

***Scabrichelonus*, a new subgenus of *Chelonus* Panzer (Hymenoptera: Braconidae: Cheloninae) from China**

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A new subgenus of the genus *Chelonus* Panzer (*Scabrichelonus* subgen. nov.; type species: *Chelonus* (*Scabrichelonus*) *sinensis* spec. nov.), from China is described in this paper.

Introduction

Recently, we found a peculiar species, belonging to the genus *Chelonus* Panzer, 1806 (Cheloninae: Chelonini), collected in the Fanjing Shan Natural Reserve (Guizhou, China) with several deviating characters, such as having the temples distinctly swollen with three conspicuous ridge-like transverse carinae, the head in dorsal view being trapezoid and in frontal view triangular, the occipital carina joining the hypostomal carina above the base of the mandible, and having 30-32 antennal segments. All these characters indicate a distinct lineage within this genus. Therefore, we place this species in a new subgenus which can be separated from the other two subgenera of *Chelonus* with the key included below.

The problematic recognition of the *Microchelonus*-group as a valid genus or subgenus is discussed by van Achterberg & Polaszek (1996), especially for females. In this paper (p. 53-54) the generic synonyms of the genus *Chelonus* are given.

For the morphological terminology used in this paper, see van Achterberg (1988). For recognition of the subfamily Cheloninae, see van Achterberg (1993), and for identification of the genus *Chelonus* in the Palaearctic region, see van Achterberg (1990) and Zettel (1990). ZAU stands for Zhejiang Agricultural University, Hangzhou.

Key to subgenera of the genus *Chelonus* Panzer

1. Temple strongly swollen with 3 distinct ridge-like carinae (figs 3, 4) subgenus *Scabrichelonus* nov.
- Temple normal, without any carinae 2
2. Carapace of male without an apical opening subgenus *Chelonus* Panzer, 1806
- Carapace of male with an apical opening (cf. fig. 6) subgenus *Microchelonus* Szépligeti, 1908

Genus *Chelonus* Panzer, 1806
Subgenus *Scabrichelonus* nov.
 (figs 1-11)

Type species: *Chelonus (Scabrichelonus) sinensis* spec. nov.

Etymology.— From “scabra” (Latin for “rough”) and the generic name *Chelonus*, because in general it is similar to the genus *Chelonus* but differs in having the temples swollen with three distinct ridge-like transverse carinae dorso-laterally. Gender: masculine.

Diagnosis.— Head triangular in frontal view, trapezoid in dorsal view, its maximum width about 2.0 times its median length (fig. 3); antennal segments 30-32; eye small, densely setose; temple distinctly swollen, with 3 strong ridge-like transverse carinae (figs 3-5); occipital carina thin, arched dorso-medially, ventrally connected to hypostomal carina above base of mandible; face evenly convex, distinctly transversely rugose, with a longitudinal carina dorso-medially; mandibles robust, not twisted apically, upper tooth longer than lower tooth; mesoscutum evenly convex, transverse suture distinct; notauli superficially impressed; postpectal carina strong and complete; metapleuron coarsely rugose, without metapleural flange; apical transverse carina of propodeum short, near posterior margin of propodeum, lateral carina absent, its spiracles small and round; length of fore wing 3.3 times its width; vein 2-R1 short; vein 1-SR+M absent; 1-CU1:2-CU1 = 6.5:22; length of metasoma equal to combined length of head and mesosoma; metasomal carapace elongate, without sutures, only slightly widened apically (fig. 9); ventral metasomal opening close to posterior margin of metasomal carapace; metasoma of male with an apical opening (fig. 6); length of ovipositor sheath 0.9 times hind basitarsus.

Distribution.— Oriental (China); only the type species known.

Biology.— Unknown, but other members of this genus are ovo-larval parasites of Lepidoptera.

