

## ACKNOWLEDGMENTS

We would like to thank the students in the fall, 1971, class in Advanced Vertebrate Ecology for their many man-hours of labor in extracting nuthatch data from the Christmas Bird Count volumes. In addition Mrs. Jackie Forsythe provided valuable cone crop data for the United States. This work was made possible in part through the support of the University of Colorado Computing Center, E. Rex Krueger, Director.

## The Centers of Learning

### Yale University

by Charles G. Sibley

Ornithology at Yale can trace its origins back to 1834 when the first specimens of birds were added to the "Natural History Cabinet." With the founding of the Peabody Museum of Natural History in 1866 the Yale collections, especially in paleontology and invertebrate zoology, began to increase rapidly. Ornithology was part of the zoological department of the Museum but it did not really begin to flourish until 1946 when Dr. S. Dillon Ripley joined the staff of the Peabody Museum. With characteristic vigor, Ripley established ornithology as part of the academic curriculum and in the short span of 18 years added some 80,000 specimens to the scientific collections.

Today the facilities for ornithology at Yale include a collection of 90,000 study skins, 8,700 specimens preserved in alcohol and 1,100 skeletons. The ornithological library contains over 4,000 volumes, sets of more than 100 periodicals and a large reprint collection. Laboratories for research in biochemical systematics and equipment for field and museum studies are available. Within a few miles of New Haven are several university-owned natural areas for field studies. The Yale Biological Field Station in Guilford includes areas of uplands, fresh water ponds and marshes, salt marshes, estuaries and an island in Long Island Sound.

The Peabody Museum of Natural History contains collections in all zoological and botanical fields and the twenty curators are also professors in one of the four academic departments that are involved in the Museum.

Courses in general ornithology, the birds of the world, ecology, behavior, evolution, and related subjects are given through the Department of Biology and the School of Forestry.

## LITERATURE CITED

- BENT, A.C.  
1948. *Life histories of North American nuthatches, wrens, thrashers, and their allies*. U.S. Natl. Mus. Bull. 195.
- BOCK, C.E. and R.B. SMITH  
1971. An analysis of Colorado Christmas Counts. *American Birds*, 25: 945-947.
- LANSDOWNE, J.F. and J.A. LIVINGSTON  
1967. *Birds of the northern forest*. McClelland and Stewart Ltd., Montreal and Toronto.

The faculty in the biological sciences (including paleontology and several aspects of forestry) numbers approximately fifty. Those with an interest in ornithological research include the following.

Peter A. Jordan, Assistant Professor of Wildlife Ecology, School of Forestry. Ecology of game birds.

Richard S. Miller, Professor of Wildlife Ecology, School of Forestry and Professor of Biology. General ecology of birds and mammals.

Alvin Novick, Associate Professor of Biology. Behavior; orientation and navigation in bats and birds.

John H. Ostrom, Professor of Geology and Geophysics and Curator of Vertebrate Paleontology, Peabody Museum of Natural History. Fossil birds; *Archeopteryx* and the problem of the origin of bird flight.

Charles L. Remington, Associate Professor of Biology and Associate Curator of Entomology, Peabody Museum of Natural History. Evolutionary principles.

Charles G. Sibley, Professor of Ornithology, Curator of Birds and Director, Peabody Museum of Natural History. Avian systematics and distribution; protein structure as a source of data for classification.

The thesis topics of present and recent graduate students include studies of the passerines of the Aegean islands (George E. Watson), ontogeny and evolution in the megapodes (George A. Clark, Jr.), passerine pterylography (Mary Heimerdinger Clench), passerine syringeal structure (Peter Ames), shorebird feeding ecology (M. C. Baker), cowbird-host relationships (Stephen I. Rothstein), ecological aspects of bird song (Eugene S. Morton), population ecology of *Zonotrichia capensis* (Dennis Kalma), relationships of and within the shorebirds (Jon E. Ahlquist), relationships within the Anseriformes (Peter D. Bottjer), a study of the Galliformes (Jeffrey A. Spindelaw), and the development of feeding behavior in gulls (Karl Tolonen).