

OBITUARIES

BERNARD V. TRAVIS

Dr. Bernard V. Travis passed away on October 12, 1980, at the age of 73 in Ithaca, New York. He is survived by his loving wife, Esther, a son, Robert Travis of Pennsylvania and two daughters, Vesta Hill of Virginia and Ruth Knutson of Missouri.

He retired from the New York State College of Agriculture and Life Sciences at Cornell on October 31, 1972. His 23 years of distinguished service culminated in a term of 35 months as Chairman of the Department of Entomology and were recognized officially by the University's Board of Trustees when he was awarded the title, Professor Emeritus of Medical Entomology and Parasitology.

Dr. Travis was born at Umcompahgre, Colorado, and spent his boyhood on farms in Colorado and Arizona. After attending Phoenix Junior College, he obtained his B.S. degree from Colorado A & M, and the M.S. and Ph.D. degrees from Iowa State University.

His broad research interests had led to more than 100 publications on various aspects of entomology and parasitology. These began while he was a graduate student. His appointment as assistant entomologist in the USDA in 1935 brought him into new, developing fields of research. He became interested in mosquito biology and control a few years later, and was focusing on mosquito control measures and repellents when he was advanced to the position of associate entomologist in 1942.

U. S. troops in the Pacific theatre (World War II) were then suffering more casualties from malaria and other insect-borne diseases than from bombs and bullets. In response to the Navy's appeal for specialists in insect control, "Barney" Travis was loaned by USDA to the Navy in 1944. His Navy research on insects affecting human health on Pacific Islands led to publication of 20 papers on mosquito biology and control and an equal



number of insect repellents. Casualties from insect-borne diseases fell spectacularly, and the Navy's unit of Malaria and Epidemic Control was awarded the Unit Citation for outstanding service.

Returning to active duty with the USDA in 1946, Travis assumed temporary charge of the research laboratory at Orlando, Florida, where he remained until he assumed the professorship of medical entomology and parasitology at Cornell in 1949. His unique qualifications also led to field studies in Alaska, where for four summers (1947-50) he directed a research unit of 21 scientists investigating the biology and control of biting insects.

During his tenure at Cornell, Professor Travis carried a normal load of classroom teaching, supervised 16 Ph.D. and 14 M.S. graduate student committees, and expanded his own research and publish-

ing to other insects of medical importance. Impressive evidence of his library research is found in a valuable set of reference works of worldwide coverage on fleas, mites, and ticks of public health significance. With a volume for each continent, "Arthropods of Medical Importance" brings together essential data on the biology, seasonality, geographic distribution, and ecology (including disease organisms transmitted) of each pest species and cites the original sources for these data. This huge compilation was prepared over a period of 14 years by a multilingual group of more than 40 persons from eight countries, working under Professor Travis' direction.

Duties off the Cornell campus also demanded his time and attention. He was

assigned by Cornell to the University of the Philippines for a two-year stint (1957-59), with a three-month term in 1963 to help plan a graduate school facility in animal sciences. On his only sabbatical leave (1968-69), he did field research on the biology of black flies in Costa Rica. He had been a member of the advisory committee of Gorgas Memorial Laboratory (Panama), the U. S. Quartermaster Technical Committee on Repellents and Insect Control, and a grants committee of the National Institutes of Health.

Contributions in memory of Professor Travis can be made to the John Henry Comstock Memorial Library, Department of Entomology, at Cornell.

—E. W. Cupp with the assistance of the Cornell University Public Relations Dept.

WILLIAM CARRINGTON FROHNE 1908-1980

William C. Frohne was born in Nyack, New York, July 23, 1908. He received the B. A., M. A., and Ph.D. degrees from the University of Michigan and also studied at the University of Tubingen as an exchange student and at Cornell University. He worked as an aquatic biologist in Missouri prior to joining the U. S. Public Health Service Commissioned Corps in 1942. He was on the staff of Malaria Control in War Areas and its successor, the Communicable Disease Center, now Centers for Disease Control. He was PHS Liaison Officer with the Alaska Insect Control Project during the summers of 1948 and 1949. He was chief of the Entomology Section of the USPHS's Arctic Health Research Center in Anchorage, Alaska from its inception in 1949 until 1960. Other assignments included duty in Greece, The Philippines, Ethiopia, and the "Lower 48."

Dr. Frohne was a careful, conscientious research worker who accomplished a great deal under very primitive, trying conditions, on a shoe-string budget while at the Arctic Health Research Center. He published at least 17 basic papers on mos-

quitoes, punkies, black flies, and snipe flies of Alaska. Especially outstanding were his life history studies of *Culiseta impatiens* (Walker) and *Cs. alaskaensis* (Ludlow). He was the first to recognize the new type of life cycle they represent—a single generation per 12-month period with inseminated females hibernating before taking a blood meal. Also noteworthy was an illustrated key to northern mosquito larvae based on characteristic saddle spines, hitherto a generally overlooked diagnostic character, and his characterization of the habitats of the larvae of the various species.

After retiring from the USPHS Dr. Frohne began teaching in Anchorage in 1964 at Alaska Methodist University, now Alaska Pacific University. He was a popular professor, highly esteemed by his students.

He died in Anchorage February 1, 1980 and is survived by 3 sons, Ivan, Richard, and James; his second wife, Mary and another son and daughter.

—Kathryn M. Sommerman,
Beaver Cove, ME.