



# A New Species of the Genus *Laccobius* (Coleoptera; Hydrophilidae) from Izeh County, Khuzestan Province, Iran

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## Abstract

A new species of the genus *Laccobius*, (*L. mosslemi*) sp.nov. is described from Izeh county, Khuzestan province, Iran. This species represents the first record in the family Hydrophilidae. The species belongs to the subfamily Hydrophilinae and is similar to two other species, *L. simulatrix* d.orchymont, 1932 and *L. bipunctatus* Fabricius, 1775, but it differs from them in certain adult taxonomic characteristics.

**Keywords:** Aquatic Coleoptera; *Laccobius*; Iran

## Introduction

The largest group of the superfamily Hydrophiloidea is Hydrophilidae (water scavenger beetles). It represents in all parts of the world consisting of more than 2900 known species [1]. While Hydrophilid species can be found in nearly all parts of Iran, they have received scant research attention [2]. Some recent systematic research activities on Iranian aquatic Hydrophilidae include Nasserzadeh and Hosseinie [3,4]; Nasserzadeh, et al. [5] and the Islamic Azad University team, led by Atamehr, et al. [6]; Vafaei, et al. [7]; Ostovan and Niakan [8,9]; Vafaei, et al. [10]; Gentili, et al. [2]

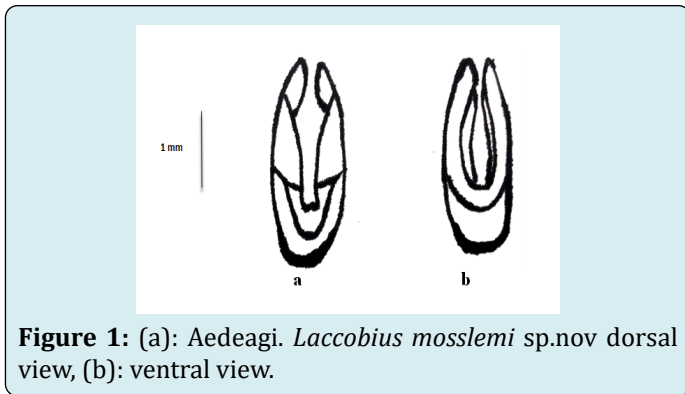
The genus *Laccobius* Erichson 1837 is a large cosmopolitan genus with 130 Palaearctic species [11]. There are 19 Iranian reported species mainly pertaining to the subgenus *Dimorpholaccobius* [12] but no species are recorded from Khuzestan province. The new species will be added to this checklist.

This article describes a new species of the genus *Laccobius* in Izeh County. The Izeh is a region in the Khuzestan province of Iran, which has mild spring and summer weather

but is generally the coldest city in the Khuzestan province in winter. This is the first record of the Hydrophilidae family in this area. The species (*L. mosslemi*) belongs to the subfamily Hydrophilinae, and is similar to other species *L. simulatrix* d.orchymont, 1932 and *L. bipunctatus* Fabricius, 1775, however, but it differs from them in certain adult taxonomic characteristics.

## Materials and Methods

Khuzestan province, one of Iran's 31 provinces, is located in the southwest of Iran. It is in the southwest of the country, bordering Iraq and the Persian Gulf. Its capital is Ahvaz and it covers an area of 63,238 square kilometres. During 2020-2021, samples were collected in Izeh County. The test substance was preserved in 75% alcohol. Identification of specimens was based on morphological characteristics such as external taxonomic and external male genitalia, along with the corresponding entomological references and authors Zaitsev [13], Friday [14], Jack and Balk [15], Foster and Friday [16]. All samples are housed in the Zoological Museum at Shahrekord University (ZMSU).



**Figure 1:** (a): Aedeagi. *Laccobius mosslemi* sp.nov dorsal view, (b): ventral view.

### Description

Adult. body length 4-5.6mm; Width 1.5-1.7mm. Body oval, moderately convex, brown in color. The head is dark and the eyes are puffy. Dorsum is brownish yellow and slightly dark green. Elytra has dense dots and 12 longitudinal grooves. It is bent on the side edges. Pronotum dark brown and horizontally triangular. Antennae relatively short (except for the 1<sup>st</sup> antennomer, but longer than maxillary segments (3 segments). Maxillary palps with club tip palpation. The underside is black and has fine hairs. Mentum is almost 1/3 of the width of the head. Femur and tibia brown, metatarsal and metatarsal black, rough with brown setae, but long and very pubescent. The legs are long and slender. Aedeagus (Figure 1) 1.8 mm long; Median lobe cylinder, slightly shorter than parameres; parameres with blunt apex; basal segment short and relatively thin.

### Discussion

The new species (*Laccobius mosslemi* sp.nov) is closely related to two other species, *L. simulatrix* d.orchymont, 1932 of the Czech Republic and *L. bipunctatus* Fabricius, 1775, of Ireland and England, but it differs from the former species in that it has a relatively short antennae, long and hairy mesotarsi, blunt apical parameters and that of the latter is coarse meso- and metatarsi, longer antennae and thin basal piece and short of adages.

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