



The leaf-tying moth, *Hypocosmia pyrochroma* Jones, has been released as a biological control agent against cat's claw creeper (*Dolichandra unguis-cati* (L.) L.G.Lohmann) infestations in South Africa. Since the insect has only recently been released, its establishment status is unclear. Nevertheless, laboratory testing has shown the insect to be extremely damaging to the weed.

DESCRIPTION

Adult moths are orange-brown in colour, with distinct banding across the wings, including a prominent white band which also runs laterally over the centre of the wings (i). The adults are nocturnal and short-lived, so are seldom seen on the plants. The larvae, and especially their mode of feeding, are more conspicuous. Larvae conceal themselves by tying leaves together with silk, hence the name, leaf-tying moth. Strings of tied leaves are easy to identify, and afford feeding larvae some protection from predators. Larvae are initially light grey with a dark head capsule (ii), but darken with age as they develop through 6 instars (growth stages). Mature larvae measure approximately 2 cm in length, and wriggle energetically when disturbed.

LIFE CYCLE

Female moths lay several eggs, singly on the leaves and stems of cat's claw creeper. Larvae hatch after about 11 days, and feed exclusively on the leaves, consuming large amounts of tissue (iii). The 6 larval instars last an average of 27 days, after which the larvae pupate in a silk cocoon in the soil. In summer, when conditions are favourable, pupation lasts approximately 28 days. However, during the less favourable winter months, the insect will undergo a winter diapause, and only emerge as an adult moth the following spring. Adult females generally live for about 10 days, and are highly fecund, laying up to 120 eggs during their lifespan.

FEEDING DAMAGE

Larvae feed voraciously on young, or old cat's claw leaves. Their feeding creates distinct transparent windows (iv) and, in severe cases, the leaves may become skeletonized. The adult moths do not feed on leaves. Instead, they have a proboscis for feeding on nectar.

IMPACT ON CAT'S CLAW CREEPER

Larval feeding causes premature leaf drop and growth point dieback. This extensive removal of leaf tissue limits photosynthesis and, under laboratory conditions, also reduces the nutrient reserves held in the tuber bank. In time, the moth is anticipated to make a substantial contribution to the biological control of cat's claw creeper.



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