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New or little-known species of the genus *Paraclytus* Bates, 1884 (Coleoptera: Cerambycidae) from China

Новые и малоизвестные виды жуков-древосеков рода *Paraclytus* Bates, 1884 (Coleoptera: Cerambycidae) из Китая

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Key words: Coleoptera, Cerambycidae, Anaglyptini, *Paraclytus*, new or little-known species, Shaanxi, Sichuan, and Yunnan Provinces, China.

Ключевые слова: Coleoptera, Cerambycidae, Anaglyptini, *Paraclytus*, новые и малоизвестные виды, провинции Шэньси, Сычуань, и Юньнань, Китай.

Abstract. The first exact locality is given for *Paraclytus thibetanus* (Pic, 1914), a species hitherto known only from the holotype from "Thibet". Because both specimens this new record is based on are somewhat different from the holotype, they may actually belong to a separate form of an unknown status. *Paraclytus excellens* Miroshnikov et Lin, sp. n., which resembles *Paraclytus thibetanus* by the color pattern of the elytra and pronotum, is described from Yunnan. *Paraclytus primus* Holzschuh, 1992, originally described from northern Sichuan, is newly reported from southern Shaanxi, these new records considerably expanding the known distribution range of this species. New records not so remote from the type locality are also provided for this species from northern Sichuan. *Paraclytus wangi* Miroshnikov et Lin, sp. n., which is similar to *Paraclytus primus*, is described from Luding County, Sichuan.

Заключение. Впервые указан точное, но пока единственное местонахождение на крайнем северо-западе провинции Юньнань, Китай («Qiqi Reserve, Gongshan County»). Для *Paraclytus thibetanus* (Pic, 1914). До настоящего времени этот вид был известен только по голотипу, описанному из "Thibet". Показаны отличия двух экземпляров из этого местонахождения от голотипа и высказано предположение об их возможной принадлежности к самостоятельной форме. Отмечено, что для выяснения ее таксономического статуса необходим дополнительный материал. Описан новый вид *Paraclytus excellens* Miroshnikov et Lin, sp. n., также из провинции Юньнань, рисунком надкрылий и переднеспинки напоминающий *Paraclytus thibetanus*. Впервые указаны находки *Paraclytus primus* Holzschuh, 1992 (описанного из Северной Сычуани) на юге провинции Шэньси, значительно расширяющие ареал этого вида. Приведены также его новые находки на севере провинции Сычуань, но незначительно удаленные от типового местонахождения. Описан новый вид *Paraclytus wangi* Miroshnikov et Lin, sp. n., из округа Лудин в провинции Сычуань, сходный с *Paraclytus primus*.

Introduction

Chinese representatives of the genus *Paraclytus* Bates, 1884 constitute about two thirds of the total volume of the genus. Since their most intense study has begun during the 1990-ies, most of the Chinese species of this genus have been described during only two past decades [Holzschuh, 1992, 1993, 1999, 2003]. New records and discovery of the new species, mostly based on the fragmentary material and in particular presented also in this paper, demonstrate that the Chinese fauna of this group is poorly known. Therefore, we presume that many more species are to be discovered and described from this large country in the future. Also the systematic position of the recently and earlier described species [Pic, 1914; Gressitt, 1937a, 1937b, 1951] until recently remained unclear or controversial. In particular many species of *Paraclytus* were erroneously considered as members of the genus *Anaglyptus* Mulsant, 1839 until Miroshnikov [2012] transferred them to the former genus. This was done because a thorough comparative morphological analysis of various groups of the tribe Anaglyptini including the genus *Paraclytus*, on the one hand, confirmed their complex nature, and, on the other hand, established important difference between the genera *Paraclytus* and *Anaglyptus*. Characters separating these genera were so far reported by one of us in the oral presentation at the 14th Congress of the Russian Entomological Society held in St. Petersburg in August 2012. Since the article based on that presentation will be published in 2013, here we omit detailed justification of the placement in the genus *Paraclytus* for species studied here. Instead we refer the reader to that upcoming publication.

Here we provide new data about morphology and distribution for the two little-known species of that genus, as well as describe two species new to science.
Material. Holotype (by monotypy), \( \nu \) (MNHN), “Thibet Coll. Le Moult,” “thibetanus Pic type,” “type” (fig. 2); 2 \( \nu \) (IZAS, IOZ(E)1905691–92), “China, Yunnan Prov., Gongshan County, Qiqi Reserve, 2100 m,” “Sino-America Exped., N27.43, E98.34, 9.07.2000, Liang H.B.” (fig. 3, 4).

