Book Reviews

Atlas of the Breeding Birds of Ontario. 1987. Edited by *M. D. Cadman, P. F. J. Eagles,* and *F. M. Helleiner.* University of Waterloo Press, Waterloo, Ontario. pp xx+617, maps illustrations. $53.50.

This volume superbly documents the distributions of breeding birds in Ontario from 1981 until 1985. The heart and soul of the book are the maps recording in which squares (10 x 10km) and blocks (100 x 100km) in Ontario each of the 290 species of birds were observed in breeding habitat (possible breeding), observed behaving as if breeding (probable breeding), or confirmed breeding. These maps are complemented by well-written species accounts outlining the biology of each species, the historic range in Ontario, and any constraints inherent in the data presented. The *Atlas* is the benchmark for breeding bird distribution in the province. All documentation of future changes in distribution and comparisons with past distributions must start with the data presented here. The *Atlas* will also serve as an indicator of which species need protection now, and as a guide to finding breeding birds in Ontario, both for birders and professional ornithologists.

One of the major hurdles was to organize the atlassers so that all squares in southern Ontario and all blocks in northern Ontario were covered adequately. The inaccessibility of much of northern Ontario provided the most difficult obstacle. A measure of the success and the effort involved in the *Atlas* project is that more squares were visited in northern Ontario (1,834) than in southern Ontario (1,824). The efforts of hundreds of volunteer atlassers, the expertise of many regional coordinators, the words of many authors of species accounts, the massive organizational effort by a management committee, the logistical support of several organizations and the sponsorship of the Federation of Ontario Naturalists and the Long Point Bird Observatory were woven together to produce this valuable document. The effort expended and the organizational skills that were mobilized were truly monumental and the book lives up to this effort.

The maps of squares coded for possible, probable, and confirmed breeding are the best maps available for breeding bird distributions in Ontario. In comparison to the information available in Godfrey's *The Birds of Canada,* Peck and James' *Breeding Birds of Ontario: Nidiology and Distribution,* and Speirs' *Birds of Ontario,* the *Atlas* maps are by far the most useful and accurate. Since all 10 x 10km squares in southern

Ontario were covered, these maps have a precision that was not available to Godfrey and the rest. For example, Godfrey's maps are generally precise at the 100 x 100km block level. Godfrey was not able to show the gaps in distributions of many species in southern Ontario that the 10 x 10km squares can. These gaps are evident in the ranges of many common and widespread species such as Mallard, Ruffed Grouse, Chimney Swift, and Bank Swallow, and more obvious in less common widespread species such as Cooper's Hawk, Short-eared Owl, Sedge Wren, Eastern Bluebird, and Clay-colored Sparrow. Much effort was placed in surveying nesting birds in inaccessible locations in northern Ontario and much new information (for example the first breeding records for Bohemian Waxwing, Northern Shrike, Harris' Sparrow, and Snow Bunting) and, most importantly, much better information on the distribution of birds between Thunder Bay and Hudson Bay is presented. However, our knowledge of northern Ontario birds still lags far behind that of southern Ontario.

A minor but annoying problem with the maps is the difficulty in seeing whether a record is possible, probable, or confirmed in that square. Patterns with more contrast would have been helpful. This problem of map clarity recurs in many of the maps throughout. Few errors appear to have crept into the final maps. I did notice that one square in the Dickcissel map (p. 437) is missing and the confirmed line of the Ring-necked Pheasant map (p. 135) is lacking. Fortunately, typographical errors of this nature are rare throughout the book. This is especially noteworthy considering how quickly after the fieldwork was finished that the *Atlas* was published.

The maps are complemented by generally well-written species accounts. The accounts give a general account of the species biology, how this biology affected *Atlas* reports of breeding, historical range in North America and Ontario, previous breeding reports from Ontario, range changes in Ontario, and often a prognostication for the future of the species. These accounts are extremely helpful in interpreting the data from the maps. These accounts will become ensconced as the conventional wisdom. Nevertheless, I urge everyone to question what is written. Most accounts are accurate and useful, but there are a few exceptions. The Wild Turkey account contains several inaccuracies and doubtful emphases. Turkeys did not return to Ontario in 1984; they have been on Hill Island along the St. Lawrence River for much longer. This population is ignored in the account, while the recent introductions have been emphasized, down to the number in each stocking. A few of the isolated records are not even considered. Are they legitimate

records? What is the source of those birds? No attempt was made to evaluate the future of turkeys in Ontario. A more detailed survey of turkeys and their history in Ontario is warranted, especially considering the effort being expended in re-establishing the species in Ontario.

