

contrast to the conditions in Southern Michigan, where the form of the female without any yellow is the usual one, the intergrades with varying amounts of yellow coming next and those with the nearly complete band occurring comparatively rarely. The bright effect in those specimens of *florus* with the yellow predominating is heightened by an extension of the line of orange crescents from anal angle along the outer border; three, and sometimes four, well-marked crescents in such cases may be counted. In typical *dorcas* from Southern Michigan these crescents are practically obliterated, and in *florus* reduced to one or two, rarely three.

A form of the female which had not previously been met with was found in the Waucedah habitat. There were seven examples collected, two of which are particularly noteworthy. In these, the ground colour is of a uniformly lighter shade of brown than in the ordinary form, the entire surface of both wings is more or less stippled with a darker brown, the black dots are less conspicuous because of the stippling, the orange crescent at the anal angle is nearly obsolete, and the yellow on the fore wings is merely indicated. The other five present these differences less prominently and grade into the normal form, but four of them exhibit more or less of the yellow of *florus*. None of the males show any noteworthy variations, but I might add that I have one male from Oakland County in which there is a slight stippling in the darker, outer portion of the hind wings.

The distribution of *epixanthe* in Michigan is virtually unknown, except as it may be partially inferred from the presence of cranberry bogs, in the vicinity of which it occurs. Personally, I believe it will be found at many points in the State, both north and south. A number of years ago this species was reported from Grand Rapids,* but evidently in error for *dorcas*. It has also been stated as occurring on Isle Royale, but this again appears to be a doubtful record. The late Dr. Fletcher, quoted in the 1909 Isle Royale Report, says of *epixanthe* †

"This is the only species I have some doubts about. There is no doubt that some of the records of *epixanthe* should be of the rare and little-understood species *dorcas*, which occurs in the Lake Superior region and into Manitoba. It is easily distinguished from *epixanthe* by its slightly larger size and the brilliant orange wash on the under surface. *Epixanthe*

*Robt. H. Wolcott: Butterflies of Grand Rapids, Mich., CAN. ENT., Vol. XXV, p. 103.

†An Ecological Survey of Isle Royale, Lake Superior, Chas. C. Adams, 1909. Published as part of the Report of the Board of Geological Survey of Michigan for 1908, p. 274.