

NOTE

Larva and Possible Food Plant of *Ancyloneura varipes* (Cameron)
(Hymenoptera: Pergidae) in Papua New Guinea

The six known species of *Ancyloneura* Cameron (Pergidae: Euryinae) are endemic to New Guinea (Smith 1978). Nothing is known of the food plants, habits, or larvae of any species of the genus. During a study of caterpillars (Lepidoptera) feeding on the alien plant *Spathodea campanulata* (L.) Kunth. (Bignoniaceae) in Wamangu, Papua New Guinea, by DB, an adult of *Ancyloneura varipes* (Cameron) was reared from larvae discovered on the foliage. *Ancyloneura varipes* was described from "Aru" by Cameron (1877), and additional localities in Irian Jaya and Papua New Guinea were given by Benson (1958) and Smith (1980). Although sketchy, this is the first information on the habits and larvae of *Ancyloneura*.

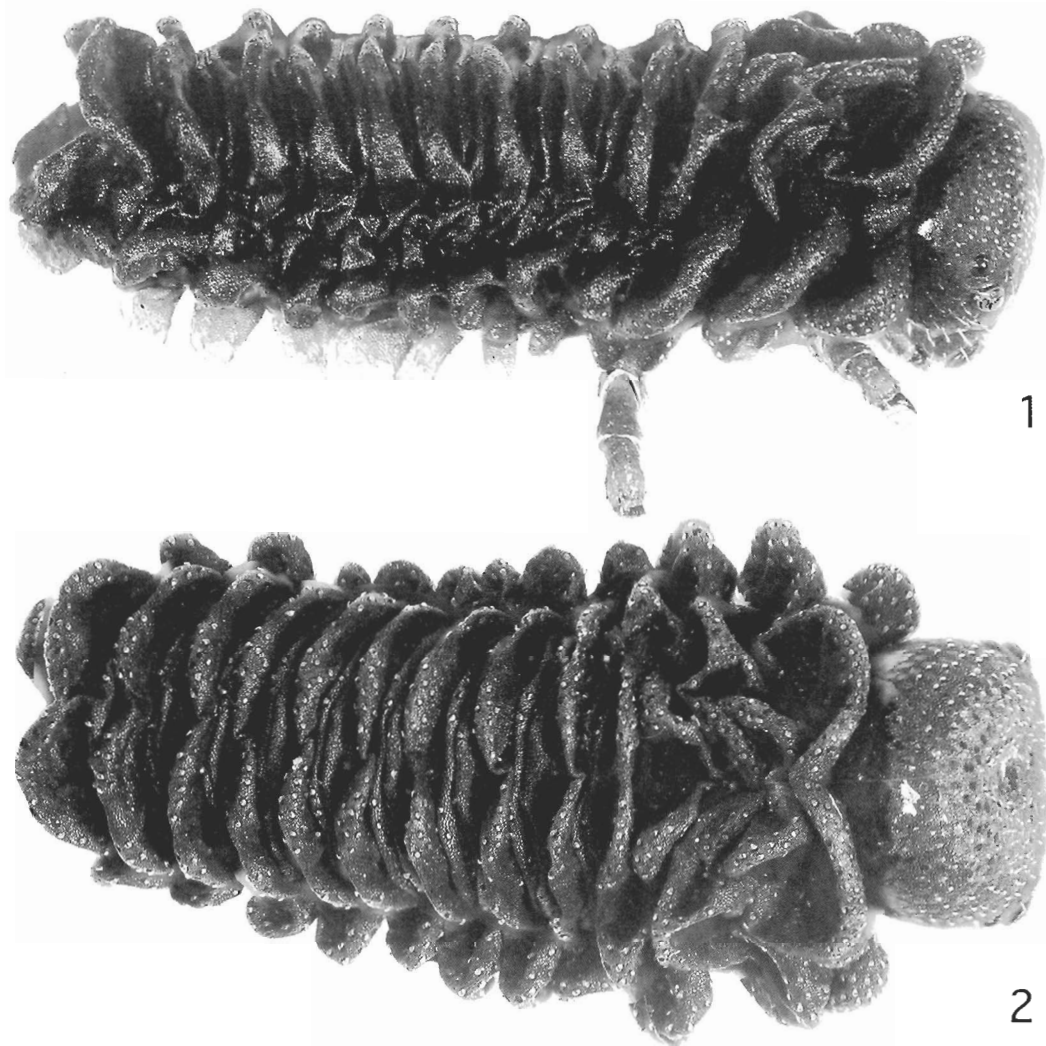
Larvae were collected at Wamangu in East Sepik Province (143°49'E, 3°49'S). This area was sampled for Lepidoptera from 15 September to 2 October, 2003, covering over 4,500 square meters of foliage area. Searches were made on saplings and lower branches of larger trees. Background of the project and sampling and rearing procedures were provided by Miller et al. (2003). Larvae of *A. varipes* were not found on any of the other 90 woody plant species studied (Miller et al. 2003).

