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Contributions to the study of the Asiatic Lasiocampidae 7
Descriptions of five new species from China

(Lepidoptera, Lasiocampidae)

by

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Summary: 5 new species of the Lasiocampidae from the People's Republic of China are described in this paper. The holotypes of all new taxa are pres¡erved in the collection of the Entomological Museum of Dipl.-Kfm. THOMAS J. WITT, Munich (MWM).

Zusammenfassung: Fünf neue Lasiocampidae-Arten werden in dieser Arbeit aus der Volksrepublik China beschrieben. Die Holotypen aller Taxa verbleiben im Entomologischen Museum von Dipl.-Kfm. THOMAS J. WITT , München (MWM).

Poecilocampa ***nilsinjaevi*** **spec. nov.**

colour plate 17, fig. 1

Holotype ♂: China – Shaanxi, Taibai Shan, 33°53'N, 107°49'E, 1-7.XI 2000, 1500-1800 m, leg. SINIAEV & PLUTENKO (MWM).

Paratypes: 28 ♂♂, the same data (GU 8548 - MWM); 17 ♂♂, the same data (coll. V. SINJAEV, Moscow).

♂ genitalia (fig. 1): Similar on those of others congeners but stronger and more massive, by that resemble only those of *Poecilocampa tamanukii* (MATSUMURA, 1928). Uncus and gnathos present; uncus bilobed; saccular lobe slightly curved and distinctly moved apart from cucullus. Edeagus tubular, curved, with coecum and single apical thorns on caudal edge.

Diagnosis: The species can easily be separated from related species being larger and darker. In the external character it resembles only the Japanese *P. tamanukii* (MATS.), which is probably a sister-species. From it it can be distinguished by having a darker ground colour with the lack of whitish covering scales, by a regularly serrated forewing postmedia and a straight, not concave, dark hind wing band. The species seems to be isolated to mountains of Tabai Shan.

Biology: Little is known about. All moths were collected in the first decade of November at altitudes between 1500–1900 m. They were attracted to light in very cold nights with an average temperature of –5°C just by snowfall. As all the other congeners, the new species seems to be resistant to cold. The ♀, the preimaginal stages and the food plants are unknown.

Distribution: The species is known so far only from the type locality (China: Shaanxi, Tabai Shan).

Ethymology: The species is named after Nil Sinjaev, the son of the famous Russian collector VICTOR SINJAEV from Moscow (Russia).

Euthrix ***tenebrosus*** **spec. nov.**

colour plate 17, fig. 2, 3

Holotype ♂: China, Hunan, Nanling Mts., 1500 m, Shikengkong Mt., 24°54'N, 112°57'E, 25.X-7.XI.2003 (GU 9479 - MWM).

Paratypes 36 ♂♂: the same data as holotype ♂ (GU 9737 - MWM).

Expanse ♂♂ 31-32,5 mm, forewing length 16-16,5 mm. Ground colour light brown, sometimes with yellowish or rosy tint; hind wings somewhat lighter. Forewing with distinct, straight reddish-brown postmedial fasciae coming into wing apex. Antemedial fasciae greyish, vague, complicatedly concave. External fascia present as a row of fine greyish strokes between veins forming a zic-zac line. Discal spot white, point-like, pointed with reddish-brown scales. Hind wings without pattern.

♂ genitalia (fig. 2): Tegumen band-shaped; socii well developed, covered with long chetae. Valvae strongly sclerotized, bilobed; both lobes elongated conical, the upper one somewhat longer. Vinculum broad and flattened with two hook-like distal processes continued into wrinkled, weakly sclerotized sclerites. Edeagus thin, tubular, curved in medial part, with apical tooth and ventral opening of vesica. Shape of the sternite VIII as illustrated; small thorns covering caudal angles are characteristic.

Diagnosis: Due to the small size and the very characteristic pattern, the species can be confused only with *E. lucipherus* Zolotuhin & Witt known from Northern Vietnam, but the latest species is much darker, with dominance of blackish-brown colour. In the new species, the shape of sternum VIII and the shape of distal processes of the vinculum are characteristic. Could be joined in one natural group with the species pointed out.

Biology: All moths were collected at an altitude of 1500 m in late October – early November, and it seems that they belong to a second generation. ♀, preimaginal stages and food plants are unknown.

Distribution: The species is known only from Hunan in Central China.

Ethymology. "tenebrosus" (Latin) – means "dark".

Kunugia ***wotteni*** **spec. nov.**

colour plate 17, fig. 4

Holotype ♂: China, Gansu, Min Shan, 2350 m, ca 50 km West from Wudu, 33°30'N, 104°35'E, 27.VII-14.VIII 2000, leg. Siniaev & Plutenko (GU 9308 - MWM).

