A review of the genus *Paraclytus* Bates, 1884, with the description of a new species from China (Coleoptera: Cerambycidae)

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With 208 figures and 2 maps

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Abstract. A review of the species of the genus *Paraclytus* Bates, 1884 is presented. A new species is described: *P. murzini* sp. n., from Sichuan Province, China. All 18 species of the genus, including the new one, are thoroughly diagnosed. All previously known species are redescribed while the distributions of some of them are significantly expanded, with other new data presented. Repeated attempts at relocating the holotype of ?*Paraclytus multimaculatus* Pic, 1923 (Laos) have failed, but *Xylotrechus multimaculatus* Pic, 1923 (Laos) has nothing to do with that problem. A key to all species is proposed, with their distributions being mapped. The genus is rediagnosed and redescribed. Its differences from the very similar genus *Anaglyptus* Mulsant, 1839 are discussed in detail. A thorough bibliography list and a large number of colour illustrations are provided.

Key words. Coleoptera, Cerambycidae, Anaglyptini, *Paraclytus*, review, new species, taxonomy, key, distribution, bionomics, bibliography.

INTRODUCTION

The genus *Paraclytus* Bates, 1884 belongs to one of the taxonomically difficult groups of the subfamily Cerambycinae. Although started quite a long time ago, my studies on this genus, like those on several other similar genera of the tribe Anaglyptini Lacordaire, 1868, can only now be summarized.

Most of the relevant material was considered in due detail in the framework of a report made at the 14th Congress of the Russian Entomological Society, albeit published only as an abstract (Miroshnikov, 2012). Since then those results have been substantially amended, including descriptions of new species from China (Miroshnikov & Lin, 2012; Miroshnikov et al., 2013). The present contribution, therefore, brings together almost all information accumulated to date concerning the genus under study.

At the moment, considering the new species described here, the genus *Paraclytus* includes 18 species. Unfortunately, the attribution of one form, described from Laos (Pic, 1923), presumably a member of *Paraclytus*, remains to be verified.

The latest catalogue by Löbl & Smetana (2010) which lists all previously known representatives of the genus considers only 8 species. Through clarifying the generic assignments of a number of species originally described in the genus *Anaglyptus* Mulsant, 1839, coupled with the discovery, both very recent and present, of new forms from China, the diversity of *Paraclytus* has

more than doubled. This genus may prove to be even richer in species than it is known at the moment, with some more new congeners, primarily from China and possibly the adjacent areas of northern Indochina, still to be expected.

The genus *Paraclytus* shows an extensive and highly peculiar distribution pattern characterized by a sharply expressed disjunction with sufficiently clearly delineated western and eastern parts. The distribution of species between these parts is very uneven. The absolute majority (14 species) inhabit China (Map 2), one congener is insular (Japan and the Kurils) while only three species are known from the western part of the range. Two of them are strictly Hyrcanian (Talysh and Elburs mountains framing the Caspian Sea from the Southwest and South, within Azerbaijan and Iran, respectively), whereas the third species is widespread in the Caucasus and northern Anatolia, reaching the Stranzha Mountains in the West, at the border between European Turkey and Bulgaria (Map 1).

MATERIAL AND METHODS

The material this paper is based upon comes from the following institutional and private collections:

CAS – California Academy of Sciences, San Francisco, U.S.A.
IZA – Institute of Zoology, Azerbaijan National Academy of Sciences, Baku, Azerbaijan
IZAS – Institute of Zoology, Chinese Academy of Sciences, Beijing, China
LNHSM – Lingnan Natural History Survey and Museum, Guangzhou, China
MNHN – Muséum national d'Histoire naturelle, Paris, France
NMP – Národni Museum, Prague, Czech Republic
USNM – National Museum of Natural History, Smithsonian Institution, Washington, U.S.A.
ZFMK – Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany
ZISP – Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Russia
ZMUM – Zoological Museum of the Moscow State University, Moscow, Russia
PUM – Moscow State Pedagogical University, Moscow, Russia
cAM – coll. Alexandr Miroshnikov (Krasnodar, Russia)
cCH – coll. Carolus Holzschuh (Villach, Austria)
cDD – coll. Diethard Dauber (Linz, Austria)
cDK – coll. Denis Kasatkin (Rostov-on-Don, Russia)
cMD – coll. Mikhail Danilevsky (Moscow, Russia)
cPV – coll. Petr Viktora (Kutná Hora, Czech Republic)
cSM – coll. Sergey Murzin (Moscow, Russia)
cTT – coll. Tomáš Tichý (Opava, Czech Republic)

Type specimens and/or their quality colour pictures of all Chinese species have been assessed. Accurate identifications of the remaining, old and well-known four species which are represented in many collections is beyond any doubt.

The endophallus structure which is of primary importance for diagnosing the genus was studied in most species, including almost all of the Chinese representatives known from male material. The present paper adopts the terminology (nomenclature) of endophallus structures used in Danilevsky et al. (2005), Danilevsky & Kasatkin (2006), Kasatkin (2006), Toki & Kubota (2007), Nakamine & Takeda (2008), Yamasako & Ohbayashi (2011), and several others.

Body size measurements were rounded to two decimal places up or down, to 0.00 or 0.05 mm, respectively.

In the "Material" sections, type specimens studied from photographs alone are listed

only following any other pertinent material when such was present.

RESULTS AND DISCUSSION

Genus ***Paraclytus*** Bates, 1884

Paraclytus Bates, 1884: 234. Ganglbauer, 1889a: 71; Ganglbauer in Marseul, 1889b: 479 (*Anaglyptus* subgen.); Pic, 1900: 65 (*Anaglyptus* subgen.); Heyden et al., 1891: 348 (*Anaglyptus* subgen.); 1906: 520 (*Anaglyptus* subgen.); Pic, 1911: 10 (*Anaglyptus* subgen.); Aurivillius, 1912: 416; Winkler, 1929: 1181; Plavilstshikov, 1932: 192; Matsushita, 1933: 293; Mitono, 1940: 127; Plavilstshikov, 1940: 499, 747; 1948: 112; Gressitt, 1951: 302; Plavilstshikov, 1965: 395; Kojima & Hayashi, 1969: 88; Kusama & Hayashi, 1971: 111; Mamaev & Danilevsky, 1975: 216; Lobanov et al., 1982: 258; Tsherepanov, 1982: 204; Kusama & Takakuwa, 1984: 340; Danilevsky & Miroshnikov, 1985: 244; Danilevsky, 1988: 238; Tsherepanov, 1996: 111; Sama, 2002: 84; Özdikmen, 2009: 327; Löbl & Smetana, 2010: 145; Miroshnikov, 2012: 286; Danilevsky, 2013: 179.

Type species: *Paraclytus excultus* Bates, 1884, by monotypy.

Diagnosis. This genus seems to be especially similar to *Anaglyptus* Mulsant, 1839, but differs clearly, first of all, in structure of the endophallus. The latter in *Paraclytus* is characteristically long, at least 8 times as long as the tube of the penis (Figs 152, 153, 156, 157, 164, 165, 169); the distal half of the medial tube is densely clothed with microtrichia, these sometimes forming a brush on the ventral side; the field of microtrichia extends to the apical phallomere and covers from half to two-thirds of its surface. In contrast, the endophallus in *Anaglyptus* spp. is significantly shorter than in *Paraclytus*, only 4–5 times as long as the tube of the penis (Figs 154, 155, 158–161, 166–168); its fine armature fails to form continuous and extensive fields, being represented instead by round or oval fields of varying size, located in the form of spots on the apical and medial phallomeres. Another important difference of *Paraclytus* from *Anaglyptus* is the length ratio of antennomeres 3 and 4, in the latter genus this being considerably or much greater, as a rule. Thus, antennomere 4 in *Paraclytus* is 1.01–1.21 times as long as antennomere 3 (Figs 1–22); the maximum difference in the proportions of these antennomeres is thereby observed in two species only, whereas in all remaining cases this value does not exceed 1.18; in length, antennomere 3 can be equal to or slightly shorter than antennomere 4. In *Anaglyptus*, antennomere 4 is 1.23–1.70 times as long as antennomere 3 (Figs 23–40), with the minimum difference being only characteristic of a few species, whereas in the vast majority of cases this value is not less than 1.30; antennomere 3 is neither shorter than nor equal to antennomere 4. If the minimum length ratio in *Anaglyptus* approaches the maximum one in *Paraclytus*, then in the former genus at least the external apical angle of the elytra extends into a long sharp spine or tooth not hidden by dense long setae. This condition is never observed in *Paraclytus*. In addition, *Paraclytus* differs from *Anaglyptus* by a combination of some other characters, among which the most important are certain structural features of the pronotum and the apex of the elytra, the patterns of setation and coloration of the pronotum and elytra, as well as some morphological traits of the antennae still not mentioned above. These differences in comparative morphological aspects are discussed in due detail below (see Remaks). Evident differences of *Paraclytus* from *Oligoenoplus*, as well as from *Anaglyptus*, lie first of all in structure of the endophallus. By the length ratio of endophallus to tube of the penis, *Oligoenoplus* resembles *Anaglyptus*. However, based only on a single species studied yet, *O. rosti* (Pic, 1911), *Oligoenoplus* shows a peculiar pattern of endophallus fine armature different from that observed both in *Paraclytus* and *Anaglyptus*. Besides this, by the length

ratio of antennomeres 3 and 4, *Oligoenoplus* generally reminds of *Anaglyptus* as well.

Description. Body from rather small to medium-sized, length 7.6–20.9 mm. Head short, rather small; frons vertical or almost so; antennal tubercles from poorly developed to sharply expressed, sometimes sharpened at apex; isthmus between antennal cavities in most cases slightly to clearly greater than transverse diameter of lower lobe of eye, but both can also be subequal, infrequently the former value being even barely less than the latter one; genae long, usually slightly to clearly (sometimes even about 1.5 times) greater than transverse diameter of lower lobe of eye, but sometimes vice versa; eyes deeply emarginate, with clear, but rather small ocelli; antennae in male from clearly not reaching the apex of elytra to much longer than body, in female far from to slightly not reaching the apex of elytra, sometimes up to almost or completely reaching it; apical external angle of antennomeres 3 and 4 (Figs 1–22) either without spine or, to a varying degree, with a well-developed spine, this being longer on antennomere 3 where it can be quite long.

Pronotum (Figs 41–60) variable in shape, from clearly transverse to barely or slightly longitudinal; with very well-developed to less well-expressed lateral tubercles, it can only be obtusely angulate to broadly rounded on sides; from barely convex to supplied with a very strongly developed, roof-shaped elevation; puncturation variable.

Scutellum triangular, usually more or less longitudinal, often sharpened apically.

Elytra (Figs 77–94) slightly to moderately narrowed towards apex, sometimes parallel-sided until about apical one-third; from wide to moderately narrow and evidently elongated; 2.1–2.9 times as long as width at base; noticeably to strongly tuberculiform elevated at base, each elytron can be with a clear to very well-developed, sometimes keel-shaped, longitudinal tubercle, sometimes this tubercle being imitated by a dense tuft of suberect, predominantly black setae; rarely, each elytron with a very strong tuberculiform elevation; external apical angle either without tooth or with a more or less clear, often well-developed tooth, sometimes only a denticle; each elytron can be narrowly or more broadly rounded apically; variously sculptured.

Pro- and mesosterna usual in structure; metasternum with a clearly or sharply expressed longitudinal suture, as a rule; sometimes a well-visible pore (so-called aromatic pore) near apex of each metepisternum.

Abdomen normal in structure; last (visible) sternite of both male and female truncate or broadly rounded apically, it can also be shallowly, but clearly emarginate, as well as slightly impressed in apical part.

Legs moderately long; femora usually not claviform, but can be slightly or moderately claviform; metafemora clearly or far from reaching the apex of elytra, only sometimes in male they can reach it.

Coloration of body, antennae and legs different; entire head usually black, sometimes partly red tones; antennae entirely red (or brown-red) or bicoloured in various combinations with participation of black (black-brown) and red (red-brown) tones, thereby basal antennomeres (usually antennomeres 1–6 or 2–6) often entirely or mostly black while apical antennomeres (usually antennomeres 7–11) often completely red or reddish-brown tones; all or almost all antennae can be a combination of black and red, often with a black apices of antennomeres; pronotum entirely black or with a characteristic red border apically, sometimes red at the very base on sides; elytra either almost entirely black, only with apex and epipleura brownish, or red under all or almost all fasciae and spots of dense, usually light setae, sometimes they can be brownish or reddish only under fascia in apical part and at apex; venter usually entirely or almost completely

black, sometimes with participation of red; legs usually bicoloured, although with partly lighter tibiae and tarsi, whereas femora and tibiae can be completely black or red.

Setation usually well-developed; as noted above, pattern of setation of antennae, pronotum and elytra, combined with their coloration, highly diagnostic; setation pattern of dorsum often complex, to a varying degree variegate; each species characterized by a peculiar pattern on elytra, this even in very similar forms usually showing more or less clear species-specific features; apical margin of elytra (Figs 113–132) in most cases strongly or completely hidden by dense long setae; setation of venter partly or mostly dense, usually uniform in coloration.

Endophallus characterized above, as in Figs 152, 153, 156, 157, 162–165, 169.

Comparative remarks. When generally comparing the habitus of *Paraclytus* and *Anaglyptus* species, it becomes clear that, however different their habitus and the coloration at least of their dorsum, the former genus is strongly dominated by evidently more complex and variegated to very motley patterns, predominantly on the elytra and, in most cases, bright tones.

The elytral patterns formed both by setation and the coloration of the integument that are generally highly characteristic of *Paraclytus* species are as in Figs 77–94. Even with various transformations of the pattern in individual forms which visibly change the looks of the elytra, its common traits or at least pattern derivatives can be traced to a varying degree. In the vast majority of *Anaglyptus* species, as well as in some other genera of the tribe Anaglyptini, in particular, the predominantly Oriental *Oligoenoplus* Chevrolat, 1863 or the Nearctic *Cyrtophorus* LeConte, 1850, elytral patterns (Figs 95–112) different from those in *Paraclytus* are observed. Only a few forms of *Anaglyptus* show certain similarities to *Paraclytus*. In many *Paraclytus*, the elytra are with a well-visible metallic bluish or bluish-greenish lustre. The elytra in *Anaglyptus*, even if shiny, are devoid of an evident metallic lustre, as a rule. Only a few species demonstrate a bright metallic lustre, e.g., on the mesonotum, but I do not know of any *Anaglyptus* with a clear metallic lustre on the elytra.

In *Paraclytus*, the base of the elytra, at least the humeri or they and the area of the scutellum, is usually clothed with a more or less dense, recumbent, light setation; the integument in many species is red there and forms a peculiar, often well-developed pattern clearly contrasting against a black (dark) background of the surrounding surface. In most species of *Anaglyptus*, an elytral setation on the humeri and near the scutellum is either visibly developed or much weaker than in *Paraclytus*, at least less dense and often consisting only of individual or sparse setae; or most of the elytra, including the base, can be clothed with a continuous setation; the coloration of the integument of the base of the elytra, even if red or similar tones, is usually devoid of a pattern; only a few species show some resemblance to *Paraclytus* in the coloration of the humeri and in the area of the scutellum, but they are often devoid there of the dense setation observed in *Paraclytus*.

As noted above, the vast majority of *Paraclytus* species are characterized by the presence of very dense, long, light setae at the apex of the elytra, strongly or completely hiding its margin (Figs 113–132); if the external angle of the elytra is thereby extended into a tooth, sometimes very well-developed, then it is also hidden beneath these setae; only sometimes it can be only partly exposed. The apex of the elytra in *Anaglyptus* (as well as some other similar genera) is usually with light setae only slightly or not at all hiding its margin (Figs 133–151). If the external angle is extended into a spine or tooth, this obviously being characteristic of all forms occupying the eastern and south-

eastern parts of the distribution area of the genus, then it is also completely exposed and often strongly developed, usually much more strongly than in *Paraclytus*. Only some representatives, known yet only from China and usually demonstrating a predominantly continuous setation of the dorsum, have the apex of the elytra which can be similar to that in *Paraclytus*, but the structure of their antennae and pronotum, as well as the other morphological features show that they all belong to the genus *Anaglyptus* only.

In most of the *Paraclytus* species, the pronotum (Figs 41–60) normally has well-developed or at least clear lateral tubercles, but if they are absent or very weakly expressed, then always one or another of the characteristic features of *Paraclytus* is observed, e.g., in structure of antennomeres 3–4, the pattern of the elytra etc. Many species of *Paraclytus* typically show a sharply outlined fascia of light setae at the apex of the pronotum and/or a strongly developed light setation on the pronotum sides, sometimes mostly in the basal part. Besides this, in some *Paraclytus* the apex of the pronotum is bordered red. The pronotum in *Anaglyptus* (Figs 61–76) is with neither lateral tubercles nor an evident fascia of light setae (if the pronotum is without a continuous or almost continuous dense light setation), nor a red border at the apex. Most species of *Paraclytus* show a more or less transverse or subequally long and wide pronotum; only a clear minority of forms have a barely or slightly longitudinal pronotum. In *Anaglyptus*, the pronotum is never transverse, at most about equal in length and width, usually barely or slightly longitudinal, but often looking clearly longitudinal.

In addition to the above-mentioned structural features of the antennae in *Paraclytus* and *Anaglyptus*, the following must be noted. Only in some species of *Paraclytus* is the apical external angle of antennomeres 3 and 4 with a spine, only these two antennomeres being spinigerous: even in species with a very well-developed spine on both antennomeres 3 and 4, the following antennomeres lack a spine. The absolute majority of *Anaglyptus* spp. have a variously developed, but at least evident spine on antennomeres 3 and 4, while in many species of this genus the spine is also present on antennomere 5 and, in some, even on antennomere 6 as well; sometimes a spine can be well-developed on all these four antennomeres (3–6). Yet in some species of *Anaglyptus* the spine on antennomere 3 attains a very large size not known in any *Paraclytus*.

Therefore, taking into account all above structural features of *Paraclytus* and *Anaglyptus* species, these genera show sufficiently clear differences to allow their reliable separation.

A review of species

1. *Paraclytus apicicornis* (Gressitt, 1937) (Figs 1, 41, 77, 113, 114, 152, 153, 170, 171)

Aglaophis apicicornis Gressitt, 1937a: 92. **Type locality**: China, Sichuan Province, near Muping, 2200–3900 m (according to the original description and the label of the holotype).

Anaglyptus (*Aglaophis*) *apicicornis*: Gressitt, 1951: 303, 305; Hua, 1982: 24.

Anaglyptus apicicornis: Chiang et al, 1985: 86; Hua, 1987: 8; 2002: 192; Hua et al., 2009: 23 (col. plate 23, fig. 253), 150; Wang & Hua, 2009: 161.

Paraclytus apicicornis: Holzschuh, 2003: 228; Özdikmen, 2009: 328; Löbl & Smetana, 2010: 145; Miroshnikov, 2012: 286; Miroshnikov & Lin, 2012: 249, col. plate 4, fig. 15; Danilevsky, 2013: 179.

Material. China: Sichuan Province: 1 ♀ (IZAS), Emeishan Mt, 1100–2100 m, 26.VI.1955, B.-R. Ou leg.; 1 ♀ (IZAS), Emeishan Mt, Jiulaodong, 1800–1900 m, 25.VI.1963, J.-L. Mao leg.; 1 ♀ (IZAS), Mianzhu, Qingpinglinchang, 6.VI.1981, B.-A. Xie leg.; 1 ♀ (cAM), Wolong env., 2200 m, 7.VII.2000, S. Murzin leg.; 1 ♀ (cSM), 35 km W Wolong, Densheng, 2800 m, 7.–17.VII.2000, S. Murzin leg.; 1 ♂ (cSM), Wenchuan env., 2000 m, 28.–30.VI.2001, S. Murzin leg.; 1 ♂ (cSM), 55 km N Baoxing, Qiao Qi, 2150–2300 m, 20.VI.2003, S. Murzin leg.; holotype ♀ (USNM) (photograph), "China, Szechuen, D.C. Graham", "near Muping, 7000–13000 ft, 6.–8.VII.[19]29",

"Holotype *Paraclytus* [sic!] *apicicornis* Gressitt", "Type No. 51628 U.S.N.M.". Hunan Province: 1 ♂ (IZAS), Yizhang County, Mangshan Gongyuan (forest park), Tiantaishan, 1570 m, 15.VII.2008, G.-Y. Yang leg. Guizhou Province: 1 ♂, 5 ♀ (IZAS), Leishan, Leigongshan Mt, 13.VII.1983, Zou leg.; 1 ♀ (IZAS), Leishan, Leigongshan Mt, 1700–2100 m, 2.VII.1988, S.-Y. Wang leg.; 1 ♀ (IZAS), Jiagkou, Fanjingshan Mt, 23.VIII.2012 (unknown collector). Guangxi Province: 1 ♂ (IZAS), Longsheng, 1800 m, 20.VI.1963, S.-Y. Wang leg.; 1 ♂ (IZAS), Longsheng, Huaping, Anjiangping, 1.VIII.2006, M.-Y. Lin leg.