Each species account is accompanied by a sketch of the bird. The shorebird sketches by Sue House and the blackbirds by Ian Jones are excellent. Some of the other sketches are less attractive and some are reproduced poorly (e.g., the Common Loon on p. 36).

An atlas project does a very good job of marshalling information about common and widespread species. Atlas information can also be used to identify rare species which would benefit from conservation measures or which, at the least, deserve more detailed surveying. The data presented in the *Atlas* should be used to reconsider the list of rare, threatened, and endangered birds in Ontario (see Appendix D). It seems strange to have Ivory Gull and Eskimo Curlew included on the list, along with Eastern Bluebird and Bald Eagle. A list of birds found in fewer than 100 squares in southern Ontario and/or fewer than 10 blocks in total would include Horned and Red-necked Grebe, Northern Bobwhite, Louisiana Waterthrush, Hooded Warbler, Yellow-breasted Chat, Yellow-headed Blackbird, plus northern species such as Smith's Longspur, Northern Shrike, Gray-cheeked Thrush and Ross' Goose. Should these birds be on a rare or threatened list? The data presented in the *Atlas* would produce a vastly different list than the present list. The recently initiated survey of rare breeding birds of Ontario has already gone a long way toward producing a more consistent list and in providing more data to assist the Ontario Ministry of Natural Resources and The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) in drawing up this list.

There are many highlights in the data presented. I was impressed with the results of nocturnal bird surveys. Consider that about half of the 223 squares in which the Least Bittern was recorded were for probable or confirmed breeding. Also the breeding ranges of Barred, Saw-whet, and Eastern Screech-Owls are now much better known because of nocturnal prowls. Range extensions are recorded for many species. Little Gulls were found nesting on the Hudson Bay Lowlands as well as in a few marshes in southern Ontario. This was expected, given that they nest at Churchill, but it is important that these expectations are confirmed by direct observation and documented. The expansion of the nesting range of House Finches is documented superbly, both in the species account and in an appendix. Another highlight is the identification of several areas with high numbers of breeding species or interesting suites of species. The

edge of the Canadian Shield, a few squares along the Niagara Escarpment, and the Long Point and Rondeau areas had particularly high species totals. The Long Point area shows the importance of habitat diversity, including remnant Carolinian forest, for the breeding of Hooded Warbler (see this excellent species account which highlights the role of the *Atlas* in redefining the status of a species in Ontario), Louisiana Waterthrush, Prothonotary Warbler, conifer stands/plantations for Whip-poor-will, Red-breasted Nuthatch, Golden-crowned Kinglet, Black-throated Green Warbler, Blackburnian Warbler, and Pine Warbler and the extensive marsh for a wide variety of species. Two other noteworthy totals come from the block north of Rainy River and the one including Thunder Bay. I would recommend a few weeks of daily reading to find all of the highlights. I will warn you that browsing the *Atlas* is at least as addictive as watching baseball on TV.

There will obviously be some omissions and mistakes in a work of this magnitude. The data presented represent the best available. Because of the way data were vetted, there were questionable records of birds in suitable nesting habitat during the breeding season that were not mapped. Some maps, therefore, may underestimate slightly the breeding range of a species from 1981–85. There should be a few overestimations of breeding range included. Anyone who detects omissions or likely omissions should go and find the birds and let everyone know. Have Dickcissels returned again this year? The *Atlas* is an excellent benchmark to compare with recent irruptions. Do Orange-crowned Warblers nest abundantly on the Hudson Bay Lowlands or have Acadian Flycatchers always nested in the woodlot over there? Have Loggerhead Shrikes disappeared from your area since the *Atlas*? The *Atlas* has given us a place to start in answering these questions.

