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A NEW SPECIES OF THE GENUS *CYBOCEPHALUS* FROM IRAN AND A NOTE ON SYNONYMY (COLEOPTERA: NITIDULIDAE)

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ABSTRACT

Cybocephalus (*Cybocephalus*) *assiduus* sp. nov. (subfamily Cybocephalinae) collected on *Ceroplastes rusci* (Hemiptera, Coccidae) hosted on fig (*Ficus carica*) is described from Iran. The synonymy of *C. (C.) politissimus* Reitter, 1898 and *C. (C.) flavocapitatus* Tian et Yu, 1994, syn. nov. is proposed.

Key words: Coccidae, Coleoptera, Cybocephalinae, *Cybocephalus*, Iran, Nitidulidae

РЕЗЮМЕ

Описан *Cybocephalus* (*Cybocephalus*) *assiduus* sp. nov. (подсемейство Cybocephalinae) из Ирана, собранный на *Ceroplastes rusci* (Hemiptera, Coccidae), живущем на инжире (*Ficus carica*). Предложена синонимия *C. (C.) politissimus* Reitter, 1898 и *C. (C.) flavocapitatus* Tian et Yu, 1994, syn. nov.

INTRODUCTION

The subfamily Cybocephalinae spreads mostly in Palaeotropic and associated with Coccidae and Aleirodidae. The Palaearctic fauna was revised by S. Endrödy-Younga (1968), although after this publication appeared many additions mainly from the eastern part of the region (Endrödy-Younga 1971; Jelínek 1982; Kirejtshuk 1984, 1988, 1992; Tian 2006). Nevertheless, the latter area is still poorly known and many new species can be expected from there. This paper describes one more new species of this subfamily from Iran.

The type series is deposited in the collection of the Zoological Institute of the Russian Academy of Sciences (St. Petersburg).

