

The Centers of Learning

The University of California, Los Angeles

by Thomas R. Howell

History—The development of ornithology at the University of California, Los Angeles began with the appointment of the late Loye H. Miller to the staff of the Los Angeles Normal School in 1904. The Normal School evolved into one of the campuses of the University of California, and Miller became the first Chairman of the Biology Department at the new UCLA. Miller's long and colorful career as a field naturalist, palaeontologist, and teacher is reviewed in memorials to him that appeared in *The Auk* (April 1971; v. 88: 276-285) and *The Condor* (1972; v. 74, no. 3). His large collection of bird skins and skeletons (Recent and fossil), most of which he personally prepared, remains a valuable teaching and research facility.

Adriaan J. van Rossem was associated with UCLA as Curator of the Donald R. Dickey Collection from the time of its donation to UCLA in 1940 until his death in 1949. Van Rossem authored a large number of publications on the taxonomy and distribution of the birds of North and Central America, including books on the birds of El Salvador (1938) and Sonora (1945) that remain the standard references on those regions. The Dickey Collection is still informally known by that name as it is so widely cited as such in ornithological publications, and it forms the nucleus and major part of the bird collection of the UCLA Department of Biology. The entire collection includes about 50,000 birds, 25,000 mammals, and 5,000 osteological and anatomical specimens. These materials are under the direct supervision of James G. Miller, Senior Museum Scientist.

The Staff—In the 1950s, UCLA commenced a period of great expansion and growth in many fields including the biological sciences, and the faculty includes a number of individuals in several different academic departments whose research involves birds to an important extent and who supervise graduate students working on a variety of aspects of ornithology. Undergraduate instruction in ornithologically-related subjects is centered in the Department of Biology, but some courses relevant to ornithology

are also offered in other departments. The faculty members with teaching and research interests in ornithology are listed below in alphabetical order, with their academic department in parentheses following their names.

GEORGE A. BARTHOLOMEW (Biology) teaches an undergraduate course in the Biology of the Vertebrates and graduate courses in the Biology of Terrestrial Vertebrates and in Physiological Ecology. His ornithological interests are primarily in the ecologically relevant physiological adaptations of birds and in their social behavior. Of particular interest are adaptations to desert conditions, including thermoregulation and water economy; metabolism and energetics, especially in stressful environments, and social behavior, especially those patterns that correlate with physiological adaptations to the environment and those that are associated with reproduction. He is one of the authors of the textbook, *Animal Physiology* (Gordon, M.S., et al., 1972, Macmillan Co.) and has published extensively in ornithological journals as well as many others. In addition, he has served as scientific advisor for a series of University of California Extension Division films on the Galapagos Islands, which he has visited many times.

MARTIN L. CODY (Biology) is an ecologist who works primarily with birds. He teaches undergraduate courses in Ecology and in Evolutionary Biology and graduate courses in Conceptual Models in Ecology, Community Ecology, and Population Biology. His research interests include community and social organization in birds; feeding ecology; competition, coexistence and the ecological niche; convergent evolution and mimicry. His studies involve intensive field work and advanced mathematical analyses of the data. He authored the chapter on Ecological Aspects of Reproduction in *Avian Biology*, v. 1 (Farner, D.S., and King, J.R. 1971. Academic Press); most of his papers have appeared in ecological journals with some in ornithological publications.

NICHOLAS E. COLLIAS (Biology) works in the field of animal behavior and his research deals primarily with birds. He teaches an undergraduate course in the Behavior of Animals and graduate courses in field and laboratory Studies of Animal Behavior. His own studies deal with the nature of socialization and communication in birds, including the analysis of visual and vocal signals; the behavior of the wild Jungle Fowl and its domesticated descendants; the behavioral and ecological aspects of nest-building and its evolution, especially in Af-

rican weaverbirds, and the social aspects of reproduction in colonial birds. He maintains a captive colony of African Village Weavers (*Ploceus cucullatus*) on the UCLA campus for behavioral research. He publishes in a variety of zoological journals, including ornithological ones, and has contributed chapters to numerous books on animal behavior. His films on Jungle Fowl and on nest-building and behavior of weaverbirds are distributed by the University of California Extension Division.