Diagnosis. This species differs from all congeners by the combination of characters which includes contrasting bicoloured antennae, the presence of a spine on both antennomeres 3 and 4, the absence of a light pubescence on antennomeres 2–6, in certain structural features of the pronotum, in the pattern of coloration of the elytral integument (including a red base), and the pattern of elytral dense setation. *Paraclytus apicicornis* can be compared to *P. shaanxiensis* and *P. scolopax*, but differs clearly from both by the features presented in the latter's diagnoses.

Description. Body length 12.2–14.4 mm, humeral width 3.3–4.1 mm. Head black; antennomere 1 either almost completely or mostly red, antennomeres 7–11 usually entirely red, only sometimes antennomere 7 partly infuscate; antennomeres 3–6 almost completely or predominantly black, at least so dorsally; antennomere 2 from almost completely red to almost entirely black or infuscate; pronotum either almost completely black, only apically reddish, or entirely black; elytra mostly black, only along suture, starting from base until pre-apical fascia, red tone under all fasciae and spots (sometimes except for small spots) of light setae; venter and, partly, legs black; elytra usually with a clear metallic bluish or greenish lustre.

Head with moderately developed antennal tubercles; shortest distance between antennal cavities subequal to transverse diameter of lower lobe of eye; genae 1.10–1.30 times as long as this diameter; antennae clearly longer than body in male, slightly not reaching the apical fascia of elytra in female; antennomere 1, 1.10–1.26 times as long as antennomere 3; the latter 1.07–1.10 times as long as antennomere 4; apical external angle of antennomeres 3 and 4 with a more or less well-developed spine, sometimes smaller in 4th.

Pronotum from slightly transverse to barely longitudinal; with evident lateral tubercles; at their level 1.22–1.32 times as long as width at base; apex slightly narrower than (usually in female) or subequal to base (in male); moderately convex.

Elytra moderately narrowed towards apex; 2.45–2.52 times as long as width at base; base tuberculiform elevated, but there without evident tubercles; external apical angle usually with a very well-developed tooth.

Distribution and coloration of setation of antennae and dorsum as in Figs 1, 170, 171; apical margin of elytra, including teeth, entirely or almost completely hidden by dense long setae, as a rule.

Endophallus as in Figs 152, 153.

Distribution (Map 2 and Table). China: Gansu, Shaanxi, Sichuan, Guizhou, Hunan, Fujian and Guangxi provinces (see Remarks).

Bionomics. Adults active from early June almost to the end of August, but most of the records are confined to the second half of June to July; visit flowers; observed at 1500–2800 m elevations.

Remarks. The distribution of this species in Gansu, Shaanxi and Fujian provinces, which I only know from the literature, is not reflected on Map 2, because no specific localities are indicated (Löbl & Smetana, 2010).

2. *Paraclytus shaanxiensis* Holzschuh, 2003 (Figs 2, 42, 78, 115, 172, 173)

Paraclytus shaanxiensis Holzschuh, 2003: 228, Abb. 63. **Type locality:** China, Shaanxi Province, Qinling Shan, 12 km SW of Xunyangba, 1900–2250 m (according to the original description). Özdikmen, 2009: 330; Löbl & Smetana, 2010: 145; Miroshnikov, 2012: 286; Danilevsky, 2013: 179.

Material. China: Shaanxi Province: 1 ♂ (cSM), Zhouzhi env., 1350 m, 30.V.1999, S. Murzin leg.; 1 ♀ (cSM), Houzhenzi, 1350–2000 m, 27.V.–8.VI.1999, S. Murzin leg.; holotype ♂ (cCH) (photograph), Qinling Shan, 12 km SW of Xunyangba, 1900–2250 m, 14.–18.VI.2000 [? J. Turna leg.]; 3 ♂ (IZAS) (photograph), Ningshan County, Huoditang, Pingheliang, 2010–2450 m, 1.VI.2007. M.-Y. Lin leg. Sichuan Province: 1 ♂ (cSM), Dafengding Mts., 50 km N Meigu, 3100 m, 14.–16.VIII.2007, S. Murzin leg. Hubei Province: 1 ♀ (cDD) (photograph), Shennongija, Forestry District [forest region] 2000 m, 7.VI.1995, A. Shamaev leg.

Diagnosis. This species is very similar to *P. apicicornis*, but differs clearly at least in the coloration of the antennae, the presence of a light pubescence on all antennomeres, and the absence of a well-developed spine from antennomeres 3 and 4; if present sometimes on antennomere 3, then noticeably less strongly developed. In addition, *P. shaanxiensis* shows a pattern on the elytra which is somewhat different from that observed in *P. apicicornis*.

Description. Body length 13.0–16.1 mm, humeral width 3.6–4.5 mm (according to the original description, the minimum length 9.2 mm). Head almost entirely black; antennae almost completely red, only antennomere apices infuscate while apex of antennomere 1can be partly black; pronotum almost entirely black, reddish only apically and, partly, at the very base on sides; elytra contrasting bicoloured, mostly black, along suture, starting from base until pre-apical fascia, red tones under all fasciae and spots (except for small spots) of light setae; venter and, partly, legs black; elytra with a light, but more or less noticeable, metallic, bluish-greenish lustre.

Head with moderately developed antennal tubercles; isthmus between antennal cavities subequal to transverse diameter of lower lobe of eye; genae 1.07–1.27 times as long as this diameter; antennae clearly longer than body in male, freely reaching the apical fascia of elytra in female; antennomere 1 subequal to (in male) or 1.14–1.22 times (in female) as long as antennomere 3; the latter about equal to or 1.04–1.09 times as long as antennomere 4; apical external angle of antennomeres 3 and 4 without evident spine, but antennomere 3, sometimes also 4th, can have a small, but evident spine.

Pronotum slightly transverse in male, clearly so in female; with evident lateral tubercles; at their level 1.25–1.31 times as long as width at base; apex slightly narrower than (usually in female) or subequal to base (in male); moderately convex.

Elytra moderately narrowed towards apex; 2.45–2.46 times as long as width at base; base tuberculiform elevated, but there without evident tubercles; external apical angle variable in structure, from a very well-developed tooth to a slight tooth-shaped protrusion.

Distribution and coloration of setation of antennae and dorsum as in Figs 2, 172, 173; apical margin of elytra, including teeth or dentiform protrusions, completely hidden by dense, long, light setae.

Distribution (Map 2 and Table). China: Shaanxi, Hubei and Sichuan provinces. Above is the first record in Sichuan, more specifically, its southern part which is very far away from both other places.

Bionomics. Adults active from late May at least until mid-August; visit flowers; observed at a wide range of elevations (1300–3100 m).

3. *Paraclytus scolopax* (Holzschuh, 1999) (Figs 3, 43, 79, 116, 174, 175)

Anaglyptus scolopax Holzschuh, 1999: 40, Abb. 55. **Type locality**: China, Gansu Province, 70 km W Wudu, 2000–2400 m (according to the original description).

Anaglyptus (*Anaglyptus*) *scolopax*: Löbl & Smetana, 2010: 144.

Paraclytus scolopax: Miroshnikov, 2012: 286; Danilevsky, 2013: 179; Miroshnikov et al., 2013: 116.

Material. China: Gansu Province: 1 ♀ [IZAS, IOZ(E)1904702], Wenxian County, Bikou,

19.V.1992, H.-J. Wang leg.; 1 ♂, 1 ♀ (cAM), 70 km W Wudu, 1800–2200 m, 30.V.1997, A. Shamaev leg.; 1 ♂ (cAM), same label, but "1800–2000 m, 31.V.1997"; 1 ♂ (cAM), same label, but "1800–2000 m, 6.VI.1997"; 1 ♂ (cAM), same label, but "1800–2200 m, 6.VI.1997"; 1 ♀ (cSM), 70 km W Wudu, Minshan Mts, 2100 m, 25.VII.2000, A. Gorodinsky leg.; holotype ♀ (cCH) (photograph), 70 km W Wudu, 2000–2400 m, 29.05–10.VI.1997, A. Shamaev leg. Sichuan Province: 1 ♂ (NMP), Juizhaigou, 11.–16.VI.2001, E. Kučera leg.

Diagnosis. This species especially strongly resembles *P. apicicornis* and *P. shaanxiensis*, but differs clearly from both by the clearly better developed and more variegate pattern of the elytra formed by the spots and fasciae of dense light setae which more strongly hide the black background of the integument. In addition, *P. scolopax* differs from *P. apicicornis* in the coloration of the antennae, the absence of a spine from each of antennomeres 3 and 4, whereas from *P. shaanxiensis* by sharper antennal tubercles. From the also similar *P. helenae*, it differs by the pattern of the elytra, the more heterogeneous coloration of their setation, the less brightly coloured antennomeres 2–6, the presence of a light pubescence on all antennomeres, the generally darker legs and some other characters.

Description. Body length 13.1–14.8 mm, humeral width 3.80–4.15 mm. Head black; antennomeres 1 and 2 red, sometimes 1st mostly dorsally and 2nd predominantly such; remaining antennomeres almost entirely red, usually antennomeres 3–6 or 3–7 infuscate apically, sometimes antennomeres 3–6 strongly blackish dorsally while each of apical antennomeres, except last one, with an infuscate apex; pronotum almost completely black, reddish only apically; elytra contrasting bicoloured, mostly black, along suture, starting from base until pre-apical fascia, red tone under all fasciae and spots (except for small spots) of light setae; venter and, partly, legs black; sometimes legs almost completely black; elytra with a light, but more or less noticeable, metallic, bluish-greenish lustre.

Head with well-developed antennal tubercles which can be sharpened apically; isthmus between antennal cavities barely or only slightly greater than transverse diameter of lower lobe of eye; genae 1.25–1.29 times as long as this diameter; antennae clearly longer than body in male, freely reaching apical fascia of elytra in female; antennomere 1, 0.92–1.09 (male) or 1.07 times (female) as long as antennomere 3; the latter subequal to or barely longer than 4th, but not more than 1.04 times so; apical external angle of antennomeres 3 and 4 without spine.

Pronotum barely or slightly transverse; with evident lateral tubercles; at their level 1.25–1.32 times as long as width at base; apex slightly narrower than or subequal to base; moderately to clearly convex.

Elytra moderately narrowed towards apex; 2.49–2.67 times as long as width at base; base tuberculiform elevated, but there without evident tubercles; external apical angle with a very clear, sometimes very well-developed tooth.

Distribution and coloration of setation of antennae and dorsum as in Figs 3, 174, 175; apical margin of elytra, including teeth, completely hidden by dense, long, light setae.

Remarks. This species was described from a single female. Male features are given here for the first time.

Distribution (Map 2 and Table). China: Gansu and Sichuan provinces. Above is the first record in Sichuan.

Bionomics. Adults active from about the middle of May at least until the end of July; visit flowers; observed at 1800–2200 m elevations.

4. ***Paraclytus emili*** Holzschuh, 2003 (Figs 16, 52, 80, 125, 169, 185, 186)

Paraclytus emili Holzschuh, 2003: 229, Abb. 64. **Type locality**: China, Yunnan Province, Baishui, 3000 m (according to the original description). Özdikmen, 2009: 329; Löbl & Smetana, 2010: 145; Miroshnikov, 2012: 286; Danilevsky, 2013: 179.

Material. China: Yunnan Province: 1 ♂ (cSM), Haba Shan, 1.–6.VII.2005, E. Kučera leg.; 1 ♂ (cTT), same label; 1 ♀ (cSM), Bailakou Pass, 3400 m, 28.V.–7.VI.2006, S. Murzin & I. Shokhin leg.; holotype ♂ (cCH) (photograph), Baishui, 3000 m, 26.VI.–3.VII.1996, E. Kučera leg.

Diagnosis. To a certain degree, by the pattern of its elytra this species reminds of *P. apicicornis*, *P. shaanxiensis* and *P. scolopax*, but differs clearly from them at least through shorter antennae in both sexes, in structure of the pronotum on the sides, as well as by certain morphological features of the elytra, namely, the absence of an evident teeth from the apex, in the much sparser long setae clearly incompletely or even insignificantly hiding the apical margin, and a less strongly expressed pattern.

Description. Body length 11.8–13.4 mm, humeral width 3.1–3.5 mm (according to the original description, the minimum length 10.7 mm). Whole body, antennae and legs a combination of black, brown (reddish-brown) and red tones; venter more or less monochromous, predominantly dark, prosternum, sometimes also mesosternum red tone.

Head with well-developed antennal tubercles which can be sharpened apically; isthmus between antennal cavities 1.35–1.36 or 1.19 times as long as transverse diameter of lower lobe of eye in male and female, respectively; genae 1.33–1.50 or 1.19 times as long as this diameter in male and female, respectively; antennae shorter than body, about reaching the apical fascia of elytra in male; extending beyond lower border of an oblique fascia of elytra located behind their middle in female; antennomere 1, 1.03–1.15 times as long as 3rd; the latter 1.04–1.11 times as long as 4th; apical external angle of antennomeres 3 and 4 without spine.

Pronotum barely longitudinal; either obtusely angulate on sides or with weakly developed lateral tubercles; at their level 1.29–1.36 or 1.06 times as long as width at base in male and female, respectively; apex and base subequal in width; moderately or slightly convex.

Elytra barely narrowed towards apex, sometimes very faintly so; 2.63–2.78 times (up to 2.9 times in the original description) as long as width at base; base tuberculiform elevated, each elytron there with an evident or sharp tubercle; external apical angle without clear-cut tooth, more or less obtuse, sometimes protruding dentiform.

Distribution and coloration of setation of antennae and dorsum as in Figs 16, 185, 186; apical margin of elytra can only be partly or significantly (but not more) hidden by long light setae.

Endophallus as in Fig. 169.

Distribution (Map 2 and Table). China: Yunnan Province.

Bionomics. Adults active mainly in July; visit flowers; observed at elevations of 3000–3400 m.

Remarks. Together with my Chinese colleagues Dr. M. Lin (Institute of Zoology, Chinese Academy of Sciences, Beijing) and Mr. W. Bi (Shanghai Entomological Museum, Chinese Academy of Sciences, Shanghai) I have been privileged to examine one female of a *Paraclytus* from the environs of Yajiang, Sichuan Province. By a number characters, it is extremely similar to *P. emili*, but still shows some differences. It cannot be excluded that this female belongs to a yet undescribed species. However, to check this assumption, it is necessary to get more material of *P. emili*, to some degree a morphologically variable species.

5. *Paraclytus murzini* Miroshnikov, **sp. n.**
(Figs 4, 44, 83, 119, 176)

Material. China: holotype ♀ (cSM), Sichuan Province, Liangshan Mts, S Xichang, 3000 m, 1.VII.2002, S. Murzin & I. Shokhin leg.

Diagnosis. By certain features of the setation-formed elytral pattern, as well as by

the habitus, the structure of the pronotum and a number of other characters, the new species seems to be especially similar to *P. apicicornis*, *P. shaanxiensis* and *P. scolopax*, but differs clearly from them by a brightly white coloration of the setation of the antennae, almost entire dorsum and legs, the clearly delineated spots of setae on the pronotal disk, the somewhat peculiar elytral pattern, the black coloration of the elytral integument basally, in addition from *P. apicicornis* in the absence of an evident spine on each of antennomeres 3 and 4. To a varying degree, *P murzini* sp. n. reminds also of *P. thibetanus*, *P. excellens*, *P. helenae* and *P. irenae*, but, like with the above trio, differs clearly from them by the coloration of the setation of the antennae and dorsum, the peculiar pattern of the elytra, as well as by some other characters of each of these species individually.

Description. Female. Body length 14.0 mm, humeral width 3.8 mm. Black; eyes and palpi lighter; antennomeres 7–11 red-brown; elytra under oblique fascia of setae in apical part, at apex and on epipleura, as well as most of legs brown tones; elytra with a clear, metallic, bluish lustre.

Head dorsally with a coarse, dense, predominantly confluent puncturation; frons almost vertical, about equal in length and width; isthmus between antennal cavities subequal to transverse diameter of lower lobe of eye; antennal tubercles well-developed, sharply excavate in-between; genae 1.42 times as long as transverse diameter of lower lobe of eye; eyes deeply emarginate, with clear, but rather small ocelli; palpi short, last maxillary and labial palpomeres moderately broadened towards an obliquely truncate apex, barely rounded there; antennae shorter than body, reaching the front margin of apical fascia of setae of elytra; antennomere 1 slightly longer than 3rd or 4th, subequal to 6th; antennomere 2 barely longitudinal; antennomere 3, 1.04 times as long as 4th; antennomere 5 barely longer than 6th; apical external angle of antennomere 3 with a small, but well-visible denticle.

Pronotum slightly transverse; narrowed towards base more sharply than towards apex; with evident lateral tubercles; at their level 1.29 times as long as width at base; apex barely narrower than base; on disk tuberculiform elevated, more sharply sloping towards base than towards apex; with a coarse, sharp, confluent, cellular puncturation, punctures mainly being clearly larger than on head.

Scutellum slightly longitudinal, triangular, sharpened apically.

Elytra moderately narrowed towards apex; 2.56 times as long as width at base; base tuberculiform elevated, but without evident tubercles there; humeral angle well-expressed; sutural angle of elytra obtuse while external angle extended into a well-developed tooth; basal part with a clear, but not too coarse, very dense, mostly confluent puncturation, punctures being strongly weakened towards apical one-third and much smaller than on pronotum.

Mesosternal process about 3 times as wide as prosternal one; metasternum with a sharply expressed longitudinal suture, deepest at its base, with a well-visible pore (so-called aromatic pore) at apex of metepisterna; thoracic segments and first (visible) sternite with very small and very dense punctures, generally hardly visible because of a dense setation and mostly sparser on other sternites; last (visible) sternite truncate at apex, without evident impression.

Legs moderately long; metafemora far from reaching apex of elytra; metatarsomere 1, 1.26 times as long as next two metatarsomeres combined.

Setation predominantly white, with a small admixture of beige tone on elytra, and of beige spots on pronotal disk; features of antennal pubescence and elytral pattern as in Figs 4, 176; apical margin of elytra, including teeth, completely hidden by dense long setae; venter with a dense setation growing

sparser over most of mesosternum, on metasternum predominantly behind mesocoxae and in middle part of visible sternites, except for first one.

Distribution (Map 2 and Table). China: Sichuan Province.

Bionomics. A single specimen collected in early July at an elevation of about 3000 m.

Etymology. The new species honours my friend and colleague, Dr. Sergey Murzin (Moscow, Russia), who collected the holotype and, over the many years, supports my entomological research.

6. *Paraclytus thibetanus* (Pic, 1914)
(Figs 5, 6, 11, 45, 46, 81, 117, 178–182)

Anaglyptus thibetanus Pic, 1914: 38 ("Thibet"). **Type locality**: Tibet (according to the original description and the label of the holotype). Wang & Hua, 2009: 161.

Paraclytus thibetanus: Winkler, 1929: 1182; Plavilstshikov, 1940: 499; Miroshnikov, 2012: 286; Miroshnikov & Lin, 2012: 247, figs 2–4, col. plate 4, figs 12–14; Danilevsky, 2013: 179, 180; Miroshnikov et al., 2013: 113, figs 4–8, 11–14.

Anaglyptus (? *Anaglyptus*) *thibetanus*: Gressitt, 1951: 303, 305.

Anaglyptus (*Anaglyptus*) *thibetanus*: Löbl & Smetana, 2010: 144.

