

in Mexico or while climbing on snowfields in the Cascade Mountains. Rangeland insects—particularly those on shrubs—also caught his interest and he regretted that he could not attract more support for their study.

He was a prolific letter writer, arising early to tend to correspondence and to organize the day's activities. His letters always displayed his special wit and amicable, cheerful style. He is survived by his wife, Frances, a sister and four brothers, including Malcolm, of Moscow, Idaho, who also is a forest entomologist. An endowment fund has been established in his memory by the Portland Chapter of the American Rhododendron Society.

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B.G. Hightower
1928-1979

It is an unhappy duty to record the passing of B.G. Hightower on 18 October 1979, in the state of Sonora, Mexico. Dr. Hightower was killed while on official business when he was thrown from a vehicle in which he was a passenger.

Bill was senior staff entomologist with the Joint Mexico-American Commission for the Eradication of Screwworms. He was one of the architects of the Mexico program and believed strongly that a new "barrier" could be established in the Isthmus of Tehuantepec, given the will to succeed among the two governments and three bureaucracies concerned. Bill's extensive field, laboratory and operational experience with screwworms and his deep knowledge of them was an asset beyond price. He will be sorely missed.

Bill Hightower was born in Shreveport, La., 8 January 1928. He was a graduate of Texas A & M University, receiving the B.S. degree in entomology in 1949. His first professional employment was medical entomologist, with the Texas State Department of Health, Austin, in 1949, where he carried out studies of the medically important fauna. With R.B. Eads, Bill described a new mite, *Neochoronyssus incomtus* and wrote a monograph on the ticks of Texas.

Bill Hightower served as a commissioned officer with the U.S. Army in Korea, eventually holding the grade of Major, MSC, USAR.

Upon his return to Texas A & M University, Bill undertook ecological studies on thrips and mites of cotton. He later performed research in the field of toxicology. By the time he was awarded the Ph.D. degree in 1959, Bill had a bibliography of 9 papers covering an exceptionally wide range of subjects.

At Mississippi State University, Bill taught medical entomology, insect physiology, and other courses, duties he recalled as among the most pleasant of his career.

Bill Hightower demonstrated experimentally the capabilities for long range dispersal of female screwworm flies, a finding that necessitated extension of the barrier zone from 50 to 200 miles into Mexico. It was principally Bill Hightower whose mammoth survey of the barrier zone of Mexico allowed the timely allocation of sterile flies to "strategic" areas. Bill became the research location leader of the ARS facility in Mission. His ecological studies on screwworms in could have been prevented or mitigated years sooner had

Hightower's prescription been substituted for the "cost-effective" release methods that had come to be followed in the late 1960s.

Bill became project leader in 1971 for the USAID-USDA tsetse fly project in Tanzania. He built a mass-rearing facility and laboratory first in Morogoro and later in Tanga, after the Chinese interceded with the Tanzanian government to have the first location changed because it was too close to their airbase.

Bill was an excellent teacher who selflessly and skillfully guided many technicians, scientists, and veterinarians. His rapport with Tanzanian, Mexican, and American technical staff was marvelous. His Spanish was fluent, his Swahili commendable. Those of us who worked with him in the field remember his sense of humor, his modesty, his extraordinary capacity for hard work in difficult conditions, and his patience with distant bureaucracies.

Bill's formal southern courtesy is now all too rare. He possessed an exceptionally keen intellect. He could quote poetry for hours—especially Kipling. In his writing he was decisive and to the point. He is author or coauthor of at least 34 scientific publications.

His passing is a deep loss to his friends and a serious blow to the possibility of screwworm eradication in Mexico.

Bill is survived by his mother and brother of Shreveport; his wife, Mary, and daughters, Leslie and Linda, all of Harlingen, Texas.

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Robert C. Gaines
1898-1980

Robert C. Gaines was born 15 October 1898, at Lanet, Alabama, the son of J.C. and Ida M. Gaines. He was reared at Lineville, Alabama and attended public schools there. Bob attended Auburn University from 1918 to 1921, receiving the B.S. degree.

Mr. Gaines joined the staff of the Cotton Insects Research Laboratory, USDA at Tallulah, La. in September, 1920, as field assistant. He was promoted to junior entomologist in 1922 and progressed up the career ladder thereafter. He was placed in charge of the Tallulah Laboratory in 1931 and continued in this capacity for 25 years. In 1956 he was transferred to Baton Rouge, La. to head a new laboratory, now the Cotton Insect Physiology Laboratory, to study the problem of resistance of the cotton boll weevil to insecticides. He retired 31 December 1958 after 38 years service as entomologist with the USDA. He returned to Tallulah for his retirement years. He died 23 March 1980 after a long illness.

Mr. Gaines authored or coauthored 52 scientific articles, most of them dealing with control or ecology of the boll weevil. His USDA Technical Bulletin 1208 "Ecological Investigations of the Boll Weevil, Tallulah, Louisiana, 1915-1958," published in 1959 continues to be cited by authors in publications.

The principal fore-runner of Survey Entomology was the weekly Cotton Insect Survey initiated during WWII. Mr. Gaines set up and supervised it in Louisiana and Arkansas.

Early on Mr. Gaines recognized that repeated applications of calcium arsenate induced cotton aphid outbreaks, which were often followed by bollworm outbreaks. To cope with this he employed various strategies: mixing nicotine with

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