

Siniphanerotomella gen. nov., a new genus of the subfamily Cheloninae Nees (Hymenoptera: Braconidae) from China

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Key words: Braconidae; Cheloniinae; Phanerotomini; *Siniphanerotomella*; new genus; new species; China.

Siniphanerotomella fanjingshana gen. nov. & spec. nov. of the tribe Phanerotomini Baker (Braconidae: Cheloninae) is described from China.

Introduction

The subfamily Cheloninae Nees, 1816, is one of the easy recognizable groups of the Braconidae because of the metasomal carapace and the presence of a complete postpectal carina. It is a moderately large subfamily with about 800 described species worldwide and has been divided in two tribes by van Achterberg (1900): Chelonini Nees, and Phanerotomini Baker, 1926. Cheloninae are solitary koinobiont endoparasites of Lepidopterous larvae. The egg is laid into the hosts egg, but development is not completed until the host has nearly completed its own development and often not until it has spun its cocoon. All four genera of this subfamily known from the Palearctic region (*Ascogaster* Wesmael, 1835, and *Chelonus* Panzer, 1801 of the tribe Chelonini; *Phanerotoma* Wesmael, 1838, and *Phanerotomella* Szépligeti, 1900, of the tribe Phanerotomini) have been recorded from China. In this paper a fifth genus, *Siniphanerotomella* gen. nov., belonging to the Phanerotomini (sensu van Achterberg, 1990), is described from the Fangjingshan Mountain Natural Reserve, Guizhou Province.

Descriptions

Siniphanerotomella gen. nov.

(figs 1-13)

Type species: *Siniphanerotomella fanjingshana* spec. nov.

Etymology.— From “sini” (Latin for China) and the generic name “*Phanerotomella*”, because the new genus is closely related to the genus *Phanerotomella*, and occurs in China. Gender: feminine.

Diagnosis.— Length of body 2.8 mm. Antennal segments 24-26, slender. Eyes glabrous, ocelli small, arranged in regular triangle (figs 2, 12). Face medially convex, densely finely reticulate. Mandibles long, upper tooth much longer than lower tooth.

Occipital carina complete, but weak medio-dorsally (fig. 12), meeting hypostomal carina far above base of mandible. Notauli absent (also not indicated by sculpture; figs 8, 12). Prepectal carina extending to level close to middle of pronotal side and angulate behind fore coxa (fig. 10). Precoxal sulcus not impressed. Metapleural flange triangular. Propodeum densely reticulate; its median longitudinal carina distinct (fig. 12) or absent (fig. 8); submedial transverse carina curved laterally (figs 8, 12); spiracle small, round. Length of pterostigma of fore wing 3.3 times its width, veins 2-R1 and 1-SR+M of fore wing absent; vein r usually arises 0.6 distal of base of pterostigma (fig. 1); parastigma indistinct; second submarginal cell of fore wing comparatively large, rectangular; vein 2-SR+M of fore wing vertical; vein cu-a of fore wing postfurcal; vein CU1b of fore wing absent (fig. 1). Vein r of hind wing present, unpigmented; vein M+CU of hind wing distinctly longer than vein 1-M (fig. 1). Hind coxa smooth. Hind femur stout (fig. 6), its length about 2.7 times its width; middle femur slender (fig. 7). Tibial spurs short. Length of metasoma about equal to length of head and mesosoma combined. Metasoma with two complete transverse sutures (figs 5, 10); fourth and following tergites retracted below carapace; metasomal carapace contracted basally, widened apically (figs 5, 13); metasoma densely longitudinally reticulate. Ventral opening of carapace large apically.

Distribution.— Oriental: China.

Biology.— Unknown.

