

## New Data about Carpenter Moths of China

(Lepidoptera, Cossidae)

by

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received 11.VI.2004

**Abstract:** This paper presents new data on Chinese Cossidae. New synonyms are stated: *Cossus cossus deserta* DANIEL, 1969 = *Cossus cossus altensis* HUA et al., 1990, syn. nov., *Cossus aksuensis* DANIEL, 1953 = *Holoceretus consobrinus* PÜNGELER, 1898, syn. nov. Three species are reported for the first time for China: *Tarsozeuzera fuscipans* (HAMPSION, 1892), *Relluna nurella* (SWINHOE, 1894), *Zeuzera indica* HERRICH-SCHÄFFER, [1854].

**Резюме:** В статье приведены новые данные по Cossidae Китая: установлена новая синонимия: *Cossus cossus deserta* DANIEL, 1969 = *Cossus cossus altensis* HUA et al., 1990, syn. nov., *Cossus aksuensis* DANIEL, 1953 = *Holoceretus consobrinus* PÜNGELER, 1898, syn. nov., а 3 вида приводятся впервые для территории Китая: *Tarsozeuzera fuscipans* (HAMPSION, 1892), *Relluna nurella* (SWINHOE, 1894), *Zeuzera indica* HERRICH-SCHÄFFER, [1854].

The recent work by HUA et al. (1990) devoted to Cossidae of China contains much interesting original data on taxonomy and fauna of this little studied family of Lepidoptera. It includes many new descriptions and it is the only compendium on the territory of Chinese People's Republic. In the course of treatment of Asian carpenter moths in Thomas Witt Museum (MWM) I found three species new for China and revealed new synonyms.

### List of abbreviations

MHUB -Natural History Museum at Humboldt University (Berlin)

MWM - Thomas Witt Museum (Munich, Germany)

*Cossus cossus* (LINNAEUS, 1758)

*Phalaena Noctua cossus* LINNAEUS, 1758, *Systema Naturae*: 504.

*Cossus cossus deserta* DANIEL, 1969, *Reichenbachia* 11 (25): 98–99.

HUA et al. (1990): 25–26, 120–121, pl. 1: 7, 8.

The subspecies *Cossus cossus altensis* HUA et al., 1990 was described from the Sinjiang-Uigur Autonomous Region (Altai, Beitun settlement). As its diagnostic features, a light coloration of the wings and patagium and very slight differences in the genitalia were claimed. Examination of the type material of *Cossus cossus deserta* DANIEL, 1969, described from SW Mongolia, Hovd Aimak, the Dzungarian Gobi (situated only 150 km E of the type locality of *Cossus cossus altensis* HUA et al., 1990) revealed conspecificity of the mentioned taxa. This is corroborated by absence of noticeable geographical barriers between their type localities (both being

situated south-west of the main chain of Mongolian Altai), which belong to the same Kazakhstan-Altaï-Dzungarian biogeographical region (KAMELIN, 1998; YAKOVLEV, 2003). Hence, a new synonymy is suggested:

*Cossus cossus deserta* DANIEL, 1969 = *Cossus cossus altensis* HUA et al., 1990, syn. nov.

*Cossus aksuensis* DANIEL, 1953 (colour plate XVII, fig. 1; text figs. 1, 2).

DANIEL, 1953, Mitt. Münch. Ent. Ges. 43: 257, Taf. VII, fig. 5.

HUA et al. (1990): 124, pl. 4, fig. 37, text fig. 17 (as *Holcocerus aksuensis*).

In the work by HUA et al. (1990) this species was considered, without sufficient reasoning, in a new combination *Holcocerus aksuensis* (DANIEL, 1953), figure 37 on Plate 4 indeed presenting a representative of the genus *Holcocerus* STAUDINGER, 1884, probably *Holcocerus arenicola* (STAUDINGER, 1897), and the genitalia depicted again belonging to a representative of *Holcocerus* from the *arenicola*-group.

This little known species is reliably known only by the type material including the holotype preserved in MWM. A study of this specimen revealed that it was constructed, being a male *Holcocerus consobrinus* PÜNGELER, 1898 (colour plate XVII, fig. 2) with a neatly glued head of a representative of the genus *Cossus* FABRICIUS, 1793, most probably *Cossus bohatschi* PÜNGELER, 1898 (colour plate XVII, fig. 3). Both species occur sympatrically in the Ili River basin. The specimen was bought from O. STAUDINGER's company (DANIEL, 1953) and resulted in the description of a new species *Cossus aksuensis* by F. DANIEL. The study of its genitalia confirmed its belonging to *Holcocerus consobrinus*. Hence, *Holcocerus consobrinus* PÜNGELER, 1898 = *Cossus aksuensis* DANIEL, 1953. svn. nov.

