

wings stiffly together over his back, and curling his anal end round under his thorax like a caterpillar, remains rigid and immovable; but if he be old and worn, he is likely to struggle continuously for liberty. The female has similar habits.

Copulation takes place as soon as the female emerges, often, and perhaps usually, before her wings are developed sufficiently to enable her to fly. The emergence is from the ground, and as she climbs up some grass stem or weed, shaking out and developing her wings, her presence becomes known to the males, who cluster around, on the wing and on foot, fluttering up blunderingly and with clumsy efforts to touch her with their antennæ. And here occurs a most singular thing, that in many instances, as soon as the male actually touches the female with his antennæ, he becomes alarmed and instantly flies off in precipitate flight, dismayed and demoralized, and does not return. But there are plenty of others left, and they crowd around, and it is not long before the right one arrives and speedily becomes attached, when in a little while all the other males fly away and leave the pair in peace.

The next business for the female is to lay her eggs. She flutters about the willow twigs a few feet above the ground, and selecting a suitable twig a line or two in diameter, catches hold with her claws, and hanging suspended, bends her ovipositor up to the twig and deftly places the eggs in a solid ring all round the twig. She commonly begins to oviposit in the afternoon, and continues hanging in the same place all night, placing eggs occasionally as they mature. When thus engaged in ovipositing, if she be annoyed or roughly interfered with, she flaps her wings violently back like those of a butterfly, and remains sullenly immovable. The males, becoming weary with their heavy flight, frequently stop to rest by hanging on a twig or leaf, looking very much like a female ovipositing. He, also, if picked off in the fingers, suddenly flaps his wings back forcibly, making no effort to escape, except that probably he will exude upon the captor a drop or a fine stream of vile fluid, which seems to be his chief weapon of offence and defence. When at rest, or ovipositing, the wings lie down over the body the same as do the wings of most moths, but when caught they throw the wings back and curl the abdomen around under the thorax, without further effort in self-defence.

The eggs hatch in the spring as soon as the leaves have grown sufficiently to afford them food; they are gregarious when young, but become