



WILLIAM MORTON WHEELER

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William Morton Wheeler was born on March 19, 1865, at Milwaukee, Wisconsin. His interest in natural history was aroused at a very early age. While on a visit to his uncle in the Wisconsin country, when he was 9 years old, Wheeler saw a spider ensnare a moth in its web, and the explanation of this incident by his nature-loving uncle made so deep an impression on the boy that he became importunate for more nature lore. Subsequent observations of the habits of sexton beetles and burrowing wasps launched his career into entomological channels.

Young Wheeler was already too precocious an individualist to submit to the slow progress in public schools, and after what he later termed "persistently bad behavior" he was transferred to the near-by German academy, famous for the extreme severity of its discipline. Here under the "superheated atmosphere of German Kultur" were instilled habits of methodical persistence, which throughout his life were to become manifest in the careful completion of each undertaking. Characteristic of the attention to detail was the habit formed to read every word of a book, marking on page after page by vertical marginal lines those portions that appealed to him most strongly. At the Academy and the Normal School attached to it, Wheeler was given fundamental training in languages, philosophy, and science, a working equipment that influenced and facilitated his later activities. As a linguist he became remarkably proficient, fluently reading Greek, Latin, German, French, Italian and Spanish. His mastery of the classics enabled him to coin readily the multitude of euphonious terms that constantly embellished his writings.

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While he was a student at the German Academy, Wheeler used to haunt the old museum of natural history at the school. In 1884 a miscellaneous collection of museum specimens was sent to the Milwaukee Exposition by Professor H. A. Ward, and Wheeler offered his services to aid in unpacking and arranging this material. The enthusiasm which he showed at this task resulted in his being appointed to the staff of Ward's Natural Science Establishment in Rochester, his duties consisting of the identification of specimens and the preparation of catalogues. A year and a half later, however, at the age of twenty he returned to Milwaukee to teach German and physiology at the city high school. The principal of the high school at that time was Dr. George W. Peckham, and Wheeler's intimate association with Peckham's studies of the habits of wasps and spiders, and the technique which he developed in preparing illustrations for Peckham's writings were undoubtedly molding influences at this stage of Wheeler's life. During this same year (1886) Wheeler was also under the influence of Professor C. O. Whitman and Dr. William Patten, the embryologist, who were in the Allis Lake Laboratory in Milwaukee. Patten, recently returned from Leukart's laboratory at Leipzig, inspired Wheeler to study insect embryology, on which he concentrated his spare time for the next four years, and all of his attention for the next two years following. During this period (1887) Wheeler left the high school to become custodian of the Milwaukee Public Museum, a position which he held until 1890. His embryological studies were carried out after museum hours, at home, where he had fitted up a small laboratory.

In 1890 Wheeler left Milwaukee to assist Professor C. O. Whitman at the newly established Clark University, and two years later (1892) he secured his doctorate in philosophy at the University, his dissertation being a "Contribution to Insect Embryology," now regarded as an outstanding entomological classic. During the same year Whitman left Clark University to become head of the department of zoology at the University of Chicago. Wheeler was appointed instructor in embryology under Whitman (1892), but was immediately given a year's leave of absence which enabled him to study in Europe, with Boveri at Würzburg, van Beneden at Liege, and at the Naples Zoological Station, where he held the Smithsonian table for 1893. Three years later he was appointed assistant professor at Chicago.

At this time there was an abrupt change in the course of his life. During the summer of 1899, following the death of Professor Norman of the department of zoology of the University of Texas, Wheeler was offered and accepted the opportunity to reorganize the department as professor of zoology. He remained there until 1903, and it was during this period, at the age of 35, that he became interested in the behavior and classification of ants, a group of insects which was the chief object of his study for the remainder of his life. In 1903 Wheeler became curator of Invertebrate Zoology at the American Museum of Natural History, which enabled him to complete a series of extensive studies on the taxonomy and behavior of ants. Five years later, when Wheeler relinquished this post, the Museum conferred on him the title of Honorary Fellow and Research Associate on Social Insects.

