

## Notes on the genus *Saturnia* SCHRANK, 1802, with description of a new species (Lepidoptera: Saturniidae)

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**Abstract:** A new species of the genus *Saturnia*, subgenus *Saturnia*, is described: *Saturnia centralis* n. sp., ♂ holotype from Yunnan, PR China, in Zoologisches Museum der Humboldt-Universität zu Berlin, Germany. The species is widespread in the Chinese provinces of Yunnan and Sichuan, plus Northeastern parts of Myanmar and Northern Thailand, and thereby is a central link to other species of the genus. The closest relative is obviously *S. cameronensis* from West Malaysia. Males, females, and male genitalia of the new species are described and figured, and notes on current knowledge and status of the other Asian members of the genus are given. *S. cidosa* stat. rev., *S. cognata* stat. n., and *S. luctifera* stat. n. are mentioned on species rank, and *S. pyretorum pearsoni* syn. n. from Hainan Island is found to be a synonym of the nominotypical *S. pyretorum*.

**Key words:** *Saturnia*, *Eriogyna*, *centralis*, new species, new status, new synonymy

### Anmerkungen zur Gattung *Saturnia* SCHRANK, 1802, mit Beschreibung einer neuen Art (Lepidoptera: Saturniidae)

**Zusammenfassung:** Eine neue Art der Gattung *Saturnia*, Subgenus *Saturnia*, wird beschrieben: *Saturnia centralis* n. sp.; der männliche Holotypus aus Yunnan, Volksrepublik China, wird in die Sammlung des Zoologischen Museums der Humboldt-Universität zu Berlin gelangen. Die neue Art ist weit verbreitet in den chinesischen Provinzen Yunnan und Sichuan und wurde auch im nordöstlichen Teil von Myanmar sowie in Nordthailand nachgewiesen. Sie ist damit ein Bindeglied zu anderen Arten dieser Gattung. Der nächste Verwandte ist offensichtlich *S. cameronensis* aus Westmalaysia. Männchen, Weibchen sowie männliche Genitalstrukturen der neuen Art werden beschrieben und abgebildet, und es wird eine Übersicht über den derzeitigen Kenntnisstand und Status der anderen asiatischen Vertreter der Gattung gegeben: *S. cidosa* stat. rev., *S. cognata* stat. n. sowie *S. luctifera* stat. n. werden auf Artrang angehoben, während *S. pyretorum pearsoni* syn. n. von der Insel Hainan als Synonym der nominotypischen *S. pyretorum* angesehen wird.

### Introduction

This work should not be understood as a revision of the genus, but, necessitated by the lack of current literature, we give an actual overview about the taxa described so far plus some personal notes on each taxon with ideas based on the material which was and is at our hands actually. Studies are not yet finished, and not all type specimens were examined so far, so we hesitate to perform the probably necessary taxonomic acts in some

cases here. The overview which concludes the present paper should also be understood as provisionally as lots of specimens came (and come) into our hands during recent years from mainly China and Vietnam, but also other SE Asian countries, and we hope for a discussion with others interested to solve outstanding problems. Obviously even the classification within a certain genus or subgenus is somewhat ambiguous for some authors as there were and still are different citations for the species included even in the last years.

### Abbreviations and conventions:

CRBP	collection Dr. Ronald BRECHLIN, Pasewalk, Germany
CSLL	collection Swen LÖFFLER, Lichtenstein, Germany
CSNB	collection Dr. Stefan NAUMANN, Berlin, Germany
Fwr.	length of right forewing, measurement from basis to apical tip
HT	holotype
L.t.	Locus typicus
PT	paratype
ZMHU	[entomological collection of] Zoologisches Museum der Humboldt-Universität zu Berlin, Germany

### The new species

The new species has an external morphology closely resembling the West Malaysian species *S. cameronensis* LEMAIRE, 1979, but is distinct in some characters, especially in the smaller size and details of pattern of both ♂♂ and ♀♀, and ♂ genitalia morphology as well. We describe this species here as new:

### *Saturnia (Saturnia) centralis* n. sp.

**Holotype** (Fig. 1): ♂, PR China, Yunnan province (West), Zhengkang, Cashan, near Myanmar border, 2600 m, i. 2002, leg. YING, CSNB. – The holotype and a series of ♂ and ♀ paratypes from different localities will be deposited in the collections of Zoologisches Museum der Humboldt-Universität zu Berlin when further studies on the genus are finished.

