



Heterophleps inusitata, an extremely rare new moth species from western Yunnan, China (Lepidoptera, Geometridae, Larentiinae)

JING LI^{1,2}, NAN JIANG^{1,2} & HONGXIANG HAN^{1,3}

¹Key Laboratory of Zoological Systematics and Evolution, Institute of Zoology, Chinese Academy of Sciences, Beijing 100101 China.
E-mail: lijing@ioz.ac.cn; jiangn@ioz.ac.cn; hanhx@ioz.ac.cn.

²Graduate University of Chinese Academy of Sciences, Beijing 100049 China.

³Corresponding author

Heinitang is a small Lisu Nationality village located in western Yunnan Province, China, near the frontier of Myanmar. It is surrounded by low mountains covered with evergreen forests and shrubs (Fig. 1). As a tradition, the natives often cut and burn the forests for agriculture, resulting in increasing loss of forest habitat (Fig. 2). The moth fauna of this place is quite diverse, but as in other areas of the world, the biodiversity is decreasing due to more frequent human activities.

Twenty years ago, a female larentiine moth with unusual wing shape and pattern was caught at Heinitang for the first time. Although several expeditions have been carried out at Heinitang and adjacent areas in the past ten years, no new material has been found. With increasing destruction of habitat, the possibility of finding new material of this moth is diminishing, and the purpose of this paper is to describe this extremely rare new species and bring attention to its plight. This new species has some features in common with the genus *Heterophleps* Herrich-Schäffer, 1854, but also has some atypical features. Therefore, it may belong to *Heterophleps* or a new genus closely related to *Heterophleps*, but it is clear that a single female is not enough to clarify the systematic position of the new species.

Heterophleps inusitata Li, Jiang & Han sp. nov.

Figs. 3–6

Type material. Holotype, female, China: Yunnan: Tengchong, Heinitang, 1930 m, 28–30 May 1992, collected by Xue Dayong (deposited in the Institute of Zoology, Chinese Academy of Sciences, Beijing, China).

Description. Female. Antenna black mixed with white scales dorsally, about two-fifths length of forewing, bipectinate in basal three-fourths, filiform in terminal one-fourth; rami black, arising from central base of ventral side of each segment, parallel with antenna shaft basally and curled terminally, length of the longest ramus about six times of antenna shaft diameter. Frons not protruding, smooth-scaled, black mixed with reddish brown. Labial palpus reddish brown, black terminally, extending slightly beyond frons. Vertex, patagium and tegula black mixed with white. Metanotum white. Abdomen with dorsal side black with white transverse lines. *Wing pattern.* Forewing length: 17 mm. Forewing with apex slightly protruding, outer margin curved gently and sharply protruding at M_1 . Hindwing with outer margin slightly wavy, anal margin straight. Forewing with basal half blackish brown, scattered with silvery grey scales; antemedial and postmedial lines forming two black patches on costa, reddish brown, banded with black on both sides below costa; antemedial line ‘>’ shaped, forming a sharp tooth on M_3 ; discal spot white, oval, very conspicuous; the area between antemedial and postmedial lines densely covered with silvery grey scales, M_1 and M_3 veins black in this area; postmedial line extending along R_5 to submarginal line, then folding back and straight to anal margin, forming a sharp angle just below R_5 ; a reddish brown patch present below apex; submarginal line white, wavy above R_5 , interrupted on R_5 , almost straight below R_5 ; R_4 , R_5 and M_1 veins reddish brown outside submarginal line; terminal line black, with a silvery grey line inside; basal half of fringes reddish brown between costa and M_1 , blackish brown below M_1 , terminal half greyish white mixed with black. Hindwing greyish yellow, densely scattered with blackish brown scales except costal area; discal spot silvery grey, short strip-like, indistinct; postmedial line distinct below R_s , black, broad and straight; submarginal line greyish yellow, wavy slightly; terminal line and fringes similar to those of forewing. Underside: ochreous to yellowish brown, dark grey from base to postmedial line on forewing; postmedial and terminal lines dark grey; forewing with postmedial line oblique outwards between costa and M_1 and inwards below M_1 , discal spot