



Review of Pyrochroidae (Coleoptera: Tenebrionoidea) from Mêdog, China, with descriptions of two new species

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Abstract

Pyrochroidae Latreille, 1806 exhibits a broad distribution spanning all major regions of the world except Antarctica. In the present comprehensive review of the family from Mêdog County, Xizang, five species representing three genera within two subfamilies are recorded. Among them, two new *Pseudopyrochroa* species, *P. concava* Gao, Young & Z. Pan, **sp. nov.** and *P. nyingchica* Gao, Young & Z. Pan, **sp. nov.**, were discovered and are described herein. *Agnathus secundus* Jelínek & Kubáň, 2009 and *P. antennalis* (Blair, 1912) are recorded for the first time in the county. Dorsal habitus and morphological details relating to the four species above are illustrated. A key to the five pyrochroid species of Mêdog is provided.

Key words: fire-colored beetle, taxonomy, faunistic, new species, key, Xizang

Introduction

Pyrochroidae Latreille, 1806, commonly known as fire-colored beetles, is widespread family with the greatest diversity attained in the temperate regions of the northern and southern hemispheres (Young & Pollock 2010). The family currently includes approximately 223 extant species assigned to 33 genera within six subfamilies (Iablokoff-Khnzorian 1985; Pollock 1995; Young 2002; Jelínek & Kubáň 2009; Young *et al.* 2020; Hsiao & Pollock 2021; Gao *et al.* 2024a, 2025; Yang *et al.* 2025): Tydessinae Nikitsky, 1986 (1 genus, 3 species), Pilipalpiniae Abdullah, 1964 (12 genera, 39 species), Pedilinae Lacordaire, 1859 (2 genera, approximately 50 species), Pyrochroinae Latreille, 1806 (15 genera, approximately 122 species), Pogonocerinae Iablokoff-Khnzorian, 1985 (1 genus, 1 species), and Agnathinae Lacordaire, 1859 (2 genera, 8 species). The Chinese pyrochroid fauna remains only partially known, lacking a comprehensive taxonomic revision. Currently, 50 species belonging to 14 genera distributed within four subfamilies have been recorded from China (Table 1).

Mêdog County is located in the southeast of the Xizang Autonomous Region, within the middle and lower reaches of the Yarlung Zangbo River watershed and part of the Himalaya biodiversity hotspot (Marchese 2015; Young 2018). The county harbors exceptionally diverse natural ecosystems that sustain a rich biodiversity of wildlife (Yang & Feng 2015; Wang *et al.* 2024), earning it recognition as the “Global Museum of Flora and Fauna” and “World Gene Pool” (Wang *et al.* 2013). However, pyrochroid beetles remain scarcely observed in Mêdog. To date, only one species has been recorded: *Oblatopyrochroa bellula* Gao, Young & Z. Pan, 2024 (Gao *et al.* 2024a).

TABLE 1. Species diversity and main references for Chinese Pyrochroidae.

Subfamily	Genus	Species number	Main reference
Tydessinae Nikitsky, 1986	<i>Tydessa</i> Peacock, 1982	2	Li <i>et al.</i> (2015); Yoshitomi (2016)
Pedilinae Lacordaire, 1859	<i>Pedilus</i> Fischer von Waldheim, 1820	3	Telnov (2018); Young <i>et al.</i> (2020)
Pyrochroinae Latreille, 1806	<i>Dendroides</i> Latreille, 1810	2	Yang <i>et al.</i> (2025)
	<i>Eupyrochroa</i> Blair, 1914	1	Gao <i>et al.</i> (2024b)
	<i>Frontodendroidopsis</i> Young, 2004	2	Young (2017)
	<i>Hemidendroides</i> Ferrari, 1869	1	Young (2009)
	<i>Himalapyrochroa</i> Young, 2004	2	Gao <i>et al.</i> (2023)
	<i>Oblatopyrochroa</i> Gao, Young & Pan, 2024	1	Gao <i>et al.</i> (2024a)
	<i>Phyllocladus</i> Blair, 1914	5	Young (2013); Young <i>et al.</i> (2020)
	<i>Pseudodendroides</i> Blair, 1914	4	Gao <i>et al.</i> (2025)
	<i>Pseudopyrochroa</i> Pic, 1906	22	Young (2019); Young <i>et al.</i> (2020); Pan <i>et al.</i> (2021); Zhan <i>et al.</i> (2023)
	<i>Schizotus</i> Newman, 1838	2	Pan & Ren (2017)
Agnathinae Lacordaire, 1859	<i>Sinodendroides</i> Young, 2005	2	Young (2005a, 2015)
	<i>Agnathus</i> Germar, 1818	1	Jelínek & Kubáň (2009)

In recent years, the authors have collected multiple specimens of Pyrochroidae in Mêdog and conducted examinations of specimens deposited in various universities and institutes (see Material and methods). In this paper, the first checklist of Mêdog Pyrochroidae is presented including two subfamilies, three genera, and five species. *Agnathus secundus* Jelínek & Kubáň, 2009 and *Pseudopyrochroa antennalis* (Blair, 1912) are newly recorded for the county, and two additional new species of *Pseudopyrochroa* are described.

Material and methods

For this study, 33 adult Pyrochroidae were examined. The following abbreviations were used to in the text (acronyms of collections in alphabetical order): BMNH = The Natural History Museum, London, UK; CAU = Entomological Museum of China Agricultural University, Beijing, China; IJCO = Ivo Jeniš collection, Náklo u Olomouce, Czech Republic; JRCP = Jakub Rolčík collection, Praha, Czech Republic; MHBu = Museum of Hebei University, Baoding, China (MHBuA = the material preserved in alcohol 95%); MZSU = Biology Museum of Sun Yat-sen University, Guangzhou, China; NACRC = National Animal Collection Resource Center, Institute of Zoology, Chinese Academy of Sciences, Beijing, China; NMPC = National Museum, Prague, Czech Republic; SNUC = the Insect Collection of Shanghai Normal University, Shanghai, China.

The specimens were studied using a Nikon SMZ1500 and the images were taken using a Canon EOS 5D Mark III (Canon Inc., Tokyo, Japan) connected to a Laowa FF 100 mm F2.8 CA–Dreamer Macro 2× or Laowa FF 25 mm F2.8 Ultra Macro 2.5–5× (Anhui Changgeng Optics Technology Co., Ltd, Hefei, China). Figures of antennae were drawn by hand, using Nikon SMZ1500 with a camera lucida. Label data are presented verbatim. Metadata and notes (not printed on the labels themselves) are indicated in square brackets ([]). Line breaks on labels are denoted by a single slash (/).

