

# Center of Learning

## Department of Ornithology of the American Museum of Natural History

by Wesley E. Lanyon  
Chairman and Curator

The American Museum of Natural History in New York City is one of the world's most eminent and prestigious centers for the study of diversity in nature, and its resources are devoted to research, exhibition, and education concerning the nature of life and the principles underlying its development and evolution. Occupying the entire eight floors of the Whitney Wing of the Museum is the Department of Ornithology, which has had a long and distinguished history of education and research in the evolution, systematics, and biogeography of the birds of the world. Associated with the Department through the years since its founding in 1885 have been some of the most prominent ornithologists in these fields: J. A. Allen, Frank M. Chapman, Waldron DeWitt Miller, James P. Chapin, Charles H. Rogers, Robert Cushman Murphy, Jonathan Dwight, Ludlow Griscom, John T. Zimmer, Ernst Mayr, Austin L. Rand, E. Thomas Gilliard, and Charles Vaurie.

Among the Department's educational services are its publications, correspondence, contacts by telephone, lectures, and exhibits. It has been particularly effective in developing techniques for exhibiting birds to the public, and the introduction of the "habitat group" by Frank M. Chapman established a new standard in the field. The "bird halls," involving conceptual exhibits as well as habitat displays, are extremely popular with the public and have been illustrated commonly in textbooks. Most staff members are involved directly or indirectly in matters of environmental concern, especially in matters relating to bird preservation, in which they are well qualified to offer advice.

The usual concept of a curator in a natural history museum is that of a taxidermist and caretaker, and of someone who devotes nearly full time to the care and exhibit of his collections and to answering public inquiries. Formerly this was an accurate job description and it still applies to curators in many smaller museums. Fortu-

nately the curatorial staff of this Department has sufficient assistance from supporting staff to relieve it of some of the curatorial and educational tasks and enable it to conduct research—a task it is uniquely qualified to undertake.

The Department's collections, now numbering nearly a million specimens, are unmatched in size and completeness among institutions in the western hemisphere, and in the world rivaled only by those of the British Museum. Ninety-eight per cent of all the species of birds of the world are represented, and this completeness of the collections becomes increasingly valuable with time as one species after another becomes extinct owing to man's abuse of his environment. The collections thus constitute a vital national and international resource, providing material for much of the research conducted by the staff, which is responsible for maintaining and enhancing them. Literally hundreds of scientists and other visitors annually utilize the collections. Other resources in the Department include laboratories, aviaries, sound- and climate-controlled rooms, sound recording and analysis equipment, photographic equipment, and library. We have access, of course, to the Museum's library, one of the world's largest and finest natural history libraries.

The staff currently consists of four curators, eight scientific and curatorial assistants, and a number of resident fellows and associates. Research is primarily but not exclusively oriented toward avian systematics in its broadest sense, treating all aspects of the relationships, evolution, classification and identification of birds. In addition to the conventional museum approach to systematics, the staff is engaged in ecological, behavioral, and other approaches, using the newest field and laboratory techniques. Dean Amadon, Curator and my predecessor as Chairman of the Department, recently co-authored two large and superbly-illustrated works on the diurnal birds of prey of the world and on curassows and related birds, the latter in collaboration with Jean Delacour, one of our Research Associates and an eminent aviculturist and conservationist. Amadon, a Past President of the American Ornithologists' Union, is continuing with a number of projects emanating from his long standing interest in birds of prey. Lester L. Short, Curator, has nearly completed his studies of the systematics and evolution of woodpeckers of the world and is commencing a similar analysis of parrots. His book on the *Species Taxa of North American Birds*, co-authored with Ernst Mayr, Curator Emeritus, has provided an important stimulus for investigations on the systematics of North American birds. Short is currently Secret-

ary of the Pan American Section, International Council for Bird Preservation, and serves on the Council of the American Ornithologists' Union. François Vuilleumier, Associate Curator, is continuing his studies of speciation phenomena in high Andean birds, but has long-term research plans involving birds of the Old World, thus complementing the orientation and interests of the rest of the staff. Vuilleumier is preparing a chapter on zoogeography for a forthcoming volume on avian biology. My research on the crested flycatchers of North and South America is nearing completion and has relied heavily upon the use of vocal characters as clues to reveal relationships and evolutionary trends within this difficult genus. I am also investigating the possible influence of humidity on feather pigmentation in birds maintained in our climate controlled rooms.

