

nonympa, Hipparchia, Satyrus, Chionobas, and in part, Chrysophanus. Females of all other genera, so far as I know, will die rather than oviposit when their respective plants are not present, and it is necessary also that the plants be bright and fresh; when even slightly wilted the insects will ignore them, and die without ovipositing.

Having thus stated the matter generally, let me now give more in detail the habits of some typical species of both groups as to ovipositing, and my experiences in getting eggs from them. *Parnassius Hermodur*, when ovipositing, alights upon the ground among the grass and crawls about in a restless way at random, dropping egg after egg as they mature indiscriminately upon the bare ground or dead rubbish or wherever they may chance to fall. When thus engaged she is as readily approached as if feeding on flowers. When the ♀ is confined in a bag she is not unruly but remains rather quiet, scattering her eggs about, singly, as they ripen, and most of the eggs attach to the gauze of the bag, to which they adhere but slightly. I have never observed ovipositing of *P. Smintheus*, but believe it to be identical with *Hermodur*, as related. The habits of all the other genera named are the same in this particular, that the eggs are laid singly, and not in masses, as is the habit of some genera.

Different species of Argynnidids have different methods of ovipositing, but none that I know of require a plant. *A. Callippe* goes crawling about on the ground and under bushes like a Parnassian, and oviposits by extending the abdomen down among the dead twigs and dry leaves like a grasshopper. This habit renders the species somewhat difficult to manage in a bag, as the eggs will be pushed down into the ground if possible. Other species, as *Semiramis*, oviposit on the wing without ever alighting, but hovering over suitable places and dropping the eggs at pleasure. The reason for this peculiar habit seems to be to avoid small lizards, which abound and which are alert to seize any flying insect. *Semiramis* is a difficult species to manage in confinement. Lively, vigorous and restless, they take confinement hardly. When ovipositing in a gauze bag they drop the eggs at random, and only a few become attached to the gauze, but most of them drop to the bottom, where they are likely to be lost unless precaution be taken. *A. Leto* also oviposits on the wing. In 1890 I took a fine ♀ *Leto* near Mt. Shasta, in northern California, and as I was on my journey southward and could not well wait to get eggs in the usual way, I put her in a small tin box without any food or plant except a few blades of grass to