**Paratypes** (in total 103 ♂♂, 33 ♀♀; Figs. 2, 3, 6, 7, 8): **China, Yunnan:** 5 ♂♂, (North), Dawanshan Mt., 2600 m, Yao-An County, near south Sichuan border, iv. 2003, leg. YING (CSLL); 10 ♂♂, (North), Yao-An, Baiyunshan, 2500 m, iv. 2003, leg. YIN et al., ♂ genitalia no. 1240/05 NAUMANN (CSNB); 2 ♂♂, 2 ♀♀, same data (CRBP); 5 ♂♂, (Northwest), Yunlong, Daxueshan, approx. 4000 m, iv. 2003, leg. LI (CSNB); 5 ♂♂, 1 ♀, (West), Changshan, near Dali, 2800 m, ii. 2001 (CRBP); 5 ♂♂, 1 ♀, (West), Daxueshan, 2800 m, Changyuan, ii. 2001 (CRBP); 2 ♂♂, (West), Zhengkang,

<sup>1</sup> 12th contribution to the Saturniidae fauna of China (11th contribution: NAUMANN, BRÖSCH & NÄSSIG [2003]: A catalogue and annotated checklist of the subfamily Agliinae PACKARD, 1893 (Lepidoptera: Saturniidae). 1. Review of the *Aglia* species with description of a new taxon from Sichuan, China. – Nachrichten des Entomologischen Vereins Apollo, Frankfurt am Main, N.F. 24 (4): 173–182.)

Cashan, near Myanmar border, 2600 m, I. 2002, leg. YING (CSNB); 4 ♂♂, (South), Huazhuliangzi, 2800 m, Menghai, II. 2001 (CRBP); 2 ♂♂, (South), Dajianshan, Majiang, 2500 m, II. 2001, leg. YING (CSLL); 1 ♂, (South), Xiquanbanna, Guanping env., 10 km N Jinghong, 950 m, 8.–12. II. 2003, leg. S. MURZIN, bought x. 2003 in Prague (CSNB); 1 ♂, same data (CRBP); 1 ♂, same locality, but 29. I.–6. II. 2003 (CRBP); 6 ♂♂, Weibaoshan, 2500 m, VII. 2002, leg. LI, ♂ genitalia no. 648/02 NAUMANN (CSLL); 6 ♂♂, Gengma, Shipaishan, 2600 m, I. 2002, leg. YING et al., ♂ genitalia no. 1239/05 NAUMANN (CSNB). — **China, Sichuan:** 3 ♂♂, 3 ♀♀, (South), Daheishan Mt., 2500 m, Panzihua, III. 2003, leg. YIN (CSLL); 6 ♂♂, 5 ♀♀, same locality, early III. 2003, leg. YING et al., ♂ genitalia no. 1241/05 NAUMANN (CSNB) (Figs. 2, 6); 2 ♂♂, (South), Daigaoshan, Yanyuan, 3800 m, ca. 101°40' E 27°10' N, mid XII. 2001 in snow, leg. YIN, ♂ genitalia no. 643/02 NAUMANN (CSNB). — **Myanmar:** 17 ♂♂, 10 ♀♀, Tangpengshan, 2800 m, In Xingwei “East Myanmar near Lijiang river”, III. 2003, leg. YIN (CSLL); 14 ♂♂, 11 ♀♀, (Northeast), Xingwei, Tangpengshan, 2800 m, near SW Yunnan borderline, ca. 50 km S Ruili, early III. 2003, leg. local people, via PENG Z.-L. IV. 2003, ♂ genitalia no. 1242/05 NAUMANN (CSNB) (Figs. 3, 7); 1 ♂, same data, ex CSNB in coll. David LANE, Atherton, Australia; 1 ♂, same data, ex CSNB in coll. Teemu KLEMETTI, Imatra, Finland; 2 ♂♂, same data (CRBP). — **Thailand:** 2 ♂♂, (North), Provinz Chiang Mai, Doi Pha Hom Pock, Mae Ai, 2000 m, 22.–29. I. 2004, leg. Thomas IHLE, ♂ genitalia no. 1090/04 NAUMANN (CSLL) (Fig. 8).

