

A new species of Passalidae (Coleoptera) from Taiwan

P. H. van Doesburg

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Leptaulax formosanus spec. nov. (Coleoptera: Passalidae) from Taiwan is described and illustrated.

Pieter H. van Doesburg, Nationaal Natuurhistorisch Museum, Postbus 9517, 2300 RA Leiden, The Netherlands.

Introduction

Van Doesburg Sr. (1942) published his findings on the sexual dimorphism in a passalid species from Taiwan (Formosa) that he attributed to *Leptaulax bicolor* (Fabricius, 1801) and named the females "var. *formosanus*". It is obvious that this name is meant in an infra-subspecific way, and therefore this name is not available according to Art. 16 and 45g of the International Code of Zoological Nomenclature (1985).

Recently, I had the opportunity to study a large series of this species from Taiwan, and I am convinced that these specimens belong to a distinct species of *Leptaulax* which is described below.

Leptaulax formosanus spec. nov.

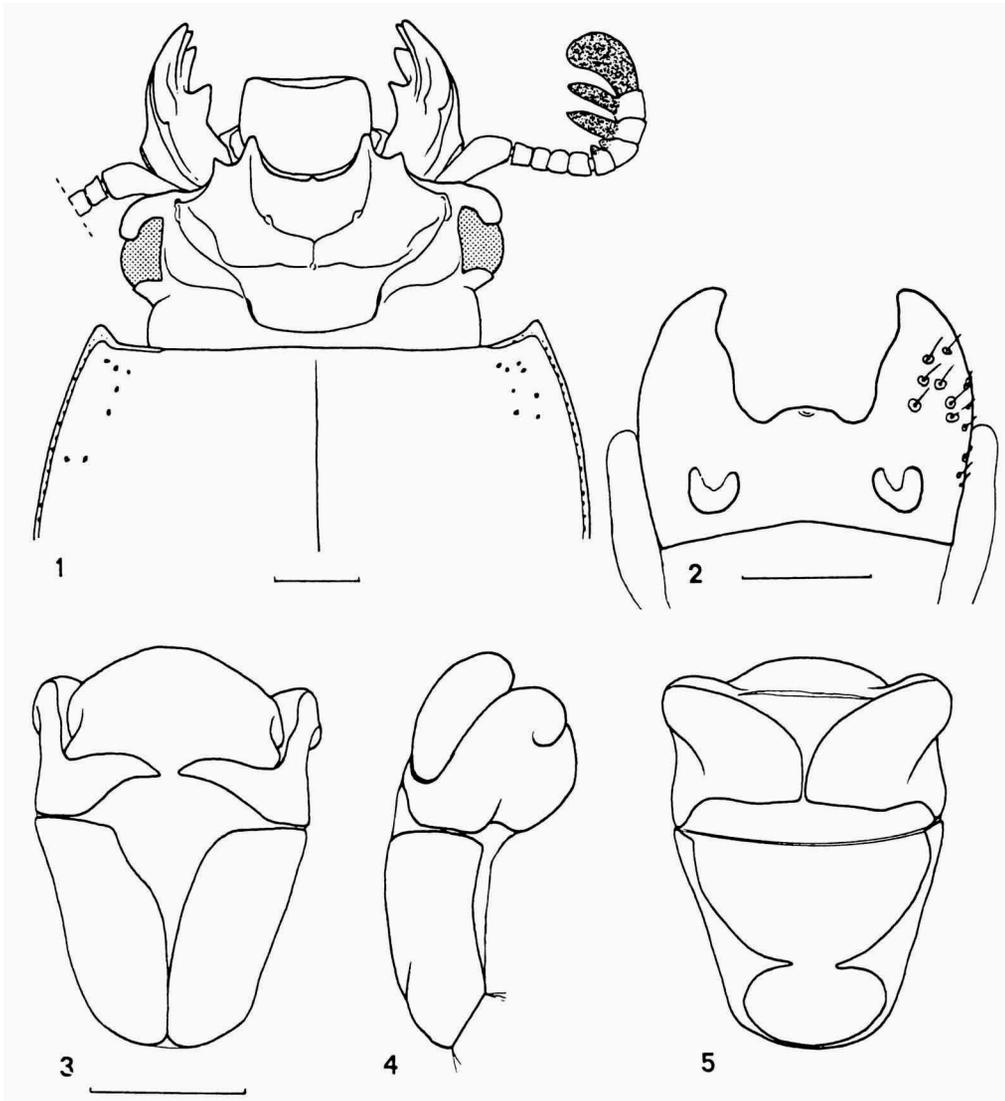
Leptaulax bicolor; Gravely, 1914: 31.

Leptaulax bicolor; van Doesburg Sr., 1942: xxxv.

