

NEW SUBSPECIES OF THE CATERPILLAR HUNTER *CALOSOMA (CAMINARA) CHLOROSTICTUM* DEJEAN, 1831 FROM THE SOCOTRA ISLAND (COLEOPTERA: CARABIDAE)

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Abstract - A series of specimens of *Calosoma (Caminara) chlorostictum* Dejean, 1831 was collected in the southern part of the Socotra Island (Yemen) in 2008. The geographically most adjacent subspecies to the specimens from Socotra is *Calosoma (Caminara) chlorostictum hadramautum* Mandl, 1954, which is distributed in southern Arabia. The specimens from Socotra differ from this subspecies by many features and are described as a new subspecies *Calosoma (Caminara) chlorostictum ivinskisi* ssp. n. Diagnostic characters are given.

KEY WORDS: Coleoptera, Carabidae, Carabini, new subspecies, Socotra Island, Yemen.

Izvleček - NOVA PODVRSTA MOSKATNIKA *CALOSOMA (CAMINARA) CHLOROSTICTUM* DEJEAN, 1831 Z OTOKA SOKOTRE (COLEOPTERA: CARABIDAE)

Najjužnem delu otoka Sokotre (Jemen) je bilo v letu 2008 zbranih več primerkov vrste *Calosoma (Caminara) chlorostictum* Dejean, 1831. Sokotri geografsko najbližja podvrsta te vrste je *Calosoma (Caminara) chlorostictum hadramautum* Mandl, 1954, razširjena v južni Arabiji. Primerki s Sokotre se od te podvrste razlikujejo po mnogih znakih in so opisani kot nova podvrsta *Calosoma (Caminara) chlorostictum ivinskisi* ssp. n. Opisani so razpoznavni znaki.

KLJUČNE BESEDE: Coleoptera, Carabidae, Carabini, nova podvrsta, Sokotra, Jemen.

Introduction

The Socotra Archipelago is part of the Republic of Yemen and is located in the north-western Indian Ocean, some 400 km south of the Arabian Peninsula. The archipelago consists of the main island of Socotra (3625 square km) and three smaller islands, namely Abd Al Kuri, Samha and Darsa.

In 2008 a series of specimens of *Calosoma (Caminara) chlorostictum* Dejean, 1831 were collected in the southern part of Socotra Island. Examination of the specimens revealed that the specimens are representing a new subspecies of *Calosoma chlorostictum* which most probably is limited to Socotra Island. The description of *Calosoma (Caminara) chlorostictum ivinskisi* ssp. n. is given below.

Description

***Calosoma (Caminara) chlorostictum ivinskisi* ssp. n** (Figs 1,2,4).

Material examined: Holotype: male with label: "Yemen, Sokotra Isl., Ayhft Riv. valley, 600 m, 25.XI.2008, R. Saldaitiene & A. Saldaitis leg."; 8 paratypes: 3 males, 1 female, same data and same locality; 2 specimens (male and female) with label: "Socotra, III.1999"; 2 specimens (male and female) with label: "Socotra, II.1992"

The holotype is deposited in the Institute of Ecology of Vilnius University (Vilnius, Lithuania). Paratypes are deposited in Mr. Rimas BUTVILA (Joniskis, Lithuania) collection. One paratype will be deposited in the Museo di Scienze Naturali "CAV. LOCCA" (Guardabosone, Italy).

Description: Body length in males 23.0 - 24.6 mm (including mandibles), width 9.0 - 11.5 mm; body length in females 24.8 - 26.3 mm, width 10.2 - 12.0 mm.

Head compact; ratio width of pronotum/width of head 1.65; eyes big, strongly convex; mandibles relatively short and broad, slightly incurved; terebral tooth of the right and left mandibles unidentate, slightly prominent; retinaculum of the right mandible bigger, prominent, retinaculum of the left mandible smaller, slightly prominent; surface of mandibles with coarse wrinkles and punctures. Frontal furrows deep and long, mediad coarsely punctured. Frons, vertex and neck with coarse punctures and few coarse wrinkles. Labrum wider than clypeus, strongly notched, with two lateral setae. Antennae surpassing base of pronotum by 3-4 antennomeres; palpi slightly dilated; penultimate palpomere of the maxillary palpus longer than the terminal palpomere; penultimate palpomere of the labial palpus with 4-5 setae. Mentum tooth triangular, shorter than lateral lobes; submentum without setiferous pores.