**Etymology:** The new species is named after its dispersal in the central South East Asian areas, centrally in between the known distribution of the other Asian representatives of the genus.

## Description and diagnosis

♂ (Figs. 1, 2, 3, 8): Very typical in overall colour and pattern for the whole genus but with some peculiarities which easily can be seen in the large type series. Antennae quadripectinate, 12.0–14.0 mm long (average 12.6 mm, n = 43; HT 12 mm), with around 30 segments, longest rami 1.9 mm. Collum white, dorsal and ventral thorax including legs with dark greyish brown hairs, abdomen whitish grey, with grey rings on dorsal side, anal tip with tuft of loose long dark grey hairs which obviously get lost when specimens are on the wing for longer time. Fwr. 41.0–49.0 mm (average 45.3 mm, n = 43; HT 45 mm); specimens from Thailand are somewhat larger than the other populations. The basal dark field is quite small, antemedian band at least 2 mm broad, basally bordered with carmine, completely concave, while *S. pyretorum* WESTWOOD, 1847, *S. cameronensis* and more or less also *S. cidosa* MOORE, 1865, have an angle when crossing vein  $Cu_1$ . The forewing ocellus of 7.5–8.0 mm maximum diameter (HT 8.0 mm), with outer ring black, then proximal blue and inner circular yellow portion, inner part with few scales, little transparent, with lenticular pupilla. There is a postmedian zigzag band starting most proximal on the basal side, and turning outward only below the ocellus, from there bent parallel to the outer margin and ending in the apex. Submarginal zone dark greyish, in the apical part two black dots, followed with pink and carmine portion of the outer margin. Outer margin separated by thin inner

whitish line, outer part greyish beige. The almost round hindwing with a small basal greyish carmine portion, antemedian band broad, situated very basally, hindwing ocellus almost round, 5.5–6.5 mm maximum diameter (HT 6.5 mm), with same colouration as in forewing. There is a weakly indicated postmedian zigzag band with some space to the submarginal zone. Marginal area similar to forewing. The wing undersides are absolutely similar to the dorsal view, only the basal field and the antemedian line are indicated as shadows of the upper side. All wings are somewhat transparent. Generally, the species can be separated from *S. cameronensis* by its smaller size, the more falcate forewing, and differently coloured and shaped antemedian lines; from *S. pyretorum* by the larger basal dark patch of that species, its even more falcate forewing, the outer basal begin of its double postmedian line which is almost always parallel to the broader marginal zone with larger white portion. *S. cidosa* is smaller, has more rounded forewings, darker postmedian area of both fore- and especially hindwing and a very typical, intensively undulate postmedian line in the hindwing; that species has more similarities with *S. pyretorum* than with the new species.

♂ genitalia (Figs. 10, 11, 12, 13): Generally, there are few specific characters in ♂ genitalia of *Saturnia*, but in series we found stabile characters to separate and to define the different species. *S. centralis* has a relatively short bifurcate uncus bent downward. Saccus small, curved upward, juxta medium-sized, with two lateral processes. Valves with small sacculus and small, only indicated ventral process; the apex long and rounded. Aedeagus small, with small ring-like structure due to the large transparent vesica-like part which emerges on dorsal side. The genitalia of *S. cameronensis* have a longer uncus, much longer slender processi of the juxta, and the apex of the valves with small earlike internal structure; the apex is more slender, not as round as in *S. centralis*. In *S. pyretorum* (including, of course, specimens from Hainan) the uncus is deeply furcate, the processi of the juxta are more compact and shorter, and the ventral process of the valves is somewhat longer. *S. cidosa* from Nepal has a broader uncus which is deeper furcated; the juxta processes are similar to *S. centralis*, but have a shorter base, and the valves are shorter, more rounded, and compact. All other species in the subgenus show more differences which can be easily seen (compare Figs. 10–21).

