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IN MEMORIAM: THOMAS RAYMOND HOWELL, 1924–2004 Tom J. Cade,¹ Lloyd F. Kiff,¹ and George A. Bartholomew²

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Member of the AOU from 1948, Elective Member in 1953, and Fellow in 1959, Thomas Raymond Howell was a prominent figure in American ornithology during the second half of the 20th Century. He died quietly at the age of 80 on 14 December 2004 in North Chatham, Massachusetts, after several years of incapacitating illness. He will be remembered as an outstanding avian scientist and teacher and for his many services to the ornithological community.

Tom was born in New Orleans, Louisiana, on 17 June 1924. His father, W. Lyall Howell, was a self-taught chemist who became head of the analytical laboratory at the New Orleans Customs House. His mother, Frances Raymond Howell, taught mathematics in elementary school and had an avid interest in the sciences. With this intellectual home environment, Tom soon began to develop a strong interest in the out-of-doors and in animals. From the age of seven, there are childhood essays and drawings that reveal his interest in precisely observing living nature. At first he was fascinated by snakes, but by junior high school he had switched to birds, because he found them easier to observe and their behavior far more interesting.

From first grade through high school, Tom attended the Metaire Park Country Day School, a private institution on the outskirts of New Orleans, which was fortuitously surrounded by a park of oak trees rich in birdlife. His teachers nourished Tom's interest in natural history. The surrounding countryside, the shores of Lake Pontchartrain, and the Audubon Park Zoo were exciting places to observe birds. Tom became the leader of a group of schoolboys who were fascinated by birds, and they spent many weekends on fieldtrips to various local birding hotspots or visiting the zoo.

In 1941 Tom enrolled at Louisiana State University (LSU), but his education was interrupted by service in the U.S. Army from 1943 to 1946. During part of his service, he remained at LSU in a special military educational program and received his undergraduate degree in 1946. Tom's mentor was Professor George H. Lowery, Jr., who strongly influenced Tom's future direction in ornithology, especially his foundation in taxonomy, systematics, and museum-based science.

Tom entered the University of California at Berkeley in 1946, receiving his M.S. (1949) and Ph.D. (1951) under the supervision of Professor Alden H. Miller at the Museum of Vertebrate Zoology (MVZ). His doctoral dissertation dealt with the natural history and geographic variation of the Yellow-bellied Sapsucker and involved both study of museum specimens and fieldwork in northern California and British Columbia. Howell demonstrated how habitat preferences, migratory behavior, and degree of difference in sexual dimorphism in color combined to keep gene exchange among distinctive subspecies at a very low rate in areas where their breeding populations meet. His work was very much in the MVZ Grinnell-Miller tradition and prepared him well for the comparative approach to biological research.

When A. J. van Rossem, curator of the Donald R. Dickey Collection at the University of California (UCLA), Los Angeles, died unexpectedly, the UCLA Zoology Department asked Alden Miller to recommend a finishing graduate student to function temporarily as curator until the university could decide what to do with the collection. Tom accepted the position. The university wisely decided to keep both the collection and Tom Howell; he became a full-time lecturer in 1951 and spent his entire academic career there, rising to the rank of Full Professor. He was chairman of the Biology Department from 1963 to 1966 and retired in 1986. His close working relationship with George A. Bartholomew lasted nearly 30 years.

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THOMAS RAYMOND HOWELL, 1924–2004

(Photo courtesy of Don Bleitz.)

Tom and Bart shared connecting offices with a common laboratory and conference room between them, and their students intermingled freely. They taught a highly popular graduate seminar in vertebrate biology, held in the conference room, where aspiring students honed their analytical and reasoning skills against the hard questioning of their professors in discussions of current literature and biological theory. Sometimes the discussions became heated. On one occasion, two students got into an argument over some abstruse issue of evolutionary theory. They started shouting and calling each other names. Just when it looked like they would come to blows, they both suddenly jumped out of their chairs and shot each other across the table with water pistols. Needless to say, that ended the seminar for the day, but the incident says much about the camaraderie and trust that existed between the students and their professors.

Tom's courses in advanced ornithology and vertebrate biology were extremely popular and

always had waiting lists. His lectures were current, broad-ranging, and elegantly delivered in his soft, southern Louisiana accent.

