

The longicorn beetle tribe Cerambycini Latreille, 1802
(Coleoptera: Cerambycidae: Cerambycinae) in the fauna of Asia.
7. A new or little-known species of the genus *Xoanoder*a Pascoe, 1857

Жуки-дровосеки трибы Cerambycini Latreille, 1802
(Coleoptera: Cerambycidae: Cerambycinae) фауны Азии.
7. Новый и малоизвестные виды рода *Xoanoder*a Pascoe, 1857

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KEY WORDS: Coleoptera, Cerambycidae, Cerambycini, *Xoanoder*a, new or little-known species, Borneo, Indochina.

КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Cerambycidae, Cerambycini, *Xoanoder*a, новый и малоизвестные виды, Борнео, Индокитай.

ABSTRACT. A new species, *Xoanoder*a *curvibtibialis* sp.n., that earlier has been mixed with the Indochinese species *X. interrupta* (Pic, 1933), is described from Borneo. *Xoanoder*a *grossepunctata* Gressitt et Rondon, 1970 is recorded from Cambodia for the first time. The distribution of *X. interrupta* is being clarified. The taxonomic status and species composition of *Lajoye*ia Pic, 1933 are discussed.

РЕЗЮМЕ. Описан новый вид *Xoanoder*a *curvibtibialis* sp.n. с Борнео, который смешивался с индокитайским *X. interrupta* (Pic, 1933). *Xoanoder*a *grossepunctata* Gressitt et Rondon, 1970 впервые отмечен в Камбодже. Уточнено распространение *X. interrupta*. Обсуждены таксономический статус и видовой состав *Lajoye*ia Pic, 1933.

The present paper describes a new species of the genus *Xoanoder*a Pascoe, 1857 from Borneo that has been mixed with the Indochinese species *X. interrupta* (Pic, 1933). Additionally, it provides new records of some little-known species, as well as reports other new data.

The material treated in this work belongs to the following institutional and private collections:

BM — Bishop Museum (Honolulu, USA);

MNHN — Muséum national d'Histoire naturelle (Paris, France);

cAM — collection of Alexandr Miroshnikov (Krasnodar, Russia);

cLD — collection of Luboš Dembický (Brno, Czech Republic);

cSM — collection of Sergey Murzin (Moscow, Russia).

*Xoanoder*a *interrupta* (Pic, 1933)

Figs 1–2, 4–5, 7–8, 10, 12, 14, 16, 18, 21.

*Lajoye*ia *interrupta* Pic, 1933: 10. Type locality: “Cochinchine, Cap St. Jacques” (now Vũng Tàu, southern Vietnam) (according to the original description and the label of the holotype).

*Xoanoder*a (*Lajoye*ia) *interrupta*: Gressitt, Rondon, 1970: 91 (syn. pro *Xoanoder*a (*Lajoye*ia) *vitticollis* Gahan, 1891; wrong synonymy); Heffer, 2013: 11 (Vietnam, Thailand).

*Xoanoder*a *interrupta*: Holzschuh, 1999: 24 (*Xoanoder*a *interrupta* (Pic, 1933), sp. revalid.; Vietnam, Thailand; in original: “*Xoanoder*a *interrupta* (Pic) n. stat.”, sic!); Nga et al., 2014: 439 (Vietnam).

MATERIAL. Holotype by monotypy, ♂ (MNHN) (photographs; Figs 1, 4), “Cochinchine, Cap St. Jacques”, “*Lajoye*ia *interrupta* n. sp.”, “Type”, “ex Lajoye”, “Museum Paris, Coll. M. Pic” (Fig. 7); 1♂ (cLD) (Figs 2, 5), N Vietnam, 70 km NW of Hanoi, Tam Dao, 900–1200 m, 21°27'N / 105°39' E, 1–8.06.1996, leg. L. Dembický, P. Pacholátko, *Xoanoder*a *interrupta* (Pic, 1933) ♂ det. A. Miroshnikov 2019.

