

### Passing of an Ecosystem Naturalist, Mark M. Brinson 1943–2011

Dr. Mark M. Brinson, 67, passed away unexpectedly on Monday, 3 January 2011. Many wetland and coastal ecologists lost a friend that day. We also lost a thoughtful, hardworking, and creative ecosystem ecologist who not only advanced wetland science but also provided important links between science and environmental management. Born on 6 October 1943 in Shelby, Ohio, Mark received his B.S. from Heidelberg College and M.S. from the University of Michigan. For his doctoral work at the University of Florida, he carried out dissertation research at Lake Izabal, Guatemala. He started as an assistant professor at East Carolina University (ECU) in 1973 and became a full professor by 1981. He was honored there by receiving both the Board of Trustees Lifetime Achievement Award and the Thomas Harriot College of Arts and Sciences Distinguished Professorship. Mark retired in September with the title of Distinguished Research Professor and remained active in research and service.



Many of us have a feeling of admiration for the naturalist who can walk through a habitat and identify the various species, give information on their adaptive physiology and anatomy, and discuss co-dependence and coevolution with other species. Mark could do this, especially in coastal and riparian wetlands, but he also was a naturalist of ecosystems; he had a unique perspective on the interrelationships between their physical, chemical, and biological components. He could intuit the manner in which materials could be processed in relation to hydrology. This perspective guided his research, teaching, and contributions to environmental management. It was central to his organizing principles of how wetlands function.

Mark's graduate students recited a mantra of "characterize and classify." This was at the heart of many of their theses, and the basis for his very significant contributions to the Hydrogeomorphic Classification of wetlands (HGM), which he associated with assessment and mitigation procedures based on functional loss. This approach greatly changed the environmental management of wetlands within the United States and other countries. Mark had spent much of the past two decades leading efforts to develop and apply

HGM and functional assessment.

But Mark felt that the most important contribution of HGM was the use of reference. He posited that for wetland mitigation one needs to know the variation of ecosystem conditions across a range from minimally impacted (i.e., the reference standard) to impacted ecosystems within a regional hydrogeomorphic class. Restoration decisions can then be based on differences between conditions of impacted systems and reference standards. Further, his interest in this approach extended to other areas within science, environmental management, and daily life. For example, he envisioned reference domains for cities (e.g., Portland, Oregon, as a reference standard city), landscapes (e.g., mitigation at the watershed level), and even scoring faculty productivity for annual raises (e.g., establishing departmental reference standards for teaching, service, and research).

Evaluating variation within and among ecosystems generally involves considerable effort, and Mark never backed down from the challenge. He was known by some as “mad dog” for his tenacity. As an example, few others would have established a 1.6-km transect through a *Juncus roemerianus* or “blackneedle rush” marsh to be sampled weekly for over three years. Mark did! As most older academic ecologists know, the more senior you are, the less time you have to be in the field. Mark cherished his time in the field and managed to leave the computer and desk as often as he could. Sample collection on a project was as likely to be done by him as by a student or colleague. He was a model of how one can preserve the enthusiasm for nature so easily lost with indoor obligations.

Mark’s legacy can be found in various arenas. He taught numerous courses and workshops on wetlands and ecosystem ecology at ECU, and also nationally and internationally. He co-authored and edited publications on wetlands with a who’s who of wetland ecologists. Further, he served as a technical consultant to the U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and the Smithsonian Institution. He was also elected President of the Society of Wetland Scientists (SWS), and served on the Board of Directors for SWS and the Board of Governors of the American Institute of Biological Sciences.

Mark’s national honors include the National Wetlands Award for Science Research, co-sponsored by the Environmental Law Institute and the Environmental Protection Agency, and election as a Fellow of the Society of Wetland Scientists. He also used a Fulbright Foreign Scholarship Award at the University of Buenos Aires to aid in the development of a wetland management program in Argentina.

Mark is survived by his wife of 40 years, Leslie Brinson, of Greenville, North Carolina, and his son, Peter Brinson, wife Suzanne and granddaughter Sylvie, all of Pasadena, California. His dry wit, intellect, and commitment to ecology and its applications will be greatly missed.

Written by Robert R. Christian

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