

*Eutheia sculpturata* n. sp. from Sichuan, China  
(Coleoptera: Staphylinidae: Scydmaeninae)

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ABSTRACT. *Eutheia sculpturata* n. sp. (Staphylinidae: Scydmaeninae: Eutheini) is described from West Sichuan, China. The new species (the third member of the genus known to occur in China) belongs to the group of *Eutheia* characterized by the simple (i.e., not bifurcated) apex of the aedeagus. Diagnostic characters are discussed and illustrated.

Key words: entomology, taxonomy, new species, Staphylinidae, Scydmaeninae, Eutheini, *Eutheia*, East Palearctic, China.

#### INTRODUCTION

Only two species of *Eutheia* STEPHENS have been known so far from the large territory of China: *E. puetzi* JAŁOSZYŃSKI, 2008a from Sichuan, and *E. nujianglisuana* JAŁOSZYŃSKI, 2010 from Yunnan. In such an externally very uniform genus as *Eutheia*, structures related to the aedeagus are primary diagnostic characters, and possibly bear a great value for reconstructing the phylogeny. *Eutheia puetzi* belongs to the group of species with bifurcated apex of the aedeagus (although it is very unusual due to three slender apical projections), and *E. nujianglisuana* to the group of *Eutheia* with simple, not bifurcated apical part of the median lobe (JAŁOSZYŃSKI 2010). As discussed in the previous paper (JAŁOSZYŃSKI 2010), most of the East Palearctic (in a broad sense, including Taiwan) species of *Eutheia* have bifurcated aedeagi, while most (possibly all) West Palearctic species have the median lobes with simple apices (i.e., rounded, straight, subtriangular or variously projected in middle, but without longitudinal division or deep median notch). Therefore, the East Palearctic species belonging to the latter group seem especially interesting for evolutionary and biogeographic studies. In the present paper another species of *Eutheia* from China is described in the “simple apex”

group. Interestingly, the type series of the new species comes from the same locality and altitude in the Daxue Mountains (W Sichuan) as *E. puetzi*, proving that representatives of the two informal groups of *Eutheia* are not geographically separated.

The measurement convention follows that of JAŁOSZYŃSKI (2008b). The type material is deposited in the private collection of Michael SCHÜLKE, Berlin, Germany (PCMS), and in the private collection of the author, Poznań, Poland (PCPJ).

***Eutheia sculpturata* n. sp.**

(Figs.1-3)

NAME DERIVATION

The specific epithet refers to unusually distinct sculpture of the dorsum in this species.

DIAGNOSIS

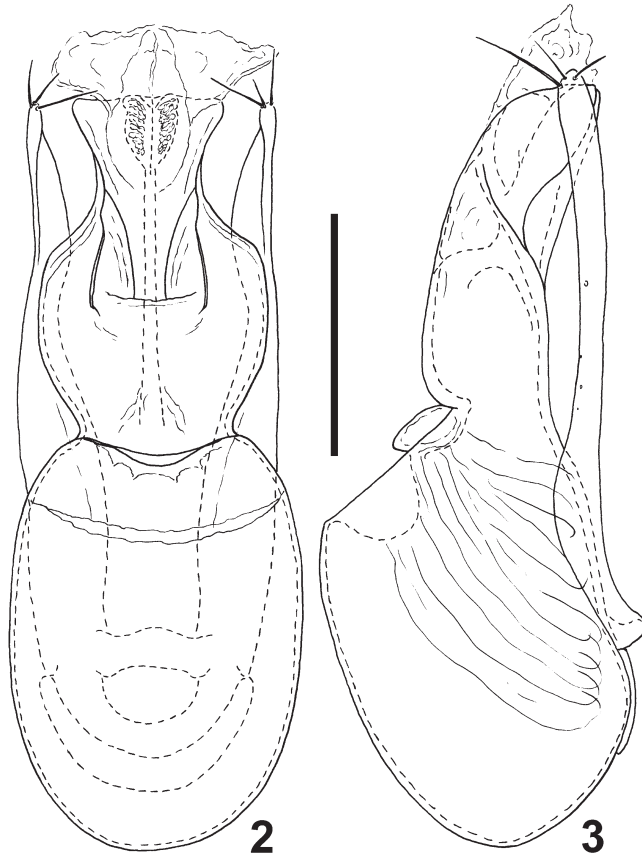
Males of this species differ from all other congeners in the following combination of characters: body large (1.5 mm in length), relatively broad and convex; entire dorsum covered densely with distinct punctures; aedeagus in ventral view with very deep constriction between basal capsule and apical part; apex of aedeagus inversely trapezoid, simple (i.e. not bifurcated).



