

BOOK REVIEWS

Watching Birds: An Introduction to Ornithology. — Roger F. Pasquier, illustrated by Margaret La Farge. 1977. Boston, Houghton Mifflin. xiii + 301 pp. \$10.00. — This well-written book may become the standard introduction to ornithology for amateur naturalists. The text, illustrations, and lay-out are all of high quality. In 15 chapters Pasquier covers evolution, morphology, behavior, breeding cycle, migration, distribution, conservation, attracting birds, and ornithology today. Unfortunately, treatment of environmental physiology is lacking. There is a generally well-rounded list of further readings, to which Andrew Berger's "Bird study" should be added, and an appendix listing ornithological and conservation organizations.

As there is so much information available about birds, it is inevitable that a reviewer will find favorite topics slighted or occasional lapses of accuracy. On the drawing of a chicken skeleton (p. 88) labels for fibula and tibiotarsus are reversed and the carpometacarpus, coracoid, femur, and pubis are not labelled. Including a drawing showing how flight feathers are attached to the wing bones would have been useful. In Florida, Limpkins are not restricted to eating snails (p. 226); they also eat fresh-water bivalves. And only in Florida do Scrub Jays have helpers at the nest (p. 182).

However, these quibbles should not dissuade you from purchasing this book; it is probably the best of its genre. Its well rounded coverage of ornithology makes it a must for the novice who wants to learn more about birds, and I hope it soon appears in an inexpensive paperback edition so that it might better reach the audience that provided the original inspiration, secondary school students. — FRED E. LOHRER.

Vertebrates of Florida. Identification and Distribution. — Henry M. Stevenson. 1976. Gainesville, University Presses of Florida. 607 pp., 11 plates, 15 figures, and 68 maps. \$35.00. — As the subtitle indicates, this volume includes both an identification guide and distributional information for some 880 vertebrate species known from the state. Dichotomous keys provide means for identification of Agnatha, Chondrichthyes, Osteichthyes, Amphibia, Reptilia, Aves, and Mammalia. Because most readers of *Florida Field Naturalist* have a primary interest in birds, this review will be limited to the sections dealing with birds.

The keys are intended primarily for the identification of museum specimens ("study skins") but should be useful on freshly killed birds occurring in Florida; they are not intended for field identification. For birds, keys are provided for orders and families and species within the families. (Further into the book, for each species one finds information on Identification and Distribution and Variation [subspecific].) The goal of anyone designing keys is to identify correctly 100 percent of all specimens; to achieve this goal is often exceedingly difficult. Most of the characters used in the keys are standard, easily understood, and defined early in the book. Over the past year I have had my students in ornithology practice identifying unknowns by using these keys; their identifications were approximately 90 percent correct, some of the problems being indicated below.

The major problem areas involve measurements — use of total length and measuring the wing. The author states (p. 6): "Probably the most reliable index of size in museum skins is total length . . . wing length is equally variable." (All measurements are variable, but wing length is probably the *least* variable in my opinion.) "In such cases the total length of a museum skin may be assumed to be within 10 percent of the original in most species. . . ." I join other avian systematists in remaining skeptical of this measurement, and the keys in "Vertebrates of Florida" substantiate this skepticism. For example, in the key to orders and families (p. 82), total length of the Tytonidae (barn owls) is "about 45 cm," but in the species' description for *Tyto alba* the length is given as "38 to 53 cm." Furthermore, a specimen I measured was only