In September, 1908, he accepted the appointment of professor of economic entomology at Harvard University, and in 1915, when the Bussey Institution was reorganized as a graduate school for research in applied biology, he was selected as the dean, a position which he held until the transfer of the department of entomology to the Biological Laboratories in 1929. In 1926 he was appointed associate curator of insects at the Museum of Comparative Zoology, and from 1926 until his retirement from teaching in 1933, he was professor of entomology. The release from active classroom duty afforded greater freedom for research, and to his last day he was regularly at work in Cambridge on one or another of a multitude of projects, with alert mind and physically endowed with the same exuberance of energy that characterized his entire life.

In recognition of his achievements he was awarded honorary degrees by several universities: Sc. D. from the University of Chicago in 1916, from Harvard University in 1930, and from Columbia University in 1933; and LL. D. from the University of California, following his presentation of the Hitchcock lectures on social insects at the University in 1928. He received the Elliot Medal from the National Academy of Sciences and the third Leidy Medal from the Philadelphia Academy of Natural Sciences, and in 1934 was made an Officer in the Legion of Honor. He was also elected an honorary member of various societies: Société entomologique de France, Société entomologique Belgique, Royal Entomological Society of Lon-

don, Société zoologique de France, Royal Society of Edinburgh, Linnaean Society of London, and the Société Académique d'Histoire Internationale. He was an Honorary Fellow of the Entomological Society of America, and was its second president (1908); a fellow in the American Academy of Arts and Sciences, the American Academy of Arts and Natural History, the American Association for the Advancement of Science, the Washington Academy of Sciences, and the New York Academy; and was a member of the National Academy of Sciences, the American Philosophical Society, the American Morphological Society, the Cambridge Entomological Club, the American Society of Naturalists, the American Society of Zoologists, the Ecological Society of America, the Boston Society of Natural History, and the Psychological Association; and a Corresponding Member of the Academy of Natural Sciences of Philadelphia.

Professor Wheeler's reading was astounding in its extent and its varied nature. Assimilating even the details in his phenomenally retentive memory he was able to draw on this storehouse of information on every occasion. His reading encompassed not biology alone, but because of an early interest in behaviorism, he specialized in books on sociology and psychology. For lighter reading he enjoyed philosophy and metaphysics, as well as Greek and Latin classics in the original. It is not surprising that he had the reported distinction of being the most widely read member of his University.

Professor Wheeler was an active collector, not only of ants but of general zoological material as well, and he traveled to many parts of the world for this purpose. He made a special effort to collect thoroughly in regions that were little known entomologically, particularly in the tropics and subtropics of the New World: Mexico (1901, 1937), the Bahamas (1904), Puerto Rico (1906), Panama (1911, 1915, 1923, 1924), Costa Rica (1911), Guatemala (1911, 1935), Cuba (1913, 1924), British Guiana (1920), and the Galapagos Islands (1923). Two prolonged trips were made to Australia, in 1914 and 1932, and one to Hawaii in 1928. During the course of his several trips to Europe he did some insect collecting, and in 1925, when he was Exchange Professor at the University of Paris, he collected in Morocco and the Canary Islands. In this country he collected extensively, especially in the south and west; and in 1906 he collected fossil insects with several others at Florissant, Colorado.

Professor Wheeler's bibliography includes about 465 publications, totaling more than 10,000 pages. His papers published before 1900, numbering about 50, deal with a variety of subjects, but chiefly with insect embryology, systematics of the Dolichopodidae, and various studies on marine animals. The papers written after 1900 are concerned mainly with the taxonomy and behavior of the ants, though a number also deal with the social insects in general. Twelve of his publications appeared in book form. The earliest of these, issued in 1910 and entitled, "Ants," is another classic in entomological literature. His other books are: "Social Life Among the Insects" (1923), "Les Sociétés d'Insectes: leur origine, leur evolution" (1926), its American edition, "The Social Insects," (1928), "Reaumur's Natural History of Ants" (1926), "Emergent Evolution and the Development of Societies" (1928), "Foibles of Insects and Men" (1928), "Demons of the Dust, a Study in Insect Behavior" (1930), "Colony-Founding Among the Ants" (1933), "The Lamarck Manuscripts at Harvard" (1933), with T. Barbour as co-author, and "Sex Mosaics, Caste Mosaics, and other Anomalies Among Ants" (in press).

Wheeler is survived by his wife and their two children, Adeline and Ralph. To them and to his University from all quarters of the world have flowed messages of sympathy attesting the universal esteem in which professor Wheeler was held. As former President Lowell has fittingly said, "A great light has gone out of the intellectual firmament."

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