1. *Eutheia sculpturata* n. sp. Habitus of the holotype male (length 1.50 mm)

## DESCRIPTION

*Male* (Fig. 1). Body length (including pygidium) 1.50 mm, pigmentation dark brown, with head, pronotum and pygidium slightly darker than elytra; antennae, palps and legs light brown; vestiture silverish. Head broadest at large, very convex, moderately coarsely faceted eyes, length 0.18-0.20 mm, width 0.29 mm; Tempora short but distinct; vertex broad, convex, with pair of indistinct, shallow impressions in anterior part; frons confluent with vertex, convex. Punctures on vertex and frons dense and distinct, small but deep and sharply marked, separated by spaces comparable to puncture diameters; setae relatively long, sparse, suberect to erect. Antennae slender and short, 0.63 mm in length, not reaching half of body length; antennomere I nearly 2.5x as long as broad; II slightly narrower and much shorter than I, nearly twice as long as broad; III much shorter and distinctly narrower than II, slightly broader than long; IV much longer and slightly broader than III, 1.1x as long as broad; V slightly larger than IV, as long as broad; VI as long as V but slightly broader, minimally broader than long; VII slightly larger than VI, slightly transverse; VIII as broad as VII but slightly shorter, distinctly



2-3. *Eutheia sculpturata* n. sp. Aedeagus in ventral (2) and lateral (3) views (scale bar: 0.1 mm)

broader than long; IX much larger than VIII, strongly transverse; X slightly broader and much longer than IX, distinctly transverse; XI distinctly narrower and longer than X, shorter than IX-X together.

Pronotum much broader than long, broadest near anterior third, length 0.33 mm, width 0.43 mm; anterior margin and sides in anterior half strongly rounded; lateral margins in posterior half very finely microserrate, weakly rounded and distinctly convergent toward slightly obtuse hind angles; posterior margin slightly projecting in middle toward scutellum; base of pronotum with small but relatively deep, nearly circular median pit and two lateral pairs of larger, elongate pits, all connected by very indistinct, shallow and diffused transverse impression. Disc covered with punctures larger and deeper than those on head, separated by spaces comparable to puncture diameters; setae moderately dense and long, suberect.

Elytra oval, much broader than pronotum and relatively convex, broadest slightly anterior to middle, length 0.80-0.83 mm, width 0.70 mm, elytral index (length / combined width) 1.14-1.18. Humeral calli small but distinct; basal impression on each elytron short and shallow; basal foveae small and located closer to scutellum than to humeri; apices of elytra intermediary between truncate and rounded. Punctures in anterior half near suture as large and dense as those on pronotum but much shallower and with diffused margins, laterad and caudad punctures reducing in diameters and becoming sparser; setae slightly thicker, sparser and longer than those on pronotum, suberect. Hind wings long, functional.

Legs slender, moderately long, all tibiae straight.

Aedeagus (Figs. 2-3) 0.30 mm in length, elongate, in ventral view basal capsule oval, apical part separated by very deep constriction, apex inversely trapezoid, with nearly straight apical margin; parameres broad, each with three apical setae.

*Female.* Unknown.

#### TYPE MATERIAL

Holotype (male): "CHINA: W-Sichuan 1999 \ Ganzi Tibet. Aut. Pref., Kangding Co. \ Daxue Shan, Mu Ge Cuo, 3300m \ unterhalb unt. See, 30°11N \ 101°52E, Pilze, Nadelstreu, Rinde \ 27.VI., leg. M. Schülke" [white, printed]; "*EUTHEIA \ sculpturata* m. \ det. P. JAŁOSZYŃSKI, 2010 \ HOLOTYPUS" [red, printed] (PCMS). Paratype: 1 male, same data as holotype, with standard yellow "PARATYPUS" label (PCPJ).

#### DISTRIBUTION

China: Sichuan.

#### REMARKS

The broad body of *E. sculpturata* closely resembles *E. gramme* JAŁOSZYŃSKI, 2008 and *E. latissima* JAŁOSZYŃSKI, 2008, both from Taiwan. However, the new *Eutheia* is more convex and the aedeagi of these three species are clearly different. The strongly constricted median lobe in combination with the distinctly separated, inversely trapezoid apical part is unique for *E. sculpturata*. In East Palearctis, *E. exortiva* KURBATOV, 1990 from Primorie has the most similar aedeagus, but its apex is distinctly subtriangular,

projected in middle, while that of *E. sculpturata* is nearly straight. Geographically, the closest neighbors of *E. sculpturata* (and *E. puetzi*) are two species from the Himalayas: *E. himalayana* FRANZ, 1974 and *E. pusilla* FRANZ, 1985. The latter *Eutheia* is much smaller than *E. sculpturata*, reaching only 0.9 mm in length (vs. 1.5 mm of the new species). *Eutheia himalayana*, according to the original description, is reddish grey-brown (“rötlich graubraun”), and its aedeagus is most similar to that of European *E. parallela* FAIRMAIRE, 1879, but the apex of median lobe is not distinctly separated (“Penis dem der *E. parallela* ähnlich gebaut, die Spitze aber nicht deutlich abgesetzt”; all German citations after FRANZ, 1974). The aedeagus of *E. sculpturata* is not very similar to that of *E. parallela*, and its apex is very distinctly separated.

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