

THE NOCTUIDÆ OF NORTH AMERICA AND EUROPE.

(Second Paper.)

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2.—Sub-family *Noctuinae*.Tribe *Bombycoidi*.

The sub-family *Noctuinae* embraces the typical *Noctuidæ*, and we may take the genera *Agrotis* or *Hadena* as normal forms, from which we have a mass of more or less divergent structural groups. The characters which are made the basis of generic sub-division, according to a natural system which I find most plainly indicated in the writings of Stephens and Lederer, need not delay us here, for the reason that I have exposed them in previous writings. It remains for me to briefly point out that I have changed the basis for a classification of our North American genera from that of Guenée to that of Lederer, commencing in my first synonymical list, Buffalo, 1874, to bring them together in a preliminary shape. When, nearly thirty years ago, I commenced my study of these forms, there were not a dozen species named in any collection, public or private, in America. In my last (MS.) list are over 1,500 names, and three-fourths of this number are taken from my descriptions or identifications. This represents continuous work; for large collections were not at first in existence, and the new forms came in singly, or in small parcels, and had to be classified; so that, from this fact, the generic determinations were often tentative. Added to this, the difficulty of determining the species described by Guenée and Walker, and the absence of illustrations, produced a state of affairs in our knowledge of the *Noctuidæ*, which the student of to-day is largely exempted from. And *la verità è la più ingrata delle dulcinée*.

The main mass of the *Noctuidæ* falls into three divisions, or sub-family groups, only separable by their comparative form. These are: the typical *Noctuidæ* (*Noctuinae*), the *Noctuæ nonfasciatae* of Borkhausen; the geometriform *Noctuidæ* (*Catocalinae*), the *Noctuæ fasciatae* of Borkhausen; and the pyralidiform *Noctuidæ* (*Deltoidinae*). The fact that the latter are not separable from the *Noctuidæ*, and are not *Pyralidæ*, was first shown by Herrick Schaeffer.

In *one* North American genus, I have shown that vein 5 is midway