New provincial records of Parasitic Flat Bark Beetles (Coleoptera: Passandridae) from Laos with descriptions of the previously unknown sexes of the dimorphic Ancistria cornuta and A. pilosa

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New provincial records of Parasitic Flat Bark Beetles (Coleoptera: Passandridae) from Laos with descriptions of the previously unknown sexes of the dimorphic *Ancistria cornuta* and *A. pilosa*

by Daniel Burckhardt & Isabelle Zürcher

Abstract. New distributional records of five species of Parasitic Flat Bark Beetles (Passandridae) are given from following five provinces in Laos: Attapeu, Bokeo, Champasak, Luang Namtha and Savannakhet. The previously unknown female of *Ancistria cornuta* Burckhardt et Ślipiński and the male of *A. pilosa* Burckhardt et Ślipiński are described. Both species are sexually dimorphic.

Key words. *Ancistria* – taxonomy – distribution – sexual dimorphism

Introduction

The fauna of the small family of Parasitic Flat Bark Beetles or passandrids from Laos was treated by BURCKHARDT & ZÜRCHER (2013) who listed 18 named and one unnamed species. Recently additional specimens became available from previously unexplored areas in Laos. Here we provide for the first time records from following five provinces: Attapeu, Bokeo, Champasak, Luang Namtha and Savannakhet.

Sexual dimorphism is present in many passandrids and particularly well developed in the Old World genus *Ancistria* Erichson. Sexually dimorphic structures on the head and/or elytra were reported from 9 of 15 species where both sexes are known (BURCKHARDT & ŚLIPIŃSKI 1995, 2003, BURCKHARDT & ZÜRCHER 2013*)*. The remaining 20 of the 35 currently recognised and named *Ancistria* species are known from one sex only (8 spp. from males, 12 spp. from females). Based on the presence of the strongly excavated head in the males of *A. foraminifrons* Burckhardt et Ślipiński and *A. tenera* Günther of the latter group, BURCKHARDT & ZÜRCHER (2013) postulated that the unknown females of the two species would lack the excavation on the head and, hence, the species display sexual dimorphism. The two authors also briefly mentioned morphological differences between the two sexes in *A. cornuta* Burckhardt et Ślipiński and *A. pilosa* Burckhardt et Ślipiński but did not describe these in detail.

The present note lists the new distributional records and describes the previously unknown female and male of *A. cornuta* and *A. pilosa*, respectively.

Material and Methods

The material from Laos listed here alphabetically is deposited in the Naturhistorisches Museum Basel, Switzerland (NHMB). Information on distribution and synonymy can be found in BURCKHARDT & ŚLIPIŃSKI (1995, 2003), BURCKHARDT (1996) and BURCKHARDT & ZÜRCHER (2013*)*.

The morphological terminology and protocol for taking the measurements follows BURCKHARDT & ŚLIPIŃSKI (1995).

New records

***Ancistria pilosa* Burckhardt et Ślipiński, 1995.** Laos: 1 ♂, Attapeu province, Thonk Kai Ohk, Ban Kanchung (Mai) env., 15°01–02′N 107°26–27′E, 1200–1450 m, 10–24.vi.2011 (M. Brancucci, M. Geiser, D. Hauck, Z. Kraus, A. Phantala & E. Vonghachan).

***Ancistria retusa* (Fabricius, 1801).** Laos: 1 ♂, Bokeo province, 5 km W Ban Toup, Bokeo Nature Reserve, 20°27–28′N 100°45′E, 500–700 m, 4–18.v.2011 (M. Brancucci, M. Geiser, D. Hauck, Z. Kraus, A. Phantala & E. Vonghachan).

