

A new species of *Olisthopus* (Coleoptera: Carabidae: Platynini) from southwestern Iran

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Abstract

Olisthopus yasujensis sp.n. from western Iran is described. After the description of *O. elburzensis* (MORVAN, 1977) this is the second species of the genus *Olisthopus* DEJEAN, 1828 known from this region. The new species is compared with *O. elburzensis* and some other west Palaearctic species. A key for the identification of *Olisthopus* species in Iran and adjacent countries is provided.

Key words: Carabidae, *Olisthopus*, key, new species, Iran.

Zusammenfassung

Olisthopus yasujensis sp.n. aus dem westlichen Iran wird beschrieben. Nach der Beschreibung von *O. elburzensis* (MORVAN, 1977) handelt es sich hierbei um die zweite Art der Gattung *Olisthopus* DEJEAN, 1828, welche aus dieser Region bekannt wird. Die neue Art wird mit *O. elburzensis* und einigen weiteren westpaläarktischen Spezies verglichen. Ein Bestimmungsschlüssel für die im Iran und angrenzenden Ländern vorkommenden *Olisthopus*-Arten wird vorgestellt.

Introduction

Olisthopus DEJEAN, 1828 is a moderately large genus widespread in North America, Europe, western Asia and North Africa (LAROCHELLE & LARIVIÈRE 2003, LÖBL & SMETANA 2003). The genus belongs to the subtribe Platynina BONELLI, 1810 (tribe Platynini BONELLI, 1810) and comprises 24 known species and subspecies including six distributed in North America (LAROCHELLE & LARIVIÈRE 2003) and 18 in the Palaearctic region (LÖBL & SMETANA 2003).

In Iran, just one species of this genus was reported based on the first checklist of Iranian ground beetles, arranged by AZADBAKHSH & NOZARI (2015): MORVAN (1977) described *O. elburzensis* (MORVAN, 1977) from the west of Iran (Gasre Shirin, Kermanshah Province). According to present knowledge, it is endemic to Iran and distributed in the country's west, although the taxon's name erroneously refers to the Elburz mountain range in the north of Iran. The landscape of western Iran is mostly mountainous and covered by the Zagros mountain range that stretches from the south and west of Turkey to the Persian Gulf in southern Iran. This part of Iran comprises forest and steppe ecosystems with temperatures often dropping below 0 °C in winter.

The species of the genus *Olisthopus* are recognized within Platynina by a transverse and disc-shaped pronotum with rounded hind angles, a mentum without central tooth, a penultimate labial palp segment with only two setae, and the 3rd elytral stria with three bristle pores.



Fig. 1: Yasuj province, oak forest (30°16'56"N, 50°35'27" E), 12.IV.2015. © S. Azadbakhsh.

Explorations in southwestern Iran yielded the discovery of an unknown species of *Olisthopus*. First studies showed that it is morphologically different from *O. elburzensis*. Further studies to clear its position, including comparison with Iranian, Turkish and other West Palearctic species, revealed that this species is new to science.

Yasuj District is located in the country's southwest within the Zagros mountain range. The weather in this region is mild in summer, and cold and snowy in winter; most of its terrain is covered with oak forest (Fig. 1).

