

## OBITUARY



## A fine evolutionary biologist and a consummate gentleman David Burton Wake

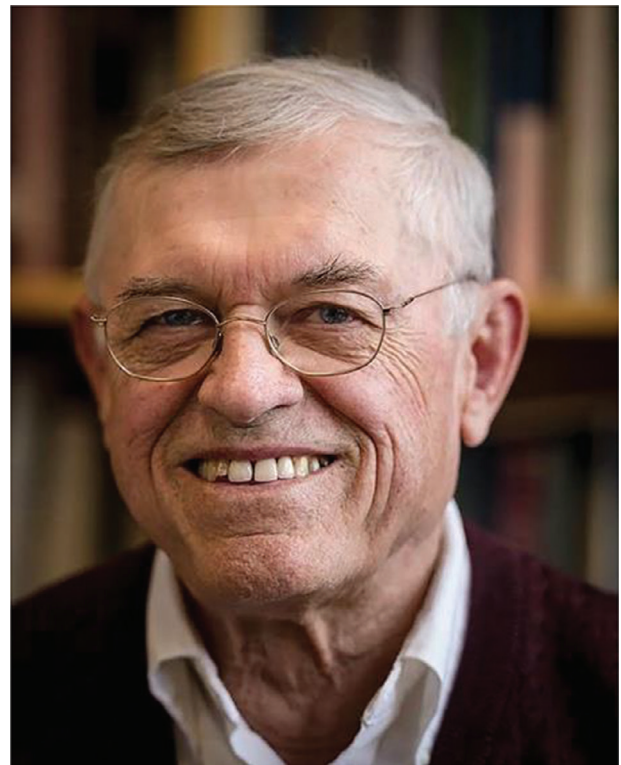
(8 June 1936 to 29 April 2021)

Emeritus Professor David Wake, an American herpetologist at the Museum of Vertebrate Zoology, University of California, Berkeley, died peacefully, at his home on Thursday, April 29, at Oakland, California.

Born in Webster, South Dakota, Dave's interest in nature was kindled by his mother, who taught biology at the local high school, and by his maternal grandfather, Henrik Martinus Solem, who was not only a Lutheran pastor, but an accomplished botanist. An early interest in entomology was diverted when in his fieldwork, he began to find salamanders. He was “hooked” by these animals and a life devoted to the study of amphibians, especially salamanders and more latterly, frogs followed.

His publications record is remarkable, with 436 articles listed on his webpage. A mark of his extraordinary contribution to our understanding of the evolution of amphibians is reflected in more than 29 000 citations of his work. His most cited work, “Size and shape in ontogeny and phylogeny” (*Paleobiology*, 1979: 296–317) with co-authors including the late Stephen Jay Gould, explained how heterochronic changes in ontogeny relate to phyletic trends—a key step towards creating a unified view of developmental biology and evolutionary ecology in the study of morphological evolution. This has been subsequently cited by 1781 authors—more citations in one article than many of us achieve in a lifetime!

David was appointed Director of the Museum of Vertebrate Zoology at Berkeley in 1971, a position he held until 1998. While at MVZ, he and Jim Patton orchestrated what was to be a defining moment in vertebrate studies when they combined the mammalian and herpetological sections. This enlarged and diverse group of professors and grad students provided the stimulus to expand the boundaries in vertebrate genetics, biogeography, paleontology, and phylogeny.



**In residence:** David Wake in his office, awaiting an opportunity to mentor, share and collaborate.



David was president of the Society for the Study of Evolution, the American Society of Naturalists, and American Society of Zoologists. He was a member of the American Association for the Advancement of Science,

the Linnean Society of London, the American Academy of Arts and Sciences, the American Philosophical Society, and in 1988 was elected to the National Academy of Sciences. He was awarded the 2006 Leidy Award from the Academy of Natural Sciences of Philadelphia.

David was active in research up to the end, playing a key role in two large multi-year NSF-funded projects: *AmphibiaTree*, a consortium of four universities focused on production of a robust phylogenetic hypothesis for all species of amphibians using combinations of molecular, morphological, and other data, and *HerpNET*, a biodiversity informatics project to produce a fully geocoded distributed digital database of amphibians and reptiles in 40 North American museums.

There is currently a global decline and disappearance of many amphibian species; Dave's work has been, and will continue to be, significant in unraveling the factors responsible for these losses. The ultimate objectives of this work will be the conservation of what has been a remarkably resilient group of animals, who, through human activities, are suffering the greatest threat to their survival since the Permian.

I first met Dave and Marvalee Wake some 20 years ago at a biological sciences meeting. The Wakes were an extraordinarily dynamic couple, who, with quiet and generous mentorship have managed to guide many enthusiastic young graduates through careers in the biological sciences. Dave was a thoughtful communicator, a generous listener, and the consummate gentleman. He will be greatly missed by us all, but his extraordinary contribution in evolutionary biology will long continue to shine.

David Wake was married to the biologist Marvalee Wake. He is commemorated in the names of the salamander *Cryptotriton wakei* (Wake's moss salamander), the skink genus *Davewakeum*, the frog genus *Wakea*, and the lizard *Cyrtodactylus wakeorum* (Wakes' gecko)—the latter two named jointly for David and Marvalee. He is survived by wife Marvalee, of Oakland, California, their son Tom Wake, and granddaughter Summer of Northridge, California.

John BUCKERIDGE

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