

James Allen McMurtry: an unforgettable man and professional, with a list of his publications

G.J. de MORAES¹ and M.W. JOHNSON²

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¹ Depto. Entomologia e Acarologia, ESALQ — Universidade de São Paulo, Piracicaba-SP, Brazil. moraesg@usp.br

² Department of Entomology, University of California, Riverside, CA, USA.

Professor Emeritus and Entomologist James “Jim” Allen McMurtry passed away peacefully at his home in Bend, Oregon, on 28 July 2017. Born in Lodi, California, on 21 September 1932, Jim’s early years were spent in farming communities of central California, attending high school in Santa Clara. He became interested in science while a child and collected many specimens that he placed into his own personal museum. Like many professional entomologists, he was interested in insects prior to his teen years. Also an artist, Jim drew comic series in which insects (e.g., ants, dragonflies) were characters. He was a life-long reader of National Geographic and retained all volumes issued since 1937. Following high school graduation, he completed his undergraduate work in biological sciences at San Jose State University. While there, he met his future wife, Mary Catherine Gillaspay, whom he married in December 1954. He served in the U.S. Army (1954–1956) and was stationed in Paris, France, which provided an opportunity for Jim and Mary to explore Europe.

Following military service, Jim entered graduate school at the University of California, Davis, work-

ing on host plant resistance to the spotted alfalfa aphid. Professor Leslie M. Smith served as his major professor, and he also worked closely with E. H. Stanford, Professor of Agronomy. He received his PhD degree in 1960 and joined the faculty of the Division of Biological Control, Department of Entomology, University of California Riverside (UCR). His professional career was largely devoted to the control of phytophagous mites using biological control agents, especially predatory mites of the family Phytoseiidae. This work required 1) a clear understanding of the biology and ecology of predatory mites; 2) expertise in the morphology and biosystematics of phytoseiid predators; and 3) establishment of criteria that would aid in the selection of the most effective phytoseiid predators for controlling pest mites in different cropping systems.

Jim’s first paper on biological control of mites was published in 1961, and he published about 80 papers covering various aspects of the biology, ecology, and use of predatory phytoseiids for biological control of pest mites. He mainly focused on enhancing biological control of mites infesting avocado and citrus crops in southern California. Jim collabo-

rated with numerous researchers nationally and internationally working on diverse crops worldwide.

His contributions to biological control using phytoseiids were numerous. He successfully introduced and established the highly effective predator mites *Phytoseiulus persimilis*, *Galendromus floridanus*, *Typhlodromus rickeri*, and *Euseius stipulatus*. Today his studies using augmentative releases of *P. persimilis* for control of spider mites in strawberries provide growers with an alternative to pesticide use. Of special significance was the development of rearing methods for phytoseiids. His review on predators of phytophagous mites published in 1970 inspired researchers worldwide to devote efforts towards better understanding the control potential of phytoseiids. For those reasons, he may be considered the 'father of biological control of mite pests'.

In collaboration with colleagues from numerous countries, Jim produced 65 publications on the mor-

phology and taxonomy of phytoseiids. He and his collaborators described 69 species and 26 genera of phytoseiids from 36 countries. Most of this work was summarized in a 2007 publication co-authored with colleague Donald A. Chant. Of significance was his co-authorship on two editions of the *Phytoseiid Catalog of the World* and the *Phytoseiid Database*, the latter available on the internet and extensively used by researchers worldwide. A list of his publications is appended.

Also of major importance were his efforts to classify the phytoseiids into species groups relative to refining the selection of phytoseiids for control of mite pests. The first version of that work was published in the late 1990s, in collaboration with Brian Croft; this work was updated a few years ago. He provided service to the community of acarologists by reviewing journal manuscripts and serving on the Editorial Boards of the *Int. J. Acarol.*, *Exp. Appl.*



Acarol., and *Acarologia*.

Jim also taught courses on general and agricultural acarology, mainly at UCR. He also was a regular contributor at the Ohio State University Acarology Summer Program, and he participated in various mite short courses around the world (for example, the intensive course in acarology at the Colegio de Postgraduados in Chapingo Mexico in 1987). He served as major professor to 15 graduate students from several countries including the U.S.A, Brazil, Canada, Egypt, Guatemala, Iran, Morocco, and Venezuela.

Jim served as Head of the UCR Division of Biological Control prior to his retirement in 1993. In 2001, Jim's contributions were recognized by the International Organization for Biological Control (IOBC), Nearctic Regional Section, when he was presented the Distinguished Scientist Award. More recently, in 2013 he received the Award of Excellence from the Association of Natural Biocontrol Producers (ANBP) for his outstanding contributions to the field of augmentative biological control relative to his *P. persimilis* work. After retirement, Jim and Mary moved to Oregon. He continued to conduct taxonomic work on predatory mites, maintained collaborations worldwide, and routinely published his findings. He assisted UC Riverside Cooperative Extension Specialists in the development of a key to the phytoseiids of California and contributed towards instructing UC Farm Advisors on use of the key. The key helped demonstrate the establishment of *Euseius stipulatus* in northern California walnuts, far from its original releases in citrus in southern California.

Jim and Mary also traveled extensively, especially to Europe to hear classical music. He took up brewing beer as a hobby and enjoyed life to the fullest. Considered by many to be a most kind and generous individual, he will be missed by family, friends, and colleagues.

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