly occupied urban habitat, similar to those comparing wetland with upland situations as cited above, would be highly desirable.

Literature Cited

- Albers, P.H.* 1978. Habitat selection by breeding Red-winged Blackbirds. *Wilson Bulletin* 90:619-634.
- Bent, A.C.* 1958. Life histories of North American blackbirds, orioles, tanagers and allies. United States National Museum Bulletin 211. (Dover reprint, 1965).
- Brown, B.T. and J.W. Goertz.* 1978. Reproduction and nest site selec-

tion by Red-winged Blackbirds in north Louisiana. *Wilson Bulletin* 90:261-270.

Campbell, L.W. 1948. Nest-building adaptability of the Eastern Red-wing. *Wilson Bulletin* 60:244.

Case, N.A. and O.H. Hewitt. 1963. Nesting and productivity of the Red-winged Blackbird in relation to habitat. *Living Bird* 2:7-20.

Dolbeer, R.A. 1976. Reproductive rate and temporal spacing of nesting of Red-winged Blackbirds in upland habitat. *Auk* 93:343-355.

McNicholl, M. K. 1981. Fly-catching by male Red-winged Blackbirds. *Blue Jay* 39: 206-207.

McNicholl, M.K. 1985. Avian wetland habitat functions affected by water

level fluctuations. Chapter 6, pp. 87-98 in H.H. Prince and F.M. D'Itri (Eds.). *Coastal wetlands*. Lewis Publishing, Chelsea, Michigan.

Miller, R.S. 1968. Conditions of competition between Redwings and Yellow-headed Blackbirds. *Journal of Animal Ecology* 37: 43-61.

Nero, R.W. 1984. Redwings. Smithsonian Institution Press, Washington, D.C.

Orians, G.H. 1980. Some adaptations of marsh-nesting blackbirds. *Monographs in Population Biology* 14. Princeton University Press, Princeton, New Jersey.

Wardhaugh, A.A. 1983. Owls of Britain and Europe. Blandford Press, Poole, Dorset.

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Book Reviews

Charles Broley, an Extraordinary Naturalist. By *Jon Gerrard.* 1983. White Horse Plains Publishers, Headingley, Manitoba. iv + 60 pp. illus. \$4.00 Paper.

Jon Gerrard produced this little biography for "Bald Eagle Days," held at Winnipeg on 19-21 August 1983. No one could be better suited for the task, since Jon has been the key figure in maintaining a Bald Eagle research study area on Besnard Lake, Saskatchewan, since 1968.

As Jon's forward begins, "To take the full measure of Charles Broley, and to understand how a 58-year-old banker could suddenly start climbing trees and banding eagles with the energy and grace of an 18-year-old, it was necessary for me to search out his origins." Search he did. The book begins in 1793 and 1802 with Abel

Stevens and Roswell Matthews, when they moved their families from Vermont to Canada.

Broley, a descendant of Matthews, became manager of the bank at Delta, Ontario in 1905 and that summer noted his first Bald Eagle nest on nearby Lower Beverly Lake, where Broley later built a summer cottage. Broley's first wife, Ruby Stevens, a great granddaughter of Abel's, died of tuberculosis in 1921. Meanwhile, the Broleys had moved to Winnipeg in 1918.

In 1923, Broley began regular contributions to A.G. Lawrence's "Chickadee Notes" in the *Winnipeg*