Material. China: holotype ♀, by monotypy (MNHN), "Thibet Coll. Le Moult", "*thibetanus* Pic Type", "Type" (Fig. 189). Yunnan Province: 1 ♂ [IZAS, IOZ(E)1905688], Fugong County, Lumadengxiang, Yaping Shibali, 2500 m, 27°9'54"N, 98°46'48"E, 10.VIII.2005, Ye Liu leg.; 2 ♀ [IZAS, IOZ(E)1905691–92], "Gongshan County, Qiqi Reserve [Qiqi Nature Reserve Station], 2100 m", "Sino-America Exped., N27.43, E98.34, 9.VII.2000, Liang H.B.".

Diagnosis. This species differs from all congeners by the combination of characters which includes the coloration of the antennae, the absence of a well-developed spine from antennomeres 3 and 4, by certain features of structure and coloration of the pronotum, the colour pattern of the elytral integument, their pattern of dense setae, in structure of the elytral apex, and by leg coloration. *Paraclytus thibetanus* seems to be especially similar to *P. excellens*, but differs clearly by the characters listed in the diagnosis of that latter species.

Description. Body length 13.0–14.5 mm, humeral width 3.6–4.2 mm. Head black; antennomeres 1–6 black, following antennomeres but last one reddish-brown, sometimes red, with infuscate apices; pronotum completely black; elytra almost entirely black, brownish only apically; venter and legs black, tibiae and tarsi sometimes partly brownish; elytra shiny and can be with a slight metallic bluish lustre.

Head with moderately or well-developed antennal tubercles; isthmus between antennal cavities slightly exceeding transverse diameter of lower lobe of eye; genae 1.24–1.27 times as long as this diameter; antennae clearly longer than body in male, freely reaching the apical fascia of elytra in female; antennomere 1 barely (male) or 1.06–1.08 times (female) as long as 3rd; the latter 1.08 or 1.11–1.14 times as long as 4th in male and female, respectively; apical external angle of each of antennomeres 3 and 4 without long spine, yet 3rd can be with a small, but evident denticle.

Pronotum slightly transverse; with evident or very well-developed lateral tubercles; at their level 1.35–1.41 times as long as width at base; apex slightly or barely narrower than base; moderately or evidently convex.

Elytra moderately narrowed towards apex; 2.53–2.66 times as long as width at base; base tuberculiform elevated, each elytron there with an evident or sharp tubercle; external apical angle with a more or less clear tooth.

Distribution and coloration of setation of antennae and dorsum as in Figs 5, 6, 11, 178–180, 182; apical margin of elytra, including teeth, completely or almost entirely hidden by dense, long, light setae.

Distribution (Map 2 and Table). China: Yunnan Province and obviously also the eastern parts of Xizang (Tibet) Province.

Bionomics. Adults active from about the beginning of July to the first half of August; observed at 2100–2500 m elevations.

7. *Paraclytus excellens* Miroshnikov et Lin, 2012 (Figs 7, 47, 82, 118, 177)

Paraclytus excellens Miroshnikov et Lin, 2012: 248, fig. 5, col. plate 3, figs 7–11. **Type locality**: China, Yunnan Prov., Lushui, Yaojiaping, 2450 m (according to the original description and the label of the holotype). Miroshnikov et al., 2013: 116, figs 9–10, 15.

Material. China: holotype ♀ [IZAS, IOZ(E)1905690], Yunnan Province, Lushui, Yaojiaping, 2450 m, 1.VI.1981, X.-Z. Zhang leg.

Diagnosis. This species seems to be especially similar to *P. thibetanus*, but differs clearly by the more robust and larger body, the shorter antennae (at least so in the female), the absence of a light pubescence and the presence of only black suberect setae on antennomeres 2–5, the somewhat deviating pattern on the elytra (mainly a less strongly oblique fascia behind the middle of the elytra), a more pronounced participation of creamy-yellow tones in the coloration of the setation which forms this pattern, the purely white (without evident grey tint) setation of the venter and some other characters.

Description. Female. Body length 16.8 mm, humeral width 5.1 mm. Black; base of antennomere 1 and entire antennomeres 7–11 red, all but last blackish at apices; legs partly brownish; elytra with a clear, metallic, bluish lustre.

Head with well-developed antennal tubercles; isthmus between antennal cavities clearly greater than transverse diameter of lower lobe of eye; genae 1.5 times as long as this diameter; antennae shorter than body, extending slightly beyond oblique fascia in apical part of elytra and noticeably not reaching the apical fascia; antennomere 1 about equal to 3rd; the latter 1.07 times as long as 4th; apical external angle of antennomeres 3 and 4 without spine.

Pronotum barely transverse, with well-developed lateral tubercles; at their level 1.34 times as long as width at base; apex noticeably narrower than base; strongly convex.

Elytra moderately narrowed towards apex; 2.4 times as long as width at base; base tuberculiform elevated, each elytron there with a sharp, keel-shaped, longitudinal, backwards sloping tubercle; external apical angle with a well-developed tooth.

Distribution and coloration of setation of antennae and dorsum as in Figs 7, 177; apical margin of elytra, including teeth, almost completely hidden by dense, long, light setae.

Distribution (Map 2 and Table). China: Yunnan Province.

Bionomics. A single specimen collected in early June at an elevation of 2450 m.

8. *Paraclytus helenae* (Holzschuh, 1993) (Figs 8, 48, 84, 120, 183)

Anaglyptus helenae Holzschuh, 1993: 43, Abb. 50. **Type locality**: China, Yunnan Province, Lugu Lake, Luo Shui, 27°45'N, 100°45'E (according to the original description).

Anaglyptus (*Anaglyptus*) *helenae*: Löbl & Smetana, 2010: 144.

Paraclytus helenae: Miroshnikov, 2012: 286; Danilevsky, 2013: 179.

Material. China: holotype ♀ (cCH) (photograph), Yunnan Province, Lugu Lake, Luo Shui, 27°45'N, 100°45'E, 8.–9.VII.1992, E. Jendek leg.

Diagnosis. *Paraclytus helenae* can be compared with *P. scolopax*, but differs clearly by the characters listed in the diagnosis of that latter species. From the also very similar *P. apicicornis* and *P. shaanxiensis*, *P. helenae* differs distinctly in the coloration of the antennae, a more strongly developed pattern on the elytra which forms the spots and fasciae of dense light setae that strongly prevail against a black background. In addition, *P. helenae*

differs from *P. apicicornis* by the absence of spines from antennomeres 3 and 4.

Description. Female. Body length 14.8 mm. Head black; antennae red, but antennomeres 7–11 lighter not only due to a light pubescence, but also a light integument; pronotum almost completely black, only apex reddish; elytra contrasting bicoloured, mostly black, along suture, starting from base until pre-apical fascia, red tones under almost all fasciae and spots of light setae; legs almost completely red.

Head with moderately developed antennal tubercles; antennae shorter than body, slightly not reaching the apical fascia of elytra; antennomere 3, 1.14 times as long as 4th; apical external angle of antennomeres 3 and 4 without spine.

Pronotum subequal in length and width; with well-developed lateral tubercles; at their level 1.25 times as long as width at base; apex noticeably narrower than base.

Elytra moderately narrowed towards apex; about 2.5 times as long as width at base; external apical angle with a clear tooth.

Distribution and coloration of setation of antennae and dorsum as in Figs 8, 183; apical margin of elytra, including teeth, almost completely hidden by dense, long, light setae.

Distribution (Map 2 and Table). China: Yunnan Province.

Bionomics. A single specimen collected in early July at an elevation of 3000 m.

9. *Paraclytus irenae* (Holzschuh, 1993) (Figs 9, 49, 85, 121, 184)

Anaglyptus irenae Holzschuh, 1993: 43, Abb. 51. **Type locality**: China, Yunnan Province, Weibaoshan Mts, 25°12'N, 100°24'E, 2800–3000 m (according to the original description).

Anaglyptus (*Anaglyptus*) *irenae*: Löbl & Smetana, 2010: 144.

Paraclytus irenae: Miroshnikov, 2012: 286; Danilevsky, 2013: 179.

Material. China: holotype ♀ (cCH) (photograph), Yunnan Province, Weibaoshan Mts, 25°12'N, 100°24'E, 2800–3000 m, 29.–30.VI.1992, native collector.

Diagnosis. This species differs from all congeners by the strongly developed dense setation of light setae on the pronotum, leaving only two relatively small black spots on its disk in the middle, as in Figs 49, 184, by the elytral pattern of light setae, as in Figs 85, 184, as well as by a combination of some more characters, including coloration and antennal pubescence, the structure of the pronotum and the apex of the elytra.

Description. Female. Body length 17.2 mm. Black; antennomeres 7–11 reddish; elytra apically and, partly, tarsi brownish.

Head with moderately developed antennal tubercles; antennae shorter than body, freely reaching behind inside apical one-quarter of elytra; antennomere 3 about 1.1 times as long as 4th; apical external angle of antennomeres 3 and 4 without spine.

Pronotum evidently transverse, with very well-developed lateral tubercles; at their level about 1.3 times as long as width at base; apex clearly narrower than base.

Elytra moderately narrowed towards apex; about 2.4 times as long as width at base; external apical angle with a clear tooth.

Distribution and coloration of setation of antennae and dorsum as in Figs 9, 184; apical margin of elytra, including teeth, almost completely hidden by dense, long, light setae.

Distribution (Map 2 and Table). China: Yunnan Province.

Bionomics. A single specimen collected at the end of June at 2800–3000 m elevations.

10. *Paraclytus albiventris* (Gressitt, 1937) (Figs 12, 13, 53, 87, 123, 162, 163, 187–189)

Aglaophis albiventris Gressitt, 1937b: 455, pl. 4, fig. 6. **Type locality:** China, Kiangsi (now Jiangxi) Province, Hong San (= Hong Shan), 1570 m (according to the original description and the label of the holotype). Gressitt, 1938: 56.

Anaglyptus (*Aglaophis*) *albiventris*: Gressitt, 1951: 303, 305; Hua, 1982: 24; Löbl & Smetana, 2010: 143.

Anaglyptus albiventris: Hua, 1987: 8; Zhang et al., 1989: 26; Hua, 2002: 192; Wang & Hua, 2009: 161.

Paraclytus albiventris: Miroshnikov, 2012: 286; Danilevsky, 2013: 179; Miroshnikov et al., 2013: 116, figs 1–3.

Material. China: holotype ♂ (CAS), "Hong San, SE Kiangsi, China, VI–23–[19]36", "L. Gressitt Collection","Holotype *Anaglyptus* [sic!] *albiventris* Gressitt", "California Academy of Sciences Type No 7463", handwritten label "Hong San, 5.300 ft. VI–23–[19]36" (Fig. 196); 1 ♀ [IZAS, IOZ(E) 1859054], Guangxi Province, Xing'an, Gaozhai, Donglingjie, 900–1000 m, 25°51'46"N, 110°29'37"E, 15.VII.2007, S.-E. Wang leg.; 1 ♂, 1 ♀ (cTT) (photographs), Hunan Province, Shunhuangshan forest park, 700–1200 m, 26.V.2012, J. Turna leg.

Diagnosis. This species differs clearly from all congeners by the pattern of the elytra being as in Figs 87, 187, 189, as well as by the combination of characters which includes the peculiar coloration of the antennae, the presence of a clear spine on each of antennomeres 3 and 4, the rather long antennae of the male, and the structure of the elytral apex. Based on a similar elytral pattern, the presence of a spine on certain antennomeres and some other features, *P. albiventris* resembles *P. jii*, but is distinctly distinguishable by more strongly elongated elytra, an evidently different shape of their fasciae, and a longitudinal pronotum.

Description. Body length 15.5–16.8 mm, humeral width 4.2–4.7 mm. Head black; antennae almost completely red, only antennomere 1 slightly infuscate dorsally; pronotum almost completely black, reddish only apically; elytra contrasting bicoloured, mostly black, along suture, starting from base until pre-apical fascia, red tones under all fasciae and spots of white and brownish-red setae; venter and, partly, legs black; elytra with a clear, metallic, bluish-greenish lustre.

Head with moderately developed antennal tubercles; isthmus between antennal cavities clearly exceeding transverse diameter of lower lobe of eye; genae 1.25–1.27 times as long as this diameter; antennae much or clearly longer than body in male, about reaching the apical fascia or apex of elytra in female; antennomere 1 clearly shorter than 3rd; the latter 1.10 or 1.18 times as long as antennomere 4 in male and female, respectively; apical external angle of each of antennomeres 3 and 4 with a more or less well-developed spine, this being shorter in male.

Pronotum slightly or barely longitudinal in male and female, respectively, globular in female; both apex and base subequal in width; without distinct lateral tubercles, much more strongly narrowed only towards base than towards apex; strongly convex.

Elytra moderately narrowed towards apex; 2.42–2.53 times as long as width at base, more elongated in female; base tuberculiform elevated, each elytron there with a clear tubercle; external apical angle with a more or less clear tooth.

Distribution and coloration of setation of antennae and dorsum as in Figs 12, 13, 187, 189; apical margin of elytra, including teeth, almost completely hidden by dense, long, light setae.

Structural details of endophallus as in Figs 162, 163.

Distribution (Map 2 and Table). China: Guangxi, Hunan and Jiangxi provinces. Recorded in Hunan for the first time.

Bionomics. Adults active from the second half of May at least until mid-July; observed at a range of elevations of 700–1600 m.

11. ***Paraclytus jii*** (Holzschuh, 1992) (Figs 14, 54, 86, 122, 190)

Anaglyptus jii Holzschuh, 1992: 43, Abb. 52. **Type locality**: China, Sichuan Province, Emei Mt, 1000 m (according to the original description).

Anaglyptus (*Anaglyptus*) *jii*: Löbl & Smetana, 2010: 144.

Paraclytus jii: Miroshnikov, 2012: 286; Danilevsky, 2013: 179.

Material. China: holotype ♀ (cCH) (photograph), Sichuan Province, Emei Mt, 1000 m, 4.–20.V.1989, native collector.

Diagnosis. *Paraclytus jii* is very similar to *P. albiventris*, but differs clearly by the characters listed immediately above in the diagnosis of the latter species.

Description. Female. Body length 12.5–14.1 mm. Head black; antennae almost completely red, but some apical antennomeres partly lighter than remaining ones; pronotum almost completely black, reddish only apically; elytra contrasting bicoloured, mostly black, along suture, starting from base until pre-apical fascia, red tones under all fasciae and spots of white and brownish-red setae; venter and, partly, legs black; elytra with a clear, metallic, bluish-greenish lustre.

Head with moderately developed antennal tubercles; antennae shorter than body, slightly not reaching the apical fascia of elytra; antennomere 3, 1.16 times as long as 4th; apical external angle of antennomeres 3 and 4 each with a long spine.

Pronotum clearly transverse; narrowed towards base much more than towards apex; sides protruding angularly; at that level 1.25 times as long as width at base; apex distinctly narrower than base.

Elytra clearly narrowed towards apex; about 2.3 times as long as width at base; external apical angle with a clear tooth.

Distribution and coloration of setation of antennae and dorsum as in Figs 14, 190; apical margin of elytra, including teeth, completely hidden by dense, long, light setae.

Distribution (Map 2 and Table). China: Sichuan Province.

Bionomics. Both type specimens collected between May 4 to 20 at an elevation of 1000 m.

12. *Paraclytus ochrocaudus*
(Gressitt, 1951)
(Figs 10, 15, 50, 51, 88, 124, 193–195)

Anaglyptus (*Aglaophis*) *ochrocaudus* Gressitt, 1951: 303, 305, pl. 11, fig. 9. **Type locality**: China, Fukien (now Fujian) Province, Shaowu, Tachulan (now Dazhulan) (= "Tachufung"), 1200 m (according to the original description and the label of the holotype). Breuning, 1956: 231; Löbl & Smetana, 2010: 143.

Anaglyptus ochrocaudus: Chiang et al., 1985: 29, pl. 6, fig. 91; Hua, 2002: 192; Hua et al., 2002: 192; Hua et al., 2009: 23 (pl. 23, fig. 258), 150; Wang & Hua, 2009: 161; Ulmen et al., 2010: 12.

Paraclytus ochrocaudus: Miroshnikov, 2012: 286; Danilevsky, 2013: 179.

Material. China: paratype ♀ (ZFMK), "Fukien, Kuatun, 2300 m, 27.40°N, 117.40°E, 3.IV.1938, L.J. Klapperich", "Paratypoid *Anaglyptus ochrocaudus* n. sp. Gressitt, i.l. 22.XII.[19]49"; holotype ♂ (LNHSM) (photograph), "Fukien, Shaowu, Ta-chu-Fung, 2.–5.V.1943", "Holotype *Anaglyptus* (*Aglaophis*) *ochrocaudus* J.L. Gressitt" (Fig. 203).

Diagnosis. This species differs clearly from all congeners at least in structure of the base of the pronotum and elytra, as in Fig. 51, also by the pattern and coloration of the elytra, as in Figs 88, 193, 195.

Description. Body length 12.25–12.40 mm, humeral width 3.80–4.15 mm. Head black dorsally, area of genae and, partly, frons red; antennae red, mostly antennomere 1 lighter; pronotum almost completely black, reddish only apically; elytra contrasting bicoloured, mostly red, at base, along suture and in apical half red; venter and, partly, legs black; elytra with a clear, metallic, bluish-greenish lustre.

Head with well-developed antennal tubercles; isthmus between antennal cavities clearly exceeding transverse diameter of lower lobe of eye; genae 1.3 times as long as this diameter; antennae much longer than body in male, freely extending behind a dark narrow fascia before apex of elytra in female; antennomere 1 clearly shorter than 3rd; the latter 1.14 or 1.21 times as long as antennomere 4 in male and female, respectively; apical external angle of antennomeres 3 and 4 each with a long spine better developed in female.

Pronotum slightly transverse; narrowed towards base much more than towards apex; sides protruding angularly; at that level 1.34

or 1.25 times as long as width at base in male and female, respectively; apex barely or clearly narrower than base in male and female, respectively; extremely strongly roof-shaped elevated (Fig. 51).

Elytra moderately narrowed towards apex; 2.28 or 2.06 times as long as width at base in male and female, respectively; each elytron at base with a strong tubercle (Fig. 51); external apical angle with a well-developed tooth.

Distribution and coloration of setation of antennae and dorsum as in Figs 10, 15, 193, 195; apical margin of elytra, including teeth, entirely or almost completely hidden by dense, long, light setae.

Distribution (Map 2 and Table). China: Fujian Province.

Bionomics. Adults active in April to May; observed at a wide range of elevations (1200–2300 m).

13. *Paraclytus primus* Holzschuh, 1992 (Figs 17, 55, 93, 126, 196–198)

Paraclytus primus Holzschuh, 1992: 42, Abb. 51. **Type locality**: China, Sichuan Province, Nanping, Bai He (according to the original description). Hua et al., 2009: 463; Özdikmen, 2009: 329; Löbl & Smetana, 2010: 145; Miroshnikov, 2012: 286; Miroshnikov & Lin, 2012: 249, col. plates 5–6, figs 17–20, 22, 24–25; Danilevsky, 2013: 179, 180; Miroshnikov et al., 2013: 117.

Material. China: Sichuan Province: 1 ♂ (cPV), Jiuzhaigou, 12.–17.VI.2000, E. Kučera leg.; 1 ♂ (NMP), same, 11.–16.VI.2001, E. Kučera leg.; 1 ♂ (cTT), same, 10.–12.VI.2007, leg. E. Kučera; 2 ♂ (cAM), Pingwu env., 2000 m, 27.VI.2011, A. Gorodinsky leg.; holotype ♂ (cCH) (photograph), Nanping, Bai He, VI.–VII.1985. Shaanxi Province: 1 ♂ (cSM), Houzhenzi env., 1350–2000 m, 14.–24.VI.1999, S. Murzin leg.; 1 ♀ (cTT), Tiantaishan forest park, 1950 m, 33°16'N, 107°05'E, 10.VI.2010, J. Turna leg.; 1 ♂ [IZAS, IOZ(E)1904706], Ningshan County, Huoditang, Pingheliang, 2015–2450 m, 33°29'N, 108°29'E, 1.VI.2007, M.-Y. Lin leg.; 1 ♀ [IZAS, IOZ(E) 1904707], Zhouzhi County, Houzhenzizhen, Laoxianchengcun – Qinlingliang, 1745–2020 m, 33°49'N, 107°44'E, 27.V.2007, M.-Y. Lin leg.

