A new species of *Stolas* BILLBERG from Peru (Coleoptera: Chrysomelidae: Cassidinae)

LECH BOROWIEC¹ & JOLANTA ŚWIĘTOJAŃSKA²
¹Department of Biodiversity and Evolutionary Taxonomy, Zoological Institute, University of Wrocław,
Przybyszewskiego 63/77, 51-148 Wrocław, Poland,
¹e-mail: cassidae@biol.uni.wroc.pl, ²e-mail: sindiola@biol.uni.wroc.pl

ABSTRACT. *Stolas uniformis*, new species is described from Peru, Junin. It belongs to the small group of species related to *Stolas decemguttata* (STURM, 1828), with metallic dorsum, fine, uniform punctation of elytra and regularly convex elytral disc.

Key words: entomology, taxonomy, new species, Coleoptera, Chrysomelidae, Cassidinae, *Stolas*, Peru.

INTRODUCTION

The genus *Stolas* Billberg, 1820 with 182 described species is the most speciose within the tribe Mseomphaliini (Borowiec 1999, Borowiec and Świętojańska 2010). The genus is distributed in whole Neotropical Region with centre of biodiversity in Brazil (Borowiec 1999). Although the genus *Stolas* has never been revised, an unpublished key to all species and division of the genus into species groups by Franz Spaeth (1863-1946) is available (manuscript preserved in the Manchester Museum). Borowiec and Pomorska (2009) based on structure of spermatheca suggested that some groups proposed by F. Spaeth are coherent and probably monophyletic. One of the group ("J" group in the Spaeth's classification) comprises 24 species with small to moderate body of 6-12 mm length, elytra always regularly convex, usually uniform, fine elytral punctation, body partly or completely metallic but often with yellow to reddish pattern. Two species of the "J" group, *Stolas decemguttata* (Sturm, 1828) and *Stolas ostosignata* (Spaeth, 1913) form a subgroup characterized by almost circular body, both pronotum and elytra metallic, elytra with yellow round spots, fine, uniform and dense elytral punctation, and short spiral ductus of the spermatheca (Borowiec and

Pomorska 2009). In the material from Peru studied recently I found one specimen of the genus *Stolas* with all characters of the group "J" and close to *S. decemguttata* and *S. octosignata* but without elytral spots. Other characters suggested that it belongs to a new species and its description is given below.

DESCRIPTION OF A NEW SPECIES

Stolas uniformis n. sp.

ETYMOLOGY

Named after its uniform elytral punctation and uniform coloration without pale pattern.

Type material

Holotype: "PERU: Junin, Satipo/RionTambo riv., Shima/550 m, 30 I 2003" (preserved in the collection of the Department of Biodiversity and Evolutionary Taxonomy, University of Wrocław, Poland).



1, 2. Stolas uniformis n. sp.: 1 – dorsal, 2 – lateral

Diagnosis

The body shape, coloration and elytral punctation place the new species close to Stolas decemguttata (STURM) and Stolas ostosignata (SPAETH). All three species have body almost round, dorsum metallic, elytral disc regularly convex, and elytral punctation fine and dense, with no groups of coarser punctures. Stolas uniformis distinctly differs in elytra completely metallic, without yellow to reddish spots while both congeners have elytra pattern: S. decemguttata with 10 large, regular round spots and S. octosignata in typical form with 8 small, round spots or in aberrations at least with two round spots on elytral marginalia and two very small, elongate spots on elytral slope. Stolas uniformis with length 14.2 mm is distinctly larger than S. octosignata (length 11.0-13.4 mm) and close to small specimens of S. decemguttata (length 13.6-16.0 mm). At first glance S. uniformis looks like specimens of the genus Agenysa Spaeth, 1905, a member of the tribe Eugenysini HINCKS, 1952. It has similar shape of pronotum with broadly rounded sides, elytral outline with humeri strongly protruding anterad and slightly acuminate elytral apex (S. decemguttata and S. uniformis have elytral apex regularly rounded) but distinctly differs in last segment of tarsi not explanate (explanate last segment of tarsi is synapomorphy of the tribe Eugenysini) and surface of elytra without reticulate sculpture (all species of the genus *Agenysa* have elytral surface with distinct reticulation).