Materials and methods

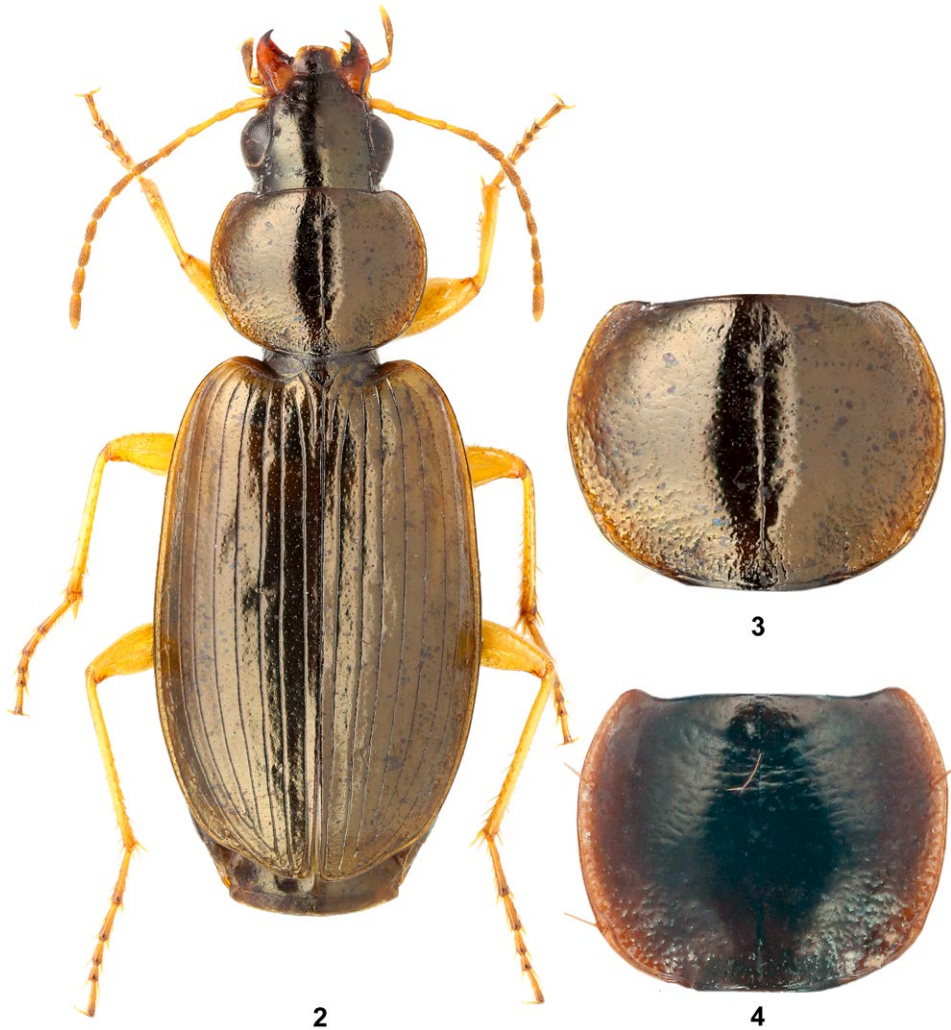
The author collected his first specimens in the spring of 2015 in Yasuj District, Kohgiluyeh-va-Boyer Ahmad Province. Specimens were collected by hand, under stones, and killed with ethylacetate. After the discovery that they represent a species different from *O. elburzensis*, intensified field surveys were carried out in this area from spring 2015 to spring 2016 to search for more specimens and thereby clarify their identification. Finally, a total of four female specimens were collected which were recognized as an undescribed species. Three further females were provided by Alexander Anichtchenko.

Taxonomy

Olisthopus yasujensis sp.n. (Figs. 2, 3)

Etymology: The specific epithet *yasujensis* is based on the name of Yasuj District, where the species was collected for the first time.

Type material: Holotype (female), Iran, Kohgiluyeh-va-Boyer Ahmad Province, Yasuj-Gachsaran road (30°16'56" N, 50°35'27" E), 416 m a.s.l., 12.IV.2015, leg. S. Azadbakhsh, in collec-

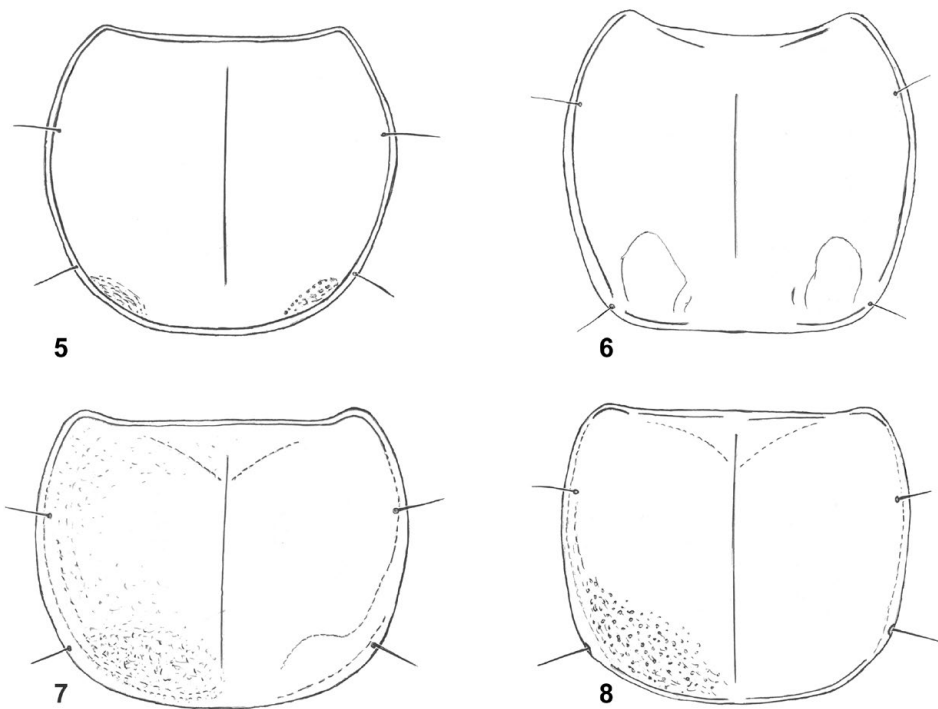


Figs. 2–4: (2) Dorsal view of *O. yasujensis* sp.n., holotype; (3, 4) pronotum of (3) *O. yasujensis* sp.n., holotype, and (4) *O. glabricollis*. © 2, 3: A. Anichtchenko; 4: S. Azadbakhsh.

tion of Zoology Museum of Tehran University (Tehran, Iran). Paratypes: 1 female, same locality and date, leg. S. Azadbakhsh, in Saeed Azadbakhsh Collection (Bandar Abbas, Iran); 2 females, same locality, 14.IV.2016, leg. S. Azadbakhsh, in Saeed Azadbakhsh Collection; 3 females, Iran, Kohgiluyeh-va-Boyer Ahmad Province, 20 km SW Yasuj, 5–6.V.2007, leg. A. Anichtchenko, in Alexander Anichtchenko Collection (Ilgas, Latvia).

