

***Cintaromorpha* gen. n. and *C. dacatrai* sp. n.: a new genus and species of Panagaeini from Pakistan (Coleoptera: Carabidae: Panagaeinae)**

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Cintaromorpha gen. n. and *C. dacatrai* sp. n. from Pakistan are described. The new genus is similar to *Cintaroa aptera* Kasahara in the shape and structure of the ligula and paraglossae, but the two genera can be readily separated by the shape of the head and pronotum. The new genus differs from all other panagaeine genera by combination of large size, long legs, entirely black coloration, elongate ligula, transverse tooth of mentum, and simple, unclen fourth tarsomeres.

Key words: Coleoptera, Carabidae, Panagaeinae, Pakistan, new genus, new species.

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INTRODUCTION

Most contemporary lists of ground beetles including the last edition of the Palaearctic Catalogue do not record any representative of the tribe Panagaeini Bonelli, 1810 (Jedlička 1965; Kirschenhofer 2000; Baehr 2003) from Pakistan. Häckel & Farkač (2012, 2013) listed Pakistan as one of the countries that fall within the distributional limits of *Craspedophorus elegans* (Dejean 1831), with their data supported by two specimens from Changa Manga (Lahore District) in the Punjab Province, one specimen from Havelian (District Abbottabad) in the northern province of Khyber Pakhtunkhwa and few specimens from the Naushahro Feroze District in the Sind Province.

Still unpublished is a specimen matching the description of *Microcosmodes flavopilosus* (Laferté-Sénéctere 1851), whose type the first author was unable to locate at National Museum of Natural History (Paris, France). It is a specimen from the Naushahro Feroze District in the Sind Province, southeastern Pakistan near the border to India (Anichtchenko 2014). Both instances concern smaller alate species, which makes the discovery of a new large and apterous species in the montane valley Khyber Pakhtunkhwa rather surprising. The species belongs to a new genus related to but morphologically quite distinct from the monotypical genus *Cintaroa* Kasahara, 1989 that occurs far away in Taiwan (Kasahara 1989).

MATERIAL AND METHODS

Examination and dissection of the specimen were made under a Nikon binocular microscope. Photographs were taken with a Nikon D camera and AF-5 DX Micro NIKKOR 40mm f/2.8G lens, and processed using Helicon Focus computer software. Measured were maximum body length from anterior margin of clypeus to apex of elytra, maximum head width including eyes, length of pronotum along midline, maximum width of pronotum, length of elytra from its base to apex along suture, and maximum width of elytra. The aedeagus was extracted, studied dry and glued on a card appended beneath the dissected specimen.

High-resolution habitus images of the specimen are available at Carabidae of the World web-project <http://www.carabidae.org>. The holotype was borrowed from the private collection of S. Dacatra (Milano, Italy, acronym cSD) and will be deposited there.

DESCRIPTIONS

Cintaromorpha gen. n.

(Fig. 1)

Type species. *Cintaromorpha dacatrai* sp. n. Apterous panageine of *Cintaroa*-like facies, with very long, slender legs. Body elongate, black, rather opaque, covered with dark pubescence; antennae long and slender.

Head long, constricted behind eyes, tempora long, in contrary to the genera *Cintaroa* Kasahara, 1989 and *Trichisia* Motschulsky, 1865; tooth of mentum transverse, paraglossae shorter than ligula, filling lateral margins, ligula longer (Fig. 1d), in contrary to the genera *Craspedophorus* Hope, 1838, *Dischissus* Bates, 1873, *Adischissus* Fedorenko, 2015, *Microcosmodes* Strand, 1936 and *Tinoderus* Chaudoir, 1879. Terminal labial palpomere strongly triangular shaped.

Pronotum weakly transverse (in contrary to the genus *Cintaroa* with narrower pronotum and

Trichisia with pronotum strongly transverse), anterior angles rounded, indistinct, lateral margins deeply sinuate before hind angles which are almost rectangular (in contrary to the genera *Panagaeus* and *Trichisia*).

Elytra unicolorous (in contrary to the genus *Panagaeus* with similar ligula and paraglossae), elliptical, convex, widest just behind midlength, entirely fused with each other at the suture, distinctly wider than pronotum, obviously longer than wide; shoulders rounded; lateral borders reaching the base of striae 4, 5; striae deeply impressed, interrupted by deep and dense punctuation at the bottoms; intervals convex, distinctly and not too densely punctate in 1 - 2 rows.