Distribution (fig. 1). The species was hitherto known from the holotype from an uncertain locality “Thibet” [Pic, 1914] (fig. 2). Here we provide the first exact record that is based on the material collected in Qiqi Reserve (Yunnan Prov., Gongshan County) (fig. 3, 4).

Notes on morphology. To facilitate the discussion of morphology of this species including the characters mentioned in the original description, here we provide its entire text:

“Anaglyptus thibetanus n. sp. Niger, griseo pubescens, elytris griseo maculatis aut fasciatis, ad scutellum bigibbosis, antennis inermis.

Noir, presque opaque, revêtu de pubescence grise avec les élytres ornés de nombreuses macules grises. Antennes fourchues, pubescences grises, à articles inermes; prothorax plus long que large, rétréci postérieurement, inégal sur les côtés; élytres ayant deux fortes gibbosités prescutellaires, assez longs, un peu rétrécis à l’extrémité, subtronqués et frangés de poils au sommet; celui-ci largement garni de gris, ornés chacun de nombreuses macules grises diposées sur trios rangées longitudinales, les médianes larges, les internes antérieurement obliques et d’une fascie transversale ondulée placée avant la macule apicale qui est sinuée en avant; pattes fourchées, tibias postérieurs un peu arqués au sommet. Long. 14 mill. . . ."

Both females from Qiqi Reserve (fig. 13, 14) differ from the holotype (also a female) (fig. 12) in the following characters: more developed lateral tubercles of pronotum; straight (not apically curved) posterior and middle tibiae; more rounded spots (formed by pale dense setae) located behind protuberances at base of elytra; and larger and more rounded spots located before middle of elytra. Although we did not find any other essential characters in which these specimens differ from the holotype, presumably the new material belongs to a different form. A study of the additional material is needed to test this assumption and determine the taxonomic status of that form.

Length of the body of one of the newly found specimens (fig. 13) is 14.5 mm, while the other — 14 mm (fig. 14). Length of the body of the holotype is 13.9 mm, as was indicated in the original description. As in the holotype, antennae in both of the newly presented specimens reach the anterior margin of apical band, and their antennomeres 3 and 4 without spine. In one of the specimens (fig. 13) pronotum is 1.11 times as wide as long, in another — 1.09 times (fig. 14). Contrary to the original description (see above), the pronotum of the holotype is, in fact, about as long as wide. However pronotum may appear as somewhat oblong, due to its shape. In both specimens elytra at base are 2.63–2.64 times as long as wide; in the holotype this ratio equals 2.66. In both specimens, lateral angle of the elytral apex, as in the holotype, with notable moderately sharp tooth that is especially well developed in one of the newly found specimens. Noteworthy is that the middle
Paraclytus excellens Miroshnikov et Lin, sp. n.

(Color plate 3: fig. 7–11)

Material. Holotype, ♂ (IZAS, IOZ(E)1905690), China, Yunnan Prov., Lushui, Yaojiaping, 2450 m, 1.06.1981, leg. X.-Z. Zhang. The original label in Chinese language is in fig. 5.

Diagnosis. Based on the color pattern of elytra and pronotum, the new species resembles P. thibetanus. But it differs from the latter in more robust and larger body, wider elytra, shorter and differently colored antennae having less elongate middle antennomeres. Compared to P. thibetanus the role of creamy-yellow colors in the coloration of setae in the new species is more pronounced, and the white color on the ventral side of the body has no grey tone. In coloration of the antennae P. excellens sp. n. is somewhat similar with P. apicicornis (Gressitt, 1937) (fig. 15). However, it can be easily distinguished from that species by many characters, mainly by the larger body, absence of spine on antennomeres 3–4, black color (except setation) of the antennomeres 1 and 2, entirely black coloration of the elytral cuticle, somewhat different color pattern of elytra formed by bands of dense and pale setae, as well as by the pattern of setation of pronotum. Among the Chinese representatives of the genus, P. excellens sp. n. is one of the largest species.

