

On page 73, of Vol. XII., CAN. ENT., Mr. Edwards referred to the above extract and then continued as follows :—

“ I now am of the opinion that there are two annual broods. The experience in fall of 1878, with those larvæ of *Alcestis* which proceeded to feed instead of going into lethargy, and passed two and three moults within a very much shorter period than has been observed in the spring, showed that six weeks in midsummer might not improbably be long enough for all the changes. Perhaps also there are but four larval moults in the summer brood, as in some of the *Melitæas*, though there are five in the winter brood. Every stage would be shortened by the hot weather of July. On 14th June, 1878, I saw a pair of *Cybele* flying in copulation. In all instances where this has happened with butterflies under my observation, and the females have been secured (and this includes *Arg. Atlantis* and *Myrina*), eggs have been laid within a few hours after. Eggs laid 15th June would allow about two months for the several stages to imago.”

In Mr. Scudder's *Butterflies of New England*, on page 549, after quoting in full the first of the above extracts, the author proceeds :—

“ No such interrupted series of emergences has been detected in the history of our three species in New England, but if, as is probable, this is a first step towards true digoneutism, it might well be looked for in Southern New England, and should especially be sought for in *A. Cybele*.”

Mr. Scudder proceeds to say that in the North there is a prolonged but uninterrupted emergence of fresh material from the chrysalis and suggests that the phenomena may be attributed to lethargy in the caterpillar, periodic and fixed in the South, casual and irregular in the North.

The life history is given by Mr. Scudder as follows :—

“ The insect is single brooded in New England, passing the winter in the larval state. The caterpillars become full grown in June, and the earliest butterflies appear in the latter part of June, sometimes as early as the 16th in the latitude of Boston, usually not much before the 21st; become common by the 1st of July, when the female first emerges; continue to escape from the chrysalis until at least the middle of July, and fly until the middle of September and occasionally later. The butterflies generally pair at the end of July, but the eggs do not begin to assume their proper size until about the middle of August, and are not laid until the last of August or first of September. Miss Soule obtained eggs in Stow, Vt., on August 20, which is the earliest New England date known to me.”

“ The eggs hatch in about fifteen days, but the caterpillars from them go immediately into hibernation without eating anything more than their egg shells.”

From 1868 to 1875, inclusive, I spent the summers, from about the 15th July to the first week in September, on Cape Elizabeth, near Portland, Me., and I observed the phenomena of the second emergence described by Mr. Edwards. When I first arrived the *Argynnides* were flying, but in a worn and dilapidated condition, but about the 1st of August fresh examples appeared and I observed them in copulation with some of the worn ones, but later only those of the second flight were seen in coitu.