REMARKS. This species was described from a single male originating from southern Vietnam [Pic, 1933] that I have examined only from the photographs. The male from northern Vietnam I have studied through the courtesy of Mr. Luboš Dembický (Brno, Czech Republic), is extremely similar to the holotype and is identified here as *X. interrupta*.

At the same time, one male from Borneo (from my collection), externally similar to *X. interrupta*, is actually a new species described below.



Figs 1–6. *Xoanoderia* spp., habitus, dorsal and ventral views, males: 1–2, 4–5 — *X. interrupta* (1, 4 — holotype, photographs by Azadeh Taghavian; 2, 5 — specimen from northern Vietnam); 3, 6 — *X. curvibtibialis* sp.n., holotype.

Рис. 1–6. *Xoanoderia* spp., общий вид сверху и снизу, самцы: 1–2, 4–5 — *X. interrupta* (1, 4 — голотип, фотографии Азаде Тагвян; 2, 5 — экземпляр из северного Вьетнама); 3, 6 — *X. curvibtibialis* sp.n., голотип.

In the original description, Pic [1933: 10] noted that “*Lajoyeia* n. gen. ... Ce nouveau genre, établi pour l'espèce suivante, par la structure de ses antennes, se rapproche de *Sebasmia* Pasc., mais le prothorax n'est pas rétréci en avant, les élytres sont moins allongés, enfin la forme des tibias intermédiaires est très particulière. *Lajoyeia interrupta* n. sp. ...”. Without any doubt, this author was holding a specimen, initially devoid of the posterior legs, since he drew attention to the peculiar structure of only the mesotibiae. Gressitt and Rondon [1970] downgraded *Lajoyeia* to the rank of subgenus of the genus *Xoanoderia*. However, the differences between *Xoanoderia* s.str. and *Lajoyeia*, as well as their species composition must be reconsidered. If *Lajoyeia* nevertheless to accept as a subgenus, then it must include only *X. interrupta* and a similar new species described here and be characterized by the unique structure of the meso- and metatibiae of the male and some other features of these taxa. But this can be properly done only within the framework of a detailed revision of the morphologically very diverse genus *Xoanoderia* and its division into various subgenera.

MORPHOLOGICAL NOTES. Body length 13.7–15.6 mm, humeral width 3.6–4.1 mm, thereby the holotype is the smallest.

The female is still unknown to me, but, unlike the male, it must have all tibiae without modifications.

Genitalia as in Figs 10, 12, 18, 21.

DISTRIBUTION. Indochina: Vietnam, Thailand; the records in Borneo and probably in Sumatra [Makihara, 1999; Holzschuh, 1999; Heffern, 2013] are to be attributed to the next new species.

***Xoanoderia curvitalis* Miroshnikov, sp. n.**

Figs 3, 6, 9, 11, 13, 15, 17, 19–20, 22.

Xoanoderia (Lajoyeia) interrupta (non Pic, 1933): Heffern, 2013: 11 (Borneo).

Xoanoderia interrupta (non Pic, 1933): Nga et al., 2014: 439 (Borneo).

Xoanoderia vitticollis (non Gahan, 1891): Makihara, 1999: 54, pl. 7, fig. 60 (East Kalimantan, Bukit Soeharto).

?*Xoanoderia interrupta* (non Pic, 1933): Holzschuh, 1999: 24 (Sumatra); Nga et al., 2014: 439 (Sumatra).

?*Xoanoderia (Lajoyeia) interrupta* (non Pic, 1933): Heffern, 2013: 11 (Sumatra).

MATERIAL. Holotype, ♂ (cAM) (Figs 3, 6), E Malaysia, Sabah, Nabawan Distr., 7 km N Pensiangan, 530 m, 04°35'16"N / 116°19'27"E, 29.05.2014, leg. A. Klimenko.

