

continent. We see him digging specimens with the barrel of his rifle in hostile Indian country, drying and caring for his specimens before attending to his personal safety and comfort, travelling afoot, on horseback, and by canoe through uncharted wilderness. The prestige and security of an academic appointment at Harvard had little attraction when compared to the excitement and stimulation of collecting in the field and were abandoned when Nuttall was confronted with a choice between these two ways of life. After reading the account one wonders whether anyone has ever covered as much and as many of the varied habitats of North America as did this intrepid man.

Like many of the scientists of the day, Nuttall was broadly oriented. Although best known for his botanical discoveries, he also extensively collected birds, insects and minerals. Modest, unassuming and generous by nature, Nuttall's efforts were exploited by some—Benjamin Smith Barton and Frederick Pursh in particular—and denigrated by others—notably the ambitious Asa Gray. His fantastic field experience, keen observation, retentive memory, assiduous studies of his own and other collections, and personal friendships with able collectors, all led to a breadth and depth of knowledge that made him perhaps the foremost plant taxonomist of his day. But his lack of personal ambition permitted others to build scientific reputations partly based on his discoveries.

The readability of Dr. Graustein's book suffers from the scholar's failure to resist the temptation of including many bits of historical information that are either irrelevant to the main subject or are so inconsequential that they would more appropriately have been relegated to footnotes. This reviewer was also somewhat irritated to find the explanation of the asterisks preceding scientific names buried in a footnote to page 33. This information should have been given at the beginning of the notes, which are otherwise commendably full.

These flaws aside, the care with which the life of Thomas Nuttall has been researched and documented in this biography makes it a significant contribution to the history of early American exploration and of the development of science in the New World.

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IN THE STEPS OF THE GREAT AMERICAN HERPETOLOGIST, Karl Patterson Schmidt, A. Gilbert Wright, 127 pp., \$3.25, M. Evans and Company, Inc., New York, distributed by Lippin-

cott Company, New York, 1967.

This appreciative biography is honest and perceptive and should be attractive to upper elementary and junior high school students. Karl P. Schmidt was one of America's distinguished naturalists who, in the early half of this century bridged the gap between natural history and analytical studies in systematic zoology and ecological animal geography. In addition to participation in expeditions throughout the world, Schmidt was responsible for the development of the very substantial collections of reptiles and amphibians in the Chicago Natural History Museum, and he wrote many competent technical and popular articles. He was a humane scientist who was sympathetically interested in the intellectual growth of his colleagues and younger investigators.

Mr. Wright was interested not only in presenting a fair and inspiring account of Schmidt's life but also was anxious to stimulate interest on the part of youngsters in careers in herpetological studies or museum work. In addition to the major biographical section, a number of pages are given over to "nature projects you can do" which are devoted primarily to collecting techniques and the management of terraria.

The writing is smooth and without distraction, and should be appealing to those developing an interest in biology. Other writers would have preferred different emphases (example, Wright's treatment of snake bite), but such lapses are rare and this attractive little book can be highly recommended for the intended audience.

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CHARLES SCOTT SHERRINGTON, A BIOGRAPHY OF THE NEUROPHYSIOLOGIST, Ragnar Granit, 188 pages, \$6.00. Doubleday and Co., Inc., Garden City, New York, 1967.

This book is both a biography and an appraisal of the man whose experiments and discoveries laid the basis for the science of neurophysiology. The first four chapters deal with Sherrington's background, his education, and contemporaries such as Gaskell, Langley, and Cajal. His insight and capacity for translating observations into problems are even more remarkable considering the early, though developing state of anatomy of the nervous system. It was Sherrington's training in microscopy that led to his pioneering investigation on the muscle spindle.

The chapter, "Sherrington's Basic Concepts," introduces in some detail principles of the function of the nervous system presented in the Silliman Lectures, "The Integrative Action