DESCRIPTION

Length: 14.2 mm, width: 13.1 mm, width of pronotum: 7.8 mm, length of pronotum: 4.0 mm, length/width ratio: 1.08, width/length ratio of pronotum: 1.95. Body almost circular, elytral apex slightly acuminate (fig. 1).

Dorsum uniformly metallic green, anterior margin of pronotum without yellow or red (fig. 1). Ventrites black, last two sternites on sides with small, transverse, yellowish-brown spot. Legs black, clypeus metallic green. Antennae mostly black, segments 2 and 3 on ventral side reddish-brown.

Pronotum ellyptical, with maximum width slightly if front of the middle, sides broadly rounded, no basal corners, anterior margin above head very shallowly emarginate. Disc of pronotum almost flat, only on sides separated from the explanate margin by short impression, on the top with very short and thin median sulcus. Surface of disc slightly alutaceous, with very small microreticulation, and sparse punctation. Punctures the smallest on top of the disc then gradually coarser to the sides of disc, the largest punctures twice coarser than the smallest, distance between punctures on whole surface few times wider than puncture diameter thus pronotum at first glance appears very finely and sparsely punctate. Surface of explanate margin slightly alutaceous, with very small microreticulation, similarly punctate like disc with extremely fine punctures close to border of pronotum and slightly coarser close to border of disc.

Base of elytra much wider than pronotum, humeri distinctly protruding anterad, rounded (fig. 1). Elytra on sides regularly rounded, widest in anterior 1/3 length, then softly converging posterad, apex slightly acuminate. Disc regularly convex with top of convexity slightly before the half length of elytra (fig. 2). Elytral punctation fine and dense, punctures arranged irregularly on whole surface with no groups of coarser punctures, distance between punctures from slightly narrower to twice wider than

puncture diameter. Border between disc and explanate margin marked by narrow impunctate line. Surface between punctures with very small microreticulation, appears slightly alutaceous. Epipleura unpubescent.

Antennae moderately elongate, length ratio of antennal segments: 100:43:67:77: 77:60:67:67:70:77:150, segment 3 approximately 1.6 times as long as segment 2 and slightly shorter than segment 4, segment 10 approximately 1.3 times as long as wide.

Clypeus typical for the genus *Stolas*, broad, convex, with shallow median impression and several fine punctures. Labrum with very small, triangular emargination. Prosternal process in central part with deep median sulcus, apex narrow, rounded on sides.

Claws with large basal tooth.

DISTRIBUTION

Peru: Junin Province.

ACKNOWLEDGMENTS

This paper was supported by scientific grant of the Zoological Institute, University of Wrocław, 1018/IZ/2010.

REFERENCES

- BILLBERG, G.J., 1820. Enumeratio insectorum in museo Billberg. Stockholm, 138 pp.
- Borowiec, L., 1999. A world catalogue of the Cassidinae (Coleoptera: Chrysomelidae). Biologica Silesiae, Wrocław, 476 pp.
- Borowiec, L., Pomorska, J., 2009. The structure of spermatheca on the genus *Stolas* (Coleoptera: Chrysomelidae: Mesomphaliini) and its taxonomic significance. Ann. Zool. Warszawa, **59**: 201-221.
- Borowiec, L., Świętojańska, J., 2010. Cassidinae of the world an interactive manual (Coleoptera: Chrysomelidae). Permanent electronic publication (open in 2002): www.biol.uni.wroc.pl/cassidae/katalog%20internetowy/index.htm.
- HINCKS, W. D., 1952. The genera of the Cassidinae (Coleoptera: Chrysomelidae). Trans. R. Entomol. Soc. Lond., 103: 327-358.
- Spaeth, F., 1905. Beschreibung neuer Cassididen nebst synonymischen Bemerkungen. V. Verh. Zool.-Bot. Ges. Wien, **55**: 79-118.
- —, 1913. Kritische Studien über den Umfang und die Begrenzung mehrerer Cassiden-Gattungen nebst Beschreibung neuer amerikan. Arten. Archiv F. Naturges., 79: 126-164.
- Sturm, J., in: Thon, T., 1827. Abbildungen ausländischer Insecten. 4. Coleopt. Jena, 1826-1828, 4 pp + 6 pl. [descriptions by J. Sturm].