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### Title

Charles Atwood Kofoid (1865-1947) Biography

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Charles Atwood Kofoid was born in Granville, Illinois on October 11, 1865, the son of Nelson Kofoid (1838 - 1908) (born Nels Kofoed) who immigrated to the United States from Bornholm in 1848 and his first wife, Janette Blake (1844-1865), who died at his birth. His father was a carpenter, house builder and farmer. Nelson Kofoid married a second time to Elizabeth Jane Ellis (b1845); he and his wife had three children, Herbert Clayton Kofoid, Nellie Kofoid Dillon (b1872), and Reuben Nelson Kofoid (1880-1906).

Kofoid graduated from Oberlin College in 1890 and spent a postgraduate year there before going on to Harvard University in 1891. At Oberlin, he studied natural history with Albert Wright. At Harvard, he was a graduate student of E.L. Mark, but he also worked at Alexander Agassiz's Newport laboratory during the summer. He received an A.M. degree in 1892 and a Ph.D. in 1894 from Harvard. He married his Oberlin classmate, Carrie Prudence Winter, on June 30, 1894. They had no children.

Kofoid served as an instructor in vertebrate morphology at the University of Michigan in 1894-1895, and then became Superintendent of the Illinois River Biological Station with a teaching position at the University of Illinois from 1897-1903. Kofoid's Harvard classmate William E. Ritter persuaded him to accept an appointment at the University of California in 1903. Kofoid accompanied Alexander Agassiz on a leg of his expedition on USFS ALBATROSS to the Eastern Tropical Pacific for six months in 1904-1905, serving as planktonologist. He was chief scientist for the initial leg of the cruise from San Francisco to Panama, where Agassiz joined the expedition. He collected substantial amounts of material on the cruise. He gained considerable experience with ships and collections, adding marine expertise to his freshwater experience at Illinois.

In 1910 Kofoid succeeded Ritter as chairman of the Department of Zoology at Berkeley and served in that position until 1936. He served as editor of University of California Publications in Zoology. His research interests were in plankton and protozoa. Kofoid was closely associated with Ritter in his effort to establish a west coast marine biological station. This effort succeeded when the Marine Biological Association of San Diego was established in 1903. Kofoid served as assistant director of the institution from 1903 to 1923. The station eventually became the Scripps Institution of Oceanography and from 1912 was part of the University of California. Kofoid looked out for the interests of the Scripps Institution from his position at Berkeley. He taught courses in embryology, cytology, zoology and marine biology. His closest colleagues in the department included S. J. Holmes, J.C. Merriam and H.B. Torrey. He worked closely with his student S.F. Light on studies of termites. Later in his career, Kofoid introduced courses in protozoology and parasitology and taught a course in history of biology.

Kofoid designed several instruments including the Kofoid horizontal net and the Kofoid self-closing bucket used for plankton collections in the field. He used a number of assistants both for field work and laboratory work. Josephine Rigden Michener served as both a laboratory assistant and his scientific illustrator. His best known work is his 1921 monograph with his graduate student Olive Swezy, *The free-living unarmored Dinoflagellata*. Kofoid's students included distinguished scientists including G.H. Ball, A.S. Campbell, Richard H. Fleming, John R. Lyman R.C. Miller, E. G. Moberg, E.H. Myers, E.R. Noble, and C.V. Taylor.

In 1905, Julia Morgan designed a house for the Kofoids on Etna Street in Berkeley. Charles Kofoid had first met Miss Morgan as a student at visited one of the summer marine laboratories established by William Ritter in the years leading up to the establishment of the permanent marine laboratory in San Diego. The Kofoids became active members of the First Congregational Church of Berkeley. Charles Kofoid served on the American Board of the Congregational Churches and was active in his parish.

The Kofoids traveled to Europe in 1908 and 1909 where Charles Kofoid studied its fresh water and marine biological stations with the support of the United States Bureau of Education. A report of his study was published as: *The Biological Stations of Europe*, Washington: Bureau of Education, Bulletin 1910, no. 4 (440), 1910. During his travels, Kofoid corresponded frequently with William Ritter, suggesting changes in the facilities and equipment of the marine station in San Diego. He also photographed the European stations and purchased instruments for the station in San Diego. His trip had a great influence on the San Diego station. During the trip, Kofoid met many prominent zoologists and oceanographers with whom he had previously corresponded. He later recruited some of the younger scientists he met for the University of California. For instance, he met Richard B. Goldschmidt at the Zoological Institute in Munich that year, and later invited him to join the zoology department at Berkeley.

It was apparently during this trip to Europe that Kofoid began to purchase books on natural history and zoology for himself and for the young San Diego marine station. He visited many bookshops in Europe and met booksellers with whom he later corresponded and traded after his return to Berkeley. Over the years, he amassed an impressive collection of some 40,000 books and incunabula on the history of science and medicine which he donated to the University of California Library. Many of these were first editions, full sets, and important exemplars of early printing.

Kofoid and his wife traveled extensively. During 1915-1916, the Kofoids visited India, Ceylon and Japan. Kofoid took a leave from the University of California from 1919-1923 India. In 1923 and 1936 he returned to Europe. In 1931, Kofoid received a visiting professorship endowed by the Rockefeller Foundation at the Tohoku Imperial University in Sendai where he worked at the Asamushi Biological Station. He investigated pearl fisheries during his travels in India and Japan. In 1921, he considered an opportunity to go to India and establish a chair of protozoology at the proposed Bombay School of Tropical Medicine, but the effort failed.

In 1918, Kofoid was appointed a major in the U.S. Army Sanitation Corps and conducted a study of hookworm. He was assigned to Laboratory car Metchnikoff, Fort Sam Houston, Texas. It was during this time that Kofoid developed expertise as a parasitologist and became interested in public health. He published many papers on the morphology and taxonomy of parasites. He took over the direction of parasitology research for the Bureau of Communicable Diseases, California State Board of Health. He established a parasitology laboratory at Berkeley that employed many young assistants. Theodore Bullock and others later commented that this employment funded their education at Berkeley during the depression years.

In 1920, Kofoid chaired a Subcommittee on Biological Research and undertook a study of marine boring organisms of interest to the U.S Navy. This work became part of a larger study under the direction of the National Research Council. The final report written by Kofoid and C.L. Hill was issued in 1927 under the title, Marine borers and their relation to marine construction on the Pacific coast. He was elected to the National Academy of Sciences in 1922.

Kofoid and his wife were active members of the Berkeley academic community. They had a wide acquaintance with academics, missionaries, public health professionals and progressives around the world. They were active in civic and social causes in Berkeley. Kofoid divided his estate between the University of California and the Pacific School of Religion. He left a scholarship fund to enable young divinity students to marry while they were still at school.

Charles A. Kofoid died in Berkeley on May 30, 1947.

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