
JOURNAL
of the
Tennessee Academy of Science

VOLUME LXVI, NUMBER 4

OCTOBER 1991

THE VERTEBRATES OF TENNESSEE AND KENTUCKY

PROCEEDINGS OF THE
INVITED PAPERS SESSIONS
THE FOURTH ANNUAL SYMPOSIUM

On

THE NATURAL HISTORY OF LOWER TENNESSEE
AND CUMBERLAND RIVER VALLEYS

Sponsored By

AUSTIN PEAY STATE UNIVERSITY
THE CENTER FOR FIELD BIOLOGY

TENNESSEE ACADEMY OF SCIENCE

TENNESSEE VALLEY AUTHORITY
LAND BETWEEN THE LAKES

March 1, 1991
Brandon Spring Group Camp
Stewart County, Tennessee

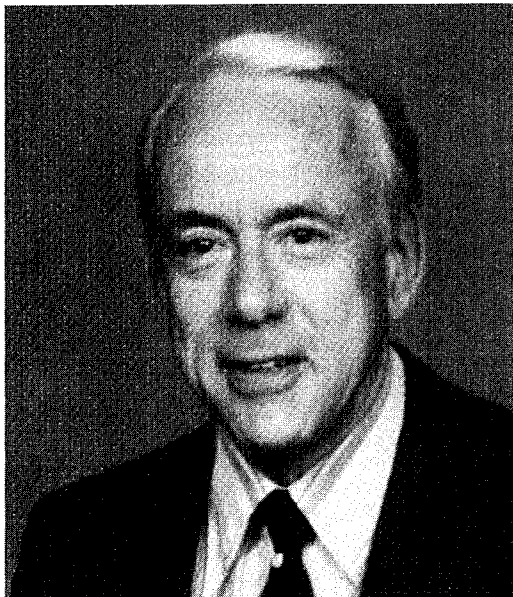
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Dedication

This issue is dedicated to the lives and legacies of two extraordinary men, James T. Tanner of Tennessee and Roger W. Barbour of Kentucky. The biographical sketches that follow have been written by long-time colleagues.

JAMES TAYLOR TANNER

1914-1991



JAMES TAYLOR TANNER

Jim Tanner was a great friend and neighbor! This statement will come as no surprise to those who knew James Taylor Tanner either professionally or personally. His low-key, sincere, friendly manner put people at their ease, made strangers comfortable, and reassured friends and acquaintances that he could be counted upon to be calm, dependable, helpful, and good humored in any situation.

The above paragraph speaks of Jim Tanner as a person, not as a professional, for two reasons. First, because I knew and enjoyed him as a friend for forty-plus years and as a valued neighbor for some twenty of those years. But equally because anyone whose life he touched, no matter

how briefly, was struck by the quality of the man; his professional achievements simply represented an extension of this modest, unassuming person. And those achievements were impressive.

Born in upstate New York in 1914 and educated at Cornell University (B.S., 1935; M.S., 1936; Ph.D., 1940), he was destined to spend his entire professional career in his adopted state of Tennessee, first as an assistant and associate professor of biology at East Tennessee State College, now University (1940-47), and subsequently at the University of Tennessee, Knoxville, passing through all the ranks and retiring as professor emeritus of zoology in 1979. His tenure at East Tennessee State was interrupted by wartime service with the U.S. Navy as an officer in the radar program, where he achieved the rank of Lieutenant Commander.

Many generations of students at the University of Tennessee remember him as the well-organized, lucid lecturer and coordinator of the introductory zoology course, and as the author of the *General Zoology Laboratory Guide* (1950, with a 4th edition in 1965). A smaller, but perhaps more grateful, group knew him as the meticulous, caring director of 14 M.S. and 14 Ph.D. programs, in zoology or ecology. Jim's role in inaugurating the University of Tennessee's Graduate Program in Ecology constitutes one of the stars in his crown of achievements. His was the appropriate temperament and research experience to provide the leadership in founding, and for its first four years directing, this interdisciplinary program which draws together faculty and students from botany, forestry, entomology, and zoology, as well as having strong ties to Oak Ridge and TVA. From 1963 to 1988 he was a consultant and collaborator with the Ecology Program at the Oak Ridge National Laboratory.

