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**A REVIEW OF PALAEARCTIC *XYLOBANELLUS* KLEINE 1930  
(COLEOPTERA: LYCIDAE), WITH DESCRIPTION OF A NEW SPECIES  
FROM YUNNAN**

**S. V. Kazantsev**

*Diplomatic Academy of the Ministry of Foreign Affairs of Russia, Ostozhenka 53/2,  
Moscow 119021, Russia. E-mail: kazantss@mail.ru*

**Summary.** A new species of the net-winged beetles *Xylobanellus honghensis* sp. n., is described from Yunnan, southwestern China, which is a second representative of the genus *Xylobanellus* Kleine 1930 found in China. *Xylobanellus gansuensis* Kazantsev, 2000 is illustrated with colour photographs for the first time. Provided is a key to species, as well as a checklist of Palaearctic *Xylobanellus* (with northern Indochina), which includes six species.

**Key words:** Coleoptera, Lycidae, *Xylobanellus*, new species, key, Palaearctic region, northern Indochina.

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**Резюме.** Из провинции Юннань (юго-западный Китай) описан новый вид жуков-краснокрылов *Xylobanellus honghensis* sp. n., который является вторым представителем рода *Xylobanellus* Kleine 1930, найденным в Китае. Впервые приводятся цветные фотографии *X. gansuensis* Kazantsev, 2000. Дана определительная таблица, а также список *Xylobanellus* Палеарктики (с северным Индокитаем), насчитывающий шесть видов.

**INTRODUCTION**

The genus *Xylobanellus* Kleine, 1930 (Lycinae: Conderini) was erected for a net-winged beetle from the Malay peninsula that looked like *Conderis* Waterhouse, 1878, but differed in the elytral reticulation, having one row of cells instead of two in the elytral interstices. Nine species have been described in the genus so far, distributed in Russia and Japan (two species), China (one species), Indochina (two species) and Sundaland (four species, from the Malay Peninsula, Sumatra and Kalimantan) (Kleine, 1930, 1931, 1932, 1933; Nakane, 1969; Bocakova & Bocak, 2007; Kazantsev, 2012, 2014, 2018). The only Chinese representative of *Xylobanellus* was registered only in central China (Kazantsev, 2000, 2002), while the two species from Indochina were reported from northeastern Laos (Kazantsev, 2014).

The higher level attribution of the tribe Conderini has for a long time been unclear. Based on its morphology, certain characters of which are in a somewhat intermediate condition

between Metriorrhynchinae and Erotinae, it used to be put either in Metriorrhynchinae (Kleine, 1933, 1942; Bocak & Bocakova, 1990; Bocakova & Bocak, 2007) or Erotinae (Kazantsev, 2012, 2013), sometimes in Lycinae (Kazantsev, 2005). Molecular phylogeny, however, including the phylogenomic analyses of the family, have consistently been placing the tribe as a separate lineage in the subfamily Lycinae (Bocak & Bocakova, 2008; Kusy *et al.*, 2019), confirming one of the previous, morphology-based, hypotheses.

The present paper is a further contribution to the knowledge of the genus. Examination of the recently collected material allowed discovering two *Xylobanellus* species in southwestern China, in Yunnan, one of which was found to be *X. gansuensis* Kazantsev, 2000, previously known only from Gansu, while the other turned out to represent a new taxon. Description of the new species and illustrations of the previously known ones, including *X. gansuensis*, are given below, along with a checklist and a key to Palaearctic *Xylobanellus* (with northern Indochina).

## MATERIAL AND METHODS

For examination the beetles were relaxed in water, and then their detached abdomens were kept for several hours in 10% KOH at room temperature. The KOH treated aedeagi and terminalia were then placed in microvials with glycerin for photographing.

MSP-1 zoom stereoscopic dissecting microscope with x8 x80 magnification range were used. Photographs were taken with Canon EOS 6D camera and Canon MP-E 65 mm lens.

The following acronyms are used in the paper: ICM – Insect Center, Moscow; NME – Naturkundemuseum, Erfurt.

## TAXONOMY

### Family Lycidae Laporte, 1838

### Subfamily Lycinae Laporte, 1838

### Tribe Conderini Bocak et Bocakova, 1990

### Genus *Xylobanellus* Kleine, 1930

*Xylobanellus* Kleine, 1930: 171. Type species *Xylobanellus atricolor* Kleine, 1930 (by monotypy).