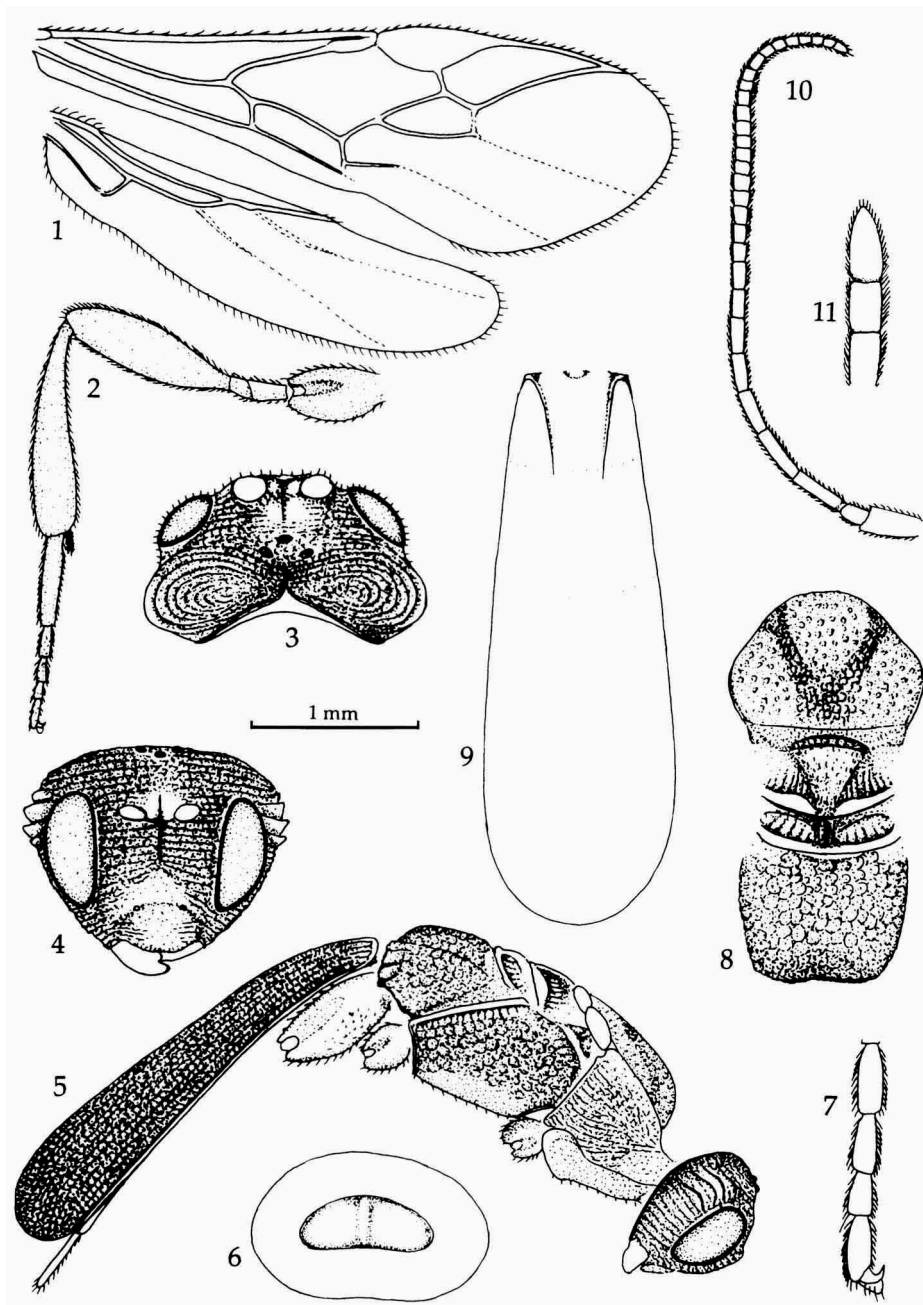
Chelonus (Scabrichelonus) sinensis spec. nov.
 (figs 1-11)

Material.— Holotype, ♀ (ZAU), “China, Guizhou, Mt Fanjing Shan, 14.vii.1993, Chen Xuexin, no. 939506”. Paratype: ♂ (ZAU), topotype, same data but 11.vii.1993, no. 937722.