***Passandra harmandi* (Grouvelle, 1887).** Laos: 2 ♂, Savannakhet province, Ban Pa Phaknau vill, 17°01′N 105°39′E, 180 m, 30–31.v., 6.vi.2011 (M. Brancucci, M. Geiser, D. Hauck, Z. Kraus, A. Phantala & E. Vonghachan); 1 ♀, Louang Namtha province, 10 km E Muang Sing, Ban Oudomsinh, B. Nam Det/B. Nam Mai, 21°09–10′N 101°13–15′E, 750–1400 m, 14–20.v.2011 (D. Hauck & M. Geiser); 2 ♀ Attapeu province, Ban Pa-am env., 14°56′N 107°03′E, 150 m, 31.5.2010 (M. Geiser & D.Hauck).

***Passandra heros* (Fabricius, 1801).** Laos: 3 ♀, Champasak province, Ban Nong Panouan env., Ban Oudomsinh, 15°02′N106°31–34′E, 770–800 m, 10–17.vi.2010 (M. Geiser & D. Hauck); 1 ♂, Loung Namtha province, 10 km E Muang Sing, B. Nam Det/B. Nam Mai, 21°09–10′N101°13–15′E, 750–1400 m, 14–20.v.2011 (D. Hauck & M. Geiser); 14 ♂♀, Bokeo province, 5 km W Ban Toup, Bokeo Nature Reserve, 20°27–28′N 100°45′E, 500–700 m, 4–18.v.2011 (M. Brancucci, M. Geiser, D. Hauck, Z. Kraus, A. Phantala & E. Vonghachan).

***Passandra tenuicornis* (Grouvelle, 1913).** Laos: 1 ♀, Champasak Province, Ban Nam Touad environment, near Xe Katamtok, 15°06′N 106°35–38′E, 500–800 m, 8–10.vi.2010, village, agricultural land, secondary and degraded primary forest, hand collecting beating, light trapping (M. Geiser & D. Hauck).

Taxonomy

Ancistria cornuta Burckhardt et Ślipiński, 1995 Figs 1–8

Material examined. Laos: 1 ♂, 1 ♀, Xieng Khouang province, 30 km NE Phonsavan, Ban Na Lam → Phou Sane Mountain, 19°37–38′N 103°20–21′E, 1300–1700 m, 10–30.v.2009 (M. Geiser).

Description ♀ (Fig. 1). Length 7.9 mm. Dark brown to black; surface mostly mat. Head (Fig. 2) 1.1 times as long as wide, moderately punctate; median line impressed except for base; admedian lines long, impressed, weakly curved; admedian lobes narrowly triangular; lateral frontal processes broadly careniform, flattened dorsally, their joint width 1.3 times that of frontoclypeal depression which bears a pointed tubercle in the middle. Eye large, temple width/eye diameter ratio as 0.5. Antenna (Fig. 4) with segment 1 bearing 2 shallow dorsal grooves; segment 2 subglobular; segment 3 clavate; segments 4–6 asymmetrically widening towards apex, gradually enlarged from segment 4 to 6; segments 7–11 flattened, forming an indistinct club; segment 11 slightly longer than wide. Pronotum 1.5 times as long as wide, distinctly bordered at base, strongly widening in basal half, with subparallel margins in apical half; punctation slightly coarser than on head. Mesotibia 1.4 times as long as first tarsomere of mid-leg. Elytra 3.1 times as long as joint width, 2.2 times as long as pronotum; costa 3 forming a strongly raised, oblique ridge subapically; intervals getting gradually longer from 3 to 6; costa 7 strongly raised apically; apex with V-shaped incision at suture, without sutural tooth (Fig. 8). Ostium bursae as in Fig. 5; spermatheca as in Fig. 6.

Sexually dimorphic structures. In *A. cornuta* sexual dimorphism is found on the head and the elytral apex. The frontoclypeal depression of the males bears a small horn in the

middle (Fig. 2), that of the females, however, only a pointed tubercle (Fig. 3). The elytra of males have the apical portion of costae 3 and 7 slightly swollen (Fig. 7), in those of the females costae 3 and 7 form ridges apically (Fig. 8).