JARED M. DIAMOND (Physiology; School of Medicine) does teaching and research in the physics and chemistry of biological membranes and also conducts research and directs graduate students in avian ecology. He has worked extensively in New Guinea and other southwest Pacific islands, in Peru, and on the islands off the southern California coast. His studies in New Guinea include taxonomy and distribution but have concentrated on altitudinal distribution, niche relations between ecologically similar species, competition, and community structure. He is particularly interested in the colonization of islands by birds, whether oceanic islands or ecologically isolated areas such as mountains rising out of lowlands. His publications on birds have appeared in a variety of ecological and ornithological serials, including the *Novitates* of the American Museum of Natural History, and in the *Proceedings of the National Academy of Sciences*. In 1972 his book, *Avifauna of the Eastern Highlands of New Guinea*, appeared as Publication No. 12 of the Nuttall Ornithological Club. He is continuing work on New Guinea and other islands of the southwest Pacific as well as in Southern California.

HENRY A. HESPHENHEIDE (Biology) is a new member of the staff, beginning in the fall of 1973. He is an ecologist who will teach undergraduate courses in Insect Ecology and Field Ecology and will direct graduate research in these areas. His own research interests are in the analysis of the diets of birds—especially insectivorous and raptorial species—with respect to the type and size of prey taken. This correlates with a general interest in the relationships between predators and prey and the role of food as a limiting resource in bird communities, especially New World tropical forest communities. His publications have appeared in both ornithological and ecological journals.

THOMAS R. HOWELL (Biology) shares teaching of the undergraduate courses in Biology of the Vertebrates and a graduate course in the Biology of Terrestrial Vertebrates with

Bartholomew, and offers the undergraduate course in Ornithology. His research interests are in the taxonomy, distribution, ecology, and behavior of birds. He is particularly concerned with the systematics, historical zoogeography, and ecology of birds of Central America (especially Nicaragua) and the adaptations for reproductive success in colonial sea birds. His publications have appeared primarily in the North American ornithological journals, and a film on the albatrosses of Midway Island is distributed by the University of California Extension Division.

HARTMUT WALTER (Geography) teaches an undergraduate course in Animal Geography and directs graduate research in biological studies involving geography and ecology. His special interests include the ecology and behavior of birds of prey (extensive study of Eleonora's Falcon), Mediterranean-type bird communities, island ornithogeography, the role of birds as indicators of environmental change, and population dynamics of birds in man-made habitats. His ornithological publications have so far appeared principally in the *Journal für Ornithologie*.

FRED N. WHITE (Physiology) has specialized in comparative aspects of cardiovascular physiology and in recent years has carried on extensive research in the ecologically relevant physiology of birds. He has conducted field studies in the Galapagos Islands, Antarctica, and Africa, and is particularly interested in the physiological and behavioral adaptations of birds relating to incubation. He directs graduate research in his fields of interest. Most of his publications have appeared in physiological journals, and he is the author of chapters of respiration and circulation in *Animal Physiology*.

The resources—The Biomedical Section of the UCLA library includes virtually all of the standard ornithological reference works and complete sets or extensive runs of all the major ornithological journals of the world. Many rare and valuable books such as folio editions with hand-colored plates are kept in the rare book section and may be examined there when needed.