The terms for male genitalia are based on those presented in Lawrence & Ślipiński (2013). Other morphological terms in the descriptions generally follow those in previous literature (e.g., Young 1975; Pan *et al.* 2021). The ocular index (OI) = 100 × minimum dorsal distance between compound eyes / maximal dorsal width across compound eyes (Campbell & Marshall 1964).

Taxonomy

SUBFAMILY AGNATHINAE LACORDAIRE, 1859

Chinese common name: 颞甲亚科

Agnathides Lacordaire 1859: 531. Type genus: *Agnathus* Germar, 1818.

Cononotini LeConte 1862: 256. Type genus: *Cononotus* LeConte, 1851.

Genus *Agnathus* Germar, 1818

Chinese common name: 颞甲属

Agnathus Germar 1818: 232. Type species: *Notoxus decoratus* Germar, 1818, by monotypy.

Distribution. Asia, Europe.

Agnathus secundus Jelínek & Kubáň, 2009

Chinese common name: 粗角颞甲

(Figs 1A, 2)

Agnathus secundus Jelínek & Kubáň 2009: 258 (Type locality: “Southwestern China, northeastern Yunnan, Habashan Mts., western of Haba village”. Type deposition: NMPC, IJCO, JRCP); Young *et al.* 2020: 569.

Material examined. 1 ex., Xizang, Nyingchi, Mêdog County Highway 63k, near Xirong Valley, 29.70964°N 95.58835°E, elev. 2749 m, 2019.VII.24, Yuan Xu & Run Zhou leg. (NACRC).

Distribution. China (Yunnan, Xizang). **New record for Xizang.**

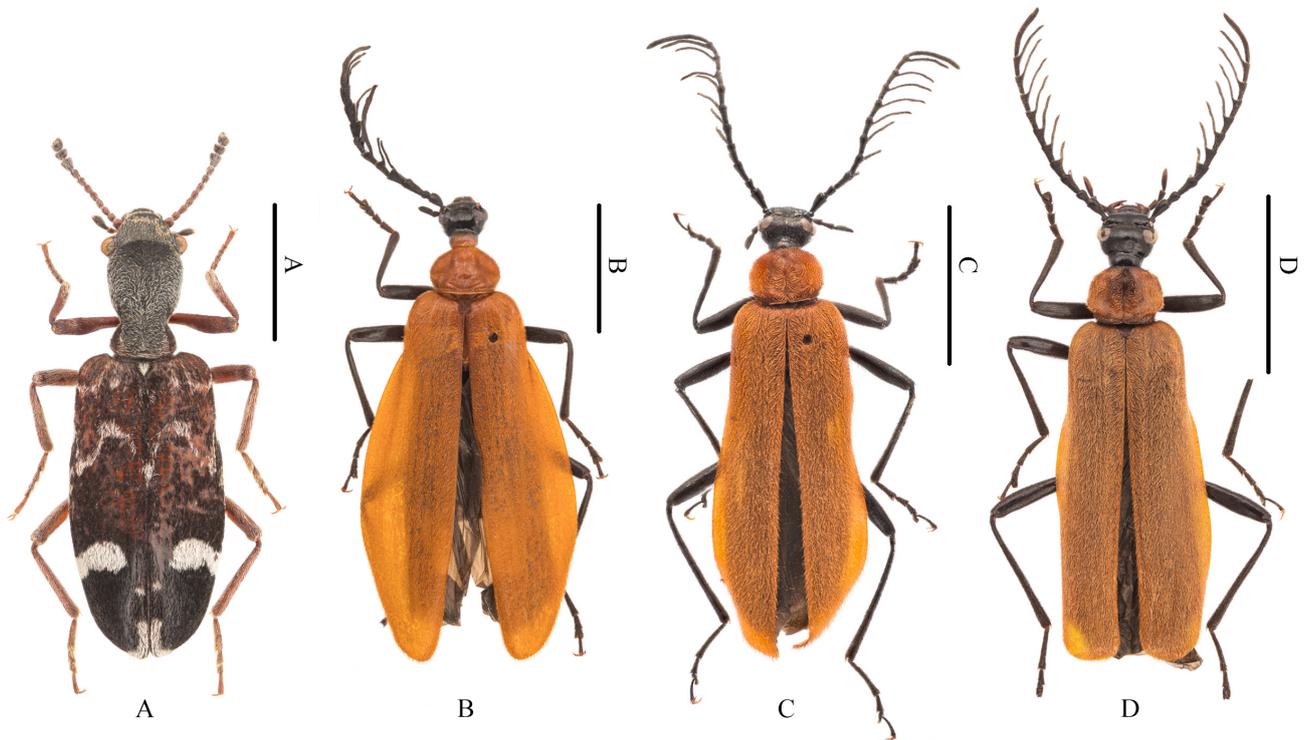


FIGURE 1. Habitus of Pyrochroidae from Mêdog, China, dorsal view. **A.** *Agnathus secundus* Jelínek & Kubáň. **B.** *Pseudopyrochroa antennalis* (Blair). **C.** *Pseudopyrochroa concava* Gao, Young & Z. Pan, **sp. nov.** **D.** *Pseudopyrochroa nyingchica* Gao, Young & Z. Pan, **sp. nov.** **A.** Female. **B–D.** Male. Scale bars: 2 mm (A); 5 mm (B–D).