SYSTEMATICS

Family Nitidulidae Latreille, 1802

Subfamily Cybocephalinae Jacquelin du Val, 1858

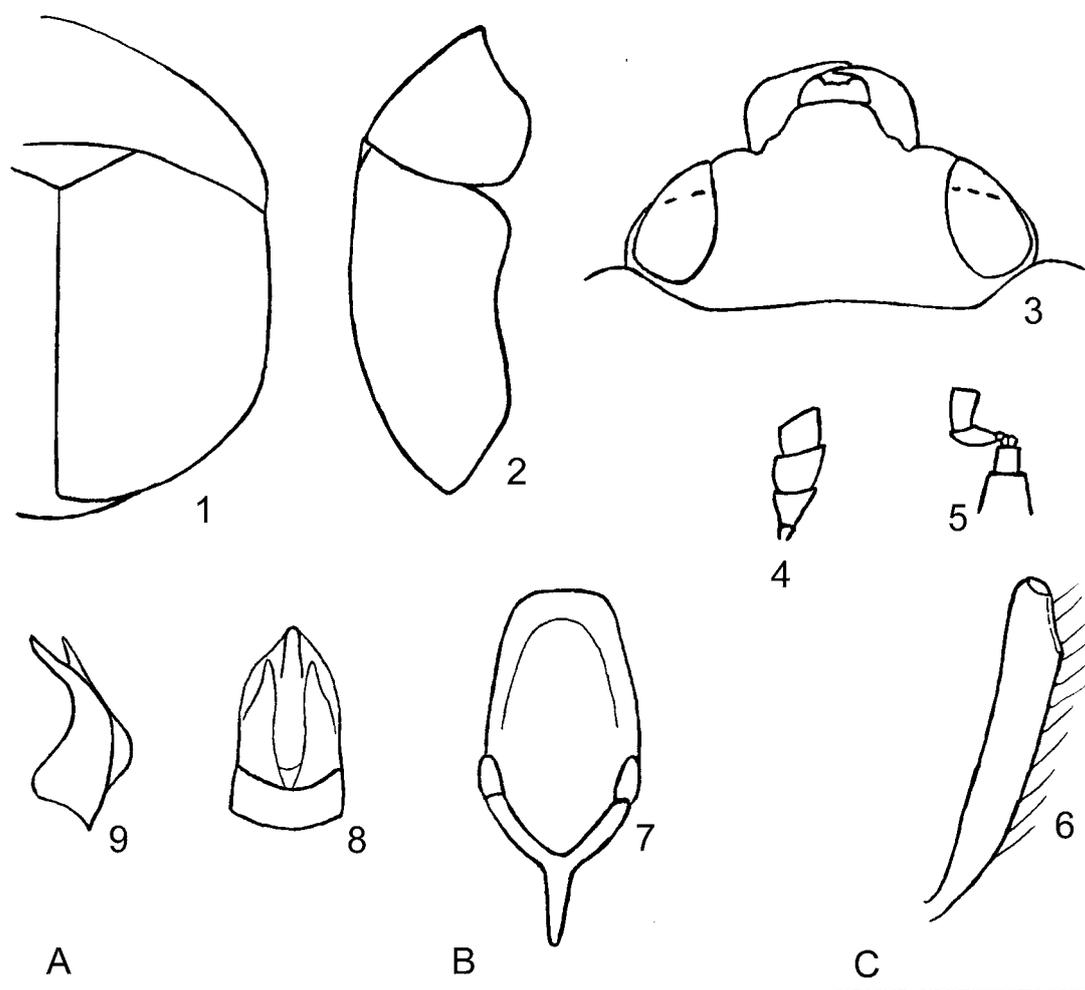
Genus *Cybocephalus* Erichson, 1844

Type species: *Anisotoma exigua* C.R. Sahlberg, 1834 (= *Nitidula polita* Gyllenhal, 1813).

Cybocephalus (*Cybocephalus*) *assiduus* sp. nov.
(Figs. 1–9)

Type material. Holotype male – Iran: “Estahban, Fars Province, on *Ceroplastes rusci* (Linnaeus) (Coccidae), on fig [*Ficus carica*], 8 July 2007, coll. N. Saghaei”.

Paratypes. 8 males and females with the same label as the holotype.



Figs. 1–9. *Cybocephalus (Cybocephalus) assiduus* sp. nov.: 1 – body outline, dorsal; 2 – elytron and pronotum, lateral; 3 – head, anterodorsal; 4 – mentum and labial palp, ventral; 5 – antennal club; 6 – protibia, dorsal; 7 – tegmen, ventral; 8 – penis trunk, dorsal; 9 – idem, lateral. Scales: A – to figs 1, 2, bar mm; B – to figs 3–6, bar mm; C – to figs 7–9, bar mm.

Etymology. The epithet of this new species means “settled”, “assiduous”, “persevering”, “diligent”.

Diagnosis. This new species is reminiscent of some Palaearctic and Indo-Malayan species with the lighter male head. The Palaearctic ones are *C. (C.) aegyptiacus* Endrödy-Younga, 1968; *C. (C.) freyi* Endrödy-Younga, 1968; *C. (C.) kuznetzovi* Kirejtshuk, 1988; *C. (C.) mediterraneus* Endrödy-Younga, 1968; *C. (C.) nipponicus* Endrödy-Younga, 1971 (? = *undatus* Tian et Yu, 1994); *C. (C.) nitens* Wollaston, 1867; *C. (C.) pangi* Yu et Tian, 1995; *C. (C.) politissimus* Reitter, 1898 (= *flavocapitatus* Tian et Yu, 1994, **syn. nov.** – see below); *C. (C.) politus* (Gyllenhal, 1813); *C. (C.) pullus* Endrödy-Younga, 1968; *C. (C.) rufifrons*

Reitter, 1874; *C. (C.) sphaerula* (Wollaston, 1854); *C. (C.) tibialis* Endrödy-Younga, 1968; *C. (C.) taiwanensis* Tian et Pang, 1994; *C. (C.) tryapitzini* Kirejtshuk, 1984. The new species differs from all of them in the structure of male genitalia and other peculiarities. Taking in consideration the comparatively dark pronotum, structure of the head and tibiae, abrupt apex of antennal club, lack of both brushes of hairs along the tegmen apex or angularly pointed tegmen apex of the new species, it can be compared with *C. (C.) aegyptiacus*, *C. (C.) mediterraneus*, *C. (C.) nipponicus*, *C. (C.) pangi*, *C. (C.) politissimus*, *C. (C.) rufifrons*, *C. (C.) sphaerula*, *C. (C.) tibialis* and *C. (C.) taiwanensis* rather than with the rest mentioded species. The

protibia of the new species is most similar to that in *C. (C.) aegyptiacus* and *C. (C.) rufifrons*, however, *C. (C.) assiduus* sp. nov. differs from them in the longer genal stripe exposed from under the outer edge of eyes, gently curved outline of outer subapical angle of the protibia, not acute apex of penis trunk; and from the second also in the not truncate or not subacute tegmen apex (the new form could be in a subspecies relation to the formerly described forms mentioned for the last comparison). Besides it, the protibia of the new species with subapical gentle curve along outer edge is also similar to that in *C. (C.) mediterraneus*, but it differs from the latter in the subparallel anterior and posterior edge of metafemur and not subsquare penis trunk.

