



## Correspondence

### A new species of *Catocala* Schrank, 1802 (Lepidoptera, Erebidae) from China

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A new species, *Catocala borthi*, from southwest China is described. The new species differs in appearance, genitalia and DNA from its closest known relative *C. koreana* Staudinger, 1892 and from the sympatric *C. fulminea* (Scopoli, 1763). In addition, three taxa, *Catocala invasa* Leech, 1900, **syn. n.**, *Catocala invasa melli* Ishizuka 2001, **syn. n.** and *Catocala fulminea tungus* Ishizuka 2009, **syn. n.** are synonymised with *Catocala fulminea fulminea* (Scopoli, 1763). DNA barcodes (658 base pairs of Cytochrome Oxidase Subunit I 5' region, COI-5P) were sequenced at the University of Guelph (see Hebert et al. 2003). Nomenclature follows Goater et al. 2003; Ishizuka 2001, 2009, 2011; Kononenko et al. 1998; Kononenko 2011; Park et al. 2006). Institutional acronyms are: AFM = Alessandro Floriani (Milan, Italy); BMNH – British Museum (Natural History), London; GBG/ZSM = Gottfried Behounek (Grafing, Germany)/ Zoologische Staatssammlung, München (Germany); HNHM – Hungarian Natural History Museum (Budapest, Hungary); NRCV = Nature Research Centre (Vilnius, Lithuania).

#### *Catocala borthi* Saldaitis, Ivinskis, Floriani & Babics **sp. n.**

(Figs. 1, 2, 9, 15)

**Type Material.** Holotype: male (Fig. 1), China, N. Sichuan, near Jiuzhaigou, N 33°18.855', E 103°55.531', 24 September 2011, 2100 m, Floriani leg., in GBG/ZSM collection; (Slide No. BJ 1866m)

Paratypes: 2 males and 2 females (Fig. 2), with the same labels as holotype in the collections of AFM and NRCV. Slide No. BJ 1867f;

**Diagnosis.** *C. borthi* differs from all other yellow hindwinged *Catocala* species, with its external morphology most resembling that of *C. koreana* (Figs. 3, 4) and *C. fulminea* (Figs. 5-7). Compared to *C. koreana* the new species is larger in size (wingspan 49 mm, 43 mm in *C. koreana*). In *C. borthi* the forewing pattern includes a narrow antemedial band which extends to the middle of wing, while the same band in *C. koreana* antemedial is wider and extends from costa to dorsum. In new species postmedian fascia is almost absent, compared to *C. koreana* in which the postmedian fascia is well expressed with a large middle loop. *C. borthi* male genitalia (Fig. 9) differ from those of *C. koreana* (Fig. 10) by the characteristically weakly sclerotized scaphium and the shorter, narrower and more pointed valvae, with shorter harpes and harpe basis. In *C. borthi* the harpe basis does not originate from distal part of the sacculus, unlike *C. koreana* where the harpe basis is a more prominent part of the valva, and originates from medial and distal parts of the sacculus. In the new species the aedeagus is more curved and subbasal diverticulum is larger. Female genitalia of the new species differs from *C. koreana* (Fig. 16) by the quadrangular shaped ovipositor and antevaginal plate, the wider papillae anales with the antevaginal plate extending more than half of abdomen segment VII (Fig. 15), and the junction between ductus bursa and bursa being less than half as long as in *C. koreana*. The new species is smaller than *C. fulminea* (wingspan of 56 mm). *C. fulminea* differ from *C. borthi* by the dark brown basal forewing area, the antemedial band crossing the forewing from costa to dorsum, the well expressed postmedian fascia with a large loop, the postmedian grey field; the hindwings differ by having a clear bordered loop. In *C. fulminea* male genitalia (Figs. 11-13) the apex of the right valva is acute, harpes have different lengths on each valve, the aedeagus widens at the apex, and the valvae are strongly asymmetric compared to *C. borthi* (in which valvae are the same length are only slightly asymmetric; Fig. 9). The female genitalia of the new species (Fig. 15) have a wider papillae anales, a shorter junction between the ductus bursa and bursa, and a sack-like bursa compared to the bulb-like bursa in *C. fulminea* (Figs. 17-19).