Paratypes 2 ♂♂: China, Shaanxi prov., Tabai Shan, Tsinling Mts, Houzhenzi, 33°53'N, 107°49'E, 1500 m, VI 2002, leg. local collector (GU 9485 – MWM).

Expanse ♂♂ 48-56 mm, forewing length 24-28 mm. Ground colour sandy rosy-grey. Wing pattern consists of 6 complete, curved and irregularly teethed transversal grey fasciae, dark grey spotted external band and longitudinal grey stroke along M branch. Discal spot absent. Hind wings of the same ground colour but with lacking of greyish suffusion; only two vague transversal greyish fasciae can be distinguished. Anal field with yellow to rosy hairiness.

♂ genitalia (fig. 3): Tegumen short, sclerotized; socii smooth. Valvae with typical pyramidal upper lobe bearing a row of irregular teeth on the outer surface and a more or less rounded lower lobe, densely covered with long setae. Distal processes of vinculum as two long arms with strong thorns on distal edge. Their number varies not only in different specimens but also on the left and right side of one moth. Edeagus short, tubular, without any apical spur; vesica elongated, covered distally with numerous, short, needle-shaped spines.

Diagnosis. Both external characters and genitalic constructions close to the species of the *lineata/ basinigra*-group. From these related species it can be distinguished by shorter and broader wings with a coarser scale cover. Wing pattern much more suffuse than in *Kunugia lineata* MOORE or *K. basinigra* ROEPKE. In difficult cases especially for worn specimens the genitalic preparation strongly recommended, there shape of the distal processes of vinculum and aedeagus are characteristic. Both related species also have a vesica with not numerous and longer needle-shaped cornuti.

Biology. All the moths were collected at altitudes from 1500 up to 2350 m. Proposedly they develop two generations per year. ♀, preimaginal stages and food plants are unknown.

Distribution. The species is known only from the provinces Gansu and Shaanxi in Central China.

Ethymology. This interesting species is named in a honour of Mr. WOLFGANG OFFEN (Neubiberg, Germany) who gave V. SINJAEV constantly a valuable help in his entomological researches.

Arguda **era spec. nov.**

colour plate 17, figs 5-7

Holotype ♂: China, Shaanxi prov., Tabai Shan, Tsinling Mts, Houzhenzi, 33°53'N, 107°49'E, 1500 m, VI 2002, leg. local collector (MWM).

Paratypes: 7 ♂♂, 1 ♀, China, Shaanxi, Ning Shan, 1500 m, near Ningshan town, 33°44'N, 106°26'E, VI 2001, leg. local collector; 4 ♂♂, the same data but in Summer 2001; 3 ♂♂, China, Shaanxi prov., Tabai Shan, Tsinling Mts, Houzhenzi, 33°53'N, 107°49'E, 1500 m, VI 2002, leg. local collector; male, China, Shaanxi prov., TapaiShan Mts, Tsinling Mts, Houbenzi, 33°51'N, 107°49'E, 1600 m, 1-2.VII.1999, leg. Dr. R. BRECHLIN; 2 ♂♂, the same data but VI 1999; 1 ♂, the same data, but 27.V.-6.VI.1999; 1 ♂, 1 ♀, the same data but V 2001; 1 ♂, China, Shaanxi prov., Tapa Shan, 323°56'N, 109°25'E, 900-1000 m, 20-24.VI.2001, leg. local collector & V. SINIAEV (GU 9491'– MWM); 1 ♂, 1 ♀, China, Shaanxi prov., Daba Shan, 1800 m, 15 km S Shou-Man vill., 32°08'N, 108°37'E, Summer 2000, leg. local collector; 1 ♂, China, Shaanxi prov., DabaShan, 1000-1700 m, Shou-Man vill., 32°14'N, 108°34'E, 15.VI-15.VII.2000, leg.PLUTENKO & local collector; 1 ♂, China, Shaanxi, south Taibaishan, Tsinling Mts near Houzhenzi, 33°53'N, 107°49'E, 1900 m, 1-12.VIII.1999, leg. SINIAEV & PLUTENKO (GU 6459 – MWM); 1 ♂, the same data but 20.IX.-12.X.1999; 1 ♂, the same data but VI 2000 (all MWM).