Description of holotype (male). Length 0.9 (with deflected head), width 0.7, height 0.5 mm. Elongate oval; elytra and eyes dark brown to blackish; head with appendages, apical abdominal ventrites, anterior and intermediate legs brownish; remainder chestnut brown; rather convex dorsally and slightly convex ventrally; dorsum rather shining and underside with a slight shine; dorsum with very sparse, very short and hardly conspicuous hairs, much shorter than distance between their insertions; underside with rather dense and conspicuous hairs, about 4 times as long as distance between their insertions.

Head with some trace of weak and extremely fine irregular transrugosity (nearly alutaceous) and with hardly expressed extremely fine and sparse puncturation. Pronotum with very sparse and extremely small punctures bearing roots of hairs, interspaces between them apparently smooth or very finely alutaceous. Elytra with punctures somewhat larger than those on pronotum, interspaces finely microreticulated. Pygidium and underside with rather shallow and indistinct punctures, nearly as large as eye facets in diameter; interspaces between them about as great as a puncture diameter and irregularly microreticulated.

Head weakly convex, with a frons moderately projecting anteriorly, almost 3/4 as long as distance between very large eyes (composed of moderately large facets); eyes extended on underside only in anterior part. Labrum slightly exposed from under frons, unilobed and medially excised. Mandibles slightly exposed from under frons. Antennae 11-segmented and obliquely truncate apex of their club. Pronotum about 1 and 2/3 times as long as elytra, rather and evenly convex, with strongly sloping sides, its anterior edge bisinuate, lateral edges widely rounded, pos-

terior edge shallowly emarginate. Scutellum widely subtriangular and with widely rounded apex. Elytra about 1 and 1/3 as long as wide combined, rather convex at disk, evenly and gently sloping laterally, their sides slightly arcuate and apices nearly forming a joint arc, although at suture a shallow but distinct sutural angle expressed. Pygidium widely truncate at apex and anal segment clearly exposed from under it.

Distance between metacoxae markedly greater than that between mesocoxae and about 2/3 of length of metatibia. Metaventrite about 1.5 times as long as abdominal ventrite 1, its posterior edge between coxae rectilinearly truncate. Abdominal ventrite 1 about 2.5 times as long as hypopygidium and somewhat shorter than ventrites 2–4 combined. Submetacoxal line of usual configuration. Hypopygidium widely emarginate at apex. Epipleura moderately narrow and steeply sloping downwards laterally.

Legs well developed. Pro- and mesotibiae about as wide as antennal club; metatibia somewhat wider and more subtriangular; all with a row of long hairs along outer edge. Femora about twice as wide as corresponding tibiae and metatibia about 2.5 times as long as wide, with both anterior and posterior edges slightly convex, although anterior and posterior edges of metafemur subparallel. Tarsi of moderate length and rather narrow, tarsomeres 1–3 narrowly lobed.

Aedeagus. Moderately sclerotized.

Female. Outwardly differs from the male in the widely rounded apices of pygidium and hypopygidium and darker head, almost unicoloured dark brown dorsum with somewhat lighter underside and yet lighter legs and antennae.

Variations. Length 0.9–1.1 (with deflected head) mm (females in general larger). The puncturation of the head is sometimes as expressed as that on the pronotum. The underside of both sexes is sometimes lighter than in the holotype: the prosternum and preapical abdominal ventrites are about as light as head in males.

Notes. The names *C. (C.) politissimus* Reitter, 1898 (known after Endrödy-Younga 1968 and many specimens from East Palearctic) and *C. (C.) flavocapitatus* Tian et Yu, 1994, **syn. nov.** (known after original description) should be regarded as evident synonyms, because these forms have not any distinction in outer characters and aedeagus peculiarities. The names *C. (C.) nipponicus* Endrödy-Younga, 1971 and *C. (C.) undatus* Tian et Yu, 1994 could be also synonymized because of similarity of many structures, however, the type series of the second form is needed to be re-examined.

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