Ancistria pilosa Burckhardt et Ślipiński, 1995 Figs 9–15

Material examined. Laos: 1 ♂, Attapeu province, Thonk Kai Ohk, Ban Kanchung (Mai) env., 15°01–02′N 107°26–27′E, 1200–1450 m, 10–24.vi.2011 (M. Brancucci, M. Geiser, D. Hauck, Z. Kraus, A. Phantala & E. Vonghachan); 1 ♂, Xieng Khouang province, 30 km NE Phonsavan, Ban Na Lam → Phou Sane Mountain, 19°37–38′N 103°20–21′E, 1300–1700 m, 10–30.v.2009 (M. Geiser).

Description ♂ (Fig. 9). Length 5.6–6.6 (6.25±9.19) mm. Dark brown, legs slightly lighter; surface shiny; head covered in short setae, pronotum and elytra in light, 0.1 mm long erect setae. Head (Fig. 10) 1.3–1.5 (1.39±0.09) times as long as wide, with fine sparse, strigose punctation; median line fine, slightly more impressed apically; admedian lines very short and deep, curved, admedian lobes short, irregularly triangular, outer delimitation weakly curved, blunt anteriorly; lateral frontal processes careniform, their joint width 0.7 (0.67±0.00) times that of frontoclypeal depression which is deep and shiny. Eye large, temple length/eye diameter ratio as 0.7–1.3 (1.00±0.47). Antenna (Fig. 11) with segment 1 bearing 2 dorsal grooves; segment 2 subglobular; segments 3–6 oval; segments 7–11 weakly flattened, forming club; segment 11 slightly longer than wide. Pronotum 1.6 (1.61±0.0.02) times as long as wide, bordered at base, strongly widening towards apex; punctation sparser and coarser than on head, with punctation-free longitudinal band in the middle. Mesotibia 1.3–1.5 (1.38±0.18) times as long as first tarsomere of mid-leg. Elytra 3.2–3.3 (3.25±0.04) times as long as wide, 2.2–2.3 (2.24±0.01) times as long as pronotum; costa 3 strongly raised and oblique subapically; intervals 3 and 4 merging apically, 5 slightly longer but shorter than interval 6; costa 7 strongly raised apically; apex with large V-shaped incision at suture, without sutural tooth (Fig. 12). Genitalia as in Figs 13–15.

Sexually dimorphic structures. In *A. pilosa* sexual dimorphism is found on the head and the elytral apex. The frontoclypeal depression of the males is very deep and the lateral frontal processes careniform (Fig. 10), whereas in the females the frontoclypeal depression is small and shallow and the lateral frontal processes flattened. The elytra of males have the apical portion of costae 3 and 7 more swollen (Fig. 7) than those of the females.

Discussion and conclusions

Five species of Passandridae (*Ancistria* 2 spp., *Passandra* Dalman 3 spp.) are reported from the five Laotian provinces Attapeu, Bokeo, Champasak, Luang Namtha and Savannakhet. Though the five species have been previously recorded from Laos, the new provincial records are interesting as nothing was previously known from these provinces (Burckhardt & Zürcher 2013). *Ancistria retusa* and *Passandra heros* are widely distributed in tropical Asia and are among the most commonly collected passandrids. Their occurrence in the new material is, therefore, not surprising. *Ancistria*

cornuta was known from Northern Laos and China and is reported here from Southern Laos. *Passandra harmandi*, recorded from localities in Central Laos, in addition to several countries in South East Asia, is represented here also with specimens from Northern and Southern Laos. *Passandra tenuicornis*, finally, known from Northern Laos and other countries in South East Asia, is recorded here also from Southern Laos.