Broad as his interests were, Jim's greatest enthusiasm was for his first love, ornithology. It was as an ornithologist that he was known by the greatest number of people; and it was as an ornithologist that he did the bulk of his scholarly publishing. His publications extend from a note on "A melanistic black-capped chickadee" in 1934 to "Changing ranges of birds of Tennessee" in 1988. He was *the* authority on the Ivory-billed

Woodpecker, a species rare when Jim originally studied it in the swampy forests of Louisiana and Florida and now almost certainly extinct in the U.S. His Ph.D. dissertation, *The Ivory-billed Woodpecker*, was published by the National Audubon Society in 1942 and republished by Dover Books in 1966.

The second major area of his scholarly interest and productivity was mathematical ecology. Here his significant contributions began as early as 1966, when "Effects of population density on growth rates of animal populations" appeared in *Ecology*. A decade later the same journal published "The stability and the intrinsic population growth rates of prey and predator populations." Both articles reflected Jim's willingness to do the time-consuming, difficult task of testing population theory with data. Such studies were examples of the kind of research he felt others should be doing. To assist such colleagues he produced in 1978 a *Guide to the Study of Animal Populations*, published by the University of Tennessee Press.

But academia and the world of scientific scholarship were only two of the arenas in which this able, yet unpretentious, man made a significant contribution. To the bird lovers of Tennessee and of the Knoxville area, Jim was unstinting in his service, generously sharing his knowledge and enthusiasm for birds and birding with countless numbers. In 1990 the Tennessee Ornithological Society honored him with a Distinguished Service Award, in part reflecting his editing of *The Migrant* (1947-55), his service as President (1971-73) and as the Society's curator since then, and his numerous programs over the years for TOS chapters statewide. To say that he was a pillar of the Knoxville Chapter of TOS is to use a

cliché with absolute accuracy. For 40 years the compiler of that chapter's annual Christmas Bird Count, he occupied every office, performed every duty, and participated in virtually every count, census, and survey undertaken during those years. Moreover, to the general public he rendered service through numerous programs for a broad spectrum of organizations, bird walks during the first 15 years of the Gatlinburg Wildflower Pilgrimage, and as a counselor for the Boy Scouts' Bird Study Merit Badge.

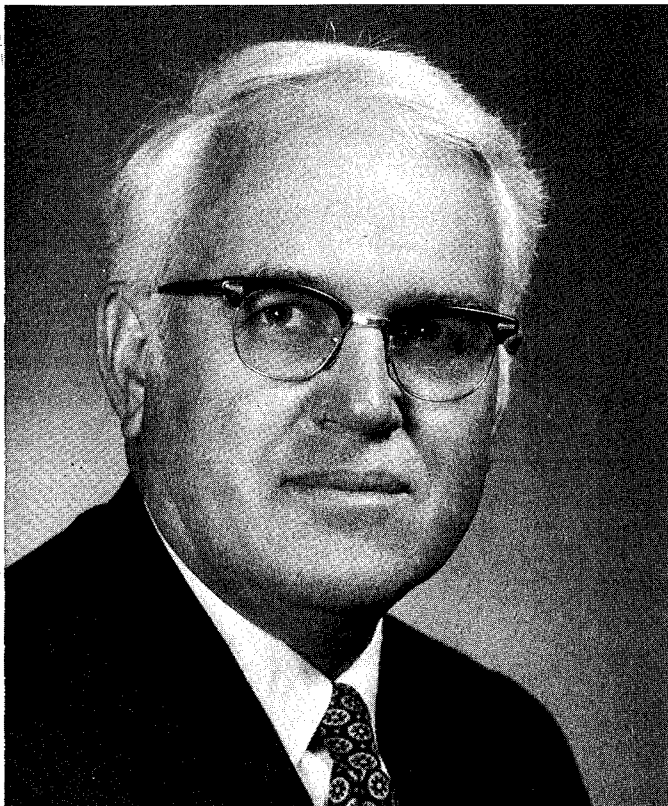
Concurrently with all his professional activity, James Tanner was a cherished husband and parent. His wife, Nancy Sheedy Tanner, herself a remedial reading specialist, shared his enthusiasm for the out-of-doors, hiking, and birding throughout their 50-year marriage. His three children reflect in their careers Jim's academic and scientific interests; David is Professor of Physics and head of the department at the University of Florida, Betsy is a research scientist in physics at Emory University, and Jane is an English instructor in Osaka, Japan.