*Chuzenjianus* Kôno, 1932: 61. Type species *Chuzenjianus tenuis* Kono, 1932 (synonymized by Kleine, 1942).

*Rossioptera* Kazantsev, 1988: 169, type species *Eros erythropterus* Baudi di Selve, 1871 (synonymized by Bocak & Bocakova, 1991).

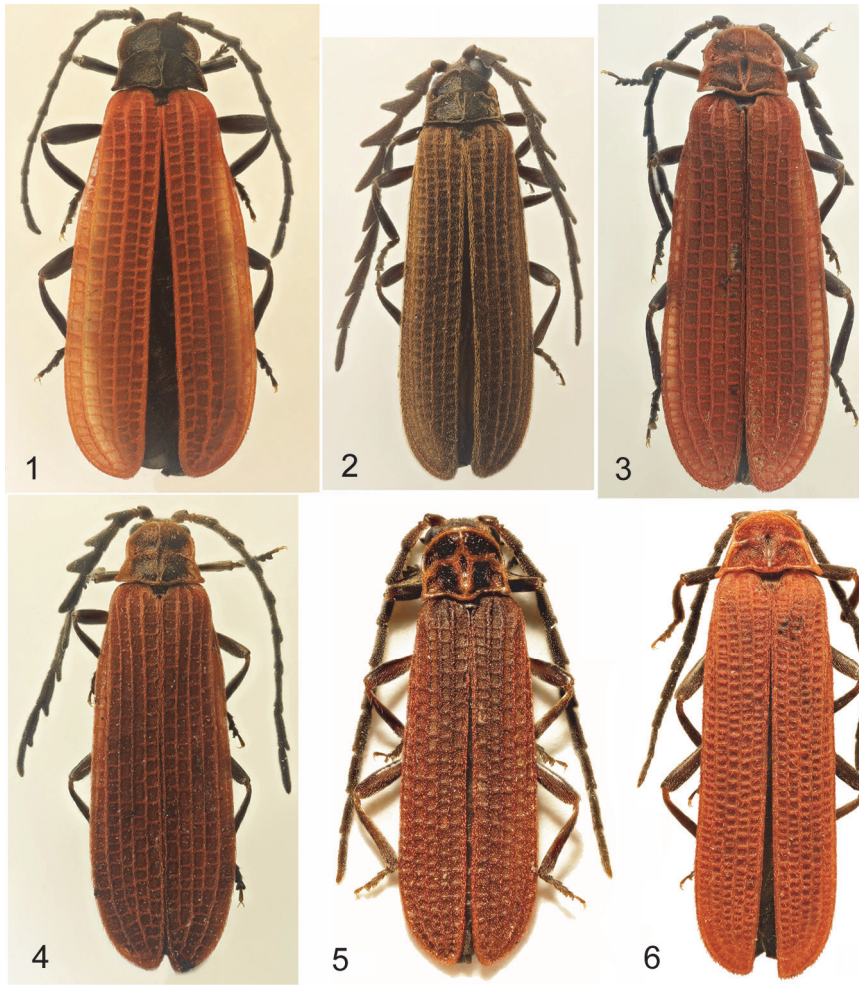
### *Xylobanellus tenuis* (Kôno, 1932)

Figs 5, 17, 18, 20

*Chuzenjianus tenuis* Kôno, 1932: 61.

MATERIAL EXAMINED. [Russia], Sakhalin, env. Yuzhnosakhalinsk, ascent by Rogatka River to Chekhovskij pass, 31.VII 2009, 1♀, K. Makarov & A. Zaitsev leg.; [Russia], S Kurils, Kunashir Is., Kordon Saratovskij, 4.IX 2009, 1♂, A. Prosvirov leg. (ICM).

REMARK. This is the first record of the species from Sakhalin.



Figs 1–6. General view of *Xylobanellus* species: 1 – *X. erythropterus*; 2 – *X. tenuis*; 3, 4 – *X. gansuensis*; 5 – *X. cerasinus*; 6 – *X. rubeus*; 3, 5, 6 – holotypes; 1, 2, 4, 5 – males; 3, 6 – females [Figs 5, 6 after Kazantsev, 2014].

