

A new species of *Scolytoplatypus* (Coleoptera: Scolytidae) from China

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Abstract. A new species of the genus *Scolytoplatypus zahradniki* sp. n. from China is described and compared with other morphologically related oriental species of the genus. The Chinese species of the genus are discussed. The new species is distinctively different from all other known species in the morphology of the elytra in both sexes and the prosternum in males. The host plants of the species are unknown, but it is apparently living in broadleaved trees. The species was so far collected in three Chinese regions, but new locality records are expected.

INTRODUCTION

The genus *Scolytoplatypus* Schauffuss, 1891 comprises 43 species distributed in Afrotropical and Oriental regions (Wood & Bright 1992, Bright & Skidmore 1997, 2002; Beaver & Gebhardt 2006). Total of 15 species are known from Africa (twelve species from the African continent and three species from Madagascar) (Wood & Bright 1992). Beaver and Gebhardt (2006) recognized 28 species in their latest critical revision of all known oriental species. These species are widely distributed throughout the oriental part of Palaearctic and Indomalaysian region (Beaver & Gebhardt 2006). Only four species are recorded from China in this review of which one is known from China only - *S. superciliosus* Tsai & Huang, 1965. Tsai & Huang (1965) also described a second species of the genus *Scolytoplatypus*, *S. sinensis* Tsai & Huang, 1965, but this was found to be a synonym to *S. mikado* Blandford, 1893 (Wood 1989). The latest review of the Chinese fauna (Hua 2002) including information about bark beetles lists eight species of the genus *Scolytoplatypus* - *S. darjeelingi* Stebbing, 1914, *S. mikado* Blandford, 1893, *S. pubescens* Hagedorn, 1904, *S. raja* Blandford, 1893, *S. shogun* Blandford, 1894, *S. sinensis* Tsai et Huang, 1965, *S. superciliosus* Tsai et Huang, 1965 and *S. tycon* Blandford, 1893. *S. darjeelingi* is noted there from Hunan, Yunnan and Xizang provinces, while Eggers (1939) reports its occurrence in Taiwan. Beaver & Gebhardt (2006) corrected this and showed that this record belongs to *S. blandfordi* Gebhardt, 2006. The occurrence of this species in China has to be confirmed later therefore. *S. pubescens* was recorded among other locations from Taiwan as well as *S. shogun*, but this information is doubtful (for details see Beaver & Gebhardt 2006). *S. sinensis* is a synonym to *S. mikado* (see above). With the description of this new species, the total number of Chinese *Scolytoplatypus* species rises to five confirmed species. It is evident that after the serious and critical study of

all described Oriental species (Beaver & Gebhardt 2006) which includes a comparative key and illustrations to distinguish the species, recognizing other possibly new species is much easier now. The newly described species in this paper was compared to all possible species and was found clearly different from all others.

All known species of *Scolytoflatypus* are ambrosia beetles (Browne 1961, Beaver & Gebhardt 2006), and belong mostly to oligophagous or polyphagous species, while in some cases the host plants are not known. Generally the species are of little or no economic importance, and they do not infest healthy trees (Browne 1961). All species are monogamous. Attacks on a suitable host are initiated by the female; the male joins the female shortly after the beginning of maternal gallery construction, and remains in the entrance hole and helps with removal of the faecal material (Browne 1961). The same bionomy was observed for the newly described species in this paper.

All measurements were made on ten specimens of both sexes chosen to show the entire variability range. The body length was measured from the front pronotal margin to the elytral apex, and is thus independent of the head position and size of apical elytral tubercles.

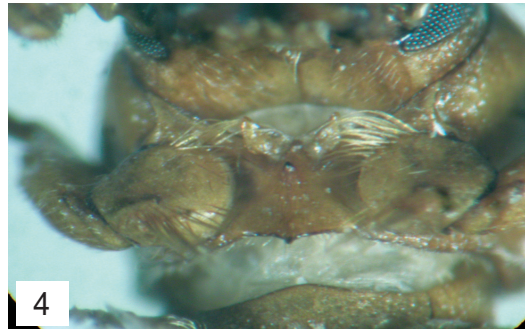
DESCRIPTION

Scolytoflatypus zahradniki sp. n.