Ventral surface irregularly and strongly pitted except for median parts of mesosternum and sternites, metepisternum short, trapeziform, weakly longer than wide (Fig. 1c). Ventriles distinctly crenulated anteriorly (Fig. 1b). Legs slender; first two male protarsomeres same as the others, not dilated (in contrast to the genera *Panagaeus*, *Tinoderus* and *Peronomerus*). Fourth protarsomere not cleft (in contrast to the genus *Euschizomerus*).

Etymology. Name refers to the morphologically similar genus *Cintaroa* Kasahara, 1989.

Cintaromorpha dacatrai sp. n.

(Fig. 1a-f)

Holotype (male, "Pakistan - Kagan V., Murree 2000 m c.a., 6. VII. 1986, C. Dacatra" (cSD)).

Description of holotype. Length 17.5 mm, width 6.5 mm. Proportions: pronotum 1.13x wider than long, 1.83x wider than head, elytra 1.51x wider than pronotum.

Color: Body black, glossy, sparsely covered by black setae; terminal parts of mandibles, basal parts of palps, tarsi and antennae lighter, brownish.

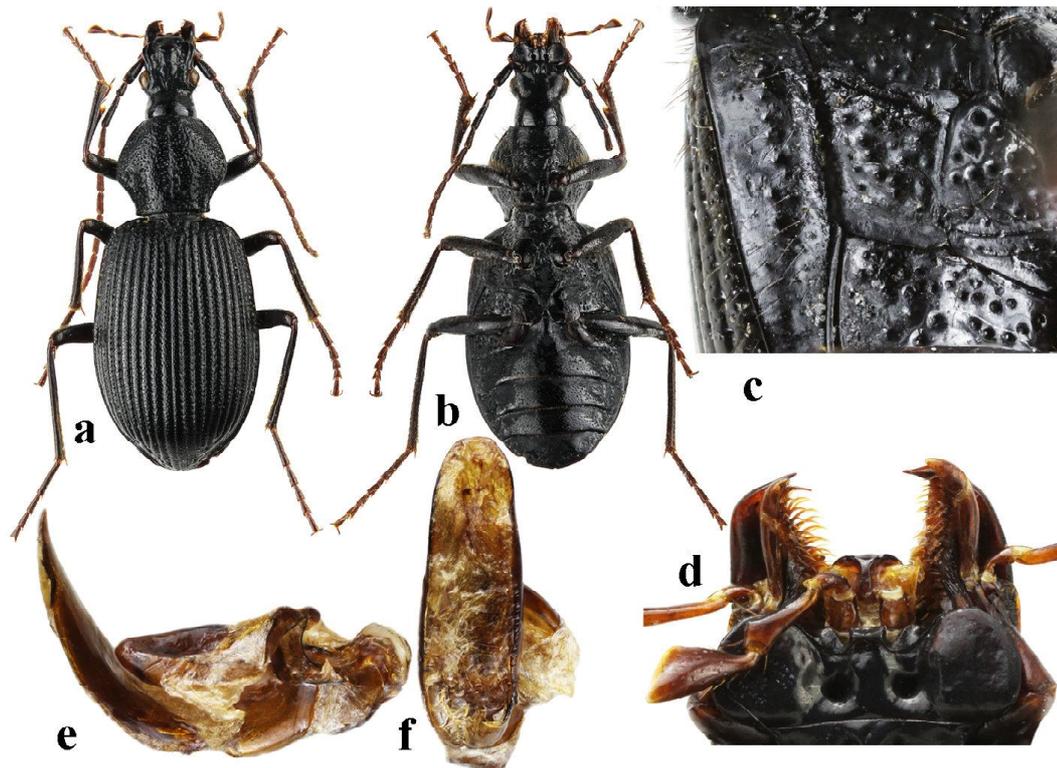


Fig. 1 *Cintaromorpha dacatrai* sp. nov., HT (male): a. dorsal habitus; b. ventral habitus; c. right metepisternum; d. head, ventral view, detail of mentum, glossae and paraglossae; e. aedeagus, lateral view; f. aedeagus, dorsal view to apex

Head long, narrow, 1.83x narrower than pronotum, markedly constricted behind eyes; eyes moderately convex; temples well developed, oblique; labrum strongly excavated at anterior margin; clypeus smooth; vertex convex, sparsely punctured; anterior part of frons smooth, fairly convex at middle, laterally depressed, rugate, lateral margin with sulcus rimming it from mandibular base to posterior margin of eyes, anterior side arcuate, weakly sinuate before eyes, moderately impressed, smooth, sharply bordered externally, medially bordered by a longitudinal ridge separating it medially from elongate lateral pits. Neck smooth.

