

Notes

Barred Owl Mating Behaviour

Chris Robinson

On the evening of 19 March 2004, I was conducting owl surveys using calls broadcast from a compact disk at locations along the road within Charleston Lake Provincial Park, which is located in southeastern Ontario between Kingston and Brockville in Leeds County. Having had no success with my target species, Northern Saw-whet Owl (*Aegolius acadicus*), Eastern Screech-Owl (*Megascops asio*), and Long-eared Owl (*Asio otus*), I broadcasted Barred Owl (*Strix varia*) calls to try to obtain a general idea of the abundance of the species in that area of the park.

Sometime between 2230 and 2330h, I heard a loud crashing sound behind me, less than 20 seconds after playing the Barred Owl calls. I immediately turned to see a large, dark silhouette hastily land on a branch of a nearby large Eastern Cottonwood (*Populus deltoides*) tree, seemingly without much regard for stealth. This individual was immediately followed by another dark shadow of the same size which landed in a tree very close to the first. The two flying silhouettes were clearly Barred Owls, with the first individual that arrived being extremely vocal, a great deal

more so than the other both in terms of the frequency and volume of its calls. I presumed that this was the male of the pair. The commonly heard two-phrase hooting sequence ("who cooks for you? who cooks for you all?") and the ascending hoots ("madam, who cooks for you all?") were given occasionally, but the most commonly heard vocalizations during this encounter consisted of a large range of calls, including dog-like barks, squawks, and cackles, that did not seem to be in any pattern that I could discern.

I shone a flashlight on the owls. The presumed male exhibited a fair amount of body posturing, stretching out its neck, lowering its head and body in a horizontal alignment roughly parallel to the ground, raising its wings forward at the shoulders, opening up its "armpit" areas and partially opening its wings, and fanning open its tail feathers. The "male" then moved to another tree, and was moving about a fair bit, while the apparent "female" remained on the same branch upon which it had initially landed.

While I shone my light on the female, examining the patterns and colouring of the breast barring, belly streaking, and spotting of the

wings, the other more vocal individual flew over, and to my amazement, mounted her, verifying my speculation that it was indeed the male. While copulating, the female's neck was outstretched and her head and body were held forward and horizontal, almost parallel to the ground. I cannot confidently say how long the mating lasted, as I was somewhat taken aback by this rarely seen nocturnal encounter, but I would estimate between 10 and 20 seconds.

I interpreted, rather anthropomorphically, that the male's copulatory behaviour was a blatant signal to me (or rather to the presumed owl it heard calling) that this female is "taken". I stopped the owl broadcast, as I felt the birds were agitated. One of them flew over the road several times during the next two minutes or so, and I lost track of which one was the male and which the female. At least one of the owls (perhaps both, I am not sure) was moving among the trees on both sides of the road, repeatedly vocalizing from various perches. Finally, I left the area, as I did not want to disturb them any longer.

Discussion

It appears that little has been written on Barred Owl pair bonding, but it is likely similar to that of its near relative, the Tawny Owl (*Strix aluco*), in which pair bonds are permanent and the permanent territories are defended year-round (Johnsgard 1988). Barred Owls are

presumed to be monogamous, but there have been no genetic studies of young (Mazur and James 2000).

All of the Barred Owl behaviour that I witnessed occurred with me standing on the road in plain view, periodically shining a flashlight on the owls, so I am sure my presence was obvious to them. The owl broadcast presumably sparked the male's elaborate response behaviour, possibly because it perceived the calling to be that of an intruder in its territory.

A number of other Barred Owls are in the general area, some of which were heard in the distance around the same time as the previously described observation. There may be a high density of Barred Owls there, with possibly four pairs having territories within approximately a 2.5-km stretch of the park road. Average Barred Owl home ranges have been reported as being 273 ha in Minnesota (Nicholls and Fuller 1987) and 282 ha in Michigan (Elody and Sloan 1985), suggesting that the owl density in the area in which I observed the copulating owls may be high. Also, Nicholls and Fuller (1987) and Elderkin (1987) reported the presence of non-breeding "floaters". The male that I observed may have been responding to an apparent intrusion by a nearby territorial male or a floater male into its territory.

