Studies and Reports
Taxonomical Series 14 (1): 203-214, 2018

New Palaearctic species of the genus *Leiodes* Latreille, 1796 (Coleoptera: Leiodidae) with taxonomical and faunistic notes

Zdeněk ŠVEC

Kamenická 4, 170 00 Praha 7, Czech Republic
e-mail: zd.svec@volny.cz

Taxonomy, new species, Leiodidae, Leiodinae, Leiodini, *Leiodes*, Turkey, Nepal, Japan

Abstract. *Leiodes pilosa* sp. nov. from Turkey, *L. schawalleri* sp. nov. from Nepal and *L. hoshinai* sp. nov. from Japan are described and compared to the similar species. *Leiodes multipunctata* (Rye, 1873) is redescribed. *Leiodes aksekiana* Švec, 2009 is recorded for Lebanon, *L. bicolor* (W.L.E. Schmidt, 1841) for Turkey, *L. cinnamomea* (Panzer, 1793) for Asia, Israel and Turkey, *L. rufipennis* (Paykull, 1798), *L. graefi* Švec 1994 and *L. tarsatula* Daffner, 1983 for Asia and Turkey, *L. curticornis* Hlisnikovský, 1967 for Afghanistan recorded for the first time.

INTRODUCTION

The leiodid fauna of Turkey, especially regarding the genus *Leiodes*, is not sufficiently known up to now. According to Perreau (2015) only ten species of the genus *Leiodes* are known from Turkey. One species new to science and five species new to region are presented in this paper. Therefore the *Leiodes* fauna comprising 16 species known from Turkey up to now. Taking into account diversity of the Turkish countryside more species, at least for the region, can be expected to be found in the future.

Similarly it can be judged that also the Nepalese *Leiodes* fauna is known only superficially. There are known only 12 *Leiodes* species from Nepal up to now. One more species new to science is added in the present paper.

On the other hand the Japanese fauna of the genus *Leiodes* has been very well investigated. Hoshina (2012) enumerated in his Review 35 species of the genus *Leiodes* known from Japan. Perreau in the updated Catalogue of Palaearctic Coleoptera (2015) listed 33 Japanese species of the genus. Two species mentioned by Hoshina (2012) missing in the Palaearctic Catalogue - *Leiodes obesa* (Schmidt, 1841) and *L. ohtai* Hoshina, 2012. Although relevant Perreau´s part of Catalogue was published later that Hoshina´s Revision, I consider for correct that the Japanese fauna comprises 35 up to now known species. Altogether 24 of them Hoshina gathered in seven species groups, the rest of the species were left as incertae sedis without any group assignment. One of the groups was established under the name *Leiodes multipunctata* group containing seven species - *Leiodes araii* Hoshina, 2012; *L. haradai* Hoshina, 2012*; L. hijakatai* Hoshina, 2012*; L. indigesta* Park et Ahn, 2007; *L. kiuchii* Hoshina, 2012; *L. multipunctata* (Rye, 1873); and *L. sakaii* Hoshina, 2012. Rye described *Anisotoma multipunctata* (now *Leiodes multipunctata*) having one female at his disposal. Hoshina could not examined the holotype of *L multipunctata* as the type seemed to been found. I have been so lucky to have the opportunity find and to study the holotype

of *Leiodes multipunctata*. Beside I have preserved in my collection two male specimens of *Leiodes* mentioned in the Hoshina´s Review (2012) and determined by Hoshina as *Leiodes multipunctata*. Therefore I have had the possibility to compare the holotypus of *L. multipunctata* (Rye, 1873) with *Leiodes multipunctata* sensu Hoshina.