Expanse ♂♂ 50-55 mm, forewing length 26-30 mm. Ground colour varies from yellowish grey to rosy-grey with strong development of olive-green suffusion, especially between postmedial and external fasciae of the forewing, and in costal field of the hind wing. Medial fasciae slightly curved, reddish-brown with whitish-rosy bordering; external fascia distinct, irregularly teethed,

especially in R field. Discal spot small but distinct, blackish, point-like. Hind wings with reddish-brown anal hairiness and often with distinct dark grey serrate transversal band. External margin of both wings serrate, more distinctly in hind wings. Abdomen dorsally reddish at least on first three segments. Head and thorax brownish-olive, head and collar with transversal brown stroke. Upper side of the wings as illustrated.

♂ genitalia (fig. 4): The lateral sides of the vinculum bear 2 strong appendices, one of them looks like a hook, the second is leave-shaped. Distal processes of vinculum as flattened plate with protruded apical angles and slightly irregular caudal margin. Edeagus tubular, with strong and curved apical spur. Equipment of vesica is characteristic. All cornuti situated only on the left side of the vesica, forming some kind of asymmetric pattern. Lateral group of cornuti with strongly developed 5-8 teeth attached to the sclerotized part of the edeagus. Distal group looks like a brush from short but strong spine-shaped cornuti. Apical lobe of vesica covered with very small cornuti.

♀ larger and more robust (expanse 62-67 mm, forewing length 34-38 mm.), but at a whole with the same wing shape and pattern of the wings, somewhat lighter with not so contrast colouring.

Diagnosis: The species can easily be separated from related species (*A. vinata* MOORE and A. bipartita LEECH) having distinctly serrate external margin of the wings and more contrast coloration of the hind wing. In ♂ genitalia the characteristic feature is equipment of vesica: both related species pointed have all groups of cornuti remarkably smaller and no typical brush but single cornuti distally on vesica.

Biology: Little is known. The flight periods are from May – mid July and from August - October; probably two generations. Inhabits altitudes from 900 to 1900 m. Preimaginal stages and food plants are unknown.

Distribution: China, Shaanxi; also known from Sichuan: Erlangshan Mts, E Luding, 2560 m, 19-23.VII.2004, leg. S. MURZIN, 7 ♂♂ in MWM.

Ethymology: "*era*" (Latin) – means "hostess" or "mistress"

Syrastrena **dorca spec. nov.**

colour plate 17, figs 8-10

Holotype ♂: China, Hainan isl., Wuzhi-Shan Mts., 18°53'N, 109°43'E, 1500 m, 20.II-10.IV 2001, leg. local collector (GU 9649 - MWM).

Paratypes: 26 ♂♂, 1 ♀, the same data (GU 8684, 8685, 9632, 9634 - MWM); 11 ♂♂, the same data but III 2003, leg. SINIAEV & his team (MWM); 2 ♂♂, the same data but 18.-28.II 2003, leg. SINIAEV & his team (MWM); 2 ♂♂, the same data but 1.-12.IV 2003, leg. SINIAEV & his team (MWM); 1 ♂, the same data but 17.VII - 7.VIII 2003, leg. SINIAEV & his team (MWM); 3 ♂♂, China, Hainan Dao, He Ling Mts und Wuzhi Shan, 1000-1800 m, eII-eV 2000, LF, leg. J.L. LI (MWM); 2 ♂♂, China, Jiangxi, Wuyi Shan, Xipaihe vill., 1500 m, 27°54'N, 117°20'E, VI 2003, leg. SINIAEV & his team (MWM); 3 ♂♂, China, SW Yunnan, Xishuanbanna, 50 km N of Jinghong Guangping, 900 m, 22°10'N, 101°E, 9.I.-6.II.2003, leg. S. MURZIN (GU 9640 - MWM); 1 ♂, the same data but 1000 m, 19.-27.I.2003, leg. S. MURZIN (MWM); ♂, China, Yunnan, 30 km S

Simao – Puwen, 900 m, Xishuangbanna, 22°30'N, 101°02'E, 16.III.-10.IV.2000, leg. local collector (MWM).

Expanse ♂♂ 26-30 mm, forewing length 13-16,5 mm. Ground colour varies from yellowish grey to rosy-grey. Hind wings lighter, without distinct pattern. Forewing pattern consists of 2 complete, almost parallel, straight or very slightly concave, yellowish or whitish medial fasciae, sometimes bordered inside with brownish or dark greyish scales as a narrow line. Submarginal line and discal spot absent.

♂ genitalia (fig. 5): Similar on those of others congeners and distinctly diagnosed by the shape and equipment of distal processes of vinculum. They form a complete plate bearing on outer margin with short thorns. Medial part of the plate with W-shaped projection covered with short fine spines. The equipment of the vesica is also very characteristic.

♀ larger (expanse 33 mm, forewing length 17,5 mm), with a stout boby but at a whole with the same wing shape and pattern of the wings.