Mary LeCroy, Scientific Assistant, is assisting Jared Diamond, Research Associate, in the analysis of the latter's unique collections from volcanic islands in the southwest Pacific. Manuscript for a new and much-needed book on the birds of New York State has recently been completed and sent to press by another Scientific Assistant, John Bull. Eugene Eisenmann, Research Associate, is directing the efforts of a team of systematists to produce a revised check-list of North American birds, under the auspices of the American Ornithologists' Union, continues to offer advice to and collaborate with authors and artists who are working on neotropical birds, and serves on the Council of the American Ornithologists' Union. As Chairman of the Standing Committee on Ornithological Nomenclature of the International Ornithological Congress and a member of the International Commission on Zoological Nomenclature, Eisenmann is frequently called on for advice on matters of nomenclature by ornithologists throughout the world. The Museum has just published part one of a catalogue of type specimens of birds in our collections, under the authorship of James Greenway, Research Associate. Walter Bock, Research Associate, works primarily on problems of functional morphology and classification of birds, with emphasis on the head anatomy of the perching birds. These studies have led to theoretical considerations of macroevolutionary mechanisms and of classificatory principles. Robert Dickerman, Research Associate, trains medical and graduate students in the field aspects of avian arbovirus ecology, and conducts research on the taxonomy of neotropical birds. Stuart Keith, Research Associate, is preparing a book on the birds of the Malagasy Region, and analyzing the vocalizations of a number of African birds.

For the past fifteen years the Department has been closely involved with the administration and use of the Museum's Kalbfleisch Field Research Station on Long Island. During summer programs sponsored in part by the National Science Foundation, twenty college undergraduates have been given training in field and laboratory techniques in ornithology. The facilities at this field laboratory enabled me to (1) develop techniques for the hand-rearing of birds from the egg stage for use in research on the significance of learning in the development of species-specific vocal characters, and (2) to pursue my studies on the comparative biology of meadowlarks, by breeding and hybridizing them in aviaries and documenting the behavior and fertility of the hybrids. Other staff members have utilized the Kalbfleisch Station for their research, and studies have occurred at other Museum field stations, including the Archbold Biological Station in Florida and the Southwestern Research Station in Arizona.

Another field station, on Great Gull Island in the eastern end of Long Island Sound, is administered jointly by the Department and the Linnaean Society of New York, and is under the direction of Helen Hays. Research there has centered upon the comparative biology of Common and Roseate Terns and most recently upon the concentrations of pollutants in abnormal young terns. The Linnaean Society, one of the oldest (1878) and most respected of the regional societies for bird-watching enthusiasts, holds its meetings at the Museum.

The Department administers the Frank M. Chapman Memorial Fund, the most important single source throughout the world for the financial support of ornithological research. In addition to short term grants, the Chapman Fund offers fellowships to enable post-doctoral scholars or distinguished ornithologists to carry out a year of research based at the Museum. Chapman grantees and fellows contribute in significant ways to the academic and research environment within the Department.

Because of its resources in personnel, collections, library and support facilities, the American Museum of Natural History is uniquely endowed to teach, train, and provide research opportunities for students in evolutionary and comparative biology. Though it is not a degree-granting institution, the Museum has entered into formal arrangements with local universities for programs of graduate education. Members of the Department of Ornithology also hold professorial appointments at the City University of New York, Columbia University, and Cornell Univer-

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## Third National Wild Turkey Symposium

The Texas Chapter of the Wildlife Society has scheduled its third national symposium on the Wild Turkey for San Antonio, Texas, on February 11-13, 1975. Formal presentation of papers is scheduled for the first two days. The third day a field trip is planned to some representative Rio Grande turkey habitat. A full roster of speakers from universities, state and Federal conservation agencies, and the private sector is promised. Headquarters for the Symposium is the San Antonio-Sheraton Motor Inn. Full details and registration forms may be obtained from Charles W. Ramsey, Wildlife and Fisheries Sciences Department, Texas A & M University, College Station, Texas 77843.