♀ (Figs. 6, 7): In pattern the ♀ is very similar to the ♂, there are only some differences which are typical for the sexual dimorphism: Antennae bipectinate, 12.0–13.0 mm long (average 12.5 mm, n = 14), around 28 segments, longest rami 0.5 mm. Fwr. 48.0–55.0 mm (average 53.5 mm, n = 15); generally the forewings have, although somewhat more rounded, the same rather falcate form compared to ♀♀ of *S. cameronensis* and especially *S. pyretorum*; the figure by MOORE (1865) in the original description of *S. cidosa* shows an almost rectangular ♀ forewing for that species. Pattern differences





Colour plate, Figs. 1–9: dorsal view of *Saturnia* species. Fig. 1: *Saturnia centralis*, ♂ HT, China, West Yunnan. Fig. 2: *S. centralis*, ♂ PT, China, Sichuan (CSNB). Fig. 3: *S. centralis*, ♂ PT, NE Myanmar, Xingwei (CSNB). Fig. 4: *S. cidosa*, ♂, Nepal, Pokhara (CSNB). Fig. 5: *S. cameronensis*, ♂, West Malaysia, Cameron Highlands (CSNB). Fig. 6: *S. centralis*, ♀ PT, PR China, Sichuan (CSNB). Fig. 7: *S. centralis*, ♀ PT, NE Myanmar, Xingwei (CSNB). Fig. 8: *S. centralis*, ♂ PT, N. Thailand (CSLL). Fig. 9: *S. cameronensis*, ♀, West Malaysia, Cameron Highlands (CSNB). — All specimens to the same scale.



between the different species are similar to the ♂♂. The ♀♀ show the typical abdominal wool which is used to cover the eggs when deposited (JORDAN's name for a separate genus!), a habit which can be seen in all Asian members of that unit.

♀ genitalia: not dissected.

Preimaginal instars. Unknown.

### Zoogeography

*S. centralis* is probably some sort of a connecting link between *S. cameronensis* much further in the South, *S. pyretorum* in the East, and *S. cidosa* in the West. The missing records for all areas south of Doi Inthanon in northern Thailand on the way southward to the Malayan Peninsular can perhaps be explained first by the lack of higher mountains in between, but also by lacking collecting activities in other, partly deforested and partly inaccessible areas along the Thailand–Myanmar borderline, especially in the wide Dawna Range and Tenasserim mountain areas.

### Additional information about other taxa

The genus *Eriogyna* (meaning “hairy female”) was erected by JORDAN in SEITZ (1911: 221); he separated the species *S. pyretorum* from the genus *Saturnia* due to some details in wing venation, pattern and mainly the dark greyish anal hair tip of the ♀ abdomen used to cover the ova while being deposited, similar to, e.g., the European gipsy moth, *Lymantria dispar* LINNAEUS, 1758. At the same time he also described two new subspecies in that (then monobasic) genus. The taxon *pyretorum* was classified earlier with the African genus *Heniocha* HÜBNER, 1819 (“1816”) by KIRBY (1892: 771). Only in 1994, NÄSSIG followed the statements of MICHENER (1952: 477) and reclassified the taxa around *S. pyretorum* within the subgenus *Saturnia* of the genus *Saturnia*, due to the lack of phylogenetic useful characters to separate *S. pyretorum* from *S. pyri* ([DENIS & SCHIFFER-MÜLLER], 1775), and main similarities of both, such as imaginal habitus, ♂ genitalia structures, and similar cocoons. This act was only partially followed by subsequent authors, e.g. by LAMPE & NÄSSIG (1994) or NAUMANN (1998); others remained with the former classification using *Eriogyna* on generic status (ZHU & WANG 1996, D'ABRERA 1998, PARK & TSHISTJAKOV 1999). We again follow NÄSSIG (1994) as we see no useful characters to separate the Asian from the European and North African species of *Saturnia* sensu stricto.

### Provisional systematic list

The following taxa were described so far (listed here in chronological order), leaving out only the West Palaearctic *S. pyri* and *S. atlantica* LUCAS, 1848:

#### *Saturnia pyretorum* WESTWOOD, 1847

WESTWOOD (1847: 49, pl. XXIV, fig. 2 ♀; using [and making

thereby available] an “in litteris” name by BOISDUVAL).

L.t.: “China”.

**Distribution:** Taiwan, southern provinces of PR China (Fujian, Jiangxi, Guangdong, Hainan, Hunan, Sichuan, Yunnan), Northern Vietnam (Fig. 16: ♂ genitalia).

