

the two European species of *Bombycia*, *or* and *ocularis*, we have two from the west coast, *improvisa* Hy. Ed., and *semicircularis* Gr. But the other European structural types seem to be wanting with us, *Leptina* seems to be quite distinct from these, and an American outgrowth. The species described by Walker from the east, under *Cymatophora*, I have partly examined, and have corrected his generic determination, so that it seems unlikely that we have any eastern representative of the European genera. It would seem to be a proof that the west coast fauna more nearly coincides structurally with the European, that the typical European genus of this sub-family, *Bombycia* (*Cymatophora*), occurs there, and not in the east of North America. There seems to be, finally, some doubt as to what the west coast species of *Habrosyne* really is; whether our eastern *scripta*, which is rather unlikely, or a form identical with the European, which Mr. Hy. Edwards has suggested. While the species of *Pseudothyatira* seems to extend nearly, if not quite, across the Continent, our eastern *T. pudens* Guen. appears to be replaced on the west coast by *T. lorata* Grote. But I have seen no record of this species from California.

We may believe that the peculiar resemblance of the Californian and west coast fauna to that of Europe, has arisen partly in the fact that the preglacial fauna forced downwards during the Ice Age, has been on the west confined to a comparatively narrow strip between the Rocky Mountains and the Pacific Ocean, and that it has been exposed to lesser variation from migration. The temperature and food-plants necessary to many species are contained in narrower belts, with probably more abrupt confines, precluding the range of the species. Thus the original form may have been longer preserved.

I may conclude that this sub-family must be regarded as belonging to the Northern Hemisphere, and its representation in the New and Old World, as derived from a former circumpolar fauna. While certain generic forms found in Europe (at least two in number: the hairy-eyed *Asphalia*, and the naked-eyed genus of which *duplaris* is the type), do not apparently occur in America, we have, as an offset, the species of *Leptina*. We have also, in the more aberrant group of the sub-family, the peculiar genus *Pseudothyatira*, with its one species appearing in two forms, *cymatophoroides* and *expultrix*. On the whole, then, the representation of the *Thyatirinae*, though probably without coincident species, is quite nearly equal in the New and Old World. For, if we have a representative