In addition to the bird collection of the UCLA Biology Department, there are three other major research collections within Los Angeles that may be utilized by qualified students with the permission of the respective curators. The Moore Laboratory of Zoology at Occidental College houses one of the most extensive of all collections of Mexican birds and

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Bradford G. Blodget, Marc G. Bouchard, Jean Boulva, Dorothy W. Briggs, David T. Brown, Lewis A. Buck, William Burt, Harold M. Card, David S. Christie, James M. Clark, John Cohrs, William Bolton Cook, **Severyn S. Dana**, George G. Daniels, Mabelle Davenport, K. Henrik Deichmann, Herman D'Entremont, Robert C. Dewire, Benjamin K. Doane, Phyllis R. Dobson, Paul K. Donahue, Charles Dorchester, Mary Edwards, R. Kenneth F. Edwards, Kimball C. Elkins, David L. Emerson, Robert Emerson, William S. Emerson, Ruth P. Emery, Josephine Fernandez, Richard L. Ferren, Davis W. Finch, Sally H. Finch, Richard A. Forster, Constance D. Gallagher, J. Roswell Gallagher, Muriel L. Gillis, Carl A. Goodrich III, Gilbert S. Grant, Jeffrey Harris, Jeremy J. Hatch, Vera H. Herbert, Christopher W. Helleiner, Marion W. Hilton, Peter R. Hope, Richard R. Howie, Connee Jellison, Cecil L. Johnston, Katherine B. Kinsey, Douglas L. Kraus, Robert D. Lamberton, J. Chester Littlefield, Trevor L. Lloyd-Evans, R. Charles Long, Beulah Lord, Ian MacGregor, A. Angus MacLean, Bruce Mactavish, Mary Majka, Philip Martin, Martha H. McClellan, Andrew R. G. McInnis, Ian A. McLaren, Ian C. T. Nisbet, Christopher M. Packard, Robert Pease, Wayne R. Petersen, Penelope Richards, Don Roberson, William C. Russell, Richard M. Sargent, Eloise A. Saunders, Frederic R. Scott, Robert Scully, E. Manning Sears, Robert W. Smart, Bruce A. Sorrie, Thomas C. Southerland, Jr., Francis Spalding, Stanley Swabe, William C. Townsend, Bruce Turner, Leslie M. Tuck, C. Eric Tull, Dallas Wait, John Wells, Charles Wood, Robert E. Woodruff; M.B.O., Manomet (Mass.) Bird Observatory, M.C.Z. (Harvard) Museum of Comparative Zoology, v.o., various observers.

—DAVIS W. FINCH, 240 W 98 St., Apt. 11-C, New York, N.Y. 10025.



Wood Thrush at nest, Kempt, Queens Co., N.S. June 18, 1973. First provincial breeding record. Photol Davis W. Finch.



Louisiana Heron, Bayfield, N.B. May 11, 1973. Photol R.G. McInnis.

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includes some South American material as well. The Western Foundation of Vertebrate Zoology maintains one of the largest and most complete collections of eggs of birds from all parts of the world. It also includes an expanding world-wide collection of nests and bird specimens from western North America, Mexico, and Africa. The Los Angeles County Museum of Natural History, in addition to its displays and habitat groups, has a very large research collection of world birds with particularly good representation from North America, Mexico, South America, Australia, and Africa. An extensive collection of fossil birds, primarily from California, includes the Pleistocene to sub-Recent material from the tar pits at Rancho LaBrea.

The environment—Despite an enormous human population and rampant urbanization, the Los Angeles region probably includes a greater variety of major habitat types than any area of comparable size within the United States. The habitats include rocky and sandy coast and estuaries, lakes and fresh water marshes, desert, savanna, chaparral, a variety of broad-leaf woodlands, and montane coniferous forest—all within no more than two hours driving time from metropolitan Los Angeles. On any day of the year a determined birder can compile a list of over 100 species that could include Cassin's Auklet, Roadrunner, Anna's Hummingbird, White-headed Woodpecker, Wrentit, Tricolored Blackbird, Lawrence's Goldfinch, and California Condor. This wealth of habitats and species adapted to them provides a great variety of subjects for research on ecology, physiology, behavior, and other aspects of avian biology.