Rye, emphasized, in the original description, the most important external character of the species - paired punctures striae on elytra - "...elytris longioribus, lateribus parce ciliatis, fortiter punctatis, striis quasi irregulariter..." and compared the species to *Anisotoma castanea* Herbst, 1792: "... the punctuation of the elytra is, however, different from that of any of the genus known to me, most nearly resembling *Liodes castanea* in that respect..." The original description agrees perfectly with the specimen labeled as the holotype. *Leiodes multipunctata* (Rye, 1873) can be easily recognized among other species beside other characters mainly by the paired elytral striae. As the species of *L. multipunctata* deposited in my collection, determined by Hoshina, agrees well with the Hoshina´s diagnosis but differs significantly from the holotype of *L. multipunctata* Rye, I consider them for specimens of a species new to science that is described below. The Japanese fauna therefore comprises 36 *Leiodes* species at present.

MATERIAL AND METHODS

Material that have been studied and mentioned in this paper comes from the following collections:

BMNH British Museum of Natural History, London, England;
EUMJ Entomological Laboratory, Ehime University, Matsuyama, Japan;
FUFJU Fukui University, Fukui, Japan;
KBSC Kai Burgarth private collection, Stelle, Germany;
NKME Naturkundemuseum, Erfurt, Germany;
NMPC National Museum, Praha, Czech Republic;
SMNS Statliches Museum für Naturkunde, Stuttgart, Germany;
ZSPC Zdeněk Švec private collection, Praha, Czech Republic.

Abbreviations:

AI-AXI antennomeres I-XI
L length
W width
W/L ratio of the relevant measurements
RN replaced name
HN homonym
FIT flight intercept trap

The examined specimens have been compared with the types and other material deposited in BMNH, NMPC, ZSPC. The material mentioned in this paper is preserved in the collections cited above. Measurements of the body length and the individual body parts were measured to the first decimal place of millimetre. The dissected male genitalia were mounted in water-soluble medium polyvinylpyrrolidine (Lompe 1986) on a transparent

label added to the same pin as the type specimen. The type specimens are indicated by a red labels added to the same pin bearing the status of the specimen (holotypus, paratypus respectively), its name, name of the author and year of the designation. Data quoted from the labels accompanying the specimens are reproduced verbatim; an oblique line (/) indicates a line break on a label double line (//) indicates other label. Remarks of the author are put in following brackets {...}.

The terminology concerning to the type of the mesoventral longitudinal carina follows that in Švec (2008).

DESCRIPTIONS

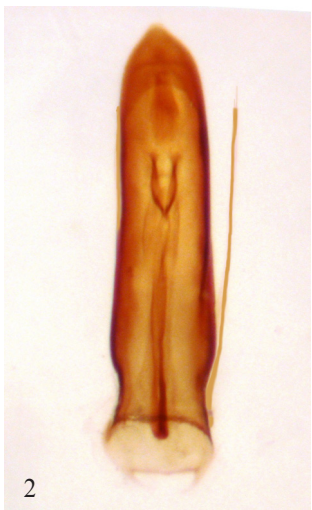
Leiodes pilosa sp. nov.
(Figs. 1, 2)

Type material. Holotype (♂): "TR, Artvin / Ardahan / Yalnizçam, Bülbülen / Geçidi, ca 2400 m/ 17.-19.VII. 2014 / leg C. Reuter" (NKME). Paratypes: (2 ♀♀): the same data (NKME, ZSPC); (2 ♀♀): "TR, Sinop, Erfelek env. / 10.-27.vii.2014 / - 250 m, pitfall leg. C Reuter", (NKME, ZSPC).

Description. Length of body 3.2-3.7 mm, in holotype 3.3 mm. Length of body parts in holotype: head 0.5 mm, pronotum 0.8 mm, elytra 2.0 mm, antenna 0.8 mm, aedeagus 0.9 mm. Maximum width of body parts in holotype: head 0.9 mm, pronotum 1.6 mm at base, elytra 1.8 mm at basal third of their length.

Broadly oval (Fig. 1), dorsum, and legs lightly chest-nut coloured, AIX-AXI slightly infuscate laterally. Venter reddish-brown, margins of coxal cavities, trochanters and longitudinal mesoventral carina dark. Dorsum punctured, without any microreticulation or strigosites.

1



2

Figs. 1, 2. *Leiodes pilosa* sp. nov. (holotype): 1- body in dorsal view; 2- aedeagus.

