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## CLARENCE COTTAM, 1899-1974

### A Distinguished Alumnus of Brigham Young University

Vasco M. Tanner<sup>1</sup>

Dr. Clarence Cottam was one of the nation's most outstanding and productive biologists and conservationists. While this is an achievement in itself, he further distinguished himself in the field of administration during his service as assistant director of the U.S. Fish and Wildlife Service between 1945 and 1954, and as director, for almost twenty years, of the Rob and Bessie Welder Wildlife Refuge at Sinton, Texas.

Clarence Cottam was born in Utah's Dixieland at Saint George on January 1, 1899. His father, Thomas P. Cottam, and his mother, Emmaline Jarvis Cottam, were prominent St. George citizens, his father having served as mayor of St. George and counselor with the LDS stake president, Edward H. Snow. He was also a successful farmer and mason. Clarence spent his boyhood days working on the farm and enjoying the plants and animals of the Virgin River and Santa Clara Creek. The St. George area is the sole region of Utah in which the plant and animal species of the Lower Sonoran Zone are found. Clarence became acquainted early with the vermilion flycatcher, gambel quail, roadrunner, phainopepla, and western mockingbird and as a high school student evidenced an interest in and general acquaintance with the birds of his homeland. The following is extracted from one of his papers written in 1970:

My work in the field of conservation, teaching, and management of resources certainly had its start in the biological training I gleaned under the able leadership of Dr. Tanner at Dixie and BYU.

In my first course in high school biology, Dr. Tanner asked me what species of hummingbirds I had seen. To me they were all hummers, so I answered, "Little hummers; and bigger ones and some had white throats and some with iridescent black and brilliant red throats." He answered kindly but challengingly asked,

"What species are here?" and he added "It will be a lot of fun to find out." Then he inquired, "what kind of flowers do they go to?" I could only reply that they came to flowers of different colors and I had seen them in flowers of different shades of red, blue and white. He challenged me further by asking "what do these tiny birds feed on?" I could only suggest "something inside of the flowers." He then assigned me the task of finding out what I could about hummingbirds. There were few books on birds at that time in St. George and still fewer of those dealing with these diminutive but attractive creatures, so he reminded me that the best place to learn of them was out of nature, he appropriately added that nature's books were always open at the appropriate time.

I doubt that my esteemed friend and teacher has the faintest recollection of this little incident, and I am still more sure that any knowledge I imparted on this assignment was elementary indeed. Still, this challenging excursion into nature left an indelible impression on my mind. It has over the years made me ask many questions about nature's ways and her varied progeny. How do they survive and compete? What good or harm do they do? What relationship do they have to their environment and to other species? Why were they where I found them? How could they be increased, decreased or controlled? What were the basic factors of their population dynamics?

In looking back on these rich early experiences I feel that the most valuable training I received was on our summer field trip when we were collecting insects, birds, rodents, and plants for the University. On these trips the graduate students were collecting and studying specific groups of organisms or problems for their respective theses. I was studying and collecting birds.<sup>2</sup>

After completing his school work at Dixie College, Clarence was called to spend two years in the central states as a missionary for the LDS Church. In 1922 he accepted the principalship of the schools at Alamo, Nevada, and in 1925 he matriculated at Brigham Young University and was appointed an instructor in bi-

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<sup>2</sup>Great Basin Nat. 30:201. 1970.



Fig. 1. Clarence Cottam, 1899-1974.

ology. For the next four years he was active in research and field work. He graduated with a B.S. degree in zoology and entomology in 1926 and a year later was awarded a Master of Science degree. His thesis dealt with the birds of Utah.

In 1929 Clarence received an appointment as junior biologist in the U.S. Bureau of Biological Survey in Washington, D.C. During his first few years with the Bureau he devoted himself to an investigation of food habits research but also found time to continue graduate studies at George Washington University, from which he received a Ph.D. degree in 1936. This early study resulted in his most prized contribution, "Food habits of North American diving ducks" (1936). At this time Clarence also became closely associated with leaders and authorities on wildlife management and conservation such as Ira N. Gabrielson, Aldo Leopold, and J. N. (Ding) Darling. Embracing their point of view, he became one of this country's most dynamic and sought after champions of wildlife conservation.

Clarence was an ambitious, friendly individual. He made friends with the officials of organizations and societies throughout the United States, Canada, and some foreign countries that were concerned with the flora and fauna of the nation. He was a fluent speaker, well informed on the management of wildlife. Few, if any, conservationists of the Clarence Cottam era were his peers in promulgating conservation measures in behalf of the wildlife of our country. He vigorously opposed the indiscriminate use of certain poisons for the control of insects, birds, fish, and mammals and spoke out against destroying food and nesting habitats of native fish and birds through the drainage of wet lands and dredging and contamination of the nation's waterways.

