



## Discovery of a third species of *Lamproptera* Gray, 1832 (Lepidoptera: Papilionidae)

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### Abstract

A newly discovered, third species of the genus *Lamproptera* (Lepidoptera: Papilionidae) is described, 183 years after the second currently recognised species was first named. *Lamproptera paracurius* Hu, Zhang & Cotton **sp. n.**, from N.E. Yunnan, China, is based on marked differences in external morphology and male genital structure. The species is confirmed as a member of the genus, and detailed comparisons are made with other taxa included in the genus. Keys to *Lamproptera* species based on external characters and male genitalia are included.

**Key words:** Leptocircini, new species, Dongchuan, Yunnan, China

### Introduction

The dragontails, genus *Lamproptera* Gray, 1832 (Lepidoptera: Papilionidae: Leptocircini), are the smallest papilionid butterflies found in tropical Asia (Tsukada & Nishiyama 1980b). Adults possess conspicuously prolonged tails on the hindwings, which assist their aerobatic, dragonfly-like flight—the origin of “dragontail”. Male *Lamproptera* aggregate in groups and drink from wet sandy places near the edge of water, where they tend to sit slightly apart from other groups of puddling swallowtails (Cotton & Racheli [2007]). Females can be seen visiting flowers in open places near forest edges, but are less commonly encountered than males.

*Lamproptera* is confined to the Oriental Region (Talbot 1939). For many years *L. curius* (Fabricius, 1787) and *L. meges* (Zinken, 1831) were the only recognized species, with various subspecies described and documented over time (Felder & Felder 1862, 1865; Butler [1870]; Moore 1902; Fruhstorfer 1898, 1909; Tytler 1912, 1939; Hata 1951; Tsukada & Nishiyama 1980a, 1980b). *L. curius* occurs from Northeast India across Indochina to South China, Malaysia and the Greater Sundas (Sumatra, Java, Borneo, Palawan, and some smaller offshore islands) (Tsukada & Nishiyama 1980b). The second known species, *L. meges*, described 183 years ago, occurs from Southwest China across Indochina to South China, Hainan, Malaysia, the Philippines, and much of the western Malay Archipelago (Sumatra, Java, Borneo, Palawan, and Sulawesi) (Tsukada & Nishiyama 1980b). Both species occur in South and Southwest China with partial sympatry (Wu 2001). Genus *Lamproptera* was estimated by Simonsen *et al.* (2011) to have diverged from ancestral tribe Leptocircini at least 44 million years ago. Since there has been considerable confusion over the tribal name, with many publications using alternate names (mainly Graphiini or Lampropterini) we take the opportunity to confirm the conclusion of Smith & Vane-Wright (2001: 506–508) that Leptocircini is the ICZN Code compliant name for the tribe.

In summer 2013 the first and second authors made several expeditions to Northeast Yunnan to investigate the butterfly fauna. During their trips, 58 unusual-looking *Lamproptera* were collected just east of Dongchuan, a mountain township lying approximately 140 km northeast of Kunming, in the Jinsha River Valley. The Jinsha

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## APPENDIX 1. Material examined.

Names of depositories are given in alphabetical order, with institutions listed after private collections, and are abbreviated as follows: AMC, collection of Adam M. Cotton (Chiang Mai, Thailand); HH, collection of Hao Huang (Tsingtao, China); SJH, collection of Shao-ji Hu (Kunming, China); JL, collection of Jian Luo (Beijing, China); JQZ, collection of Jian-qing Zhu (Shanghai, China); XZ, collection of Xin Zhang (Kunming, China); BMNH, collections of the Natural History Museum, (London, United Kingdom); SFU, collection of Southwest Forest University (Kunming, China); YNU, collection of Yunnan University (Kunming, China). Taxa and countries are arranged alphabetically.

*Lamproptera curius curius* (Fabricius, 1787). Type Locality ‘Siam’:

CHINA: 1♂, Dulongjiang, N.W. Yunnan 2012-IX-17, J. Lu leg., [AMC]; 1♀, Fugong, N.W. Yunnan, 2006-VII-17, [AMC]; 3♂♂ Gaoligong Shan, W. Yunnan, 2008-VI, [AMC]; 7♂, Jinghong, S. Yunnan, 1999-VI-20, J. C. He leg., [YNU]. INDIA: 1♂, Pynursla, Meghalaya, 1943-X-6, R. E. Parsons leg., [AMC]. INDONESIA: 1♂, Anai Valley, Padang Panjang, W. Sumatra, 1979-VIII-14, A. M. Cotton leg., [AMC]; 1♂, ditto, 1979-VIII-11, W. Liang leg., [AMC]; 1♂, ditto, 1979-VIII-14, L. Liang leg., [AMC]; 1♂, ditto, 1979-VIII-7, L. Liang leg., [AMC]. LAOS: 2♂, Phou Phan, Xam Neua, 2009-III-2–3, local catcher leg., [SJH]; 1♂, ditto, 2010-IV-2, local catcher leg., [SJH]; 1♀, Phou Pha Man, Hinboun District, 2005-VIII-7, A. M. Cotton leg., [AMC]; 1♂, Tad Xai Waterfall, Thabok, 2006-IV-18, A. M. Cotton leg., [AMC]; 1♂, ditto, 2005-VI-23, A. M. Cotton leg., [AMC]; 1♂, ditto, 2005-VIII-9, A. M. Cotton leg., [AMC]; 1♂, 2km from Nam Phao border post, Lak Sao, 2006-IV-21, A. M. Cotton leg., [AMC]; 1♂, ditto, 2006-II-14, A. M. Cotton leg., [AMC]; 1♂, ditto, 2006-I-17, A. M. Cotton leg., [AMC]; 1♀, ditto, 2005-VI-21, A. M. Cotton leg., [AMC]; 2♂, 4 km N.E. of Muang Moc (18.9453°N, 104.0455°E), Xiang Khouang, 2013-VI-24, S. J. Hu leg., [SJH]. MALAYSIA: 2♂, Cameron Highlands, 2012-VIII, local catcher leg., [SJH]; 1♂, ditto 1979-VII-23, A. M. Cotton leg., [AMC]; 1♂, Tapah Hills, Perak, 2007-III-14, local catcher leg., [AMC]; 6♂, Chenderiang Forest, Perak, 2010-I, local catcher leg., [AMC]. MYANMAR: 1♂, Kushin, N. Kachin State, 1998-VIII-5, [AMC]; 1♂, ditto, 1998-VIII-16, [AMC]; 1♂, Chudu Razi Hills, Kachin State, 2011-V-27, local catcher leg., [SJH]; 1♂, ditto, 2011-VIII-18, local catcher leg., [SJH]. PHILIPPINES: 1♂, N. Palawan 2004-VI, [AMC]; 1♂, Palawan 1978-I-2, [AMC]. THAILAND: 1♀ **LECTOTYPE**, 63/48 [round blue label], curius, Fab./♀ Siam [handwritten in red ink], *curius*, Fab. ♀ “Siam”/Mant. Ins. ii p. g n.71 (1787) [handwritten in black ink], two round red ‘Type’ labels, BMNH (E) # 668043 [BMNH], [see note about this specimen]; 3♂, Wang Takrai, Nakhon Nayok, 1982-VI-15, A. M. Cotton leg., [AMC]; 1♂, Lin Chang, Nong Ya Plong, Phetburi, 2012-V-24, A. Rakkasikorn leg., [SJH]; 1♂, ditto, 2007-VIII-18, A. Rakkasikorn leg., [AMC].