

Iowa Academy of Science, he published plates III. and IV., without acknowledgments, which were first published by Winslow in the text of the Iron Mountain sheet as plates III. and II. For his introduction to my report from the same place he borrowed plates I. and III., using them as plates II., VIII. and IX., respectively, again without acknowledgments. And yet on November 14 he wrote me: "I have only the simple statement to make that no one holds in higher reverence the giving of all due credit to whom it belongs and no one has tried harder than I to give it on all and every occasion."

ERASMUS HAWORTH.

SCIENTIFIC LITERATURE.

A Review of the Weasels of Eastern North America. By OUTRAM BANGS, Proc. Biol. Soc. of Washington, X., pp. 1-24, pls. I.-III., Feb. 25, 1896.

In clearing up the status of the Weasels of eastern North America, Mr. Bangs has done a piece of work that will be welcomed by all mammalogists. He has had access to practically all the material thus far accumulated by American naturalists on the species treated; his results leave little to be desired.

All three of the species named by Bonaparte in 1838—*richardsoni*, *cicognani* and *longicauda*—are found to be valid, and their geographic ranges are for the first time defined. The weasel which heretofore has been persistently confounded with the European *Putorius erminea* is found to be a very distinct species for which the name *P. noveboracensis* of Dekay and Emmons becomes available. This animal is the common large weasel of the Eastern States, where it ranges from the mountains of North Carolina northward to northern New York and central Maine. It is not known from any point west of Illinois.

The small weasel of the Northern States, which it has been customary to call *P. vulgaris*, is the *P. cicognani* of Bonaparte, as recognized by Baird and Mearns, but overlooked by most mammalogists. *P. cicognani* is a northern animal ranging from New York and New England northward, and extending westward all the way to Alaska. Mr. Bangs believes

that it intergrades, in the far North, with the arctic *P. richardsoni*, the type of which came from Great Bear Lake. *P. richardsoni* ranges from Hudson Bay to the coast of Alaska.

The weasel of the northern plains, *P. longicauda* Bonaparte, becomes considerably darker along the edge of the forest belt in Minnesota, and the dark form is named as a subspecies, *spadix*.

But the most interesting novelty is a tiny species from the plains of the Saskatchewan, which Mr. Bangs names *P. rixosus*. It is not only the smallest of the weasels, but it is believed to be the smallest known Carnivorous mammal. It has a very short tail, which lacks the black tip of all other species, and in winter the little animal turns white all over. It ranges from Hudson Bay to the coast of Alaska and is exceedingly rare in collections.

The rarest weasel of all is the Florida species, *P. peninsulae*, recently described by S. N. Rhoads. Only half a dozen specimens, mostly poor, have as yet found their way into collections.

Mr. Bangs' paper is an excellent example of the kind of work American mammalogists have been doing for the past few years. It is based on a sufficient number of specimens to admit of final conclusions, and the specimens have been studied so thoroughly that no other conclusions are likely to be suggested in future.

The paper is illustrated by 3 excellent plates of skulls, all drawn by Dr. James C. McConnell.
C. H. M.

Report on Field-work in Chenango County [New York]. By J. M. CLARKE. (In Thirteenth An. Rept. State Geologist [N. Y.] for the year 1893, Vol. I., Geology. Pp. 529-557, 1 plate, 10 figures.)

Volume I. of the last annual report of the State Geologist of New York forms a book of nearly 600 pages which is devoted to a description of the geology of certain portions of the state and is profusely illustrated with maps, sections, figures and plates. The greater number of separate papers composing the report are not only filled with interesting facts, but also increase our knowledge of the geology of the State to a considerable extent.