# NEW CATOCALA SPECIES (LEPIDOPTERA, NOCTUIDAE) FROM CHINA

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> **Abstract**. A new species, Catocala uljanae, is described. It is distinguished from the other species of the genus Catocala by light-coloured, pattern-free hindwings, the shape of the valvae and the aedeagus. The new species is most similar to Catocala nivea Butler, 1877.

Key words: Catocala uljanae sp. n., Noctuidae, Lepidoptera, China

#### Introduction

Last year, a male of an unidentified species was captured together with other species of the genus Catocala by one of the authors in the Sichuan province, China. The captured specimen markedly differs from all known Palearctic species of Catocala by its pattern-free hindwings that are definitely not characteristic of the representatives of the genus Catocala. Analysis of literature about Catocala species (Goater et al. 2003; Jordan & Warren 1909-1914; Kononenko 1990, 2005; Kononenko et al. 1998; Sugi & Owada 1982; Yoshimoto 1994) indicates that our specimen is new to science. Only a few species having plain-coloured hindwings have been known so far. Of these, Catocala infasciata (Mell, 1936) has bright orange hindwings and Catocala triphaenoides Obertur, 1881 is distinguished by only a thin marginal black band. Analysis of the genital structure clearly suggests that the trapped specimen, the description of which is given below, is a new species of the genus Catocala. In appearance, the new species is close to Catocala nivea Butler, 1877, of which the imago, and male and female genitalia are illustrated.

# MATERIAL AND METHODS

Material was collected in August 2006 using a mixed light bulb with a Honda generator.

#### RESULTS

Catocala uljanae sp. nova Sinyaev, Saldaitis, Ivinskis Holotype: male (Figs 1, 2) China-Sichuan Qingcheg Shan 31°12'N 102°47'E August 2006, H – 1,500–1,800 m Figure 1. Catocala uljanae upperside.

leg Viktor Sinyaev, V. Sinyaev's collection deposited in the State Darwin Museum, Moscow, Russia.

Description: Measures: forewing length of holotype 38 mm, wingspan 78 mm. The appearance of the new species is atypical of Catocala representatives. Forewings have a pattern characteristic of Catocala species, but hindwings have no pattern.

Characteristic features of Catocala uljanae are as follows: head and patagium pale brown, tegulae grey, abdomen white, its posterior segments grey. Forewings grey, with black-grey dorsal and outer margins, basal and antemedian lines short, reniform spot absent, postmedian band distinct up to triple apical dash, medially inconspicuous, forming one more tooth at anal dash. Hindwings white, with no pattern.

Underside of forewing whitish, median band and outer wing margin black (Fig. 2). Underside of hindwing white, with yellowish veins and a small median spot at costal edge.





Figure 2. Catocala uljanae underside.

Genitalia: Asymmetric. Uncus slender with thorn-like apiculus. Scaphium is a strongly sclerotised ridge, mandibulate with uncus. Valvae slightly asymmetrical, tapered. End of left valva with deep sinus and narrow sclerotised band, that of right valva with indistinct sinus, 1/3 of valva length is sclerotised, costa with large, blunt process. Juxta with deep incision, its right-side portion more sclerotised. Vinculum massive. Aedeagus twisted, expanding apically, with three small diverticulum vesica (Figs 3, 4).

**Diagnosis:** Externally, closely resembles *Catocala nivea* (Figs 5, 6), but the latter is larger (forewing length 45 mm, wingspan 90 mm). Potagium dark brown-black, abdomen grey. Forewings dark grey, silvery-green tinted, reniform spot well-articulated, apical dash represented by one black dash.

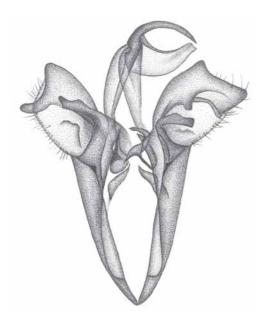


Figure 3. Catocala uljanae male genitalia capsule.

Hindwings light yellow, with postmedian and marginal lines typical of the genus *Catocala*. The genitalia of *Catocala nivea* are markedly different (Figs 7–9). **Bionomics and distribution:** Known from only one specimen light-trapped in the Sichuan province, China,



Figure 4. Catocala uljanae male genitalia aedeagus.



Figure 5. Catocala nivea male.

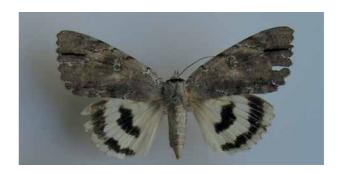


Figure 6. Catocala nivea female.

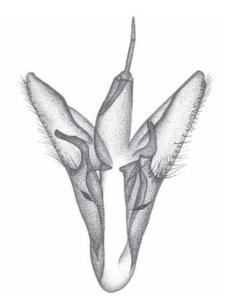


Figure 7. Catocala nivea male genitalia capsule.



Figure 8. Catocala nivea male genitalia aedeagus.

at 9 p. m. in August. The new species was collected together with *Catocala nivea* in a mixed forest (with the dominant species of *Quercus* and Pinaceae). **Etymology:** Named after Viktor Sinyaev's daughter Uljana.

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Figure 9. Catocala nivea female genitalia.

# REFERENCES

Goater, B., Ronkay, L. and Fibiger, M. 2003. *Catocalinae & Plusiinae*. *Noctuidae Europaeae*. Vol. 10. Sorø: Entomological Press.

Jordan, K. and Warren, W. 1909–1914. In Seitz; Gross-Schmetterlinge des palaearktischen Faunengebietes, Band 3; Die eulenartigen Nachtfalter, Alfred Kernen-Verlag, Stuttgart, 314, Taf. 55 f.

Kononenko, V. S. 1990. Synonymic Check List of the Noctuidae of the Primorye Territory, for the East of USSR. *Tinea* 13 (suppl. 1): 6.

Kononenko, V. S. 2005. An annotated Check List of the Noctuidae (s. 1.) (Lepidoptera, Noctuoidea: Nolidae, Erebidae, Micronoctuidae, Noctuidae) of the Asian part of Russia and Ural region. *Noctuidae Sibiricae* I: 243. Sorø: Entomological Press.

Kononenko, V. S., Ahn, S. B. and Ronkay, L. 1998. Illustrated Catalogue of Noctuidae in Korea (Lepidoptera). In: K. T. Park (ed.) *Insects of Korea*, *Series* 3: 55, fig. 98. Junghaeng-Sa, Seul, Korea.

Sugi, S. and Owada, M. 1982. In: H. Inoue (ed.) *Moths of Japan, I*: Text, II: 388. Tafeln, Kodansha, Tokyo.

Yoshimoto, H. 1994. In: T. Haruta (ed.) *Moths of Nepal*, Part 3. *Tinea* 14 (suppl. 1): 140.

# Nauja *Catocala* rūšis (Lepidoptera, Noctuidae) iš Kinijos

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## SANTRAUKA

Straipsnyje pateikiamas naujos mokslui pelėdgalvių rūšies iš Kinijos *Catocala uljanae* sp. n. Sinyaev,

Saldaitis, Ivinskis aprašas. Aprašoma nauja mokslui rūšis pasižymi labai šviesiais sparnais (užpakaliniai sparnai be rašto, ryškiai balti). Pagal išorinę išvaizdą ir genitalines struktūras – valvų ir aedeagus formą – nauja rūšis ryškiai skiriasi nuo išoriškai panašios rūšies *Catocala nivea*.

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