

by their usually greater size." It is admitted then that the species is probably single-brooded in the southern part of its range, i. e., in the Catskills. It strikes me as very singular that *Arthemis* should be single-brooded to the southward, but double to the northward—and not so very far north, either, the Catskills being from 1° to 2° only south of the White Mts.,—exactly the reverse of what happens with every other species of butterfly.

On reading the paper spoken of, I wrote the author thus: "Do you know of any one who has raised a caterpillar of *Arthemis* from egg to chrysalis and imago the same season? Did you ever do it yourself?" To this the reply came: "I have bred *Arthemis* only from the wintering caterpillars, and I know of no one who has bred them from the egg in N. Hampshire, *but you cannot get away from a fresh September brood*, which I have on the authority of three or four persons, indeed myself."

Let us look into this matter of "a fresh September brood." I will first relate briefly the experience of Mr. Mead and myself with *Arthemis* and its co-form *Proserpina*, and so far as I know, we, with Mr. C. H. Roberts, formerly of Factory Point, Vt., are the only persons who are recorded to have bred *Arthemis* from the egg. In CAN. ENT., vii., p. 162, Mr. Mead states, that in July, 1875, he had 15 females of *Arthemis* and one female of *Proserpina* confined in boxes with growing branches of willow, at Hunter, N. Y., in the Catskills. That the *Arthemis* laid about 500 eggs and the *Proserpina* 35. I myself came to Hunter just at this time, arriving 25th July, and Mr. Mead gave me many larvæ from these eggs, and I brought them to Coalburgh while they were in their 2nd and 3rd stages, i. e., after 1st and 2nd moults, reaching home 17th August. These larvæ all went into cases, the last one on 20th August, not one going on to chrysalis. On 25th Aug., I received from Mr. Mead, who was still at Hunter, more larvæ in first stage, i. e., just out of egg, and these were making their cases 9th Sept., or three weeks later than the first lot. That represents the difference, or part of it, between the time of the emerging from chrysalis of the earlier and later butterflies of the same generation. There is a similar difference in the emerging of all species of butterflies, as every lepidopterist knows. All of these larvæ, though from eggs laid by different females, and during three weeks, behaved in the same way, all going into lethargy, and none to chrysalis. Mr. Mead had taken part of the brood to New York City and some to Ithaca, N. Y., and none went to chrysalis.