Head. Dorsal surface with distinct coarse strong punctures separated by 1-3 times their own diameters, vertex with one large puncture standing on one side. Antennae short. Last antennomere distinctly narrower than the previous, approximately as wide as long. Ratio of length of antennomeres II-XI (AII=1.0): 1.0-1.2.0.8-0.8-0.8-1.2-0.6-1.4-1.6-2.0. Ratio of width of antennomeres II-XI (AII=1.0): 1.0-1.1-1.1-1.0-1.0-1.6-1.3-2.3-2.4-2.1. W/L AII-AXI: 1.0-0.7-1.1-1.3-1.3-1.3-2.4-0.6-1.6-1.2.

Pronotum. Widest shortly before base roundly tapering posteriorly and anteriorly in both dorsal and lateral view. Posterior angles obtuse, distinct, but rounded in dorsal view and obtuse, broadly rounded in lateral view. Puncturation strong dense punctures separated by about 1-2 times their own diameter with much smaller punctures interposed.

Scutellum. Strongly, densely punctured.

Elytra. With nine punctured striae. Stria 9 first parallel then obliquely merged lateral channel; distant from lateral margin by about 2 times of strial punctures diameter. Punctures of other striae distinctly developed, dense, separated at most by 1 time their own diameter. Interval puncturation double, not taking into account large punctures in odd intervals. Interval punctures separated by 1-2 times their own diameter. They tend to seriate in some places. Beside numerous very small punctures disseminated in intervals.
Sutural stria deepened, long, confined approximately to two third of elytra. Lateral channel without larger punctures or foveae. Epipleura with sparse short erect light setae detectable in oblique dorso-lateral view.

Legs. Anterior tarsomeres I-IV very slightly widened in male, anterior tibiae moderately broad, nearly 3 times as wide apically as at base. Lateral terminal large thorn on anterior tibia slim long simple. Mid-tibiae short, a little widened. Hind margin of metafemur with very unobtrusive lobe apically, hind tibiae very feebly simply curved. Hind-tarsomeres distinctly conical. All tibiae with numerous, erect lightly coloured setae at their lateral margin.

Mesoventrite. Longitudinal carina of type A.

Genitalia. Aedeagus as in Fig. 2. Parameres bisetose.

Differential diagnosis. *Leiodes pilosa* sp. nov. is very similar to *L. furva* (Erichson, 1845) in the size, shape of the body and colour of dorsum and antennae, by short antennae, the type of mesoventral carina and also by the presence of epipleural setae. The shape of tegmen and endophallic sclerites are different, the parameres are long while the same reach at most mid-length of tegmen in *L. furva*.

Variation. Tarsi slim in females, four large punctures on vertex in the paratypes.

Name derivation. The Latin name of the new species pilosa (= hairy) reminds setae present on epipleura.

Leiodes schawalleri **sp. nov.**

(Figs. 3, 4)

Type material. Holotype (♂): "522 NEPAL: Solukhumbu / Distr., above Pangum / 2900-3000 m, 16.V.1997 / leg. W. SCHAWALLER", (SMNS). Paratypes: (1 ♂, 1 ♀), the same data, (SMNS, ZSPC).

3

4

Figs. 3, 4. *Leiodes schawalleri* sp. nov. (holotype): 3- body in dorsal view; 4- aedeagus.

Description. Length of body 3.0 mm. Length of body parts in holotype: head 0.3 mm, pronotum 0.8 mm, elytra 1.9 mm, antenna 1.1 mm, aedeagus 1.0 mm. Maximum width of body parts in holotype: head 0.7 mm, pronotum 1.4 mm at base, elytra 1.6 mm approximately at their mid-length.

Oblong oval (Fig. 3), dorsum lightly red-brown, tarsi and AI-VI yellow-red, AVII-XI black. Venter yellow-red, margins of coxal cavities, trochantera and longitudinal mesoventral carina darker. Dorsum punctured, without any microreticulation or strigosites.

