

MAMMALS OF NORTHERN ALASKA ON THE ARCTIC SLOPE. By JAMES W. BEE and E. RAYMOND HALL. Univ. Kansas Museum of Natural History, Misc. Publ. 8, 1956. Paper, \$1.00; cloth, \$4.00.

Having spent some time encamped with these two workers on the Arctic slope, the reviewer can understand the painstaking quality of this work. He remembers the immense detail of work in trapping and recording the microtenes, and it is on this section of the mammals of northern Alaska that their contribution is particularly valuable. Bee and Hall would be called systematists, but they carry that title in the newest sense of the profession, of those workers who recognize that similarities or difference in behaviour and ecology have significance in the establishment of specific rank.

The treatment of the microtenes is full and new. We learn of their specific associations with different plant complexes and terrain and even food preferences are given for some species. It is when the authors come to species which they did not study intimately that one realizes the excellence of the work on those they did. It is a little surprising, for example, to find the coyote listed as an old inhabitant of the Arctic slope, or even of Alaska at all. The probability is that the coyote is a camp follower into the far north and that, as elsewhere, it has increased wherever extermination or reduction of the wolf has raised the ceiling of opportunity.

Again, in the interesting passage on migration of caribou, the extensive aerial reconnaissances of the U.S. Fish and Wildlife Service appear to have been ignored. The suggestion that the rut in Dall sheep was "well along" by 19th August is based on observations of fighting. This would mean birth of the lambs in January and February, an unlikely event in the Arctic winter. Lambs seen in June at close quarters by Leopold and myself were certainly much younger than this.

The final section of the book, on characteristics of the mammalian fauna, and on the biotic communities of the Arctic slope, is closely observed and tersely written, a most welcome addition to the literature of Arctic ecology.

F. D.

JOHN AND WILLIAM BARTRAM'S AMERICA. Edited by HELEN GERE CRUICKSHANK. The Devin-Adair Company, New York. \$5.00.

This is the fourth book in the American Naturalists series.

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The previous one, *Theodore Roosevelt's America*, was reviewed in *Oryx* iii, No. 4.

John Bartram, a Quaker of Philadelphia, and his son William, span three-quarters of the eighteenth century and well into the nineteenth with their writings, of which we have here a selection. At a time when most Americans were thinking in terms of conquering and exploiting the wilderness, John was deploring the destruction of the countryside and the unwise treatment of land. Both father and son travelled widely in the eastern and southern states in spite of limited funds and great difficulties of transport. "Bartram's Garden", the first botanical garden to be founded in America, can still be visited in Philadelphia.

John Bartram was a simple, direct, energetic man. Although his style was blunt and lacking in polish, one can nevertheless imagine the scenes he described. The letters between him and his friend Peter Collinson in England tell of fascinating exchanges by keen gardeners of new seeds and plants.

The greater part of the book is devoted to writings of William, a gentle, observant man, who wrote vividly and ecstatically of all he saw, from fossils to Indians, but primarily as a botanist and ornithologist. His "Travels" evidently inspired the writer of *The Swiss Family Robinson*, and I was amused to find almost identical descriptions in the two books of the Indian method of taming a wild horse, and of the discovery of the Indian fig and cochineal. Unlike "Papa", however, who tended to shoot every new creature at sight, the Bartrams were most unwilling to kill anything, and had for those days a very unusual attitude towards the animal world. William's account of a journey from Fort Prince George to the Little Tennessee River reads like a visit to a wonderful garden, full of choice trees and shrubs. Reading of this wealth of natural beauty, it is a tragic thought that now, 200 years later, most of the vast forests are destroyed, few great stands of the cypress *Cupressus distica* remain even in Florida, the Carolina parakeet no longer exists, and much of the rich soil has been swept into the sea.

It is interesting to read William's ideas about bird migration and his opinion of Gilbert White's new theory (1761) on the hibernation of swallows. Passages about the Indians and their way of life tell of his sympathy and admiration for them.

The book is well produced with useful editorial notes, though the maps are not as helpful as they might be. The illustrations by Francis Lee Jaques are delightful.

V. B.