(Figs 1-4)

Type material. Holotype (♂): “CHINA, Shaanxi pr., 1.vii.2007, XI’AN env., QinLing mts., N 33°50’933, E 108°48’760, Jiwozi, 1800 m, M. Knížek lgt.” Allotype (♀): the same data as the holotype. Paratypes: (18 ♂♂, 20 ♀♀): the same data as the holotype; (3 ♂♂): “CHINA: Beijing Reg. ca 1150 m, Xiaolongmen, 9-12.vi.2004, N39°58.074’ E115°25.882’, F. I. Trapwalnut/poplar woodland, Leg. J. Cooter”; (1 ♀): “CHINA - Shaanxi, 21.-23.vi.1998, Qing Ling Shan mts., road Baoji - Taibai vill., pass 35 km S of Baoji, O. Šafránek et M. Trýzna lgt.”; 1 ♂: “CHINA – Shaanxi prov., 21-23.vi.1998, Qing Ling mts., road Baoji - Taibai vill., pass 40 km S Baoji, Zd. Jindra lgt.”; (1 ♀): „CHINA - SICHUAN, 7.vii.1993, Mt. Emei /1900 m/, 180 km S. of Chengdu, lgt. Zd. Jindra”; (2 ♂♂, 1 ♀): “CHINA, Sichuan prov., Liziping, pr. Shimian, cca 200 km SW of XI’AN, 27.vi.-3.vii.1991, Zd. Kejval lgt.” Holotype and allotype deposited in the collection of Institute of Zoology, The Chinese Academy of Sciences, Beijing, 40 paratypes in the author’s collection, 2 paratypes in Naturhistorisches Museum, Wien, 2 paratypes in Muséum d’Histoire Naturelle, Genève, 2 paratypes in coll. P. Zahradník (Praha), 1 paratype in coll J. Cooter (Hereford).

Description. Dark brown, nearly black if fully coloured and often with pale spots on basal fourth of elytra, semi-shining, antennae and legs light brown, pronotum shagreened, elytral base more smooth, vestiture short and very sparse. Front femur without a tooth above near apex, frons without narrow brushes of long hairs in males, pronotum without a mycangial pore in females, declivity gradually rounded, all interstriae sharply costate-granulate from second third of elytra and across the upper part of the elytral declivity, interstriae 1 ended with a remarkable tubercle near the elytral apex. Basal angles of pronotum not strongly produced laterally, approximately rectangular apically.



Figs 1-4. *Scolytoplatypus zahradniki* sp. n.: 1- male, habitus (dorsal view); 2- female, habitus (dorsal view); 3- male, frons; 4- male, prosternum.

Male (Figs 1, 3, 4). Length 2.6-3.3 mm (3.0 mm in holotype), 1.83-2.11 times as long as wide (1.94 in holotype); colour very dark brown to black in fully coloured specimens.

Frons shallowly concave, uniformly shagreened, slightly flattened above epistoma, with short and shallow depressions on its sides, flattened part very minutely and sparsely punctate, very weak and rounded median longitudinal carina on lower part of frons running from epistoma to the middle of frons, upper two thirds of frons more densely and slightly more deeply punctate than the lower part, vestiture of whole surface of frons of very fine erect and relatively long hairlike setae visible from lateral or dorsal view (not from frontal view), upper and lateral edges of frons with long hairlike setae, these on upper part until the lower end of the eyes very long and curved towards the middle of frons (Fig. 3), those on lateral

edges of flattened lower part becoming shorter downward and not so curved. Antennal club narrowly acuminate, but rounded on apex, flattened, both sides covered with short appressed setae, posteroventral margin with a row of about four long, erect setae, curving towards the antennal apex in their apical fourth, apex of the club with a few long setae.