Head. Dorsal surface with fine but distinct punctures separated by 2-6 times their own diameters, vertex with two large punctures. Antennae of usual length. Last antennomere distinctly narrower than the previous, approximately as wide as long. Ratio of length of antennomeres II-XI (AII=1.0): 1.0-1.3.1.2-1.2-0.7-1.3-0.5-1.3-1.2-1.7. Ratio of width of antennomeres II-XI (AII=1.0): 1.0-1.1-1.1-1.1-1.3-2.1-1.3-2.7-3.1-2.7. W/L AII-AXI: 0.6-0.5-0.8-0.8-1.1-1.0-1.3-1.3-1.6-0.9.

Pronotum. Widest at base. Base straight somewhat skewed to posterior angles. Lateral margins conically tapered anteriorly in basal third, then pronotum roundly narrowed anteriorly in dorsal view. Lateral margins flatly rounded in lateral view. Posterior angles acute, skewed in dorsal view and slightly obtuse rounded in lateral view. Puncturation simple distinct irregular, punctures separated by about 2-6 or even more times their own diameter.

Scutellum. Coarsely strongly punctured.

Elytra. With nine regular punctured striae. Stria 9 parallel but distant from lateral margin approximately by 2 times of strial punctures diameter. Strial punctures distinctly developed separated by about 2 times their own diameter. Elytral intervals very fine but distinct simply punctured by punctures separated by about 4-6 times their own diameter. Sutural stria

deepened, long, confined approximately to half of elytra. Lateral channel without larger punctures or foveae. Epipleura without setae.

Legs. Anterior TI-IV feebly widened in male, anterior tibiae slim. Lateral terminal large thorn on anterior tibia slim long simple. Mid-tibiae slim. Metafemur without specific characters, hind tibiae very feebly simply curved. Hind-tarsomeres distinctly conical.

Mesoventrite. Longitudinal carina of type B.

Genitalia. Aedeagus as in Fig. 4. Parameres bisetose.

Variation. Tarsomeres slender in females.

Differential diagnosis. *Leiodes schawalleri* sp. nov. is very similar to *L. schmidti* Švec, 2003 in general appearance, in colouring of antenna and the type of mesoventral carina. It differs by the shape of pronotum having lateral sides straight in their basal half while anterior half of the lateral margins are rounded in the dorsal view. The colour of dorsum is lightly red-brown in *L. schawalleri* while dorsum is black in *L. schmidti*. New species differs significantly also by the shape of tegmen that terminates in a long process while the same is emarginate in *L. schmidti.*

Name derivation. The new species is named after the collector Wolfgang Schawaller (Stuttgart, Germany), well known specialist besides other in Tenebrionidae.

***Leiodes hoshinai* sp. nov.**

(Figs. 5, 6)

Leiodes multipunctata: Hoshina, 2012: 80.

Type material. Holotype (♂): "Japan: Honshu / Okayama Pref. / Nagi Town // Mt. Nagisan /3.-12.xi. 2005 / S. Suzuki leg.", FIT, (ZSPC). Paratypes: (2 ♂♂, 1 ♀), the same data (ZSPC, FUFJU); (1 ♂, 2 ♀♀) the same data but 15.-29.X.2005 (FUFJU); (1 ♀), the same as the holotype but 29.X.-3.XI.2005, (FUFJU).

Description. Length of body 2.8-3.1 mm, in holotype 2.9 mm. Length of body parts in holotype: head 0.5 mm, pronotum 0.9 mm, elytra 1.5 mm, antenna 1.0 mm, aedeagus 0.9 mm. Maximum width of body parts in holotype: head 0.8 mm, pronotum 1.5 mm at base, elytra 1.8 mm at basal fifth of their length.

Broadly oval (Fig. 5), head, pronotum, scutellum, elytral suture, AVII-AX chest-nut, elytra, legs, AI-AVI, AXI light chest-nut coloured. Venter light chest-nut, margins of coxal cavities, trochantera and longitudinal mesoventral carina darker. Dorsum punctured, without any microreticulation or strigosites.