DIAGNOSIS. Based on male characters, this new species is similar to *X. interrupta*, but differs clearly by the almost entirely white coloration of the recumbent setation; the darker coloration of the integument in general; the antennomeres being wider, starting from antennomere 3, but being shorter, starting at least from antennomere 5, as in Figs 3, 6 (cf. Figs 1–2, 4–5); the meso- and metatibiae being more strongly broadened towards the middle, starting from base, as in Figs 15, 17 (cf. Figs 14, 16); the much less strongly developed spots of white recumbent setae on the sides of elytra, as in Fig. 9 (cf. Fig. 8); the structure of genitalia, including the peculiar shape of the tegmen, as in Fig. 19 (cf. Fig. 18), the clearly more short parameres with the shorter erect setae apically, as in Figs 13, 19 (cf. Figs 12, 18), the penis being less sharply narrowed before the apex, as in Fig. 22 (cf. Fig. 21).

DESCRIPTION (see also Remarks below). Male. Body length 16.2 mm, humeral width 4 mm. Dorsum almost entirely and basal antennomeres black-brown; eyes black; remaining parts mainly combines dark reddish brown and reddish brown tones.

Head with moderately developed antennal tubercles; mostly with a coarse, very dense and confluent puncturation dorsally; between eyes visibly elevated, with a somewhat scabrous sculpture; genae short; eyes moderately convex; submentum with transverse wrinkles and more or less small irregular punctures; neck ventrally and gula with distinct transverse folds; antennae reaching beyond apex of elytra by last antennomere, strongly serrate from antennomere 4 until antennomere 10; length ratio of antennomeres 1–11, 28 : 9 : 24 : 19 : 31 : 38 : 42 : 42 : 41 : 39 : 51; antennomere 2 subequal in length and width; last antennomere with a distinct appendage.

Pronotum barely transverse, 1.03 times as wide as long, at base 1.18 times as wide as apex; slightly convex; with a coarse, very dense and confluent puncturation.

Scutellum strongly narrowed towards apex, rounded apically.

Elytra weakly narrowed towards apex, 2.59 times as long as humeral width; with a coarse and very coarse, dense, in places confluent puncturation; apical external and sutural angles obtusely angular; apical margin strongly hidden by dense setae.

Prosternum in apical half mostly with transverse wrinkles; prosternal process between coxae very clearly narrower than mesosternal process; meso- and metasterna and sternites with a dense, heterogeneous, partly weakly expressed puncturation; metasternum with a clear median groove; last (visible) sternite broadly truncate apically; last (visible) tergite barely emarginate at apex.

Legs relatively short; meso- and metatibiae of special structure, similar to *X. interrupta*, peculiarly emarginated and excavated, and, in addition, with a well-developed brush of dense, erect, long, yellowish setae, as in Figs 3, 6, 15, 17, 20; metatarsomere 1 clearly shorter than metatarsomeres 2 and 3 combined.

As noted above, recumbent dense setation almost entirely white (whereas in *X. interrupta*, recumbent dense setation mainly yellow or yellowish, partly grey-yellowish); its distribution, mainly like in *X. interrupta*, but with much less strongly developed spots on sides of elytra.

Genitalia as in Figs 11, 13, 19, 22.

REMARKS. The body length of the male belonging to this new species, but indicated as “*Xoanoderia vitticollis* Gahan” [Makihara, 1999], is 14.5 mm.

ETYMOLOGY. The formation of the name of this new species is related to the very peculiar in structure of the male's meso- and metatibiae.

DISTRIBUTION. Borneo; ?Sumatra.

***Xoanoderia grossepunctata* Gressitt et Rondon, 1970**
Figs 23–25.

Xoanoderia (Lajoyeia) grossepunctata Gressitt et Rondon, 1970: 92. Type locality: Laos, Borikhane Prov., Pakkading (according to the original description and the label of the holotype).

MATERIAL. Holotype, ♂ (BM) (Fig. 23), “Pakkading, 5.4.[19]66”, “Laos: Borikhane Prov., Pakkading”, “J.A. Rondon Collection Bishop Mus.”, “Holotype *Lajoyeia grossepunctata* J.L. Gressitt et Rondon”, “*Xoanoderia (Lajoyeia) grossepunctata* Gressitt et Rondon det. 196[?]” (Fig. 24); 1♂ (cSM) (Fig. 25), S Cambodia, Sihanoukville env., 20 m, 23–24.11.1999, leg. S. Murzin, M. Murzin, “*Lajoyeia* sp.?, non *interrupta* Pic, S. Murzin det. 2002”, *Xoanoderia grossepunctata* Gressitt et Rondon, 1970 ♂ det. A. Miroshnikov 2015.

