

third moult, and there was not a thread of a web.\* The larvae of *tharos* are sluggish, and a pretty sharp jar is necessary to cause them to drop from the leaf. This they do in a coil, and their bristles effectually protect them from all harm.

When about to moult, the larvæ bred by me ceased feeding, and collected in groups on the covers of the glasses in which I usually kept them, resting for about 36 hours. The body contracted, and as the time for the moult drew near, the skin became glassy as it separated from the newly formed skin beneath. The spines and bristles of the new skin lie folded down and back, and as the old skin, after splitting behind the head, is shuffled past the successive segments, the spines and pencils of hairs suddenly spring up, and the latter instantly become divergent. For some moments the old mask adheres to the new face, but the larva presently proceeds to rub it off with its feet. When the larva prepares for chrysalis, it spins a button of white silk, and hangs suspended for about 24 hours, its position being nearly circular.

As I have shown, *tharos* is polygoneutic in West Virginia, digoneutic in the Catskills, of New York. In a high latitude, or at a high altitude, we might then expect to find it monogoneutic, and restricted probably to the winter form *marcia*. And this is precisely what does occur in the island of Anticosti (about lat. 50°) and on the southern coast of Labrador opposite. Mr. Couper, who collected in 1873 on the island, informs me that *tharos* is a rare species there, though he saw it in localities 100 miles apart; that he saw no examples later than 29th June, from which date "it disappeared"; and adds, "I do not think any of the diurnals on Anticosti or in Labrador produce a second brood." When he left, 27th July, "the weather was becoming cold and very few butterflies of any sort were to be seen." Also, "the summer temperature of Southern Labrador and Anticosti are about the same." Of *tharos* from Anticosti Mr. Couper has sent me 14 males, 8 females. Of these males, all are var. D; of the females, 1 is var. C, 7 var. D. With these also came 11 males, 2 females from Labrador, all of same variety, D. All these examples are of reduced size, as might be expected from so cool a region.

Dr. Weisman states (Sec Can. Ent., Vol. vii, p. 232), that Dorfmeister was led by his experiments on the effect of cold on the pupae of butter-

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\* I found last summer that *nycteis* larvæ will eat asters as readily as *Actinomeris squarrosa*, which hitherto I had fed them on.