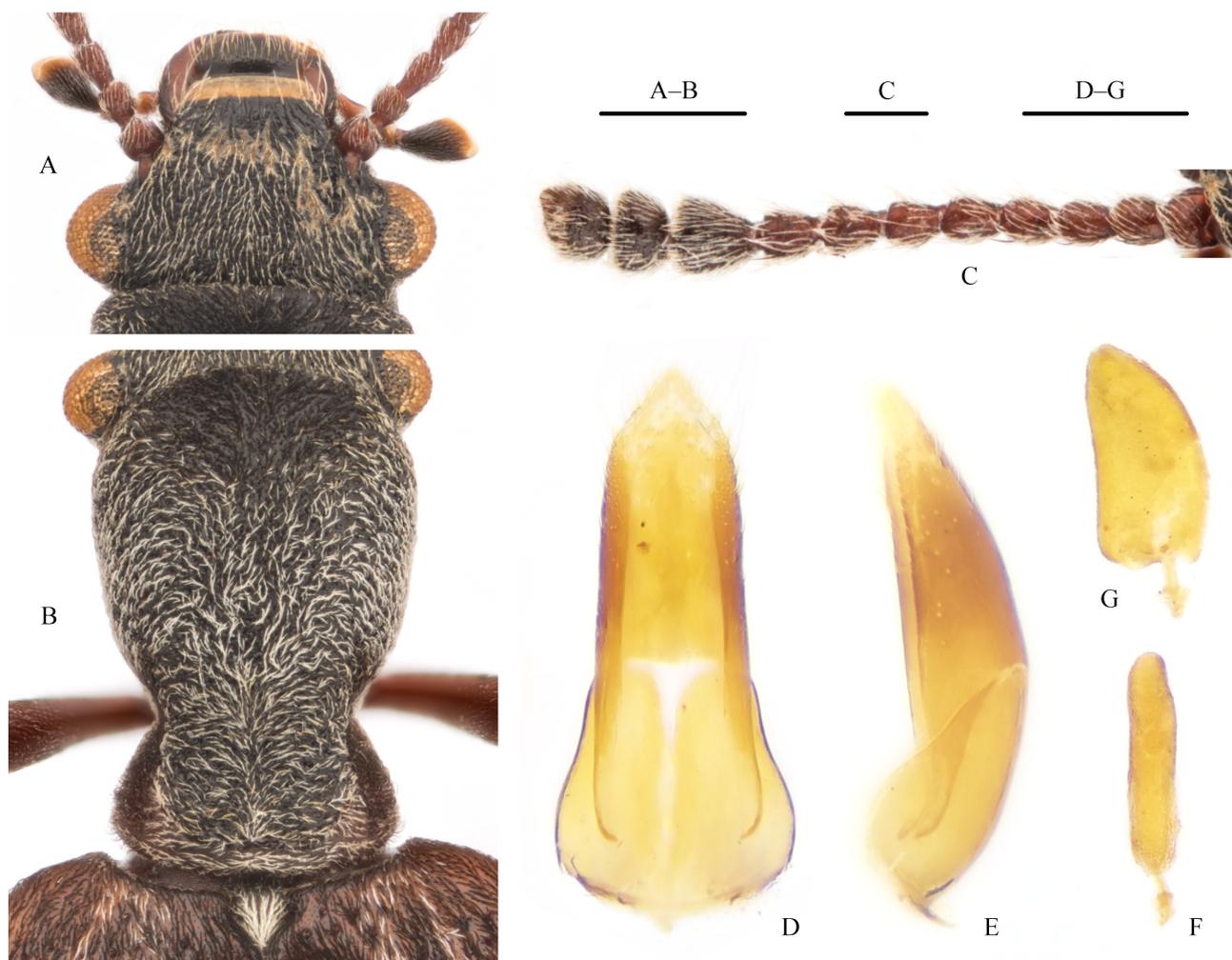


FIGURE 2. Morphological details of *Agnathus secundus* Jelínek & Kubáň. **A.** Head. **B.** Pronotum. **C.** Antenna. **D–E.** Tegmen, dorsal (D) and lateral view (E). **F–G.** Penis, dorsal (F) and lateral view (G). **A–C.** Female. **D–G.** Male. Scale bars: 0.5 mm (A–B); 0.2 mm (C–G).

SUBFAMILY PYROCHROINAE LATREILLE, 1806

Chinese common name: 赤翅甲亚科

Pyrochroides Latreille 1806: 199. Type genus: *Pyrochroa* Geoffroy, 1762.

Anthomanisidae Gistel 1848: [11]. Type genus: *Anthomanes* Gistel, 1848 (= *Pyrochroa* Geoffroy, 1762).

Genus *Oblatopyrochroa* Gao, Young & Z. Pan, 2024

Chinese common name: 凹赤翅甲属

Oblatopyrochroa Gao *et al.* 2024a: 370. Type species: *Oblatopyrochroa bellula* Gao, Young & Z. Pan, 2024, by monotypy and original designation.

Distribution. China (SE Xizang).

Oblatopyrochroa bellula Gao, Young & Z. Pan, 2024

Chinese common name: 秀凹赤翅甲

(fig. 1 in Gao *et al.* 2024a)

Oblatopyrochroa bellula Gao *et al.* 2024a: 372 (Type locality: China, Xizang, Mêdog. Type deposition: MHBU).

Material examined. Holotype: ♂, China, Xizang, Pai Town–Mêdog County Highway 42 km, 29.358986°N 95.134955°E, elev. 1991 m, 2023.V.16, Quan-Yu Ji leg. (MHBU).

Distribution. China (Xizang).

Genus *Pseudopyrochroa* Pic, 1906

Chinese common name: 伪赤翅甲属

Pseudopyrochroa Pic 1906: 28. Type species: *Pseudopyrochroa deplanata* Pic, 1906, by subsequent designation (Blair 1914: 318).

Pyrochromima Pic 1955: 13. Type species: *Pyrochromima dentaticollis* Pic, 1955, by monotypy and original designation (= *Pseudopyrochroa melanocephala* Blair, 1912; Young 1996: 216).

Distribution. Asia.

Pseudopyrochroa antennalis (Blair, 1912)

Chinese common name: 扁角伪赤翅甲

(Figs 1B, 3)

Pyrochroa antennalis Blair 1912: 528 (Type locality: Myanmar. Type deposition: BMNH).

Pseudopyrochroa antennalis: Blair 1914: 319; Young 2019: 187 (key); Young *et al.* 2020: 567.

Material examined. 1♂, Xizang, Mêdog, 80K, 30.0968N 95.4898E, elev. 2111 m, 2010.VI.20, Zhao-Hui Pan leg., STS–15363 (MHBU).

Diagnosis. This species is easily distinguished from other *Pseudopyrochroa* species by the lamellate rami of the flagellomeres (Fig. 3B). In fact, Blair (1914: 323) remarked, “... similar in its antennal structure, as well as colour and general facies, to *Phyllocladus magnificus*, Blr., but the structure of the head and distance apart of the eyes preclude its inclusion in the same genus”.

Other main characters of *P. antennalis* are as follows: Body black, except posterior portion of cranial neck, pronotum, and elytra reddish testaceous (Fig. 1B); head with a pair of shallow depressions between compound eyes, not completely divided by frontal ridge (Fig. 3A); antennal pedicel short, approximately 0.5× length of scape (Fig. 3B); pronotum transversely ovate, width approximately 1.3× length, widest across middle (Fig. 3C); parameres fused along approximately basal 16/17 of length, with a pair of dorsal hooks apically and a pair of more robust, dorsolateral hooks subapically (Fig. 3D, E); penis widest near mid-length, gradually narrowed apically, with a bluntly recurved apical hook (Fig. 3F, G).