**Current status:** *Saturnia pyretorum* WESTWOOD, 1847 (a separate species).

**Comments:** WESTWOOD's type specimen could not be located so far, but from the colour figure in his work the identity appears to be out of doubt. The early instars of Taiwanese populations were figured by WANG (1988, 1994) in colour.

#### *Saturnia cidosa* MOORE, 1865

MOORE (1865: 423, no. 2, pl. XXII, fig. 2 ♀).

L.t.: “N. E. India” [Sikkim?].

**Distribution:** N.E. India, Sikkim, Nepal (Fig. 4: ♂; Fig. 15: ♂ genitalia).

**Current status:** *Saturnia cidosa* MOORE, 1865, **stat. rev.** as separate species.

**Comments:** *S. cidosa* was found to be different from *S. pyretorum* and also from the species described here by wing pattern (especially hindwing postmedian lunulate band), size (smaller than *S. centralis*) and ♂ genitalia structures. Two ♂♂ [no ♀ as attributed by him] were figured by ALLEN (1993: 66) under the name *S. (E.) pyretorum* from the same locality “Pokhara” as the specimen shown in this work.

#### *Eriogyna pyretorum cognata* JORDAN in SEITZ, 1911

JORDAN in SEITZ (1911: 221, pl. 31a ♂).

L.t.: “Kiang-si, E. China”

**Distribution:** Partly overlapping with *S. pyretorum*: continental southern and eastern parts of China (Jiangxi, Fujian, Guizhou, Hunan, Hubei, Shaanxi, Sichuan, Yunnan, Beijing), probably as far north as South Korea (Fig. 19: ♂ genitalia).

**Current status:** *S. cognata* (JORDAN, 1911), **stat. n.** as separate species.

**Comments:** This winter-flyer is the smallest of all species, ♂♂ have quite falcate forewings, strongly pointed markings, the outer margin is slim. The singleton figured by PARK & TSHISTJAKOV (1999: pl. 14) cannot be assigned with certainty to that taxon.

#### *Eriogyna pyretorum luctifera* JORDAN in SEITZ, 1911

JORDAN in SEITZ (1911: 221, pl. 31a ♂).

L.t.: “Omi-Shan” [sic, recte Omei Shan, Sichuan] (Fig. 20: ♂ genitalia).

**Distribution:** China (Sichuan and Shaanxi).

**Current status:** *S. luctifera* (JORDAN, 1911), **stat. n.** as separate species.

**Comments:** This small summer-flyer is the darkest species within the genus. It also can be separated by its ♂ genitalia structures. Those specimens figured by PACKARD (1914: pl. XCVIII, figs. 2g & h) under the name *E. pyretorum luctifera* from Ching-tu [= Chengdu, Sichuan] should belong to the taxon *cognata*; specimens from

the same stock reared by G. M. FRANCK were located in Naturhistorisches Museum Vienna.

***Saturnia pyretorum pearsoni* WATSON, 1911**

WATSON (1911: 2, fig. 5 ♀).

L.t.: “Mountains of Central Hainan” (Fig. 17: ♂ genitalia).

Distribution: see *S. pyretorum*.

**Current status:** **syn. n.** of *S. pyretorum*.

**Comments:** No differences can be found among series of Taiwanese, southern Chinese, and specimens from Hainan Island; therefore we consider that taxon to be a synonym of the nominotypical *pyretorum*, thus becoming a monobasic species. It was reared respectively the cocoons were collected in Hainan in former times for using the very strong silk of the cocoons to produce fishing lines (SEITZ 1918, 1922). Samples of that silk can be found in the collections of Museum d’Histoire naturelle de Lyon and in Deutsches Entomologisches Institut, Eberswalde, now ZALF, Müncheberg.

***Eriogyna pyretorum fusca* WATSON, 1915 (“1914”)**

WATSON (1915: 29).

L.t.: “Wen Chow, Chekiang, E. China”.

**Current status:** ?

**Comments:** The type material was not located so far, no figure is included in the description. From WATSON’s description it might be possible that he had a dark specimen of *S. cognata* in his hands. Further research is necessary.

***Eriogyna pyretorum roseata* DE JOANNIS, 1929**

DE JOANNIS (1929: 525).

