

## PRELIMINARY CATALOGUE OF THE ARCTIIDÆ OF TEMPERATE NORTH AMERICA, WITH NOTES.

BY JOHN B. SMITH, NEW BRUNSWICK, N. J.

The following paper is presented in order to get into shape the notes made by me at odd times for the five years last past. It includes, in the first place, all the references that I found to the species during that time, and such notes of synonymic interest as I have culled from the publications examined. It has also been my practice, as specimens came into my hands, to use such as were unfit for the cabinet, for purposes of study, and I have thus accumulated a great many notes, which I see no opportunity of using for some time to come, inasmuch as my studies on the *Noctuidæ* will probably fill very completely all the time I have for systematic work. To present these notes for the benefit of those having more time to follow these lines of study, and to rid myself of the accumulated slips and memoranda, I have put them into this form. As some of the species are not known to me in nature, and as the sequence in Mr. Grote's list is based on no natural characters that I have been able to discover, I have arranged them in alphabetical order for convenience of reference.

## Family ARCTIIDÆ.

The essential characters of the family are: Ocelli present, vein 8 of secondaries arising from the sub-costal at some distance from base. The former peculiarity separates them from the *Lithosiidæ*, the latter from the *Noctuidæ*. Usually, there is an accessory cell, but there are numerous exceptions to this. Typically, the venation of primaries is Noctuidous, save that the internal vein is not furcate basally. This, however, is a weak character. The secondaries are also very much as in the *Noctuids*, save for the origin of vein 8, which in the *Arctiids*, arises from the sub-costal instead of from the base. A somewhat well marked and characteristic feature is found in the loop of primaries receiving the frenulum of the male secondaries. It is very distinct and definite, arising from the space between the costal and sub-costal veins, and generally in the form of a heavy rope or band, reaching to the median space, where it is coiled to form a distinct ring into which the frenulum is inserted. In the female the frenulum consists of a bunch of three or more fine bristles, which are received into a loop formed of crossed scales in the median space of primaries.