In Memory of Gary Allan Polis (28 August 1946–27 March 2000)

Robert D. Holt
Wendy B. Anderson

Gary Polis loved deserts. Whenever he dealt with the topics of his major contributions to community ecology—the prevalence of intraguild predation and omnivory; the ubiquity of reticulate food web structures, with many weak and donor-controlled links; and the importance of allochthonous subsidies, detrital pathways, and temporal variability in food web dynamics—he would invariably lace the discussion with concrete examples from desert ecosystems. Among his many books is *The Ecology of Desert Communities* (1991), which in many ways can be viewed as a natural predecessor to the current volume.

Gary's boyhood fascination with deserts and scorpions broadened into a detailed understanding of food web interactions, providing an entrée to the ecological community, where he became a leader in food web ecology. It is in this arena that he made the greatest contributions to ecology, and this is one clear instance where an understanding of desert ecology has led to conceptual advances in ecology as a whole.

Gary was a superior naturalist. He could develop a sense about a place because he spent huge amounts of time in the deserts he studied. He was accomplished at making acute observations about patterns, and relating them to broader ecological concepts. For example, while collecting data to describe patterns of scorpion diversity and distribution on desert islands in the Gulf of California, he noticed that patterns of spider and lizard abundances and distributions seemed to covary with scorpion distribution patterns. He began to understand the web of interactions that could exist among these three higher-level consumers. Furthermore, he became aware that all of these patterns were intricately tied to the influences of the

surrounding ocean on the food webs of the desert islands, via the subsidy of their ecosystems by materials drawn from the marine environments. Gary's emphasis on the ubiquity and importance of such subsidies was a major contribution made in his last few years. Again, Gary tapped his passion for desert ecology to inform at a deeper level for the discipline as a whole.

The consummate educator, Gary taught everybody: undergraduate and graduate students, colleagues, his own children, dozens of volunteers who assisted him in the field, virtually anyone who would listen. Three generations of academic offspring have benefited from Gary's wonderful insights and worldview directly or indirectly, and his ideas and perspectives continue to resonate through ecology today.

Finally, Gary had an amazing talent for bringing together people who might not otherwise interact to create novel syntheses among previously disparate disciplines. His appreciation of people from diverse backgrounds (scientific and cultural) drew people to him and hence to each other. He ran his own research laboratory in an intellectually inclusive style—inviting students and post-docs with interests in plants, invertebrates, vertebrates, or soils, and ranging from taxonomy to physiology to landscape ecology–aiming toward a synthetic understanding of the desert systems he so loved. In particular, Gary believed that the interplay of temporal variability and spatial heterogeneity was fundamental to understanding desert communities.

Valuing biological diversity, scientific diversity, and the diversity of human perspectives alike. Gary recognized that any healthy assembly of species—or people—must include numerous functional groups to thrive. In this volume, we acknowledge that we are poorer for his loss, but richer for his having been among us.

Reference

Polis, G.A. (ed.). 1991. *The Ecology of Desert Communities.* University of Arizona Press, Tucson, Arizona.