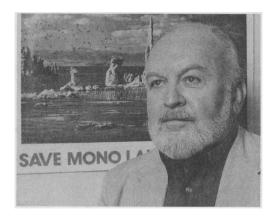


## **EMINENT ECOLOGIST**

## FRANK A. PITELKA



The recipient of the 1992 Eminent Ecologist Award from the Ecological Society of America is Frank Alois Pitelka of the Museum of Vertebrate Zoology, University of California, Berkeley, Frank was born in Chicago, Illinois on 27 March 1916. He received a B.A. degree from the University of Illinois in 1939, and following two summers at the University of Michigan and the University of Washington, completed requirements for the Ph.D. at the University of California, Berkeley in 1946. He remained in the Department of Zoology at Berkeley, rising to Professor of Zoology in 1958. He served as chairman of the department from 1963-1966 and from 1968-1971. Concurrently, he was Curator of Birds in the Museum of Vertebrate Zoology, was appointed Research Ecologist in 1967, and Associate Director in 1982. Frank received the Distinguished Teaching Award in 1984, and the Berkeley Citation from the University of California in 1986. He was a Guggenheim Fellow (1949-1950), an NSF Senior Postdoctoral Fellow at Oxford (1957-1958), a Visiting Professor at the University of Washington Friday Harbor Laboratories (summer 1968), and a Fellow at the Stanford Center for Advanced Study in Behavioral Sciences (1971).

Frank has been active as an editor (e.g., Ecology, Ecological Monographs, The Condor, Systematic Zoology), and has served on panels for the National Science Foundation, the Atomic Energy Commission, the National Academy of Sciences, and the National Commission for UNESCO. His interests in Arctic biology included service as the first director of the Tundra Biome Program, US/IBP. He has conducted research at the Naval Arctic Research Laboratory and the University of Colorado Institute of Arctic and Alpine Research. He was instrumental in the establishment and development of major ecological research stations at Barrow, Alaska and Bodega Bay, California. Recently, he was called from retirement to serve as Associate Director of the University of California Hastings Reservation. In all of these endeavors, he has distinguished himself with dedication, insight, perspective, and tenacity.

Frank Pitelka has made significant contributions to ecological science in four major areas of investigation. His studies of distribution and variation in birds set new standards and broadened the conceptual scope of ecological biogeography. These early studies continue to be important in the analysis of biogeographic patterns. His biome map, originally published in 1941, but reprinted in many standard textbooks, still influences the modern generation of ecologists.

He is recognized as a pioneer in behavioral ecology. His superb papers have served as models and played a major role in defining the major questions and lines of investigation. For example, his work on territoriality and courtship in hummingbirds consistently placed behavior in an ecological context long before it was fashionable. This perspective characterized his later work on shorebirds (in both their breeding and wintering grounds) and his research on the social system of the Acorn Woodpecker.

Early in his career he investigated bioenergetic constraints on the life histories of birds, including the adaptive significance of molt patterns in Arctic longspurs, and developed new ways to study behavioral ecology. His leadership and imagination led to new approaches that spurred others to productive research in this area for the next several decades.

His research on the population dynamics of Arctic lemmings and their predators remains a model for the study of density-dependent effects. Long-term studies of Arctic microtines formed the basis for his nutrient-recovery hypothesis to explain fluctuations and regulation in small-mammal populations. The enormous pool of data accumulated by his research group at Barrow, Alaska is still being mined today. Frank received the 1953 Mercer Award from the Ecological Society of America for his paper, published in *Ecology* in 1951, entitled "Ecologic overlap and interspecific strife in breeding populations of Anna and Allen hummingbirds." He received the Brewster Award from the American Ornithologists' Union in 1980. His bibliography of over 200 papers illustrates his brilliance in both the breadth and the depth of his ecological interests and abilities.

During his long and illustrious career at Berkeley, Frank Pitelka has had a profound influence on many graduate students and postdoctoral associates who have gone on to occupy important positions in government and academia, and in turn, have carried the Pitelka philosophy to younger generations of ecologists. For a productive and exemplary professional career spanning more than half a century, for his service and dedication to ecological science, for his outstanding contributions to ecological theory and empirical evidence, the Ecological Society of America is proud to name Frank Alois Pitelka as its Eminent Ecologist for 1992.

Selection Committee: Robert L. Burgess, Chair Gary W. Barrett Paul K. Dayton Frances C. James Warren R. Keammerer Andrew Sih