Distribution. China (Yunnan, Xizang); India, Laos, Myanmar. **New record for Xizang.**

Remarks. As noted above, the lamellate rami of the flagellomeres in the male are strikingly similar to those of males in the genus *Phyllocladus* Blair, 1914 (Blair 1914; Young 2005b). However, the male characters of the head, pronotum, and parameres clearly place *P. antennalis* in the genus *Pseudopyrochroa* (Young 2013; Gao *et al.* 2024a).

Pseudopyrochroa concava Gao, Young & Z. Pan, sp. nov.

Chinese common name: 凹头伪赤翅甲

(Figs 1C, 4)

Type material. HOLOTYPE: CHINA: ♂, “2019.VII.25 / 西藏林芝市墨脱公路62k拉姆措旅馆 [Xizang, Nyingchi City, Mêdog Highway 62k, Lamu Co Inn] / 徐源, 周润采 [Yuan Xu & Run Zhou leg.]”, “29.69705°N / 95.55580°E / 2678 m”, “IOZ(E)2445494”, “HOLOTYPE / *Pseudopyrochroa* / *concava* sp. nov. / Det. Gao, Young & Pan” (NACRC). PARATYPES (13 exx.): CHINA: 1♂1♀, same label as the holotype (NACRC); 5♀♀, “2019.

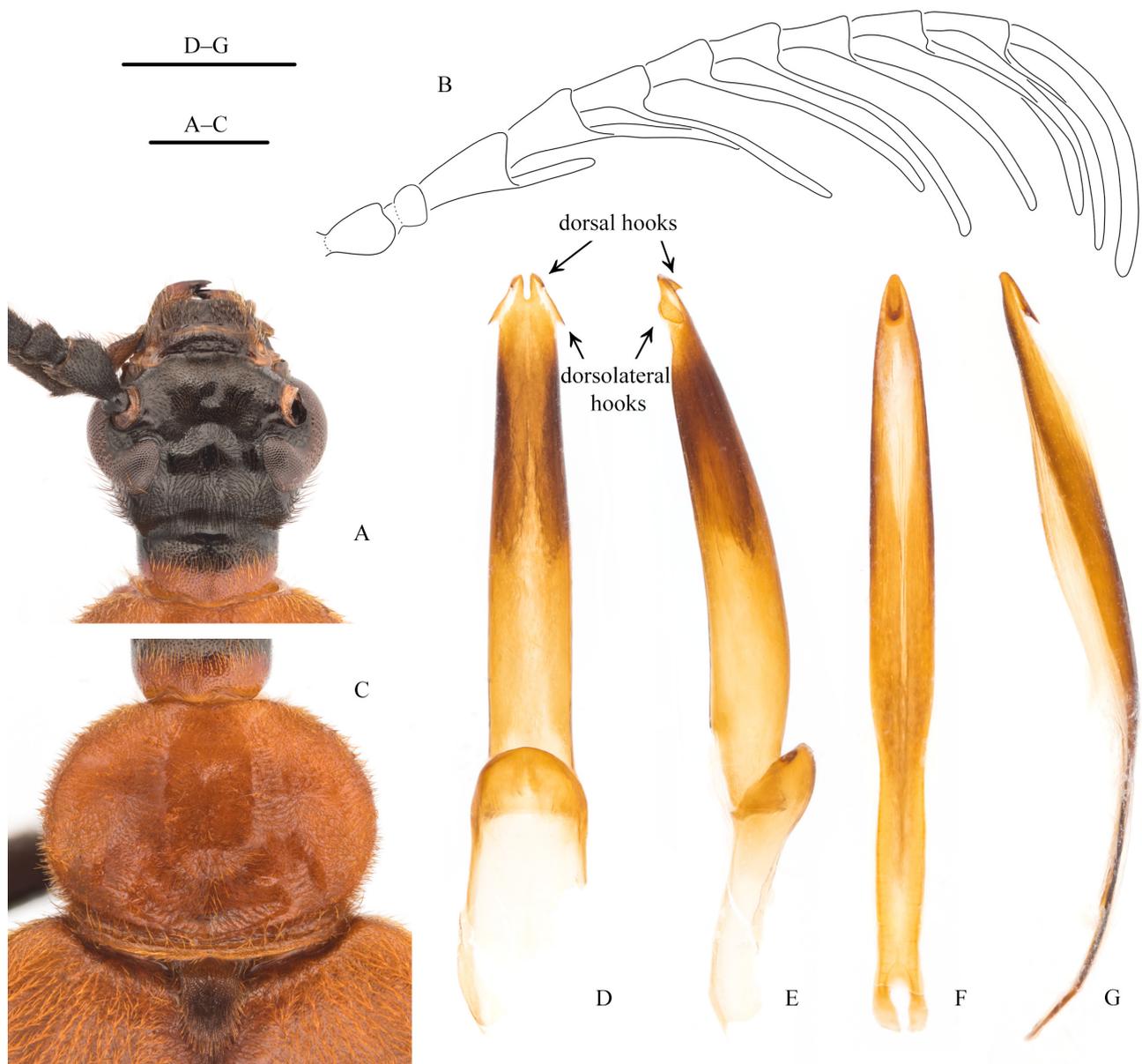


FIGURE 3. Morphological details of *Pseudopyrochroa antennalis* (Blair), male. **A.** Head. **B.** Antenna. **C.** Pronotum. **D–E.** Tegmen, dorsal (D) and lateral view (E). **F–G.** Penis, dorsal (F) and lateral view (G). Scale bars: 1 mm.

VII.24 / 西藏林芝市墨脱公路62k喜荣沟附近 [Xizang, Nyingchi City, Mêdog County Highway 62k, near Xirong Valley] / 马苗, 江静文采 [Miao Ma & Jing-Wen Jiang leg.], “N29.70964° / E95.58835° / 2749 m” (NACRC); 1♂, “2019.IV.25 / 西藏巴宜排龙 [Xizang, Bayi, Pailong] / 潘朝晖 [Zhao-Hui Pan leg.] / 西藏农牧学院 [Tibet Agricultural and Animal Husbandry University]”, “30.0313N / 95.0043E / elev. 2031 m / 西藏农牧学院 [Tibet Agricultural and Animal Husbandry University]”, “STS-15378” (MHBU); 1♂1♀, “2024.VII.23. 西藏察隅桑久村 [Xizang, Zayü, Sangjiu Village], 28.783276°N / 97.525311°E, elev. 2961 m. 王少鹏采 [Shao-Peng Wang leg.] / 河北大学博物馆 [Museum of Hebei University]”, “P4H10” or “P4I1” (MHBuA); 1♂, “2024.VII.28. 西藏察隅上察隅镇G219国 / 道 [Xizang, Zayü, Shangzayü, National highway G219], elev. 3000 m. 常全康采 [Quan-Kang Chang leg.] / 河北大学博物馆 [Museum of Hebei University]”, “P4I3” (MHBuA); 2♀♀, “2024.VII.28. 西藏察隅上察隅镇桑巴亚 / 中村 [Xizang, Zayü, Shangzayü, Sangbayazhong Village], 29.037523°N 96.888705°E, elev. / 3018 m. 王少鹏采 [Shao-Peng Wang leg.] / 河北大学博物馆 [Museum of Hebei University]”, “P4I4” or “P4I5” (MHBuA). All paratypes with the label “PARATYPE / *Pseudopyrochroa* / *conca* sp. nov. / Det. Gao, Young & Pan”.