After a territorial intrusion, copulations by resident pairs have been observed in a wide variety of bird species, from raptors to passer-

ines (see Birkhead and Moller 1992). It has been suggested that resident males copulate repeatedly with their females following a perceived territorial intrusion by another male in an attempt to swamp the intruder's sperm with their own, should mating have occurred. Edinger (1988) reported "rapid pair copulation" during song playback experiments with Baltimore (*Icterus galbula*) and Bullock's Orioles (*I. bullockii*), and indicated that these songs may have been perceived by resident males as territorial intrusions. The same response apparently occurs in

Barred Owls. Michael Runtz (pers. comm.) has observed Barred Owl behaviour that was similar to the incident reported here after he imitated their vocalizations.

Perhaps future genetic studies will reveal more about the social and breeding behaviour of nocturnal owls.

Acknowledgements

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Literature Cited

- Birkhead, T.R. and A.P. Moller.** 1992. Sperm Competition in Birds. Academic Press, London, United Kingdom.
- Edinger, B.B.** 1988. Extra-pair courtship and copulation attempts in Northern Orioles. *Condor* 90: 546–554.
- Elderkin, M.F.** 1987. The breeding and feeding ecology of a Barred Owl *Strix varia* Barton population in Kings County, Nova Scotia. Master's thesis, Acadia University, Wolfville, Nova Scotia.
- Elody, B.I. and N.F. Sloan.** 1985. Movements and habitat use of Barred Owls in the Huron Mountains of Marquette County, Michigan, as determined by radiotelemetry. *Jack-Pine Warbler* 63: 3–8.
- Johnsgard, P.A.** 1988. North American Owls: Biology and Natural History. Smithsonian Institution Press, Washington, D.C.
- Mazur, K.M. and P.C. James.** 2000. Barred Owl (*Strix varia*). In *The Birds of North America*, No. 508 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, Pennsylvania.
- Nicholls, T.H. and M.R. Fuller.** 1987. Territorial aspects of Barred Owl home range and behavior in Minnesota. Pp. 121–128 in *Biology and Conservation of Northern Forest Owls: Symposium Proceedings, 1987 February 3-7, Winnipeg, Manitoba* (R.W. Nero, R.J. Clark, R.J. Knapton, and R.H. Hamre, editors). General Technical Report RM-142, United States Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins, Colorado.

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James D. Rising: Distinguished Ornithologist

J. Bruce Falls

This note is based on remarks by Bruce Falls at the presentation of the Distinguished Ornithologist Award to Jim Rising at the OFO Annual Convention in Oakville, Ontario, on 2 October 2004.

Let me tell you about my friend and colleague, Jim Rising, this year's recipient of OFO's Distinguished Ornithologist Award. Jim started young, keeping budgies and interested in nature with his older brother. Family vacations with Pettingill's bird-finding guides and a Peterson field guide started him identifying birds by the time he was 12. He thought male and female House Sparrows were separate species, an early clue that he was to become a *splitter*. He had an early introduction to bird-banding. His parents encouraged his growing interest by providing bird books and he was inspired by reading Fred Bodsworth's *Last of the Curlews*. As a teenager, he subscribed to the *Auk* and the *Wilson Bulletin*. He began coordinating Christmas counts and started a book on *Birds of the Kansas City Area*.

In Junior College and as an undergraduate at the University of Kansas, he began to publish short papers about his bird observations. His first contribution to the *Auk* in 1965 concerned observations of Pine

Grosbeak and Townsend's Solitaire in Missouri. Receiving his Bachelor of Arts in 1964, he continued at U. of K. for his Ph.D. under the supervision of the noted systematic ornithologist, Richard F. Johnston. His thesis topic was *Systematic and Evolutionary Aspects of Interbreeding between Baltimore and Bullock's Orioles*. Subsequently, the AOU combined these two species into Northern Oriole, a decision not to Jim's liking. Perhaps partly as a result of his work, they have been split again—he got his revenge!