Head. Dorsal surface with distinct punctures separated by 1-2 times their own diameters, vertex with four large punctures. Antennae of usual length. Last antennomere distinctly narrower than the previous, approximately as wide as long. Ratio of length of antennomeres II-XI (AII=1.0): 1.0-1.3.0.7-0.7-0.7-0.8-0.3-1.3-1.3-1.7. Ratio of width of antennomeres II-XI (AII=1.0): 1.0-0.8-1.0-1.1-1.1-2.2-1.5-3.2-3.0-2.6. W/L AII-AXI: 0.7-0.4-1.0-1.1-1.1-1.8-4.0-1.7-1.5-1.1.

Figs. 5, 6. *Leiodes hoshinai* sp. nov. (holotype): 5- body in dorsal view; 6- aedeagus.

Pronotum. Widest at base. Lateral margins conically tapered anteriorly in basal third, then pronotum roundly narrowed anteriorly in dorsal view. Lateral margins flatly rounded in lateral view. Posterior angles obtuse, distinct, but rounded in dorsal view and obtuse, broadly rounded in lateral view. Puncturation strong dense, punctures separated by about 1 time their own diameter with much smaller punctures interposed.

Scutellum. With several irregularly distributed punctures.

Elytra. Without any punctured striae, with punctures of three sizes. Basic - largest punctures irregularly distributed separated by about 1-2 times their own diameter. Beside some punctures smaller than those of the basic puncturation but larger than the smaller pronotal punctures disseminated in interstices. Some additional micro-punctures interposed. Sutural stria deepened, long, confined approximately to half of elytra. Lateral channel without larger punctures or foveae. Epipleura without setae.

Legs. Anterior TI-IV heart-shaped widened in male, anterior tibiae slim. Lateral terminal large thorn on anterior tibia slim, long, simple. Mid-tibiae slim but a little broader than anterior and posterior tibiae. Hind margin of metafemur without specific characters, hind tibiae very feebly simply curved. Hind-tarsomeres distinctly conical.

Mesoventrite. Longitudinal carina of type B.

Genitalia. Aedeagus as in Fig. 6. Parameres bisetose.

Variation. Hoshina (2012) stated that tarsomeres are slender in females than in males and that the colouring of dorsum varies from almost unicolorous to clearly bicoloured.

Differential diagnosis. *Leiodes hoshinai* sp. nov. shares a distinctive type of elytral puncturation that is not arranged in striae, as the punctures are irregularly disseminated, with five Japanese species described by Hoshina (2012) - *L. araii*; *L. haradai, L. hijikatai; L. sakaii* and *L. kiuchii* and one European species (*L. punctulata* (Gyllenhal, 1810)). The

new species is mostly similar to *L. haradai* by external features and also by the shape of aedeagus. It differs by tightly rounded apex of the tegmen that terminates in small nipple in *L. haradai*. The new species possesses also distinctly shorter parameres than *L. haradai*. Parameres are almost as long as tegmen in *L. haradai*. Also the shapes of the endophallic structures are different in both species. *L. hoshinai* differs significantly also from *L. multipunctata* (Rye, 1873) although the puncturation of elytra in both species is far from predominant type of elytral structure in the genus *Leiodes* that is represented by single punctured striae combined with interstrial longitudinal strips. *L. hoshinai* differs from *L. multipunctata* beside irregularly punctured elytra that are paired striate in *L. multipunctata* also mainly by the shape of pronotum that is widest at base, by the broadly oval body, and also by the pronotal puncturation.

Name derivation. The new species is named to honour of my entomological colleague, well known specialist in Leiodidae Hideto Hoshina (Fukui City, Japan).

REDESCRIPTION

Rye (1873) described *Leiodes multipunctata* very appropriately, nevertheless the original description is rather brief and mainly without any pictures. Therefore the redescription of the species is provided here.

***Leiodes multipunctata* (Rye, 1873)**

(Figs. 7-10)

Anisotoma multipunctata Rye, 1873: 131.

Type material. Holotype (♀): "Type/ H.T. // Kobe // Japan / G. Lewis / 1910-320 // multipunctata Rye" (BMNH) {appearance of the labels in Fig. 8}.

