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Two new species of *Nothosacantha* CHEVROLAT from Malaysia and Myanmar (Coleoptera: Chrysomelidae: Cassidinae)

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ABSTRACT. *Notosacantha malaysiana* and *N. myanmarensis*, new to science, are described and figured. Both belong to the group of species with partly or completely reduced dorsal costae.

Key words: entomology, taxonomy, new species, Coleoptera, Chrysomelidae, Cassidinae, *Nothosacantha*, Malaysia, Myanmar.

INTRODUCTION

The genus *Notosacantha* CHEVROLAT, 1837 represents the most speciose and curious cassidine beetles. It was traditionally classified within true cassids (Cassidinae sensu HINCKS 1952) but has leaf-mining larvae like the most of true hispine beetles (MEDVEDEV and EROSHKINA 1988, RANE et al. 2000). The genus is extremely rich in species, more than 240 have been described from various parts of Paleotropics with the greatest diversity in Madagascar, Philippines, and Pacific islands. More than 100 species have been recorded from the Oriental Region, with 46 represented in its continental part (BOROWIEC 1999, BOROWIEC and ŚWIĘTOJAŃSKA 2002). In the material studied recently, I have found specimens representing two new species from the continental part of the Oriental Region. Both belong to the species with partly or completely reduced dorsal costae. Their description is given below.

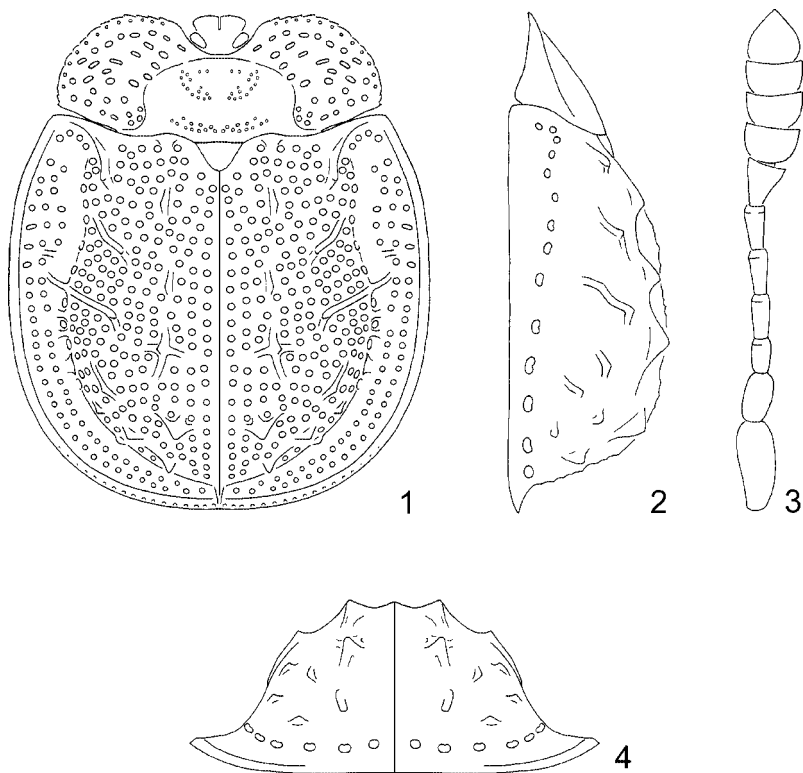
***Notosacantha malaysiana* n. sp.**

ETYMOLOGY

Named after its terra typica, Malaysia.

DIAGNOSIS

Notosacantha malaysiana n. sp. belongs to the group of species without costae, only with isolated tubercles. The group comprises also *N. circumdata* (WAGENER, 1881) from Malaysia, Sumatra, and Borneo, *N. clavareau* (SPAETH, 1900) from Sumatra and Borneo, *N. moultoni* (SPAETH, 1912) from Borneo, and *N. odiosa* (BOHEMAN, 1856) from Java. *N. circumdata* and *N. moultoni* are distinctly larger (length 6-7 mm) with dorsum reddish-brown (deep black in *N. malaysiana*). *N. clavareau* and *N. odiosa* are distinctly smaller (length 4.0-4.5 mm). *N. clavareau* differs in the reddish dorsum. *N. odiosa* is the most similar, but has body outline more regularly circular, with maximum width in the middle while in *N. malaysiana* the maximum width of elytra is distinctly behind mid



1-4. *Notosacantha malaysiana* n. sp.: 1 – dorsal view, 2 – lateral view, 3 – antenna, 4 – apical view

length of elytra. The slope in *N. malaysiana* is distinctly more convex than in *N. odiosa*.

