Obituary

Charles Atwood Kofoid

1865–1947

In the span of his life from October 11, 1865, to May 30, 1947, Charles A. Kofoid made contributions of outstanding and enduring value to biology and education. His scholarly enthusiasm left on a large number of younger biologists an impression that will influence them throughout their lives. He was an eager student of nature, a wise counselor and friend of a large number of undergraduate and graduate students, and a collector of books who had a real love for his acquisitions. He was an industrious investigator and reader and was the author of more than 200 original publications as well as several thousand reviews and abstracts. He was associated with the editing of many journals. Few who have devoted themselves to careers of creative activity and influence have been able to accomplish more than he did.

Kofoid was born at Granville, Illinois. After his courses at Oberlin were completed in 1890, he went to Harvard for graduate work. His Ph.D. thesis, completed in 1894, was a study of the early development of *Limax*, in which E. L. Mark had guided him.

The first position Kofoid had in biology was at the University of Michigan. While there, he became interested in protozoa through association with H. S. Jennings. In 1895 he was appointed to the staff of the Illinois State Laboratory of Natural History as superintendent of the Illinois Biological Station. His studies of the plankton of the Illinois River were continued for five years. In 1900 he became a member of the Department of Zoology at the University of California; and from 1910 until his retirement in 1936, except for a period of four years, he was chairman of that Department.

After Kofoid went to California, the interest in plankton that he had developed in Illinois was transferred to the ocean. In carrying on that research he took an active part in the development of the Marine Biological Station of San Diego, now the Scripps Institution of Oceanography. His investigations of plankton organisms, which were collected there and when he was naturalist on the Alexander Agassiz expedition to the eastern tropical Pacific were reported in numerous papers and ultimately in several large monographs on tintinnids and dinoflagellates. He also made some studies of dinoflagellates at the Naples Zoological Station and, when serving as Rockefeller Foundation visiting professor to Tôhoku Imperial University, at the Asamushi Biological Station in Japan.

At the time of Kofoid's trip to Ceylon in 1915 and 1916, he had become interested in intestinal protozoa and parasitology in general. He brought back ciliates from cattle and elephants, and ultimately monographic reports were prepared on them. In World War I he was commissioned major in the Sanitary Corps, engaged in a hookworm survey in Texas, and was in charge of an Army parasitological laboratory in New York City. After his return to Berkeley, he entered upon a period of intensive parasitological research. He served at one time as director of the Parasitological Division in the California State Board of Health; he conducted a laboratory making systematic examinations of persons for intestinal parasites; and he was responsible for the publication of a long series of papers on flagellates, amoebae, and ciliates of man and other animals, including termites. He was deeply concerned about public health matters, and at the end of 1921 was much interested in the possibility of going to India to occupy the chair of protozoology at the proposed Bombay School of Tropical Medicine.

Kofoid took a leading part in various undertakings in which he was able to contribute directly to public interest and welfare. At the time of his first trip to Europe he prepared an extensive report on biological stations at the request of the U. S. Bureau of Education. When he went to Ceylon and Japan, he investigated pearl culture for the U. S. Bureau of Fisheries. For many years he examined plankton from reservoirs of the San Francisco water supply, to detect and control organisms that cause tastes and odors. He directed biological studies in two cooperative projects concerning damage to wooden structures: one, that done by marine borers in San Francisco Bay and elsewhere, the other, that done by termites on the Pacific Coast. He also cooperated with the dental profession in the study of protozoa of the human mouth.

A few months before his death Kofoid turned over to the University of California his large library, accumulated jointly by himself and his wife. The collection includes 44,130 volumes not previously in the University Library. Among the books are 11,400 rare volumes in the history of science and medicine, and a complete set of all the editions of Darwin's works. His collection of reprints, which is especially complete in the subjects of protozoology and parasitology, numbers approximately 70,000.

