

Notes on the Oviposition Behavior and Early Egg Stage of *Callidula attenuata* (Moore, 1879) (Lepidoptera: Callidulidae)

WEI-CHUN CHANG¹, SHIPHER WU^{2,*}

¹ Fisheries Agency, Ministry of Agriculture, 6F., No.100, Sec. 2, Heping W. Rd., Zhongzheng Dist., Taipei City, Taiwan

² National Taiwan Museum, No. 2, Xiangyang Rd, Zhongzheng District, Taipei City, Taiwan.

* Corresponding author: spwu@ntm.gov.tw

Abstract. The oviposition behavior and early egg stage of *Callidula attenuata* (Moore, 1879) are described based on material collected in Taipei City, Taiwan.

Keywords: Obtectomera, Polypodiopsida, dusk-activity, moth

The family Callidulidae is known for its members' exclusive feeding on true ferns (Polypodiopsida) (Yen & Wu, 2009). While there have been descriptions of the larval stages within the subfamily Callidulinae, information on the morphology of the egg stage is sparse. Holloway (1998) reported that the eggs of Calliduline are laid on leaf margins. Nishio (1987) described the egg stage of the Japanese *Pterodecta felderi* (Bremer, 1864) as characterized by an oblate spheroid shape, with diameters ranging from 0.8 to 1.5 mm, a yellowish-white hue and semi-transparent patterns. Holloway (1998), citing unpublished data from Bell, recorded the eggs of *Tetragonus* Geyer, 1832, as being flat, scale-like, and laid in loose clusters; further details of the life cycle and egg information of *T. catamitus* Geyer, 1832 were provided by Young & Wu (2023). The type genus of Callidulinae, i.e., *Callidula* Hübner, 1819, however, has not yet been described. To the best of the author's knowledge, this article represents the first description of the egg morphology and oviposition behavior of the female *Callidula* moth.

Callidula attenuata (Moore, 1879) 帶錨紋蛾 (Figs. 1–3)

Description

Egg (n= 2; Figs 2, 3) – ca. 1.5 mm on the long side; dorsoventrally flattened, yellow, elliptic with irregular margin.

Notes on the original name combination and the female oviposition behavior

The original name combination of this species is *Datanga attenuata* Moore, 1879. Yen and Wu (2009) erroneously gave it as “*Petavia attenuata* Moore, 1879”. The observation of female oviposition behavior (Fig. 1) was made at Baoshanxi (25°01'49.5"N 121°34'52.5"E), Songshan District, Taipei City, Taiwan, on February 4, 2024, from 16:29 to 16:30. The female was observed flying among low grassy slope plants, then alighting on a fully unfurled tender leaf of *Microlepidia strigosa* (Thunb.) C. Presl (Dennstaedtiaceae). It moved slightly above the leaf and then fluttered its wings to change its position to another frond on the same plant, moving underneath the frond. The abdomen bent into a hook shape, and then it extended an ivory-colored ovipositor. After the female flew away, a pale yellow-green, droplet-shaped egg was observed on each of the two small fronds on the fern leaf.

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Figures 1–3. The oviposition behavior and early egg stage of *Callidula attenuata* (Moore, 1879) on *Microlepidia strigosa* (Thunb.) C. Presl (Dennstaedtiaceae) at Songshan, Taipei City, Taiwan. 1. Oviposition behavior of a female specimen, observed on February 4, 2024, between 14:29 and 14:30; 2. The first egg laid by the female; 3. The second egg laid by the female. Photo by Wei-Chun Chang (1); Shipher Wu (2, 3).

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帶錨紋蛾的產卵行為與卵初期註記（鱗翅目：錨紋蛾科）

張維君¹、吳士緯^{2,*}

¹ 農業部漁業署 臺北市中正區和平西路二段 100 號 6 樓

² 國立臺灣博物館 臺北市襄陽路 2 號

* 通訊作者：spwu@ntm.gov.tw

摘要：本文描述基於臺灣臺北市所觀察到的帶錨紋蛾產卵行為與早期卵期形態。

關鍵詞：合肢類、水龍古綱（真蕨綱）、黃昏活動、蛾類