DESCRIPTION

Measurements (n=2): length: 5.3 mm, 5.4 mm, width: 4.5 mm, 4.6 mm, length of pronotum: 1.2 mm, 1.3 mm, width of pronotum: 3.0 mm, 3.2 mm, length/width ratio: 1.17, width/length ratio of pronotum: 2.46-2.50. Body short-oval, the widest in posterior third (fig. 1).

Head black including vertex and frontal plate. Antennae black or yellowish-brown. Scutellum black. Disc of pronotum and elytra black. Explanate margin of pronotum and elytra completely black or black with yellowish-brown extreme margin. Ventrites and legs yellowish-brown.

Frontal plate broad, with truncate apex, apical cleft extending to the line connecting anterior margin of eyes (fig. 1).

Pronotum broad, with maximum width in 1/3 basal length. Area above head with several small punctures, disc in anterior part with two oblique impressions with fine punctures and along base with two punctate transverse impressions, punctures in basal impressions slightly coarser than in oblique anterior impressions. Explanate margin with moderate, mostly elongate, regularly distributed pores which are coarser than pores on explanate margin of elytra and punctures on elytral disc.

Base of elytra as wide as base of pronotum. Elytral disc almost without costae. Posthumeral tubercle with short basal branches, anterior distinctly longer than posterior. Basal, subbasal, apical, and postapical tubercles completely isolated. Principal tubercle isolated with four very short basal branches. Lateral costa forms isolated branch. Rudimentary parts of postapical tubercle, costa ultima, costa terminalis, furca interna, and apicolateral costa form 5 small isolated tubercles (figs 1, 2, 4). Puncturation of elytral disc moderate, distance between punctures as wide as puncture diameter. Puncturation in marginal row gradually coarser posterad. Puncturation of explanate margin similar to punctures on elytral disc, only in humeral area some pores slightly transverse.

Antennae 11-segmented, slim with distinct 5-segmented club. Pedicel approximately 1.5 times as long as club. In holotype specimen with black antennae club is distinctly stouter than in paratype specimen with yellowish-brown antennae (?sexual dimorphism). Second antennal segment broad and elongate, approximately 1.7 times as long as wide. Segment 8 slightly wider than long, segments 9 and 10 distinctly wider than long (fig. 3).

MATERIAL EXAMINED

Holotype: "Malaysia, Pahang distr., Cam. Highl., Kampung Kualaboh vill., 04°27,9'N 101°34,8' E, 26 III-3 VI 2001, 850-1050 m, P. Somody leg." (preserved at the Department of Biodiversity and Evolutionary Taxonomy, University of Wrocław, Wrocław, Poland); paratype: "Malaysia, Pahang, Cameron Highlands, 30 km E Ipoh, 1600 m, Tanah Rata, II 2000, P. Pacholatko leg." (preserved in coll. M. SNIZEK, Česke Budejovice, Czech Republic).

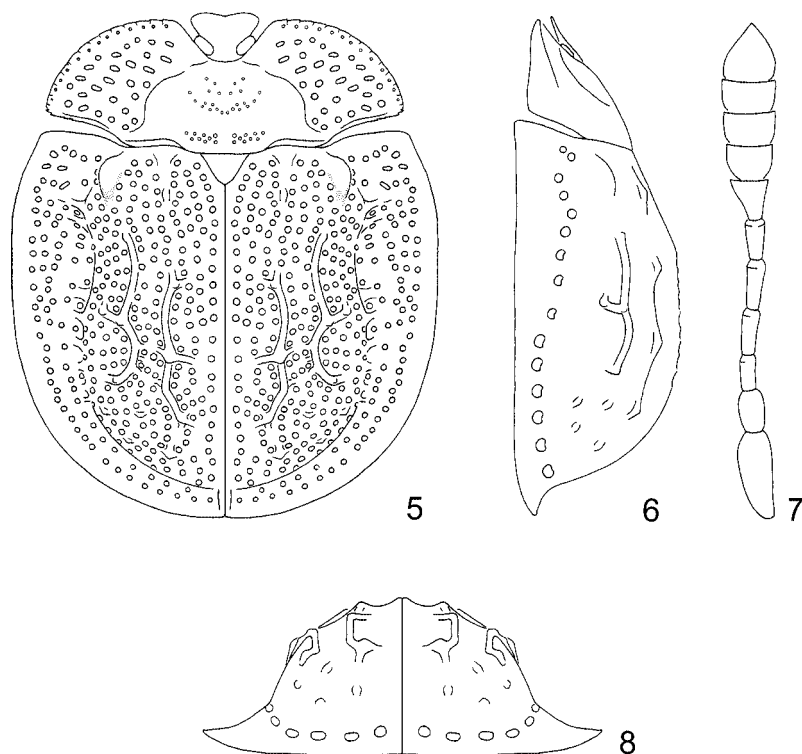
***Notosacantha myanmarensis* n. sp.**

ETYMOLOGY

Named after its terra typica, Myanmar (= Burma).

