

Genus	Vol. 17(1): 121-125	Wrocław, 30 III 2006
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A new species of *Notosacantha* CHEVROLAT from India (Coleoptera: Chrysomelidae: Cassidinae)

JOLANTA ŚWIĘTOJAŃSKA

Institute of Zoology, University of Wrocław, Przybyszewskiego 63/77, 51-148 Wrocław, Poland;
e-mail: sindiola@biol.uni.wroc.pl

ABSTRACT. *Notosacantha maduraensis*, new to science is described from southern India. It is a unique species, the only Oriental member with completely black body.

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

INTRODUCTION

According to BOROWIEC (1999) and BOROWIEC and ŚWIĘTOJAŃSKA (2002) till now 256 species of *Notosacantha* CHEVROLAT, 1837 have been described from various tropic and subtropic parts of the Old World. The greatest diversity has been observed on islands such as Madagascar (97 species) and Philippines (31 species). From the whole Oriental Region 109 species have been recorded, 48 of them are distributed in continental part of the region and among them 17 are known from India (ŚWIĘTOJAŃSKA et al. 2001). Most species have a small range of distribution and belong to entomological rarities.

In the material studied recently, preserved in Narodni Muzeum, Prague, Czech Republic, I have found a specimen from southern India with unique completely black body, including head, antennae, ventrites and legs. Its description is given below. Such a character has not been observed in any species described from Oriental or Australopapuan Regions but two completely black species have been described from Madagascar.

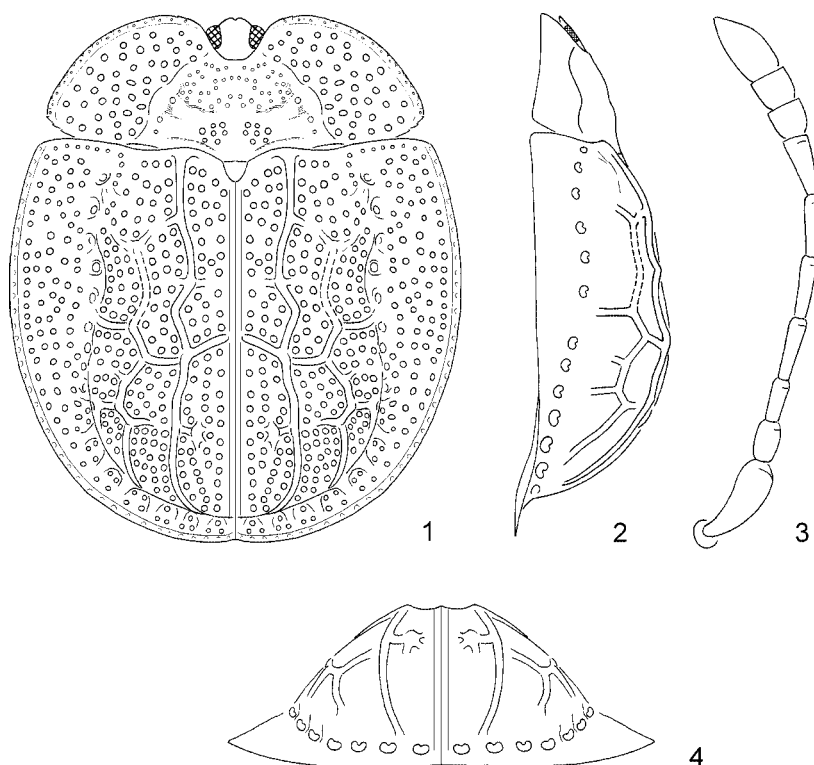
Notosacantha maduraensis n. sp.

ETYMOLOGY

Named after its terra typica, Madura.

DIAGNOSIS

Notosacantha maduraensis at first glance is the most similar to *N. maeander* (SPAETH, 1925) and *N. molucana* (BOHEMAN, 1850) from New Guinea. Both have similar size (length/width: 5.2-6.3/4.6-5.4 mm and 4.6-6.5/3.7-5.6 mm respectively), short-oval shape of body, very low dorsal costae, and black dorsal side of body. In all these three species dorsal costae are incomplete in 1/3 basal length of elytral disc and complete in 2/3 of apical part but *N. maduraensis* has completely black body including head, antennae, ventrites and legs, while in *N. meander* and *N. molucana* ventrites are partly or completely yellow (*N. meander*: yellow head, antennae, ventrites, and legs; it has also yellowish to red extreme part of



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

explanate margin of pronotum and elytra; *N. molucana*: short yellow margin of angles of explanate margin of pronotum close to head sides, ventrites and legs often yellow or ventrites yellow except dark brown to black prosternal process and external margin of tibiae, antennae yellowish-brown, dark brown to black except yellowish-brown first and second segments). Frontal plate of *N. maduraensis* is extremely short with shallow apical cleft while in *N. meander* and *N. molucana* frontal plate is moderate, broadly rounded with moderately deep apical cleft. In *N. maduraensis* puncturation of explanate margin of elytra forms rounded pores, distributed regularly on whole surface of the margin, while in *N. meander* punctures of explanate margin in area along sides of disc tends to group in radial grooves, and in *N. molucana* puncturation of explanate margin forms on whole surface of radial grooves.

