

FOUR GENERA AND SPECIES NEW FOR THE FAUNA OF IRAQ WITH A NEW SUBSPECIES, *PSEUDOVADONIA LIVIDA* *IRAKENSIS* (COLEOPTERA: CERAMBYCIDAE)

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ABSTRACT: The following new taxon is described: *Pseudovadonia livida irakensis* ssp. nov. from Erbil (North Iraq), close to *Pseudovadonia livida hatayensis* Özdikmen, 2015 from Hatay (South Turkey) and *Pseudovadonia livida bicarinata* (N. Arnold, 1869) from Mogilev (Belorussia). Accordingly, both the genus and the species *Pseudovadonia livida* (Fabricius, 1777) are reported for the first time from Iraq. Diagnostic characters and a key of the subspecies of *Pseudovadonia livida* (Fabricius, 1777) including some figures are presented. Furthermore, additional three genera and species *Hylotrupes bajulus* (Linnaeus, 1758), *Ropalopus clavipes* (Fabricius, 1775) and *Clytus rhamni* Germar, 1817 are recorded for the first time from Iraq.

KEY WORDS: Cerambycidae, Cerambycinae, Lepturinae, new subspecies, new records, Iraq

The fauna of longhorned beetles of Iraq is not known well. According to Löbl & Smetana (2010), Iraqi fauna includes 46 species of 25 genera of 5 subfamilies. In addition Özdikmen et al. (2013) described a new species from Mosul (North Iraq) as *Dorcadion mosulense*. Furthermore Özdikmen et al. (2014) reported 7 new records for fauna of Iraq as *Aegosoma scabricorne* (Scopoli), *Cerambyx welensii* (Küster), *Osphranteria coerulescens* Redtenbacher, *Plagionotus floralis* (Pallas), *Plagionotus bobelayei* (Brullé), *Chlorophorus sartor* (O. F. Müller) and *Stenopterus rufus* (Linnaeus). After Özdikmen et al. (2014), the fauna of Iraqi longhorned beetles consists of 53 species of 28 genera of 5 subfamilies.

According to Özdikmen et al. (2014), the genus *Pseudovadonia* Lobanov et al., 1981 and the species *Pseudovadonia livida* (Fabricius, 1777) are not known from Iraq.

MATERIALS AND METHODS

Available specimens of longhorned beetles for the present work were collected by second author from Erbil in North Iraq in 2011. The specimen number of taxon is outnumbered due to known difficulties of study in Iraq. All specimens were deposited at Gazi University (Turkey, Ankara).

Danilevsky (2013) and Özdikmen (2015) followed for description of the new subspecies. The data of distribution are given on the basis of Löbl & Smetana (2010), Özdikmen (2011, 2015) and Danilevsky (2013, 2016).

RESULTS AND DISCUSSION

The newly described and recorded taxa for fauna of Iraq are presented as follows:

Family Cerambycidae Latreille, 1802

Subfamily Lepturinae Latreille, 1802

Genus *Pseudovadonia* Lobanov, Danilevsky & Murzin, 1981: 787
[Type species *Leptura livida* Fabricius, 1777]

***Pseudovadonia livida* Fabricius, 1777**

Leptura livida Fabricius, 1777: 233

The species has been represented by six subspecies in Western Palaearctic region as *P. livida bicarinata* (N. Arnold, 1869) [Eastern Europe, Caucasus, North-East Turkey, Iran, Kazakhstan, Kirgizia, Siberia and China], *P. livida desbrochersi* (Pic, 1891) [Caucasus (Armenia, Azerbaijan, Georgia) and Eastern Turkey], *P. livida livida* (Fabricius, 1777) [Europe and European Turkey], *P. livida setosa* Danilevsky, 2013 [South-Eastern Europe, European Turkey and Western parts of Asian Turkey], *P. livida pecta* (K. Daniel & J. Daniel, 1891) [Italy] and *P. livida hatayensis* Özdikmen, 2015 [Southern Turkey].

As indicated above, the genus and the species are not known from Iraq up to now. So, it is new to Iraqi fauna with a newly described subspecies.

***Pseudovadonia livida irakensis* ssp. nov.**

(Figs. 1, 2)

Type material. Holotype ♀: Iraq: Erbil, 2011. Paratype ♀: The same data of holotype. The specimens are deposited at Gazi University, Ankara (Turkey).

Description. Body length in female (males unknown): 7.5 mm, width: 2.5 mm.

P. livida bicarinata (N. Arnold, 1869) is characterized by obliquely erect dorsal pronotal setae, the nominotypical subspecies is characterized by strongly erect straight dorsal pronotal setae and generally light-yellow elytral coloration, *P. livida setosa* Danilevsky, 2013 is characterized by strongly erect and rather long dorsal pronotal setae and darker brown elytral coloration, *P. livida hatayensis* Özdikmen, 2015 is characterized by thinner, dark-yellow and weaker obliquely erect dorsal pronotal setae and light-brown elytral coloration, and *P. livida pecta* (K. Daniel & L. Daniel, 1891) is characterized by strongly recumbent dorsal pronotal setae. *P. livida desbrochersi* (Pic, 1891) is easily distinguished from other subspecies by reddish abdomen and legs.

With the same reasons, the present specimens from Erbil (N Iraq) should be a new subspecies. The new subspecies, *P. livida irakensis* ssp. nov., is closely related to *P. livida hatayensis* Özdikmen, 2015 and *P. livida bicarinata* (N. Arnold, 1869).