After receiving his Ph.D. in 1968, Jim went on to Cornell University for post-doctoral research in ecological physiology. He showed that Bullock's Orioles were better adapted than Baltimore Orioles to hot dry conditions. He also studied adaptations of chickadees to cold. However, in 1969, the "true north" called when an opening appeared at the University of Toronto. He arrived for interviews (one with yours truly) and got the job. At the same time, he became a Research Associate of the Royal Ontario Museum, a position he still holds. It was a lucky day for Jim and for the rest of us, too!

Jim's scientific interests lie in population and evolutionary biology. His particular field is systematics and phylogeny. Perhaps because of his

early experience, he has a special interest in the hybrid zone in the Great Plains. When he arrived in Toronto, he looked for an appropriate and convenient research subject and hit upon geographic variation in the Savannah Sparrow, which he pursued for many years throughout the species' range. A major publication in 2001 dealt with this subject. He has resisted splitting the Savannah Sparrow but recently turned his attention to sharp-tailed sparrows, which have been split.

Jim's teaching at U. of T. has included courses in systematics, phylogeny and evolution, several field courses in subarctic, temperate and tropical venues, and recently, a course in avian biology (ornithology). He has for several years been the Undergraduate Secretary in the Department of Zoology, responsible for counseling students and overseeing the curriculum. Jim has supervised the research of 14 graduate students for Master's and Doctoral degrees on a variety of organisms—juncos, frogs, orioles (of course), bumblebees, squirrels, Lark Buntings, Iceland Gulls and cowbirds, including a wide range of topics.

Jim Rising is a joiner, belonging to more ornithology societies than I can remember. He is a fellow of the AOU and serves on the committee on Classification and Nomenclature. This august body of splitters produces the ever-growing check-list that is music to birders. Jim has been on the council of the Cooper

Ornithological Society and, as elected second Vice-President of the Wilson Society, is in line to become its President. Closer to home, he supports many natural history organizations, including Bird Studies Canada, the Canadian Nature Federation, Ontario Nature, and the Nature Conservancy of Canada which represents one of his major concerns—habitat preservation; and of course, OFO and others.

When I visit Jim's office, I usually find him at his computer. It is hard to know if he is talking to *Bird Chat*, which he often does, writing a new book or playing a computer game. He is a gifted writer with 62 publications in scientific journals to his credit as well as 24 books or chapters in books, and other articles. His papers reflect his early observations in Kansas as well as publications on orioles, Savannah and other sparrows, and more general topics.

He contributed 10 species accounts to the *Atlas of the Breeding Birds of Ontario*, six co-authored accounts to the *Birds of North America* and two chapters to the *Sibley Guide to Bird Life and Behavior*. He has also written for several high school biology texts. His books on birds include *Canadian Songbirds and Their Ways* (1982) and two excellent field guides to sparrows with Dave Beadle (1996, 2002). They have straddled the fence on the question of whether paintings or photographs are best for field guides, publishing one of each. Jim tells me



Figure 1: Jim Rising (right) receives the Distinguished Ornithologist Award, presented by Jean Iron and Bruce Falls during the OFO Annual Convention in Oakville, Ontario, on 2 October 2004. Photo by Ron Pittaway.

that a new photographic guide is in the works on tanagers, grosbeaks and finches. No wonder he is regarded as an authority on sparrows and their allies!

Jim is a keen birder. I remember with pleasure how we played hooky from a Wilson Meeting in Corpus Christi to tour south Texas and pick up lots of goodies. Here in Ontario, Jim takes students on bird-

ing trips and keeps track of birds at his cottage that contribute to my Atlas square. Tropical field courses don't hurt his life list!

It is an honour for me to present the 2004 OFO Distinguished Ornithologist Award to my friend, Jim Rising, a man who has not only made important contributions to avian science, but also keeps bird-watchers happy.