Four pergid larvae were collected in the 14 sampling days. The first two larvae were found together on the foliage of a sapling growing in the undergrowth of the secondary forest area. They were about 60–80 cm above ground level. There were no signs of feeding or feeding damage on the leaf. The caterpillar-like features such as its black 10-segmented body and sclerotized head capsule indicated similar feeding habits as lepidopteran caterpillars, but they did not feed on fresh leaves given to them. Rearing in

the laboratory resulted in one larva reared to adult. This was from a larva that pupated five days after the first day of collection. The final larval instar took almost three days to complete pupation. The adult emerged seven days after pupation. The reared adult and the larva were preserved for identification. The other two larvae collected likewise did not show signs of feeding in the laboratory. The larvae may have been in their final instars when collected because they soon pupated; however, no adults emerged.

Although collections were from *S. campanulata* and pupation and subsequent rearing to adult for one of the four larvae were successful in the laboratory, no larvae showed signs of feeding on this plant. *Spathodea campanulata* possibly is not the food plant. The larvae may have completed feeding and dropped from other plants in search of a pupation site and were only incidental on *S. campanulata*. Also, larvae may feed only on dead or dry leaves as do some other species of Euryinae in Australia, thus not accepting fresh foliage. Moore (1957) recorded *Polyclonus atratus* (Kirby) from Australia feeding on dead or dying leaves of *Eucalyptus* and *Angophora* still attached to branches, and Tillyard (1926) mentioned this habit for a species of *Diphamorphos* Rohwer. Other Euryinae in Australia are known to feed on dead or drying leaves or leaves in leaf litter (Naumann 1991) and one on ferns (Naumann and Balcianas 1997), and most are found on or near the ground.

The larva illustrated (Figs. 1, 2) may be a prepupa (last instar or non-feeding stage) when collected in the field. It is about 6.5 mm long and entirely dark brown with the clypeus white, area below the eyes and an-



Figs. 1-2. *Ancylopora varipes*, larva. 1, Lateral view. 2, Dorsal view.

tenna reddish brown, and prolegs pale brown. The antenna appears four segmented, with two small oval segments adjacent to one larger circular segment, and a small node within the circular segment. The head is covered with short spatulate setae, with simple stiff setae on the clypeus, mouthparts, the lower area of the frons, and around the antennae. Each thoracic leg has a tarsal claw with a large fleshy lobe adjacent to the claw (as in many Argidae). There are deep folds between the segments and the surpedal lobes are expanded later-

ally. The abdominal segments appear to have three annulets with the third larger than the first two; the tenth tergum is notched at the center in dorsal view. Prolegs are present on abdominal segments 2-8, with those on segment 2 smaller than the others. The thorax and abdomen are covered with short, spatulate setae, similar to those on the head; simple stiff setae are present on the thoracic legs.

The larva is quite different from known Australian euryine larvae. Larvae of *Claritha tasbates* Naumann from Tasmania,

which are apparently ground dwelling and feed on dead *Ranunculus* leaves (Naumann 1997), and larvae of *Warra froggatti* (Rohrer), which feeds on emergent foliage of an aquatic fern (Naumann and Balciunas 1997), both have four-annulate abdominal segments, have simple setae, apparently lack the large fleshy lobe adjacent to the tarsal claws, and do not have such deep folds and laterally expanded surpedal lobes on the body.

The larva illustrated and reared adult are deposited in the National Museum of Natural History, Smithsonian Institution, Washington, DC. Cathy Apgar, Systematic Entomology Laboratory, USDA, took the photographs. DB's research in Papua New Guinea was supported by National Science Foundation grant DEB 0211591 to George Weiblen, Scott Miller, Vojtech Novotny, and Yves Basset, as well as the Czech Academy of Sciences and Darwin Initiative grant 162/10/030.

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