Material.— Holotype, ♂ (RMNH), "H. Sauter, Formosa, acq. 1908 (n. 58)/ Kosempo, 1-15.viii.08/*Leptaulax bicolor* F. det. v. Doesburg [Sr.]". Allotype, ♀ (RMNH), "Formosa Kosempo, viii.1908, Eing. Nr. 130, 1927/ *L. bicolor* F. var. ♀ *formosanus* v. Doesb. det. v. Doesburg/ Type/ Museum Leiden, Collectie Van Doesburg, rec. 1973". Paratypes, 4 ♂♂, 1 ♀ (RMNH), same data as the holotype, 1 ♂ (RMNH), idem, but 6-31.vii.1908, 1 ♂ (RMNH), same data as the allotype; 12 ♂♂, 12 ♀♀ (Australian Museum, Sydney), 3 ♂♂, 3 ♀♀ (RMNH), "*Leptaulax dentatus* Central District, Taiwan viii.1982. from Ming Ching Collection. G. Hangay"; 2 ♂♂, 2 ♀♀ (Australian Museum Sydney), 1 ♂, 1 ♀ (RMNH), "Formosa, 1982, ex Ming Ching/ Taiwan, South District, ix.1982, from Ming Ching, *Leptaulax dentatus*, Hangay collection".

Diagnosis.— A medium-sized (21-25 mm), rather convex *Leptaulax* species belonging to the *L. bicolor* group, with the outer tubercles small, sharp, pointing obliquely outwards, the primary scars of the mentum small, the sides of the pronotum very sparsely punctured, and the mesosternal scars large.

Head (fig. 1).— Anterior margin of labrum straight or slightly concave. Frontal and clypeal margin between inner tubercles shallowly concave, the former sharply ridged, with a small median tooth. Inner tubercles much longer than the outer ones which are sharply tipped and pointing antero-laterally. Ratio of the distances between the outer and between the inner tubercles is about 11 to 7. Frontal area



Figs. 1-5, *Leptaulax formosanus* spec. nov., ♂ paratype. 1, head and anterior part of pronotum, dorsal aspect; 2, mentum, ventral aspect; 3-5, ventral (3), lateral (4), and dorsal (5) aspects of paramere, respectively. Scale-lines 1 mm.

almost semicircular with an indistinct median ridge and with irregularly pitted depressions laterally, without hair-bearing punctures. Depressions between frontal and supra-orbital ridges and sides of vertex punctured and with long, erect hairs. Central tubercle weakly developed, anteriorly with a short but distinct median keel connecting the fusion of the frontal ridges. Parietal ridges running laterally, at each side meeting the base of the supra-orbital ridge. Antennal club with rather short lamellae. Mentum (fig 2) broad, central area smooth, shiny, anterior border slightly convex, primary scars small, crescentic: anteriorly imperfectly bordered; lateral parts

of the mentum with 6-8 strong hair-bearing punctures each.

Thorax.— Anterior border of the pronotum more or less straight, anterior angles moderately produced and rather sharply pointed, dorsal surface smooth, shiny, sides only sparsely punctured; submarginal grooves narrow, regularly punctured, going up to about one-seventh of the anterior border, posteriorly indistinctly ending or connected to the transverse subbasal groove; lateral pronotal scar oblong, irregularly punctured at the bottom; median groove well developed, not reaching the anterior margin, posteriorly touching the short transverse subbasal groove. Mesosternal scar large, matt, with some rugosities and with an oblong depression which anteriorly and posteriorly usually runs into some fine grooves outside the scar proper, the area behind the scar and the adjacent area of the mesopleurae also matt (shagreened). Mesosternum and metasternum smooth, shiny. Intermediate lateral area of metasternum only at the anterior half bordered with a groove and ridge, sparsely punctured; lateral area narrow, matt, posteriorly only slightly widened. Elytrae with fairly strong, punctured grooves, especially at the sides.

Abdomen.— sternites largely smooth and shiny, anterior corners roughly punctured, last sternite to a greater extent, in the female in addition set with long, erect yellow hairs, forming two large patches; the last three sternites in the middle parts extremely finely shagreened. Aedeagus (unexpanded, figs. 3-5) dorso-ventrally somewhat flattened, curved, basal part large, mainly chitinous at the sides, parameres large, embracing the short median lobe basally, leaving the ventral surface of it largely exposed.

Measurements (taken as described by Reyes-Castillo, 1970: 10, mean values, in mm).— 15 ♂♂, 15 ♀♀ from Central District, Taiwan: males, length of body 22.0 (21.0-23.2), length and width of pronotum, 4.9 and 6.6, length and width of elytra 13.1 and 7.9; females, length of body, 22.6 (21.2-24.0), length and width of pronotum, 5.1 and 6.8, length and width of elytra, 13.5 and 7.9; 3 ♂♂, 3 ♀♀ from South District, Taiwan: males, length of body 21.8 (21.5-22), length and width of pronotum, 4.8 and 6.5, length and width of elytra, 12.9 and 7.6; females, length of body 23.1 (22.5-23.4), length and width of pronotum, 5.4 and 6.9, length and width of elytra, 13.8 and 8.3; 7 ♂♂ and 2 ♀♀ from Kosempo (Sauter): males, length of body 23.4 (22.5-24.5), length and width of pronotum, 5.2 and 7.0, length and width of elytra, 14.2 and 8.1; females, length of body, 24.2 and 23.4, length and width of pronotum, 4.6, 5.2 and 7.2, 6.9, length and width of elytra, 14.8, 14.0 and 8.3, 8.2.

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