***Xylobanellus gansuensis* Kazantsev, 2000**

Figs 3, 4, 11, 12, 22

*Xylobanellus gansuensis* Kazantsev, 2000: 81.

TYPE MATERIAL EXAMINED. Holotype – ♀: **China**, S Gansu, Minshan, 70 km W Wudu, 2000–2700 m, 25.VII 2000, A. Gorodinsky leg. (ICM).

ADDITIONAL MATERIAL EXAMINED. **China**, S Gansu, Tsagan (70 km W Wudu), 2300–2400 m, 16–17.VI 2001, 1♂, S. Kazantsev leg.; **China**, Yunnan, N Wexi City, r[ight]

trib[utary of] Lapugou R[iver], ENE Jizung, 27°27'36"N 99°23'53"E, H=3495 m, 5.VI 2015, 1♂, Belousov, Kabak, Davidyan leg.» (ICM).

REMARK. The species was described after a female (Kazantsev, 2000). When a male was collected shortly afterwards, the description was complemented with male characters (Kazantsev, 2002).



Figs 7, 8. General view of *Xylobanellus honghensis* sp. n., holotype male: 7 – dorsally; 8 – ventrally.

***Xylobanellus honghensis* Kazantsev, sp. n.**

<https://zoobank.org/NomenclaturalActs/0D972FA7-AACD-48E3-A77D-81BCC19A7310>

Figs 7, 8, 15, 16, 21

TYPE MATERIAL. Holotype – ♂: **China**, Yunnan/Honghe, Dajianshan, 2060 m, EKL3, 22°54'46.5"N 103°41'51.5"E, 11.VI 2018, L.Z. Meng leg. (NME).

DESCRIPTION. MALE. Dark brown to black; elytra with red pubescence (Figs 7, 8).

Head transverse, vertex smooth and glabrous. Eyes relatively small, interocular distance ca 1.45 times greater than eye diameter. Clypeus reduced. Labrum small, transverse, slightly convex anteriorly. Palps relatively short; ultimate palpomeres elongate, widest at base, gradually narrowed distally. Antennal sockets separated by relatively narrow lamina. Antennae long, almost attaining to elytral apices, filiform; antennomere 2 transverse, ca. 6 times shorter than antennomere 3, antennomere 3 ca. 1.5 times shorter than antennomere 4, antennomeres 3–11 with short dense sub-erect pubescence (Figs 7, 8).

Pronotum transverse, ca. 1.55 times wider than long, slightly bisinuate basally and moderately semi-circularly produced anteriorly, with concave sides and long acute, protruding laterally posterior anterior angles; as well as curved transverse carinae; medially with narrow keel, in anterior two fifths, and narrow cell in posterior three fifths. Scutellum subquadrate, slightly narrowing distally, with inconspicuous shallow emargination at apex (Fig. 7).



Figs 9–18. Aedeagi of *Xylobanellus* species: 9, 10 – *X. erythropterus*; 11, 12 – *X. gansuensis*; 13, 14 – *X. cerasinus*; 15, 16 – *X. honghensis* sp. n.; 17, 18 – *X. tenuis*; 9, 11, 13, 15, 17 – dorsally; 10, 12, 14, 16, 18 – laterally. Scale bars: 0.5 mm.

Elytra long, ca. 4 times longer than wide at humeri, parallel-sided, slightly dehiscent from scutellar area to apices; pubescence uniform, short and semi-erect (Fig. 7).

Legs moderately long; trochanters elongate, hind trochanters ca 2.5 times longer than wide; femurs and tibiae straight, subequal in length; hind tarsomere length ratio: 2 : 1 : 1 : 0.8 : 1.4 (Figs 7, 8).

Ultimate ventrite with elongate parallel-sided proximal strut; penultimate tergite medially considerably narrowed, divided with median suture (Fig. 21).

Aedeagus elongate, with elongate, straight, distinctly widened and hooked distally, in lateral view, median piece; median piece, in ventro-dorsal view, with almost round proximal opening; parameres shorter than median piece, relatively wide and narrowed and curved near apex; phallobase, in ventro-dorsal view, semi-quadrate (Figs 15, 16).

FEMALE. Unknown.

MEASUREMENTS. Length: 10.5 mm. Width (humeraly): 2.2 mm.