All of us who knew and valued Jim Tanner as a friend and colleague sincerely concur in the concluding sentence of the memorial minute which appeared in the newsletter of the Knoxville Chapter of the Tennessee Ornithological Society (March 1991): "While we will miss his programs for us, his participation in counts and surveys, and his leadership in the Society, what we miss most since January 21 is Jim himself. We are glad we had the pleasure and privilege of knowing him."

Biographical sketch contributed by Dr. LeRoy P. Graf, Professor Emeritus of History, The University of Tennessee at Knoxville, Knoxville, TN 37996.

ROGER WILLIAM BARBOUR

1919 —



ROGER WILLIAM BARBOUR

Roger William Barbour was born 5 April 1919 on a small farm near Morehead, Kentucky. He graduated from Morehead State Teachers College in 1938 with a major in biology and minors in chemistry and English. In that year he married Bernice Lewis, a school teacher who also grew up on a small farm near Morehead. In a total of three years and two stints in graduate school at Cornell University, he earned an M.S. degree (1939) under Dr. Arthur A. Allen studying birds, and a Ph.D. (1949) under Dr. William J. Hamilton, Jr., documenting the amphibians, reptiles, and mammals of Big Black Mountain in southeastern Kentucky.

Roger's interest in Kentucky vertebrates showed early. As a child he asked about the noise coming from roadside ditches in late winter. Told it was made by "reke-rakes," he asked what kind of an animal a "reke-rake" was. Since nobody seemed to know, he set out to solve the mystery. After carefully stalking a puddle, the 5-year-old discovered the sounds were being made by the tiny mountain chorus frog, *Pseudacris brachyphona*. Thus began a lifelong love of amphibians. Although Roger has published on all the major vertebrate groups, he would probably consider himself a herpetologist first, then, as a close second, a mammalogist.

After finishing his master's and before starting his doctoral degree, Roger spent a year as an instructor at Morehead State College and another as an instructor at Western Kentucky State Teachers College in Bowling Green. There his colleagues included Dr. L. Y. Lancaster, a noted vertebrate zoologist, and Dr. Gordon Wilson, an English professor and Kentucky's most distinguished ornithologist. A close friendship developed and lasted until the deaths of Lancaster and Wilson. Since 1950, Dr. Barbour has been on the faculty of the University of Kentucky where he is now professor emeritus of zoology.

Roger Barbour has published 93 research papers, nearly all on Ken-

tucky vertebrates. He has also contributed much as a popular writer of educational articles. From 1961 through 1975 he wrote the Kentucky Wildlife column in the *Happy Hunting Ground*, a publication of the Kentucky Department of Fish and Wildlife Resources. Each column discussed one species of vertebrate and included one of Roger's photos of the animal.

Several animals new to science have been named by and for Dr. Barbour. He described the black mountain salamander, *Desmognathus welteri*, and named it after Dr. Wilfred Welter, his mentor at Morehead State. He also described the Kentucky bog lemming, *Synaptomys cooperi kentucki*. A salamander (*Ambystoma barbouri*), a darter (*Etheostoma barbouri*), and a turtle (*Rhinoclemys pulcherrima rogerbarbouri*) have been named after him.

Nationally and internationally, Roger is probably best known for the series of superb books he authored or coauthored. These include *Bats of America* (1969), *The Wildflowers and Ferns of Kentucky* (1971), *Amphibians and Reptiles of Kentucky* (1971), *Turtles of the United States* (1972), *Kentucky Birds: A Finding Guide* (1973), *Trees and Shrubs of Kentucky* (1973), *Mammals of Kentucky* (1974), *The American Darters* (1983), *Snakes of Eastern North America* (1989), *Turtles of the World* (1989), and *Bluegrass Land and Life* (1991).