## Blackbird-Starling Winter Roost Survey

Biologists of the U.S. Fish and Wildlife Service are attempting to locate all major winter concentrations of blackbirds and starlings in the United States this coming winter. Success of a project of this scope requires assistance from many cooperators throughout the country. Such a nationwide survey is useful in estimating the total population of blackbirds and starlings, in locating roosts from which samples of birds can be obtained for banding, and for other research purposes.

The most stable period for winter roosting populations is in midwinter. Therefore, the winter roost survey will be conducted from December 21 to January 31. Late December is included to take advantage of the annual Christmas Bird Count sponsored by the National Audubon Society. Since many roosts are located by Christmas Count participants, compilers of Christmas Bird Counts are asked to complete winter roost survey forms for any roosts located during the count period.

If you should find a winter roost of blackbirds or starlings *after* the Christmas Count period, especially if the roost contains 1000 or more birds, please report it on one of the winter roost survey forms. You can obtain these forms from the Regional Editors of *American Birds*. Return completed forms to the Regional Editors by February 15.

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How many Western Sandpipers (pg 757)? If you guessed 100, you get an A. We counted about 105.

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sity Medical College, teach formal courses, and direct dissertation research. Graduate students participating in such programs base their activities at the Museum and thereby avail themselves of its resources. The following individuals received graduate degrees for dissertation under the direct guidance of Departmental staff: Hiroyuki Morioka, on the morphology and interrelationships of the thrushes, thrashers and wrens; Joel Cracraft, on the functional morphology of the hind limb in pigeons; Charles R. Shear, on comparative studies of physiological cross-sections of avian muscles; Marion Cohen, on physiological studies of denervated avian tonus muscles; and Linda Vardy, on the nature of the non-bimodal color variation in the crown of the White-throated Sparrow. The following graduate students are currently based in the Department and are writing dissertations for their doctorate degrees: David N. Ewert, on an analysis of variation in the song of the Rufous-sided Towhee, Michael Gochfeld, on the systematics and evolution of the Red-breasted Meadowlarks of South America; and James Gulledge, on a phenetic and phyletic analysis of relationships within the avian family Mimidae.

On a more informal basis, the Department's facilities have been used and its staff has assisted in the training of students from other universities here and abroad. Students, often with support from the Chapman Fund, visit the Department to work with the collections and consult with our staff, and receive intellectual stimulation from the many visiting researchers, including renowned foreign and domestic ornithologists.

As a result of its unique collections, library resources, financial resources for support of research, educational programs, and the expertise of its staff, it is not surprising that the Department has become a cross-roads, gathering place, and "center of learning" for ornithologists and would-be ornithologists around the world.

The following common abbreviations are used for the sake of saving space in Regional Reports: Co., County; Cos., Counties; Ft., Fort; I., Island; Isle; Is., Islands, Isles; Jct., Junction; L., Lake; Mt., Mountain, Mount; Mts., Mountains, Par., Parish; Pen., Peninsula; Pt., Point (not Port); N.W.R., National Wildlife Refuge, W.M.A., Wildlife Management Area; P.P., Provincial Park; N.P., National Park; S.P., State Park; Ref., Refuge; Res., Reservoir; (not Reservation) R., River; Twp., Township. ♂, male; ♀, female; ad., adult; imm., immature; juv., juvenile; Am., American; Com., Common; Eur., European; m.ob., many observers; *fide*, reported by; *et al.*, and others; \*, specimen; †, documentation on file.