Description. Female. Body length 16.8 mm; humeral width 5.1 mm. Body robust. Black; mouthparts somewhat paler; base of antennomeres 1, and entire antennomeres 7–11 reddish-brown, these antennomeres, except the last one, darkened apically; middle and posterior tibiae apically (mostly dorsally and laterally), middle and posterior femora (basally) paler, reddish-brown; elytra partially with notable bluish metallic luster.

Head dorsally with very dense, mostly confluent and rather rough punctuation; antennal tubercules well developed; genae long, about as long as anterior tarsomeres 2 and 3 together; last segment of maxillary and labial palpi moderately widened apicad, not secundiform, apically truncated and broadly rounded. Antennae shorter than body, slightly extending over the oblique band in apical part of elytra and not reaching the apical band.

tibiae of the holotype are notably curved apically (this feature was not mentioned in the original description), but they are less curved than the posterior tibiae. Contrary to the holotype, in both specimens beige and yellowish colors are noticeable in the coloration of spots and bands on elytra and pronotum. In all three specimens apex of the elytra dorsally covered by dense, long and pale setae that strongly or entirely hide the elytral apex including the tooth (visible only in ventral view).
Antennomeres: 1 about as long as 3; 2 about as long as wide; 3 only hardly longer than 4 (ratio 1.07 : 1); 5 notably longer than 4 but slightly shorter than 6, 7 about as long as 5, 8 and 9 of equal length; 11 only slightly shorter than 10; internal apical angle of the 3 and 4 without spine.

Pronotum with well developed lateral tubercle, stronger narrowing basal than apical; basally pronotum notably wider than apically, before apex strongly constricted, hardly transversal (1.08 times as wide as long), concave on disc, more sloping towards its base than towards its apex, with longitudinal obtuse keel-shaped elevation behind its middle, covered with very dense, partially confluent punctuation consisting of punctures in general much bigger than on head dorsally; punctuation strongly smoothened near base and apex of pronotum where it forms isodiametric mesh; in basal third of pronotal length, laterally, punctuation larger.

Scutellum oblong, triangle, narrowly rounded apically, with rough sculpture and indistinct punctuation.

Elytra moderately narrowing from base towards apex, 2.4 times as long as wide at base, elevated behind the base and with elongate sloped backwards crest behind scutellum laterally from suture, along suture narrowly but distinctly elevated, flat on most of the disc surface, notably sloped towards their lateral margins along middle third of their length, laterally in basal parts sloped almost straight downwards, and abruptly narrowing near apex; humeri almost straight, humeral angle rounded, with knob dorsally; sutural angle gradually rounded, lateral angle extended in distinct tooth (fig. 10, 11); first two thirds of elytral length with rough, partially wrinkled sculpture fading apical, last third with small, less even, relatively sparse punctuation that is rather dense, very small, but distinct around scutellum.

Mesothoracic process about three times as wide as the process of prothorax. Metathorax with very pronounced longitudinal suture. Thoracic segments and first (visible) sternite with very small and dense punctuation that are weakly notable because of dense setation that are mostly sparser on other sternites, very visible near middle of those sternites. Last (visible) sternite apically straight truncate, without distinct impression.

Legs moderately long. Posterior femora far not reaching apex of elytra. First tarsomere of posterior tarsi slightly longer than two follow: four before the middle forming longitudinal row, of which two located laterally larger than two near median line and two behind the middle of pronotum; spots and bands of elytra colored in white and creamy-yellow colors, the former color distinctly dominating; each elytron with humeral spot distinctly not reaching scutellum but almost reaching humeri, with oblique oval not large spot behind crest, with large marginal spot at the end of the first third of elytral length, with oblique oval spot before middle, with zigzag band past the middle and apical band with zigzag anterior margin as shown in fig. 7, 9; large spots supplemented with scattered small spots that sometimes formed only by a few setae, these giving the color pattern particularly variegated nature; small creamy-yellow spots form narrow, partially interrupted band before the apical band; crest at base of elytra with semi-erect short, black setae; ventral side (fig. 8) predominantly in dense setation that is sparser on most mesothorax, near lateral margin of anterior coxal cavities, posterior margin of middle coxal cavities, and at base and middle of all but first (visible) sternites; head, first and antennomere, pronotum, disc of elytra mostly in basal half, partly femora and tibiae, as well as ventral side of the body with more or less long sparse, thin, erect or semi-erect setae.

