

Preface

In February 1985, the eminent evolutionary biologist, biogeographer, systematist, and ichthyologist Donn Eric Rosen (1929–1986) accepted the invitation of Jay M. Savage, Professor of Biology and a herpetologist, to be a Distinguished Visiting Professor of Biology at the University of Miami, Florida. Donn Rosen was an affable, erudite, and gregarious man who surrounded himself with colleagues and students with whom he liked to debate any idea in biology. He was a gifted teacher who inspired a generation of systematic biologists. At Miami, Donn taught a mini-course on “Evolving Evolutionary Thought” which covered a wide range of topics across the broad fields of evolution, systematics, and biogeography. At the end of the course he gave the students a list of what he argued were assumptions that *inhibit* scientific progress in comparative biology which we publish here as Chapter 1. A perusal of the assumptions revealed, to us, a list with continued relevance. They range from the general (“Scientists are more objective than other people,” “Ultimate causes are knowable”) to much more specific, addressing topics in Evolutionary Theory (“Competition Theory is important and well formulated” and “Adaptation scenarios have important general explanatory powers”), Taxonomy (“Deliberately formulated paraphyletic groups are analytically useful,” “Convergence really occurs”), and Biogeography (“Geographic hybridization and biotic mixing make vicariance analysis impossible,” “Some organisms are better indicators of biotic history than others depending on their ecology and means of dispersal”).

The year 2015 marked the 30th anniversary of Rosen’s list, which seemed like an appropriate time to revisit his eclectic, thought-provoking ideas in comparative biology. We wondered what, if any, progress has been made in the theory and methods of comparative biology in the past three decades. We, a herpetologist and student of Savage (Crother), and an ichthyologist and student of Rosen (Parenti), planned to confront Rosen’s bold ideas in a symposium at the Joint Meetings of Ichthyologists and Herpetologists (JMIH) held in Reno, Nevada, in July 2015. The setting was ideal. Rosen was devoted to the American Society of Ichthyologists and Herpetologists and looked forward each year to the annual meetings where he could engage with both colleagues and students. How would our colleagues react to a typed list that was yellow with age and scarred from the thumbtacks and multiple layers of tape added every time the list was taken down and moved? The response to our invitation to participate in the symposium and revisit Rosen’s list was overwhelmingly positive. Brazilian ichthyologist Mario de Pinna expressed the thoughts of many: “Great idea! The Rosen document is a marvelous piece of history and freethinking. It is fascinating how some of the topics have aged somehow, others are more modern than ever, and others still point to the future even from the standpoint of 35 years beyond.”

We convened the JMIH symposium always with the idea that we would publish the proceedings in a book. It is appropriate that not all of the topics on Rosen’s list are covered here and some, such as biogeography, get much attention. Although



Donn Rosen (center) at an annual meeting of the American Society of Ichthyologists and Herpetologists talks to Robert Inger of the Field Museum as the late Robert McDowell, New Zealand ichthyologist and biogeographer (left), waits his turn. Photographer and date unknown; possibly 1981.

several prior publications include a dedication to Donn's memory, there was no proper Rosen *Festschrift*, an oversight that we are happy to correct. We know that Donn would be pleased.

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