During Dr. Cottam's 25-year affiliation with the U.S. Biological Survey, later the U.S. Fish and Wildlife Service, many organizations sought after his services as a consultant or officer. He was president of the Wildlife Society (1949-1950), Texas Ornithological Society (1957-1959), and National Parks Association (1962-1963); trustee of the J. N. (Ding) Darling Foundation and the Rachel Carson Trust. He was an active member of the following organizations: American Ornithological Union, Cooper Ornithological Society, Wilson Ornithological Society, Forestry Association, Outdoor Writers Association, Wildlife Management Institute, Izaak Walton League, Cosmos Club, Soil Conservation Society, Friends of the Land, Wildlife Society, Utah Academy of Sciences, Arts, and Letters, American Association for the Advancement of Science, Ecological Society of America, Limnological Society, American Society of Mammalogists, American Society of Range Management, National Wildlife Federation, National Audubon Society, Sigma Xi, Sierra Club, American Institute of Biological Sciences, and the Southwestern Association of Naturalists.

In recognition of his leadership and counsel as an untiring government official and stimulating member of many societies, he was the recipient of the following awards: the Leopold Medal from the Wildlife Society (1955); Utah State University Distinguished Service Award (1957); National Audubon Society Distinguished Service Medal (1961); Conservation Service Citation of the National

Wildlife Federation (1964); Distinguished Service Award, BYU (1964); Conservation Service Award of the Department of the Interior (1965); Distinguished Service Award of the Texas Chapter of the Wildlife Society (1971); "Eminent Distinction" status in the National Register of Prominent Americans and International Notables (1971); James A. Talmage Scientific Achievement Award, BYU (1971); Distinguished Service Award of the Texas Ornithological Society (1972).

In 1954 Clarence resigned his government post to accept the deanship of the College of Biological and Agricultural Science at Brigham Young University. As dean, he had begun instituting a number of significant changes in the college when he received an offer to become the director of the Welder Wildlife Foundation at Sinton, Texas—a new and promising project. Because this program provided many possibilities for research and the means of demonstrating what must be done to develop conservation measures for the perpetuity of many of the country's plant and animal species, Dr. Cottam accepted the directorship, assuming his duties as director of the Rob and Bessie Welder Wildlife Foundation in 1955.

For almost 20 years Clarence directed the development of the Welder Wildlife Refuge on the Aransas River in San Patricio County, near Sinton, Texas. The refuge, located in a transition zone between coastal prairie and the Rio Grande plain, is a strip of rich alluvial land, seven miles long and about two miles wide. For many years it was part of a cattle ranch, and today as a part of the biota of the refuge there are more than 500 head of beef cattle.

The refuge is favorably located to serve as a conservation research area. Dr. Cottam observed that "this is one of the richest areas for flora and fauna in America."<sup>3</sup> In this wilderness he has identified more than 1,300 species of plants, including 200 species of grass and more than 400 species of birds. Through the efforts of Dr. Cottam and his staff the refuge has been developed into one of the most renowned wildlife research and educational laboratories in the United States. Nearly 150 students from many universities have obtained graduate degrees under leadership at the foundation.

Dr. Cottam was a bibliophile; he built up a complete set of ornithological journals and textbooks on American birds for the use of students at the refuge. He was also concerned with the migration, breeding, and feeding of game birds and campaigned for the protection of rare and vanishing species, such as hawks, owls, eagles, whooping cranes, and brown pelicans. He constantly emphasized the necessity of having a broad, well-grounded program, based upon verifiable facts, when dealing with conservation problems.

Clarence also found time to coauthor, with Dr. Angus M. Woodbury and John Sudgen, a manuscript dealing with the birds of Utah. The untimely, accidental death of Dr. Woodbury, the senior author, delayed the publication of this important treatise. Through the efforts of Dr. Cottam this manuscript was turned over to Dr. C. Lynn Hayward of the Department of Zoology at BYU to review, edit, and publish.

Clarence had the help and companionship of a gracious, artistic helpmate and wife, Margery Brown Cottam, whom he married on May 20, 1920, while they were both teaching at Alamo, Nevada. They were the parents of four girls: Glenma, Mrs. Ivan L. Sanderson of San Francisco, California; Margery, Mrs. Grant Osborne, Amherst, Massachusetts; Josephine, Mrs. Douglas S. Day, Salt Lake City, Utah; and Caroline, Mrs. Dwayne Stevenson, McClaine, Virginia. They had 23 grandchildren and 4 great grandchildren. Margery was an active member of the LDS Church, serving as stake YWMA president and stake Relief Society president. She died February 28, 1975, and was buried beside Clarence at Orem, Utah.

Always religious and devoted to the LDS Church, Dr. Cottam was a pillar of strength in the LDS Corpus Christi (Texas) Stake. He served as first counselor in the San Antonio Stake, after which he served for nine years as president of the Corpus Christi Stake. At the time of his death, March 30, 1974, he was patriarch of the Corpus Christi Stake.

He was the essence of tolerance in his dealings with his fellowmen. As an educator, administrator, researcher, and intermediary between scientific groups and the sports public, Dr. Cottam was most successful.

<sup>3</sup>Deseret News, 16 June 1973, Church Section, p. 7.

Dr. Clarence Cottam's name is indelibly inscribed on the roster of distinguished alumni of Brigham Young University. For the past 50 years I have enjoyed watching him become one of the most honored biologists of the nation.

The long list of his publications which follows reveals his wide experience and insight in providing solutions to man's mistakes in dealing with his animate environment.

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