Diagnosis. This species differs from all congeners by the elytral pattern being as is Figs 93, 196–198, as well as by the combination of characters which includes the coloration of the antennae, the length ratio of antennomeres 3 to 4, the presence there of a spine, certain structural features of the pronotum and elytral apex, including the absence of dense setae from the latter. *Paraclytus primus* is similar to *P. wangi*, but differs clearly by the characters noted in the diagnosis of that latter species.

Description. Body length 7.6–10.8 mm, humeral width 2.1–2.9 mm (according to the original description, maximum length 11.6 mm). Body brown-black; antennae almost entirely (only antennomere 1 sometimes more or less infuscate, as a rule) and, usually partly, legs red-brown; sometimes area of elytral suture and usually also epipleura red-brown as well, epipleura thereby always one way or another lighter than adjoining surface on sides of elytra.

Head with poorly developed antennal tubercles; isthmus between antennal cavities barely or slightly exceeding transverse diameter of lower lobe of eye, or vice versa, but barely so; genae clearly or only barely shorter than this diameter; antennae slightly longer than body in male, about reaching the apical fascia of elytra in female; antennomere 1, 1.10–1.16 times as long as 3rd, sometimes in male about equal to or even slightly shorter than 3rd; the latter usually barely, sometimes even slightly shorter than antennomere 4, exceptionally these antennomeres equal in length; apical external angle of antennomeres 3 and 4 each with a small, yet evident spine, but it can be very poorly developed on 4th, sometimes also on 3rd.

Pronotum slightly or barely longitudinal; without lateral tubercles, only broadly rounded on sides; apex usually clearly, sometimes only barely, narrower than base; strongly convex.

Elytra slightly or moderately narrowed towards apex; 2.57–2.58 times as long as

width at base; base tuberculiform elevated, but without tubercles there; external apical angle without evident tooth, obtuse or subrectangular.

Distribution and coloration of setation of antennae and dorsum as in Figs 17, 196–198; apical margin of elytra not or almost not hidden by long setae.

Distribution (Map 2 and Table). China: Shaanxi, Sichuan and, most probably, Gansu provinces.

Bionomics. Adults active at the end of May to June; visit flowers; observed at elevations of 1300–2500 m.

14. *Paraclytus wangi* Miroshnikov et Lin, 2012 (Figs 18, 56, 94, 127, 199, 200)

Paraclytus wangi Miroshnikov et Lin, 2012: 250, fig. 6, col. plates 5–6, figs 16, 21, 23, 26. **Type locality**: China, Sichuan Province, Luding County, Xinxing, 1600 m (according to the original description and the label of the holotype).

Material. China: holotype ♀ [IZAS, IOZ(E)1905689], Sichuan Province, Luding County, Xinxing, 1600 m, 19.VI.1983, S.-Y. Wang leg.

Diagnosis. This species is similar to *P. primus*, but clearly distinguished by the much shorter, erect, slender setae on the disk at the base of the elytra, the somewhat different structure of the fasciae of the elytra, the shorter antennae (at least so in the female), as well as in many of the antennomeres being less elongated (more noticeable in antennomeres 5–9), an evidently more strongly developed spine on each of antennomeres 3 and 4, and some other characters.

Description. Female. Body length 10.0 mm, humeral width 2.7 mm. Brown-black; antennae, except for antennomere 1, apex of elytra, protarsi and, partly, meso- and metatarsi, apically protibiae, bases of all femora, and most of (visible) sternites 3–5 red-brown tones.

Head with poorly developed antennal tubercles; isthmus between antennal cavities, as well as length of genae, clearly exceeding transverse diameter of lower lobe of eye; antennae shorter than body, noticeably not reaching the apical fascia of elytra; antennomere 1 about equal to 3rd or 4th; apical external angle of both latter with a long spine each.

Pronotum barely longitudinal; without evident lateral tubercles, only obtusely angulate on sides; narrowed almost equally towards both base and apex; base and apex subequal in width; strongly convex.

Elytra very slightly narrowed towards apex; 2.6 times as long as width at base; base tuberculiform elevated, but there without tubercles; with well-expressed sutural and external angles, but at least without clear-cut denticle.

Distribution and coloration of setation of antennae and dorsum as in Figs 18, 199, 200; apical margin of elytra not hidden by long setae.

Distribution (Map 2 and Table). China: Sichuan Province.

Bionomics. A single specimen collected towards the end of June at an elevation of 1600 m.

15. *Paraclytus excultus* Bates, 1884 (Figs 19, 57, 89, 128, 165, 191, 192)

Paraclytus excultus Bates, 1884: 234, pl.1, fig. 11 (“throughout Japan”). **Type locality**: Japan (according to the original description). Ganglbauer, 1889a: 71; Aurivillius, 1912: 416; Winkler, 1929: 1182; Matsushita, 1933: 293; Mitono, 1940: 127; Plavilstshikov, 1940: 507, 749; Gressitt, 1951: 302; Kojima & Hayashi, 1969: 88; Kusama & Hayashi, 1971: 111; Krivolutskaja, 1973: 105, 259, fig. 65, 2; Mamaev & Danilevsky, 1975: 217 (larva); Lobanov et al., 1982: 258; Tsherepanov, 1982: 204; Kusama & Takakuwa, 1984: 340, pl. 47, figs 343, 343a, 343b; Danilevsky, 1988: 240 (larva); Tsherepanov, 1996: 111; Sama, 2002: 84 (“*exculptus* Bates”, misspelling); Hua, 2002: 222 (China, a doubtful record!); Özdikmen, 2009: 329; Wang & Hua, 2009: 180 (China, a doubtful record!); Löbl & Smetana, 2010: 145; Miroshnikov, 2012: 286; Danilevsky, 2013: 179.

Paraclytus excultus (“*exculptus*”, misspelling) var. *interruptus* Pic, 1915: 13 (“Japon: Kioto”);

Material. Japan: 1 ♂ (ZMUM), Tsushima, [coll.] Rost; 1 ♀ (ZISP), Hakodate, Albrecht [leg.]; 1 ♂ (ZMUM), same; 1 ♀ (ZMUM), Sapporo, Tamanuki [leg.]; 1 ♂ (ZISP), Kamikochi; 1 ♂ (ZISP), "Japan"; 1 ♀ (ZMUM), Hokkaido, Aoyama, 8.VII.[19]24, coll. Tamanuki; 1 ♂ (NMP) Hokkaido, Aomori, 14.V.1952 (ex coll. S. Kadlec); 1 ♀ (ZISP), Tokio, Okutana, 3.VIII.1966; 1 ♀ (cAM), Fukushima Pref., Tateiwamura, 5.V.1999, M. Yoshida leg.; 1 ♂ (cMD), Nagano, Inashi, Monomoki, Hase 2.– 3.V.2010, N. Ohbayashi leg.; 1 ♀ (cMD), Gumma, Narahara, Uenomura 25.–26.VII.2010, N. Ohbayashi leg.; 1 ♂, 3 ♀ (cMD), Izu Is., 5.V.2011, Y. Notsu leg. Kuriles: 1 ♀ (ZISP), Iturup, 3.VII.1966; 1 ♂ (cMD), Iturup, 11.VII.1976, Odnosum leg. [in Russian]; 1 ♂ (cMD), Kunashir [Mendeleevo], 9.IX.1972, in pupal cell, M. Danilevsky leg. [in Russian]; 1 ♂ (cAM), same label; 1 ♂ (cMD), same label, but "14.IX.1972"; 2 ♂, 1 ♀ (cMD), same, but taken on 20.–22.VI.1977, A. Kompantsev leg.; 1 ♂ (ZISP), Kunashir, Tretjakovo, 29.VI.1973, Kerzhner leg. [in Russian]; 1 ♀ (ZISP), same, but "30.VI.1973, Kerzhner leg." [in Russian]; 1 ♀ (cAM), same, but "3.VIII.1973, Kerzhner leg." [in Russian]; 1 ♂, 1 ♀ (cMD), Kunashir, Alekhino, 26.VII.1985, M. Danilevsky leg. [in Russian]; 1 ♂ (ZISP), Kunashir, 7.VIII.1988, O. Kabakov leg. [in Russian]; 1 ♂ (PUM), Kunashir, Severyanka River estuary, 44°20'N, 146°00'E, 2.VII.2008, I. Melnik leg. [in Russian]; 1 ♀ (PUM), Kunashir, Golovnin Volcano env., 43°51'N, 145°30'E, 20.VII.2008, K. Makarov leg. [in Russian].

Diagnosis. This species differs from all congeners by the elytral pattern being as is Figs 89, 191, 192, as well as by the combination of some characters which includes the coloration of the antennae, the absence of spines from antennomeres 3 and 4, and in certain structural features of the pronotum and elytra.

Description. Body length 9.1–13.0 mm, humeral width 2.3–3.4 mm [according to the literature, length 11–15 mm (Bates, 1884), 10.0–13.5 mm (Plavilstshikov, 1940), 10.0–15.0 mm (Tsherepanov, 1982) or 10.0–16.5 mm (Kusama & Takakuwa, 1984)]. Black; antennomere 1 black or partly lighter; the next few antennomeres black-brown, apical ones red-brown to red, or basal antennomeres, except 1st, red-brown while apical antennomeres red; elytra under fasciae and spots, sometimes also under a narrow strip along suture, brownish or reddish; femora can be brown or red-brown.

Head usually with poorly, sometimes moderately, developed antennal tubercles; isthmus between antennal cavities 1.08–1.27 times as long as transverse diameter of lower lobe of eye, sometimes, conversely, barely shorter; genae clearly or only barely shorter than this diameter, sometimes, conversely, slightly longer; male antennae varying in length, from barely to much longer than body, slightly not or about reaching the elytra in female; antennomere 1, 0.93–0.97 times as long as 3rd; the latter 1.07–1.10 times as long as antennomere 4; apical external angle of antennomeres 3 and 4 without evident spine.

Pronotum barely or slightly longitudinal; usually obtusely angulate on sides, sometimes with slightly expressed lateral tubercles; base and apex often subequal in width, but apex can also be clearly wider or, conversely, noticeably narrower than base; often slightly convex.

Elytra either parallel-sided until about apical one-third or slightly narrowed from base towards apex; 2.58–2.90 times as long as width at base; base tuberculiform elevated, but without tubercles there; external apical angle without evident tooth, obtuse or subrectangular, sometimes protruding tooth-shaped.

Distribution and coloration of setation of antennae and dorsum as in Figs 19, 191, 192; apical margin of elytra can be almost entirely or even completely hidden by dense, long, light setae.

Endophallus as in Fig. 165.

Distribution. Japan and Kuril Islands (see Remarks). The record from Sakhalin (Özdikmen, 2009) is most likely wrong.

Bionomics. In the Kuril Islands, adults are active from mid-June to mid-August, in Japan from about early May also to mid-August, visit flowers. The larva is developed in hardwood species, including *Quercus, Fagus, Alnus, Betula, Acer, Ulmus, Sorbus, Morus, Phellodendron, Zelkova* and others.

Pupation at the end of July to August. Adults overwinter in pupal cells. Each generation lasting at least two years.

Remarks. Since this species occurs throughout Japan, as shown, for example, on a map given by Kusama & Takakuwa (1984, p. 341), mapping the distribution seems to be superfluous, while the localities in the Kuriles are listed above.

16. *Paraclytus raddei* (Ganglbauer, 1882) (Figs 20, 58, 90, 129, 164, 201, 202)

Anaglyptus raddei Ganglbauer, 1882: 737 ("Caucasus"). **Type locality**: Caucasus (according to the original description), but more accurately Lerik = "Lyrik" [Talysh Mountains] (according to the redescription: Ganglbauer, 1886, see further below). Heyden et al., 1883: 187; Leder, 1886: 169 ("Lyrik"); Ganglbauer, 1886: 232, taf. 1, fig 1 ("Lyrik"); 1889a: 71; König, 1899: 396.

Anaglyptus (*Paraclytus*) *raddei*: Ganglbauer in Marseul, 1889b: 479; Heyden et al., 1891: 348; Pic, 1900: 65; Heyden et al., 1906: 520; Pic, 1911: 11, 13.

Paraclytus raddei: Aurivillius, 1912: 416; Winkler, 1929: 1181; Plavilstshikov, 1931: 78; 1932: 192; 1940: 501, 505, 748, figs 312, 313; 1955: 530; 1958: 416; Davatchi et al., 1959: 240; Villiers, 1967: 362; Gfeller, 1972: 4, Abb. 6; Adeli, 1972: 12; Holzschuh, 1974: 118; Danilevsky & Miroshnikov, 1985: 247, col. fig. 18; Miroshnikov, 1986: 132; Samedov & Effendi, 1986: 196; Miroshnikov, 2001: 49; 2004: 110; Sama, 2002: 84; Sama et al., 2008: 116; Özdikmen, 2009: 329; Samedov, 2010: 16, 108, fig. 31; Löbl & Smetana, 2010: 145; Miroshnikov, 2012: 286; Danilevsky, 2013: 179.

Clytus bieberi Pic, 1920: 21 ("Perse: Iran").

Material. Azerbaijan (Talysh Mountians): 2 ♀ (ZMUM), "Talysch, [coll.] C. Rost"; 1 ♀ (cMD), "Shovu [now Suvi], 15.V.1983, S. Nikireev leg."; 1 ♀ (cAM), Aurora, 14.05.1993, Shamaev & S. Mukhanov leg.; 1 ♂ (cAM), Avearut [= Avyarud], 38°30'N, 48°37'E, 28.V.1993, A. Shamaev leg.; 8 ♂, 6 ♀ (cAM), Avearut, 2.V.1994, A. Shamaev & N. Tselikov leg. [in Russian or English]. Iran (Elburs Mountians): 1 ♂ (ZISP), "Alborus, 1895, Rost", "coll. G. Sievers" [in Russian]; 1 ♂ (cMD), Gilan Prov., Assalem, 1300 m, 5.–11.V.1975, C. Holzschuh leg.

Diagnosis. This species differs from congeners by the elytral pattern being as shown in Figs 90, 201, 202, as well as by the combination of some characters which includes the coloration of the antennae, certain structural features of the pronotum and elytral apex, including the absence of very dense setae on the latter, often also in a larger body size and long antennae in the male.

Description. Body length 15.4–20.9 mm, humeral width 4.00–5.55 mm (according to the literature, length 12.0–20.0 mm). Black; antennae almost entirely red; antennomere 1 almost completely or mostly black; elytra along suture, starting from base until pre-apical fascia and on epipleura, red under almost all fasciae and spots of light setae, usually brownish apically; bases of femora, as well as tibiae and tarsi red; clava of femora often red-brown.

Head with well-developed antennal tubercles, sometimes very abrupt and sharpened apically; isthmus between antennal cavities 1.16–1.35 times as long as transverse diameter of lower lobe of eye; genae slightly or clearly longer than this diameter; antennae noticeably or significantly longer than body, often extending beyond apex of elytra by their 9th antennomere in male, slightly or clearly extending beyond pre-apical fascia of elytra in female; antennomere 1, 0.87–0.94 times (male) or 0.95–1.16 times (female) as long as 3rd; the latter 1.03–1.17 times as long as 4th; apical external angle of antennomeres 3 and 4 each usually with a small, but evident denticle, sometimes denticle on 3rd well-developed.

Pronotum to some degree variable in shape, from about equal in length and width to barely transverse, but can be barely or slightly longitudinal; apex barely or slightly narrower than base; widely rounded or obtusely angulate on sides; weakly or very weakly convex.

Elytra usually slightly narrowed towards apex; 2.56–2.67 times as long as width at base; base tuberculiform elevated, but there without tubercles; each elytron narrowly

rounded or obtusely angular apically, sometimes external angle protruding tooth-shaped.

Distribution and coloration of setation of antennae and dorsum as in Figs 20, 201, 202; apical margin of elytra always clearly visible, never being strongly hidden by long light setae.

Endophallus as in Figs 164.

Distribution (Map 1). Hyrcania within northern Iran (Elburs Mountains) and Azerbaijan, Caucasus (Talysh Mountains).

Bionomics. Adults active in May to June, visit flowers. The larva is developed in hardwood species, in particular *Carpinus* and *Fagus*, obviously also *Quercus* and some others. Most likely, adults overwinter in pupal cells. Each generation lasting at least two years.

17. *Paraclytus reitteri* (Ganglbauer, 1882) (Figs 22, 59, 91, 130, 131, 203, 204)

Anaglyptus reitteri Ganglbauer, 1882: 737 ("Caucasus"). **Type locality**: Caucasus (according to the original description), but more accurately Lerik = "Lyrik" [Talysh Mountains] (according to the redescription: Ganglbauer, 1886, see further below). Heyden et al., 1883: 187; Leder, 1886: 169 ("Lenkoran, Lyrik"); Ganglbauer, 1886: 233 ("Bei Lyrik"); 1889a: 71; König, 1899: 396; Bodemeyer, 1930: 84.

Anaglyptus (*Paraclytus*) *reitteri*: Ganglbauer in Marseul, 1889b: 479; Heyden et al., 1891: 348; Pic, 1900: 65; Heyden et al., 1906: 520; Pic, 1911: 11.

Paraclytus reitteri: Aurivillius, 1912: 416; Winkler, 1929: 1181; Plavilstshikov, 1931: 78; 1932: 192; 1940: 501, 503, 748, figs 310, 311; 1955: 530; 1958: 416; Davatchi et al., 1959: 240; Villiers, 1967: 362; Heyrovský, 1967: 38; Adeli, 1972: 12; Samedov, 1971: 195; Gfeller, 1972: 4, Abb. 7; Holzschuh, 1974: 118; Danilevsky & Miroshnikov, 1985: 246–248, fig. 294; Miroshnikov, 1986: 132; Samedov & Effendi, 1986: 196; Danilevsky, 1988: 240 (larva); Miroshnikov, 2001: 49; Sama, 2002: 84; 2004: 110; Özdikmen, 2009: 330; Samedov, 2010: 16, 108, fig. 32; Löbl & Smetana, 2010: 145; Barimani et al., 2010: 52; Miroshnikov, 2012: 286; Danilevsky, 2013: 179.

Material. Azerbaijan (Talysh Mountians): 1 ♂ (ZISP), "Talyschgebg. Transcaucas. Leder & Reitter", "coll. G. Sievers" [in Russian]; 1 ♀ (ZISP), "Lirik, 1885, Leder", "coll. G. Sievers" [in Russian]; 1 ♀ (ZMUM), "Lenkoran [= Lankaran], Leder (Reitter)"; 2 ♂ (ZMUM), "Talysch"; 1 ♂ (ZMUM), "Talysch (Reitt.)"; 1 ♀ (ZMUM), "Talysch, [coll.] Rost"; 1♂ (ZMUM), "Transcaucas. Talysch, 13.VI.[1]913", "ex coll. A. Menshikov"; 1 ♂ (IZA), "Lenkoran C[ounty]., Baba-Gildya, 15.VI.1928" [in Russian]; 1 ♀ (ZMUM), Lankaran – Lerik, 5.VI.1936, A. Bogachev leg.; 1 ♀ (cAM), Avrora, 14.IV.1979, in pupal cell, M. Danilevsky leg. [in Russian]; 1 ♀ (cMD), same, 8.IV.1980, M. Danilevsky leg. [in Russian]; 1 ♀ (cMD), same label; 1 ♂ (cMD), same label, but taken on 25.IV.1980; 1 ♀ (cMD), same label, but taken on 4.V.1980; 1 ♀ (ZISP), same label; 1 ♂ (ZISP), same, ex l., VIII.1980, M. Danilevsky leg. [in Russian]; 1 ♂ (cMD), Lenkoran, 24.IV.1986, S. Saluk leg. [in Russian]; 2 ♂ (ZISP), 3 km E Lerik, 17.V.1988, A. Lobanov leg. [in Russian]; 26 ♂, 21 ♀ (cAM), Avearut [= Avyarud], 38°30'N, 48°37'E, 30.IV.–18.V.1993, A. Shamaev & S. Mukhanov leg. [in Russian or English]; 1 ♀ (cMD), same, 1.VI.1994, A. Shamaev leg. [in Russian]; 11 ♂, 7 ♀ (cAM), Alexeevka [now Biurdzhali], 18.–20.V.1994, A. Shamaev & N. Tselikov leg. [in Russian or English]; 1 ♂, 1 ♀ (cAM), Sym, 15.V.2012, A. Miroshnikov leg. Iran (Elburs Mountians): 1 ♂ (ZISP), "Alborus, 1895, Rost", "coll. G. Sievers" [in Russian]; 1 ♂, 1 ♀ (cSM), Mazandaran Prov., S Chalus, Kalardasht env., 1700–2200 m, 3.–6.V.2001, S. Murzin leg.