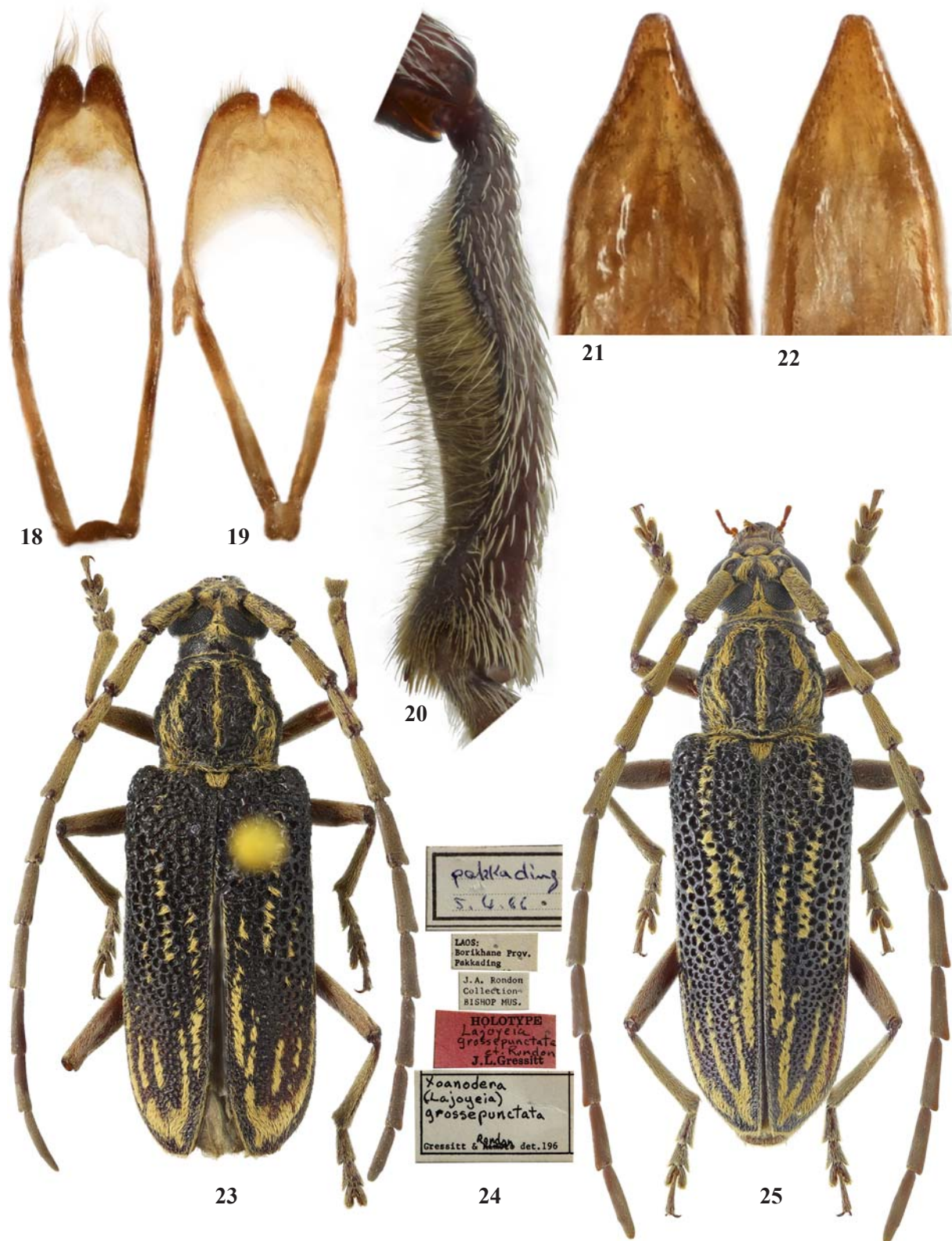
REMARKS. This species has hitherto been known only from Laos [Gressitt, Rondon, 1970].