Pronotum broad, convex; broadest about at middle; ratio width/length 1.75. Disk of pronotum with coarse punctures; pronotal sculpture more rough and dense posteriorly and anteriorly. Median longitudinal line distinct; basal foveae big, deep, mediad coarsely punctured. Sides of pronotum narrowly margined; lobes of hind angles



Figs 1-3. Habitus. 1. *Calosoma chlorostictum ivinskisi* ssp. n, male (holotype) (length - 24.2 mm). 2. *Calosoma chlorostictum ivinskisi* ssp. n, female (paratype) (length - 26.3 mm). 3. *Calosoma chlorostictum hadramautum* Mandl, 1954, male (length - 23.2 mm).



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Figs 4-5. Aedeagus. 4. *Calosoma chlorostictum ivinskisi* ssp. n. 5. *Calosoma chlorostictum hadramautum* Mandl, 1954

very short, evenly rounded, slightly bent down. Lateral margin with 2 setiferous pores: one pore at about middle and one pore near hind angle.

Elytra short-oval, relatively convex; widest behind middle; shoulders strongly prominent; margins of elytra narrowly margined. Ratio length/width 1.50; ratio width of elytra/width of pronotum 1.53. Elytral sculpture triploid, homodynamous; all elytral interspaces moderately convex, about equally developed, primary elytral interspaces interrupted into long links, secondary and tertiary elytral interspaces not interrupted. Primary foveoles distinct; striae coarsely punctured.

Ventral body surface smooth, metepisternum finely wrinkled, slightly longer than wide; sides of abdomen slightly wrinkled; sternal sulci not deep, shallow.

Legs of normal length; tibiae of middle and anterior legs curved; fore male tarsi with three dilated segments bearing hairy pads.

Aedeagus relatively narrow, evenly curved, apical lamella relatively broad (Fig.4); endophallic structure in general is characteristic for the species.

Coloration black with bronze lustre; primary elytral foveoles bronze. Antennae and claws brown; mandibles, palpi, legs and ventral body surface black.

Discussion: The geographically most adjacent subspecies of *Calosoma (Caminara) chlorostictum* to the new subspecies is *Calosoma (Caminara) chlorostictum hadramautum* Mandl, 1954 (Fig.3), which is distributed in southern Arabia. The new subspecies differs from this latter subspecies by following features: body more robust; head with less rough sculpture; eyes more convex; mandibles broader and shorter; mentum tooth narrower and longer; pronotum with less rough sculpture, broader (ratio width/length 1.75, while in *C. chlorostictum hadramautum* - ratio width/length of pronotum 1.48); elytra broader and shorter (ratio width/length 1.55, while in *C. chlorostictum hadramautum* - ratio width/length of elytra 1.64); elytral sculpture less rough, primary elytral foveoles more distinct; aedeagus narrower,

evenly curved, apical lamella more dilated (Figs 4,5). From *Calosoma* (*Caminara*) *chlorostictum rugosulum* Mandl, 1970 the new subspecies differs by less rough elytral sculpture and smaller size.

Bionomics and distribution

The long geological isolation of the Socotra Archipelago from neighbouring Arabia and Africa has resulted in very high levels of endemism. The island in fact has been historically known for its unique vegetation. In Socotra Island alone, over 400 endemic plant species are found.

In the northwestern part of Socotra Island the Haghier Mountains reach 1525 metres above sea level. The eastern and central parts of the island receive some rain during fall and winter, while the western part is arid. In spring, from March to May, temperatures usually rise above 40 degrees Celcius. The climate is characterized by seasonal monsoon winds blowing from the north-east from October to May and from the south-west from June to September.

Calosoma chlorostictum ivinskisi ssp. n. was collected in the southern part of the Haghier Mountains, in the upper part of the Ayhft valley, where *Dracaena cinnabari*, *Rhus rhyrsiflora*, *Euryops arabicus*, *Buxus pedicillata*, *Gnidia socotrana*, *Cocculus balourii* and other plant species dominate. Few specimens were light trapped during the night. Another endemic beetle species *Mallodon arabicum* (Cerambycidae) was collected at the same time.

Etymology: The new species is named after the famous Lithuanian entomologist Dr. Povilas Ivinskis.

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