



## IN MEMORIAM

Martin McRae Barnes  
Professor of Entomology, Emeritus  
UC Riverside  
1920 – 2007

Dr. Martin M. Barnes, UCR Professor Emeritus and founding member of FERM, passed away at age 86 on Sunday, April 22, 2007, in Riverside. During his university career, Martin achieved national and international recognition for his research on the control of arthropod pests of almonds, apples, grapes, and walnuts. He published his first paper on control of codling moth in 1944, while still a student at Cornell University. Upon graduation in 1946, Martin married Julia Butts and moved to Riverside, CA to begin his career at the Citrus Experiment Station

Martin McRae Barnes was born on 3 August 1920 in Calgary, Alberta, Canada, but spent his early years on cotton plantations in Louisiana and Arkansas where the Barnes family had lived for generations. His family moved to San Gabriel, California, in 1927. As a teenager, Martin took summer jobs in the laboratory of Joe Wilcox, a USDA entomologist (and noted asilid taxonomist), which launched him on a career in entomology. After attending Pasadena City College for two years, Martin transferred to UCLA for one year and then to UC Berkeley, where he graduated with highest honors in 1941. Martin began graduate studies at UCB, but transferred in March 1942 to a PhD program at Cornell, where his research focused on insect pest management in apple orchards of western New York.

Martin and Julia, who died in 1987, raised four children in the home they built in 1954 on Prince Albert Drive. He was devoted to his family and very proud of their accomplishments. Martin is survived by sons Wayne Morris of University City, MO, Martin Killian of Vers, France, and Brian McRae of Fairbanks, AK, daughter Delia Elizabeth of Berkeley, CA. and eleven grandchildren.

During his 45 years of research, first as an economic entomologist at the Citrus Experiment Station and then as a professor at UCR, Martin worked on a variety of problems in entomology and plant pathology, always with a focus on the practical needs of agriculture. Much of Martin's research (often in collaboration with graduate students) involved the codling moth, a major pest of apples and pears, and included the morphology of the female sex pheromone gland, the sense organs of the mouthparts, host race formation, baseline susceptibility to insecticides, detection using synthetic sex pheromone lures, and insecticidal control.

Early in his career Martin solved a problem that had resulted in significant losses in production in many of California's choice wine grape vineyards since the 19th Century. While other investigators at UC Davis and Berkeley had diagnosed an eriophyid mite as the cause of symptomatic growth malformations and low yield, Martin demonstrated that the problem was actually related to time of winter pruning and boron deficiency. Midwinter pruning advanced the time of leafing earlier in spring, before the vines had time to acquire sufficient boron, a trace element essential for plant growth. This study proved valuable in agriculture far beyond California. In 1966, Martin moved with his family to Santiago, Chile, to introduce entomology research practices at the University of Chile through a Ford Foundation program. When Martin knocked on the door of a wine grower in southern Chile to request permission to examine his grapevines, the farmer recognized his name and invited him into the house to show him a reprint copy of the boron- deficiency paper, which he said had saved his vineyard.

At UCR, Martin directed eight M.S. theses and 12 Ph.D. dissertations and chaired the Executive Committee of the College of Natural and Agricultural Sciences. He authored 70 research papers, several book chapters, and over 100 technical and popular publications.

Dr. Barnes served the Entomological Society of America (ESA) as a member of the Governing Board, as Chair of Section F, as both member and Chair of the Editorial Board of the Journal of Economic Entomology, on several national committees, and as a committee member, Program Chair, and President of the Pacific Branch of the ESA. He was elected a Fellow of the American Association for the Advancement of Science in 1957, elected a Fellow of the ESA in 1991, and awarded Honorary Membership in 1996. He retired from UCR as a full professor in 1991 after 45 years of service.

Martin was a staunch supporter of branches of entomology outside of his primary research field, including the systematics division, the perpetual 'poor man' of the department. During his brief stint as Entomology Department Chair during 1988, Martin's strong advocacy helped to ensure construction of the Entomology Research Museum Building, which ensued soon thereafter. The Museum Building finally ensured a home for the department's insect collection, whose cabinets had been in hallways and scattered rooms through out the main Entomology Building.

Even in retirement, Martin continued to serve the university community. In 1993, when a new USDA Soil Salinity Laboratory on campus was threatened by the discovery on the proposed construction site of a newly discovered and potentially endangered species (see insert on Ruth's cuckoo bee), Martin was tasked with helping to organize the "Cuckoo Bee Task Force". The CBTF, comprised primarily of students and departmental staff on loan from their supervisors, discovered other localities for the bee, thereby disproving its endangered status and allowing the construction project to proceed. Martin later helped to create the Friends of the Entomology Research Museum and served as its first Treasurer.

Martin enjoyed traveling, and after his retirement he visited Africa, Alaska, Central Asia, Cuba, Europe, and Central and South America. He participated with members of FERM on several insect collecting and natural history trips to Arizona, Texas, Costa Rica, Honduras, Brazil, and the Galapagos Islands. In 1990, Martin joined Greg Ballmer, Guy Bruyey, David Hawks, and Elois Hawks on an especially memorable trip to the Amazonian rainforest in Rondonia, Brazil. For years after that trip, he enjoyed telling "Brazil stories", including how he had "buck fever" during his first attempt to net a specimen of a large, iridescent blue Morpho butterfly. He was successful, and this specimen now resides in the UCR Entomology Museum.

Martin's activities diminished after suffering a stroke in 2003, but he continued to live at home until February 2006, and enjoyed going out to dinner and the company of his friends and family until shortly before his death.

Professor M. K. Rust, Chair; Professor Emeritus M. S. Mulla, SRA D. Hawks, and SRA G. R. Ballmer, all of the Department of Entomology