Tom's research reflected his broad interests in avian biology, but most of his work falls into two categories: (1) behavioral and physiological ecology, particularly in relation to thermoregulation and energetics of birds living in harsh environments (some of this work was done in collaboration with Bartholomew and others); and (2) zoogeography, distribution, and systematics, especially of birds in Central America. His early work in the first category dealt with the adaptive significance of torpor in hummingbirds, swifts, and the Poor-Will. There followed a series of ground-breaking studies of seabird energetics, behavior, and reproduction on some 10 species nesting on Midway Atoll. This interest led to his study of the Gray Gull, which showed how and why this species nests far from the coast in the Atacama Desert of Chile, the driest place on Earth. A monograph on the Egyptian Plover, which nests in the extreme heat of southwestern Ethiopia, is perhaps his most unique contribution to understanding how birds can adapt to hot environments. He thoroughly analyzed the regulation of nest temperature in this eggburying species, which also carries water in its breast feathers to wet the sand around the eggs in the hottest part of the day. He collaborated in research on the thermal characteristics of the huge, communal, thatched nest of the Sociable Weaver in the Kalahari Desert of South Africa, showing how the nest's insulative properties, combined with changes in the seasonal grouping behavior of the birds, serve to maintain the temperature of the nesting and roosting cavities near thermoneutrality year-round.

Howell's other main focus of research was on the zoogeography and geographic distribution of birds in Central America, particularly Nicaragua. He had always wanted to work in the Neotropics, and because of the large number of van Rossem's specimens from El Salvador in the Dickey Collection, adjacent and poorly studied Nicaragua seemed like a fruitful place to go. He made his first collecting trip in 1951 and returned over several years until 1967. In the field, Tom was a tireless worker, usually rising between 0400 and 0500 hours to be in the field before dawn, collecting birds and making observations until lunch, spending the afternoons preparing bird skins and writing notes, and continuing the latter activities after dinner, late into the night. Those trips resulted in the collection of numerous specimens and the description of several unusually small subspecies of temperate-zone birds geographically isolated in the lowland pine savanna of northeastern Nicaragua.

Tom wrote the accounts for the subfamily Carduelinae in volume 14 (1968) of the Peters's Check-list of Birds of the World. He served for many years on the AOU Check-list Committee and was a co-author of the sixth and seventh editions of the Check-list (1983, 1998). He received the Elliott Coues Award of the AOU in 1985 for his "meticulous and many-faceted approach to significant research problems" (Auk 103:451, 1986) and a Lifetime Achievement Award in 1995 from the Pacific Seabird Group in recognition of his pioneering work on seabird ecology (B. Flint, Pacific Seabirds 22(2):18, 1995). He and 17 of his graduate students were listed in the Academic Family Tree for Love and Alden Miller (F. A. Pitelka, Condor 95:1065-1067, 1993).

Tom served as President of the AOU (1982–1984) and of the Cooper Ornithological Society (1964–1967). He was made an Honorary Member of the latter, in recognition of his long service. He was for many years on the board of directors of the Western Foundation of Vertebrate Zoology.

Tom Howell married Marjorie Cade Caldwell in 1951, and they had one son, Thomas R. Howell, Jr., in 1954. She died in 1958. In 1959, Tom married Trudi H. Gubler; they had two daughters, Yvonne (1960) and Heidi (1963). Tom and Trudi divorced in 1970. In 1981, Tom married his third wife, Eleanor Standal Dammann, whom he had met on a trip to the Galapagos Islands. Tom is also survived by a brother, W. Lyall Howell, Jr.

After his retirement, Tom and Eleanor moved to a new home near Gualala, California, overlooking the Pacific. They spent several years traveling the world to various exotic places, especially to Australia and Southeast Asia, where Tom completed significant field research on several species of wood swallows (Artamidae), and to Christmas Island, where he discovered that the egg of the Blue Noddy is the largest of any bird in relation to body mass. He had plans in retirement to finish writing the results of his Nicaraguan studies and the new material on wood swallows, and to indulge his latent interest in creative writing. Unfortunately, he and Eleanor became seriously ill in the late 1990s and required intensive care at home. She died in 2000, and Tom moved to a care facility near his daughter, Heidi, in Massachusetts, where he continued to take pleasure in being outdoors to the very end.

Tom Howell will be remembered by his friends, students, and colleagues as a cultured gentleman with southern manners and a dry wit, eager to collaborate and share his enthusiasm for birds with others—a consummate professional who effectively bridged the older tradition of ornithology, with its eclectic background in taxonomy, systematics, classification, natural history, and evolution, and the current emphases in behavior, physiology, ecology, and molecular genetics. His correspondence, publications, field notebooks, and manuscripts are archived as UCLA Manuscript Collection 576 in the Department of Special Collections.

We thank Thomas R. Howell, Jr., for information about the early years of his father's life.