Diagnosis: The species can hardly be separated by external characters from related species. Average much smaller and somewhat lighter than *S. sinensis* LAJ.; larger, much lighter and with straight or only slightly concave postmedia than in *S. regia* ZOLT. & WITT. From the, in appearance very similar *S. malaccana* TAMS it can be separated only after analysis of the ♂ genitalia. Equipment of vesica similar on that of *S. sinensis* LAJ. (with three patches of spine cornuti) but smaller, more compact, with stronger cornuti on the apical patch. Absence of the triangular saccular projection in the middle of the plate distinguishes easily the species from *S. sinensis* LAJ.

Biology: Little is known. The flight period lasts from January to August; probably two or more overlapping generations. The species inhabits altitudes from 900-1800 m. Preimaginal stages and food plants are unknown.

Distribution: Southern and south-eastern China (Yunnan, Hainan, Fujian, Jiangxi). I have seen a sample of the species from northern Vietnam also, but the status of the Vietnamese population needs further investigations. Should also be found in northern Thailand and Myanmar.

Ethymology: "*dorca*" (Latin) – means "gaselle" or "antilope" for the very elegant shape of the moth.

Acknowledgements: I express my sincere thanks to Dipl.-Kfm. THOMAS J. WITT (Munich, Germany) for his constant help and support in my studies. This project was also supported by the THOMAS WITT Stiftung in 2004 and 2005.

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Fig. 1: ♂ genitalia of *Poecilocampa nilsinjaevi* **spec. nov.**, paratype, general view without left valva and edeagus extracted.
Fig. 2: ♂ genitalia of *Euthrix tenebrosus* **spec. nov.**, holotype, general view, sternum VIII and edeagus extracted.

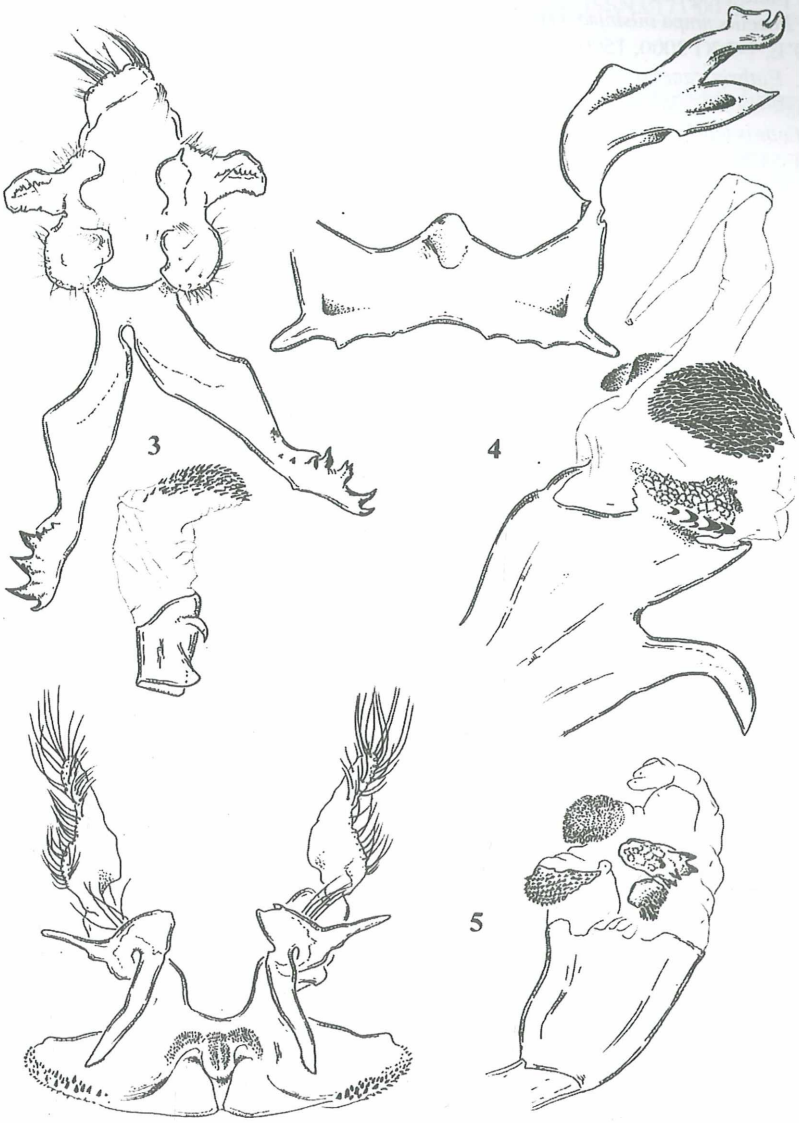

Fig. 3: ♂ genitalia of *Kunugia wotteni* **spec. nov.**, holotype, general view and edeagus extracted.
Fig. 4: ♂ genitalia of *Arguda era* **spec. nov.**, paratype, general view without valvae and top of edeagus enlarged showing equipment of vesica.
Fig. 5: ♂ genitalia of *Syrastrena dorca* **spec. nov.**, holotype, general view and edeagus extracted.