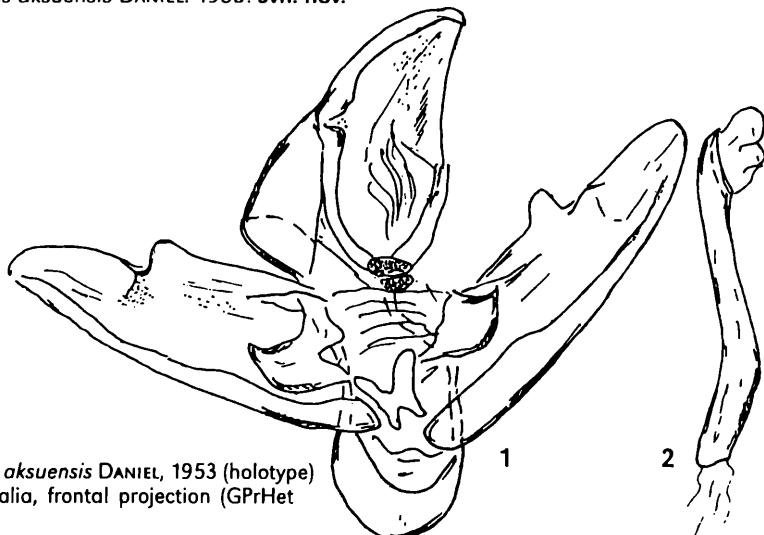


Fig. 1: *Cossus aksuensis* DANIEL, 1953 (holotype)  
male genitalia, frontal projection (GPrHet  
4102 MWM).

Fig. 2: *Cossus aksuensis* DANIEL, 1953 (holotype)  
- aedeagus, lateral projection.

*Tarsozeuzera fuscipans* (HAMPSON, 1892) (colour plate XVII, fig. 4)

*Duomitus fuscipans* HAMPSON, 1892: 309.

1 ♂, China, Yunnan centr., Ailao Mt., 3500 m, IX.1999, leg. WANG et LI (MWM).

*Relluna nurella* (SWINHOE, 1894) (colour plate XVII, fig. 5)

*Azygophleps nurella* SWINHOE, 1894: 440.

1 ♂, China, Yunnan, Dabingshan, Yunxian, 1800 m, V.2000, leg. native collector (MWM).

1 ♂, China, E. Yunnan, Meizhiging, Wenshan, 2100 m, VI.2000., leg. native collector (MWM).

*Zeuzera indica* HERRICH-SCHÄFFER, [1854] (colour plate XVII, fig. 6)

*Zeuzera indica* HERRICH-SCHÄFFER, [1854]: 58, Fig. 166.

1 ♂, China, Hainan Isl., Wuzhi Shan Mts., 18.53°N, 109.43°E, 1500 m, 20.II.-10.IV.2001, leg loc. collector (ex coll. Dr. RONALD BRECHLIN) (MWM).

2 ♂♂, China, Prov. W-Yunnan, Mou Ding County 1300 m, 25°19' N; 100°32' E, 16.III.-10.IV. 2000, leg. BRECHLIN's loc. coll. (MWM).

This species was depicted in HUA et al. (1990) on Plate 6, figure 75, under a wrong identification as *Zeuzera postexisa* HAMPSON, 1892.

#### Acknowledgements

The author is grateful to THOMAS WITT (Munich) for the possibility offered to study the Cossidae collection of his Museum, to Dr. W. MEI (Berlin) for offering the type specimens from MHUB, Dr. V. ZOLOTUHIN (Ulyanovsk) for consultations, Dr. O. KOSTERIN (Novosibirsk) for the help with translation of the paper.

