

***Odontocarus iranicus* (Jedlička, 1968), a new synonym of *Odontocarus zarudnianus* (Semenov & Znojko, 1929) (Coleoptera; Carabidae; Harpalini)**

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On the basis of the morphological study of an extensive material *Odontocarus iranicus* (Jedlička, 1968) syn. nov., is synonymized with *Odontocarus zarudnianus* (Semenov & Znojko, 1929).

Key words: Carabidae, Carabinae, *Odontocarus*, new synonymy, Iran.

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INTRODUCTION

The genus *Odontocarus* Solier, 1835 belongs to the subtribe Ditomina Bonelli, 1810 of the tribe Harpalini Bonelli, 1810 and can be recognized by a transverse and strongly constricted pronotum at the base as well as by the complete basal margin of the elytra and by the large and rounded head especially in males. The species of this genus are distributed in Middle East, North Africa and South Europe (Löbl & Smetana, 2003). Until now three species of this genus have been reported or described from Iran (Azadbakhsh & Nozari, 2015; Mandl, 1967; Jedlička, 1968; Semenov & Znojko, 1929). The first species, *O. zarudnianus* (Semenov & Znojko, 1929), was described by Semenov & Znojko (1929) from the Lurestan Province. Mandl (1967) reported *O. asiaticus* (Chaudoir, 1852) from Gasr-e Shirin (Kermanshah Province, western Iran).

Jedlička (1968) described *O. iranicus* from Dasht-e Arzhan (Fars Province). This description was based on single female which was compared with *O. asiaticus*, However, *O. zarudnianus*, which is distributed in that region, was not mentioned.

The study of an extensive material (29 specimen), which contents of specimens obtained during my entomological expeditions in western parts of Iran from 2013 to 2016 and additional institutional specimens, has shown that the populations of *O. zarudnianus* are very variable with respect to both internal and external characters. As a result I found that *O. iranicus* is conspecific with this species and I decide to provide a new synonymy here.

MATERIAL AND METHODS

The studied material is deposited in the following collections:

TUc - Tehran University Collection, Tehran (Iran)

SAc - private collection of Saeed Azadbakhsh, Bandar Abbas (Iran)

RUKc- Razi University Collection, Kermanshah (Iran)

AAc - Alexander Anichtchenko collection, Ilgas, Daugavpils District (Latvia)

A high-resolution habitus image of the species will be available at Carabidae of the World web-project (<http://www.carabidae.org>).

RESULTS

Odontocarus zarudnianus (Semenov & Znojko, 1929) (Figs. 1, 2, 4).

= *Odontocarus iranicus* (Jedlička, 1968) **syn. nov.**

Material examined. 3 males and 3 females: Iran, Lorestan province., 12.IV.1997 (RUKc); 1 male and 1 female: Iran, Kohgiluyeh and Boyer-Ahmad province., Yasuj env., 5.VI.2004 (RUKc); 4 males: Iran, Fars province, Dasht-e Arzhan, 26.IV.2010 (TUc); 1 male and 1 female: Kermanshah province, exact locality unknown, 7.IV.2011 (RUKc); 1 male and 1 female: Kermanshah province, exact locality unknown, 3.V.2013 (RUKc); 2 females: Kermanshah province, exact locality unknown, 3.IV.2014 (RUKc); 1 male, Iran, Fars province: Dasht-e Arzhan, 12.IV.2016, S. Azadbakhsh leg. (SAc); 1 female: Fars province, Dasht-e Arzhan, 13.IV.2016, S. Azadbakhsh leg. (SAc); 3 males, Fars province: Nor-Abad env., 14.IV.2016, S. Azadbakhsh leg. (SAc); 4 males and 1 female: Kohgiluyeh and Boyer-Ahmad province, 10km Yasuj to Gachsaran road, 15.IV.2016, S. Azadbakhsh leg. (SAc); 1 male: Fars province, Dasht-e Arzhan, 13.IV.2016, S. Azadbakhsh leg. (AAc).