All these books are lavishly illustrated with Roger's high-quality color and black-and-white photographs. With the bat book, Roger introduced the idea of including a small black-and-white photo to illustrate each characteristic used in the diagnostic key—a system that resulted in one of the most foolproof keys yet devised. The five books of the Kentucky Nature Studies series comprise the finest collection of its type developed for any state and are the envy of nature writers elsewhere. Unfortunately, most are out of print. The high cost of color reproduction, in addition to the relatively small market, have made reprinting by the University Press of Kentucky prohibitive.

Roger Barbour is an accomplished wildlife photographer. He has taken thousands of photographs of many hundreds of different kinds of animals. Many have been used by others in various publications. Unlike many wildlife photographers, Roger did not spend hours in a blind waiting for the perfect shot. Most animals were brought to the house to be photographed. Roger would create an appropriate background in a terrarium and then, with remarkable skill, induce the animal to pose precisely the way he wanted it.

Dr. Barbour served as president of the Kentucky Chapter of Sigma Xi, president of the Kentucky Ornithological Society, and editor of the *Transactions of the Kentucky Academy of Science*. He organized the Kentucky Chapter of the Nature Conservancy, and was the leading figure in persuading the Conservancy to acquire Murphy's Pond in Hickman County.

Roger Barbour received the 1967 Award of Merit from the American Association of Conservation Information for his outstanding contributions to wildlife conservation. In 1969 he received a Certificate of Award from the National Wildlife Federation, the Sears Roebuck Foundation, and the League of Kentucky Sportsmen for practicing and promoting conservation of our wildlife and natural resources. He received the 1974 Wildlife Publication Award of the Wildlife Society for his and Carl Ernst's book, *Turtles of the United States*.

Dr. Barbour was named the Distinguished Professor for 1974-75 by the College of Arts and Sciences at the University of Kentucky—the highest honor the college can bestow upon one of its members. He was named the Kentucky Naturalist of the Year in 1975 by the Kentucky Society of Natural History.

Roger was named Conservation Communicator of the Year for 1977 by the National Wildlife Federation and the League of Kentucky Sportsmen. He received the 1981 Distinguished Scientist Award from the Kentucky Academy of Science. In 1983 he was awarded an honorary Doctor of Science degree by Morehead State University.

Among the many field adventures Roger has experienced, perhaps the most memorable was in 1948 when he, Bernice, and their two children lived in a tent on top of Big Black Mountain for three months while doing his Ph.D. research. Their collecting there (at various times) led to the discovery of four species of mammals previously unknown in Kentucky.

Jackie D. Batson, Michael J. Harvey, Marion D. Hassell, Carl H. Ernst, Jarvis E. Hudson, and James W. Petranks received Ph.D. degrees under Roger's supervision. Their dissertations concerned salamanders, moles, bats, turtles, birds, and salamanders, respectively.

Whenever old friends and former students gather, the Roger Barbour stories flow. When Roger had students in the field he would sometimes stop the car and tell one of them to "go over there and bring back the ringneck snake under that rock." Of course, he knew the habits of this common snake so well that he could often accurately predict the presence of one under the rock he had chosen. People quickly forgot the instances when no snake was found, but they still tell about the successful predictions.

One spring Roger took John Williams and another student on a herpetological expedition to Murphy's Pond. Warm weather had brought the cottonmouths out of hibernation, and Roger and John were wading through the swamp collecting these venomous snakes. The other student, afraid to handle the snakes, was directed to carry the burlap collecting bag. But still, he was very nervous. As he walked just ahead of Roger through mud and water up to his hips, Roger reached forward and pinched him. The student is said to have set a record for the aquatic standing high jump as bag and snakes flew into the air.

Roger, Dr. Robert Keuhne, and I were once in Texas to catch and photograph darters for their book. We stopped to camp in a state park where, in the early evening, we watched a skunk quietly foraging on the lawn. I mentioned I had heard that if one picked a skunk up by the tail it couldn't spray, but I didn't know that was true. Roger said of course it was true, and took out after the skunk. He picked it up and brought it back, and after we had examined the animal, Roger released it on the ground and it walked off. In his unpublished memoirs, Roger recounts this incident, mentioning that it was the 14th and last time he performed this educational demonstration. I was grateful to have learned from him.

Biographical sketch contributed by Dr. Wayne H. Davis, School of Biological Sciences, University of Kentucky, Lexington, KY 40506, with the help of Bernice Lewis Barbour.