NOTES ON SOME MOTHS FROM THE COLLECTION OF MR. A. BOLTER.

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Hepialus hyperboreus, Möschler.

This species exhibits a well-marked local variation. Before discussing this I would correct the account in Journal N. Y. Ent. Soc., II., 168, in respect to the synonymy of confusus. This form is really the same as roseicaput, N. & D., as the description shows. How we were misled into referring the name as a strict synonym, I cannot now recall. It may be well, moreover, to retain a distinct name for the American form until its life-history is known and we can be certain whether it is or is not the same as the European ganna.

H. hyperboreus occurs throughout the northern and mountainous parts of North America, from the Atlantic to the Pacific. It is recorded from Labrador [Moschler]; Mt. Washington, N. H. [Mrs. Slosson]; Colorado [Grote]; Calgary, Alberta [Wolley Dod]; Sierras of California [Hy. Edw.]; Vancouver I., B. C. [Bolter]; Cascade Range, B C. [Neum. & Dyar]; and Alaska [H. Edw.].

The colour of primaries is brown, varying from dark to pinkish or yellowish-brown; the silvery markings are complete in all the specimens from the Rocky Mountains and eastward and south of Oregon. In the Northwest, the silvery marks begin to be distinctly replaced by the blackish shades which form their borders in specimens from Vancouver Island (Matthewi). In the Cascades and Alaska the specimens have no silvery marks, but are banded only with smoky blackish. The size of the specimens is variable. The largest that I have seen is Mrs. Slosson's example from Mt. Washington (50 mm.), and the smallest are some of the specimens of McGlashani (30 mm.). The usual size is close to 40 mm., ranging larger in the East. From present information, I would arrange the varieties and synonymy thus:—

HEPIALUS HYPERBOREUS (=ganna of Europe?).

hyperboreus, Möschler, 1862. Labrador and Mt. Washington; expanse, 40-50 mm.

pulcher, Grote, 1864. Colorado, and Alberta, Canada; expanse, 36-38 mm.

McGlushani, Hy. Edw., 1886. Truckee, California; expanse, 30-39 mm.