Taxonomic remarks. Semenov & Znojko (1929) distinguished *O. zarudnianus* from *O. asiaticus* (Jedlička, 1968) by the larger body, more shiny surface, by darker antenna and legs, pronotum as wide as head and less punctured on disc, more curved laterally and rounded on the margin, elytra slightly wider than pronotum and with less deep stripes and with subtle punctures on intervals, as well as by mandibles more evolved, clypeus on both sides with 2 or 4 setae. Jedlička (1968) described *O. iranicus* based on a single female from Dasht-e Arzhan and distinguished this species from *O. asiaticus* by larger and broader head, smooth, grossly punctures behind the eyes and slightly wider than pronotum (Fig. 2), clypeus finely wrinkled, anterior margin of pronotum almost straight, with scattered punctures on the disc, more curved and rounded at sides and with rounded anterior corners, elytra slightly wider than pronotum, stripes are less deep and intervals almost flat, with subtle punctures.

The study of an extensive material has shown that differences claimed by Jedlička (1968) are incorrect. The size and body width to length ratios cannot be used to differentiate between populations, there are no differences in surface sculptures or width of head, and the shape of the aedeagus is identical with *O. zarudnianus*. I consider *Odontocarus iranicus* (Jedlička, 1968) **syn. nov.** as junior subjective synonym of *Odontocarus zarudnianus* (Semenov & Znojko, 1929).

Diagnosis. Body large (14-20mm), dark brown to pitch-black. Antennae and legs dark, first segments of antenna lighter. Palpi reddish. Head (Figs. 1-2) large and broad with slightly convex eyes, smooth or with some shallow and sparse puncture, slightly denser behind eyes. In some cases head completely smooth or just with some sparse shallow and small punctures or in some other cases with little more shallow punctures but never dense as in *O. asiaticus* (Fig. 3). Shape of clypeus can be variable, in some cases finely wrinkled.



Figures 1-4. *Odontocarus zarudnianus*: 1-2: Head and pronotum (specimens from Dasht-e Arzhan.); 3- Head and pronotum of *O. asiaticus* (Kermanshah); 4- Aedeagus of *O. zarudnianus*, lateral view

Pronotum (Figs. 1-2) as wide as head or seem slightly narrower. Disc of pronotum smooth or with some punctures, puncture of lateral margin of pronotum sparser than that in *O. asiaticus*. Lateral margins of pronotum more curved and rounded and anterior angles more rounded than that in *O. asiaticus*.

Elytra slightly wider than pronotum but not very distinguished, parallel, with rounded shoulders, striae less deep than in *O. asiaticus*, intervals flat, with sparse and shallow puncture on intervals and not coarse and dense hairs. Aedeagus (Fig. 4).

Figures 1-4. *Odontocarus zarudnianus*: 1-2: Head and pronotum (specimens from Dasht-e Arzhan.); 3- Head and pronotum of *O. asiaticus*

(Kermanshah); 4- Aedeagus of *O. zarudnianus*, lateral view.

Distribution. *Odontocarus zarudnianus* is distributed in Zagros Mts., West Iran.

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REFERENCES

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Azadbakhsh S., Nozari J. 2015. Checklist of the Iranian Ground Beetles (Coleoptera; Carabidae). *Zootaxa*, 4024 (1): 1 - 108.

Jedlička A. 1968. Contribution a la faune de l'Iran. 11. Nouveaux coleopteres Carabidae. *Annales de la Société Entomologique de France Paris, New Series*, 4: 989 - 996.

Mandl K. 1967. Österreichische entomologische Expeditionen nach Persien und Afghanistan. *Annalen des Naturhistorischen Museums in Wien*, 70: 453 - 465.

Semenov AP., Znojko DV. 1929. Ad cognitionem Ditominorum (Carabidae, Coleoptera). *Russkoe entomologicheskoe obshchestvo*, 23 (3/4): 187 - 188.