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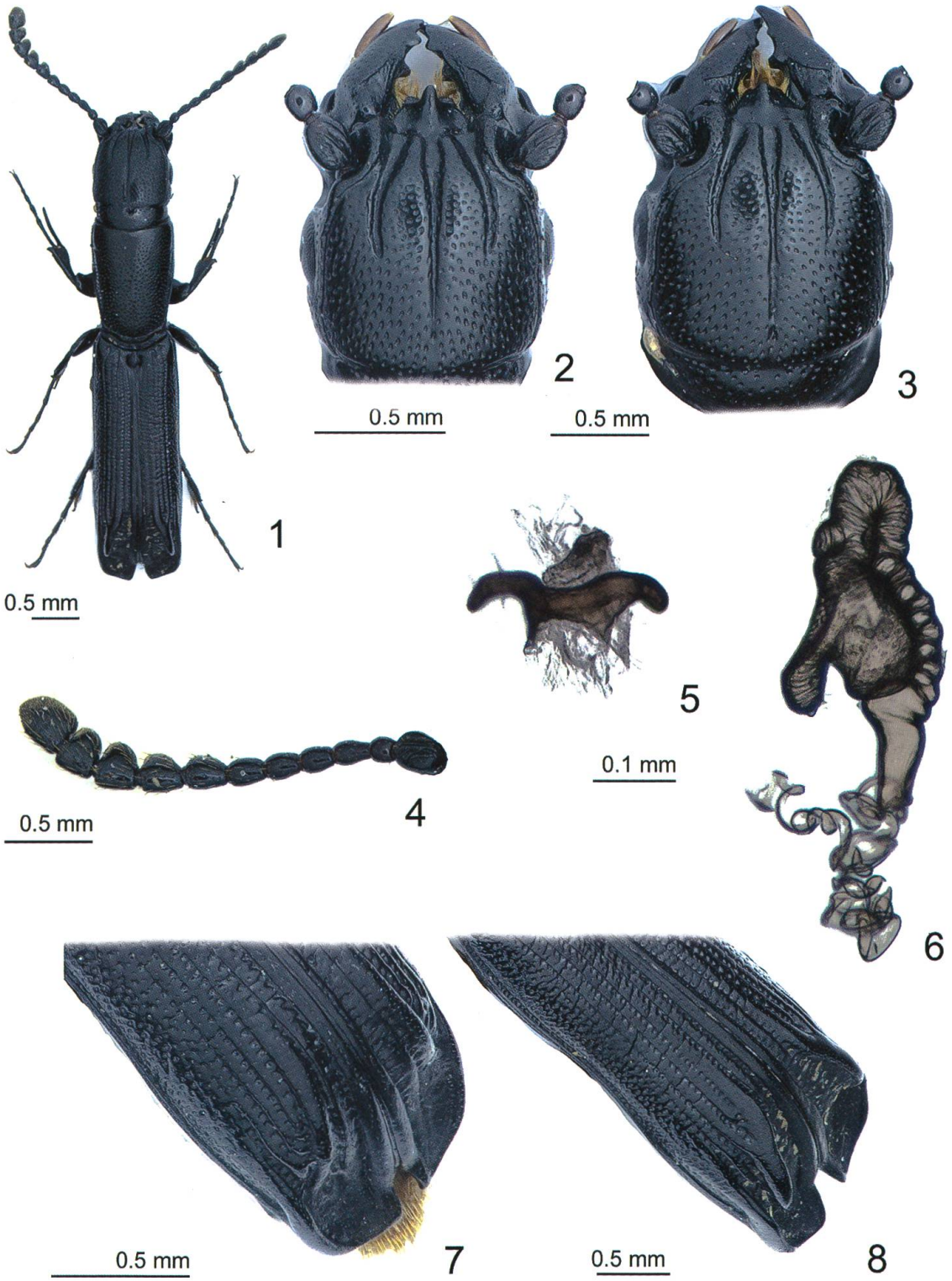
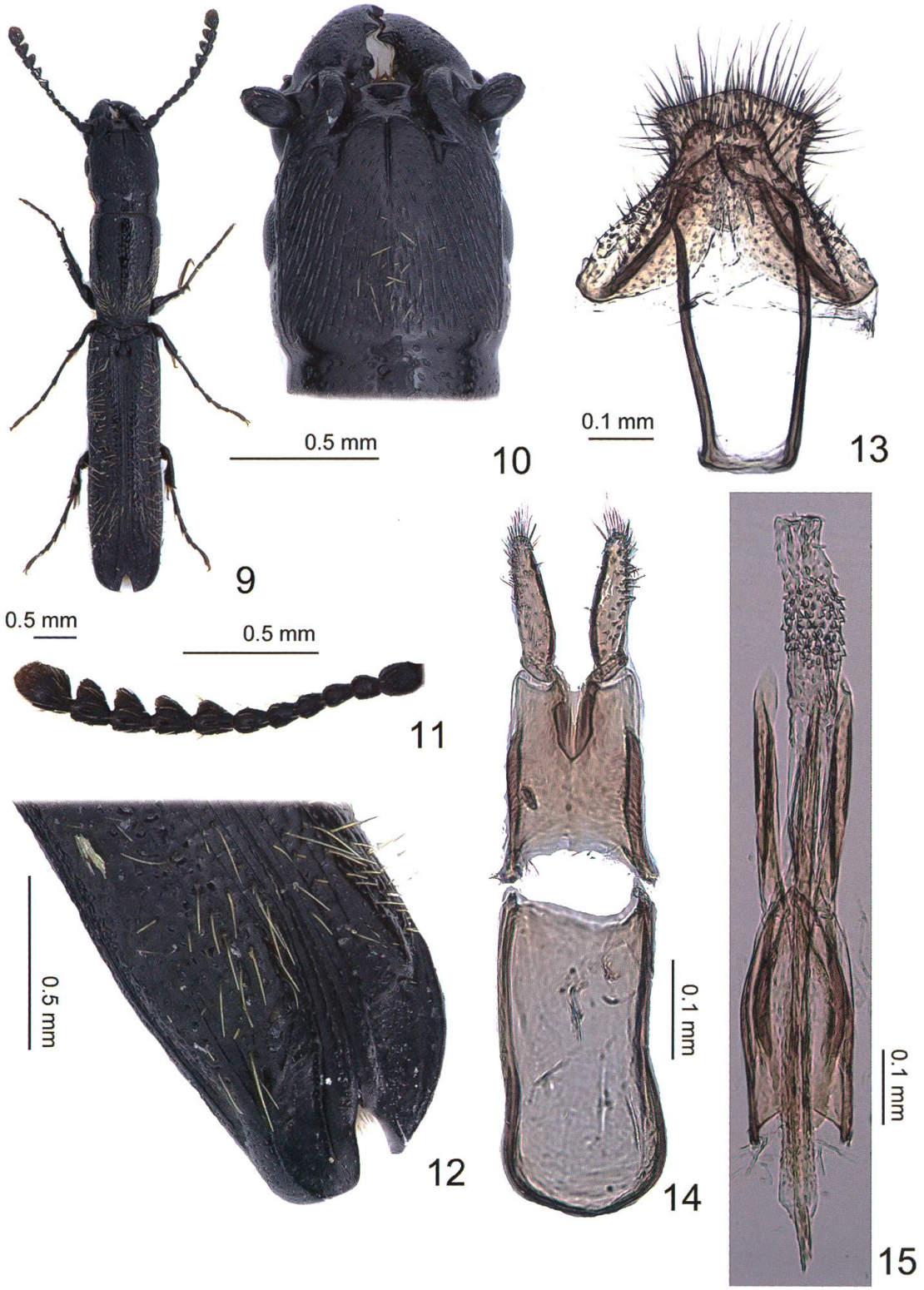


Figs 1–8. *Ancistria cornuta* Burckhardt et Ślipiński: 1 – habitus ♀; 2, 3 – head (2 – ♂; 3 – ♀); 4 – antenna ♀; 5 – ostium bursae; 6 – spermatheca; 7, 8 – oblique rear view of elytra (7 – ♂; 8 – ♀).



Figs 9–15. *Ancistria pilosa* Burckhardt et Ślipiński ♂: 9 – habitus; 10 – head; 11 – antenna; 12 – oblique rear view of elytra; 13 – sternite and tergite 8; 14 – parameres; 15 – median lobe.