



IN MEMORIAM

Cadet Hammond Hand Jr.
Professor of Zoology, Emeritus
UC Berkeley
1920 – 2006

Marine biologist and educator Cadet Hammond Hand Jr., a professor emeritus of zoology at the University of California, Berkeley, who cofounded the University of California's Bodega Marine Laboratory in 1966 and directed it for a quarter of a century, died November 29, 2006, at the age of 86 at his home in Salmon Creek, California, near Bodega Bay.

Hand "was a master invertebrate zoologist with an unmatched knowledge of the marine life of the American Pacific coast, and was also one of the world's leading coelenterate biologists," according to a memorial written by two former graduate students of the marine laboratory, Jim Carlton, professor of marine sciences at Williams College in Massachusetts, and Daphne Fautin, professor of ecology and evolutionary biology at the University of Kansas in Lawrence.

Coelenterates, which include jellyfish, sea anemones, corals and hydroids, are among the most common marine creatures.

"A raconteur par excellence, with a striking sense of humor, Cadet commanded a staggering knowledge of the natural history, life history, anatomy, morphology and biology of thousands of species, and there was hardly a species one could mention where Cadet did not know that extra curiosity or unique relationship," Carlton and Fautin wrote.

After joining UC Berkeley's Department of Zoology in 1953, Hand and a small group of his colleagues began looking for a coastal site to build a marine biology research station. They had settled on Bodega Head, just outside the town of Bodega Bay north of San Francisco, when in 1958 Pacific Gas & Electric Co. (PG&E) announced its plans to build a nuclear reactor there. Hand was "very concerned," according to colleague Howard Bern, UC Berkeley professor emeritus of zoology, and initially backed away from the idea of a laboratory on Bodega Head. But the campus eventually committed to building a laboratory there, and, fortuitously, by 1963, strong opposition to the power plant led the state to deny PG&E a permit, though not before a big hole for the planned reactor had been dug in the primary site Hand and his colleagues had chosen for the laboratory.

The laboratory was eventually completed in 1966 on a 326- acre parcel near Horseshoe Cove on the outer coast of Bodega Head, and Hand, who in 1961 had been appointed director of the planned laboratory, remained its director until 1985, even after administration of the laboratory was transferred from UC Berkeley to the University of California, Davis, in 1983. The laboratory's library was dedicated to Hand in 1996.

"PG&E's attempt to build the plant seemed to inspire Dad's interest in such installations, and he went on to work for the Nuclear Regulatory Commission for at least 20 years," said his son, Cadet "Skip" Hand III. His father served as a member of the Atomic Safety and Licensing Board panel of the Nuclear Regulatory

Commission from 1971 to 1992, and was an administrative judge for the Atomic Safety and Licensing Board Panel from 1980 to 1992.

Hand was born on April 23, 1920, in Patchogue, New York, on the south shore of Long Island, and grew up in Connecticut, where he developed a lifelong interest in fishing. After obtaining his B.S. in biology from the University of Connecticut in 1946, he entered graduate school at UC Berkeley, where he became fascinated by anemones, “seeds that were to launch a long career as one of the world’s most respected anemone taxonomists and biologists,” according to Carlton and Fautin.

For three years, while working on his Ph.D., Hand taught zoology at Mills College in Oakland; he served as chair of its zoology department for a year. After completing his Ph.D. in 1951, he served as an assistant research biologist at the Scripps Institution of Oceanography in La Jolla before returning to UC Berkeley as an assistant professor of zoology in 1953. He was promoted to professor in 1962 and retired in 1985.

Hand’s career spanned nearly 60 years and included publications on the feeding biology of the giant banana slug and the lives of anemones and hydroids, sardines and marine mollusks. He was the first to report the salt-marsh “starlet” sea anemone, *Nematostella*, in California, and decades afterward promoted its use as a model organism for studying developmental biology. Today, *Nematostella vectensis* is becoming an increasingly important model system for the study of development, evolution, genomics, reproductive biology and ecology.

Hand considered among his major accomplishments at the laboratory the development with UC Davis of an aquaculture research program and facility; establishment of a Bodega Marine Life Refuge 1,000 feet offshore; and growth of the laboratory’s annual budget from \$5,000 to several million dollars, of its staff of four to 70, and of its facilities from one to four buildings, including a new administrative building and library that opened in 1996. During his tenure, research at the lab generated more than 1,000 publications.

Hand also directed teaching programs at the laboratory, involving students from the University of California’s Berkeley, Davis, Santa Cruz, and San Diego campuses. He “mentored and collaborated with an international group of colleagues and students from multiple institutions,” according to Gary Cherr, professor of environmental toxicology and nutrition at UC Davis, and was a “thoughtful leader, popular teacher, dedicated mentor and strong library advocate.” Hand remained active after his retirement, and only closed his office and laboratory at Bodega Marine Laboratory in 2003. “One of the really great things about him is that, after giving up the directorship, he went back to the research lab and did some really brilliant work,” Bern said.

Among Hand’s final publications is coauthorship of chapters on hydroids and sea anemones in the fourth edition of the *The Light and Smith Manual: Intertidal Invertebrates from Central California to Oregon*, published in 2007 by the UC Press.

Hand was a Guggenheim Fellow (1967-68) and a fellow of the California Academy of Sciences and the Washington (D.C.) Academy of Sciences; a member and former president of the Northern California Malacozoological Society of America; and a member of the American Society of Limnology and Oceanography.

Hand is survived by his wife of 64 years, Winifred Hand of Salmon Creek, and two sons, Skip Hand and Gary Hand, both of Sebastopol.

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