

form I have given the varietal name *perfracta* (CAN. ENT., XLII, p. 279, 1910). The differences that Guenée points out seem pretty constant, but the enlarged central band does not hold, as he has every variation of it among European specimens. The pointed wings and green or gray ground colour with slate-coloured bands seem to be rather distinctive of the American form; also the basal band is apt to be thicker and the first mesial more pronounced, but I think a careful study of the genitalia with extensive breeding will be necessary before we can be sure. However, I feel that the American form will at least prove to be a good variety of the European, and it might be well later to adopt the name *pluviata*. The uncus in *Hydriomena autumnalis* is very peculiar, being forked while it is spatulate with a tendency to fork in *furcata* Thmb.

*Hydriomena autumnalis*, *trifasciata* or *pluviata* Gn., if our form proves distinct from the European, is more common in the Atlantic States than the Pacific. In Europe it seems to vary less in colour than here, though the bands are variable in width and the specimens in size. There is more tendency to melanism in the European specimens, but I have some from Saskatchewan, from Mr. A. J. Croker, that are as dark as those from Norway.

*H. autumnalis* Ström appears to be more common in Maine than Massachusetts, as my friend Mr. Frost took a very large number one day in a cedar swamp at Monmouth, and Mr. Emerton even took a specimen on the summit of Mt. Kataadn. In Europe it is said to feed on alder and willow, but the American food plant has not been recorded to my knowledge. The palpi of the European and American forms are all moderately long and do not vary. My kind friend, Mr. Chagnon, of Montreal, is working on the genitalia, and I hope to publish some notes on his results later. There is an excellent figure of *pluviata* or *autumnalis* in Packard's Monograph, Pl. VIII, fig. 29, which is typical of eastern specimens and of certain of the European specimens in markings, but not wholly in colour. The venation is shown in the Monograph, Pl. I, fig. 6.

Taking *autumnalis* as a whole, it is far less variable in markings than *furcata* or *quinquefasciata*, but is about the same in regard to colour variation. It is very easy to separate the species with moderate palpi, as there are fewer closely-allied forms, the only difficult one being *californiata* Pack., which is liable to be confounded with var. *perfracta* of *autumnalis*. Nearly all the collections I have seen contain *autumnalis*, so I do not think it can be rare in any particular locality in the North Atlantic States.