DIAGNOSIS. *Xylobanellus honghensis* sp. n., being similar in the aedeagal structure to *X. cerasinus* Kazantsev, 2014 from northeastern Laos, also with widened and hooked distally, in lateral view, median piece, may be separated by the uniformly dark brown pronotum, with long and acute hind pronotal angles (Fig. 7), as well as by the straight, in lateral view, median piece of aedeagus (Fig. 16).

ETYMOLOGY. The new species is named after the region in Yunnan (Honghe, i.e., 'Red River' in Chinese) where the type specimen was collected.

#### KEY TO PALAEARCTIC XYLOBANELLUS (INCLUDING NORTHERN INDOCHINA)

1. Antennae serrate (Figs 1–4) ..... 2
  - Antennae filiform, at most slightly flattened in antennomeres 3–4 (Figs 5–8) ..... 4
2. Elytra red with red pubescence (Figs 1, 3, 4); aedeagus with long median piece and parameres (Figs 9–12) ..... 3
  - Elytra dark brown with light brown pubescence (Fig. 2); aedeagus with short median piece and parameres (Figs 17, 18) ..... *X. tenuis*
3. Antennae moderately serrate; pronotum dark brown to black; 2nd elytral costa the stoutest (Fig. 1) ..... *X. erythropterus*
  - Antennae strongly serrate; pronotum dark red; 2nd elytral costa weak, 4th the stoutest (Figs 3, 4) ..... *X. gansuensis*
4. Upperside orange red (Fig. 6) ..... *X. rubeus*
  - Upperside brown with red pubescence (Figs 5, 7) ..... 5
5. Pronotum dark brown, with reddish carinae, hind pronotal angles inconspicuous (Fig. 5); median piece of aedeagus considerably bent in lateral view (Fig. 14) ..... *X. cerasinus*
  - Pronotum uniformly dark brown, hind pronotal angles conspicuous and acute (Fig. 7); median piece of aedeagus straight in lateral view (Fig. 16) ..... *X. honghensis* sp. n.

#### A CHECKLIST OF PALAEARCTIC XYLOBANELLUS (INCLUDING NORTHERN INDOCHINA)

##### *Xylobanellus cerasinus* Kazantsev, 2014

*Xylobanellus cerasinus* Kazantsev, 2014: 14. Northeastern Laos (Hua Phan, Phou Pan Mt. area).

##### *Xylobanellus erythropterus* (Baudi di Selve, 1872)

*Xylobanellus erythropterus* Baudi di Selve, 1872: 93 (*Eros*). Poland, Belarus, Baltic countries, Finland, Russia (forest zone, from Kaliningrad to Sakhalin) (Bocakova & Bocak, 2007; Kazantsev, 2012).

*Pyropterus amurensis* Pic, 1932: 21 (synonymized by Bocak & Bocakova, 1991).

*Xylobanellus amurensis* Kleine, 1933: 10 (synonymized by Bocak & Bocakova, 1987).

*Eros wankowiczi* Bourgeois, 1879: xxxix (synonymized by Kleine, 1942).

##### *Xylobanellus gansuensis* Kazantsev, 2000

*Xylobanellus gansuensis* Kazantsev, 2000: 81. China (Gansu, Yunnan).

