

OBITUARY

BRUCE FREDERICK ELDRIDGE
MARCH 26, 1933 to FEBRUARY 5, 2025



Professor emeritus Bruce Eldridge in 2007 (photo by Kathy Keatley Garvey).

Bruce Frederick Eldridge, a pioneering entomologist, dedicated educator, military entomologist, and beloved family man, passed away peacefully on February 5, 2025, at the age of 91 in Davis, CA. Bruce was known for his groundbreaking work in medical entomology, his commitment to public health, and his devotion to family and community. His life spanned multiple careers, advancing science, education, and service to his colleagues.

Bruce was born on March 26, 1933, in San Jose, CA, the youngest of three boys. From an early age, he demonstrated an extraordinary affinity for the natural world, an interest fostered by his mother, who introduced him to the outdoors. His childhood in San Jose, surrounded by nature, laid the foundation for what would become a lifelong passion for biology and entomology.

During World War II, when his mother took on a full-time job, Bruce spent his summers at his grandparents' chicken farm in Santa Cruz, CA. At this farm, he developed a fascination with trains, a lifelong

passion that would later lead him to serve as a director of the Sierra Northern Railway. In his 60s, Bruce also became a licensed locomotive engineer and operated passenger trains in the Woodland, CA, area for several years.

Following high school, Bruce embarked on a career in biology, obtaining his bachelor's degree in biological sciences from San Jose State College in 1954. Subsequently, he pursued further studies at Washington State University, earning a master's degree in entomology in 1956. Bruce later earned his Ph.D. in entomology in 1965 from Purdue University under the mentorship of Leland Chandler.

In 1956, Bruce joined the US Army as a commissioned officer, which marked the beginning of an illustrious 21-year military career. During this time, Bruce met the love of his life, Shirley. The two were married on April 20, 1957, and together raised three children: Deborah, Stuart, and Kenneth. The family moved frequently due to Bruce's military assignments, living in Washington DC, Maryland, Indiana, the Panama Canal Zone, Oregon, and California.

Eldridge's military career took him around the world and provided him with the opportunity to serve his country in numerous capacities. Bruce retired from the US Army in 1978, holding the rank of colonel and serving as head of the Department of Entomology at the prestigious Walter Reed Army Institute of Research, the highest position for a military entomologist. Over the course of his military service, he received multiple honors, notably the Meritorious Service Medal in 1972 and the Legion of Merit in 1977.

After his retirement from the military, Bruce transitioned into academic research and administration, accepting a position as professor and chair of the Department of Entomology at Oregon State University, where he served from 1978 to 1986. During his time in Oregon, he began studies on the biology and control of snow pool mosquitoes (e.g., *Aedes ventrovittis* Dyar, *Aedes cataphylla* Dyar, and *Aedes hexodontus* Dyar) in the mountains of Oregon and California; he would continue this work when he joined the University of California, Davis (UC Davis) faculty in 1986.

At UC Davis, Bruce served as director of the statewide University of California Mosquito Research Program (UCMRP) for 14 years. This program was a flagship program of the UC system for decades, and Bruce's capable stewardship and advocacy for the program helped shape vector control efforts across California and beyond. The UCMRP also provided critical funding support for many applied research projects that enabled UC faculty and students to develop vibrant collaborations with mosquito control and public health agencies. This program served as a model for the present-day



Bruce Eldridge shortly after he was commissioned as a first lieutenant in the US Army, circa 1957 (photo courtesy of Stuart Eldridge).

Pacific Southwest Center of Excellence in Vector-Borne Diseases, which was established with Centers for Disease Control and Prevention funding since 2017.

His research led to 153 scientific publications, some of which are considered seminal works in the field. Among his notable achievements were studies on the overwintering behavior of mosquitoes, particularly members of the *Culex pipiens* complex, and their role in the transmission of arboviruses, such as St. Louis encephalitis virus. Bruce's studies provided critical insights into the ecologic relationships between mosquitoes and the viruses they transmit, helping shape surveillance and control programs to prevent the spread of disease.

Bruce's work was not only groundbreaking in the field of entomology, but it also earned him numerous accolades. In 2007, he was awarded the prestigious Harry Hoogstraal Medal for Outstanding Achievement in Medical Entomology by the American Society of Tropical Medicine and Hygiene. He was one of only 15 entomologists to receive this honor since its inception in 1987. His contributions to the understanding of mosquitoes, their ecology, and the viruses they transmit were instrumental in advancing public health and vector control strategies around the world.

Bruce was a well-respected leader in the field of medical entomology and served as the elected chair or president of the four major American medical

entomology organizations: American Mosquito Control Association, American Committee of Medical Entomology of the American Society of Tropical Medicine and Hygiene, Section D of the Entomological Society of America, and the Society for Vector Ecology.

Bruce also played a pivotal role in the establishment of the Center for Vector-borne Diseases at UC Davis, which became a key player in arbovirus research and surveillance in California. His collaborative work with public health officials and his involvement with the Mosquito and Vector Control Association of California were instrumental in shaping the state's mosquito surveillance and control efforts. Bruce's contributions in this area included working with William Reisen to modernize mosquito surveillance data systems, which would later become crucial in responding to the in the early 2000s and laid the groundwork for the current VectorSurv system.

In addition to his scientific achievements, Bruce was deeply committed to education. He mentored numerous graduate students and postdoctoral researchers, many of whom went on to have successful careers in the field of public health entomology. His teaching and mentorship style was characterized by humility, honest and constructive criticism, respect for his students, and a dedication to fostering intellectual curiosity.

Bruce's legacy extends far beyond his professional accomplishments. He was a quintessential Renaissance man whose professional endeavors never seemed to diminish his personal interests and passions. He was a lover of music, often singing in church choirs or playing the banjo. Throughout his life, he played in several bluegrass bands, bringing joy to his family, friends, and even graduate students who would come to local venues to hear him play. Bruce was also a talented actor, appearing in community theater productions, where his humor and charisma were on full display.

Always a man of principle, Bruce was eager to listen and help others, and curiosity and willingness to explore new ideas were hallmarks of his character. His passing leaves a void in the lives of all who knew him. He will be remembered as a remarkable scientist, a devoted family man, a passionate administrator and educator, and a true friend. His contributions to the world of entomology and public health will continue to affect generations to come.

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