

BARRED OWL CONSUMES SHARP-SHINNED HAWK

ERIK I. JOHNSON^{1,2}, JARED D. WOLFE², AND JOHN E. HARTGERINK³

¹ Current address: National Audubon Society, 6160 Perkins Rd., Baton Rouge, Louisiana 70808, USA;
E-mail: ejohnson@audubon.org

² 227 Renewable Natural Resources Building, Louisiana State University, Baton Rouge, Louisiana 70803, USA;

³ Bluebonnet Bird Monitoring Project, 10503 N. Oak Hills Parkway, Baton Rouge, Louisiana 70810, USA

The Barred Owl (*Strix varia*) is an opportunistic predator, consuming a variety of small to medium-sized mammals, but also reptiles, amphibians, invertebrates, and often birds (Mazur and James 2000, Livezey 2007). The frequency of birds in its diet averages nearly 10% and includes at least 36 species of mostly small and medium-sized birds, ranging in size from Dark-eyed Juncos (*Junco hyemalis*) and Scarlet Tanagers (*Piranga olivaceus*) to Northern Flickers (*Colaptes aurita*) and Blue Jays (*Cyanocitta cristata*; Errington and McDonald 1937, Devereaux and Mosher 1984, Schultz 2005, Holt and Bitter 2007, Livezey 2007). Barred Owls occasionally also consume larger birds, such as American Crow (*Corvus brachyrhynchos*), Ruffed Grouse (*Bonasa umbellus*), and Eastern and Western Screech-Owl (*Megascops asio* and *M. kennicottii*; Cahn and Kemp 1930, Errington 1932, Hamer et al. 2001).

At 0900 hours CST on 19 December 2010, at Bluebonnet Swamp Nature Center, East Baton Rouge Parish, Louisiana (N 30° 22' 12" N, 91° 6' 22" W), in disturbed lowland hardwood forest adjacent to cypress–tupelo swamp, we observed a single Barred Owl perched about 4 m above the ground on a horizontal branch. Clutched in its talons was an intact, freshly dead, first-winter plumaged Sharp-shinned Hawk (*Accipiter striatus*). Thinking the owl may have extracted the hawk out of a nearby 36-mm mist-net, we checked the area for signs of struggle, but there was no evidence of feathers or disturbance in or around the net.

For the rest of the day, the owl did not move from its perch and alternated between eating the

remains of the hawk, still clutched in its talons, and sleeping. It initially removed the hawk's remiges and some contour feathers. The hawk's head was consumed first, followed by parts of the body cavity (Fig. 1). After mostly sleeping from 1045–1325 hours, the owl regurgitated a pellet of feather and bone at 1321 hours before eating again at 1325 hours. It ate for another 15 min before returning to sleep. At 1615 hours, about an hour before sunset, the bird was seen eating again and much of the hawk had been consumed with mainly the legs and integument remaining (J. W. Harris and C. Foil, pers. comm.).

We have been operating 10 to 15 mist-nets bimonthly since March 2010, and although Barred Owls are common year-round and Sharp-shinned Hawks are common during the non-breeding season at our study site, neither species has ever been a known or suspected source of netted bird mortality. We did not witness how the owl captured or acquired the hawk. Barred Owls are ambush predators, and it is likely that the young, unsuspecting hawk alighted near the motionless owl, resulting in the hawk's demise. Alternatively, the owl may have surprised the hawk while it was plucking or eating prey, or roosting.

Young Sharp-shinned Hawks can suffer from low winter survival and may be particularly susceptible to predation by owls and other raptors (Roth and Lima 2005). Sharp-shinned Hawks recognize large owls as potential predators (Kerlinger and Lehrer 1982) and typically avoid hunting at dawn and dusk presumably because of increased predation risk by owls (Roth and Lima 2007). In a radio-telemetry study, of the 12

FIGURE 1. A Barred Owl at Bluebonnet Swamp Nature Center, East Baton Rouge Parish, Louisiana, consumes an immature Sharp-shinned Hawk on 19 December 2010. Photos by JEH.



Sharp-shinned Hawks killed by predators, most were thought to be from large owls, especially Great Horned Owls (*Bubo virginianus*; Roth et al. 2005). Our observation suggests that in addition to consuming a wide variety of smaller landbirds, Barred Owls occasionally opportunistically prey upon small hawks.

LITERATURE CITED

- CAHN, A. R., AND J. T. KEMP. 1930. On the food of certain owls in east-central Illinois. *Auk* 47:323–328.
- DEVEREUX, J. G., AND J. A. MOSHER. 1984. Breeding ecology of Barred Owls in the central Appalachians. *Raptor Research* 18:49–58.
- ERRINGTON, P. L. 1932. Food habits of southern Wisconsin raptors, Part I: owls. *Condor* 34:176–186.
- ERRINGTON, P. L., AND M. McDONALD. 1937. Conclusions as to the food habits of the Barred Owls in Iowa. *Iowa Bird Life* 7:47–49.
- HOLT, D. W., AND C. BITTER. 2007. Barred Owl winter diet and pellet dimensions in western Montana. *Northwestern Naturalist* 88:7–11.
- KERLINGER, P., AND P. H. LEHRER. 1982. Owl recognition and anti-predator behaviour of Sharp-shinned Hawks. *Zeitschrift für Tierpsychologie* 58:163–173.
- LIVEZEY, K. B. 2007. Barred Owl habitat and prey: a review and synthesis of the literature. *Journal of Raptor Research* 41:177–201.
- MAZUR, K. M., AND P. C. JAMES. 2000. Barred Owl (*Strix varia*). In *The Birds of North America* (A. Poole, Ed.). Cornell Lab of Ornithology, Ithaca, New York.
- ROTH, T. C., AND S. L. LIMA. 2007. The predatory behavior of wintering *Accipiter* hawks: temporal patterns in activity of predators and prey. *Oecologia* 152:169–178.
- ROTH, T. C., S. L. LIMA, AND W. E. VETTER. 2005. Survival and causes of mortality in wintering Sharp-shinned and Cooper's Hawks. *Wilson Bulletin* 117:237–244.
- SCHULTZ, D. C. 2005. Barred Owl feeds on Band-tailed Pigeon. *Wildlife Afield* 2:11–12.