From the same region, Madura in southern India, *Notosacantha indicola* (SPAETH, 1933) was described, which is smaller than *N. maduraensis* (length/width: 4.5/4.0 mm; 5.2/4.0 mm respectively), but differs in deep red dorsal part of body, yellowish-red ventrites, yellow antennae with brown club, distinct principal



5, 6. *Notosacantha maduraensis* n. sp.: 5 – dorsal, 6 – lateral (digitally reconstructed)

tubercle, and absence of furca interna (in *N. maduraensis* distinct furca interna connect apicolateral costa with lateral costa of principal tubercle).

N. nathani BOROWIEC et TAKIZAWA, 1991 from south-western part of India and *N. horni* (SPAETH, 1914) from Ceylon are similar to *N. maduraensis* in body size (length/width: 5.4/4.6 mm; 5.0/4.4 mm respectively) and short frontal plate but differ in coloration of body. *N. nathani* possesses yellowish-red head, legs, ventrites, antennae yellowish-red or yellowish-red with black club, dorsal part of body with reddish-black disc of pronotum and elytra and dark red explanate margins of pronotum and elytra or dorsal part of body black with yellowish-red extreme part of explanate margins of pronotum and elytra; *N. horni* has yellowish-red head, antennae, legs, ventrites, dorsal part of body with reddish-black disc of pronotum and elytra and dark red explanate margins of pronotum and elytra; both differ also in distinct principal tubercle and incomplete costae of elytral disc.

In body shape, size (length/width: 5.4/4.5 mm), and hardly visible tubercles *N. maduraensis* is also similar to *N. myanmarensis* ŚWIĘTOJAŃSKA, 2004 described recently from Burma but *N. myanmarensis* is differently coloured: black head, yellowish-brown frontal plate, 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. It differs also in incomplete costae of elytral disc and broad, widened apically frontal plate.

Recently described *N. malaysiana* ŚWIĘTOJAŃSKA, 2004 from Malaysia is similar to *N. maduraensis*, especially in black dorsum but has ventrites and legs yellowish-brown, antennae black or yellowish-brown, and explanate margin of elytra with yellowish-brown extreme margin, also *N. malaysiana* has broad frontal plate with truncate apex (in *N. maduraensis* frontal plate extremely short), distinctly serrate extreme margin of explanate margin of pronotum (in *N. maduraensis* extreme margin is not serrate), incomplete costae of elytral disc, and distinct principal tubercle (in *N. maduraensis* costae are low but complete, tubercles hardly visible).

Madagascan species with completely black body: *Notosacantha nigra* (DUVIVIER, 1891) and *N. tristis* (SPAETH, 1913) distinctly differ in small body (length below 4.2 mm), and distinctly higher elytral costae with at least well developed anterior dorsal tubercle.

DESCRIPTION

Measurements: length: 5.2 mm, width: 4.0 mm, length of pronotum: 1.3 mm, width of pronotum: 3.5 mm, length/width ratio of body: 1.3, width/length ratio of pronotum: 2.6. Body short-oval, the widest in the middle of length (fig. 1).

Body black including ventrites, head, antennae and legs.

Frontal plate very short, with shallow apical cleft (fig. 1).

Pronotum broad, with maximum width at base. 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, round, 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 complete set of low costae and with hardly marked tubercles. (figs 1, 2, 4). Dorsal costa complete. Humeral costa present but very low. Oblique costa between humeral costa and basal tubercle present but interrupted in the middle. Subbasal tubercle without connection with humeral costa and without sutural branch. Sutural costa of principal tubercle running slightly obliquely anterad and extending to suture. Lateral costa complete, extending to marginal row of punctures. Anterior, posterior and sutural branch of dorsal costa in principal tubercle converging in the same point. Lateral costa connected with dorsal costa slightly behind principal tubercle. Apicosutural costa extends to second row of punctures, form a very low tubercle. Apicolateral costa long, not connected with dorsal costa. Costa ultima long. Costa terminalis, furca externa and interna present. Furca interna connected with lateral costa. Puncturation of elytral disc moderate, distance between punctures more or less as wide as puncture diameter. Puncturation in marginal row gradually coarser posterad. Puncturation of explanate margin similar to punctures on elytral disc.

Antennae 10-segmented, slim with distinct 4-segmented club. Pedicel approximately 1.5 times as long as club. Second antennal segment elongate, approximately 1.5 times as long as wide. Segments 8 and 9 as long as wide (fig. 3).

MATERIAL EXAMINED

Holotype: "Shembaganur, Madura, Inde", "Coll. Achard, Mus. Pragense" (preserved in Narodni Museum, Prague, Czech Republic). Holotype has missing right elytron; right antenna, right mid leg, and right hind tarsus are broken but glued to the card below the specimen.

ACKNOWLEDGEMENTS

I would like to express my sincere thanks to Dr. J. JELÍNEK (Narodni Museum, Prague, Czech Republic) for the loan of the specimen. Thanks also to Dr. L. BOROWIEC (University of Wrocław, Wrocław, Poland) for preparing a colour photo.

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