

## A Biologist and His Times

**William Morton Wheeler, Biologist.** MARY ALICE EVANS and HOWARD ENSIGN EVANS. Harvard University Press, Cambridge, Mass., 1970. xiv, 364 pp., illus. \$11.

There is hardly a living biologist who has not, knowingly or unknowingly, been influenced by William Morton Wheeler. Wheeler (1865–1937) was a pioneer ecologist, ethologist, and insect sociologist, and was an inspiring, and forceful personality who had literary skill, broad knowledge of the classics, humanities, and social sciences, and keen insight into human character and foibles. This life of Wheeler is far more than a biography. It is a history of European and American biology, biologists, and biological institutions of the period. Excerpts from Wheeler's correspondence and from reminiscences of friends, students, and other associates add spontaneity to the narrative. The authors discuss his faults and virtues with an appreciation of human qualities, and with the hindsight of years of accumulated information they review his concepts and opinions.

Wheeler was primarily a field naturalist, working particularly in the warm and tropical regions of the world. He

played a large role in the founding and guidance of biological stations in Naples, Woods Hole, and Barro Colorado Island, Panama. His early associations with the University of Chicago, the University of Texas, the American Museum of Natural History, and the Bussey Institution and Biological Laboratories of Harvard are doubtless reflected in the scientists and researches produced by these institutions. He was a founder of the Entomological Society of America and the Ecological Society of America. Although his early studies dealt with morphological embryology, followed later by taxonomy of ants, probably his greatest contributions were in the field of comparative and phylogenetic behavior.

Wheeler wrote profusely on technical subjects, but he fascinated sophisticated laymen and associates. His enthusiasm and joy of investigation spread far beyond his own specialties, and he applied his biological knowledge to the philosophy of social man. He had a keen sense of humor, a sense of the ridiculous, a vocabulary fortified by his knowledge of classical and modern languages, and a truly great capacity for satire and barbed sarcasm. He was forthright in criticism, had strong but

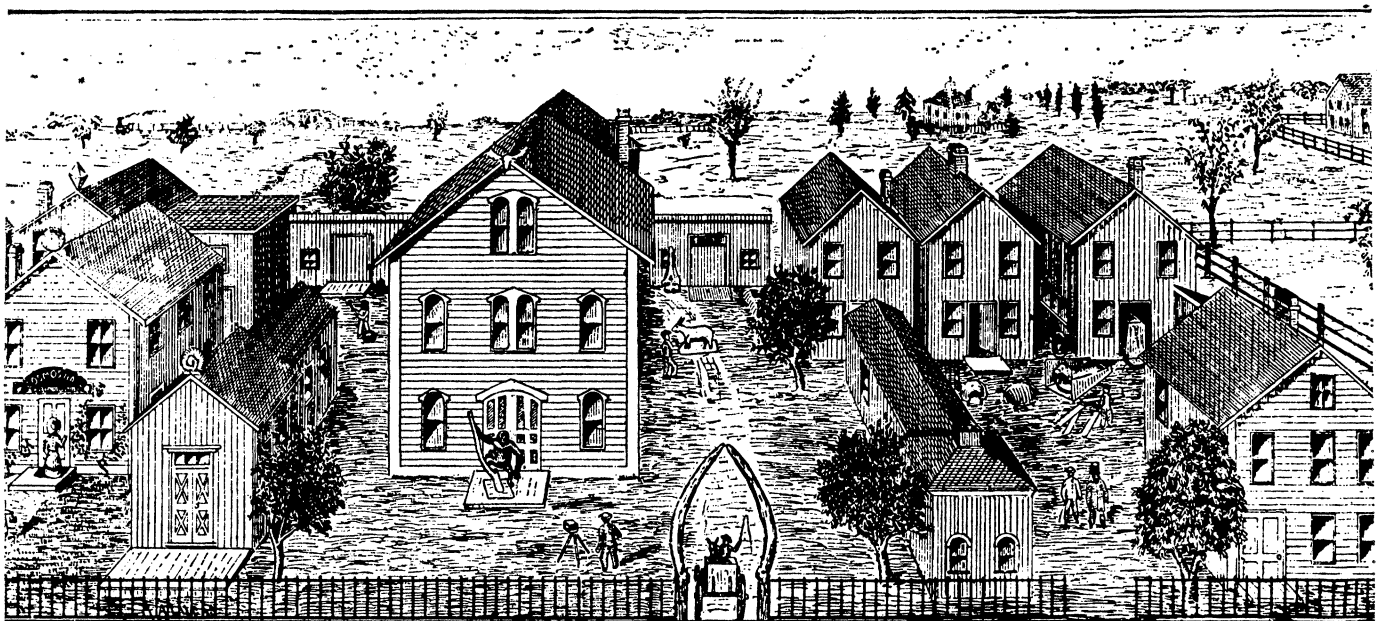
sometimes erroneous opinions, and was irritated with simplistic analysis of complex phenomena. He was a prodigious worker, a voluminous author, and a lively conversationalist. Some of the greatest intellects of his day were his friends—men of diverse personalities and achievements, but never mediocre. He stood high among our best literary essayists on biological and social subjects. Although Wheeler's friends and colleagues included several of the great pioneers in genetics, he failed to understand adequately the role of genetic factors in evolution, taxonomy, and behavior, and this lack resulted in some of his misconceptions.

Wheeler was not an experimentalist or a mathematician, but rather an observer of details and a thinker. He analyzed, but he also synthesized. In studying the parts, he never lost sight of the whole. And he transmitted his enthusiasm and delight in discovery to his generation and succeeding generations.

Mary and Howard Evans have presented a penetrating picture of Wheeler and his times, and they have written an entrancing story well—a story that is a delight to read and to contemplate.

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"Ward's Natural Science Establishment, Rochester, in its early days. The gate is arched by the jawbones of a whale, and a stuffed gorilla stands on the threshold of the main building." The naturalist Henry A. Ward founded the Establishment in 1862. "He had felt that American teachers were greatly handicapped without tangible representatives of extinct animals, and he went to Europe to make plaster casts of various important museum specimens there. . . . The demand for the plaster casts was enormous, and the illustrated, descriptive catalogues he made to advertise his casts were even used for textbooks." The Establishment grew to meet increasing demands, and by 1896 it had 12 scientific departments housed in 16 buildings ("each

with a gilded totem pole at its peak to show the nature of its contents"), a staff of about 25 people, and 19 printed catalogs. William Morton Wheeler was employed in the Establishment in 1884 and 1885. His duties, he later wrote, "consisted in identifying, with the aid of a fair library, and listing birds and mammals. Later I was made foreman and devoted most of my time to identifying and arranging the collections of shells, echinoderms, and sponges, and preparing catalogues and price lists of them." Wheeler was also editor of the Establishment's *Bulletin*, in which his first paper on a scientific subject, "The Coluga and His Cousin," was published in July 1884. [From *William Morton Wheeler, Biologist*]