

New Data about Carpenter Moths of China

(Lepidoptera, Cossidae)

by

ROMAN V. YAKOVLEV

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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 = *Holcocerus consobrinus* PÜNGELER, 1898, syn. nov. Three species are reported for the first time for China: *Tarsozeuzera fuscipans* (HAMPSON, 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 = *Holcocerus consobrinus* PÜNGELER, 1898, syn. nov., а 3 вида приводятся впервые для территории Китая: *Tarsozeuzera fuscipans* (HAMPSON, 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 Sinxjiang-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 Dzhungarian 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-Altai-Dzhungarian 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.**

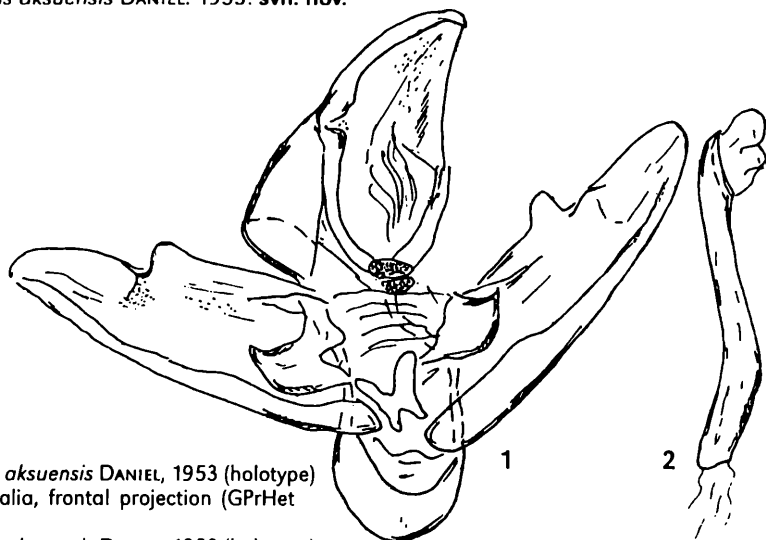


Fig. 1: *Cossus aksuensis* DANIEL, 1953 (holotype) male genitalia, frontal projection (GPrHet 4102 MWM).

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: *Halcocerus 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

address of the author

Dr. ROMAN V. YAKOVLEV

57-81, Chkalova str.

Barnaul, 656049

Russia

e-mail: yakovlev_r@mail.ru

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

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

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

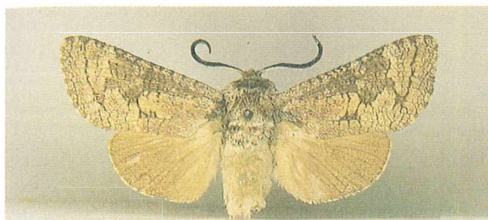
Fig. 4: *Tarsozeuzera fuscipans* (HAMPSON, 1892) ♂, China, Yunnan centr., Ailao Mt., 3500 m, IX.1999, leg. WANG et LI (MWM).

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

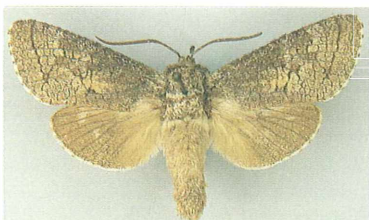
Colour plate XVII



Thianshan
Aksutal
Franz Daniel, München

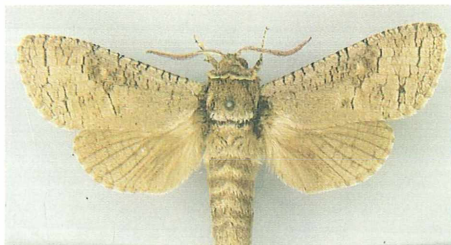
7
Genitalpräparat
Heterocera
Nr. 4102
Museum WITT München

Holotypus ♂
Cassio akhsenis
Dalla



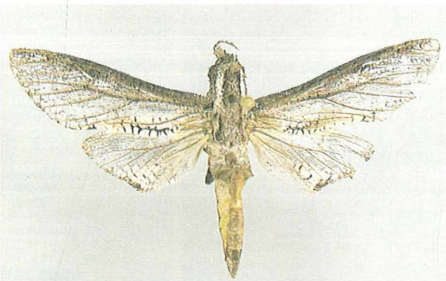
Asia centr.
Ili-Gebiet
Rehder 1894

Type
Cassio akhsenis
Rehder 1894
Dalla

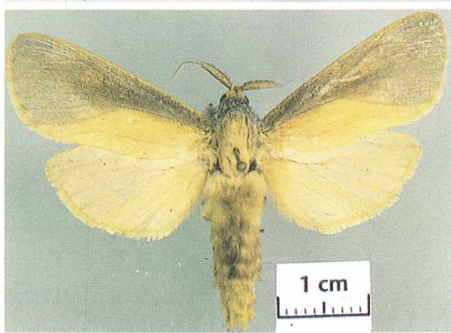


Asia centr.
Ili-Gebiet
Rehder 1894

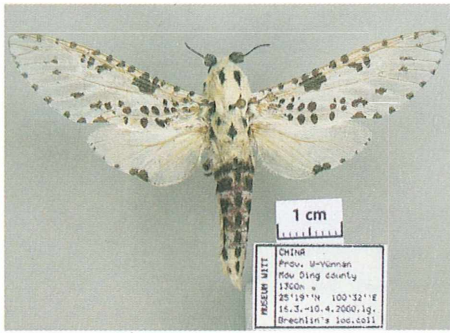
Type
Borata akhsenis
Rehder 1894
Dalla



1 cm



1 cm



1 cm
MUSEUM WITT
CHINA
Prov. Yunnan
Mou Ding county
1500m
20°19'N 100°32'E
16.3.10.4.2000.ig.
Brechlin's coll.

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