

must indicate that the butterflies fly as late as October. In 1902, at Lake Lachigan, the butterflies were common on September 1st in all conditions, from freshly emerged specimens to those which had scarcely sufficient fragments of wings left to enable them to fly, but from the larvæ which I brought home, although some turned to pupæ early in September, the butterflies did not appear till the end of November and through December and January. They were, of course, kept indoors in a warm room.

In species which have more than one annual brood it is difficult to define the dates of appearance and disappearance of all but the first, but judging by my experience it would be absolutely impossible to state how many broods there were annually of *F. tarquinius*. Like several others among our butterflies, *Colias philodice* for example, it appears to keep on laying eggs, which continue to hatch into larvæ, which continue to eat until one day becomes too cold for their existence or that of their food supply, and every stage is wiped out except the one which Nature ordained should pass the winter. In *F. tarquinius* the chrysalis hibernates, and again Nature has in some way arranged that the butterflies do not all appear at once, a most necessary provision, as the supply of food for the young larvæ would soon be exhausted if the eggs were laid and hatched about the same time. Not only do the butterflies appear extended over a considerable period of time, but the egg-laying period is a long one, how long I do not know. Any one who has watched one of the females flying about the alders picking out a cluster of lice in the midst of which to deposit an egg or possibly two, will realize what a slow process it is. The butterflies seem to understand perfectly when there are enough of their larvæ to each cluster of lice and do not lay eggs in clusters already tenanted, until such time as there is a certainty that the big larvæ will be out of the way by the time the little ones hatch.

I have never seen *F. tarquinius* larva leave one cluster and journey along a stem to another, and think they seldom leave the spot where they first hatch. If they did this I fear there would be little chance of their escaping the attack of parasitic hymenoptera, which are always to be seen around the snowy clusters of lice.

The relation of insects to their food is one of the most important matters for an entomologist to consider, in fact everything, both from an economic and scientific standpoint depends on a thorough understanding of these. To anyone fond of nature who wishes to have a great deal of pleasure without a knowledge of ten thousand ever changing Latin (or Greek) names, we should recommend studying the life of some one common insect in its entire annual life-history, its relation to the plants on which it feeds and the parasites or other enemies that feed upon it.