Pronotum slightly transverse (length to width ratio 1.13), roughly hexagonal, widest just behind midlength, with anterior margin distinctly

narrower than base; front angles broadly rounded, indistinct; lateral margins weakly sinuate toward base; hind angles almost rectangular, base straight; lateral rims narrow anteriorly, disappear near front angles; surface densely rugate, coarsely and irregularly punctured; sagittal line distinctly impressed, reaching neither front margin nor base; basal pits elongate, deeply impressed, coarsely punctured.

Elytra weakly ovoid, strongly convex, widest just behind midlength, elongate, weakly tuberoso in front of apex; disc weakly flattened; humeri developed but rounded; margins weakly rounded near humeri, widening posterolaterally, strongly rounded toward apex; basal rim indistinct, striae deeply impressed and punctured; intervals con-

vex, sparsely punctured, interspaces with distinct isodiametric microsculpture.

Venter black, metepisternum anteroposteriorly somewhat longer than wide, trapeziform, punctured, narrower posteriorly. Ventrites with anterior margins strongly crenulate, laterally

rugate, finely rugate at middle, densely covered by long setae.

Aedeagus evenly curved, apical lamella short, apex rounded (Figs. 1e, f).

Etymology. Named after the collector, Mr. Stefano Dacatra from Milan, Italy.

Distribution. Pakistan: Mansehra District of the Khyber Pakhtunkhwa Province.

Key to Palearctic and Oriental genera of Panagaeini Bonelli, 1810

(Based on recent studies of Häckel & Kirschenhofer, 2014 and Fedorenko, 2015)

- 1 Unicolorous, dark, apterous species, length >17 mm 2
- Bicolorous, alate or apterous species; if unicolorous then markedly smaller 3
- 2 Head broad, not constricted behind eyes, temples short, not reaching half of eye length. Pronotum cordate, as wide as long, widest before midlength; front margin wider than base; disc flat, separated from margin by a posteriorly widening rim; lateral margins elevated ***Cintaroa* Kasahara, 1989**
- Head elongate, markedly constricted behind eyes, temples long, exceeding half of eye diameter. Pronotum roughly hexagonal, weakly transverse, widest behind midlength; front margin narrower than base; disc arched, lateral margins deflected, anteriorly without an apparent rim, posteriorly rim narrow..... ***Cintaromorpha* gen. n.**
- 3 Paraglossae of the same length as ligula; elytra black, each with two maculae 4
- Paraglossae shorter than ligula, fill lateral margins, ligula shorter. Elytra unicolorous (except genus *Panagaeus*) 8
- 4 Protarsi same in both sexes except in *Craspedophorus elegans* group 5
- Protarsi of males modified 7
- 5 Penultimate protarsomere not excised, or excised not more than half of its length ***Craspedophorus* Hope, 1838**
- Cleft in penultimate protarsomere exceeds half of protarsomere length 6
- 6 Ventrites smooth at bases. Penultimate labial palpomere dilated and plurisetose at inner margin. Monobasic ***Dischissus* Bates, 1873**
- Ventrites with a dense row of large punctures along bases. Penultimate labial palpomere subcylindrical and bisetose at inner margin ***Adischissus* Fedorenko, 2015**
- 7 Protarsi of males slightly wider than in females, but all tarsomeres lack ventral brushes of setae. Small species less than 8 mm long ***Microcosmodes* Strand, 1936**

- First two male protarsomeres expanded. Monobasic ***Tinoderus* Chaudoir, 1879**

- 8** Cleft in penultimate protarsomere exceeds half of tarsomere length
..... ***Euschizomerus* Chaudoir, 1850**

- Penultimate protarsomere not cleft more than other protarsomeres..... **9**

- 9** Protarsomeres same in both sexes ***Trichisia* Motschulsky, 1860**

- At least first protarsomeres of males wider than those in females **10**

- 10** Only first male protarsomere expanded ***Peronomerus* Schaum, 1854**

- First two male protarsomeres expanded. Elytrons black, each with two yellowish-red maculae ***Panagaeus* Latreille, 1802**

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