Diagnosis. This species differs from congeners by the elytral pattern as shown in Figs 91, 203, 204, as well as by the combination of some characters which includes the length and coloration of antennae, the absence of a spine on the antennomeres 3 and 4, and in some structural features of the pronotum and the apex of the elytra.

Description. Body length 9.1–17.5 mm, humeral width 2.60–4.75 mm. Black; apical antennomeres (usually starting from 7th) red, sometimes antennomeres 2–6 brown-red with black apices; elytra predominantly red under large spots of light setae, often brownish apically; tarsi almost entirely or partly, sometimes partly also tibiae, red.

Head with poorly developed antennal tubercles; isthmus between antennal cavities 1.10–1.22 times as long as transverse diameter of lower lobe of eye; genae slightly shorter or, conversely, barely longer than this diameter; antennae from noticeably not

reaching the apex of elytra to barely exceeding body length in male, from extending slightly beyond middle of elytra to reaching their apical one-third in female; antennomere 1 about equal to or slightly longer than 3rd, or, conversely, slightly shorter; antennomere 3, 1.06–1.12 or 1.12–1.21 times as long as 4th in male and female, respectively; apical external angle of each of antennomeres 3 and 4 with neither a denticle nor a spine.

Pronotum usually barely longitudinal in male, barely transverse or subequal in length and width in female, rarely barely longitudinal in the latter; apex and base about equal in width, but either can be barely narrower or wider; without lateral tubercles, widely rounded on sides; barely convex.

Elytra more or less moderately narrowed towards apex; 2.50–2.68 times as long as width at base; base tuberculiform elevated, but there without tubercles; each elytron at apex narrowly or more broadly rounded.

Distribution and coloration of setation of antennae and dorsum as in Figs 22, 203, 204; apical margin of elytra often strongly, sometimes almost entirely or even completely hidden by dense, long, light setae.

Distribution (Map 1). Hyrcania within northern Iran (Elburs Mountains) and Azerbaijan, Caucasus (Talysh Mountains).

Bionomics. Adults active in May to June, visit flowers, more often *Crataegus*. The larva is developed in hardwood species, including *Pterocarya, Carpinus, Alnus, Quercus, Acer, Paliurus* and apparently some others. Adults overwinter in pupal cells. Each generation lasting at least two years. Larvae are parasitized by *Pristaulacus gloriator* (Fabricius, 1804) (Hymenoptera, Aulacidae).

18. *Paraclytus sexguttatus* (Adams, 1817) (Figs 21, 60, 92, 132, 156, 157, 205, 206)

Callidium sexguttatum Adams, 1817: 308 ("Caucasi meridionalis"). **Type locality**: Transcaucasia (according to the original description). Gemminger in Gemminger & Harold, 1872: 2920.

Clytus sexguttatus: Hampe in Wagner, 1852: 307 ("*6-maculatus* Fald.").

Anaglyptus sexguttatus: Ganglbauer, 1889a: 71; König, 1899: 396; Clermont, 1909: 4; Berg, 1910: 0160.

Anaglyptus (*Paraclytus*) *sexguttatus*: Ganglbauer in Marseul, 1889b: 479; Heyden et al., 1891: 348; Pic, 1900: 65; Heyden et al., 1906: 520; Pic, 1911: 11.

Paraclytus sexguttatus: Aurivillius, 1912: 416; Bogdanov-Katjkov, 1917: 48; Winkler, 1929: 1182; Plavilstshikov, 1931: 78; 1932: 192; 1940: 501, 747, figs 308–309 (northern Iran, wrong record!); Lozovoy, 1941: 37; Plavilstshikov, 1948: 113 (northern Iran, wrong record!); Milianovsky, 1953: 212; Zaitsev, 1954: 15; Plavilstshikov, 1955: 530 (northern Iran, wrong record!); Khnzorian, 1957: 104; Davatchi et al., 1959: 240 (northern Iran, wrong record!); Iablokov-Khnzorian, 1961 : 87; Plavilstshikov, 1965: 395; Villiers, 1967: 362 (according to Plavilstshikov, 1940, northern Iran; wrong record!); Milianovsky, 1971: 81; Adeli, 1972: 12 (northern Iran, wrong record!); Mamaev & Danilevsky, 1975: 217 (larvae) (northern Iran, wrong record!); Mirzoyan, 1977: 320; Miroshnikov, 1984: 8; Danilevsky & Miroshnikov, 1985: 246–248, figs 292–293 (northern Iran, wrong record!); Danilevsky, 1988: 240 (larvae) (northern Iran, wrong record!); Arzanov et al., 1993: 13; Sama, 2002: 84 ("*sexmaculatus* Adams", misspelling); Georgiev & Stojanova, 2003: 106; Georgiev, 2008: 115–117; Nikitsky et al., 2008: 349; Özdikmen, 2009: 330 (Iran, wrong record!); Miroshnikov, 2010: 252; Samedov, 2010: 16, 109 (northern Iran, wrong record!); Löbl & Smetana, 2010: 145; Miroshnikov, 2011: 561; 2012: 286; Danilevsky, 2013: 179.

Clytus caucasicus Motschulsky, 1839: 54, tab. 1, fig. G ("Caucase"). Hampe in Wagner, 1852: 307; Marseul, 1863: 254; 1867: 116; Tournier, 1872: 277; Gemminger in Gemminger & Harold, 1872: 2926; Schneider & Leder, 1879: 60; Leder, 1880: 453–454.

Clytus (*Anaglyptus*) *caucasicus*: Stein & Weise, 1877: 167.

Anaglyptus caucasicus: Ganglbauer, 1882: 737; Heyden et al., 1883: 187; Ganglbauer, 1889a: 71.

Clytus bruckii Kraatz, 1864: 389, taf. 4, fig. 1 ("Olimp bei Brussa"). Marseul, 1867: 116 ("*brucki* Kratz").

Anaglyptus sexguttatus var. *disjunctus* Pic, 1909: 123 ("Caucase: Elisabethpol"). Pic, 1910: 4.

Anaglyptus (*Paraclytus*) *sexguttatus* var. *disjunctus*: Pic, 1911: 11.

Material. Russia: 5 ♂, 4 ♀ (cAM), Gelendzhik env., Krestovaya Mt, 23.V.2002, A. Miroshnikov leg.; 2 ♀ (ZMUM), Maikop, 15.VI.1949 [in Russian]; 1 ♀ (ZMUM), Maikop distr., Guzeripl, 24.IV.1928

[in Russian]; 2 ♀ (ZISP), Maikop distr., Kisha Valley, 19.V. or 24.VI.1911, Volnukhin leg. [in Russian]; 1 ♂ (ZMUM), Caucasian Nature Reserve, Sennaya Polyana, 15.VII.1959, Chen Yun-Lin leg. [in Russian]; 1 ♂ (ZISP), "Kuban Province [now partly Krasnodar Region], Psebai, 27.V.1911, Volnukhin leg. [in Russian]; 1 ♂ (ZMUM), Sochi, Lazarevskoe, 1.VII.2008, Tsurikov leg. [in Russian]; 2 ♂, 1 ♀ (ZISP), Sochi env., Krasnaya Polyana, 1.VI.1907, Kirichenko leg.; 1 ♂ (ZISP), Sochi env., Lake Kardyvach, 20.VI.1912; 1 ♂ (ZMUM), Sochi env., Krasnaya Polyana, Aibga Mt Ridge, 6.VII.1914, Zhikharev leg. [in Russian]; 1 ♂, 1 ♀ (ZMUM), Sochi env., Aishkha Mt, 1800 m, 22.VIII.[19]33, K. Arnoldi [leg.]; 1 ♀ (ZMUM), Sochi env., Aibga Mt Ridge, 1900 m, 17.VIII.[19]33, K. Arnoldi [leg.]; 1 ♂, 1 ♀ (ZMUM), Sochi env., Achishkho Mt Ridge, 2000 m, 10.VII.1938 [in Russian]; 2 ♂ (PUM), same, but 1500 m, 10.–18.V.1996, A. Brinev leg. [in Russian]; 1 ♂ (PUM), Karachay-Cherkessia, Pastbischnyi Mt Ridge, 15.V.2006, A. Zernov leg. [in Russian]; 1 ♂ (ZMUM), Teberda, 21.VI.1925 ("ex coll. A. Menshikov"); 2 ♂ (ZISP), Teberda, Dombai, 1600 m, VI.1955, Maximov leg. [in Russian]; 1 ♂, 1 ♀ (cAM), Northern Ossetia, Nizhniy Nar, 11.VI.1993, A. Miroshnikov leg.; 2 ♂ (ZMUM), Vladikavkaz, 13.VI.1924 ("ex coll. A. Menshikov"); 1 ♀ (ZMUM), same labels, but "15.VI.1926". Georgia: 1 ♂, 2 ♀ (ZMUM), "Vicus Umroni, Svanetia inf., 10.VII.1911; 1 ♀ (ZISP), Adzharia, Kintrishi Nature Reserve, Didvaki, 21.VI.1974, Zagulyaev leg. [in Russian]; 1 ♀ (ZMUM), "Caucas., Suram"; 1 ♀ (ZISP), Borjom, 13.VI.1909, L. Berg leg. [in Russian]; 2 ♀ (ZISP), same, but "Zakharov leg." [in Russian]; 1 ♀ (ZISP), Gori Distr., Bakuriani, 17.VII.1928, Kirschenblatt [leg.]; 1 ♂ (ZMUM), "Cauc. Cent. Passanaur [near Dusheti], V.1893, A. Zolotarev [leg.]; 1 ♂ (ZISP), "Tiflis, 17.IV.1879", "coll. G. Sievers" [in Russian]; 1 ♂ (ZMUM), "Transkaukas., Tiflis, 12.VI.1927", "ex coll. A. Menshikov"; 2 ♂ (ZISP), Lagodekhi, [18]93, Mlokosevich leg. [in Russian]; 2 ♂, 1 ♀ (ZISP), the same, but taken on 24.IV.1910, Mlokosevich leg. [in Russian]. Abkhazia: 1 ♀ (ZMUM), Gagry [in Russian]; 2 ♂, 3 ♀ (cAM), Gagry env., Mamdzyshkha Mt, 1500–1600 m, 3.–4.VI.1985, A. Miroshnikov leg.; 1 ♂ (ZMUM), Sukhum, Gulripsh, 30.IV.1937 [in Russian]; 3 ♂ (cAM), Bercheli Mt Ridge, Gizle, 1300 m, 5.VI.1985, A. Miroshnikov leg. [in Russian]; 1 ♀ (PUM), Khuap, 7.VI.1990, M. Danilevsky leg. [in Russian]; 2 ♂, 2 ♀ (ZISP), Chkhalta Valley, 1300–1400 m, 5.VII.1982, Drabkin leg. [in Russian]. Southern Ossetia: 6 ♀ (ZMUM),Vezuri, 2000 m, 19.–23.VII.1928, A. Bogachev [leg.]; 1 ♀ (ZMUM), Tsona, 12.VII.1928, A. Bogachev [leg.]; 1 ♀ (ZMUM), Tedeleti, 13.VII.1928, A. Bogachev [leg.]. Armenia: 1 ♀ (ZMUM), "Uzuntala [now Aygehovit], 28.V.1955, L. Zimina"; 1 ♂, 3 ♀ (PUM), Dilijan Nature Reserve, 24.VII.1999, A. Rubenyan leg. [in Russian].

In addition, I have examined another 150+ specimens from numerous Caucasian localities (including the above) stemming from various collections, mostly kept on cotton.

Diagnosis. This species differs from all congeners by the elytral pattern being as in Figs 92, 205, 206, as well as by the combination of some characters which includes the length, coloration and pubescence of the antennae, the absence of spines from antennomeres 3 and 4, and in certain structural features of the pronotum and the apex of the elytra.

Description. Body length 9.0–17.4 mm, humeral width 2.5–4.8 mm (according to the literature, length 8–18 mm). Black; apical antennomeres red-brown or reddish; elytra red under spots (except for area of humeri and scutellum) of light setae, often brownish apically; tarsi partly reddish.

Head with poorly or moderately developed antennal tubercles; isthmus between antennal cavities 1.14–1.29 times as long as transverse diameter of lower lobe of eye; genae slightly shorter or, conversely, slightly longer than this diameter, sometimes subequal to it; antennae slightly not reaching or reaching the apex of elytra, can be slightly exceeding body length in male, usually freely reaching the apical one-third of elytra in female; antennomere 1 usually clearly shorter than 3rd in male, often both subequal in female; antennomere 3, 1.07–1.09 or, usually, 1.12–1.15 times as long as 4th in male and female, respectively; apical external angle of each of antennomeres 3 and 4 with neither a denticle nor a spine.

Pronotum usually subequal in length and width; apex and base usually also about equal in width; without lateral tubercles, broadly rounded on sides; weakly or very weakly convex.

Elytra more or less moderately narrowed towards apex; 2.46–2.55 times as long as

width at base; base tuberculiform elevated, but without tubercles there; each elytron rounded at apex.

Distribution and coloration of setation of antennae and dorsum as in Figs 21, 205, 206; setation often white; apical margin of elytra can be almost entirely or even completely hidden by dense, long, light setae.

Endophallus as in Figs 156, 157.

Distribution (Map 1). Southeastern Balkan Peninsula (east of Stranzha Mountains at the border between Bulgaria and Turkey), northern Anatolia and Caucasus.

Bionomics. Adults active from late April through August, visit flowers, most often *Crataegus*. The larva is developed in hardwood species, including *Corylus, Carpinus, Quercus, Fagus* and obviously many others. Adults overwinter in pupal cells. Each generation lasting at least two years.

?***Paraclytus multimaculatus*** Pic, 1923

? *Paraclytus multimaculatus* Pic, 1923a: 12 (Laos).

Paraclytus multimaculatus: Plavilstshikov, 1940: 499 (Laos).

Remarks. So far my repeated attempts to relocate the type specimen of this species in the collection of the Muséum national d'Histoire naturelle, Paris, including directly in the Pic Collection, have failed. The original description reads: "?*Paraclytus multimaculatus* n. sp. Angustatus, niger, griseo pubescence, elytris multi et irregulariter nigro maculatis; capite antice truncato; antennis corpore longioribus, gracilibus, infra ciliatis; thorace satis breve, lateraliter subarcuato, postice marginato; elytris thorace valde latioribus, subparallelis, apice subrotundatis; pedibus gracilibus. Long. 18 mill. Laos (coll. Pic). – Je range provisoirement dans le genre *Paraclytus* Bates, cette espèce dont le prothorax est peu allongé et les antennes sont longues." (Pic, 1923a: 12).

Based on the described pattern of the elytra in this species, which is characterized by the presence of numerous, irregularly scattered, black spots, as well as on the structure of the apex of the elytra, combined with body size, its attribution to the genus *Paraclytus* is indeed not quite obvious, especially so bearing in mind a large group of Chinese species with their highly characteristic general complex of features (see above). However, Plavilstshikov (1940) unambiguously placed that species in *Paraclytus*, albeit without any comments. In my opinion, it seems highly unlikely that Plavilstshikov had revised the holotype. Gressitt and Rondon (1970), in their monograph specially devoted to the fauna of Laos, failed to mention this taxon altogether.

Incidentally, Pic (1923b: 9) nearly simultaneously, the same year, used the same species name for a beetle also deriving from Laos and showing the same body size, but placed in a differet genus: *Xylotrechus multimaculatus* Pic, 1923. According to Gressitt & Rondon (1970: 199), this species is a junior synonym of *X. subdepressus* (Chevrolat, 1863). It is noteworthy that *Paraclytus* then belonged to the tribe Clytini which also included *Xylotrechus* Chevrolat, 1860. Taking into account these curious coincidences, especially in view of the apparent absence of the holotype of ?*Paraclytus multimaculatus* from the MNHN collection, in order to exclude any possible confusion concerning the identity and types of these two forms, I have re-examined the still available holotype of *Xylotrechus multimaculatus* (Figs 207, 208). Hardly accidentally, the name ?*P. multimaculatus* has already been associated with the name *X. multimaculatus* in an essay on *X. subdepressus* (http://lully.snv.jussieu.fr/titan). In fact the morphological features of the holotype of *X. multimaculatus* fully correspond to Pic's (1923b) original description, but differ substantially from the above description of ?*P. multimaculatus*. Thus, this holotype does show generally short antennae that are very characteristic of the genus *Xylo-*

trechus, albeit their length was omitted from the description, whereas in ?*P. multimaculatus* they were said to be longer than the body ("antennis corpore longioribus", see above). Therefore, ?*Paraclytus multimaculatus* Pic, 1923a (Laos) undoubtedly represents an independent species which has nothing to do with *Xylotrechus multimaculatus* Pic, 1923b (Laos) and presumably has its own corresponding type material to locate.

Key to species of *Paraclytus*

A. Species distributed in the South of the western Palaearctic 1
B. Species distributed in China 3
C. Species distributed in Japan and the Kurils ..... ***P. excultus*** Bates (Figs 191, 192)
1. Pronotum with a large dense puncturation, one way or another covered by light, often yellow, partly dense setae, but in any case forming no contrasting fascia, be it at apex or base (Figs 67, 68); pattern of elytra consisting only or predominantly of light spots (Figs 91, 92, 203–205); at least first few antennomeres black or dark 2
– Pronotum with a small dense puncturation, a clear, more or less narrow, contrasting fascia of dense, usually yellow setae both at apex and base (Figs 58, 201, 202); pattern of elytra consisting of narrow, usually yellow (like on pronotum) fasciae (Figs 90, 201, 202); antennae, except antennomere 1 and, often, antennomere 2, usually almost entirely red ..... ***P. raddei*** (Ganglbauer)
2. A dense light setation covering elytra and forming sharply defined spots and an apical fascia like in Figs 92, 205, 206; some antennomeres, starting from 3rd, clothed with a dense light pubescence, except for apex, being clearly annulate, as in Figs 21, 205, 206 ..... ***P. sexguttatus*** (Adams)
– A dense light setation covering elytra highly variegate, forming separate, more or less large, usually not too sharply defined spots, as well as numerous small specks and sparse groups of setae, like in Figs 99, 211, 212; antennae not annulate, as in Figs 22, 211, 212 ..... ***P. reitteri*** (Ganglbauer)
3. Antennomere 4 equal to or barely, sometimes slightly, longer than 3rd; apical external angle either of both these antennomeres or at least of 3rd with an evident spine; apex of elytra only with sparse, moderately long, light setae, almost or quite not hiding its margin, external angle thereby not extended into a tooth, but can only be acute; pronotum longitudinal, without evident lateral tubercles, only angular or broadly rounded on sides; body setation white or greyish-white; body smaller, length 7.6–11.6 mm 4
– Antennomere 4 at least barely shorter than 3rd, sometimes both equal in length; apical external angle of each of these antennomeres with or without spine; apex of elytra with very dense, long, light setae completely or strongly hiding its margin, or at least with long, rather abundant setae, external angle thereby either extended into a tooth (dorsally usually completely or almost entirely hidden under setae) or devoid of it; pronotum transverse or longitudinal, either with or without evident to well-developed lateral tubercles; body setation either with participation of yellow and reddish tones or white (grey-white); body larger, length 10.7–17.2 mm, often more than 12.0 mm long 5
4. Elytra on disk, predominantly in basal part, with very long, slender, erect setae (Fig. 198); antennae longer, at least so in female, apical external angle of antennomeres 3 and 4 each with a less strongly developed spine (Fig. 17); fascia at least

in basal one-third of elytra consisting of dense setae arranged predominantly along contour; pattern of elytra in general as in Figs 93, 196–198 .... ***P. primus*** Holzschuh

– Elytra on disk, mainly in basal part, with much shorter, but slender and erect setae (Fig. 199); antennae shorter, at least so in female, apical external angle of antennomeres 3 and 4 each with a more strongly developed spine (Fig. 18); fasciae of elytra entirely consisting of uniformly dense setae; pattern of elytra in general as in Figs 94, 199, 200 .... ***P. wangi*** Miroshnikov et Lin