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Explanation of colour plate XVII (p. 479):

- Fig. 1: *Cossus aksuensis* DANIEL, 1953 (holotype) (MWM).  
Fig. 2: *Holcocerus consobrinus* PÜNGELER, 1898 (type) (MHUB).  
Fig. 3: *Cossus bohatschi* PÜNGELER, 1898 (type) (MHUB).  
Fig. 4: *Tarsozeuzera fuscipans* (HAMPSON, 1892) ♂, China, Yunnan centr., Ailao Mt., 3500 m, IX.1999, leg. WANG et LI (MWM).  
Fig. 5: *Relluna nurella* (SWINHOE, 1894) ♂, China, Yunnan, Dabingshan, Yunxian, 1800 m, V.2000, leg. native collector.  
Fig. 6: *Zeuzera indica* HERRICH-SCHÄFFER, [1854] ♂, China, Prov. W-Yunnan, Mou Ding County 1300 m, 25°19' N, 100°32' E, 16.III.-10.IV.2000, leg. BRECHLIN's loc. coll. (MWM).

1	2
3	4
5	6

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YAKOVLEV, R. V.: New Data about Carpenter Moths of China (Lepidoptera, Cossidae).  
Atalanta 35 (3/4): 353–356.

Fig. 1: *Cossus aksuensis* DANIEL, 1953 (holotype) (MWM).

Fig. 2: *Holcacerus consobrinus* PÜNGELER, 1898 (type) (MHUB).

Fig. 3: *Cossus bohatschi* PÜNGELER, 1898 (type) (MHUB).

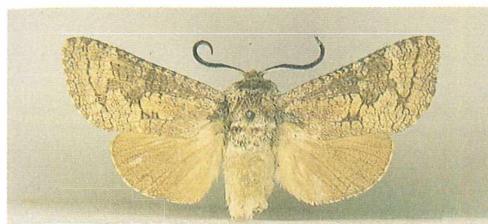
Fig. 4: *Tarsozeuzera fuscipans* (HAMPSON, 1892) ♂, China, Yunnan centr., Ailao Mt., 3500 m, IX.1999, leg. WANG et Li (MWM).

Fig. 5: *Relluna nurella* (SWINHOE, 1894) ♂, China, Yunnan, Dabingshan, Yunxian, 1800 m, V.2000, leg. native collector.

Fig. 6: *Zeuzera indica* HERRICH-SCHÄFFER, [1854] ♂, China, Prov. W-Yunnan, Mou Ding County 1300 m, 25°19' N, 100°32' E, 16.III.–10.IV.2000, leg. BRECHLIN's loc. coll. (MWM).

1	2
3	4
5	6

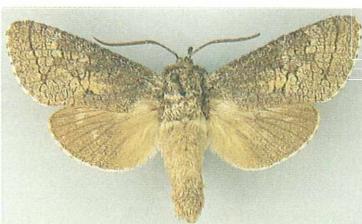
Colour plate XVII



Thianshan  
Aksatal  
Franz Daniel, München

Genitalpräparat  
Heterocera  
Nr. 4102  
Museum WITT München

Holotypus ♂  
*Cassida eichstaettensis*  
Dana



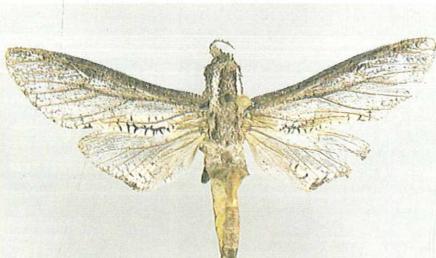
Asia centr.  
Tien - Gebiet  
Sankt Petersburg 1897

Type  
*consobrinus* Füng I  
abgebildet Tiere 1899  
Pengler



Asia centr.  
Tien - Gebiet  
Sankt Petersburg 1897

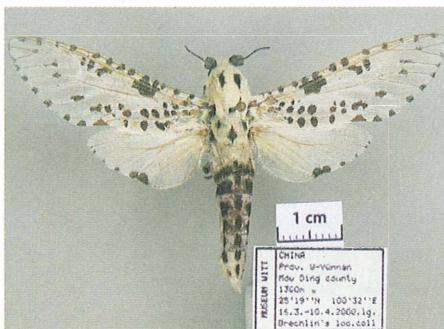
Type  
*Bohemicus* Füng I  
abgebildet Tiere 1899  
Pengler



1 cm



1 cm



CHINA  
Prov. U-Yunnan  
Mou Ding county  
1300m  
28°19'N 100°32'E  
12.5-10.4.2000 lg.  
Bremelin's 300.6011

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Jahr/Year: 2004

Band/Volume: [35](#)

Autor(en)/Author(s): Yakovlev Roman V.

Artikel/Article: [New Data about Carpenter Moths of China 353-356](#)