

the first chrysalis suspended on 20th, its butterfly emerging 29th July. So that the periods were, egg 6, larva 17, chrysalis 9 days. Five per cent. of this brood became lethargic after second moult. This, then, was the second generation of the butterfly of the season, from the first laying of eggs. All the emerging butterflies were *tharos*, no *marcia*, and all were characterized by an intense blackness of the dark portions of the wings, as compared with any Coalburgh examples. Also nearly all the females showed the discal band on fore wings above yellow, instead of fulvous. (This last peculiarity, the change in the band, appeared in some of the females of the *third* Coalburgh generation, but no other.) On the under side the reticulated lines were unusually heavy, and the marginal cloud and the brown patches largely extended and deep colored.

This second generation was just one month behind the second at Coalburgh. So far only could I trace the Catskill generation this year; but, as in 1875, Mr. Mead obtained eggs on the 27th July and following days, the larvae from which all hybernated, that would be the second laying of eggs of the season, and the resulting butterflies the first generation of the following year.

So that, in the Catskills, the species is digoneutic, there being two generations annually, the first of which is *marcia*, or the winter form, and the other is the summer form, and a certain proportion of the larvae proceeding from the first hybernate (so far as appears) and all those from the second.

At Coalburgh there are four generations, the first of which is *marcia* and the second and third are *tharos*, and none of the larvae from these have so far been found to hybernate; and the fourth, under exceptional circumstances, has produced some *tharos* and more *marcia* the same season, a large proportion of the larvae also hybernating. But had the larvae of this brood remained at Coalburgh, where the temperature for several weeks after they left the egg remained high, the resulting butterflies would have been *tharos*, and the larvae from their eggs would have hybernated. And here I may say that, in addition to the broods spoken of, I also raised others at Coalburgh out of the line of regular succession, as midway between the second and third generations, for example, and none of these larvae became lethargic, and the resulting butterflies were all *tharos*.

The altitude of the Catskill region in which I was is from 1650 to 2000 feet above tide water, and the highest peaks of the range were