Pronotum 0.81-0.97 times as long as wide (0.85 in holotype), widest in the middle of its length, anterior margin with distinct median emargination, posterior margin bisinuate, slightly produced in the middle, posterolateral corners approximately rectangular, not produced laterally, surface uniformly shagreened, shallowly and sparsely irregularly punctured, medial longitudinal area impunctate, vestiture of very fine and short hairlike setae nearly invisible, more dense along frontal edge. Prosternum in the middle with a raised triangle sharply pointed both anteriorly and posteriorly, forming a longitudinal costa pointed in both directions, anterior margin with two symmetrical, divergent, triangular, translucent processes (Fig. 4).

Elytra 1.14-1.37 times as long as wide (1.17 in holotype), 1.50-1.67 times as long as pronotum (1.54 in holotype), wider than pronotum, sides almost straight and parallel on basal three-fourths, widest in posterior part, then strongly converging to rounded apex, the base carinate, disk of elytra semi-matt, shagreened, irregularly finely punctured, striae slightly impressed near base, but from the second third of elytral length striae becoming invisible and forming flattened or shallowly concave strongly shagreened longitudinal impressions due to the sharply elevated carinate interstriae (Fig. 1). Each of these carinate interstriae bears a row of sharply pointed tubercles directed caudad. Interstriae 1 and 2 are extended close to the elytral apex where interstriae 1 is ended by shortly pointed tubercle just above the elytral apex and interstriae 2 meets there with interstriae 8 just before the edge of elytra. Interstriae 2 often less developed, less carinate on the declivity with smaller or without tubercles, in some specimens interstriae 2 not developed at all on the declivity, the space is remaining just flat instead of it. Elytral edge is raised in the declivital part, as continuation of interstriae 9 forming a costal edge along the declivity. Interstriae 3, 6 and 7 terminate in the lower third of the declivity and interstriae 4 and 5 are the shortest, terminated approximately in the middle of the declivity. Interstitial tubercles on lower declivital part less numerous than on the top of the declivity. Elytra nearly glabrous, only semierect hairlike setae below each interstitial tubercle on the declivity. Additionally, there are short and sparse setae on the base of the elytra.

Female (Fig. 2). Length 2.8-3.5 mm (3.3 mm in allotype), 1.76-2.15 times as long as wide (2.07 in allotype). Similar to male, slightly bigger, frons convex, triangularly flattened above the epistoma, with a very fine median longitudinal carinal line extending from vertex to the epistoma, which is inversely impressed just across the apex of the impressed triangle. Antennal club oval, 1.44 times as long as wide, densely covered with appressed setae, without lateral hairs and with sparse long hairs on the antennal apex. Pronotum generally as male, anterior margin with shallower median emargination, posterolateral angles a little more produced laterally. No mycangial pore on the disk of the pronotum. Prosternum a flattened plate lacking specific distinction. Morphology of elytra generally as in male with distinctive tubercles on carinate interstriae.

Differential diagnosis. *S. zahradniki* sp. n. is morphologically easily distinct from all other oriental species due to the carinate and tuberculate interstriae and shape of prosternum. In its

prosternum it is closely related to *S. blandfordi* Gebhardt, 2006, from which it differs by the posteriorly sharply pointed medial raised triangle (longitudinal keel) of the prosternum and the strongly carinate and tuberculate interstriae and steeper declivity.

Biology. Specimens were found on broken thin (4.5-7 cm in diameter) tree or shrub stems of an evidently deciduous plant. Due to the lack of leaves, the species of plant was not determined. As all other species of the genus *Scolytoplatypus* the newly described species is an ambrosia beetle. The maternal gallery penetrates deep into the wood, nearly through the whole diameter of the stem, branching shortly after the entrance hole horizontally and vertically.

Distribution. China: Shaanxi, Sichuan provinces and Beijing region. Because of the supposed polyphagy of the species it may be found in many other areas, mainly within central China.

Etymology. The new species is dedicated to my colleague Petr Zahradník, who was collecting beetles with me at the same locality and showed me the infested stem. Petr Zahradník is the leading scientist in taxonomy of the beetle family Ptinidae (Anobiidae previously).

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