##### *Xylobanellus honghensis* sp. n.

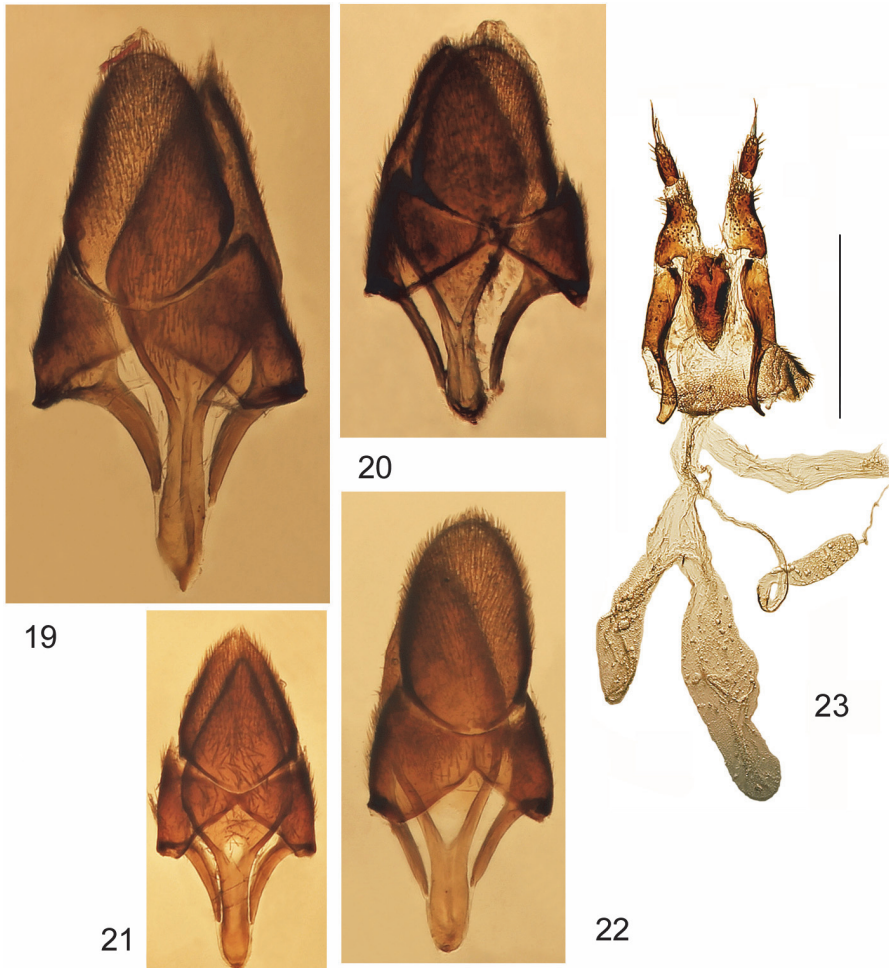
*Xylobanellus honghensis* sp. n. Southwestern China (southern Yunnan).

***Xylobanellus rubeus* Kazantsev, 2014**

*Xylobanellus rubeus* Kazantsev, 2014: 15. Northeastern Laos (Hua Phan, Phou Pan Mt. area).

***Xylobanellus tenuis* (Kôno, 1932)**

*Xylobanellus tenuis* Kôno, 1932: 61 (*Chuzenjianus*). Russian Far East (southern Sakhalin, Kunashir), Japan (Hokkaido, Honshu) (Nakane, 1969; Bocakova & Bocak, 2007; Kazantsev, 2012).



Figs 19–23. Details of *Xylobanellus* species: 19 – *X. erythropterus*; 20 – *X. tenuis*; 21 – *X. honghensis* **sp. n.**; 22 – *X. gansuensis*; 23 – *X. rubeus*; 19–22 – ultimate male abdominal segments, dorsally; 23 – female genitalia [Fig. 23 after Kazantsev, 2014]. Scale bars: 0.5 mm.

## DISCUSSION

The structure of aedeagus of *Xylobanellus* of the regarded region makes only one species stand out – it is *X. tenuis*, from Japan, southern Sakhalin and southern Kuriles, with the short median piece and short and stout parameres (Figs 17, 18). The rest of the species are remarkably uniform in their male genital structures (Figs 9–16), being, at the same time, quite diverse in habitus (Figs 1–8).

The female genitalia, studied in one of the species of the regarded region, *X. rubeus* (Kazantsev, 2014), are typical of Conderini (Kazantsev, 2005), with free valvifers, separate from coxites, and prominent, heavily sclerotised proctiger, or sternite 10 (Fig. 23). The internal female genitalia of the examined species, however, with a pair of prominent elongate accessory glands and elongate, spirally twisted proximally spermatheca (Fig. 23), do not quite correspond to those of *Conderis*, which has just one accessory gland (Bocak & Bocakova, 1990), and apparently necessitate further morphological studies in both genera of the tribe.

