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Natural parasitoid species of silk moth in Cameroon Afromontane ecosystem***Ouaba José*¹, *Tchuinkam Timoléon*¹, *Niassy Saliou*², *Meutchieye Félix*^{3*}**¹Department of Animal Biology, Faculty of Science, University of Dschang, Cameroon. PO Box 067 Dschang, Cameroon²Department of Plant health; International Centre of Insect Physiology and Ecology, Nairobi, Kenya. PO Box 30772-00100, Nairobi, Kenya³Department of Animal Science; Faculty of Agronomy and Agricultural Sciences, University of Dschang, Cameroon. PO Box 188, Dschang, Cameroon*** Corresponding author: fmeutchieye@gmail.com**

Lepidopterans form one of the largest orders of the insect class with high economic importance in Cameroon. In addition to their role in pollination and food web, larvae (caterpillars) of some species are agricultural pests, while others serve as food for many populations (Meutchieye, 2019; Ngute *et al.*, 2019; Ouaba *et al.*, 2020). Collection and trade of charismatic butterflies are also recorded in many localities of Cameroon, as is the trade of silk cocoons of some lepidopteran species (Malzy, 1955; Ouaba *et al.*, 2020). Given their essential role in the food system and community livelihood, sustainable management of beneficial species (e.g., through domestication), harmful and sustainable species control. However, this requires a better knowledge of the biology and ecology of these lepidopterans (Dongmo *et al.*, 2023).

Natural enemies play an important role in the bioecology of lepidopterans and commonly control their population numbers and influence their survival (Hassel, 2000). However, very little is known about the

presence and diversity of parasitoids developing in these caterpillars in Cameroon. We report here a hymenopteran parasitoid affecting silk cocoons of *Epanaphe* sp. (Lepidoptera: Notodontidae) in the Cameroon Afromontane ecosystem.

This wasp (Figure 1) was found ovipositing in wild silk cocoons gathered from an avocado tree. It belongs to the family Ichneumonidae and has the following characteristics: The head is black, as are the antennae, which measure a little more than half the length of the whole body. The size of the body is 1.8 cm. The thorax is black with white markings on the pronotum and a white spot on the mesossculletum. There is also a white mark on each side of the metapleuron. The abdomen is mainly dark red, with the posterior segments partly black. The ovipositor is black and measures a little more than half the whole body's length. The femur of the fore and middle legs is orange, with the rest of the legs being black. All parts of the hind leg are dark red except the femur and the coxa, which are black.

This parasitoid used its antennae to check the appropriate place to oviposit before inserting its ovipositor inside the cocoon to oviposit. Eggs were laid successively in 6-7 cocoons.

This is an unusual observation of a silk cocoon parasitoid in this part of the country. Specific identification using advanced tools is required in Cameroon.



Figure 1: Ichneumonidae A&B=dorsal and lateral view; C=oviposition D=infested silk cocoon cluster

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