5. Elytra (excluding area at humeri and scutellum, as well as apex) with three relatively narrow fasciae spanning at least across entire width of disk: one strongly oblique fascia on each elytron in basal one-third and two evidently horizontal fasciae coming close to each other in the middle (one of them can be only partly interrupted), as in Figs 86, 87, 187, 189, 190; antennae completely or almost entirely red (brownish-red), apical external angle of antennomeres 3 and 4 each with a spine (Figs 12–14) 6

– Elytra (excluding area at humeri and scutellum, as well as apex) with a different pattern, can only be with one fascia behind middle of elytra spanning across entire width of disk; antennae from completely or almost entirely red (brownish-red) to mostly black (regardless of light pubescence), apical external angle of antennomeres 3 and 4 each with or without spine 7

6. Fascia on each elytron in basal one-third less oblique (located at about 45º) and clearly more straight (Figs 86, 190); pronotum, at least so in female, slightly transverse (Fig. 54); elytra less elongated ..... ***P. jii*** (Holzschuh)

– Fascia on each elytron in basal one-third more oblique (located at an angle clearly exceeding 45º, particularly in upper part) and noticeably curved (Figs 87, 187, 189); pronotum at least barely longitudinal (Figs 53, 187, 189); elytra more elongated ..... ***P. albiventris*** (Gressitt)

7. Pronotum on disk one way or another either keel-shaped elevated, but not to such a strong extent as in Fig. 51, or generally slightly convex; each elytron at base with a clearly less strongly developed crest-shaped tubercle, with diverse patterns, but different from those in Figs 88, 193, 195; apical external angle of antennomeres 3 and 4 without spine, but if a well-developed spine present at least on antennomere 3, then at least some basal antennomeres black, at least partly so (Figs 1, 170, 171) 8

– Pronotum extremely strongly roof-shaped elevated on disk, as in Fig. 51; each elytron at base with a large crest-shaped tubercle (Fig. 51), with a peculiar pattern as in Figs 88, 193, 195; antennae almost completely brownish-red, apical external angle of antennomeres 3 and 4 each with a well-developed spine (Figs 10, 15) ..... ***P. ochrocaudus*** (Gressitt)

8. Apex of elytra usually with very dense, long, light setae completely or almost entirely hiding its margin, including there an often present, evident tooth formed by an extended external angle; pronotum with more or less well-developed, at least always evident, lateral tubercles; antennae of male (at least so in the species for which it is known) longer than body 9

– Apex of elytra with more or less numerous, but not too dense, long, light setae only partly hiding or not hiding at all its margin, whereas external angle often without evident tooth; pronotum only obtusangularly protruding on sides or at least with clearly less strongly developed lateral tubercles; antennae of

male noticeably shorter, in female much shorter, than body .... ***P. emili*** Holzschuh

9. Apical external angle of each of antennomeres 3 and 4 without spine, sometimes with a small spine or denticle only on antennomere 3; if antennae with a combination of black and red antennomeres, then antennomere 1 always black (discarding a white pubescence) 10
– Apical external angle of each of antennomeres 3 and 4 with an evident spine, yet sometimes poorly developed, but still clear on antennomere 4, whereas antennomere 1 almost completely or mostly while antennomeres 7–10 entirely red, contrasting with almost completely or predominantly black antennomeres 3–6, at least so dorsally .... ***P. apicicornis*** (Gressitt)
10. Discarding light pubescence, a few basal antennomeres entirely, pronotum completely, and elytra almost entirely black, at least so in basal part, sometimes elytra can be brownish in apical part under a light setation 11
– At least antennomeres 3–6 completely or at least partly red, never entirely black; elytra contrasting bicoloured, predominantly red tones under a dense light setation, over remaining part black; pronotum at least at apical margin usually red (regardless of a light setation) 14
11. A dense light setation clearly less strongly developed, forming a pattern as in Figs 44–47, 81–83, 176–180, 182, a significant part or most of both pronotum and elytra thereby with a black background; at least metafemora only partly with such a setation, leaving free surface in the form of a wide black ring 12
– A dense light setation strongly developed, leaving bare only two small, black, paramedian spots on disk of pronotum and hiding black integuments of most of elytra (forming a pattern as in Figs 49, 85, 184), and almost completely of all femora and at least of basal antennomeres ..... ***P. irenae*** (Holzschuh)
12. Antennae generally not too brightly white, can be clothed with a white pubescence on various antennomeres, but only partly hiding background integument (except for antennomere 1); white colour only subordinate to dense setation on dorsum, a peculiar pattern of elytra being formed only by spots and fasciae, but without participation of a broad strip at suture, as in Figs 81, 82, 177–180, 182 13
– Antennae almost completely with a dense, bright, white pubescence, strongly hiding coloration of integument, only apex of each of antennomeres 3–6 thereby remaining black; dense setation on most of dorsum the same brightly white as on antennae, on elytra forming a peculiar pattern with participation of a rather wide strip at suture, as in Figs 83, 176 ..... ***P. murzini*** **sp. n.**
13. Antennomeres 3–6 black, with a white pubescence only on a part of antennomere 6 (Fig. 7), inner side covered by black, long, suberect setae; patterns of dense light setae on pronotum and elytra as in Figs 47, 82, 177, a fascia behind middle of elytra thereby less oblique ..... ***P. excellens*** Miroshnikov et Lin
– Antennomeres 3–6 black, with a white pubescence, inner side predominantly or at least partly with light, long, suberect setae (Figs 5, 6, 11); patterns of dense light setae on pronotum and elytra as in Figs 48, 49, 81, 178–180, 182, a fascia behind middle of elytra thereby more oblique ..... ***P. thibetanus*** (Pic)
14. Antennae almost completely or mainly red, some antennomeres can be largely or almost completely black, all antennomeres clothed with a more or less dense,

light pubescence; a dense light setation of pronotum, at least in apical part (except for a fascia at the very apex), less strongly developed on sides of disk, as in Figs 42, 43 15

– Antennae red, antennomere 1 and antennomeres 7–11 with, but antennomeres 2–6 without, dense light pubescence, thus making the first and second groups of antennomeres look contrasting to each other; a dense light setation of pronotum more strongly developed on sides of disk, as in Fig. 48 .... ***P. helenae*** (Holzschuh)

15. Elytra with strongly expressed spots of light dense setation generally dominating over a black background, as in Figs 79, 174, 175 ..... ***P. scolopax*** (Holzschuh)

– Elytra with evidently less strongly expressed spots of light dense setation, with a black background generally dominating, as in Figs 78, 172, 173 ..... ***P. shaanxiensis*** Holzschuh

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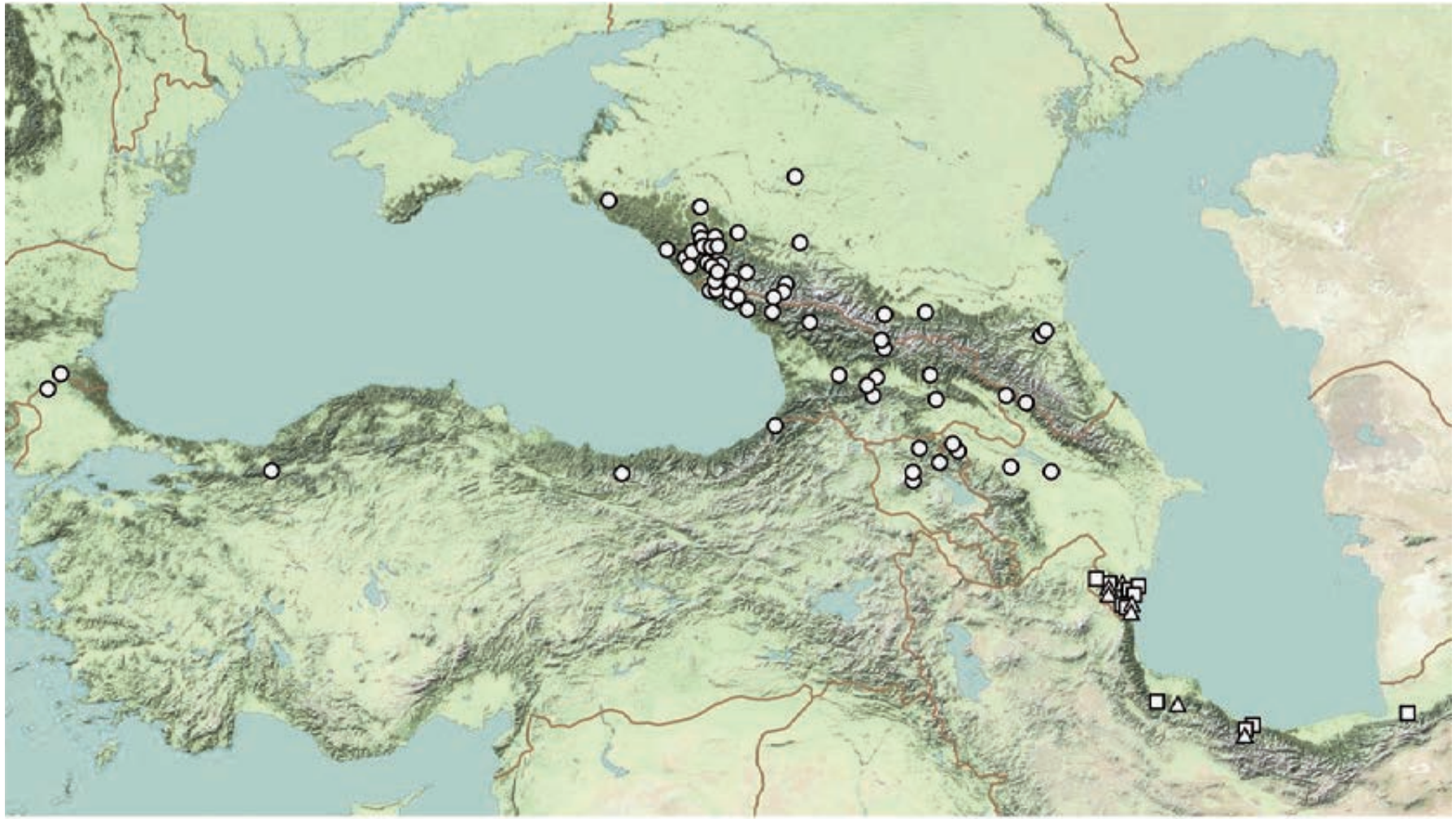
РЕЗЮМЕ

Предлагается обзор видов рода *Paraclytus* Bates, 1884. Описан как новый *P. murzini* sp. n. из Сычуани (Китай). Для всех 18 видов рода, включая новый, даны диагнозы. Для ранее известных видов приведены описания, а для некоторых из них значительно расширен ареал и указаны разнообразные новые сведения. Отмечено, что неоднократные попытки отыскать голотип ?*Paraclytus multimaculatus* Pic, 1923 (Лаос) до сих пор не увенчались успехом, при этом показано, что *Xylotrechus multimaculatus* Pic, 1923 (Лаос) никак не связан с этой проблемой. Предложена таблица для определения всех видов, как и даны карты их распространения. Приведены диагноз и описание рода. Детально рассмотрены его отличия от очень сходного с ним рода *Anaglyptus* Mulsant, 1839. Указана подробная библиография. Представлено большое количество цветных иллюстраций.

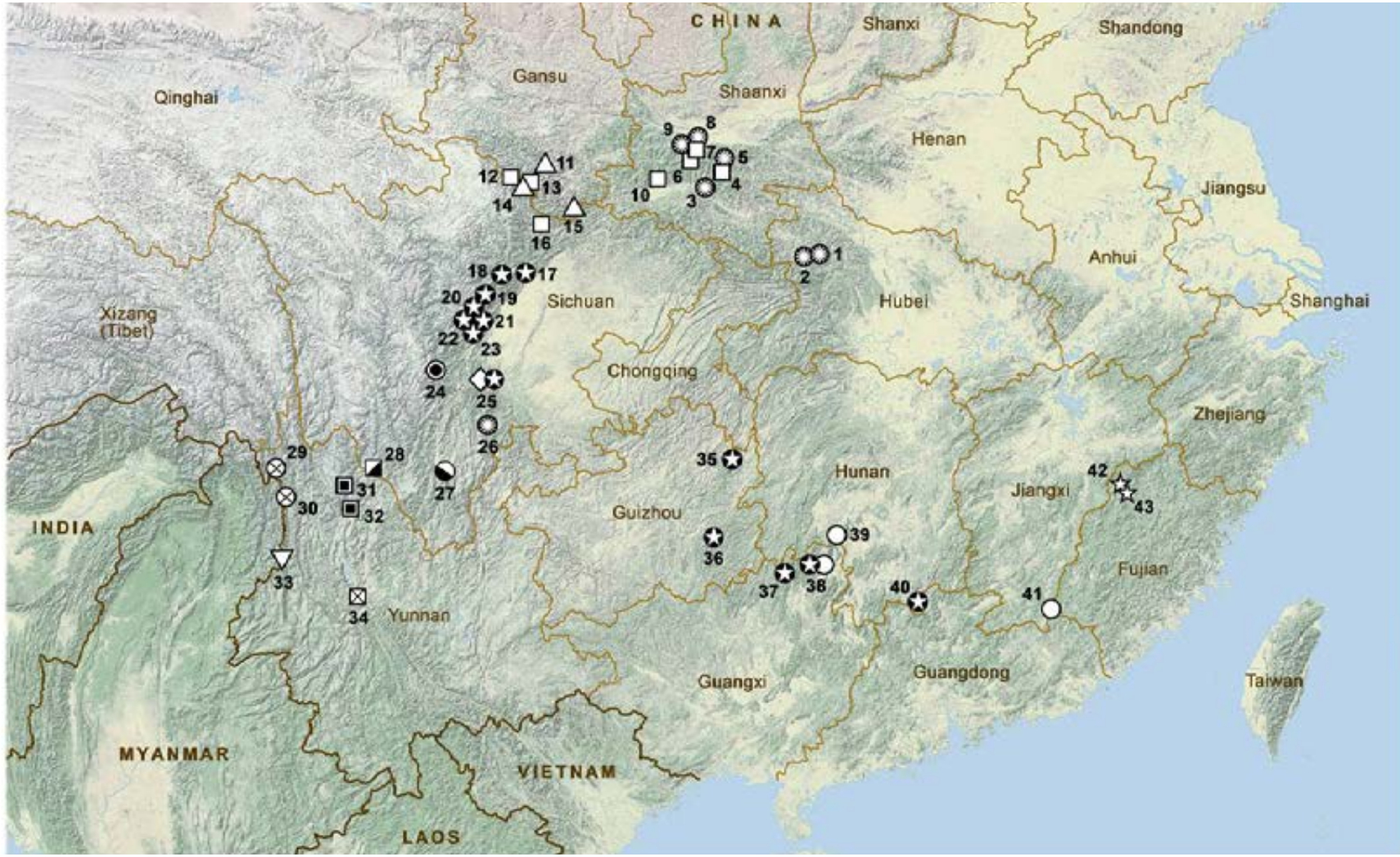


Map 1. Geographical distribution of the genus *Paraclytus* Bates and related species in the South of the western Palaearctic.
△ – *P. raddei* (Ganglbauer); □ – *P. reitteri* (Ganglbauer); ○ – *P. sexguttatus* (Adams).

Table. Localities in China and the corresponding *Paraclytus* species.

No	Locality	Species	No	Locality	Species	No	Locality	Species
1	HUB: Dashennongjia Mts, 2500–3000 m, 31°50’N, 110°30’E	*P. shaanxiensis*	**16**	SCH: Pingwu env., 2000 m, 32°25’58”N, 104°30’15”E	*P. primus*	**31**	YUN: Haba Shan, 27°22’54”N, 100°06’03”E	*P. emili*
2	HUB: Shennongija, Forestry District, 2000 m, 31°50’N, 110°20’ E	*P. shaanxiensis*	**17**	SCH: Mianzhu, Qingpinglinchang, 31°31’16”N, 104°08’54”E	*P. apicicornis*	**32**	YUN: Baishui, 3000 m, 26°56’N, 100°15’E	*P. emili*
3	SHA: road Xi’an – Ningshan, Qinling Shan, pass 50 km S Xi’an, 2000 m, 33°08’N, 108°08’E	*P. shaanxiensis*	**18**	SCH: Wenchuan env., 2000 m, 31°28’45”N, 103°34’48”E	*P. apicicornis*	**33**	YUN: Lushui, Yaojiaping, 2450 m, 25°57’27”N, 98°42’37”E	*P. excellens*
4	SHA: Ningshan, Huoditang, Pingheliang, 2015–2450 m, 33°29’N, 108°29’E	*P. primus*	**19**	SCH: Wolong env., 2200 m, 31°01’59”N, 103°10’49”E	*P. apicicornis*	**34**	YUN: Weibaoshan Mts, 2800–3000 m, 25°12’N, 100°24’E	*P. irenae*
5	SHA: Qinling Shan, 12 km SW of Xunyangba, 1900–2250 m, 33°32’N, 108°31’E	*P. shaanxiensis*	**20**	SCH: 35 km W Wolong, Densheng 2800 m, 30°51’36”N, 102°58’41”E	*P. apicicornis*	**35**	GUI: Jiagkou, Fanjingshan Mt, 27°54’56”N, 108°42’29”E	*P. apicicornis*
6	SHA: Zhouzhi, Houzhenzizhen, Laoxianchengcun – Qinlingliang, 1745–2020 m, 33°49’ N, 107°44’E	*P. primus*	**21**	SCH: Xiling Xue Shan, 30°41’N, 103°14’E	*P. apicicornis*	**36**	GUI: Leishan, Leigongshan Mt, 26°22’03”N, 108°18’18”E	*P. apicicornis*
7	SHA: Houzhenzizhen env., 1350–2000 m, 33°50’34”N, 107°50’52”E	*P. primus*	**22**	SCH: 55 km N Baoxing, Qiao Qi, 2150–2300 m, 30°41’50”N, 102°45’10”E	*P. apicicornis*	**37**	GUX: Longsheng, Huaping, Anjiangping, 25°38’59”N, 109°54’01”E	*P. apicicornis*
8	SHA: Zhouzhi env., 1950 m, 34°00’44”N, 107°51’40”E	*P. shaanxiensis*	**23**	SCH: Baoxing, Muping env., 2200–3900 m, 30°23’44”N, 102°52’39”E	*P. apicicornis*	**38**	GUX: Guilin, Maoershan, 900–1000 m, 25°51’46”N, 110°29’37”E	*P. apicicornis* *P. albiventris*
9	SHA: Houzhenzizhen env., 1350–2000 m, 33°52’N, 107°44’E	*P. shaanxiensis*	**24**	SCH: Luding, Xinxing, 1600 m, 29°40’17”N, 102°06’08”E	*P. wangi*	**39**	HUN: Shunhuangshan forest park, 700–1200m, 26°25’29”N, 111°04’06”E	*P. albiventris*
10	SHA: Tiantaishan forest park, 1950 m, 33°16’N, 107°05’E	*P. primus*	**25**	SCH: Emeishan Mt, 1100–2100 m, 29°31’11”N, 103°19’57”E	*P. apicicornis* *P. jii*	**40**	HUN: Yizhang, Mangshan Gongyuan (forest park), Tiantaishan, 1570 m, 24°59’N, 112°50’E	*P. apicicornis*
11	GAN: 70 km W of Wudu, 1800–2400 m, 33°30’N, 104°35’E	*P. scolopax*	**26**	SCH: Dafengding Mts, 50 km N Meigu, 3100 m, 28°35’51”N, 103°17’14”E	*P. shaanxiensis*	**41**	JIX: Xunwu, Xiangshan, Xiangshan Nature Reserve, 24°55’59”N, 115°48’55”E	*P. albiventris*
12	SCH: Nanping, Bai He, 33°18’32”N, 103°48’10”E	*P. primus*	**27**	SCH: Liangshan Mts, S. Xichang, 3000 m, 27°41’09”N, 102°20’56”E	*P. murzini* **sp. n.**	**42**	FUJ: Guadun (= Kuatun), 2300 m, 27°24’N, 117°24’E	*P. ochrocaudus*
13	SCH: Jiuzhaigou, 33°15’07”N, 104°14’35”E	*P. primus*	**28**	YUN: Lugu Lake, Luo Shui, 27°45’N, 100°45’E	*P. helenae*	**43**	FUJ: Shaowu, Dazhulan (= Tachulan), 1200 m, 27°20’27”N, 117°28’ 59”E	*P. ochrocaudus*
14	SCH: Jiuzhaigou env., 33°11’08”N, 104°07’09”E	*P. scolopax*	**29**	YUN: Gongshan, Qiqi N.R., 2100 m, 27°43’59”N, 98°34’59”E	*P. thibetanus*			
15	GAN: Wenxian, Bikou, 32°44’00”N, 105°14’12”E	*P. scolopax*	**30**	YUN: Fugong, Lumadeng, Yaping, Shibali, 2500 m, 27°09’54”N, 98°46’48”E	*P. thibetanus*			

Note. Abbreviations of provinces: HUB – Hubei; SHA – Shaanxi; GAN – Gansu; SCH – Sichuan; YUN – Yunnan; GUI – Guizhou; GUX – Guangxi; HUN – Hunan; JIX – Jiangxi; FUJ – Fujian



Map 2. Geographical distribution of the genus *Paraclytus* Bates and related species in China.

