James H. Brown, President 1996–1997

It was perhaps inevitable that James Hemphill Brown would grow up to be a biologist and ecologist. Born in Ithaca, New York, Jim was the son of Stuart M. Brown, Jr., a Cornell Professor of Philosophy and administrator, and Catherine Hemphill, who held an M.S. in Vertebrate Zoology from Cornell. During his early years, Jim learned to love natural history. At age 11 he spent several months with his family living in a small cabin on Harshaw Creek, south of Patagonia, Arizona while his father was on sabbatical. During this time, Jim focussed his keen interests in natural history on the biota of southwestern North America, and initial impressions made during this interval lasted a lifetime. Throughout his youth, Jim was an active bird-bander, and in high school spent a summer as an NSF intern working for W. J. Hamilton, Jr., a vertebrate zoologist at Cornell.

For his undergraduate work, Jim did an Honors thesis on convergent evolution of multi-armed starfish. He was active in the undergraduate biology club "Jordani," where he met Doug Futuyma, and formed a lifelong professional and personal friendship. Key scientists who influenced Jim during these formative years included W. L. Brown (whose work on character displacement has continued to influence Jim's approach to ecology), Charles Sibley, John Anderson (who mentored Jim in the Honors program), and William Wimsatt.

Jim had the opportunity to go to either Michigan or Berkeley for graduate school, but chose the former after a visit to Ann Arbor and a letter of encouragement from mammalogist William Burt. Jim's major professor at Michigan was Emmet T. Hooper (a mammalian systematist), but he also worked with William Dawson, who influenced Jim's ideas on physiological ecology. Jim's dissertation research combined his interests in ecology with physiological mechanisms of adaptation to the environment. He studied the physiological ecology and adaptations to the thermal environment of five populations of wood rats distributed from Oregon to Arizona.

During his tenure at Michigan he interacted with a superb group of students who have all had important impacts on their respective fields. This group included Doug Futuyma, Stephen Emlen, David Ligon, Guy Musser, Theodore Fleming, Henry Wilbur, and Steven Arnold. The most important colleague that Jim met during this time, however, was Astrid Kodric. Jim and Astrid were married while both were graduate students, and Jim credits much of his success to the collaboration and support of Astrid. Their wide-ranging collaboration included two bright and intelligent children (Kevin and Karen) as well as nearly a dozen papers in a variety of professional journals and natural history periodicals. Throughout the years, she has remained Jim's closest and most valued colleague.

After finishing his Ph.D. in 1967, Jim went to the University of California, Los Angeles, to do postdoctoral work with George Bartholomew. Much of Jim's scientific philosophy was formulated while working with Bart, who also got him interested in energetics and scaling. Jim stayed on at UCLA as an assistant professor, where he met and formed a close working relationship with Martin Cody. Through Martin, Jim met Robert MacArthur. During this time, his interests broadened from physiological ecology to include community ecology. Robert's approach to ecology infused Jim and many of his colleagues with a great deal of excitement. Jim's interests focussed on the larger geographical questions that MacArthur studied. In perhaps his most widely cited and influential paper, Jim took the basic equilibrium biogeography model and applied to it to mammal communities inhabiting boreal forests in the mountain ranges of the Great Basin. Jim showed that his system violated one of the equilibrium theory's fundamental assumptions regarding colonization. Instead of rejecting the theory, Jim showed that when this assumption was incorporated into the original model, it predicted the species richness of the Great Basin habitat islands quite closely.

Jim's research since that time has shown the same characteristic incisiveness of his early work. He established by 1977 one of the premier long-term community studies of desert rodents on a bajada at the mouth of Cave Creek Canyon near Portal, Arizona. This experiment used replicated removal treatments of ants and different combinations of rodents to document patterns of interspecific competition among members of the granivore guild in this Chihuahuan desert ecosystem. Initial findings confirmed that species of plants, ants, and rodents formed complex webs of interactions with each other, but the real surprises came later as the entire community evolved away from a desert shrub community toward a more grassland-dominated one. As species composition of the plants and rodents has changed at the Portal site, so has Jim's understanding of what ultimately determines community structure in his system. Jim's research at Portal has been both a complement and an inspiration for his work on

large-scale patterns of biological diversity.

In uniting his interest in ecological mechanism with his fascination with biogeographic pattern, Jim recently coined the term "macroecology" to refer to a unique way of approaching geographic patterns. Jim once remarked that he thought that Robert MacArthur would have been keenly interested in this large-scale approach to ecological pattern and process. Combining our current understanding of ecological mechanisms with patterns of variation in traits such as body size, geographic range size and structure, and abundance among many species, macroecology attempts to develop a synthetic, mechanistic understanding of biogeographic patterns. If nothing else, Jim's ideas regarding macroecology have stimulated, and will continue to stimulate, his colleagues to explore the reasons why so many patterns exist among species.

Jim has devoted his career to two things. First, he has followed his interests over both geographic and intellectual space to understand biological diversity. He describes himself simply as "a curious naturalist" who loves natural history and wants to know how nature works. His philosophy is to take inspiration from general empirical patterns and develop and test mechanistic hypotheses to account for them. Jim's approach to understanding how nature works is based in the search for general patterns and explanations, that is, the general ecological laws underlying the observed variability in ecological systems. This has always been, and continues to be, a collaborative enterprise for him. Second, in his collaborations, Jim has been particularly interested in helping young ecologists pursue their talents at all levels. The many undergraduate, graduate, and postdoctoral students who have interacted with Jim over the years have found out as much about themselves as they have about their science from their time spent with him.

During his tenure as ESA president, Jim hopes to promote the intellectual health of ecology by promoting the very best basic and applied research in the field [which must mean that he promotes the research that each of us in the Society is doing individually]. He sees an important component of this is to attract and keep the best and brightest young people in the field (from the undergraduate level to the postdoctoral level and beyond). Jim sees that the interface between basic and applied ecology must be based on sound science. Modern society faces the greatest challenges that the human race has ever faced in dealing with applied ecological problems. Ecology can contribute to the solution of these problems if we maintain our vision of what ecological science can be.

Like past presidents of the ESA, Jim provides us with a vigorous and endearing role model of what it means to be an ecologist.

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