

When we came to pack up our live stock, we found that we had secured eggs of 17 species and varieties, all that we had tied but three. These three were *Grapta Progne*. A very much worn hibernated specimen was caught on the 9th, and being mistaken for *G. Satyrus*, was tied upon the wrong food-plant.

*Phyciodes Nycteis*, tied on Solidago as an experiment to see if eggs would be laid.

*Lycæna Lucia*, two specimens got into the folds of the gauze, and were killed by spiders from the outside.

Some of our caged females were quite fresh, and as we thought we might get more eggs, sticks were bent over our potted plants, and they were caged and packed away in their basket for travelling. Amongst them were *C. Mandan* and the form *Eriphyle* of *Colias Eurytheme*. This last laid no eggs, and one only was obtained by a process which one of my correspondents calls "Egg laying extraordinary." It consists, simply, of gently pressing the abdomen of a female, which has died without laying eggs, until one, and sometimes two, perfect eggs are passed through the ovipositor. This method may, I believe, at some time, be useful in securing larvæ of rare species. My first female *Colias Interior* was taken in 1886, and died without laying. I then secured one egg, which hatched a few days afterwards; from not knowing the food-plant, however, it was lost. From a beautiful variety of *Papilio Turnus* I secured two eggs in the same way, both of which hatched. Fertile eggs were also got in this way from *Carterocephalus Mandan*, (and one of these was the only specimen I got through all its stages to full growth,) and from *Colias Philodice*.

There are one or two points which should be remembered when obtaining eggs and rearing larvæ. In the first place the females should not be left exposed to the direct rays of the sun; but it will be found sometimes that if a butterfly is sluggish, putting her in the sun for a short time will revive her and make her lay eggs. Confined females, whether over branches or potted plants, should always be in the open air. If females do not lay in two or three days they must be fed. This is easily done. Take them from the cage and hold near them a piece of sponge (or, Mr. Edwards suggests evaporated apple) saturated with a weak solution of sugar and water. As soon as it is placed near them they will generally move their antennæ towards it and uncoiling their tongues suck up the liquid. If they take no notice of it the tongue can be gently uncoiled with the tip of a pin when they will nearly always begin to feed. It is better to feed them away from the plant they are wanted to lay upon, for if any of the syrup be spilled upon the flower pot or plant it is almost sure to attract ants. I kept one female *Colias Interior* in this way for ten days before eggs were laid. When eggs are laid they should as a rule be collected at short intervals. They are subject to the attacks of various enemies—spiders, ants, crickets, and minute hymenopterous parasites. They may be kept easily in small boxes, but do better if not kept in too hot or dry a place. When the young caterpillars hatch they must be moved with great care to their food plant; a fine paint brush is the most convenient instrument. With small larvæ, or those which it is desired to examine often, glass tubes, or jelly glasses with a tight fitting tin cover, are best. These must be kept tightly closed and in a cool place. Light is not at all necessary, and the sun should never be allowed to shine directly upon them. If moisture gathers inside the glasses the top should be removed for a short time. Larvæ may also be placed upon growing plants. These can be planted in flower-pots and the young caterpillars kept from wandering, either by a cage of wire netting, or by, what I have found very satisfactory, glass lamp chimneys. These can be placed over the plant, with the bottom pushed into the earth, and then should have a loose wad of cotton batting in the top. This has the double effect of preventing too great evaporation of moisture and keeping its occupants within bounds. Some larvæ wander very much and climb with the greatest ease over glass, spinning a silken path for themselves as they go. When caterpillars are bred in the study it must not be forgotten that the air inside a house is much drier than it is out of doors amongst the trees and low herbage, where caterpillars live naturally. The amateur will require some experience in keeping the air at a right degree of moisture, when breeding upon growing plants. In close tin boxes or jars, where the leaves must be changed every day, there is not so much trouble. An important thing to remember with larvæ in jars, is to