Colour plate 17 (p. 611)

Fig. 1. *Poecilocampa nilsinjaevi* **spec. nov.**, holotype ♂, China - Shaanxi, Taibai Shan, 33°53'N, 107°49'E, 1-7.XI 2000, 1500-1800 m, leg. SINIAEV & PLUTENKO (MWM).

Fig. 2. *Euthrix tenebrosus* **spec. nov.**, holotype ♂, China, Hunan, Nanling Mts., 1500 m, Shikengkong Mt., 24°54'N, 112°57'E, 25.X-7.XI.2003 (GU 9479 - MWM).

Fig. 3. *Euthrix tenebrosus* **spec. nov.**, paratype ♂, China, Hunan, Nanling Mts., 1500 m, Shikengkong Mt., 24°54'N, 112°57'E, 25.X-7.XI.2003 (MWM).

Fig. 4. *Kunugia wotteni* **spec. nov.**, paratype ♂, China, Shaanxi prov.,Tabai Shan, Tsinling Mts, Houzhenzi, 33°53'N, 107°49'E, 1500 m, VI 2002, leg. local collector (MWM).

Fig. 5. *Arguda era* **spec. nov.**, holotype ♂, China, Shaanxi prov., Tabai Shan, Tsinling Mts, Houzhenzi, 33°53'N, 107°49'E, 1500 m, VI 2002, leg. local collector (MWM).

Fig. 6. *Arguda era* **spec. nov.**, paratype ♀, China, Shaanxi prov., Tabai Shan, Tsinling Mts, Houzhenzi, 33°53'N, 107°49'E, 1500 m, VI 2002, leg. local collector (MWM).

Fig. 7. *Arguda era* **spec. nov.**, holotype ♂, under side, China, Shaanxi prov., Tabai Shan, Tsinling Mts, Houzhenzi, 33°53'N, 107°49'E, 1500 m, VI 2002, leg. local collector (MWM).

Fig. 8. *Syrastrena dorca* **spec. nov.**, holotype ♂, China, Hainan isl., Wuzhi-Shan Mts., 18°53'N, 109°43'E, 1500 m, 20.II-10.IV 2001, leg. local collector (GU 9649 - MWM).

Fig. 9. *Syrastrena dorca* **spec. nov.**, paratype ♂, China, Yunnan, 30 km S Simao-Puwen, 900 m, Xishuangbanna, 22°30'N, 101°02'E, 16.III.-10.IV.2000, leg. local collector (MWM).

Fig. 10. *Syrastrena dorca* **spec. nov.**, paratype ♀. China, Hainan isl., Wuzhi-Shan Mts., 18°53'N, 109°43'E, 1500 m, 20.II-10.IV 2001, leg. local collector. (MWM).

Farbtafel 17/ Colour plate 17

ZOLOTUHIN, V. V.: Contributions to the study of the Asiatic Lasiocampidae 7: Descriptions of five new species from China (Lepidoptera, Lasiocampidae). - Atalanta (Dezember 2005) **36** (3/4): 551-558, Würzburg.

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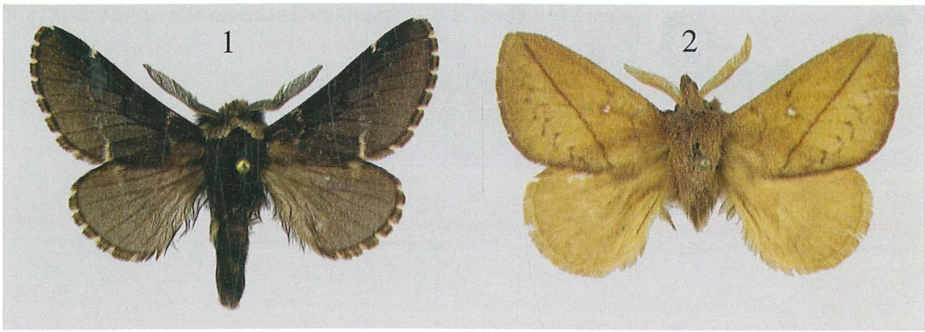

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