Description.— Holotype, ♀, length of body 4.9 mm, of fore wing 4.6 mm.

Head.— In dorsal view its maximum width and width between eyes 2.1 and 1.8 times its median length, respectively; antennal segments 30, scapus robust, length of third segment 1.1 times fourth segment, length of third, fourth and penultimate segments 4.3, 3.8 and 1.6 times their width, respectively, 11-21th segments largely transverse (fig. 10); length of eye 0.7 times length of temple in dorsal view; temple strongly swollen posteriorly (fig. 3); frons concave; temple and vertex distinctly transversely rugose; occiput smooth, concave; ocelli small; POL:DO:OOL = 5.2:2.5:9.5; stemmaticum distinctly transverse (fig. 3); face as long as wide, evenly convex; clypeus sparsely and finely punctate, its width 1.2 times its median length, protruding apically, apical margin truncate medially; length of malar space 0.8 times basal width of mandible.

Mesosoma.— Length of mesosoma 2.5 times its height; pronotum densely irregularly reticulate; mesoscutum evenly convex, irregularly finely reticulate-rugose, more



Figs 1-11, *Scabrichelonus sinensis* subgen. nov. & spec. nov., ♀, holotype, but fig. 6 of ♂, paratype. 1, wings; 2, hind leg; 3, head, dorsal aspect; 4, head, frontal aspect; 5, habitus, lateral aspect; 6, apical opening of metasomal carapace of ♂, hind aspect; 7, outer hind claw; 8, mesosoma, dorsal aspect; 9, metasoma, dorsal aspect; 10, antenna; 11, apical segments of antenna. 1-2, 5, 10: 1.0 × scale-line; 3-4, 8-9: 1.3 × 6: 1.8 × 7: 2.4 ×; 11: 4.5 ×

strongly and coarsely rugose postero-medially; scutellum finely punctate-rugose; scutellar suture narrow, with carinae; mesopleuron evenly convex, densely finely reticulate-rugose, more strongly and coarsely so antero-dorsally; prepectal carina just extending to level of postero-ventral margin of pronotum; metapleuron coarsely rugose; propodeum evenly convex, densely reticulate-rugose.

Wings.— Fore wing: length of fore wing 3.3 times its width; length of vein 1-R1 1.1 times length of pterostigma; vein 2-R1 just present; vein r issuing from basal 0.54 of pterostigma; $r:3-SR:SR1 = 6.5:8:47$; parastigma slightly swollen; $2-SR:3-SR:r-m = 18.5:8:7$; vein r-m unpigmented; cu-a inclivous; $1-CU1:2-CU1 = 6.5:22$; vein CU1b present. Hind wing: vein 2-SC+R short; vein r absent; $M+CU:1-M = 26:21$.

Legs.— Hind coxa shallowly punctate-rugose; hind femur robust, its length 3.5 times its width; hind tibia rather thick apically, its length 1.2 times length of tarsus; hind tarsus narrowed towards apex; length of basitarsus 0.46 times length of tarsus, 2.5 times length of inner tibial spur.

Metasoma.— Length of metasoma 2.9 times its maximum width in dorsal view; metasomal carapace longitudinally densely reticulate-rugose, basal 0.1 with median carina; length of ovipositor sheath 0.9 times hind basitarsus.

Colour.— Black; palp yellowish brown; scapus (except for base) and mandibles basally reddish brown; submedial part (0.15-0.4) of metasomal carapace yellow; fore and middle legs yellowish brown, telotarsus blackish brown; hind leg reddish brown, coxa basally, femur apically, apices of tibia and telotarsus black, median portion of tibia yellowish brown, basitarsus white, apex of basitarsus and 2nd-4th segments of tarsus light brown.

Male.— In general, similar to female, but differs in having 32 antennal segments; length of metasoma 3.1 times its maximum width in dorsal view; carapace with transverse-elliptical apical opening; carapace black, hind coxa, femur (except for base), apices of tibia and basitarsus apically, and 2nd-4th segments of tarsus (but slightly paler) blackish brown, remainder yellowish brown.

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