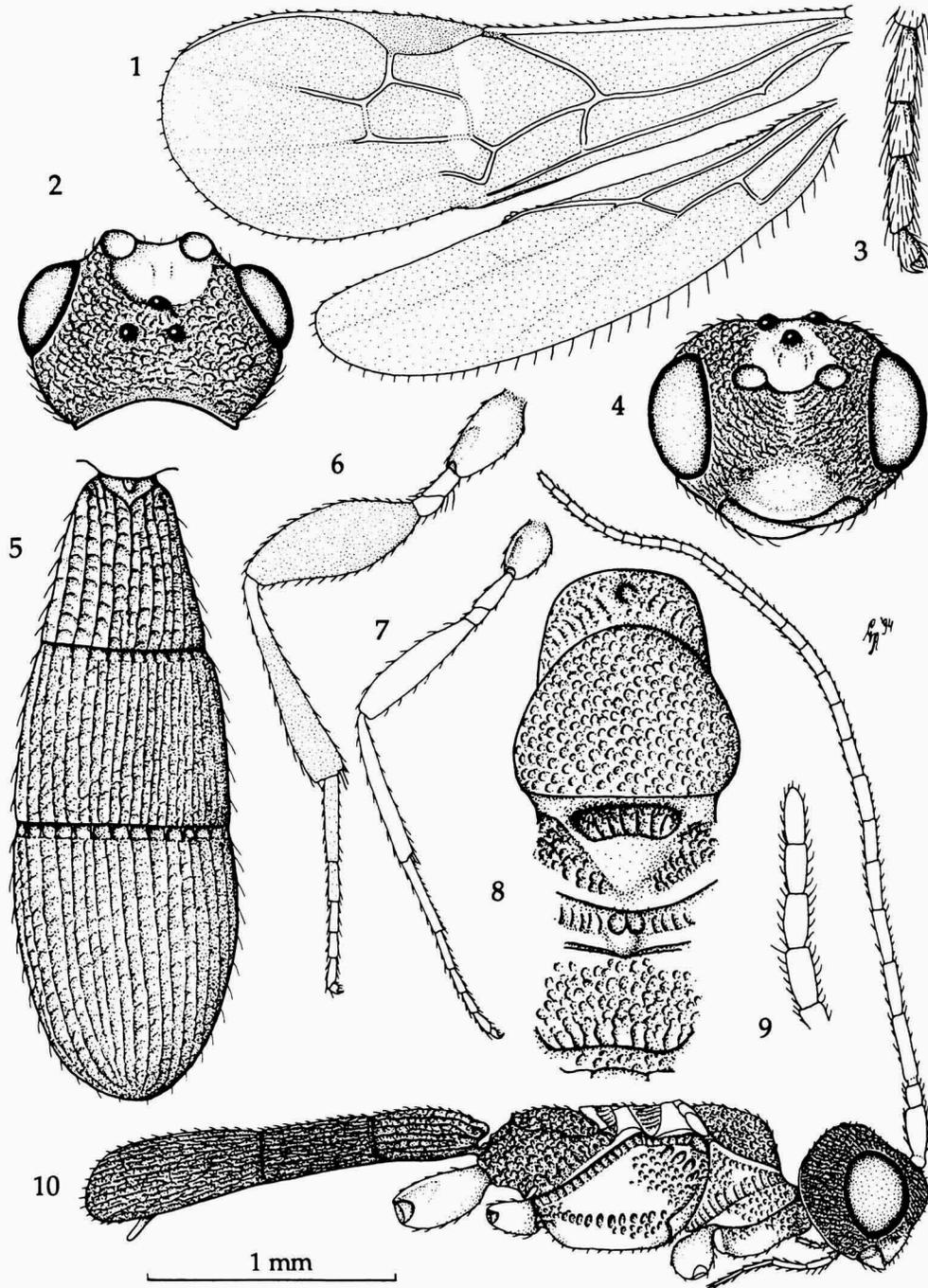
Note.— First genus of the tribe Phanerotomini known to have vein 2-SR of fore wing absent (fig. 1); it agrees well with the diagnosis of the tribe Phanerotomini as given by van Achterberg (1990). Runs in the key to the genera of the Cheloninae by Zettel (1990) to the genus *Phanerotomella*, but *Phanerotomella* has vein M+CU of hind wing shorter than vein 1-M, vein 1-SR+M of fore wing present, the second submarginal cell rather small and triangular, the parastigma medium-sized or large, and vein SR1 of fore wing completely sclerotized.