Comparative diagnosis. This new species is distinguished from other *Pseudopyrochroa* species by the combination of the following male characters: head with a pair of transverse cranial pits between compound eyes and a pair of deep concavities on occiput (Fig. 4A); genae prominent (Fig. 4A); flagellomeres I–VIII each with a single cylindrical ramus (Fig. 4C); pronotum approximately 1.3× wider than long (Fig. 4E); parameres approximately 1.5× longer than phallobase, narrowing abruptly at apex, narrowly and acuminate separated apically, without dorsal recurved apical hooks, dorsolateral hooks inconspicuous (Fig. 4F, G); apical hook of penis very small, inconspicuous (Fig. 4I).

Description. Body length: 13.0–17.2 mm; humeral width: 3.3–4.8 mm.

Male. Body (Fig. 1C) black, except pronotum, scutellar shield, and elytra orange yellow; sub-apices of mandibles and pretarsal claws reddish brown. Body densely covered with semi-erect yellowish-brown setae; pronotum and elytra with orange-yellow setae.

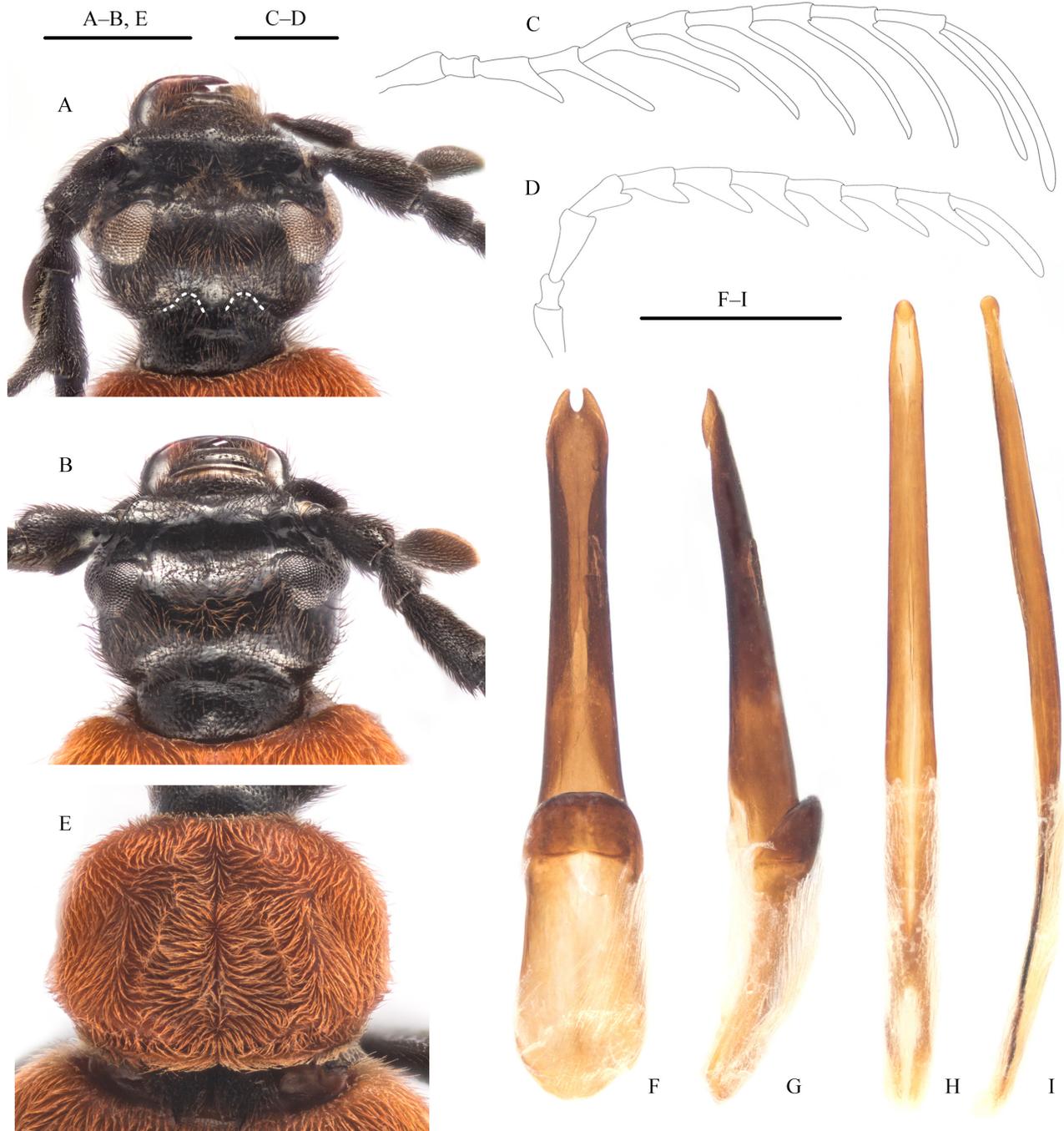


FIGURE 4. Morphological details of *Pseudopyrochroa concava* Gao, Young & Z. Pan, **sp. nov.** **A–B.** Head (concavities outlined by white dashed lines). **C–D.** Antenna. **E.** Pronotum. **F–G.** Tegmen, dorsal (F) and lateral view (G). **H–I.** Penis, dorsal (H) and lateral view (I). **A, C, E–I.** Male. **B, D.** Female. Scale bars: 1 mm.