Kofoid's professional achievements and personal distinction were recognized by election to many honorary scientific societies, including the National Academy of Sciences; by election to fellowship and to office in various organizations; by the award of diplomas and medals; by

the granting of honorary degrees by Oberlin, the University of Wales, and the University of California; and by innumerable personal and individual expressions of regard from colleagues and associates. At the time of his retirement he was given a volume of letters and manuscripts expressing appreciation from the many students who had taken the doctorate with him. A volume of the *University of California Publications in Zoology*, of which he had been an editor for 25 years, was dedicated to him. On his 80th birthday the Department of Zoology held in his honor a social meeting in his library, which occupied one of the stacks of the Biology Library in the Life Sciences Building.

Kofoid had accumulated an estate of some size. Almost all of this was left, approximately equally divided, to the University of California and the Pacific School of Religion. He intended that the gift to the University should be used to provide scholarships for graduate students, preference being given to married students. By this fund and the gift of his library he established in the University where he had spent most of his life a continuing influence of his devotion to scholarly and creative activity.

HAROLD KIRBY

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Association Affairs

Historical Sketch of the Association

The American Association for the Advancement of Science was organized in 1848. It is the oldest general, national scientific society on this continent. For almost a century it has kept faith with its founders and has fulfilled with ever-increasing success the high purposes for which it was established.

In 1848, when the Association was organized, science consisted of two general divisions, *natural philosophy* and *natural history*, the former including the physical sciences then existing, and the latter the biological. In fact, the Association succeeded a society organized in accordance with this division of the sciences, viz., the Association of American Geologists and Naturalists, which was the culmination, in 1842, of several abortive attempts to establish a national scientific society.

The Association now has 15 sections and 202 affiliated and associated societies that together cover practically all the various fields of pure and applied science. True to the spirit that inspired its organization, the Association has continued to be an integrating factor in this growing diversity. It is a federation of various scientific organizations and disciplines which, in the long run, will prove to be among the most important forces affecting our civilization. It is demonstrating that the whole of science is greater than the sum of its parts. Perhaps the Association is rendering its greatest service to science, and to mankind in general, by providing opportunities for its professional members to consider their special subjects in the general setting of science as a whole, and to reflect on its effects upon the problems of this world.

The history of the Association shows a steadily increasing membership during the trying periods of both world wars. Even the disruptions of the greatest war in the history of mankind have not retarded its growth or impaired its vitality. The Association now has more than 33,000 members, and the membership of its affiliated societies (including duplications) is probably a million. Membership in the Association is open not only to professional scientists but also to other persons who find in science pleasure, adventure, and opportunities for service to humanity. Professional scientists have joined the Association because of the broad scope of its scientific interests, because of its journals and other publications, and perhaps even more because of the opportunities it offers for coordinating and integrating the natural sciences with social progress. Other persons have joined the Association in order to maintain contact with the great scientific currents that are sweeping humanity onward.

The annual meetings of the Association are the largest general meetings of scientists in the world. On no other occasion do men having such varied scientific interests assemble to discuss their specialties and to learn how much they have in common. With few exceptions during the period of the Civil War and World War II, the AAAS has held at least one meeting in each of its 99 years, the present one in Chicago being the 114th. The Pacific and Southwestern Divisions have held 50 meetings.

In addition to conducting meetings and conferences of those interested in the various branches of science and education, the Association edits and publishes two journals, publishes and distributes technical symposium volumes, administers gifts and bequests, provides support for research, arranges awards for scientific achievements, cooperates with other organizations for the advancement of science, and engages in other activities authorized by the Council.

The Council consists of the President, the vice-presidents of the sections, the Administrative Secretary, the General Secretary, the secretaries of the sections, the Treasurer, the members of the Executive Committee, a fellow elected by each of the two regional divisions of the Association, two fellows named by each affiliated society having more than 100 members who are fellows of the Association, one fellow named by each of the other affiliated societies, and one fellow from each affiliated academy of science. There are members of the Council representing every major field of science and interest of the Association.

A large majority of members of the Council are elected by the sections and the affiliated societies, which are entirely independent of the Executive Committee and the general officers of the Association.