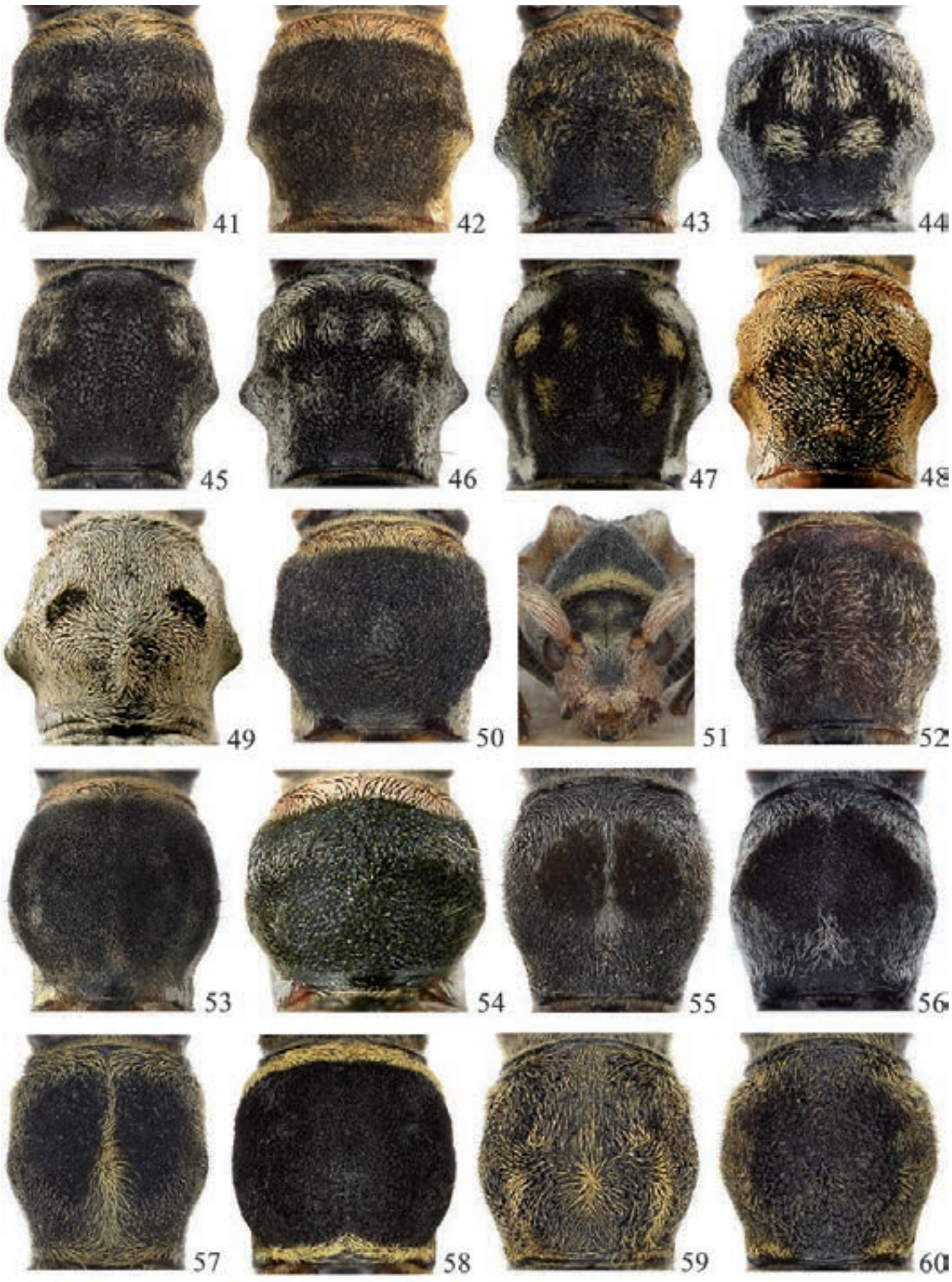
✪ – *P. apicicornis* (Gressitt); ❂ – *P. shaanxiensis* Holzschuh; △ – *P. scolopax* (Holzschuh); ■ – *P. emili* Holzschuh; ◕ – *P. murzini* sp. n.; ⊗ – *P. thibetanus* (Pic) ▽ – *P. excellens* Miroshnikov et Lin; ◪ – *P. helenae* (Holzschuh); ☒ – *P. irenae* (Holzschuh); ☆ – *P. ochrocaudus* (Gressitt); ○ – *P. albiventris* (Gressitt); ◇ – *P. jii* (Holzschuh); □ – *P. primus* Holzschuh; ◉ – *P. wangi* Miroshnikov et Lin (NB: the locality numbers correspond to the numbers and names of localities in Table).

Figs 1–22. *Paraclytus* Bates, left antenna.

1 – *P. apicicornis* (Gressitt); 2 – *P. shaanxiensis* Holzschuh; 3 – *P. scolopax* (Holzschuh); 4 – *P. murzini* sp. n., holotype; 5, 6, 11 – *P. thibetanus* (Pic) (5 – holotype); 7 – *P. excellens* Miroshnikov et Lin, holotype; 8 – *P. helenae* (Holzschuh), holotype; 9 – *P. irenae* (Holzschuh), holotype; 10, 15 – *P. ochrocaudus* (Gressitt) (10 – holotype; 15 – paratype); 12, 13 – *P. albiventris* (Gressitt) (12 – holotype); 14 – *P. jii* (Holzschuh), holotype; 16 – *P. emili* Holzschuh; 17 – *P. primus* Holzschuh; 18 – *P. wangi* Miroshnikov et Lin, holotype; 19 – *P. excultus* Bates; 20 – *P. raddei* (Ganglbauer); 21 – *P. sexguttatus* (Adams); 22 – *P. reitteri* (Ganglbauer); 1–9, 13–15, 17–20, 22 – female; 10–12, 16, 21 – male.

Figs 23–40. *Anaglyptus* Mulsant, left antenna.

23 – *A. mysticus* (Linnaeus); 24 – *A. mysticoides* Reitter; 25 – *A. simplicicornis* Reitter; 26 – *A. arabicus* (Küster); 27 – *A. ganglbaueri* Reitter; 28 – *A. danilevskii* Miroshnikov; 29 – *A. praecellens* Holzschuh; 30 – *A. luteofasciatus* Pic; 31 – *A. gibbosus* (Fabricius); 32 – *A. matsushitai* Hayashi; 33 – *A. niponensis* Bates; 34 – *A. arakawae* (Kano); 35 – *A. vicinulus* Holzschuh; 36 – *A.* prope *gressitti* Holzschuh (from Sichuan, China); 37 – *A. ambiguus* Holzschuh; 38 – *A. colobotheoides* (Bates); 39 – *A. bellus* Matsumura et Matsushita; 40 – *A.* prope *annulicornis* (Pic) (from Sichuan, China); 23, 24, 26, 28, 29, 33–38 – female; 25, 27, 30–32, 39, 40 – male.



Figs 41–60. *Paraclytus* Bates, pronotum.

41 – *P. apicicornis* (Gressitt); 42 – *P. shaanxiensis* Holzschuh; 43 – *P. scolopax* (Holzschuh); 44 – *P. murzini* sp. n., holotype; 45, 46 – *P. thibetanus* (Pic) (45 – holotype); 47 – *P. excellens* Miroshnikov et Lin, holotype; 48 – *P. helenae* (Holzschuh), holotype; 49 – *P. irenae* (Holzschuh), holotype; 50, 51 – *P. ochrocaudus* (Gressitt), paratype (51 – frontal view); 52 – *P. emili* Holzschuh; 53 – *P. albiventris* (Gressitt); 54 – *P. jii* (Holzschuh), holotype; 55 – *P. primus* Holzschuh; 56 – *P. wangi* Miroshnikov et Lin, holotype; 57 – *P. excultus* Bates; 58 – *P. raddei* (Ganglbauer); 59 – *P. reitteri* (Ganglbauer); 60 – *P. sexguttatus* (Adams); 41–57, 59 – female; 58, 60 – male.

Figs 61–76. *Anaglyptus* Mulsant, pronotum.

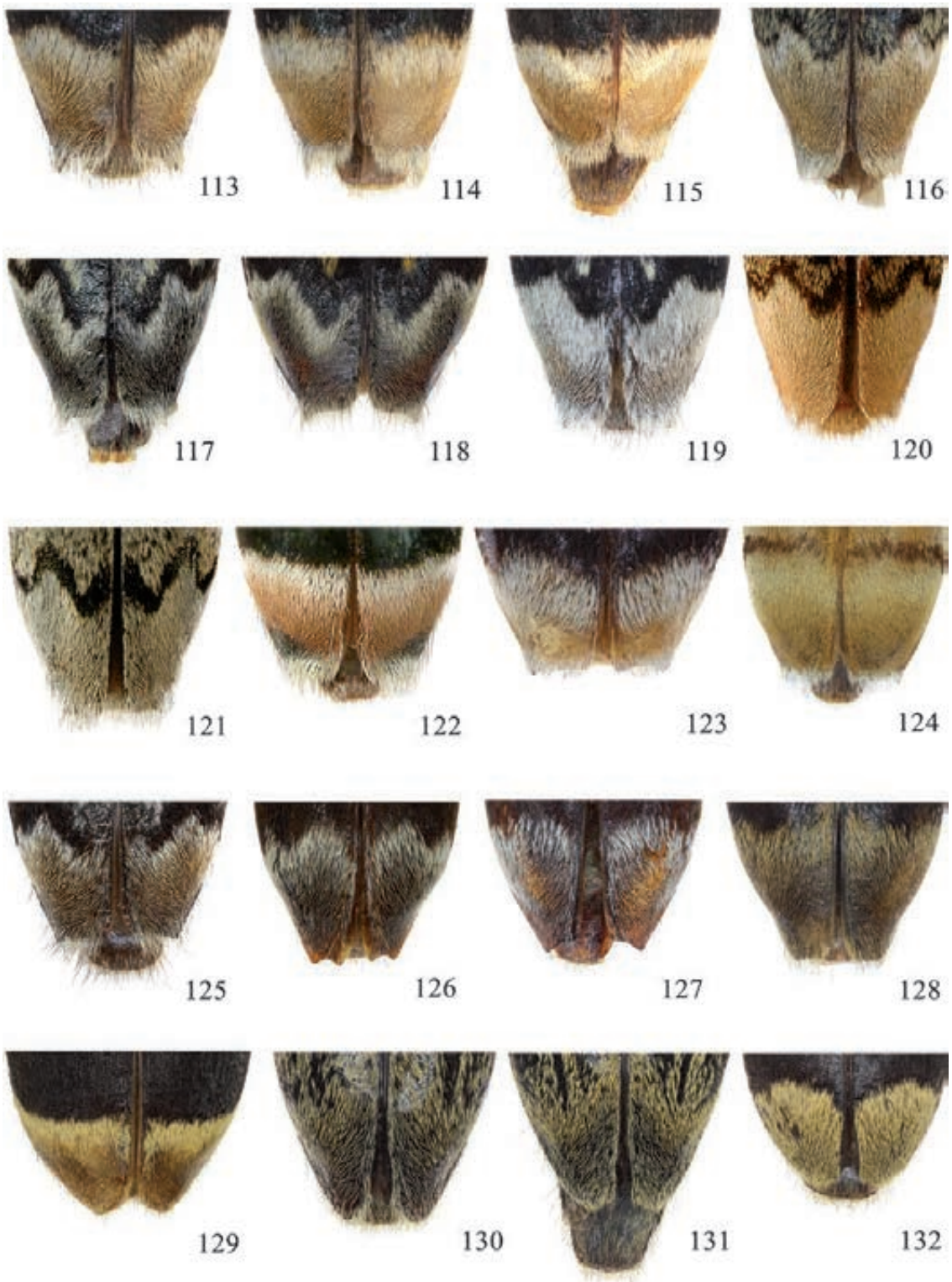
61 – *A. mysticus* (Linnaeus); 62 – *A. simplicicornis* Reitter; 63 – *A. arabicus* (Küster); 64 – *A. ganglbaueri* Reitter; 65 – *A. danilevskii* Miroshnikov; 66 – *A. praecellens* Holzschuh; 67 – *A. luteofasciatus* Pic; 68 – *A. gibbosus* (Fabricius); 69 – *A. matsushitai* Hayashi; 70 – *A. arakawae* (Kano); 71 – *A. niponensis* Bates; 72 – *A. vicinulus* Holzschuh; 73 – *A. colobotheoides* (Bates); 74 – *A. ambiguus* Holzschuh; 75 – *A. bellus* Matsumura et Matsushita; 76 – *A.* prope *annulicornis* (Pic) (from Sichuan, China); 61, 63, 65, 66, 70–74 – female; 62, 64, 67–69, 75, 76 – male.

Figs 77–94. *Paraclytus* Bates, elytra.

77 – *P. apicicornis* (Gressitt); 78 – *P. shaanxiensis* Holzschuh; 79 – *P. scolopax* (Holzschuh); 80 – *P. emili* Holzschuh; 81 – *P. thibetanus* (Pic); 82 – *P. excellens* Miroshnikov et Lin holotype; 83 – *P. murzini* sp. n., holotype; 84 – *P. helenae* (Holzschuh), holotype; 85 – *P. irenae* (Holzschuh), holotype; 86 – *P. jii* (Holzschuh), holotype; 87 – *P. albiventris* (Gressitt); 88 – *P. ochrocaudus* (Gressitt), paratype; 89 – *P. excultus* Bates; 90 – *P. raddei* (Ganglbauer); 91 – *P. reitteri* (Ganglbauer); 92 – *P. sexguttatus* (Adams); 93 – *P. primus* Holzschuh; 94 – *P. wangi* Miroshnikov et Lin, holotype; 77, 81–89, 93, 94 – female; 78–80, 90–92 – male.

Figs 95–112. *Anaglyptus* Mulsant, elytra.

95 – *A. mysticus* (Linnaeus); 96 – *A. mysticoides* Reitter; 97 – *A. simplicicornis* Reitter; 98 – *A. arabicus* (Küster); 99 – *A. danilevskii* Miroshnikov; 100 – *A. ganglbaueri* Reitter; 101– *A. luteofasciatus* Pic; 102 – *A. praecellens* Holzschuh; 103 – *A. gibbosus* (Fabricius); 104 – *A. matsushitai* Hayashi; 105 – *A. niponensis* Bates; 106 – *A. arakawae* (Kano); 107 – *A.* prope *gressitti* Holzschuh (from Sichuan, China); 108 – *A. vicinulus* Holzschuh; 109 – *A. colobotheoides* (Bates); 110 – *A. ambiguus* Holzschuh; 111 – *A.* prope *annulicornis* (Pic) (from Sichuan, China); 112 – *A. bellus* Matsumura et Matsushita; 95, 96, 98, 99, 102, 105–110 – female; 97, 100, 101, 103, 104, 111, 112 – male.



Figs 113–132. *Paraclytus* Bates, apex of elytra.

113, 114 – *P. apicicornis* (Gressitt); 115 – *P. shaanxiensis* Holzschuh; 116 – *P. scolopax* (Holzschuh); 117 – *P. thibetanus* (Pic); 118 – *P. excellens* Miroshnikov et Lin, holotype; 119 – *P. murzini* sp. n., holotype; 120 – *P. helenae* (Holzschuh), holotype; 121 – *P. irenae* (Holzschuh), holotype; 122 – *P. jii* (Holzschuh), holotype; 123 – *P. albiventris* (Gressitt), holotype; 124 – *P. ochrocaudus* (Gressitt), paratype; 125 – *P. emili* Holzschuh; 126 – *P. primus* Holzschuh; 127 – *P. wangi* Miroshnikov et Lin, holotype; 128 – *P. excultus* Bates; 129 – *P. raddei* (Ganglbauer); 130, 131 – *P. reitteri* (Ganglbauer); 132 – *P. sexguttatus* (Adams); 113,123, 125, 126, 129, 130, 132 – male; 114–122, 124, 127, 128, 131 – female.

Figs 133–151. Anaglyptini Lacordaire, apex of elytra.

133 – *Anaglyptus mysticus* (Linnaeus); 134 – *A. mysticoides* Reitter; 135 – *A. simplicicornis* Reitter; 136 – *A. arabicus* (Küster); 137 – *A. danilevskii* Miroshnikov; 138 – *A. luteofasciatus* Pic; 139 – *A. praecellens* Holzschuh; 140 – *A. gibbosus* (Fabricius); 141 – *A. matsushitai* Hayashi; 142 – *A. niponensis* Bates; 143 – *A. arakawae* (Kano); 144 – *A.* prope *gressitti* Holzschuh (from Sichuan, China); 145 – *A. vicinulus* Holzschuh; 146 – *A. ambiguus* Holzschuh; 147 – *A. bellus* Matsumura et Matsushita; 148 – *A. colobotheoides* (Bates); 149 – *A.* prope *annulicornis* (Pic) (from Sichuan, China); 150 – *Oligoenoplus rosti* Pic; 151 – *O. gonggashanus* Miroshnikov; 133, 134, 136, 137, 139, 142–146, 148 – female; 135, 138, 140, 141, 147, 149–151 – male.

Figs 152–155. Anaglyptini Lacordaire, endophallus and tube of penis.
152, 153 – *Paraclytus apicicornis* (Gressitt); 154, 155 – *Anaglyptus simplicicornis* Reitter.

Figs 156–159. Anaglyptini Lacordaire, endophallus and tube of penis.
156, 157 – *Paraclytus sexguttatus* (Adams); 158, 159 – *Anaglyptus ganglbaueri* Reitter.

Figs 160–165. Anaglyptini Lacordaire.

160 – *Anaglyptus bicallosus* (Kraatz); 161 – *A. arabicus* (Küster); 162, 163 – *Paraclytus albiventris* (Gressitt), holotype; 164 – *P. raddei* (Ganglbauer); 165 – *P. excultus* Bates; 160, 161, 164, 165 – endophallus and tube of penis; 162 – microtrichia; 163 – field of microtrichia.