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## REFERENCES

- Bocak, L. & Bocakova, M. 1987. Notes on the taxonomy of some European species of the family Lycidae (Coleoptera). *Acta Entomologica Bohemoslovaca*, 84: 111–121.
- Bocak, L. & Bocakova, M. 1990. Revision of the supergeneric classification of the family Lycidae (Coleoptera). *Polskie pismo entomologiczne*, 59(4): 623–676.
- Bocak, L. & Bocakova, M. 1991. Notes on some Palaearctic and Oriental representatives of the tribe Erotini (Coleoptera, Lycidae). *Acta Entomologica Bohemoslovaca*, 88: 313–326.
- Bocak, L. & Bocakova, M. 2008. Phylogeny and classification of the family Lycidae (Insecta: Coleoptera). *Annales Zoologici*, 58(4): 695–720. DOI: 10.3161/000345408X396639
- Bocakova, M. & Bocak, L. 2007. Lycidae. P. 211–224. In: Löbl I. & Smetana A. (eds.). *Catalogue of Palaearctic Coleoptera. Vol. 4. Elateroidea – Derodontoidea – Bostrichoidea – Lymexyloidea – Cleroidea – Cucujoidea*. Stenstrup: Apollo Books.
- Kazantsev, S.V. 2000. New lycids from China (Coleoptera, Lycidae). *Miscellanea Zoologica*, 23(2): 79–92.
- Kazantsev, S.V. 2002. New and little known species of Lycidae (Coleoptera) from China. *Russian Entomological Journal*, 11(3): 253–263.
- Kazantsev, S.V. 2005. Morphology of Lycidae with some considerations on evolution of the Coleoptera. *Elytron*, 17–18 (2004) et *Coleopterological Monographs*, 3: 73–248.
- Kazantsev, S.V. 2012. An annotated checklist of Cantharoidea (Coleoptera) of Russia and adjacent territories. *Russian Entomological Journal*, 20(4) (2011), 387–410. DOI: 10.15298/rusentj.20.4.05
- Kazantsev, S.V. 2013. New and little known taxa of “neotenic” Lycidae (Coleoptera), with discussion of their phylogeny. *Russian Entomological Journal*, 22(1): 9–31. DOI: 10.15298/rusentj.22.1.03

- Kazantsev, S.V. 2014. New net-winged beetles (Coleoptera) from northern Indochina and China. *Russian Entomological Journal*, 23(1): 9–17. DOI: 10.15298/rusentj.23.1.03
- Kazantsev, S.V. 2018. New and little known net-winged beetles (Coleoptera: Lycidae) from the Crocker Range Mountains, Sabah, East Malaysia. *Russian Entomological Journal*, 27(3): 255–270. DOI: 10.15298/rusentj.27.3.04
- Kleine, R. 1930. Neue Lycidae der Malaiischen subregion. *Journal of the Federated Malay States Museums*, 16: 169–174.
- Kleine, R. 1931. Zur Kenntnis der Lycidenfauna Javas. *Treubia*, 13(2): 245–290.
- Kleine, R. 1932. Die Lycidenfauna der Gebirge Borneos (Zugleich ein Bericht über die Ausbeute die Herr H. M. Pendlebury aus dem Kina-Balu-Gebirge mitgebracht hat.). *Journal of the Federated Malay States Museums*, 17: 146–166.
- Kleine, R. 1933. *Pars 123: Lycidae. Coleopterorum Catalogus auspiciis et auxilio W. Junk editus a Schenkling*. W. Junk, Berlin. 145 pp.
- Kleine, R. 1942. *Bestimmungstabelle der Lycidae. Bestimmungstabellen der europäischen Coleopteren. 123. Heft*. E. Reitter, Troppau. 90 pp.
- Kusy, D., Motyka, M., Bocek, M., Macek, M. & Bocak, L. 2019. Phylogenomic analysis resolves the relationships among net-winged beetles (Coleoptera: Lycidae) and reveals the parallel evolution of morphological traits. *Systematic Entomology*, 44: 911–925. DOI: 10.1111/syen.12363
- Laporte, F.L.N. Caumont de [= de Castelnau]. 1838. Etudes entomologique, ou descriptions d'insects nouveaux et observations sur la synonymie. *Revue entomologique* (G. Silbermann), 4 [1836]: 5–60, 1 pl.
- Nakane, T. 1969. *Fauna Japonica. Lycidae (Insecta: Coleoptera)*. Academic Press of Japan, Tokyo. 224 pp.+viii pp., 8 pls.
- Waterhouse, C.O. 1879. *Illustrations of Typical Specimens in the Collection of the British Museum. Part 1 – Lycidae*. Taylor and Francis, London. 93 pp.

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Address: Federal Scientific Center of the East Asia Terrestrial Biodiversity (former Institute of Biology and Soil Science), Far East Branch of the Russian Academy of Sciences, 690022, Vladivostok-22, Russia.

E-mail: storozhenko@biosoil.ru

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