Etymology. The name of the new species refers to its excellent habitus and large size.


Paracylus primus Holzschuh, 1992

(Color plate 5, 6: fig. 17–20, 22, 24–25)


Distribution (fig. 1). This species was hitherto known only from the type locality. Now it is found in two additional localities in Northern Sichuan (Jiuzhaigou and Pingwu) not far from the type locality. Besides P. primus is found in two remote localities in the south of Shaanxi Province (Houzheni and Tiantaiashan forest park) (see "Material" and fig. 1) that considerably expand the known range of the species. Apparently it also occurs in the adjacent Gansu Province.

Notes on morphology. According to the original description [Holzschuh, 1992], the body length of the species is 9.8–11.6 mm. One of the specimens here examined (♂, Shaanxi Prov., Houzheni) see "Material") is only about 7.6 mm long.

This species is characterized by the following important diagnostic features. Body size small to medium. Body brownish-black, antennae almost entirely (sometimes only antennomere 1 darker), legs partially, suture sometimes, epipleura usually reddish-brown. Antennae in male slightly extending over apex of elytra, in female (only one female has been examined) – reaching anterior margin of the apical band. Antennomeres as follows: 2 hardly oblong; 3 hardly shorter than 4 (!) and distinctly shorter than 5; 6 and 7, as well as 4 and 8 in male about equal in length; in female 6 is slightly longer than 7, while 4 distinctly longer than 8; internal apical angle of 3 and 4 with distinct but short spine, the latter usually more developed on 3 (fig. 22), sometimes spine poorly distinct on both antennomeres. Pronotum in both sexes oblong, without distinct lateral tubercule,
apically distinctly wider than basally, in male only slightly protruding or broadly rounded along lateral margin, in female – mostly with parallel sides, abruptly narrowing basal behind the middle; near the apex, as in male, with distinct constriction. Elytra moderately elongate and narrowing from base to apex, 2.57–2.58 times as long as wide at base; elytra on disc with very long, sparse, thin, erect setae (fig. 20). Stermites in both sexes with small, relatively dense puncturation, last (visible) sternite in female without distinct impression, apically broadly rounded. Coloration of elytra formed by spots and bands of dense pale setae as in fig. 17–20; in male elytral band with notably smaller setae-free space (fig. 19) than in female (fig. 17); band in basal third of lateral side of elytra in both sexes diverging in shape of narrow stripes forming setae-free space (shown by arrow in fig. 20); stripe extending from the upper margin of the band to humeri, touches epipleura and becoming confluent with humeral cover; elytral apex in very long and sparse setae that are not hiding the shape of the former (fig. 24, 25).

Paracyltes wangi Miroshnikov et Lin, sp. n. (Color plate 5, 6: fig. 16, 21, 23, 26)

Material. Holotype, ˩ (IZAS, IOZ(E)1905689), China, Sichuan Prov., Luding, Xinxing, 1600 m, 19.06.1983, leg. S.-Y. Wang. The original label in Chinese language is in fig. 6.

Diagnosis. Although the new species is rather similar with P. primus, it differs well from that species in many characters such as: shorter antennae including their less elongate antenomeres (most notable in the antenomeres 5–9); long spine on the antenomeres 3 and 4 (fig. 22, 23); much shorter sparse, thin, erect setae on disc of the basal part of elytra (fig. 20, 21); shape of elytra that are weakly narrowed apicad, and pattern of their bands; ratio of pronotum width at base and at apical margin (fig. 16–19). Additionally the new species differs from P. primus in some less reliable characters that may prove variable when more females of both species are examined. These characters are: slightly more rough pale setae forming denser setation on pronotum; shape of pronotal lateral margin; shape of elytral apex, in particular sharper lateral angle and more widely truncated apical margin (fig. 24–26); a somewhat different structure of the last (visible) sternite; and the overall darker coloration of antennae, legs, and, partially, body.

Description. Female. Body length 10 mm, humeral width 2.7 mm. Brownish-black; antennae except antennomere 1, apex of elytra, anterior and partly middle and posterior tarsi, apex of anterior tibiae, base of all femora and most of visible sternites 3–5 reddish-brown.