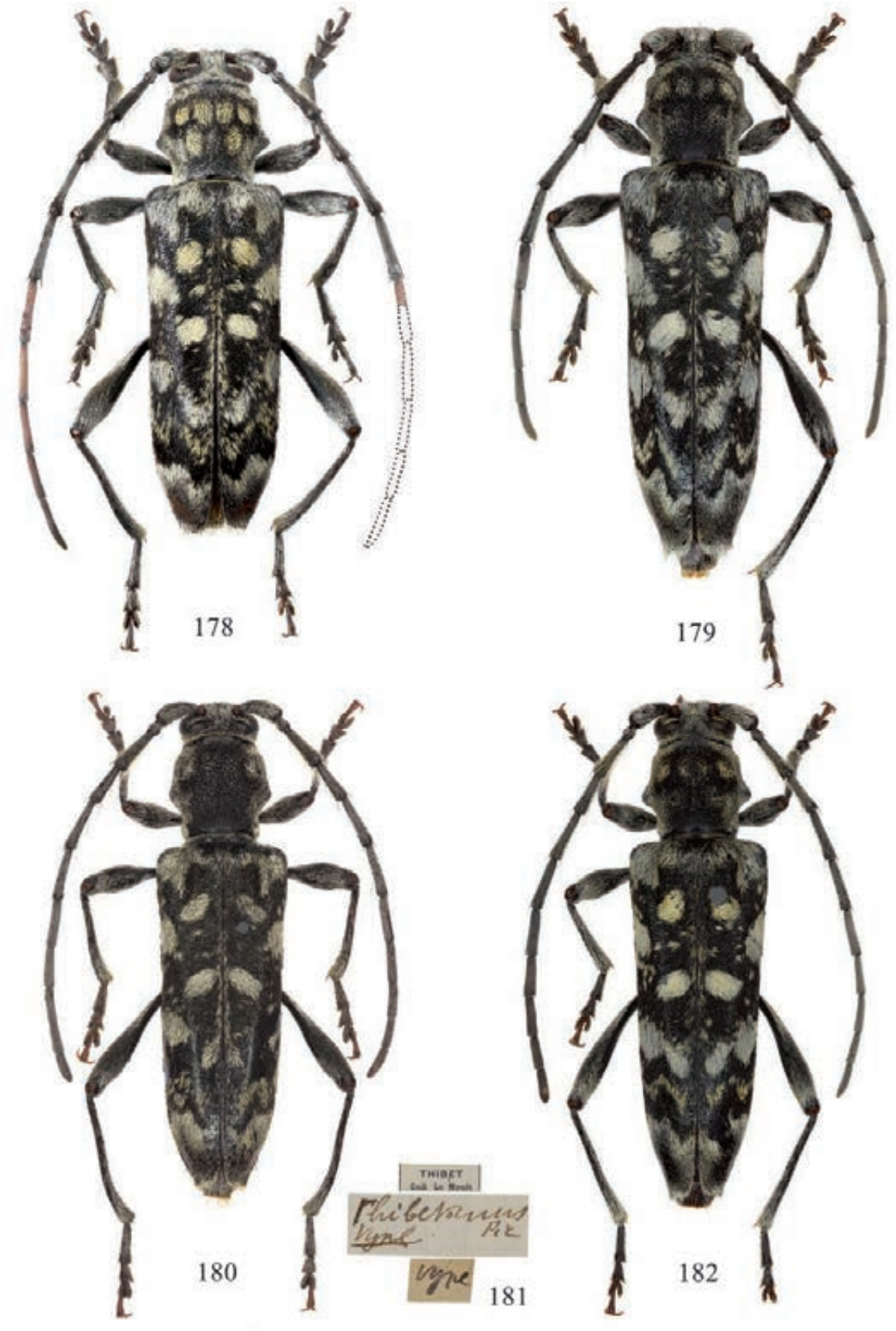
Figs 166–169. Anaglyptini Lacordaire, endophallus and tube of penis.
166, 167 – *Anaglyptus* sp. (from Sichuan, China); 168 – *A. bellus* Matsumura et Matsushita; 169 – *Paraclytus emili* Holzschuh.

Figs 170–173. *Paraclytus* Bates, habitus.

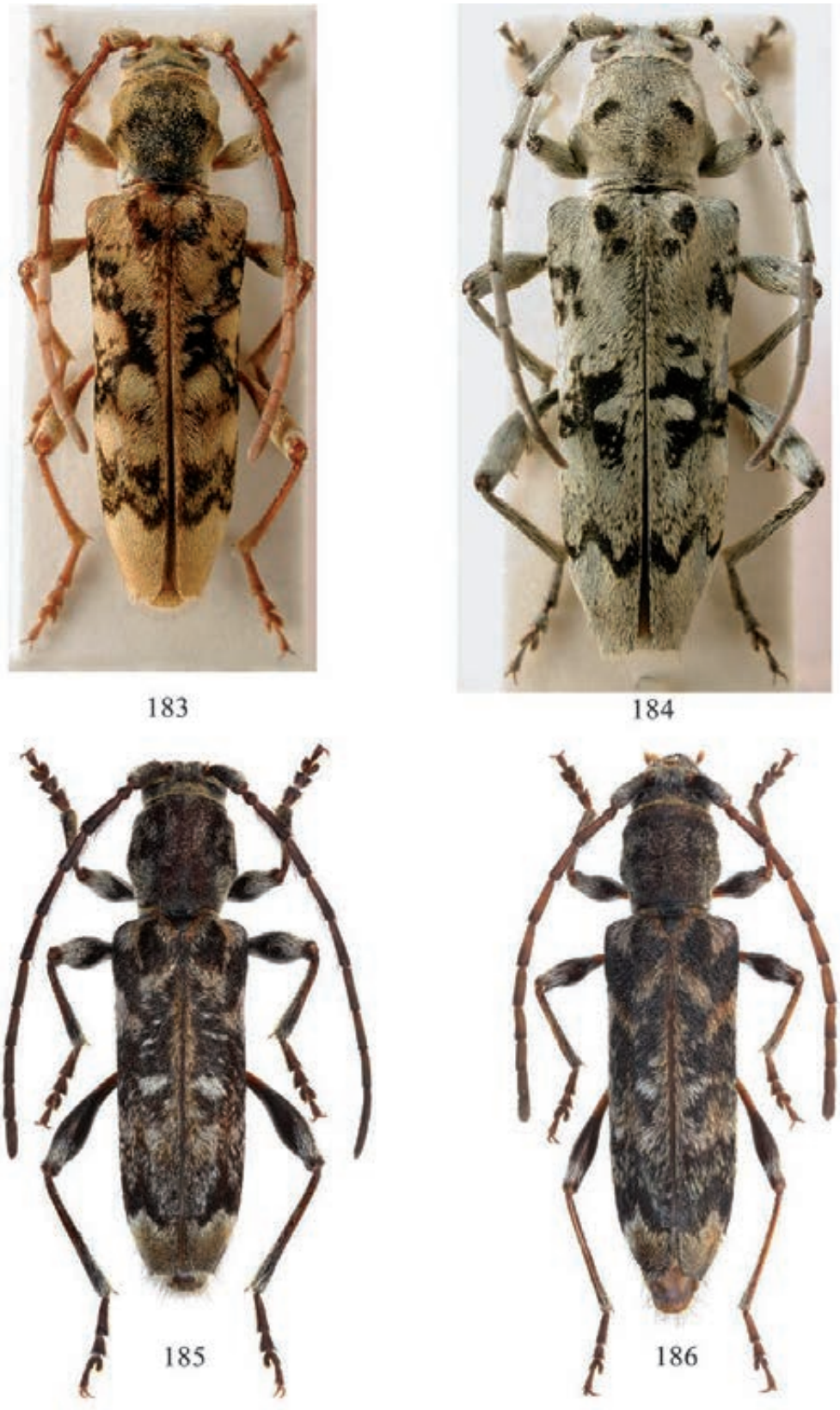
170, 171 – *P. apicicornis* (Gressitt), male and female, respectively; 172, 173 – *P. shaanxiensis* Holzschuh, male and female, respectively.

Figs 174–177. *Paraclytus* Bates, habitus.

174, 175 – *P. scolopax* (Holzschuh), male and female, respectively; 176 – *P. murzini* sp. n., holotype female; 177 – *P. excellens* Miroshnikov et Lin, holotype female.



Figs 178–182. *Paraclytus thibetanus* (Pic).
178–180, 182 – habitus; 178 – male; 179, 180, 182 – female (180 – holotype); 181 – labels of the holotype.



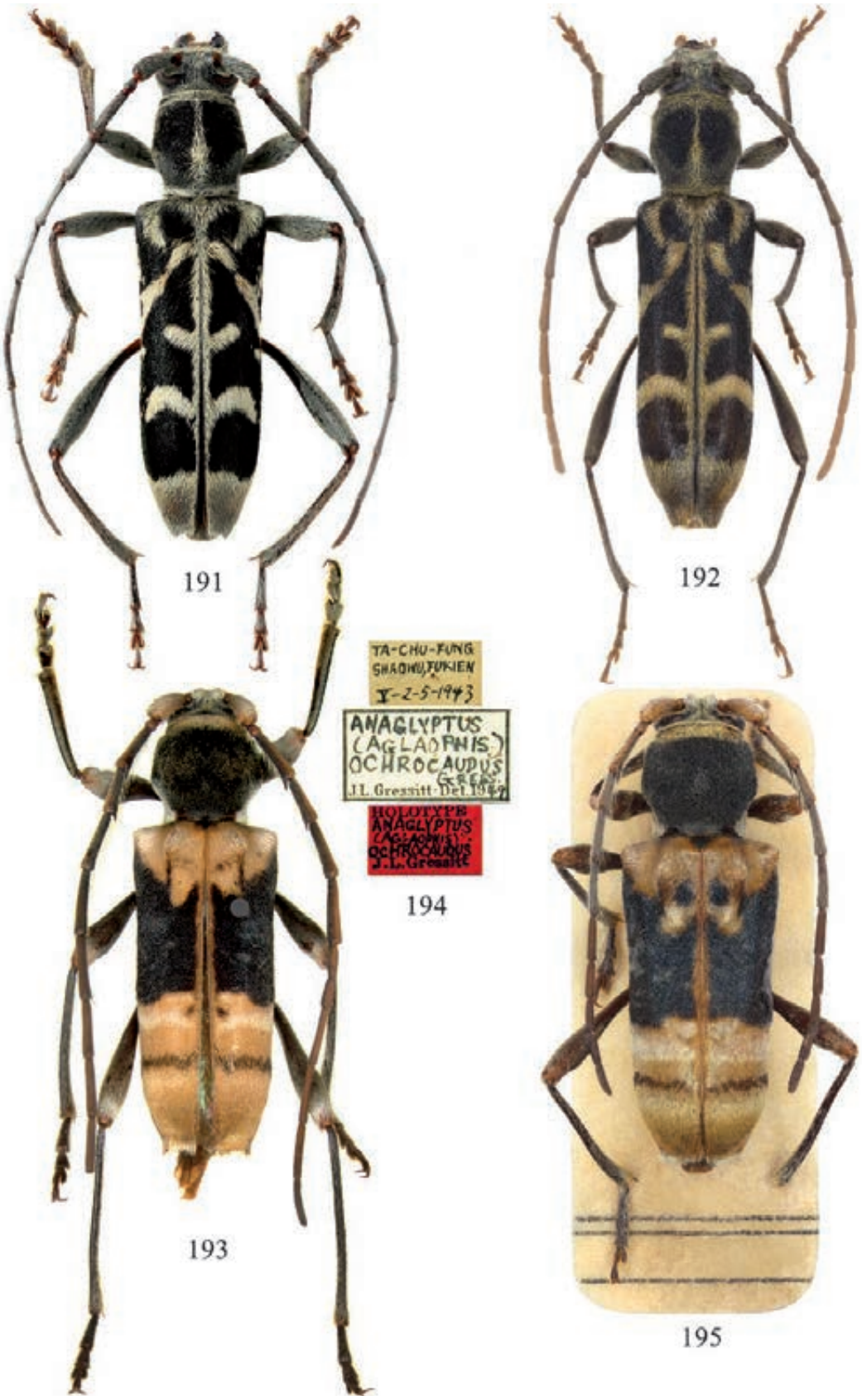
Figs 183–186. *Paraclytus* Bates, habitus.

183 – *P. helenae* (Holzschuh), holotype female; 184 – *P. irenae* (Holzschuh), holotype female (183, 184 – after Holzschuh, 1993, but colour photographs, reproduced courtesy of Luboš Dembický); 185, 186 – *P. emili* Holzschuh, male and female, respectively.

188

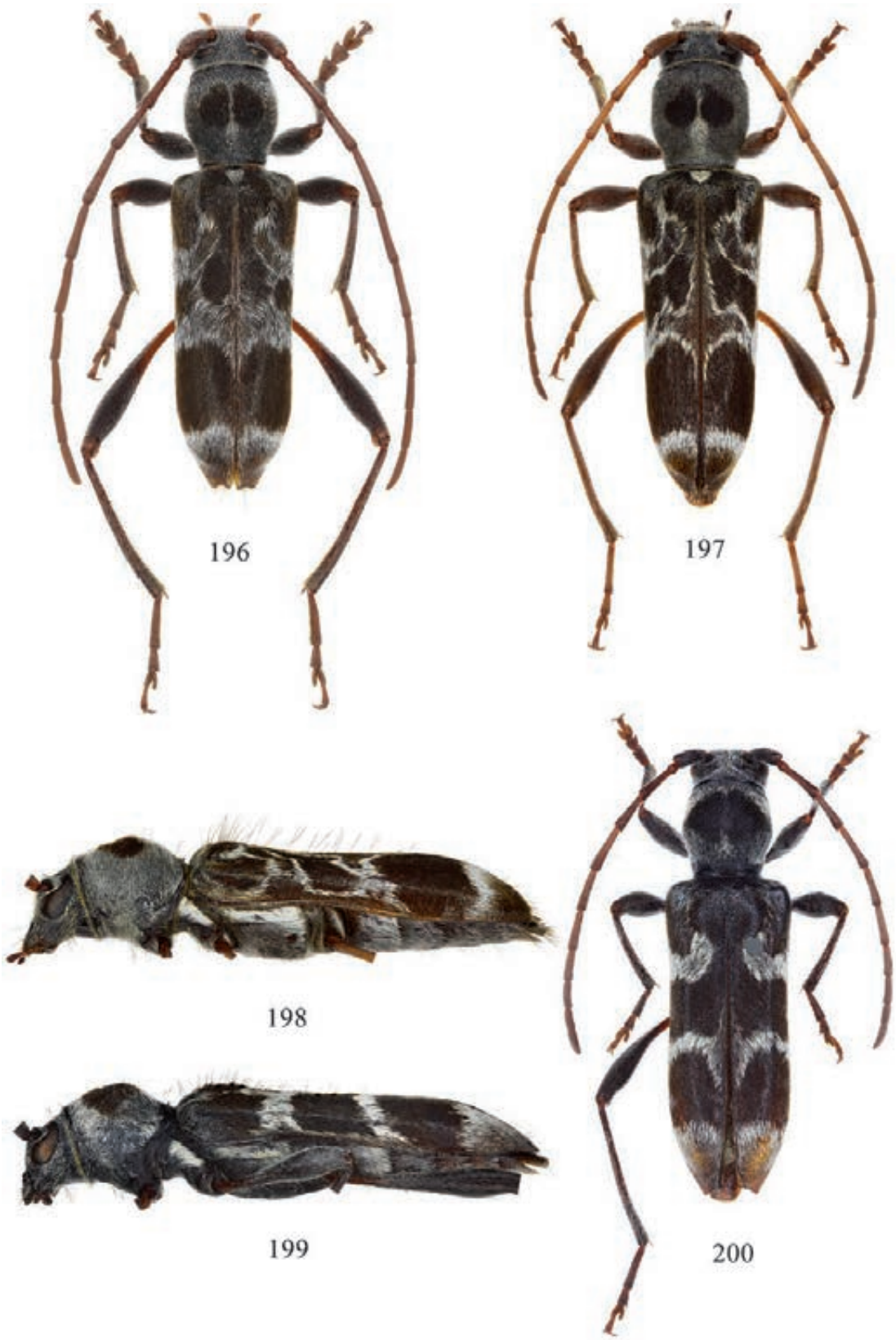
Figs 187–190. *Paraclytus* Bates.

187, 189 – *P. albiventris* (Gressitt) (187 – holotype male; 189 – female); 188 – labels of the holotype; 190 – *P. jii* (Holzschuh), holotype female (after Holzschuh, 1992, but colour photograph, reproduced courtesy of Luboš Dembický); 187, 189, 190 – habitus.



Figs 191–195. *Paraclytus* Bates.

191, 192 – *P. excultus* Bates, male and female, respectively; 193, 195 – *P. ochrocaudus* (Gressitt), holotype male and paratype female, respectively; 194 – labels of the holotype (193, 194 – photographs by Jianhua Huang).

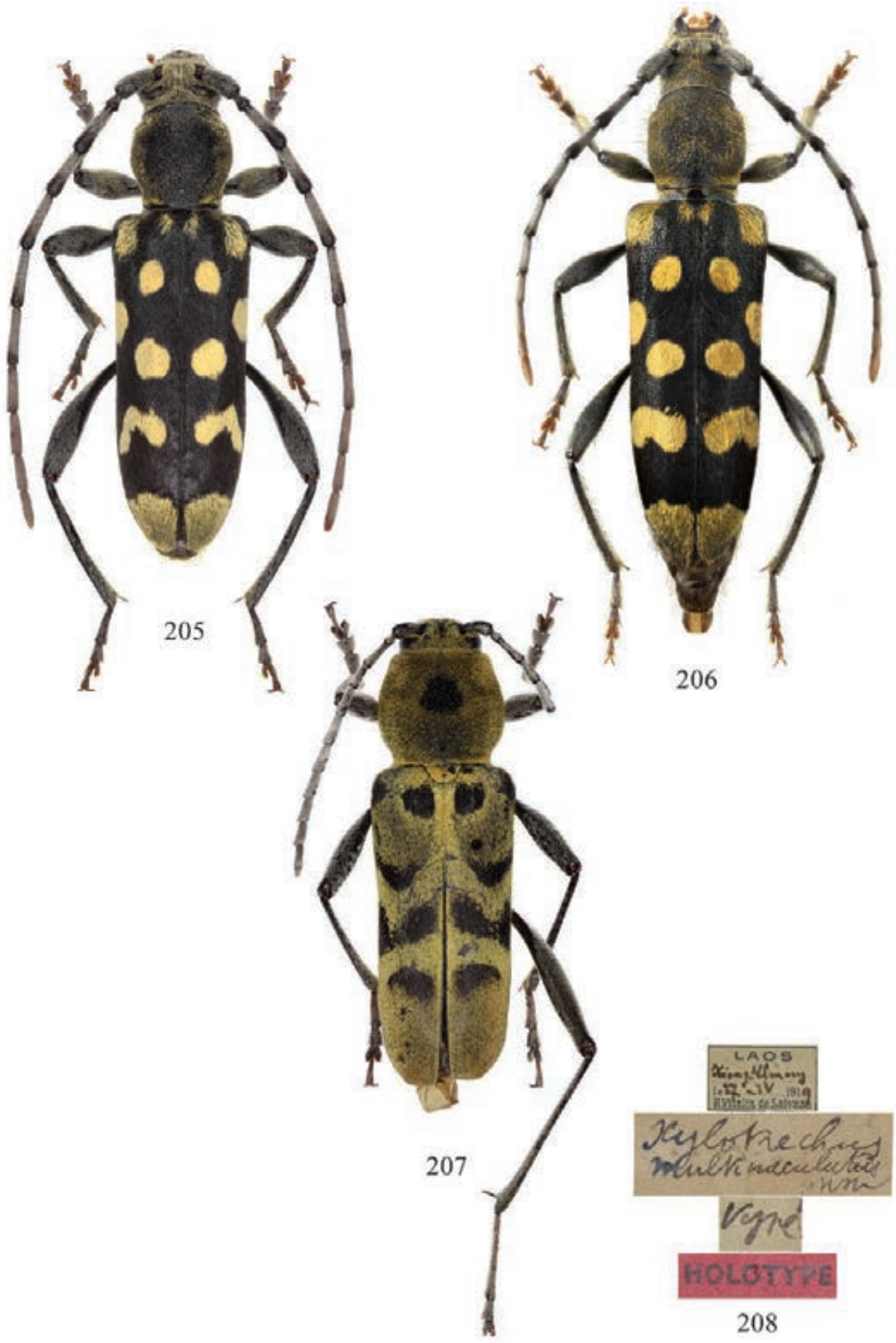


Figs 196–200. *Paraclytus* Bates, habitus.

196–198 – *P. primus* Holzschuh (196 – male; 197, 198 – female); 199, 200 – *P. wangi* Miroshnikov et Lin, holotype female; 196, 197, 200 – dorsal view; 198, 199 – lateral view.

Figs 201–204. *Paraclytus* Bates, habitus.

201, 202 – *P. raddei* (Ganglbauer), male and female, respectively; 203, 204 – *P. reitteri* (Ganglbauer), male and female, respectively.



Figs 205–208. *Paraclytus* Bates, and *Xylotrechus* Chevrolat.

205, 206 – *P. sexguttatus* (Adams), male and female, respectively; 207 – *X. multimaculatus* Pic, holotype male; 208 – labels of the holotype; 205–207 – habitus.