L.t.: “Tonkin, Than Moï & Cho Ganh” [N. Vietnam] (Fig. 18: ♂ genitalia).

**Current status:** ?

**Comments:** The type material (in Paris, seen) looks quite similar to *S. pyretorum* of which it most probably is a junior synonym. So far it could not be dissected or studied in detail.

***Eriogyna pyretorum tonkinensis* BOUVIER, 1936**

BOUVIER (1936: 209).

L.t.: “Tonkin, Phu-Lang-Thuang” [N. Vietnam].

**Current status:** ?

**Comments:** Without having seen the type material we hesitate to classify it either with *S. pyretorum* or the taxon *roseata* mentioned above although these are probably all the same species. Material from Northern Vietnam in our hands shows some variation, with some specimens having a pink shadow overall, and ♀♀ being very large.

***Eriogyna perytorum perytorum* [sic] f. *melli* BRYK, 1939**

L.t.: “Kwangtung” [China, Guangdong].

**Current status:** Not available after the Code (ICZN 1999), described at infrasubspecific rank.

***Eriogyna pyretorum* f. *microps* BRYK, 1939**

L.t.: “Kwangtung” [China, Guangdong].

**Current status:** Not available after the Code (ICZN 1999), described at infrasubspecific rank.

***Saturnia (Eriogyna) cameronensis* LEMAIRE, 1979**

LEMAIRE (1979: 94).

L.t.: West Malaysia, Cameron Highlands, 1200–1600 m (Figs. 5: ♂, 9: ♀, 14: ♂ genitalia).

Distribution: West Malaysian Highlands.

**Current status:** *Saturnia cameronensis* LEMAIRE, 1979, a separate species.

**Comments:** The species is restricted to Peninsular Malaysia. It is the probably the closest relative of *S. centralis*. The ♂ was figured by LAMPE (1984). The ♀ was described later by NAUMANN (1998) and figured again in colour by D’ABRERA (1998). Meanwhile a few more ♀♀ are in the hands of the authors.

***Saturnia (Eriogyna) pinratanai* LAMPE, 1989**

LAMPE (1989: 179).

L.t.: Thailand, Chiang Mai, Doi Inthanon, 1700 m (Fig. 21: ♂ genitalia).

**Distribution:** According to personal comments by Brother A. PINRATANA, Bangkok, the species so far was found only on Doi Inthanon in Northern Thailand. Specimens with data “Chantaburi, Southeast Thailand”, found in some German collections, are dealers’ material and obviously mislabelled (e.g. the ♀ figured by D’ABRERA 1998: 39, which he erroneously identified as ♂).

**Current status:** *Saturnia pinratanai* LAMPE, 1989, a separate species.

**Comments:** *S. pinratanai* is the only species in the nominotypical subgenus for which a diurnal activity of the ♂ is known. The small, sexually quite dimorphic ♂ was described by PAUKSTADT & PAUKSTADT (1990a, b); LAMPE & NÄSSIG (1994) described and figured the early instars of the species.