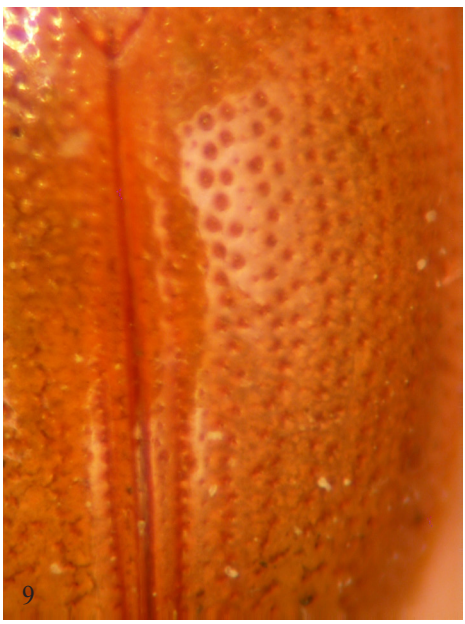
Description. Length of body 3.0 mm. Length of body parts: head 0.3 mm, pronotum 0.8 mm, elytra 1.9 mm, antenna 0.9 mm. Maximum width of body parts: head 0.8 mm, pronotum 1.5 mm at base, elytra 1.6 mm at basal fourth of their length.

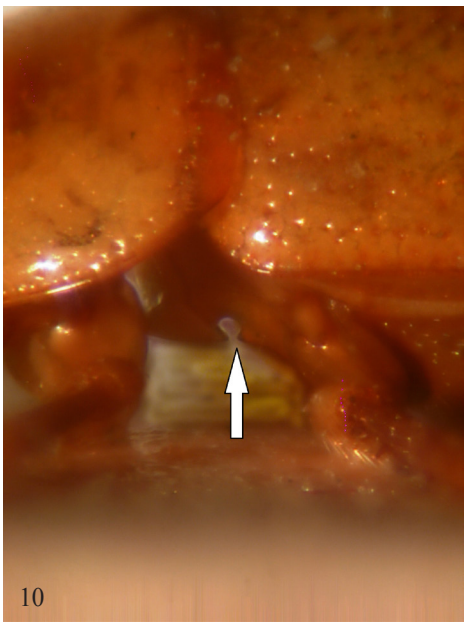
Oblong oval (Fig. 7), dorsum and legs with exception of reddish suture unicolorous lightly yellow-red, antennal club lightly brown. Venter yellow-red with darker longitudinal mesoventral carina. Dorsum punctured, without any microreticulation or strigosites.

Head. Dorsal surface with distinct but irregularly distributed punctures separated by 1-2 or more times their own diameters, vertex with 4 large punctures. Last antennomere distinctly narrower than the previous. Ratio of length of antennomeres II-XI (AII=1.0): 1.0-1.1.0.7-0.6-0.5-0.9-0.3-1.1-1.1-1.8. Ratio of width of antennomeres II-XI (AII=1.0): 1.0-0.9-0.9-1.0-1.1-2.7-1.9-3.4-3.4-2.9. W/L AII-AXI: 0.6-0.5-0.8-1.0-1.3-1.9-4.3-2.0-2.0-1.0.

Pronotum. Widest before base. Sides tapered shortly basally and roundly anteriorly in dorsal view; rounded in lateral view. Posterior angles slightly acute, almost rectangular distinct but broadly rounded in dorsal view and obtuse, broadly rounded but distinct in

Figs. 7, 8. *Leiodes multipunctata* (Rye, 1873) (holotype): 7- body in dorsal view; 8- labels.





Figs. 9, 10. *Leiodes multipunctata* (Rye, 1873) (holotype): 9- elytra, type of puncturation; 10- mesoventrite, longitudinal carina of type B.

lateral view. Puncturation sparser on disc (punctures separated by about 2-3 times their own diameter), a little denser toward base and lateral sides.

Scutellum. Punctured similarly as pronotum.

