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A new species of *Notosacantha* CHEVROLAT from Halmahera,  
Indonesia  
(Coleoptera: Chrysomelidae: Cassidinae)

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ABSTRACT. *Notosacantha halmaherana*, new to the science, is described from Halmahera, Moluccas.

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

INTRODUCTION

Untill now, 257 species of *Notosacantha* CHEVROLAT, 1837 were described from various tropic and subtropic parts of the Old World (BOROWIEC 1999, BOROWIEC and ŚWIĘTOJAŃSKA 2002, ŚWIĘTOJAŃSKA 2006), 110 of them were recorded from the Oriental Region, but only 49 are distributed in continental part of the region.

In the material preserved in the Museum fur Naturkunde, Stuttgart, I found specimen from Indonesian island Halmahera (Moluccas) belonging to the new species. It seems to be more similar to species of Papuan Subregion and Australia than to any known species of island part of the Oriental Region. The new species, like Papuan and Australian members of *Notosacantha*, has a special structure of dorsal costa which not appear in Oriental species: when anterior and posterior branch of dorsal costa converging in different point at principal tubercle then anterior branch is placed closer to suture than posterior branch (posterior branch of dorsal costa is placed outwardly in relation to anterior branch), while in Oriental species branches run inversely (anterior branch of dorsal costa is placed outwardly in relation to posterior branch).

*Notosacantha halmaherana* n. sp.

## ETYMOLOGY

Named after its terra typica, Island Halmahera.

## DIAGNOSIS

*Notosacantha halmaherana* belongs to the species group with oval body, distinct elytral costae, principal tubercle with four branches, basal tubercle without transverse lateral branch, not connected with humeral costa, anterior and posterior branch of dorsal costa converging in different points. In the Oriental Region the group comprises *N. dohrni* ŚWIĘTOJAŃSKA, 2001, *N. flavicornis* (SPAETH, 1913), *N. ginpinensis* CHEN et ZIA, 1961, *N. kantneri* ŚWIĘTOJAŃSKA et BOROWIEC, 1999, *N. nigrodorsata* CHEN et ZIA, 1961, *N. reinecki* (SPAETH, 1913), *N. sabahensis* BOROWIEC et ŚWIĘTOJAŃSKA, *N. sandakanensis* ŚWIĘTOJAŃSKA, 2001, 1999, *N. siamensis* (SPAETH, 1933), *N. singaporica* (SPAETH, 1913), *N. sulawesica* BOROWIEC, 1999, *N. sumbawaensis* ŚWIĘTOJAŃSKA et BOROWIEC, 1999, *N. vicaria* (SPAETH, 1913), and *N. weyersi* (SPAETH, 1900). All species listed above differ in structure of dorsal costa with anterior branch placed outwardly in relation to posterior branch, while in *N. halmaherana* posterior branch of dorsal costa is placed outwardly in relation to anterior branch.

*Notosacantha dohrni*, *N. ginpinensis*, *N. sabahensis*, *N. sandakanensis*, *N. siamensis*, and *N. singaporica* differ also in explanate margins without distinct spots or windows.

*Notosacantha halmaherana*, *N. flavicornis*, and *N. sumbawaensis* differ from other species in straight humeral costa, not curved outwardly in anterior part. *N. halmaherana* differs from *N. flavicornis* and *N. sumbawaensis* in possessing only single spot in the middle of explanate margin length (*N. flavicornis* and *N. sumbawaensis* possess both humeral and postero-lateral spots) and antennal club distinctly wider than pedicle with segments 8-10 wider than long (antennal club of *N. flavicornis* and *N. sumbawaensis* is only slightly wider).