Head (Fig. 4A) widest across compound eyes, with moderately sparse, small punctures, diameter of punctures less than space between punctures. Compound eyes small and slightly convex, dorsal distance between eyes wide (OI = 45.7). Labrum with anterior margin slightly emarginate. Interocular cranial pits of frons paired, transverse, and deep, incompletely separated by a low, mesal, longitudinal ridge; vertex slightly convex; genae prominent; occiput with two deep concavities. Antennae (Fig. 4C) long, extending back to near midlength of elytra; scape slightly and gradually widened apically; pedicel shortest, approximately 0.5× length of scape, somewhat widened distally; flagellum delicately pectinate; flagellomeres I–III subequal in length, flagellomeres IV–VIII subequal in length and slightly longer than each of I–III, flagellomere IX longest, approximately as long as preceding three flagellomeres combined and usually 15.0–16.5× longer than wide; rami of flagellomeres I–VIII pronounced and elongated; ramus of flagellomere I approximately 0.8× length of flagellomere I; rami of flagellomeres I–IV with gradually increasing lengths, rami of flagellomeres IV–VIII subequal in length.

Pronotum (Fig. 4E) transversely elliptical, widest behind middle and slightly wider than head, width approximately 1.3× length; with dense small punctures; disc with one shallow longitudinal mesal furrow and one transverse furrow along basal margin, with one sub-rounded depression on each lateral side, one small mesal depression at anterior portion, and one large, subtriangular mesal depression in posterior portion. Scutellar shield rounded posteriorly, with dense small punctures. Legs slender; prothoracic tarsomere V longest, followed by I; mesothoracic tarsomeres I and V subequal in length; metathoracic tarsomere I longest, followed by IV; pretarsal claws simple.

Abdominal sternites III–VI with posterior margins subparallel; posterior margin of sternite VII broadly emarginate mesally, posterior margin of sternite VIII deeply and acutely emarginate mesally. Parameres (Fig. 4F, G) elongate, approximately 1.5× longer than phallobase, abruptly narrowing apically in dorsal view; parameres fused along basal 0.95, abruptly, acuminate separated apically; apices without dorsal recurved hooks and with inconspicuous dorsolateral hooks. Penis (Fig. 4H–I) distinctly longer than tegmen, somewhat dorsoventrally flattened, apically produced into a small dorsal hook, almost fused with penis, apex nodular.

Female. Similar to male, except as follows: Frons with only one transverse depression, shallower than male (Fig. 4B); occipital concavities inconspicuous (Fig. 4B); compound eyes smaller than those of male, dorsal distance between eyes wider than male (OI = 52.9); antennae (Fig. 4D) shorter and flagellum less conspicuously pectinate than male, flagellomere IX approximately as long as preceding two flagellomeres, and 7.5–8.5× longer than wide; flagellomere I with ramus very small, ramus of each flagellomere distinctly shorter than those of male and shorter than preceding flagellomere; posterior margins of sternites VII–VIII almost straight.

Etymology. The specific epithet comes from the Latin adjective “*concava*” meaning “concave”, in reference to the characteristic of the occiput of this species in the male, bearing two concavities.

Distribution. SW China (Xizang).

Pseudopyrochroa nyingchica Gao, Young & Z. Pan, sp. nov.

Chinese common name: 林芝伪赤翅甲
(Figs 1D, 5)

Type material. HOLOTYPE: CHINA: ♂, “2023.V.16 / 西藏派墨公路42km [Xizang, Pai Town-Mêdog County Highway 42 km] / 白兴龙, 季权宇, 刘凯璇, 赵伟 [Xing-Long Bai, Quan-Yu Ji, Kai-Xuan Liu & Wei Zhao leg.] / 河北大学博物馆 [Museum of Hebei University]”, “29.358986°N / 95.134955°E / Elev. 1991 m / 河北大学博物馆 [Museum of Hebei University]”, “HOLOTYPE / *Pseudopyrochroa nyingchica* sp. nov. / Det. Gao, Young & Pan” (MHBU). **PARATYPES** (15 exx.): CHINA: 1♀, “2012.VII.21 / 西藏墨脱80K [Xizang, Mêdog, 80K] / 潘朝晖 [Zhao-Hui Pan leg.] / 西藏农牧学院 [Tibet Agricultural and Animal Husbandry University]”, “30.0968N / 95.8155E / elev. 2111 m / 西藏农牧学院 [Tibet Agricultural and Animal Husbandry University]”, “STS-15375” (MHBU); 1♀, “2012.VII.23 / 西藏墨脱80K [Xizang, Mêdog, 80K] / 潘朝晖 [Zhao-Hui Pan leg.] / 西藏农牧学院 [Tibet Agricultural and Animal Husbandry University]”, “30.0968N / 95.8155E / elev. 2111 m / 西藏农牧学院 [Tibet Agricultural and Animal Husbandry University]”, “STS-15368” (MHBU); 1♂, “2023.V.14 / 西藏墨脱格当乡 [Xizang, Mêdog County, Gutang Township] / 白兴龙, 季权宇, 刘凯璇, 赵伟 [Xing-Long Bai, Quan-Yu Ji, Kai-Xuan Liu & Wei Zhao leg.] / 河北大学博物馆 [Museum of Hebei University]”, “29.444465°N / 96.695211°E / Elev. 1916 m / 河北大学博物馆 [Museum of Hebei University]” (MHBU); 2♂♂1♀, “2018.VII.6 / 西藏林芝地区波密县岗堆村 [Xizang, Nyingchi, Bomê County, Gangdui Village] / 梁祖龙, 王式帅 [Zu-Long Liang & Shi-

