

Henry Prange

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Henry Prange, born in Chicago in 1942, lived in southern Wisconsin for most of his youth. He entered Duke University in 1960 and ended up 10 years later with three degrees (A.B., M.S., and Ph.D.), which would shape the path of his future research. After receiving a bachelor's degree in zoology, Prange was hired by Knut Schmidt-Nielsen to work with Egyptian sand rats. This research necessitated a field trip to Egypt and resulted in a master's degree in zoology. Schmidt-Nielsen invited Prange to continue studying evaporative water loss in snakes in his lab, and finally to study the energetics of swimming ducks for his dissertation.

In his first academic job, at the Department of Zoology at the University of Florida, Prange taught animal physiology and began research on sea turtles, doing field work in Costa Rica with Archie Carr. He also began a project in scaling mechanical properties of animal skeletal systems based on the analysis of animals from insects and spiders to birds and mammals.

In January 1976 Prange was hired by Indiana University, where he has taught animal physiology until his retirement. The work with sea turtles, begun in Florida, culminated with Prange being named chief scientist for a research expedition on the R.V. Alpha Helix in the Caribbean in 1978. On that expedition he led a group of 20 scientists to study everything from digestive physiology to migratory patterns of sea turtles.

He also maintained an interest in the role of comparative body size relative to aspects of temperature regulation throughout his career. Most recently he has investigated the responses of insects to hot environments, discovering the extent to which they can use evaporative cooling and how body size influences thermoregulatory behavior. To further this research in exotic species, Prange has maintained an active collaboration with the Ben Gurion University of the Negev, where the climate is conducive to field studies and lab research on desert animals. Another active program of research in CO₂ carriage and acid-base physiology has led to a new understanding of the role of chloride exchange between plasma and red blood cells.

After a career in which he trained nine Ph.D. students and more than twice that number of master's students, most of whom have gone on to active academic or professional careers, Prange notes that he is grateful to have entered and left academics in the era when it was still possible to pursue research ideas merely because they were interesting and fun, and not solely because they were federally remunerative.

In retirement Prange plans to remain involved in the field of physiology through a teaching and research collaboration with his colleagues in the Indiana University Department of Kinesiology.