

All these colours may occur with or without the dark bands, or there may be combinations. The first five colours seem to be most commonly met with, the white-banded form being the rarest. Now, according to my theory, we should find all the above variations of colour with palpi of approximately the same length, which we do find; and this enabled me first to see my way clear through the variations. Food-plants, I feel sure, play an important part in the colour variation, as does altitude; mountainous forms varying more than lowland. I should like to make the revision more complete by comparing the life-histories of the American species with those of the European, and also the genitalia, but until this can be done my work will remain rather crude, but, at any rate, a ready means of grouping them. The specimens examined were mostly loaned, so that is why I have done so little work on the genitalia, and it may be possible that the true *furcata* Thunb. is not found in North America, the variety *quinquefasciata* Pack. taking its place here. This point can be, perhaps, decided on a more complete comparison with the European form. The length of the palpi seems to be a very constant character, and I examined some six hundred specimens. It is surprising that the older authors like Packard and Guenée failed to notice this, Packard having lumped species with very long palpi, such as *glaucata* Pack., *bistriolata* Zell., with such species as *nubilofasciata* Pack. and *furcata* Thunb., in which they are short. *Hydriomena furcata* or its variations have never been taken in New England, and I should say are strictly western. Just what the boundaries are I cannot say, as the species have been so confused. I notice one difference between European and American forms of *furcata*, that is the basal band is heavier and wider in the latter than in the European form, but I would hesitate to separate them on such slight differences. Both forms have sometimes a white streak on inner margin of fore wings, but this is not always present.

Taking the species of Dyar's List, and applying my palpi and colour scheme they would arrange as follows:

I. *Hydriomena furcata* Thunberg, Diss. Ins. Suec, pt. 1, 1784.

—*sordidata* (of authors) not Fab.

Short palpi, cinereous ground colour.

The true *furcata* (like fig. 10, table 3) may not occur in North America, as I have not seen a specimen exactly like the European form, and the forms seem closer to *quinquefasciata* Pack. than *furcata*. If it is found here, the west will probably be its home, as none of the varieties