Shuai Wang leg.]”, “N29°52’25” / E95°42’14” / elev. 2642 m” (MZSU); 2♂♂, “北京农业大学植保系 [Beijing Agricultural University, Department of Plant Protection] / 西藏波密结达 [Xizang, Bomê, Jieda] / 1978-VII-17 / 李法圣 [Fa-Sheng Li leg.] 3050 m” (CAU); 1♂, “北京农业大学植保系 [Beijing Agricultural University, Department of Plant Protection] / 西藏易贡 [Xizang, Bomê, Yi’ong] / 2300公尺 [elev. 2300 m] / 李法圣 [Fa-Sheng Li leg.] 1978-VII-29” (CAU); 1♀, “北京农业大学植保系 [Beijing Agricultural University, Department of Plant Protection] / 西藏易贡 [Xizang, Bomê, Yi’ong] / 2300公尺 [elev. 2300 m] / 李法圣 [Fa-Sheng Li leg.] 1978-VII-31” (CAU); 1♀, “2017.VII.20 / 西藏林芝排龙天险 [Xizang, Nyingchi, Pailong Natural Barrier] / elev. 2000 m. 潘朝晖 [Zhao-Hui Pan leg.] / 西藏农牧学院 [Tibet Agricultural and Animal Husbandry University]”, “STS-15372” (MHBu); 1♀, “CHINA: Xizang, Nyingchi City, / Pailong County, 30°0’34.71”N / 94°57’57.64”E, 2100 m, 2019. / vii.17, leaf litter, Z.-W. Yin leg. / [西藏林芝排龙318国道老路]” (SNUC); 1♀, “2023.VII.16. 西藏林芝318国道-鲁朗 [Xizang, Nyingchi, National Highway G318-Lu’ang Town], / 29.8729621°N 94.776488°E, elev. / 2880 m. 吕亮采 [Liang Lü leg.] / 河北大学博物馆 [Museum of Hebei University]”, “P3A6” (MHBu); 2♂♂, “2016.VII.3 / 西藏察隅慈巴沟 [Xizang, Zayü, Ciba Valley] / 潘朝晖 [Zhao-Hui Pan leg.] / 西藏农牧学院 [Tibet Agricultural and Animal Husbandry University]”, “28.5667N / 96.8667E / elev. 1500 m / 西藏农牧学院 [Tibet Agricultural and Animal Husbandry University]”, “STS-15371” or “STS-15374” (MHBu). All paratypes with the label “PARATYPE / *Pseudopyrochroa* / *nyingchica* sp. nov. / Det. Gao, Young & Pan”.

Comparative diagnosis. This new species is morphologically similar to *P. concava* Gao, Young & Z. Pan, **sp. nov.**, but can be distinguished by its occipital area lacking concavities, rami of flagellomeres relatively shorter, pronotum slightly wider, parameres gradually narrowed to apex, abruptly separated apically, and recurved apical hook of penis distinct.

Description. Body length: 11.9–14.4 mm; humeral width: 3.1–3.7 mm.

Male. Body (Fig. 1D) black, except pronotum, scutellar shield, and elytra orange yellow; sub-apices of mandibles and pretarsal claws reddish brown. Body densely covered with semi-erect yellowish-brown setae; pronotum and elytra with orange-yellow setae.

Head (Fig. 5A) widest across compound eyes, with sparse small punctures, diameter of punctures distinctly less than spacing between punctures. Compound eyes small and slightly convex, dorsal distance between eyes wide (OI = 45.2–53.0). Labrum with anterior margin slightly emarginate. Interocular cranial pits on frons paired, transverse, subrectangular and deep, separated by a low longitudinal ridge; vertex slightly convex; genae prominent; occiput rounded. Antennae (Fig. 5C) long, extending back to basal 2/5 of elytra; scape distinctly and gradually widened distally; pedicel shortest, approximately 0.5× length of scape, slightly widened apically; flagellum pectinate; flagellomere I slightly longer than flagellomere II, flagellomeres II–VIII subequal in length, flagellomere IX longest, approximately as long as preceding three flagellomeres and usually 13.5–14.5× longer than wide; rami of flagellomeres I–VIII pronounced and elongate; ramus of flagellomere I approximately 2/3 length of flagellomere I; rami of flagellomeres I–VIII gradually increasing in length.

Pronotum (Fig. 5E) transversely rectangular, widest behind middle and slightly wider than head, width 1.4–1.5× length; with dense small punctures; disc with one shallow longitudinal mesal furrow and one transverse furrow along basal margin, with one sub-rounded depression on each lateral side, one small mesal depression near anterior margin, and one large, subtriangular mesal depression in posterior portion. Scutellar shield rounded posteriorly, with dense small punctures. Legs slender; prothoracic tarsomere V longest, followed by I; mesothoracic tarsomeres I and V subequal in length; metathoracic tarsomere I longest, followed by IV; pretarsal claws simple.

Abdominal sternites III–VI with posterior margins subparallel; posterior margin of sternite VII broadly emarginate mesally, posterior margin of sternite VIII deeply and acutely emarginate mesally. Parameres (Fig. 5F, G) elongate, approximately 1.5× longer than phallobase, gradually narrowed to apex in dorsal view; parameres fused along basal 0.96; apices without dorsal recurved hooks and with inconspicuous dorsolateral hooks. Penis (Fig. 5H–I) slightly longer than tegmen, somewhat dorsoventrally flattened, apically produced into a short, recurved dorsal hook.

Female. Similar to male, except as follows: frons with a transverse, shallow interocular depression (Fig. 5B); compound eyes slightly smaller than those of male (OI = 46.2–57.6); antennae (Fig. 5D) slightly shorter than those of male, extending back to basal third of elytra; flagellum short, pectinate, flagellomere IX approximately as long as preceding two flagellomeres, and 6.0–7.1× longer than wide; flagellomere I with ramus very short, only slightly prominent apically, ramus of each flagellomere distinctly shorter than those of male; posterior margins of sternites VII–VIII almost straight.

