

In Memoriam Tom Berman

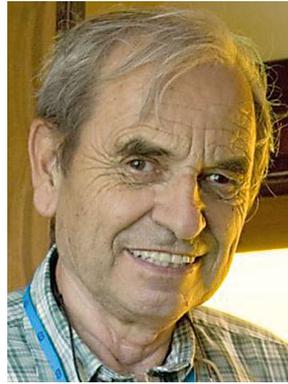
It was with great sadness that we learnt of the passing away of our colleague, friend, and mentor Tom Berman, emeritus professor at the Kinneret Limnological Laboratory of the Israel Oceanographic and Limnological Research (IOLR), prominent member of the Aquatic Microbial Ecology community, and member of the editorial board of this journal. Tom died from a fall when hiking in the Galapagos Islands, one of his life-long dream trips. Tom was a paradigmatic member of our community, having published extensively on phytoplankton, protozoans and bacteria, in both freshwater and marine ecosystems. Tom's examples showed that microbial ecological principles are general to all aquatic systems.

Tom was born on February 25, 1934 in Hronov, former Czechoslovakia. In June 1939, his parents put him on one of the special *Kindertransport* trains from Prague to London that saved 668 Czech children from certain death by the Nazis. Tom grew up in Scotland, but moved to the USA for his bachelor's degree at Rutgers University, followed by a PhD in Microbiology at MIT.

Tom then moved to Kibbutz Amiad in Upper Galilee, Israel, and was responsible for setting up the Kinneret Lab. As its first director (1967–1971), Tom participated in designing the basic approach that has been so successful, involving extensive and persistent lake monitoring and an integrated approach to limnological research. He was again director between 1986 and his retirement in 1999, and initiated expansion of the Kinneret Lab to also deal with applied aspects of lake management.

The great majority of Tom's research revolved around uncovering the role of phytoplankton and bacteria in organic matter and inorganic nutrient cycling. He thus contributed to the establishment of aquatic microbial ecology as a prospering discipline.

Tom did not have a scientific pet model organism but he did have a pet model ecosystem: Lake Kinneret. To understand this ecosystem he early on delved into the nitrogen and phosphorus cycles. From the early 1970s, and throughout his scientific career, Tom explored the dynamics of phytoplankton



Tom Berman (1934–2013)

populations and the influence of biotic and abiotic variables on photosynthesis and primary production. Work in the mid-1970s outlined for example the importance of organic matter release by marine phytoplankton and how nanophytoplankton and bacteria account for the majority of bicarbonate and glucose uptake, respectively. These studies were performed at a time when the potential relevance of microbes in biogeochemical cycles was only beginning to be recognised. In his last years, Tom focused on microgels and transparent exopolymer particles (TEP), their role in biofilm development, and in water treatment technologies. He recently coauthored a high-impact paper with a revised paradigm of aquatic biofilm formation as facilitated by TEP.

Tom's contribution to the development of the field of aquatic microbial ecology is all the more notable considering that he was working outside of the influential and well-funded research centers. He was eager to interact with people and to keep in touch with the latest advances in the field, attending many international meetings where he would address even the youngest authors with kind words about their papers. His enthusiasm for research was contagious, and he excelled at the art of writing. Much of his research has survived the passing of time well. His citations continue to grow steadily even though his production rate slowed upon formal retirement. At the end, good and solid science is what remains.

We will miss Tom and his wife Debby at the next SAME and ASLO meetings, and will also miss his charm and scientific insights. In his 2002 poetry book he mused: '*Writing a book of poetry is like dropping a rose petal down the Grand Canyon and waiting for the echo*'. We are sure that the echoes of his written research will continue to reverberate in years to come.

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