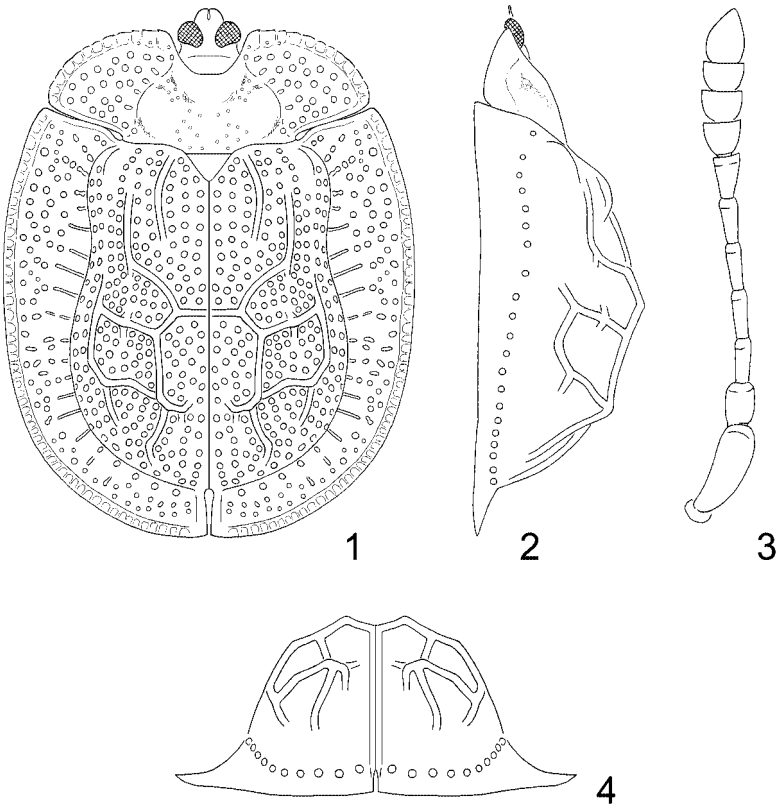
The most similar to *Notosacantha halmaherana* is *N. maeander* (SPAETH, 1925) from New Guinea. Both species are similar in shape and body size (*N. halmaherana* - length: 5.6 mm, width: 4.6 mm; *N. maeander* - length: 5.2-6.3 mm, width: 4.6-5.4 mm), and almost complete set of costae but costae of *N. halmaherana* are more distinct than those of *N. maeander*. *N. halmaherana* differs in colour of dorsal part of body: in *N. maeander* scutellum is black or yellowish-red, pronotal and elytral disc black, explanate margin of pronotum yellow to yellowish-red except black or reddish-black areas on sides of disc, or black with not very broad yellow to yellowish-red strip along margin, explanate margin of elytra close to margin yellow, remainder part reddish-black or black, while *N. halmaherana* has disc of pronotum yellowish-brown, explanate margin of pronotum yellow, scutellum yellowish-brown, disc of pronotum black, explanate margins of elytra yellow with yellowish-brown to black patch in the middle of its

length. I have also examined a lot of undescribed species from New Guinea, partly very similar to *N. halmaherana* but distinct.

#### DESCRIPTION

Measurements: length: 5.6 mm, width: 4.6 mm, length of pronotum: 1.3 mm, width of pronotum: 3.4 mm, length/width ratio of body: 1.2, width/length ratio of pronotum: 2.6. Body oval (Figs 1, 5).

Disc of pronotum yellowish-brown (Figs 5, 6). Explanate margin of pronotum yellow. Scutellum yellowish-brown. Disc of pronotum black, explanate margins yellow with yellowish-brown to black patch in the middle of its length. Connected with elytral disc on one side, black patches run to the half width of explanate margins where their borders are faint. Head yellowish-brown with yellow frontal plate and black vertex. Antennae yellowish-brown. Ventrites and legs yellowish-brown.



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

Frontal plate moderate, broadly rounded, with moderately deep apical cleft (Figs 1, 5).

Pronotum broad, with maximum width at base (Figs 1, 5). Disc with two oblique impressions of fine punctures which run from apico-median part to antero-lateral side and with two punctate transverse impressions at base. Explanate margin with moderate, round, distributed regularly pores which are as coarse as punctures on elytral disc. Pores along pronotal disc slightly elongate.

Base of elytra as wide as base of pronotum. Elytral disc with almost complete and distinct set of costae and without tubercles. (Figs 1, 2, 4, 5, 6). Distinct elevation instead of basal, principal and apical tubercles. Subbasal tubercle or elevation absent. Dorsal costa fading between basal and principal elevations. Anterior half of humeral costa present, posterior part absent, not connected with lateral branch of principal tubercle but connected with dorsal costa in principal



5, 6. *Notosacantha halmaherana* n. sp.: 5 – dorsal, 6 – lateral

elevation. Sutural branch of principal elevation runs perpendicularly to the body axis and extends to suture. Lateral branch complete, extends to 8-th row of punctures. Anterior and posterior branch of dorsal costa at the top of principal point converge in different points. Lateral branch of principal elevation connected with posterior part of dorsal costa in one point slightly behind and outward to connection point of anterior part of dorsal costa and sutural branch of principal elevation. Apicosutural costa at the end bifurcate extending to the second row of punctures. Apicolateral costa with distinct costa ultima and furca externa. Furca externa runs parallel to dorsal costa and extends to lateral branch of principal elevation. Costa ultima long. Costa terminalis absent. Furca interna in form of short fold connected with lateral branch of principal elevation. Puncturation of elytral disc moderate, distance between punctures more or less as wide as puncture diameter. Puncturation in marginal row more or less in diameter similar to puncturation of elytral disc, only slightly gradually coarser posterad. Pores of explanate margin similar to punctures on elytral disc. Pores distributed along disc slightly elongate, very close to disc in anterior half form radial grooves.

Antennae 11-segmented, slim with distinct 5-segmented club. Pedicel approximately 1.7 times as long as club. Second antennal segment elongate, approximately 1.4 times as long as wide. Segment 8 to 10 longer than their width (fig. 3).

#### MATERIAL EXAMINED

Holotype: "MALUKU: Is. Halmahera, Buli, Maba, 8.XI. 1999, 50-650m, leg. A. RIEDEL" (preserved in the Museum für Naturkunde, Stuttgart, Germany).

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