

A SUMMER WITH CHRYSOPHANUS DORCAS, KIRBY.

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Chrysophanus dorcas is a very interesting little butterfly for several reasons: its boreal origin, in southern Michigan, confined as it is to certain detached islands or areas of decided northern character, wherein its food-plant occurs, its unworked life-history, its supposed rarity and little known distribution, all have made it an attractive field for investigation. It is also worth while to note the confusion which attaches to its identity, two other distinct species, *epixanthe* and *helloides*, having been mistaken for it.

Scattered throughout Southern Michigan, along the borders of streams, in the vicinity of lakes and in other low wet places, are numerous peat bogs, in which the vegetation is of a different type from the surrounding growth. I can here simply call attention to the existence of these northern bog areas in a region of more pronounced southern aspect. Certain boreal insects, among them *Chrysophanus dorcas*, occur in this latitude only in these peculiar bog habitats.*

Oakland county, one of the counties of south-eastern Michigan, is full of little lakes ranging in size from an acre or two to several square miles. It is particularly rich in the number and variety of the bog areas which it contains, and consequently many of the bog plants of the north occur abundantly. Among them there is one, the shrubby cinquefoil (*Dasiphora fruticosa*), with which we are particularly concerned. Doubtless the conditions necessary for the continued existence of this plant in this latitude are unusually favourable in the bogs of this county. Invariably around the pretty yellow flowers of the cinquefoil bushes at the proper time of the year, July, are to be found the little butterflies of *dorcas*.

The particular place where most of the observations upon this insect were made was in the Bloomfield Hills region, about twenty-four miles from Detroit. It was chosen because it was the nearest spot to the city where a goodly amount of the cinquefoil grew, and because of its accessibility. The country about is diversified by low hills and little valleys, and a small stream, a branch of the River Rouge, arising in the lakes to the westward, flows through the locality. There is considerable low, wet ground about the borders of the stream, and within half a mile to the

*See Edgar N. Transeau: The Bogs and Bog Flora of the Huron River Valley: Botanical Gazette, 40: 351-375, 418-448, and 41: 17-42. On the Geographic Distribution and Ecological Relations of the Bog Plant Societies of North America: Bot. Gaz., 36: 401-420.