

IN MEMORY OF MARK HINES (1950-2018)



Mark E. Hines passed away on March 11, 2018 at the age of 67. He spent his early years in California and then later moved with his family to Connecticut where he finished high school. Mark attended the Ohio State University, where he received a BSc in microbiology in 1973. In 1978, he received a MSc in microbiology from University of Connecticut. After receiving his PhD in microbiology from the University of New Hampshire in 1981, Mark accepted a research position at the Departments of Microbiology and Earth Sciences at the University of New Hampshire where he remained for fifteen years. In 1996 he moved to the University of Alaska at Anchorage where he became an Assistant Professor (1997) and then (2000) a tenured Professor in the Department of Biological Sciences. Mark took a faculty position as an Associate Professor in the Biology Department at the University of Massachusetts Lowell in 2002. In 2004 Mark became Department Chair, a position he held for 10 years. In 2005, he became a Professor and in 2012 he was made Dean of the Kennedy College of Sciences for 4 years.

His research involved understanding the roles of microorganisms in the cycling of elements, in particular during the latter part of his career he focused on mercury in marine and lacustrine sediments, soils, and wetland peats. He also worked in high latitude environments looking at factors influencing the methylation and demethylation of mercury in soils, freshwater and marine sediments as well as in mines. He made a notable contribution, along with J.P. Megonigal and P.T. Visscher, in the preparation of the comprehensive

chapter »Anaerobic metabolism: Linkages to trace gases and aerobic processes« for Volume 8 Biogeochemistry (ed. W.H. Schlesinger) in *Treatise on Geochemistry* (eds. H.D. Holland and K.K. Turekian). Over the years, Mark served on numerous editorial boards, committees, working groups, review panels and workshops.

Mark was a member of the American Society for Microbiology, the American Society of Limnology and Oceanography, the American Geophysical Union, the American Association for the Advancement of Science, the Society of Wetland Scientists and the International Society for Environmental Biogeochemistry (ISEB). He was a long-time member of the International Scientific Committee of ISEB.

I first met Mark in 1987 at the ISEB Symposium in Nancy (France) and we became close collaborators and friends. In 1992, we first studied the anaerobic microbial processes of the degradation of sedimentary organic matter in coastal marine areas, the Gulf of Trieste (northern Adriatic Sea) as an example. We continued with the methylation of mercury and demethylation of methylmercury in surface sediments of the Gulf of Trieste (1999) and the Grado and Marano Lagoon (2009) which has been severely contaminated by mercury originating from the Idrija mine, the second largest mercury mine, which was in operation for nearly 500 years (till 1995). The main conclusion of this research was the importance of demethylation in reducing methylmercury concentrations in the gulf including biota (fish, mussels) used by humans. My memory of Mark includes many wonderful occasions over the last thirty years including samplings, laboratory work, workshops, trips, parties, dinners, skiings.... In particular, I remember the work we did together to organize the much lauded workshop »Mercury in the Adriatic« in 2001 in Piran, Slovenia, which dealt primarily with Hg cycling in the Hg contaminated northern Adriatic, which greatly contributed to the understanding of mercury cycling in the northern Adriatic.

Mark loved research, teaching and mentoring students, and easily made friends where-ever he went. He was at home at all parts of the world. He was a great collaborator and friend. From my part, I shall miss him greatly. A special issue of the journal *Aquatic Geochemistry* will be devoted to his memory.

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Mark's bibliography related to the northern Adriatic Sea

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