Siniphanerotomella fanjingshana spec. nov.
(figs 1-13)

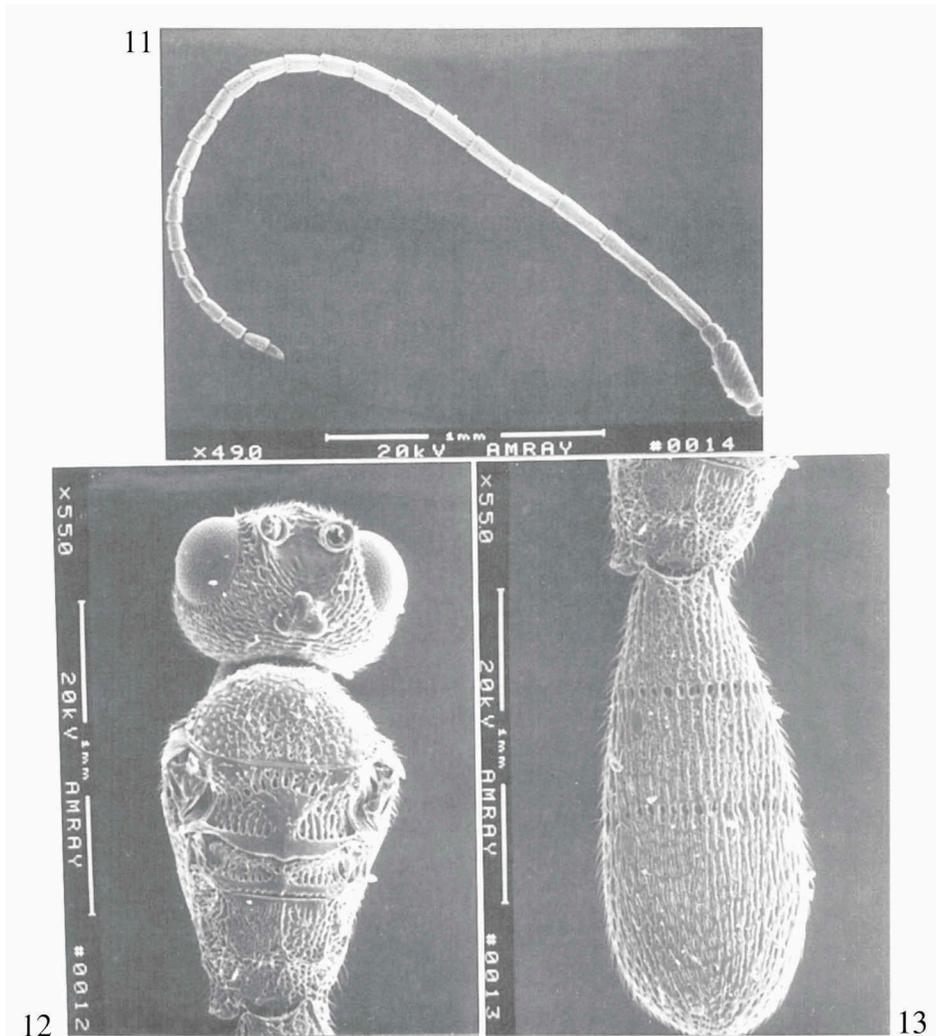
Material.— Holotype, ♂, (ZAU), "China: Guizhou, Fanjingshan [27°9' N, 108°6' E], 2490 m, 11.vii.1993, Chen Xuexin, No. 937616". Paratypes (12 ♂♂): 4 ♂♂ (ZAU), topotypic and same date; 6 ♂♂ (ZAU), 2 ♂♂ (RMNH), "China: Guizhou, Fanjingshan, 1800-2000 m, 11.vii.1993, Xu Zhaifu & Yao Songling".

Holotype, ♂, length of body 2.8 mm, of fore wing 2.6 mm.

