Employment

Current Position

- Director, Center for Environmental Sciences and Engineering
- Professor, Department of Ecology and Evolutionary Biology

Other Positions

- · Adjunct Professor, Department of Natural Resources and the Environment, University of Connecticut
- Adjunct Professor, <u>Department of Statistics</u>, University of Connecticut
- Program Faculty, Environmental Engineering Program, University of Connecticut
- · Affiliated Research Associate, Sam Noble Oklahoma Museum of Natural History, University of Oklahoma

Relevant Employment History

- 1976-1978: Research fellow at Brazilian National Academy of Science
- 1979: Visiting Professor at LaRoche College, Department of Natural Sciences
- 1981-1983: Assistant Professor of Biology at Loyola University
- 1983-1989: Assistant Professor of Biology at Texas Tech University
- 1989-1993: Associate Professor of Biology at Texas Tech University
- 1993-2005: Professor of Biology at Texas Tech University
- 1994-1996: Director of The Institute of Environmental Sciences, Texas Tech University
- 1995-1997: Chairman of Department of Biological Sciences, Texas Tech University
- 2000-2002: Program Director, Ecological Studies Cluster, Division of Environmental Biology, National Science Foundation
- 2004-2006: Division Director, Division of Environmental Biology, National Science Foundation.
- 2005-Present: Professor of Ecology and Evolutionary Biology at University of Connecticut.
- 2006-Present: Director of the Center for Environmental Sciences and Engineering at University of Connecticut.

Education

- . B.S. University of Pittsburgh 1974
- Ph.D. University of Pittsburgh 1981

Dissertation Title- A comparative ecological study of Caatingas and Cerrado Chiropteran communities: composition, structure, morphometrics, and reproduction. (Advisor - Michael A. Mares)

Research

Research Interests

In general, my research is multidisciplinary and characterized by rigorous quantitative approaches to questions relevant to ecology, biogeography, and conservation biology, all considered from an evolutionary perspective. My investigative approach is based on both manipulative and observational experiments, as well as on modeling exercises. My research is strongly organismal in nature and is not limited by taxonomic constraints, as evidenced by publications concerning bacteria, fungi, plants, snails, insects, reptiles, birds, and mammals. Nonetheless, the major thrust of my research has concerned terrestrial mammals, especially those in tropical regions.

I have broad experience conducting field research in a diversity of habitats, including both aquatic and terrestrial environments. Aquatic research has focused on phytotelmata, streams, and ephemeral lakes (e.g., playas). Terrestrial work has been conducted in semiarid tropical thorn-scrub, tropical grassland-savanna, tropical rainforest, subtropical forest, and temperate forest. As a consequence, I currently have or recently have had funded research programs in Paraguay(NSF), Pa

Moreover, much of my research assumes broad temporal and synthetic perspectives as a consequence of my association with the Long-Term Ecological Research Program (LTER) in the Luquillo Mountains of Puerto Rico (e.g., over 80 peer-reviewed books, book chapters, or journal articles have been published as a consequence of my participation in the LTER Program) and the National Center for Ecological Analysis and Synthesis (NCEAS) in Santa Barbara. As my research has matured, especially during the last five years, substantial efforts at synthesis have been directed to research in biodiversity that is related to (1) disturbance ecology, (2) environmental, especially those associated with latitude and elevation, and (3) conservation. In addition, I recently co-edited and

contributed chapters to *Theory of Ecology*(Scheiner & Willig, 2011), a book that explores the conceptual infrastructure of a variety of subdisciplines in ecology, thereby providing insight into profitable directions for future research, especially that which achieves more than incremental increases in the understanding of ecological patterns and processes.

Finally, I am a co-editor and contributing author on two other books that integrate ecological understanding based on research in the Luquillo Mountains of Puerto Rico. One, Disturbance and Recovery in a Tropical Forest: Long-Term Research in the Luquillo Mountains of Puerto Rico(Brokaw et al., 2012) is a synthesis of long-term research that integrates population, community and biogeochemical perspectives to understand the spatial and temporal dynamics associated with natural and anthropogenic disturbances. The other, Ecological Gradient Analyses in a Tropical Ecosystem (Gonzalez et al, 2012), explores environmental gradients in climatic, abiotic, and biotic characteristics that vary with elevation in northeastern Puerto Rico. Both tomes explore ecological understanding from basic and applied perspectives, and incorporate a mix of empirical and theoretical research.

Research Foci

Currently, my research program has a number of broad foci. Each link contains detailed information on recent and ongoing research by me and my graduate students, post-doctoral associates, and colleagues.

- 1. Metacommunity structure
- Island biogeography
- 3. Temporal activity
- 4. Biodiversity
- 5. Conservation biology
- 6. Community ecology
- 7. Disturbance ecology
- 8. Behavioral ecology