**Further taxa**

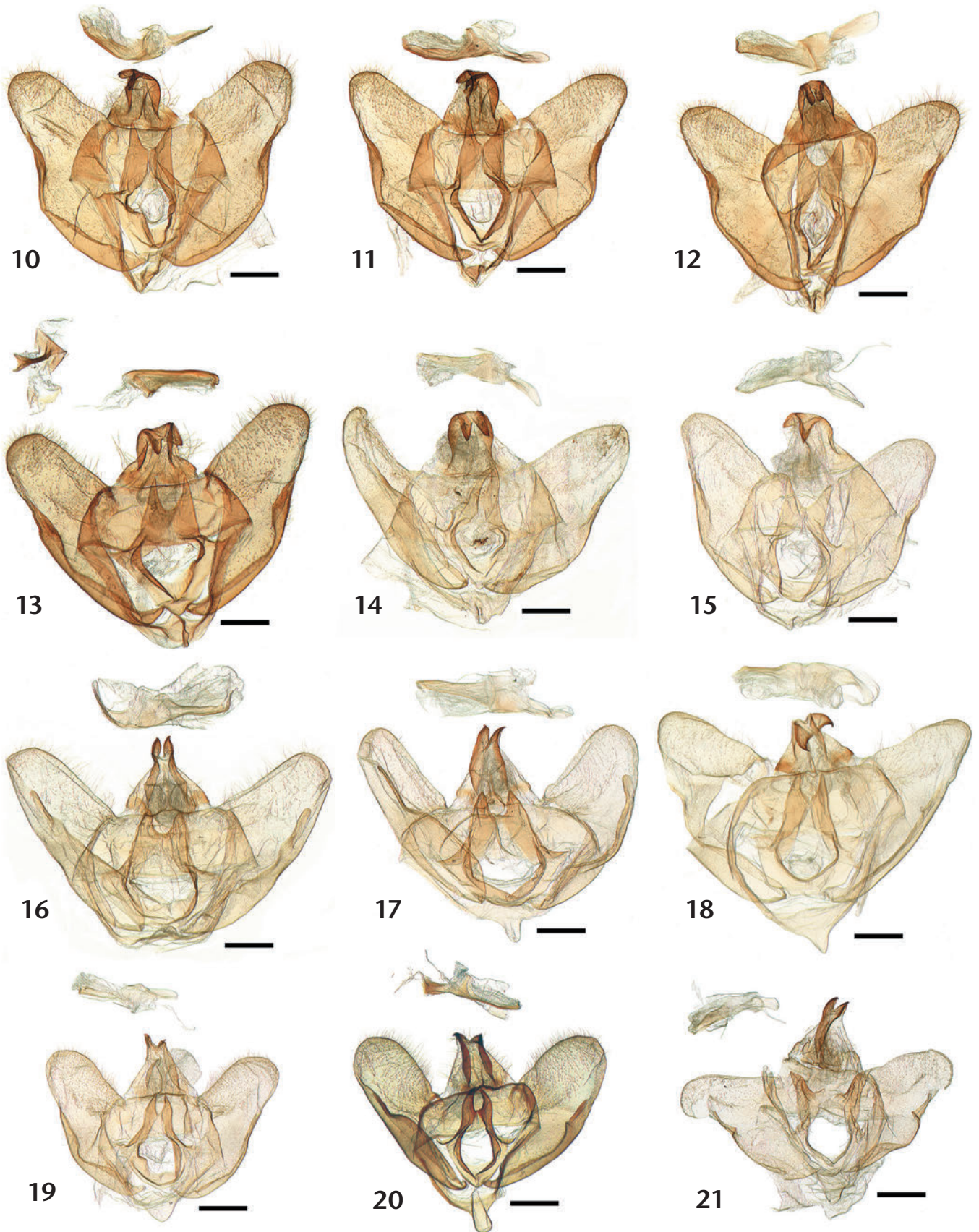
In addition to those taxa the vernacular name “Tegusomushi” or “Tegusu” exists, published, for example, by SASAKI (1910). This was mentioned later incorrectly as “*Eriogyna tegusomushi* SASAKI” by ZHU & WANG (1996: 141) (an unavailable name).

Further work on the genus is necessary to fill all gaps of knowledge. That especially means examination of type material not yet seen, but also efforts to rear more taxa and populations for comparison. Some more revisional work is planned for near future.

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**Genitalia plate, Figs. 10–21:** male genitalia of *Saturnia* species, phallus always above the other parts of the genitalia apparatus. **Fig. 10:** ♂ genitalia 1239/05 NAUMANN, *S. centralis* PT, China, Yunnan. **Fig. 11:** ♂ genitalia 1241/05 NAUMANN, *S. centralis* PT, China, Sichuan. **Fig. 12:** ♂ genitalia 1242/05 NAUMANN, *S. centralis* PT, NE Myanmar. **Fig. 13:** ♂ genitalia 1090/04 NAUMANN, *S. centralis* PT, N. Thailand. **Fig. 14:** ♂ genitalia 642/02 NAUMANN, *S. cameronensis*, West Malaysia. **Fig. 15:** ♂ genitalia 645/02 NAUMANN, *S. cidosa*, Nepal. **Fig. 16:** ♂ genitalia 653/02 NAUMANN, *S. pyretorum*, Taiwan. **Fig. 17:** ♂ genitalia 654/02 NAUMANN, *S. pyretorum*, China, Hainan Island. **Fig. 18:** ♂ genitalia 651/02 NAUMANN, *S. pyretorum roseata*, N. Vietnam. **Fig. 19:** ♂ genitalia 655/02 NAUMANN, *S. cognata*, China, Yunnan. **Fig. 20:** ♂ genitalia 1025/04 NAUMANN, *S. luctifera*, China, Shaanxi. **Fig. 21:** ♂ genitalia 1297/05 NAUMANN, *S. pinratanae*, N. Thailand. — Scale bars = 1 mm. All genitalia are figured to the same scale.