It differs from *P. livida hatayensis* by relatively stronger obliquely erect dorsal pronotal setae (dorsal pronotal setae relatively weaker obliquely erect in *P. l. hatayensis*), relatively finer pronotal and elytral punctuation (pronotal and elytral punctuation relatively larger in *P. l. hatayensis*), pronotum longer than wide (pronotum about as long as wide in *P. l. hatayensis*) chiefly.

It is easily distinguished from *P. livida bicarinata* by sparser, thinner, lighter-yellow dorsal pronotal setae (dorsal pronotal setae denser, thicker, yellow or dark yellow in *P. l. bicarinata*), and relatively finer pronotal and elytral punctuation (pronotal and elytral punctuation relatively larger in *P. l. bicarinata*), light-brown elytral coloration (elytral coloration darker or reddish brown in *P. l. bicarinata*) chiefly.

Distribution. It is only known from North Iraq now. Probably it can also occur in South-Eastern Turkey and Western Iran.

Etymology. From the type locality situated in Iraq.

**A key to the subspecies of *Pseudovadonia livida* (Fabricius, 1777)
adopted by Özdikmen (2015)**

1. Abdomen and sometimes legs completely red; subspecies from Caucasus (Armenia, Azerbaijan, Georgia) and Eastern Turkey.....***P. livida desbrochersi***
-. Abdomen and legs black or at most partly red.....**2**
2. Dorsal pronotal setae strongly erect.....**3**
-. Dorsal pronotal setae obliquely erect or recumbent.....**4**
3. Elytral coloration light-yellow; subspecies from Europe including European Turkey.....
.....***P. livida livida***
-. Elytral coloration much darker brown; subspecies from South-Eastern Europe, European Turkey and Western parts of Asian Turkey.....***P. livida setosa***
4. Dorsal pronotal setae recumbent; subspecies from Italy.....***P. livida pecta***
-. Dorsal pronotal setae more or less obliquely erect.....**5**
5. Dorsal pronotal setae thicker and denser; subspecies from Eastern Europe, Caucasus, North-East Turkey, Iran, Kazakhstan, Kirgizia, Siberia and China.....***P. livida bicarinata***
-. Dorsal pronotal setae thinner and sparser.....**6**
6. Punctures of pronotum and elytra relatively larger; dorsal pronotal setae weaker obliquely erect; pronotum about as long as wide; subspecies from Southern Turkey.....***P. livida hatayensis***
-. Punctures of pronotum and elytra relatively finer; dorsal pronotal setae stronger obliquely erect; pronotum longer than wide; subspecies from Northern Iraq.....
.....***P. livida irakensis* ssp. nov.**

Subfamily Cerambycinae Latreille, 1802

***Hylotrupes bajulus* (Linnaeus, 1758)**

Cerambyx bajulus Linnaeus, 1758: 396

Material examined: Iraq: Duhok, Bjeel, 12.VI.2009, 1 ♀.

Range: Almost the whole territory of Europe (including European Turkey) and North Africa, Caucasus (Armenia, Azerbaijan, Georgia), Middle East (Cyprus, Israel, Jordan, Lebanon and Syria), Asian Turkey, China, West Siberia, Afrotropical, Australian, Nearctic, Neotropical and Oriental regions.

Remarks: The genus and species are new to Iraq.

***Ropalopus clavipes* (Fabricius, 1775)**

Callidium clavipes Fabricius, 1775: 188

Material examined: Iraq: Erbil, Soran, Husnan, 20.VII.2009, 1 ♂.

Range: Europe (including European Turkey), Kazakhstan, Caucasus (Armenia, Azerbaijan, Georgia), Iran and Asian Turkey.

Remarks: The genus and species are new to Iraq.

***Clytus rhamni* Germar, 1817: 223**

Clytus rhamni Germar, 1817: 223

The species is represented by three subspecies in W Palaearctic region as *C. rhamni bellieri* Gautier des Cottés, 1862 in Central and Western Europe, the nominotypical subspecies in South-Eastern Europe (Italy to Greece), and *C. rhamni temesiensis* (Germar, 1824) in Central and Eastern Europe, European and Asian Turkey, Caucasus, Kazakhstan, Cyprus, Syria, Israel, Lebanon and Iran.

As indicated above, the genus and species are new to Iraq with the subspecies

C. rhamnii temesiensis (Germar, 1824).

***Clytus rhamnii temesiensis* (Germar, 1824)**

Callidium temesiense Germar, 1824: 519

Material examined: Iraq: Erbil, Ziyarat, 20.VI.2012, 1 ♂.

Range: Europe (Austria, Bulgaria, Central and Southern European parts of Russia, Czech Republic, European Turkey, Germany, Hungary, Moldova, Romania, Slovakia, Slovenia and Ukraine), Kazakhstan, Caucasus (Armenia, Azerbaijan, Georgia), Middle East (Cyprus, Iran, Israel, Lebanon and Syria) and Asian Turkey.

Remarks: It is new to Iraq.

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Figure 1. *Pseudovadonia livida irakensis* ssp. nov. (holotype ♀).



A



B



C

Figure 2. A. *Pseudovadonia livida hatayensis* (from Özdikmen, 2015), B. *Pseudovadonia livida bicarinata* (from M. L. Danilevsky, www.cerambycidae.net/beetles_pseudovadonia_livida_bicarinata.html), C. *Pseudovadonia livida irakensis* ssp. nov.