

are most addicted, after that of *Z. chrysomallus*, are those of the *Amblypodia* and *Tajuria* groups, those of *Arrhopala* and *Rapala* being nearly as bad. He has known one larva of *Tajuria cippus*, Fabr., to eat up over a dozen young ones of its own species. In Kashmir Mr. Bell bred a single imago of *Hysudra selira*, Moore, from a larva which had been reared on the dead leaves and flowers of its food-plant, *Indigofera atropurpurea*, Hamilt. (Natural Order Leguminosæ), together with several newly-formed pupæ of its own species. The imago was a very fine, large specimen, so that the insect diet evidently agreed with the larva. Mr. Bell particularly noticed this fact, as in all his previous experience he had been led to the conclusion that a cannibal diet was bad for the stomachs of the larvæ practising the habit of eating up their fellows, as they, as a general rule, have not been healthy, and have died before pupating.

"The tendency to cannibalism is not confined to the *Lycaenidæ*, but exists also amongst the *Pierinæ*; the larvæ of *Appias* will eat each other and any other species of larva feeding on the same food-plant as themselves, if forced to it by hunger. He has seen the larvæ of *Appias libythea*, Fabr., and *A. taprobana*, Moore, eat freshly-formed pupæ of their own species, as well as larvæ changing their skins, and also the larvæ and pupæ of *Leptosia xiphia*, Fabr. Some of the caterpillars of the *Danainæ* will, when food is not to be had, eat individuals of their own species.

"Mr. Bell has never known a larva to eat another larva feeding on a food-plant of a species different from its own, so it is probable that all larvæ taste strongly of the plant they feed on, and it is also probable that cannibal larvæ are hardly conscious that they are eating up each other, being only guided to their proper food by the sense of taste, or possibly to a less extent by the sense of smell. None of the larvæ of the *Satyrinæ*, *Elymniinæ*, *Amathusiinæ*, *Acræinæ*, *Nymphalinæ*, *Libytheinæ*, *Nemeobiinæ*, *Papilioninæ** or *Hesperiidæ* have been found by Mr. Bell to eat anything but vegetable food. All rhopalocerous larvæ, however, with but very few exceptions, eat their own cast-off skins while these are still soft and moist; and the young larvæ on emerging from the egg will almost invariably, under normal conditions, make their first meal off the empty egg-shell. He notes that all the butterfly larvæ he has bred change their skins five times from the time they leave the egg to the time they turn to pupæ."

*The larvæ of *Papilio philenor*, Linn., whose food-plant is *Aristolochia siphia*, have been known to devour their comrades in captivity when supplies ran short.—Ed.