Head mostly with dense, partially confluent moderately coarse punctuation; with weakly developed, flattened antennal tubercles; genae long; last segment of maxillary and labial palpi widened apicad, in labial palpi it is being apically broadly rounded, in maxillary – straightly truncated. Antennae shorter than body, reaching only the apical margin of band (near suture) behind middle of elytral length, and distinctly not reaching the apical band (fig. 16). Antenomeres: 1 as long as 3; 2 about as wide as long; 3 as long as 4 (?); 5 distinctly longer than 6; 7 significantly longer than 8; 8 slightly longer than 9 but distinctly longer than 10 and slightly longer than 11 (fig. 23); internal apical angle of 3–4, each with long spine that is longer in 3 (fig. 23) (in both of antenomeres of the right antenna of the holotype the spine is apically damaged). Pronotum hardly oblong, without distinct lateral tubercle, only blunter angulate laterally, equally tapering anteriod and posteriad, basally and apically of about equal width, strongly constricted before apex, convex, and with longitudinal keel-shaped elevation on disc, also with very dense partially confluent punctuation that is mostly larger than such on head; punctuation strongly smoothened near base of pronotum, forming reticulation. Scutellum longitudinal, triangle, apically pointed, with indistinct punctuation.

Elytra from base very weakly narrowing apicad, strongly narrowing only near their apex; 2.6 times as long as wide at base; behind base elevated, with that elevation flat, without crest; humeri nearly straight, rounded; elytral apex obliquely truncated, slightly sinuated, with well developed sutoral and lateral angles (fig. 26); surface with dense relatively small, partly uneven punctuation.

Mesothoracic process about two times as wide as process of prothorax. Metathorax with distinct longitudinal suture. Thoracic segments and sternites with very small dense punctures that are partly poorly seen because of dense setation. Last (visible) sternite slightly impressed, near base laterally from the midline predominantly without punctuation, smooth.

Anterior and middle legs moderately long, posterior legs rather long; posterior femora far not reaching apex of elytra; first posterior tarsomere 1.5 times as long as the two following tarsomeres combined.

Head, pronotum at sides, basally and apically (in shape of broad band), bands and spots of elytra, and legs partly with dense white setation; each elytron with humeral spot less dense than on bands, and with band in basal third of elyral length (fig. 21); elytral disc with slightly oblique band shortly extended basad and meeting the lower limit of elevated surface of elytra and seemingly connected with humeral spot by narrow stripe of sparsely scattered setae; behind the middle elytra with oblique, strongly curved band that is fused with narrow band extended along suture, and with the apical band with denser setae in basal part; setae evenly and densely distributed on both bands, not forming bold areas; elytral apex in very sparse long setae not hiding their contour (fig. 26); episterna of meso- and metathorax, and sternites laterally away from midline, with very dense white setation; pronotum and elytra with recumbent or somewhat semi-erected dark numerous setae; elytra on disc, mainly in basal part (fig. 21), as well as on head, parts of antennae, pronotum, legs and ventral side of the body, with moderately long sparse, thin, erect or semi-erected setae.

Etymology. The name of the new species refers to the collector of the holotype, Mr. Shu-Yong Wang, who has collected many specimens of the insects for IZAS.

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New or little-known species of the genus *Paraclytus* Bates, 1884 (Coleoptera: Cerambycidae) from China

References


New or little-known species of the genus *Paraclytus* Bates, 1884 (Coleoptera: Cerambycidae) from China

Color plate 3.

Fig. 7–11. Holotype of *Paraclytus excellens* Miroshnikov et Lin, sp. n., female.

Рис. 7–11. Голотип *Paraclytus excellens* Miroshnikov et Lin, sp. n., самка.
Color plate 4. New or little-known species of the genus Paraclytus Bates, 1884 (Coleoptera: Cerambycidae) from China

Fig. 12–15. Paraclytus Bates, 1884.
12 – голотип P. thibetanus (Pic, 1914) («Тибет»); 13–14 – P. thibetanus (Юньнань, Гоншань, заповедник Кики); 15 – P. apicicornis (Gressitt, 1937).
New or little-known species of the genus *Paraclytus* Bates, 1884 (Coleoptera: Cerambycidae) from China

**Fig. 16–19.** *Paraclytus* Bates, 1884.


Color plate 6. New or little-known species of the genus *Paraclytus* Bates, 1884 (Coleoptera: Cerambycidae) from China

Fig. 20–26. *Paraclytus* Bates, 1884.