Head.— Length of head 0.5 times its width. Antennal segments 26, slender, first segment robust, length of third segment 1.1 times fourth segment, length of third, fourth, tenth and penultimate segments 4.5, 3.8, 2.2 and 2.0 times their width, respectively. Eyes slightly protruding, glabrous, in dorsal view its length equal to length of temple. Temple arc-like narrowed behind eyes. Frons slightly concave medially (nearly flat), coarsely punctate, laterally with curved striae extending from anterior ocellus to antennal sockets. Vertex and temple reticulate. Ocelli small; POL:OD:OOL = 2:2:7. Length of face 0.6 times its width; face protruding near antennal sockets, medially convex, finely reticulate, obliquely rugose near dorso-lateral corners. Clypeus distinctly separated from face, evenly convex, sparsely punctulate; length of clypeus 0.5 times its width; clypeus truncate apico-medially.



Figs 1-10, *Siniphanerotomella fanjingshana* gen. nov. & spec. nov., ♂, paratype. 1, wings; 2, head, dorsal aspect; 3, inner hind claw; 4, head, frontal aspect; 5, metasoma, dorsal aspect; 6, hind leg; 7, middle leg; 8, mesosoma, dorsal aspect; 9, apex of antenna; 10, habitus, lateral aspect. 1, 6, 7, 10: 1 × scale-line; 2, 4, 5, 8: 1.5 ×; 3, 9: 2.5 ×.



Figs 11-13, *Siniphanerotomella fanjingshana* gen. nov. & spec. nov., ♂, paratype. 11, antenna; 12, head and mesosoma, dorsal aspect; 13, propodeum and metasoma, dorsal aspect.

Hypoclypeal opening small. Length of malar space 0.7 times basal width of mandible. Mandible long, upper tooth much longer than lower tooth, with deep basal depression.

Mesosoma.— Length of mesosoma 1.7 times its height. Sides of pronotum crenulate medially, remainder largely punctate. Mesoscutum densely reticulate, more coarsely reticulate postero-medially. Scutellum nearly smooth. Scutellar sulcus widely crenulate. Mesopleuron smooth, precoxal area coarsely punctate medially. Postpectal carina strong. Metapleuron convex, densely punctate reticulate. Median carina of propodeum distinct, transverse carina obsolescent; dorsal face of propodeum much longer than its posterior part (fig. 10).

Wings.— Fore wing: length of pterostigma 3.3 times its width; length of vein 1-R1

1.2 times length of pterostigma; r:3-SR:SR1 = 4:5:28; second submarginal cell large, nearly rectangular; 2-SR:3-SR:r=11.5:5:5; vein 2-SR+M vertical; vein m-cu as long as vein 2-SR+M; vein cu-a distinctly postfurcal; 1-CU1:2-CU1 = 5:12.5. Hind wing: vein 2-SC+R longitudinal (= horizontal); vague remnant of vein r present, unpigmented; M+CU:1-M = 16:11.

Legs.— Hind coxa smooth; hind femur robust, but fore and middle femora normal (figs 6, 7); length of hind femur 2.7 times its width; hind tibia widened apically, slightly longer than hind tarsus (fig. 6); length of hind basitarsus 3.7 times inner hind tibial spur, 0.4 times length of hind tarsus.

Metasoma.— Surface of metasoma longitudinally reticulate-rugose, with intermittent punctures or microsculpture (fig. 13); length of first metasomal tergite:length of second tergite:length of third tergite = 31:32:32; length of first and second tergites 0.9 and 0.8 times their apical width, respectively; length of third tergite 1.2 times its basal width; third tergite slightly convex apico-medially.

Colour.— Black; palpi white, but apical segment of maxillary palpi light brown; antenna light brown, darkened towards apex; pedicellus yellowish-brown; tegulae light brown; legs yellowish-brown, fore and middle femora reddish-brown, hind femur, tibia (except its apex), and tarsus dorsally of all legs blackish-brown. Wing membrane dark brown with pale band below base of pterostigma (fig. 1); pterostigma and veins blackish-brown.

Variation.— Antennal segments of ♂ 24 (1), 25(4) or 26(7); antenna may be largely dark brown except basally; median carina of propodeum may be completely absent (fig. 8).

Acknowledgements and abbreviations

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