Based on the material studied, *X. grossepunctata* is being recorded here from Cambodia for the first time. In addition, the records of this species are also known to me in Vietnam from some photographs.



Figs 7–17. *Xoanodera* spp., males: 7–8, 10, 12, 14, 16 — *X. interrupta* (7 — labels of holotype, photograph by Azadeh Taghavian); 9, 11, 13, 15, 17 — *X. curvibialis* sp.n., holotype; 8–9 — elytra, dorsolateral view; 10–11 — tergite 8, dorsal view; 12–13 — apical part of tegmen, ventral view; 14–15 — mesotibia, ventral view; 16–17 — metatibia, ventral view.

Рис. 7–17. *Xoanodera* spp., самцы: 7–8, 10, 12, 14, 16 — *X. interrupta* (7 — этикетки голотипа, фотография Азаде Тагвян); 9, 11, 13, 15, 17 — *X. curvibialis* sp.n., голотип; 8–9 — надкрылья, сверху и сбоку; 10–11 — 8-й тергит, сверху; 12–13 — верхняя часть тегмена, снизу; 14–15 — средняя голень, снизу; 16–17 — задняя голень, снизу.



Figs 18–25. *Xoanoderinae* spp., males: 18, 21 — *X. interrupta*; 19–20, 22 — *X. curvitibialis* sp.n., holotype; 23–25 — *X. grossepunctata* (23–24 — holotype; 25 — specimen from Cambodia); 18–19 — tegmen, ventral view; 20 — metatibia, ventrolateral view; 21–22 — apical part of penis, ventral view; 23, 25 — habitus, dorsal view.

Рис. 18–25. *Xoanoderinae* spp., самцы: 18, 21 — *X. interrupta*; 19–20, 22 — *X. curvitibialis* sp.n., голотип; 23–25 — *X. grossepunctata* (23–24 — голотип; 25 — экземпляр из Камбоджи); 18–19 — тегмен, снизу; 20 — задняя голень, снизу и сбоку; 21–22 — верхняя часть пениса, снизу; 23, 25 — общий вид сверху.

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References

- Gressitt J.L., Rondon J.A. 1970. Cerambycids of Laos (Disteniidae, Prioninae, Philinae, Aseminae, Lepturinae, Cerambycinae) // Gressitt J.L., Rondon J.A., Breuning S. von. Cerambycid-beetles of Laos. Pacific Insects Monograph. Vol. 24. Honolulu: Entomology Department, Bernice P. Bishop Museum. P.1–314.
- Heffern D.J. 2013. A Catalog and Bibliography of Longhorned Beetles from Borneo (Coleoptera: Cerambycidae, Disteniidae and Vesperidae). Electronic Version, 2013.1. 107 pp. Available at: https://www.zin.ru/animalia/coleoptera/pdf/heffern_2013_borneo_catalog.pdf (accessed 31 October 2019).
- Holzschuh C. 1999. Beschreibung von 71 neuen Bockkäfern aus Asien, vorwiegend aus China, Laos, Thailand und India (Coleoptera, Cerambycidae) // FBVA Berichte — Schriftenreihe der Forstlichen Bundesversuchsanstalt in Wien. No.110. S.1–64.
- Makihara H. 1999. Atlas of longicorn beetles in Bukit Soeharto Education Forest, Mulawarman University, East Kalimantan, Indonesia. Pusrehut special publication No.7. 140 pp.
- Nga C.T.Q., Long K.D., Thinh T.H. 2014. New records of the tribe Cerambycini (Coleoptera: Cerambycidae: Cerambycinae) from Vietnam // Tap Chi Sinh Hoc. Vol.36. No.4. P.428–443.
- Pic M. 1933. Nouveautés diverses // Mélanges Exotico-Entomologiques. Fasc.61. P.3–36.