(Museum d'Histoire naturelle Lyon), Dr. Ian KITCHING (The Natural History Museum, London), Dr. Martin LÖDL (Naturhistorisches Museum Wien), Dr. George McGAVIN (Oxford University Museum), Dr. Wolfram MEY (Zoologisches Museum der Humboldt-Universität zu Berlin), Dr. Joël MINET (Museum National d'Histoire naturelle, Paris), Dr. Wolfgang A. NÄSSIG (Senckenberg-Museum, Frankfurt am Main), Dr. Richard S. PEIGLER (University of the Incarnate Word, San Antonio), PENG Zhong-Liang (Nanchang), and Brother Amnuay PINRATANA (Bangkok).

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## Buchbesprechung

DE PRINS, W., & DE PRINS, J. (2005): **World catalogue of insects, Vol. 6, Gracillariidae (Lepidoptera)**. — 502 Seiten, fester, laminierter Kartoneinband, 24 cm × 17 cm, ISBN 87-88757-64-1 (ISSN der Katalogserie: 1398-8700), Stenstrup (Apollo Books). — Erhältlich direkt bei Apollo Books, Kirkeby Sand 19, DK-5771 Stenstrup, Dänemark, E-Mail: apollobooks@vip.cybercity.dk, oder über den Fachbuchhandel, Preis 760,— Dänische Kronen (= knapp über 100 €, je nach Umrechnungskurs). Bei Bestellung der gesamten Serie direkt bei Apollo Books wird ein Subskriptionspreisnachlaß von 10% eingeräumt.

Der bekannte Gracillariidenspezialist Willy DE PRINS und seine Frau Jurate legen mit diesem Werk einen Gesamtkatalog dieser Kleinschmetterlingsfamilie der Welt vor. Das Buch ist in die Hauptkapitel Danksagung, Zusammenfassung, Einführung, die Familie der Gracillariiden, Taxa der Familie, Genera und Arten, Datenbankerstellung und Gesamtkatalog der Gracillariiden unterteilt. Inbegriffen sind dazu noch eine Reihe von Unterkapiteln wie ein sehr umfangreiches Literaturverzeichnis, Parasiten, ein Index der botanischen Namen und ein Index der wissenschaftlichen Namen.

Im Katalog werden 1809 Arten in ihrer Zugehörigkeit zur jeweiligen Gattung aufgelistet sind. 89 Genera werden von den beiden Autoren anerkannt, 34 wurden synonymisiert (123 Genera existierten ursprünglich). Es werden bei Gattungen die Typusart, die Originalbeschreibungen, zusätzlich bei den Arten die Typenfundorte, die Wirtspflanze(n), Parasitoide sowie die geografische Verbreitung angegeben. Ein neuer

Ersatzname für ein sekundäres Homonym wird veröffentlicht, zwei Genusgruppennamen und vier Artgruppennamen werden in die Synonymie verwiesen, 28 neue Kombinationen werden vorgeschlagen.

In der Einführung wird die agrarwirtschaftliche Bedeutung dieser Kleinschmetterlingsfamilie angesprochen: viele Arten sind Kulturpflanzenschädlinge an unter anderen Rhododendron, Apfel und Kastanie.

Das vorliegende Werk ist ein reiner Katalog; es beinhaltet auch keinerlei Abbildungen. Die Fülle der Daten ist enorm und rechtfertigt daher den relativ hohen Preis, zudem die gediegene Ausstattung des Bandes hervorgehoben werden muß.

Für den Museumsentomologen ist diese Neubearbeitung sicher von großem Interesse, für die Spezialisten dieser Kleinschmetterlingsgruppe aber ein Muß.

Klaus G. SCHURIAN



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