game of eastern and northern Arizona had been subjected to heavy abuse by man and his livestock. Eventually it became clear that a given amount of land cannot support an unlimited number of cattle. A gently sloping area of former grassland below the Santa Rita Mountains, 30 miles south of Tucson, was set aside for experiments to determine better methods of range utilization. It was here that Dr. Vorhies found the answers to the questions of what part, if any, the native rodents and rabbits had played in the transformation of verdant pasturage into barren lands of thornbush, cactus, deep gullies, and poisonous weeds. After long study, he and Taylor concluded that "contrary to our original opinion, detailed studies indicate that it is not true that jack rabbits are most abundant where the grass is best." Instead, they found that rabbits preferred poorly grassed areas, and that "under conditions of overgrazing and of misapplied control of predators, there is almost sure to be a jack rabbit and rodent problem. . . . In small or moderate numbers the jack rabbit may be of neutral or even beneficial status on all but cultivated lands." The wood rat was found to be even less harmful; large-scale control was considered unnecessary and undesirable.

Of the greatest interest were Dr. Vorhies' discoveries on the microclimates of desert mammals. For example, the ground squirrel *Citellus tereticaudus* can always retire to a burrow whose mean maximum temperature never exceeds 85° F at a depth of 4 feet, even though the mean maximum soil surface temperature is over 150° F for months, with individual temperatures reaching almost 170° F! Nor do mammals avoid such areas of extreme temperatures. "A comparison of the climate of the mesquite forest with the adjacent desert mesa shows a less extreme climate in the forest, especially as to atmospheric humidity and soil-surface temperature. Nevertheless more mammals, both as to species and individuals, live in the desert environment."

With his students, Dr. Vorhies had great patience and understanding, but he saw to it that they learned to think for themselves. He did not try to cram impossible amounts of trivial details into their heads momentarily, but gradually, by readings, discussions, and field observations, the students came to see the complexity and interdependence of all nature, the need of thought before action, and the vast amount of research still to be done.

Coming on the eve of a retirement that would have freed him from many routine pressures, Dr. Vorhies' death was a loss to science and to the cause of intelligent land use. His name is perpetuated in a phytomonad protozoan, *Chlamydomonas vorhiesi* Jones; a tarantula, *Delopelma vorhiesi* Chamberlin and Ivie; and a little-known wren, *Troglodytes brunneicollis vorhiesi* Brandt. He is survived by his wife, Georgia Ann (Smith) Vorhies, and by a son, Charles Tuttle Vorhies.

Gregory B. Mathews, S.V.D.: 1903–1949

Harold W. Rigney

Office of the Rector, The Catholic University, Peking, China

Father Gregory B. Mathews, S.V.D., Ph.D., dean of the College of Agriculture, and professor of botany at the Catholic University (Fu Jen) Peking, China, died of a heart attack in his living quarters at the university on the morning of February 4, 1949. Father Mathews was born at Peterswalde, West Prussia, Germany, on October 14, 1903, and attended the Gymnasium of the Holy Cross College at Neisse in Upper Silesia. He pursued his philosophical studies at St. Anselm's in Rome and studied theology at the University of St. Gregory in the same city. He was ordained a priest in 1932. In 1934 he joined the staff of the Catholic University, Peking, lecturing on botany. Later he pursued graduate studies in botany at the University of Chicago, where he took his Ph.D. in 1939, specializing in paleobotany.

In 1946, the Department of Agriculture was established at the Catholic University, Peking and entrusted to his care. The department was later extended into a college.

Father Mathews was noted as a good teacher and a tireless worker. He published textbooks and syllabi, as well as many papers, most of them dealing with paleobotany. He had worked many years preparing a Bibliography of Paleozoic and Mesozoic Flora of China and Korea. The research work on this project was finished, and the manuscript almost ready for the press, at the time of his death. Mr. Cheng Pao Shan, who assisted him in this work, is putting the final touches to the manuscript.

The passing of Father Mathews is a great loss to the scientific circles and life of Peking.