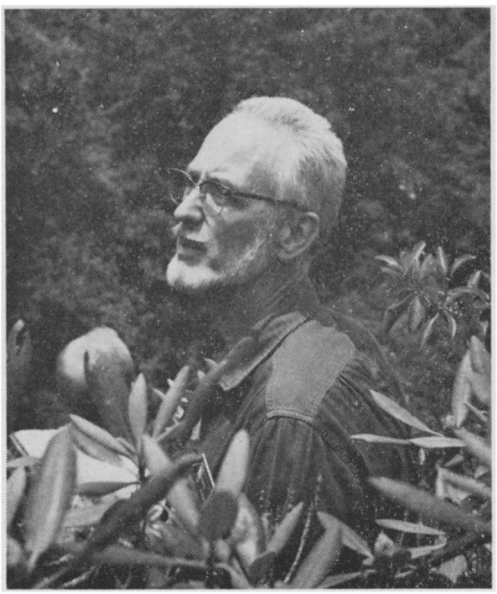
RESOLUTION OF RESPECT

Royal Eastman Shanks, internationally known plant ecologist, lost his life on August 4, 1962 while examining marine organisms of a coral reef near Port Limon, Costa Rica. Interests in vegetation took him from Ohio, Virginia, and Tennessee to Costa Rica and Alaska.



ROYAL EASTMAN SHANKS 1912-1962

Photo by Oscar H. Paris

Royal Eastman Shanks was born November 11, 1912, near Ada, Hardin County, Ohio. His early education was received in that area, and he took an A.B. from Ohio Northern University in 1933. Public school teaching and administration occupied his next three years with summers spent in graduate study at Ohio State University in the ecological program headed by E. N. Transeau. In 1936 he matriculated as a full time graduate student under the supervision of H. C. Sampson. He received M.S. and Ph.D. degrees respectively in 1937 and 1938.

During parts of each of the years 1938-1942 he served as Botanist with the New York State Museum at Rochester. Between 1940 and 1946 he served on the faculties of the University of Tennessee and Austin Peay State College, leaving the latter during World War II to serve as instructor in the U. S. Army and later in the Navy. He returned to the University in 1946 as Associate Professor and was promoted to Professor in 1948. In the summers of 1950 and 1953 he served on the staff of Mountain Lake Biological Station.

Shanks was a member of 23 professional or learned societies and was a fellow of three. He served as Treasurer of the Ecological Society, president of both the Southern Appalachian Botanical Club (twice) and Association of Southeastern Biologists. He was a member of the Board of Trustees of the Highlands Biological Station, of the editorial board of **Ecology**, of the National Science Foundation screening committee for Pre-doctoral Fellowships and of the advisory screening committee for International Exchange of Persons, Fulbright and Smith-Mundt Programs. He served with distinction on other regional and national committees: the committee on preservation of natural areas of the Society of American Foresters, advisor to the subcommittee on Ecological Cycles of the Society's Ecology Study Committee, member of the Society's Study Committee on Micro-environments, and chairman of the Inter-Society Planning Commitee on Agricultural Meteorology.

Dr. Shanks leaves his widow, Betty Morris Shanks, and two daughters, Harriet and Emily, to whom our deepest sympathy is extended.

With broad training in botany, early agricultural experience, and student contact with the U. S. Department of Agriculture's Hydrologic Station at Coshocton, Ohio, Shanks' ecological interests developed as a spectrum and were expressed in several areas.

His first research efforts included studies of the relation of natural vegetation to environmental factors in Trumbull and later in Wood and Henry Counties, Ohio. Studies of the vegetation of Monroe Country, New York, grew out of his experience with The State Museum and the stimulation of C. C. Adams.

After his return to The University of Tennessee after World War II, he and A. J. Sharp re-initiated work on the Tennessee Flora. Fundamental state floristic regions were recognized in 1958 and serve as a basis for present and future floristic and vegetational research. The results were based upon superlative abilities in field recognition, and careful cataloguing of woody plant distribution. These and other interests prompted his explorational floristic and vegetational studies in Alaska sponsored by the Arctic Institute of North America from 1955 to 1959.

He had a full understanding of basic physical principles and an unique ability to apply this understanding in simple climatic instrumentation. The development and use of inexpensive electrical thermometers, hygrometers, anemometers, and light integrators are continuing through his students. Analysis of data acquired from 1946 to 1950 in the Great Smoky Mountains by the joint Tennessee Valley Authority-National Park Service —U. S. Weather Bureau Smoky Mountain Snowfall Study led to the classic "Climates of the Great Smoky Mountains."

The introduction of variable radius plotless sampling into the United States at once took Shank's attention, because he was faced with bouldery terrain and dense understories which made physical movement and establishment of plot boundaries difficult at best. A comparison of data from this technique and other plotless sampling methods with full plot data contributed relevant information about the forest type and also allowed evaluation of the various methods from the standpoints of time and yield of statistically sound estimates.

During the years after World War II, White Oak Lake — a dilution basin for radioactive wastes created in the X-10 area of the Oak Ridge National Laboratory, was monitored by the Tennessee Valley Authority, and Shanks was consultant to them in these studies. The drainage of the lake in 1955 provided the impetus for research sponsored by the Atomic Energy Commission on floristic and vegetational change, litter accumulation, production, and mineral cycling studies on the lake bed. Results of research on this unique radiation area are published or in press.

By 1959 the necessity of understanding mineral cycling in undisturbed forests as a basis for predicting the fate of radioactive contaminants had resulted in a transfer of major project effort to the upland mountain forests of the region. Large scale investigations on several compartments in the mineral cycling system were undertaken.

Realization of the potential usefullness of digital computers in this work coincided with plans for the establishment of a computing center on the campus, and Shanks was virtually waiting with program and data when the machine was installed. The set of programs used in these studies was described (1962) and others for climatic and soil moisture data were developed.

The content of Shanks' courses varied somewhat with his current interests and contained hybrid swarms of ideas developed from his reading and broad experience. He found the variability of environment and vegetation of the Great Smoky Mountains a fertile feeding ground for the rapid and flexible chains of ideas that characterized his teaching and thinking. Students with both a diversity of interests and geographic background were attracted to him. From 1948 to the time of his death he chaired 22 degree committees, including nine doctorals and 13 masters.

Wide ranging interests led him to cooperate with several agencies or to participate in planning with them. Of particular interest was the establishment of the Highland Rim Forest Experiment Station in which both practical forestry and basic ecological research are now in progress. He was active on a committee which is planning the establishment of a University Arboretum. The conservation activities of the Smoky Mountain Hiking Club and efforts by various groups to preserve natural areas occupied him as well.

Music and singing were especial interests, and he served in various capacities in the Presbyterian Church. Always inquisitive and eager to learn, he not only led the way in various scientific disciplines through teaching but attended classes in at least four different subject matter areas in the past several years. It was in one of these that he met his death.

Shanks' sharply analytical mind was able to dispense with the trivial and unnecessary thoughts and restrictions that clutter the minds of most. He collected experiences rather than possessions. Seeking information only applicable to matters at hand, he was able to cut through the fog of controversy and characterize a problem in its most rudimentary form. In his death the field of ecology, his associates, friends, and colleagues have lost a source of inspiration and an example of intellect and manhood seldom seen. (Prepared by Dr. H. R. DeSelm and Dr. Edward E. C. Clebsch with the help of colleagues).

Source: Bulletin of the Ecological Society of America, Vol. 44, No. 3 (Sep., 1963), pp. 96-98.
Courtesy of JSTOR.