

BOOK REVIEW

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Land bird communities of Grand Bahama Island: the structure and dynamics of an avifauna.—John T. Emlen. 1977. Ornithological Monographs No. 24. xi + 129 pp. \$9.00.—Absolute density and biomass data are given for the land birds (excluding raptors) in all major habitats on Grand Bahama Island. Several conclusions drawn from analyses of these data fail to support current ecological theory.

Bird species diversity correlates best with total vegetation volume. However, total bird community density correlated only weakly with vegetation volume. The latter suggests caution in accepting widely held assumptions concerning consumer-resource relations.

Pine forest, which is the most extensive and complex community on the island, was studied in greatest detail. The wintering bird community was nearly twice as large in numbers of species, individuals and biomass as the breeding-season community, although no obvious change in habitat complexity or food resources was found. Thus food supply seems less critical as a limiting factor than commonly supposed.

Invertebrate food resources were sampled in nine pine forest compartments. Their densities failed to show the positive correlation predicted by traditional carrying capacity theory. Also contrary to predictions of competition theory no general compensatory shift in province distribution by permanent residents was detected following departure of the wintering birds. Additional analyses pertain to habitat, spacial and guild distributions.

This careful study is an important source for all population biologists. It is important for investigators working in Florida not only because of the proximity of the Bahamas, but also because certain of the results (e.g. winter vs. breeding densities) parallel those known for the peninsula.

Because Emlen's philosophy regarding much recent work in ecology closely parallels my own I end this review with a quote from his preface, ". . . the imaginative creations of theoretical ecologists rarely survive long in this modern era of scientific ferment unless they are built on solid empirical data. Most of the speculations and interpretations in this monograph will doubtless be ephemeral as our science progresses; I only hope that the materials on which they are based will prove to be solid and clearly presented." I predict they will.—GLEN E. WOOLFENDEN.

Also Received

Hérons and their allies: Atlas of Atlantic coast colonies, 1975 and 1976.—Ronald G. Osborn and Thomas W. Custer. 1978. Biological Services Program, U.S. Fish & Wildlife Service, FWS/OBS-77/08. xv + 211 pp., 324 maps. \$6.50. order from Supt. Doc., U.S. Govt. Printing Office, Wash., D. C. 20402.—This atlas contains data on 291 colonies of egrets, herons, ibises and Wood Storks along the entire U.S. Atlantic coast, with 73 in Florida starting in the Jacksonville area and continuing south to Key West including Florida and Whitewater bays. The northern Gulf of Mexico and U.S. Great Lakes are scheduled for forthcoming volumes. Data on individual colonies include location, coordinates, status, description, ownership, nesting substrate, use by man and bird census results. Most of the individual colony maps are based on U.S. Geological Survey 7.5 min quadrangle maps.

This atlas represents an outstanding cooperative effort among federal, state, university and Audubon society biologists (Florida team leaders were James A. Kushlan, Stephen A. Nesbitt and William B. Robertson, Jr.) and it is a valuable foundation for future efforts.