

rarely in the late afternoon, where it flitted from shadow to shadow in the undergrowth, searchlights of sunshine picking out the midnight blue pools on its sombre wings. For me it was the epitome of the primary rainforest.

(. . . to be continued)

PHASMIDS EATEN BY LADYBIRDS

by Phil Bragg (8737).

Aphids can cause a number of problems in phasmid cages. The sugary droppings of the aphids provide ideal conditions for the growth of mould and, because they are sticky, they make it more difficult to clean out the phasmid eggs and droppings. In addition, the aphid droppings and mould on the front of the cage make observation of phasmids difficult. This is a particular problem in late winter and early spring when the change from the cool outdoors to a heated indoor environment stimulates the aphid eggs to hatch and also during the occasional aphid population explosions in summer.

Recently I considered using ladybirds to control the aphid problem in my cages. However, I decided to be cautious and test the possibility that hungry ladybirds might attack the phasmids. I collected six seven-spot ladybirds (*Coccinella 7-punctata*) and kept them in a petri dish at room temperature for two days without food. I then introduced two first instar nymphs of the Indian stick insect (*Carausius morosus*) and left them for a day.

About ten hours after introducing the phasmids I moved the petri dish and several of the ladybirds fell onto their backs, a common occurrence when they are kept in petri dishes. As a general rule the ladybirds right themselves quite quickly. On this occasion I looked at the dish about a minute later and saw one ladybird still on its back eating the abdomen of one of the phasmids. It continued to eat all of the abdomen during the next six minutes and then the phasmid managed to get away. The ladybird then righted itself and pursued the phasmid for a short distance before giving up. During the next hour there was no further interest shown in the phasmids by any of the ladybirds. Twelve hours later (three days since the ladybirds had been caught) the bodies of both the phasmids had been eaten; only the heads and legs remained uneaten.

While it may be unlikely for a ladybird to eat phasmids when aphids are available, they are clearly not a suitable form of biological control for aphids in phasmid cages. The supply of aphids would quickly be consumed and the ladybirds would then turn their attention to the phasmid population.