

AOU Conservation Award, 2008

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AOU CONSERVATION AWARD, 2008

DANIEL W. ANDERSON



Daniel W. Anderson, 9 March 2008, at Isla Cocinas, near Chamela, Jalisco, Mexico, surveying Brown Pelicans.
(Photograph by Irene Anderson.)

The AOU Conservation Award was established in 2005 to honor persons who have made extraordinary scientific contributions to the conservation, restoration, or preservation of birds and their habitats. Daniel W. Anderson's contributions to world bird conservation have certainly met that standard. From his groundbreaking work in ecotoxicology, which furthered our understanding of the impact of DDT on birds, through his efforts on preservation of the Brown Pelican (*Pelecanus occidentalis*) in California, to his work in developing international conservation efforts with Mexico, he has consistently developed new approaches and tools for conducting scientifically based conservation assessments of birds. Throughout his career, the results of his work have significantly influenced policy decisions regarding

the conservation and protection of birds in California, nationally, and internationally.

Anderson received his Ph.D. at the University of Wisconsin, Madison, in 1970, under the tutelage of Joseph J. Hickey. The first biologists to hypothesize, and document with field data, a specific link between DDE (the persistent metabolite of DDT) and widespread eggshell thinning in birds, Hickey and Anderson also confirmed time-related trends in eggshell changes and that eggshell thinning was widespread in certain birds throughout North America. With Robert Risebrough, Anderson also conducted important early feeding experiments that confirmed DDE-induced eggshell thinning in Mallards (*Anas platyrhynchos*) and demonstrated the combined effects of DDE with PCBs.

In 1971, Anderson became a Research Biologist for the U.S. Fish and Wildlife Service (USFWS), focusing on pesticide contaminants in wildlife of California and Mexico, particularly contaminant changes and population effects in the then-endangered California Brown Pelican. He and his coworkers documented the amazing decline of DDT in the Southern California Bight, associated recoveries in eggshell morphology, and associated beginnings of the population recovery of the Brown Pelican in the Southern California Bight. During that period, studying the phenomenon of migratory acquisition, Anderson and his coworkers published numerous papers on the dynamics and effects of agricultural contaminants in migratory waterbirds, highlighting the implications for conservation and management of migratory birds. His ecotoxicological findings have had significant and long-standing influence on society's approaches to the uses of organic, persistent pesticides and their effects on nontarget species such as birds.

In 1976, Anderson joined the faculty at the University of California, Davis, where he has been ever since, continuing his contaminant work and conducting long-term ecological and conservation-related studies of seabird populations. He has examined the effects of El Niño, human disturbances, habitat selection, migration, and movements of seabirds, much of this research done in Baja California and the Gulf of California. His current research involves conservation studies related to contamination effects, distribution, and dynamics of organic and inorganic materials in birds from coastal and wetland environments of California and Baja California, including the Klamath Basin, Clear Lake and other California lakes, the San Joaquin Valley, and the Rio Colorado Delta–Gulf of California region.

Anderson's recent conservation activities include a focus on avian conservation in Mexico, within the Gulf of California–Baja California region. He is currently an active participant in the Gulf of California Island Conservation Plan (CONANP) of the Mexican government. He has assisted CONANP in developing a long-term seabird monitoring plan and ecological-health monitoring plan for the northern Gulf of California. Working in concert with Charles Henny, he has also participated in and advised CONANP regarding conservation and management of Osprey (*Pandion haliaetus*) in western Mexico.

In California, Anderson continues to be involved in the conservation and biology of bird species, from the Klamath Basin in northern California to the Salton Sea in the south. He provided key biological data and advisory input to USFWS, the California Department of Fish and Game, and other agencies in California regarding conservation of Clark's Grebe (*Aechmophorus clarkii*) and Western Grebe (*A. occidentalis*), conducting scientific studies to evaluate disturbances and other factors related to population health on California lakes. He also conducted hands-on conservation of the grebes and then studied its effectiveness in protecting nesting birds at Clear Lake and Eagle Lake. With Franklin Gress, he has also conducted studies to evaluate the post-release behavioral and survival patterns of seabirds rehabilitated and released after oil spills and to evaluate the value of clinical approaches to conservation of those species.

Anderson is one of the founders of Pacific Seabird Group, is a Fellow of the AOU, has served on the AOU Conservation Committee, and remains actively involved in the conservation and management of avian populations and their habitats. In 2004, he received the Rachel Carson Award from the Society of Environmental Toxicology and Chemistry. Over the past 32 years, he has taught classes in Ecotoxicology, Avian Biology, and Conservation, imparting his strong conservation ethics to numerous graduate and undergraduate students. In recognition of his extraordinary scientific contributions to the conservation of avian species, the AOU is honored to present the fourth annual Conservation Award to Daniel W. Anderson.

Award criteria.—The AOU Conservation Award recognizes extraordinary scientific contributions to the conservation, restoration, or preservation of birds and/or their habitats by an individual or small team (usually fewer than 10 people). Contributions from throughout the world and over any time course are eligible. Appropriate activities include (1) applied research, restoration, and educational actions that conserve birds or preserve significant habitats; (2) scientific examination of the principles of avian conservation and application of new insights into species restoration; and (3) scientific evaluation, guidance, creation, and oversight of avian recovery programs or habitat-reserve restoration programs. The award consists of a framed certificate and an honorarium.