Representative Publications

- Rising, J.D.** 1969. A comparison of metabolism and evaporative water loss of Baltimore and Bullock's orioles. *Comparative Biochemistry and Physiology* 31: 915-925.
- Rising, J.D.** 1970. Morphological variation and evolution in some North American orioles. *Systematic Zoology* 19: 315-351.

- Emlen, S.T., J.D. Rising, and W.L. Thompson.** 1975. A behavioral and morphological study of sympatry in the Indigo and Lazuli buntings of the Great Plains. *Wilson Bulletin* 87: 145-179.
- Rising, T.L. and J.D. Rising.** 1982. *Canadian Songbirds and Their Ways*. Tundra Publications, Montreal.

- Rising, J.D.** 1987. Eastern Wood-Pewee (pp. 252–253), Indigo Bunting (pp. 434–435), Vesper Sparrow (pp. 446–447), Savannah Sparrow (pp. 448–449), Grasshopper Sparrow (pp. 450–451), Song Sparrow (pp. 460–461), Dark-eyed Junco (pp. 464–465), Sharp-tailed Sparrow (p. 554), Fox Sparrow (p. 555), and White-crowned Sparrow (p. 556) in *Atlas of the Breeding Birds of Ontario* (M. D. Cadman, P.F.J. Eagles, and F.M. Helleiner, compilers). University of Waterloo Press, Waterloo, Ontario.
- Wheelwright, N.T. and J.D. Rising.** 1993. Savannah Sparrow (*Passerculus sandwichensis*). In *The Birds of North America*, No. 45 (A. Poole, P. Stettenheim, and F. Gill, editors). Academy of Natural Sciences, Philadelphia, Pennsylvania, and American Ornithologists' Union, Washington, D.C.
- Rising, J.D.** 1996. The stability of the oriole (*Icterus*) hybrid zone in western Kansas. *Condor* 98: 658–663.
- Rising, J.D.** 1996. A Guide to the Identification and Natural History of The Sparrows of the United States and Canada. Academic Press, London, United Kingdom.
- Rising, J.D. and N.J. Flood.** 1998. Baltimore Oriole (*Icterus galbula*). In *The Birds of North America*, No. 384 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, Pennsylvania.
- Rising, J.** 1998. Nelson's Sharp-tailed Sparrow in *The Birds of North America*. *OFO News* 15: 3–4.
- Rising, J.D.** 2001. Geographic variation in size and shape of Savannah Sparrows (*Passerculus sandwichensis*). *Studies in Avian Biology* (Cooper Ornithological Society), No. 23.
- Beadle, D.D. and J.D. Rising.** 2002. Sparrows of the United States and Canada: The Photographic Guide. Princeton University Press, Princeton, New Jersey.

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Thunder Bay Fire 21 Revisited

Nicholas G. Escott

Fire 21 consumed a large area of boreal forest straddling Highway 527, north of the city of Thunder Bay, in the spring and summer of 1998. This burn was the winter home for a major concentration of Black-backed Woodpeckers (*Picoides arcticus*) in 1998-99 (Escott 2001).

I had the opportunity to revisit this area in the summer of 2003, where I did some point counts for the Ontario Breeding Bird Atlas. Five years after the fire, the understory has regenerated in deciduous shrubs, such as poplar (*Populus* sp.), willow (*Salix* sp.), and alder (*Alnus* sp.), to a height of about 4 metres. The dead trees from the original forest rise up above this shrub layer (Figure 1). The point counts tallied in Table 1 are from this fairly homogeneous part of the regenerating burn, north of Kabitotikwia Lake. I did 23 point counts on 19 and 24 June, and the numbers of individuals for each species recorded are listed in Table 1.

The most surprising species was the House Wren (*Troglodytes aedon*), which is uncommon and local in Thunder Bay District, and usually found in towns and suburbs in the southern parts of the district. There is, however, a breeding record from the northeast corner of Lake Nipigon in 1924 (Snyder 1928): a pair was nesting in the

debris from an old railway construction camp.