Description of female: Measurements (in mm): Body length: 6.5–7.0 (holotype: 7.0); body width: 2.35–2.75 (holotype: 2.75); pronotum width: 1.67–1.80 (holotype: 1.80); pronotum length: 1.28–1.38 (holotype: 1.38), elytron length: 3.92–4.22 (holotype: 4.22).

Colour: Shiny brown. Legs, antennae, and mouthparts pale, unicolourous yellow. Head smooth, two supraorbital setae present. Mental tooth lacking. Mandibles short. Three basal segments of antennae completely yellowish.



Figs. 5–8: Pronotum of *Olisthopus* species: (5) *O. sturmi*; (6) *O. elburzensis*; (7) *O. fuscatus*; (8) *O. glabricollis*.

Structures: Pronotum at base and sides densely punctured, almost smooth on disk, lateral sulcus extremely broadened towards base; lateral margins completely rounded and convex; sides widened at middle; anterior corners rounded and hardly prominent. Elytra glabrous, ovate, long, widest behind midlength, with fine, isodiametric microsculpture; intervals flat; basal margin and scutellar stria complete. Scutellar bristle pore situated at base of stria 1. Intervals between striae distinctly punctured; 3rd interval with three setiferous punctures. Claws smooth.

Male: Unknown.

Comparative notes: The new species is close to *O. glabricollis* (GERMAR, 1817), sharing its overall shape and punctured elytra intervals. However, *O. glabricollis* can be diagnosed by lighter colour, a more square shape of pronotum, and deeper and denser puncturation of the elytral intervals. The new species is completely different from *O. elburzensis*, e.g., by body size, shiny brown ground colour, shape of pronotum and presence of punctures on elytral intervals. Specifically, the shape of the pronotum of *O. yasujensis* sp.n. is more transverse and has more convex sides than in both *O. glabricollis* and *O. elburzensis* (comp. Figs. 3, 4 and 6). In addition, the anterior corners of the pronotum are less prominent than in *O. glabricollis*. Regarding the elytra, their shape is similar in *O. yasujensis* sp.n. and *O. glabricollis*, but the intervals are more deeply punctured in the new species. In contrast, the intervals of *O. elburzensis* are smooth.

Distribution: Only known from the type area in the vicinity of Yasuj in Kohgiluyeh-va-Boyer Ahmad Province, western Iran (Fig. 1). It is expected that the new species is more widely distributed in the southern parts of the Zagros mountain range.

Key to species of the genus *Olisthopus* in Iran and adjacent countries

- 1 Base of pronotum without or only with weak punctures. 2
- Base of pronotum extensively punctured. 3
- 2 Elytra completely dark brown. Lateral sulcus of pronotum extremely narrow throughout, basal impression very small and close to basal margin (Fig. 5). Elytra intervals convex. Body length 4.8–5.8 mm. Western, southern central, and eastern Europe. ***O. sturmii* (DUFTSCHMID, 1812)**
- Elytra completely black. Lateral sulcus of pronotum narrow but slightly wider towards base, basal impression wide and not close to the basal margin (Fig. 6). Elytra intervals flat. Body length 7.5–8.5 mm. Iran: Kermanshah Province. ***O. elburzensis***
- 3 Intervals of elytra with distinct puncturation. 4
- Intervals of elytra without distinct puncturation, at most with very fine punctures barely visible between microsculpture. Body length 6.0–7.2 mm. Europe except its extreme north and south. ***O. rotundatus* (PAYKULL, 1790)**
- 4 Pronotum more strongly transverse (Fig. 7). 5
- Pronotum moderately transverse (Fig. 8). Antenna paler, three basal segments completely brown. Body length 5.0–6.5 mm. East-Mediterranean region, westward to southern France; warm-temperate zone. ***O. glabricollis***
- 5 Lateral margin of elytra more or less yellowish brown. Antennae dark. Punctures on intervals delicate. Anterior angles of pronotum more protruding. Body length 5.0–6.5 mm. Holo-Mediterranean region. ***O. fuscatus* DEJEAN, 1828**
- Lateral margin of elytra only anteriorly on shoulders yellow. Three basal segments of antennae completely yellow. Puncturation on intervals coarse. Anterior angles of pronotum less protruding. Body length 6.5–7.0 mm. Iran. ***O. yasujensis* sp.n.**

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