There was a lesser emphasis placed on determining the abundance of breeding birds. The data on abundance are not as extensive nor as consistent because they are much more subjective. Usually 40–60% of squares in which a species was reported in southern Ontario, and less than 40% in northern Ontario, included abundance estimates. Atlassers were asked to extrapolate from what they saw in a square to provide an abundance estimate for the whole square. These estimates are useful, but not always accurate. They are subjective and therefore must be used very carefully. Most of the species accounts are cautious in the use of these estimates. However, Eagles (pp. 566-568) overrates their value in the write-up on the use of abundance estimates. It is imprudent to extrapolate to estimates of the provincial population based on subjective estimates from about half the

squares where a species occurs. This implies that the same levels of abundance occur in the squares where abundance was not reported. It is impractical to do extensive surveys, such as this *Atlas*, and intensive population estimates of about 100 species at the same time. For a few conspicuous species the estimates may be reasonable or useful, but for most they are just educated guesses. Lumsden (pp. 134, 140) points out that the abundance estimates for species for which there are good population estimates, such as Sharp-tailed Grouse and Ring-necked Pheasant, are much too low. Most estimates are probably underestimates. However the Warbling Vireo species account (p. 350) suggests that the population estimates are too high. Do more than 1,000 pairs of Warbling Vireos nest in any squares? In the species accounts many authors used the population estimates to identify areas where the species was particularly common in the province. The Northern Mockingbird account (p.334) is a good example of the use of these estimates. Other accounts such as Red-bellied Woodpecker (p. 234) and American Coot (p. 158) would have benefitted from this approach. Overall, the abundance estimates should be used as a guide with caution.

A major strength of the *Atlas* is the well-described methodology. This will ensure as far as possible that the data collected will be used and interpreted wisely, even the abundance estimates. Everything from the recording form atlassers used, to the vetting of records, to coverage of squares and blocks, to how the abundance estimates were made, is described. In addition, each species account notes the strengths and the pitfalls of the data. At times I felt that the data were stronger than suggested by all the qualifiers used. This emphasis on methodology gives confidence that most records are accurate, a very important concern in a project with so many helpers. An introductory chapter on vegetation, climate, physiography, and land use in Ontario provides useful information. Interpreting the breeding bird data is much easier with all this information.

A major disappointment was the analysis of species clusters (pp. 576, 580). Identification of suites of co-occurring species will be one of the most important uses of atlas data. The results of this analysis, its methodology, and its goals are not well outlined. The maps are particularly difficult to follow. A missing ingredient here is attention to particular groups of species and particular areas. The analysis presented here is a start, but more work is needed and better presentation elsewhere is required.

This is an excellent book. The distributions of breeding birds in Ontario are well presented. The yardstick to measure changes in distributions is here. The *Atlas* will be of value to everyone involved in

resource management in Ontario and everyone interested in bird distributions in eastern North America. The Ontario *Atlas* is of comparable quality to those produced elsewhere, such as Great Britain and Australia. This atlas can serve as a model for other atlas projects; it will encourage others that a task of this magnitude is possible. The results are of enormous value. Congratulations to the team that put it together, the army that provided the data, and the organizations which supported the project.

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A Dowry of Owls. 1986. By *Larry McKeever.* Lester & Orpen Dennys Ltd., Toronto, Ontario. 208pp. $19.95 hardcover.

This delightful and humorous book is best described as a love story or, to be more precise, two love stories. One is the love of Lawrence (Larry) McKeever for his wife Katherine (Kay), a devotion that transcends knocking holes in the walls of a cherished cottage built by himself to accommodate owls; and the other is the love of Kay for sick and injured strigids with a passion that sees her develop, with neither medical nor ornithological training, into an expert in her field. This is not to imply that the love-bond between the two McKeevers is a one-way street.

It is also a book recounting the road-blocks and detours on the way to establishing the Owl Rehabilitation Research Foundation and the ORRF Endowment Fund Inc., the latter being the money-raising arm of the centre. It is neither a text-book nor a primer. If it were, one would be lost trying to find wanted material. The absence of an index and the fact that chapter heads are useless because chapters contain more than one topic makes relocation difficult.

As this reviewer can testify, the caring for injured birds is no sinecure. There are no amenities such as office hours, free weekends, or regular coffee breaks. Anyway, in the McKeever home, the latter can be interrupted by the plopping of an owl pellet into the tea cup. Larry glosses over such irregularities but still manages to convey the thought that caring for incapacitated birds of any kind should not be attempted without serious consideration, sound financial backing, and a profound knowledge of the subject. He proceeds to give just sufficient information that, if you persist in tending to injured birds, you will find yourself enduring the heartaches and hardships suffered by them.

