

HONORARY MEMBER AWARD



Norman Owen-Smith

Honorary membership in the Ecological Society of America is awarded to individuals who have made outstanding contributions to the field of ecology and who live and work outside of the United States, Mexico, and Canada.

The 2000 Honorary Member is Dr. Norman Owen-Smith. Dr. Owen-Smith is currently Research Professor in African Ecology at the Department of Zoology, University of the Witwatersrand, South Africa. His B.Sc. and M.Sc. degrees are in the physical sciences, but his strong fascination with African wildlife drew him to the

University of Wisconsin in Madison, where he completed his Ph.D in 1973, supervised by John T. Emlen.

His doctoral research on white rhinos in South Africa's Umfolozi Game Reserve was a pioneering study in behavioral ecology; it earned him publication in *Nature* for the new perspectives that it gave on territoriality. Nevertheless, his special concern lay in the application of science to practical problems of conservation. Grappling with how to balance a burgeoning rhino population against diminishing plant resources within a fenced reserve, he proposed the idea of artificially maintained dispersal sinks, a management policy now being applied by the conservation authority. Similarities in the ecology of rhinos, elephants, and hippos formed the basis for his book *Megaherbivores: the Influence of Very Large Body Size on Ecology*. From this perspective, he recognized that habitat changes following megaherbivore extinctions through human overkill might, in turn, have precipitated extinctions of other large mammals during the late Pleistocene.

A postdoctoral fellowship at the University of Pretoria's Mammal Research Institute provided Dr. Owen-Smith with the opportunity to initiate a long-term study of kudu in Kruger National Park, where he assembled a picture album that allowed him to identify over 500 individuals. Over the next decade, this study revealed both

the social structure and demography of a nonterritorial antelope species, as well as the driving influence of rainfall variability on population dynamics. Insights gained from this study led to his seminal paper "What should a clever ungulate eat?" (*American Naturalist*, 1982), pioneering the application of foraging theory to large mammalian herbivores. Dr. Owen-Smith used quantitative models and theory to formulate a new paradigm for herbivore-vegetation interactions. This paradigm uses the principles of behavioral ecology to study community population dynamics while accommodating the spatial and temporal variability that is a basic feature of African savanna environments. The ideas are laid out in his new book, *Adaptive Herbivore Ecology*, currently under review for publication.

Being an ecologist in a developing country carries special responsibilities. In the midst of his strong research program, Dr. Owen-Smith spends a great deal of time and energy supervising graduate students. Almost single-handedly, he runs a graduate program in conservation biology, actively pursues activities and research relating to resource conservation and rural development, and has played a pivotal role in training black students to be the future environmental and scientific leaders of the southern African continent. During the apartheid era Owen-Smith played, and still plays, a

key role in training young ecologists who are attracted to his Center for African Ecology from various parts of Africa and abroad. According to one former student, “Norman provides a role model for African ecologists by demonstrating that we can aspire to international recognition by conducting good research in our own ecosystems.”

Dr. Owen-Smith epitomizes the best of our profession: an unusual ability to combine meticulous field studies with ground-breaking theoretical models, a concern for preserving wildlife and maintaining biodiversity, and, not least, a commitment to improving the lives of others. He is a role model for us all.

Honorary Member Award Subcommittee: Laurel R. Fox (Chair), James Coleman, Denise Dearing, Anthony Ives, Richard Ostfeld, Sarah Woodin, John Zak