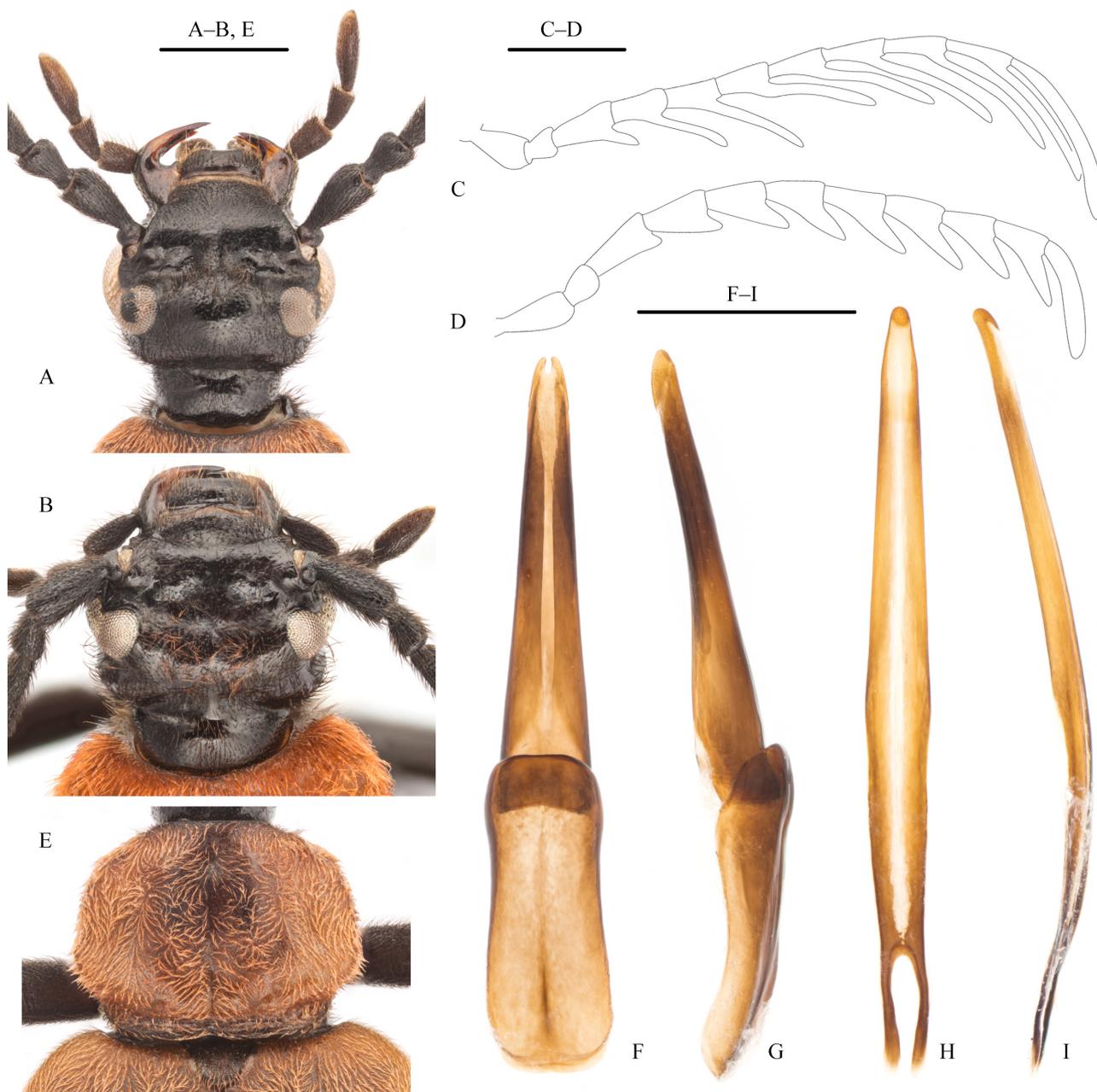


FIGURE 5. Morphological details of *Pseudopyrochroa nyingchica* Gao, Young & Z. Pan, **sp. nov.** **A–B.** Head. **C–D.** Antenna. **E.** Pronotum. **F–G.** Tegmen, dorsal (F) and lateral view (G). **H–I.** Penis, dorsal (H) and lateral view (I). **A, C, E–I.** Male. **B, D.** Female. Scale bars: 1 mm.

Etymology. Toponymic. The specific name is derived from the name of the type locality, Nyingchi City (Xizang, China).

Distribution. SW China (Xizang).

Key to adult Pyrochroidae of Mêdog County, China

1. Elytra brown to black (Fig. 1A); pronotum distinctly longer than wide (Fig. 2B); antennae sub-moniliform, apical 3 antennomeres widened (Fig. 2C); prothoracic coxal cavities externally and internally closed; penultimate tarsomeres sub-cylindrical; abdominal sternites III and IV connate *Agnathus secundus* Jelínek & Kubáň, 2009
- Elytra generally orange to red (Fig. 1B–D); pronotum approximately as long as wide or distinctly wider than long (fig. 1C in Gao *et al.* 2024a; Figs 3C, 4E, 5E); antennae serrate or pectinate (fig. 1D in Gao *et al.* 2024a; Figs 3B, 4C, D, 5C, D);

- prothoracic coxal cavities externally and internally open; penultimate tarsomeres bilobed; abdominal sternites III and IV freely articulated 2
2. Frons with a single, large, transverse concavity between compound eyes in male (fig. 1B in Gao *et al.* 2024a); pedicel long, approximately 0.8× length of scape (fig. 1D in Gao *et al.* 2024a); pronotum approximately as long as wide (fig. 1C in Gao *et al.* 2024a); parameres fused along approximately basal 2/3 (fig. 1F in Gao *et al.* 2024a) ***Oblatopyrochroa bellula* Gao, Young & Z. Pan, 2024**
- Frons with two cranial pits in male that may be confluent mesally (Figs 3A, 4A, 5A); pedicel short, at most half length of scape (Figs 3B, 4C, D, 5C, D); pronotum slightly wider than long (Figs 3C, 4E, 5E); parameres fused for most of their length (Figs 3D, 4F, 5F) 3
3. Rami of flagellomeres lamellate in male (Fig. 3B); parameres with two pairs of apical, recurved hooks: a dorsal pair and a more robust dorsolateral pair (Fig. 3D, E) ***Pseudopyrochroa antennalis* (Blair, 1912)**
- Rami of flagellomeres cylindrical, not flattened in male (Figs 4C, 5C); parameres with inconspicuous dorsolateral hooks and lacking dorsal hooks (Figs 4F, G, 5F, G) 4
4. Occiput with a pair of distinct concavities in male (Fig. 4A); antennae extending back to near middle of elytra in male (Fig. 1C); pronotum transversely ovate, approximately 1.3× as wide as long (Fig. 4E); parameres abruptly narrowed and separated subapically (Fig. 4F) ***Pseudopyrochroa concava* Gao, Young & Z. Pan, sp. nov.**
- Occiput of male without concavities (Fig. 5A); antennae shorter, extending back to near 2/5 of elytra in male (Fig. 1D); pronotum transversely rectangular, slightly wider, 1.4–1.5× as wide as long (Fig. 5E); parameres gradually narrowed to apex, narrowly, acuminate separated apically (Fig. 5F) ***Pseudopyrochroa nyingchica* Gao, Young & Z. Pan, sp. nov.**

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墨脱赤翅甲科分类及二新种记述 (鞘翅目: 拟步甲总科)

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摘要: 赤翅甲科昆虫遍布于除南极大陆外的世界各大动物地理区域。本文对西藏墨脱县境内该科昆虫进行了系统性调查与总结, 共记录2亚科3属5种。其中, 发现并描述伪赤翅甲属 *Pseudopyrochroa* 两新种, 即凹头伪赤翅甲 *P. concava* **sp. nov.** 和林芝伪赤翅甲 *P. nyingchica* **sp. nov.**; 此外, 粗角颞甲 *Agnathus secundus* 和扁甲伪赤翅甲 *Pseudopyrochroa antennalis* 为墨脱新记录种; 提供了上述四个物种整体照及特征图示, 并附有墨脱地区所有物种的检索表。

关键词: 赤翅甲; 分类; 区系; 新种; 检索表; 西藏