Their initial, light-hearted approach to owl-caring begins with

a honeymoon trip that includes three adults, three owls, four dogs, and two flying squirrels, the entourage travelling in two cars. A faulty car-carrier on the roof of one produces a roadside stop of crowd-gathering proportions, including two members of the constabulary. The volume and density of the menagerie rises and falls throughout the book, resulting in many humorous and even hilarious situations. Cats are introduced, as are rabbits, with the number of owls continuing to grow until, with their accepting 100 or more during a year, the infirmary might contain 120 individuals. Not all submissions are accepted. Of those that are, about 30% are "put down" after a careful examination reveals that the case is hopeless. Half are released into the wild if, after treatment, it is evident that the patient's hunting skills are undiminished and that it shows no signs of "imprinting", a subject quite fully reviewed. Imprinting is an attitude that a bird may develop, usually when quite young, in which it fancies its human benefactor as its mother. Obviously, birds in that state will be vulnerable if released to fend for themselves.

Twenty per cent of the inmates are retained for breeding, those selected being of good health and sound body, other than the physical impairments brought about by their accidents and preventing their return to the wild. The centre is world-renowned for having bred many species for the first time in captivity.

The feeding of owls is somewhat different from feeding canaries. One cannot pay a casual visit to the pet shop to pick up a carton of mice. While purchases were made in the early stages of the centre, it was found more expedient to propagate food items, so that the raising of mice and crickets (for insect-eating owls) is now part of the centre's activities. Nor does one throw a mouse or two into an owl's cage and then go fishing. Larry tells of how honoured he felt when Kay, off on some business, invested him with the selection of mice to be fed to specific owls. Apparently there is a correlation between owl size and mouse size.

Life before mouse culture was hazardous and hilarious. Larry describes Kay's return on the "mouse run" with her shopping neatly stowed in various containers. At a traffic signal, she found the containers had "leaked", and that a hundred or so mice were trying to shake the "ennui" of car travel. A car full of rampant mice was not so much different from the McKeever home, as invariably there was at least one owl flying free, a situation perhaps unsettling to some visitors. The freedom of a bird or two meant that some human guest was subjected to indignities that were to be expected under such circumstances.

Both McKeevers have received honorary doctorates for their efforts, with Larry insisting that his was for nothing more than carpentry. He has devised and

constructed some ingenious contrivances to house and feed not only owls, but the foodstuffs of the birds.

Many of the chapters revolve around the acquisition of a certain, usually rare, species, or the attempts, often successful, to have certain species breed in captivity. He outlines the development of a corporation, a step to ensure the continuity of the centre in the event that either of the principals becomes incapacitated. There is also a review, far too brief, of the physiology of owls, including their remarkable hearing, restricted eye movement, and uncanny flight. Part of one chapter is devoted to parasites that infest owls and means of their removal.

The photographs are largely of favourite individuals, but all seem of poor quality, a fault, perhaps, of the printer rather than of the photographer. The list of owls at the end of the book is in alphabetical order rather than the much preferred taxonomic arrangement, and the bibliography is very brief. The text concludes with the creed of the McKeevers, a model for all to follow.

The only error that I detected was found in the statement, "The hooting of an owl on the hunt ...", which suggests that owls hunt like a pack of hounds. They don't.

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OFO Field Trip

Marathon and Lake Superior, October 11 - 14, 1989

The final OFO field trip of the year will once again feature birding in the little-known but exciting area west of Marathon on the north shore of Lake Superior. Last year's participants were treated to northern specialities such as Peregrine Falcon, Spruce Grouse, Sandhill Crane, Black-backed Woodpecker and Boreal Chickadee, and two western rarities: Harris' Sparrow and Mountain Bluebird. Northern Ontario's first ever Carolina Wren was an unexpected surprise.

If you are looking for something new and different in Ontario birding, this area fits the bill. Leaders this year will be John Olmsted and Ron Scovell (416-745-9111). Alan Wormington has prepared a superb information package which will be available to interested members. Look for full details on this trip in the next OFO newsletter.