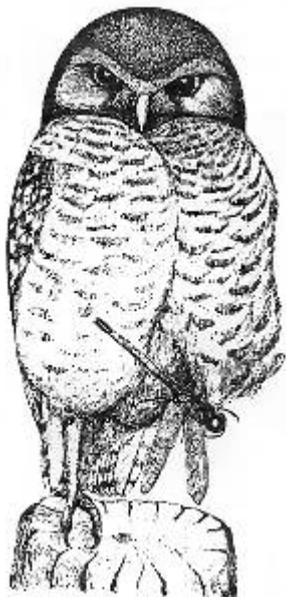


## Book Review: North American Owls; Biology and Natural History

By Paul A. Johnsgard. Smithsonian Institution Press, 1988. 304 pp. Hardcover, \$45.00.

By William L. Murphy

Owls seem to attract a disproportionate amount of attention from birders and nonbirders alike. To slake this thirst for knowledge, more than 10,000 books and articles have been written about owls.



With the publication of yet another book on the subject, Paul Johnsgard has produced a very readable study of all 19 species of owls found in North America. I found his book to be one of the most

authoritative produced to date on the subject, and it certainly is the most current. (Can you name all 19 species? Here

they are: common barn owl, eastern screech-owl, western screech-owl, whiskered screech-owl, great horned owl, snowy owl, northern hawk-owl, northern pygmy-owl, ferruginous pygmy-owl, elf owl, burrowing owl, spotted owl, barred owl, great gray owl, long-eared owl, short-eared owl, boreal owl, and northern saw-whet owl.)

The book is divided into two parts. Part One covers the comparative biology of North American owls, while Part Two details their natural histories. Specifically, Part One examines 1) the evolution and classification of North American owls; 2) comparative ecology and distribution (habitat and food selection, comparative biogeography and species densities, ecological aspects of body size); 3) comparative morphology and physiology, (general morphological characteristics, eyes and vision in owls, owl ears and hearing, the evolution of hearing in owls, owl vocalizations); 4) comparative behavior (egocentric behavior, social behavior); 5) comparative reproductive biology (prenesting biology and population densities, nesting period and annual productivity, postnesting molt and dispersal); and 6) a chapter on owls in myth and legend (owl myths of the Old World, owl myths of the New World).

In Part One can be found interesting tidbits such as the fact that the typical owls and the Caprimulgiformes (nightjars) apparently share a common ancestor and that the aberrant cave-dwelling oilbird of Trinidad and mainland South America may form the link between the two lineages. Also of note is that owls and falcons share many behavioral traits not shared between owls and the remaining groups of hawks. Extensive supportive data

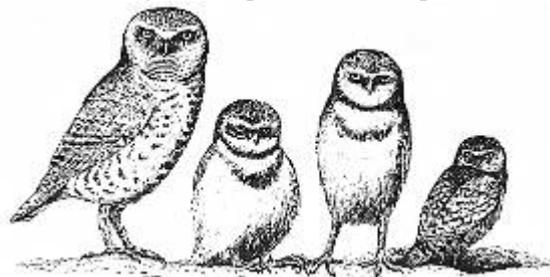
for these and other analyses are presented concisely in tables and figures.

Part Two covers the natural histories of North American owls, first the family Tytonidae (common barn owl), then the family Strigidae (all other species). Included for each species is information on alternative vernacular names, range, subspecies, measurements, weights, descriptions of adults and young, identification both in the field and in the hand, vocalizations, habitats and ecology, movements, food and foraging behavior, social behavior, breeding biology, and evolutionary relationships and conservation status.

Of exceptional value are the detailed range maps that allow instant comprehension of species distribution. The study of owl distribution is one of the most dynamic and difficult aspects of owl research, with considerable knowledge being gained each year from trapping and banding studies such as those conducted at Cape May. The maps appear to have been very well researched, and Johnsgard seems to have been conservative in his delimitation of ranges. For example, the winter range of the snowy owl is shown extending south to Allentown, Pennsylvania, a reasonable limit in a normal year but at least 150 miles north of its southern limit in an irruption year.

Although the title of this book might be interpreted as "owls endemic to North America," not one species is truly endemic. Twelve species range into Central and South America. In fact, the whiskered screech-owl and ferruginous pygmy-owl are primarily tropical. Six species range throughout northern Eurasia as well as northern North America, and if the great horned owl is considered to be conspecific with the Eurasian eagle owl, the number is seven. One species—the short-eared owl—is found worldwide, even on islands.

Interwoven throughout the book are nuggets of lore. One exercise in statistics greatly intrigued me, and I roughly paraphrase it here: A common barn owl eats three one-ounce mice per day, or 68 pounds of mice per year. In its 10-year lifespan it eats 680 pounds of mice



(11,000 mice). Each mouse eats 10 percent of its weight per day. In the course of a year, 11,000 mice consume 13 tons of crops, seeds, and grain. Thus, over its lifespan, one common barn owl might save the farmer 130 tons of potentially lost harvest. Farmers, conserve your owls.

Tucked away as appendices are several related sections—keys to genera and species and to structural

variations in external ears, graphic depictions of advertisement and other typical calls, and four pages covering the origins of the scientific and vernacular names. Also included is a glossary and a 19-page bibliography.

In recent years we birders have been treated to an avalanche of books, such as those on field identification, that either are highly technical or uselessly lightweight. Because of its diversity, this book successfully avoids falling into either category. I believe that Johnsgard's book will make fine reading for anyone interested in owls.

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