The Centers of Learning

3. The Louisiana State University Museum of Zoology

by Robert J. Newman, Curator

In Audubon country, where Spanish moss hangs down from live oaks and elms, on a landscape-gardened campus, where some sort of shrub or tree seems to bloom every month of the year, stands Foster Hall. It is the home of the Louisiana State University Museum of Natural Science.

The Museum has two parts, different in aims. The Exhibits Division features public displays. The Research Division, called the Museum of Zoology, is the subject of this account.

PHYSICAL FACILITIES

Louisiana State University had its beginnings on the eve of the Civil War. Its first president, William Tecumseh Sherman, resigned to accept a command in the Union army before the first school year ended. But construction on its present site, on the southern outskirts of Baton Rouge, did not get underway until 1923. As a result, LSU is a rather old institution with a rather new look.

Foster Hall was among the first structures to arise on the mushrooming new campus. Like most of the buildings that followed, it reflects the Renaissance style of northern Italy, with red tile hip roofing, an arched colonnade, and a pebbled tan stucco exterior. Its basement, first-floor, and second-floor levels provide approximately 50,000 square feet of floor space.

In 1950, half of Foster Hall was suddenly available for conversion into a museum. One room, 90 feet long and half as wide, became a "range," museum term for the area where study specimens are housed. North light entering through closely spaced windows on one side and through spacious skylights above brought the kind of illumination that allows the fine color distinctions often required in studies of geographic variation among birds and mammals.

Today, the bird and mammal cases remain where they were in 1950; but, instead of being one-deep as they once were, they rise triple-decked 9 feet above the floor. The collections of reptiles, amphibians, and fish have been removed to a separate range with modern racks in the basement. At this level one also currently finds a well-equipped preparations room, a classroom of moderate size, and a "bug" room, where dermestid beetles perform the often delicate task of cleaning skulls and skeletons, even of the smallest and most fragile birds. Here too are private and semi-private offices for graduate students doing research under Museum direction.

THE COLLECTIONS

Though long-term planning calls for wider coverage, the study collections are still wholly zoological—in fact, wholly vertebrate. Included are respectable numbers of mammals, reptiles, and amphibians. Fishes are as yet in distant last place.

The bird collections, started in 1936 by the present Director, Dr. George H. Lowery, Jr., in a converted classroom, appropriately in Audubon Hall, are the Museum's most outstanding asset. They have grown to be the fifth largest among university holdings in the United States, exceeded in size only by the collections at Harvard, Yale, the University of Michigan, and the University of California at Berkeley.

The more than 70,000 specimens include representatives of all the families of living birds of the world and examples of all but 28 of the hundreds of species recorded from the area of the current American Ornithologists' Union *Check-list of North American Birds* plus the Republic of Mexico. More than half the specimens are from tropical America, a part of the world where real ornithological frontiers still exist. From the countries of the primitive Cashinahua and Aguaruna Indians, in the wilderness of interior Peru, John P. O'Neill, an LSU graduate student, has over the past eight years brought back two genera and three additional species of birds new to science—an astonishing accomplishment in the present advanced state of ornithological knowledge. Readers may remember O'Neill's own excellent paintings of three of these birds that have appeared as colored frontispieces in *The Auk*.

THE LIBRARY

The University Library provides in open stacks an array of ornithological works with complete files of just about every bird journal of note ever published, in the United States or abroad. A complete set of framed Audu-

bon original elephant folio plates, hanging in the galleries, enhances the ornithological atmosphere of the whole building. In the newly dedicated E. A. McIlhenny Natural History Collection, named for Louisiana's pioneer conservationist and housed in a separate room adjoining the Science Division, one may inspect bird books of great rarity, including a bound set of Audubon's elephant folio engravings and a superlative selection of Gould's hummingbird plates once owned by Baron Rothschild.

ABOUT CURRICULA

Like most centers of learning in the United States, Louisiana State University offers relatively little formal course work dealing exclusively with birds. Dr. Lowery, who holds the University's highest professorial rank, that of Boyd Professor, teaches two bird courses with formalized content: Ornithology, an introduction to the subject for undergraduates, and Advanced Ornithology, essentially a survey of the birds of the world. He also supervises Seminars in Systematics, Evolution, and Zoogeography that concentrate mainly on birds and mammals. These courses are taught at the Museum itself. In addition, an offering called Natural History Museum Expedition permits graduate students to obtain university credit for semesters spent off campus doing research on birds in the wild.

A popular misconception is that one can obtain a degree in Ornithology. Actually no such degree exists. Graduate students may choose birds as the research subject on which to base their theses or dissertations. But the degree they will receive will be an M.S. or Ph.D. in Zoology. Thus, to anyone enrolling at a University to do research on birds, the availability of supporting subject matter is of serious concern. Two non-ornithological courses are taught at the Museum— Mammalogy by Dr. Lowery and Herpetology by Dr. Douglas A. Rossman, Associate Curator, in Charge of Lower Vertebrates. The Museum will soon add a course in Ichthyology under Dr. J. Michael Fitzsimons.

In a new Life Sciences Building with excellent equipment, a competent zoology faculty offers courses in virtually all other branches of the science. Of particular appeal to those specializing in ornithology is Dr. Albert H. Meier's class in Physiological Rhythms, which strongly emphasizes their avian aspects. Allied in a different way is LSU's Game Management Department, a division of the School of Forestry. Dr. Leslie L. Glasgow, recently Assistant Secretary of the Interior, is Assistant Director of the School.

RESEARCH

Since 1950, when the Museum accelerated its expansion, students doing avian research there have earned 26 graduate degrees. More than half the theses and dissertations were based on research in the American tropics, which is currently facilitated by the Museum's close ties with the Instituto Lingüístico de Verano in Peru and the Organization for Tropical Studies in Costa Rica, of which LSU is a charter member. Though the Museum strongly emphasizes studies in taxonomy and distribution, for which its collections provide great opportunities, a majority of its graduate research projects, whether tropical or non-tropical, have been primarily anatomical, behavioral, or ecological.

Two countrywide distributional surveys of birds by Museum students—one for British Honduras by Stephen M. Russell, the other for Honduras by Burt L. Monroe, Jr.—were among the first seven AOU *Ornithological Monographs* published, along with a comparative study of social communications patterns among pelecaniform birds by Gerard F. van Tets, who carried on part of the underlying investigations while associated with LSU. Recently published shorter papers based upon graduate tropical research are David L. Pearson's *Vertical Stratification of Birds in a Tropical Dry Forest* and James H. Hunt's *A Field Study of the Wrenthrush,* the first report on the nest, eggs and daily life of a strange, elusive, and little-known bird. Ongoing tropical research includes Donald W. Buden's work on the zoogeography of the southern Bahamas and John P. O'Neill's investigation of the reasons for the great species diversity in the Balta region of Peru.

Studies of structure have dealt with the cranial osteology and the humerus in New World Tyrranoidea, skull variation among parulids, the lacrimal-ectethmoid bone complex in non-passeriform birds, and chromosome morphology in the Falconiformes.

Side by side with these endeavors has continued a project of long standing: the investigation of migration while it is actually taking place in the sky. At the core of the program is the moon-watching technique developed by Dr. Lowery in the mid-1940's and subsequently refined by myself and him.

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