**Short communication:**

*Mycalesis oroatis ustulata* Distant (Lepidoptera: Satyridae) – a newly discovered rice leaf feeder in Malaysia

[Mycalesis oroatis ustulata Distant (Lepidoptera: Satyridae) – serangga pemakan daun padi pertama kali ditemui di Malaysia]

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Key words: *Mycalesis oroatis ustulata*, leaf feeder

**Abstract**

A leaf-eating lepidoptera closely resembling the greenhorned caterpillar, *Melanitis leda*, was discovered from a rice field at Alor Pasir, Tumpat, Kelantan. It was identified as *Mycalesis oroatis ustulata* Distant (Fam: Satyridae). Female butterflies laid eggs either singly or in groups of 2–3 rows on the upper surface of the rice leaves. The eggs hatched in 5 days and the larvae underwent five instars in about 15.7 days. The larvae fed voraciously on padi leaves removing leaf tissues (including veins). The pupae took about 6–7 days before emerging into adults.

**Introduction**

There are several leaf-feeding lepidopteran species attacking rice. These include the rice caseworm (*Nymphula depunctalis*), the rice leaf folder (*Cnaphalocrocis medinalis*), the rice greenhorned caterpillar (*Melanitis leda*), and the armyworm (*Spodoptera muaritia*) (van Vreden and Abdul Latif 1986). During the off-season 1990, some adult butterflies (quite similar in appearance to adult of *M. leda*) were sampled from a rice field at Alor Pasir in Kelantan. These butterflies were caged in the laboratory and allowed to breed. Adults that emerged from this population were identified as *Mycalesis oroatis ustulata* Distant by the Taxonomy Unit, Basic Research Division of MARDI, Serdang.

*Mycalesis oroatis ustulata* has been mentioned by Corbett and Pendlebury (1978) as a butterfly species found in heavy forest and is never common. At that time, it was not recorded in rice cultivation in West Malaysia. Later, records (Yunus and Ho 1980), however, showed the presence of another species (*Mycalesis mineus*)
A new rice leaf feeder *Macromalaya* Frut) on rice. In the Philippines, this species has been recorded occurring together with *M. leda* (Reissig et al. 1986).

**Life stages**

Eggs are laid by female butterflies for a period of 14–17 days, and the highest number laid by a single female in the laboratory was 194. Like *M. leda*, eggs of *M. oroatis ustulata* are laid either singly or in groups of 2–3 rows on the upper surface of the rice leaves usually near the leaf tip (*Plate 1a*). The egg is pearl-like and measures 0.5–0.75 mm in diameter. Hatching takes place in about 5 days after oviposition. The larvae cluster around the eggs from which they have hatched and seldom wander. At this stage, the larva is about 0.5 mm long and light greenish. The head is shiny black and large. It bears a pair of horns. However, these horns, especially those that project from the head, are not as prominent as those present in the larvae of *M. leda*.

The horns of *M. oroatis ustulata* are short and covered laterally with black tuft of hair-like setae. The body colour changes as it develops through the larval stages. The fully grown larva which is furciform, terminates with a bifurcate suranal plate. The larva is 25–30 mm long and dirty greyish brown (*Plate 1b*). It is not covered with secondary setae as is usually found on *M. leda*. However, the body segment, especially of the abdomen, is very much annulated.

The larva moults five times during its growth period which lasts for 14–17 days with a mean of 15.7 days (*Table 1*). One day before pupation, the larva attaches itself by the anal proximity and curves its body towards ventrally taking a comma-shaped position (*Plate 1c*). The formed pupa is naked and light shiny green (*Plate 1d*). It turns reddish brown with conspicuous white spiracles along the lateral sides towards the end of the pupal period which lasts about 6.8 days (*Table 1*). The total developmental period, from egg to adult emergence takes about 24–29 days. The adult is a medium-sized butterfly with wingspan of about 35 mm.

The evenly rounded wings are usually coloured a drab shade of reddish brown above with black bordering and on the brighter underside, have a narrow purplish-white transverse post-discal band. There are also a series of submarginal ocelli (eye spots) on the underside of both wings (*Plate 1e*). In contrast, these ocelli may be prominent or almost obsolete in *M. leda*.

**Damage and pest status**

In the laboratory, *Mycalesis* larvae fed voraciously on padi. The large caterpillars fed on the margins and tips of leaf blades and remove leaf tissue and veins. Damage symptoms are similar to those by other large defoliating insects, such as armyworm and grasshoppers that feed on rice. Besides rice, the larvae were reported to feed on many wild grasses including *Panicum maximum* and *Imperata cylindrica* (Reissig et al. 1986). But, like *M. leda*, *Mycalesis* does not constitute pest of economic importance, and therefore substantial damage to rice will probably not occur. It is possible that parasitoids and predators of *M. leda* may play an important role in determining *Mycalesis* population in the field (Reissig et al. 1986).

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**References**


Table 1. Life-history of *M. oroatis ustulata* on rice, MARDI Kubang Keranji, greenhouse 1992

<table>
<thead>
<tr>
<th>Stage</th>
<th>Duration (days)</th>
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<tr>
<td>Egg incubation period</td>
<td>4–5</td>
<td>5</td>
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<tr>
<td>Larval development period</td>
<td>14–17</td>
<td>15.7</td>
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<td>Pupal period</td>
<td>6–7</td>
<td>6.8</td>
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<tr>
<td>Development period from eggs to adult</td>
<td>24–29</td>
<td>27.5</td>
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Plate 1. Life stages of *Mycalesis oroatis ustulata*


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