DIAGNOSIS

Notosacantha myanmarensis n. sp. belongs to the group of species with mostly reduced dorsal costae and principal tubercle with only two branches. The group comprises also *N. arisana* (CHUJO, 1934) from Taiwan, *N. nigropicea* (SPAETH, 1915) from Borneo, *N. obscura* (WAGENER, 1881) from Sulawesi, and *N. sauteri* (SPAETH, 1914) wide spread in the Oriental Region. *N. arisana*, *N. obscura*, and *N. sauteri* have principal tubercle with posterior and lateral branch thus it forms \neg -shaped figure, while in *N. nigropicea* and *N. myanmarensis* principal tubercle has anterior and posterior branch thus it forms a short dorsal



5-8. *Notosacantha myanmarensis* n. sp.: 5 – dorsal view, 6 – lateral view, 7 – antenna, 8 – apical view

costa. *N. nigropicea* distinctly differs in large size (length approximately 7.5 mm), disc black (reddish-brown in *N. myanmarensis*), black antennal club (yellowish-brown in *N. myanmarensis*), and central part of explanate margin of elytra with impunctate field (regularly punctate in *N. myanmarensis*).

DESCRIPTION

Measurements: length: 5.4 mm, width: 4.5 mm, length of pronotum: 1.4 mm, width of pronotum: 3.7 mm, length/width ratio: 1.20, width/length ratio of pronotum: 2.64. Body short-oval, the widest in 1/2 body length. Sides of elytra regularly rounded. (fig. 5).

Head black, frontal plate yellowish-brown. Antennae yellowish-brown. Scutellum black. Disc of pronotum black. Disc of elytra black with reddish-black top. Explanate margin of pronotum and elytra reddish-brown. Ventrites and legs yellowish-brown.

Frontal plate broad, widened apically, apex truncate, angulate on sides, with shallow apical cleft (fig. 1).

Pronotum broad, with maximum width in 1/3 basal length. Area above head with several small punctures, disc in anterior part with two oblique impressions with fine punctures and along base with two punctate transverse impressions, punctures in basal impressions slightly coarser than in oblique anterior impressions. Explanate margin with moderate, mostly elongate, regularly distributed pores which are as coarse as pores on explanate margin of elytra and punctures on elytral disc.

Base of elytra as wide as base of pronotum. Elytral disc with mostly reduced costae and with very low tubercles (figs 5, 6, 8). Basal, subbasal, principal, apical, postapical, posthumeral tubercles present, also two tubercles present on lateral branch of principal tubercle, and tubercle at the end of furca interna. Posterolateral part of disc with three tubercles homologous to rudimentary costa ultima, costa terminalis and apicolateral costa. The following costae present: dorsal costa reduced to anterior branch of dorsal costa between subbasal and principal tubercle and posterior branch of dorsal costa between principal tubercle and apical tubercle, lateral costa forms a short elevation connected with humeral costa, humeral costa forms an elevation between lateral branch and posthumeral tubercle, furca interna forms an elevation connected with lateral branch. Punctuation of elytral disc moderate, distributed regularly, distance between punctures as long as length of puncture diameter. Punctuation in marginal row slightly gradually coarser posterad. Punctuation of explanate margin as on elytral disc, some pores in anterior half slightly elongate as on explanate margin of pronotum.

Antennae slim with distinct 5-segmented club. Pedicel approximately 1.5 times as long as club. Second antennal segment broad and elongate, approximately 1.6 times as long as wide. Segment 8 slightly wider than long, segments 9 and 10 distinctly wider than long (fig. 7).

MATERIAL EXAMINED

Holotype: "Birmania, Palaing, 1450 m, V 1937" (preserved at the Department of Biodiversity and Evolutionary Taxonomy, University of Wrocław, Wrocław, Poland).

NOTE

Colour photos of both new species are available on web page (BOROWIEC and ŚWIĘTOJAŃSKA 2002):

www.biol.uni.wroc.pl/cassidae/katalog%20internetowy/index.htm

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