House Wrens are known to nest in open burned areas (Johnson 1998) and it remains to be seen whether this species is a regular inhabitant of forest fire burns in northwestern Ontario, or whether the sightings reported here were an anomaly. If the former, there are lots of suitable breeding areas across the north, and surveys of such regenerating burns might extend the breeding range of this species in Ontario.

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The part of the burn south of Kabitotikwia Lake was salvage-cut after the fire, i.e., it was logged to salvage the standing dead timber, and then scarified, or scraped, leaving little vegetation on the sandy ground over some areas. No House Wrens were found there, but that area was home to an unusually large number of two other species that are quite uncommon in the Thunder Bay area: Common Nighthawk (*Chordeiles minor*) and Vesper Sparrow (*Pooecetes gramineus*). I estimated at least 11 singing Vesper Sparrows, and at least 10 Common Nighthawks, in a fairly small area of about 20 hectares, on the evening of 23 June.



Figure 1: Regenerating burn, north of Kabitotikwia Lake, Thunder Bay District, June 2003. Photo by Nicholas G. Escott.

OFO Annual Convention and Banquet Point Pelee National Park 10 and 11 September 2005

Mark your calendar now to attend the 2005 OFO Annual Convention in Leamington, Ontario. Another fun weekend of birding and presentations is being planned. On both Saturday and Sunday, experts will lead groups of convention participants to several of the great early fall birding locations in Point Pelee National Park and nearby areas. Saturday's events will include Ron Scovell's popular book sale, and an evening banquet and special featured speaker at the Roma Club. Watch for further details and registration information in the coming months.

Table 1. Numbers of birds recorded at 23 point counts in naturally regenerated burn, five years after the fire.

White-throated Sparrow (<i>Zonotrichia albicollis</i>)	85	Veery (<i>Catharus fuscescens</i>)	4
Mourning Warbler (<i>Oporornis philadelphia</i>)	34	House Wren (<i>Troglodytes aedon</i>)	4
Alder Flycatcher (<i>Empidonax alnorum</i>)	34	Red-breasted Nuthatch (<i>Sitta canadensis</i>)	3
Least Flycatcher (<i>Empidonax minimus</i>)	24	Nashville Warbler (<i>Vermivora ruficapilla</i>)	2
Hermit Thrush (<i>Catharus guttatus</i>)	23	Lincoln's Sparrow (<i>Melospiza lincolni</i>)	2
Red-eyed/Philadelphia Vireo * (<i>Vireo olivaceus/philadelphicus</i>)	23	American Kestrel ** (<i>Falco sparverius</i>)	2
Chestnut-sided Warbler (<i>Dendroica pensylvanica</i>)	19	Hairy Woodpecker (<i>Picoides villosus</i>)	2
Northern Flicker (<i>Colaptes auratus</i>)	11	Black-capped Chickadee (<i>Parus atricapillus</i>)	1
Chipping Sparrow** (<i>Spizella passerina</i>)	10	Blue Jay (<i>Cyanocitta cristata</i>)	1
American Robin (<i>Turdus migratorius</i>)	7	Gray Jay (<i>Perisoreus canadensis</i>)	1
Downy Woodpecker (<i>Picoides pubescens</i>)	5	Song Sparrow (<i>Melospiza melodia</i>)	1
American Redstart (<i>Setophaga ruticilla</i>)	4		

* Both species were present, but songs are similar. Of eight that were seen, two were Philadelphia and six were Red-eyed.

** Restricted to the edges of the highway or main logging road

Literature Cited

Escott, N.G. 2001. A concentration of Black-backed Woodpeckers in Thunder Bay District. Ontario Birds 19: 119–129.

Johnson, L.S. 1998. House Wren (*Troglodytes aedon*). In The Birds of North America, No. 380 (A. Poole and F. Gill, editors). The Birds of North America, Inc., Philadelphia, Pennsylvania.

Snyder L.L. 1928. The summer birds of Lake Nipigon. Transactions of the Royal Canadian Institute 16: 251–277.

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