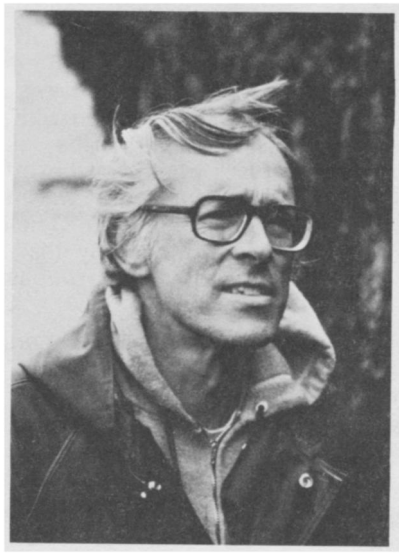
robert t. paine, president

1979–1980



Our new president, Robert T. Paine, is Professor of Zoology at the University of Washington. He was born in Cambridge, Massachusetts, where he grew up within a close-knit family having a rich tradition in scholarship and public affairs. He developed an early interest in birds, a subject in which he became sufficiently skilled to be invited on field excursions with such legendary birders as Ludlow Griscom and Wendell Taber. He entered Harvard University where his predilection for natural history matured under the tutelage of Ernst Mayr and various paleontologists into a broad interest in evolution and paleoecology. Following his graduation from Harvard in 1954, he collected birds in Chiapas, Mexico. During his service in the U.S. Army, he distinguished himself as the battalion gardener.

He entered graduate school at the University of Michigan, intending to do a thesis in invertebrate paleontology. As preparation he took the courses in invertebrate zoology and ecology taught by Frederick E. Smith. He was intrigued by the perspectives Smith opened up and began to associate with the enthusiastic group of ecologists that surrounded W. R. Dawson, F. C. Evans, N. G. Hairston, L. B. Slobodkin, and Smith in the late 1950's. At this time he switched from geology to zoology, with Smith acting as his major advisor. During this era, many of the zoologists in Ann Arbor gathered around the large tables at the Pretzel Bell or Metzger's to drink beer and talk in the late evening. Paine flourished in this environment; his characteristic bantering style (which, happily, has changed little over the years) helped create a stimulating, jovial forum where ideas were easily launched, examined, and modified by people with diverse backgrounds. His doctoral research on the ecology of extant brachiopods reflects the evolution of his interests from paleontology to ecology. While engaged in thesis work, he also studied the structure of food webs involving predatory gastropods on Florida sandbars; this latter research marks the beginning of his major interest in the processes that organize communities. After leaving Michigan he was a postdoctoral fellow at the Scripps Institution of Oceanography, where he was associated with E. W. Fager. At Scripps, Paine worked on the natural history and energetics of opisthobranchs, an investigation that led to a series of critical papers on appropriate methods and interpretations for calorimetry data.

In 1962 Paine joined the faculty at the University of Washington where he has since become ensconced. He was promoted to Professor in 1971. In Washington he started work on the ecology of the rocky intertidal. This match between environment and investigator has been a happy one; the system, while challenging, yields well to the combination of observation, comparison, and experimentation that Paine has forged into his mature research style. Furthermore, it is clear to his friends that the beauty and drama of rocky, wave-swept shores strike some deep chord within him.

In 1966 Paine published a paper in the *American Naturalist* demonstrating that the top predators in the rocky intertidal play a critical role in maintaining species diversity. This paper, which has been widely cited and reprinted, was one of the first clear proofs of a phenomenon which,

when extended to consumers in general, appears to be an important organizing factor in several ecosystems. This article was also the first in a continuing series, by Paine and several of his students, which describe investigations employing experimental manipulations to dissect out, in progressively greater detail, the interacting factors which organize marine communities. Most recently he has become interested in how the habitat patchiness caused by local disturbances contributes to community structure. This work has led to a productive collaboration with Simon A. Levin in developing theoretical models to explain the spatial patterning of communities. The depth of Paine's work on the intertidal of the Northwest is nicely balanced by the broad perspective he has gained from extensive research on marine communities in New Zealand, Chile, and Antarctica. Widespread recognition for the significance of Paine's continuing research is reflected in an invitation to deliver the Third Tansley Lecture at the meetings of the British Ecological Society.

Advising graduate students is a source of great personal satisfaction for Paine. He has been richly rewarded in this endeavor; many young ecologists who have been close to him have gone on to make significant contributions in their own right. I will not list his students for fear of overlooking someone. I can note, however, that when viewed collectively, their work is characterized by a blend of quantitative observations and experiments to produce extensive results on an ecological process—an approach that Paine strongly advocates. By all reports working with Paine is a potent experience. His field trips combine hard work and play in rugged yet beautiful settings. In Seattle he spends much of his time in informal discussion with students and colleagues. The shared adventures and frequent contact are evidence of the depth of Paine's commitment, and foster the growth of close personal bonds in an atmosphere of intellectual challenge.

Paine's professional experience has prepared him well to deal with the issues that confront the Ecological Society. He has served on the editorial boards for *Limnology and Oceanography, Ecology,* and *Ecological Monographs.* He was Vice President of the Ecological Society of America in 1977–1978 and he has been a member of advisory panels for the National Science Foundation, the Environmental Protection Agency, and the Palau Marine Research Institute. Finally, he has withstood pressures that lead many prominent scientists to merely direct their research; he remains personally involved in all phases of his work and clearly enjoys almost every moment of it.

— R. B. Root

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