Elytra. Broadest approximately at basal third of their length. With nine, paired, punctured striae slightly irregularly arranged in some placed. Stria 9 simple, oblique well distant from lateral margin (Fig. 10). Type of puncturation as in Fig. 9. Punctures of striae separated predominantly by 0.5-1 times their own diameter. Fine small punctures separated by about 4-5 times their own diameter tending to seriate placed in intervals between paired striae. Sutural stria deepened, long, confined approximately to two thirds of elytra. Lateral channel without larger punctures or foveae. Long light erect setae distributed along lateral margins of elytra.

Legs. Anterior tibiae and tarsomeres slim, mid-tibiae broader feeble curved. Hind margin of metafemur dorsally and ventrally with very small lobe at apex, hind tibiae very feebly simply curved.

Mesoventrite. Longitudinal carina of type B (Fig. 10).

Genitalia. Male is not known.

Disscussion. *Leiodes multipunctata* (Rye, 1873) differs significantly from other up to known members of *Leiodes* by the surface of elytra covered by the paired striae, which is the feature unusual in the genus. *L. multipunctata* can be compared to *L. hoshinai* as the puncturation of elytra in both species is far from predominant type of elytral structure in the genus *Leiodes* that is usually represented by single punctured striae combined with interstrial longitudinal strips. *L. multipunctata* differs from *L. hoshinai* beside paired punctured elytral striae also mainly by the shape of pronotum that is widest before base in *L. multipunctata*, by the oblong oval body and by the pronotal puncturation.

FAUNISTICS

Leiodes bicolor (W. L. E. Schmidt, 1841)

Examined material: (1 ♂): " N37°39´11 E36°20´51 / TR Kahramanmaras / Andirin-Cokak 1150m/ 10 km n Andirin (43); Carpinus, Quellen / 1./2.5.2005/ Burgarth & Meybohm leg.", (KBSC).

Distribution: Europe: Belarus, Czech Republic, Finland, Germany, Hungary, Italy, Lithuania, Poland, Slovakia; Africa: Egypt, Morocco; Asia: Afghanistan, Russia (East Siberia and Far East) China (Gansu, Sichuan, Xinjiang), Mongolia, Pakistan. New for Turkey.

Leiodes graefi Švec 1994

Examined material: (1 ♂, 2 ♀♀): "N37°53´11 E035°59´37 / TR Adana, Cumhurlu 710 mú 11 km NE Feke, 21.4.2011/ Brochut&Meybohm (21)", (KBSC).

Distribution: Europe: Montenegro, Greece, Italy. New to Asia and Turkey.

Leiodes aksekiana Švec, 2009

Examined material: (3 spec.):"LEBANON, Rayfoun / ca 33°58´N, 35°42´E/ mix. oak for. - 990 m / 31.III.-9.IV. 2016 / pitfall trap, leg. Reuter" (NKME, ZSPC).

Distribution: Turkey. New to Lebanon.

Remark to the variability. The examined material with some tiny differences well agrees to the holotype in external characters and also in the shape of aedeagus and endophallic structures. The top of the aedeagus is narrowly truncate in the holotypus while the same is broadly truncate in the male from Lebanon. Length of the species is 2.4 (the holotype) - 3.5 mm. The following characters were omitted by error in the original description: the elytra, mainly apically and laterally, covered by fine transversal scratches; the elytral epipleura with very short light erect setae. Terminal thorn on anterior tibia is swollen basally, strongly bent apically.

Leiodes rufipennis (Paykull, 1798)

Examined material: (7 spec.): "TR, Artvin/Ardahan/ Yalnizçam, Bülbülen/Geçidi, ca 2400 m/ 17.-19.VII. 2014/leg C. Reuter", (NKME, ZSPC); (1 spec.): "TR, Artvin, ENE Artvin/ Dalis Dağ, 1800-2000 m/ ca 41°13´N, 41°55´E, 8.-18.VII.2014/ pitfall, leg. C. Reuter", (NKME).

Distribution: Europe: Austria, Denmark, Finland, France, Germany, Great Britain, Italy, Poland, Slovakia, Russia, Sweden, Switzerland, "Caucasus", Asia: Turkey. New to Asia and Turkey.

Leiodes curticornis Hlisnikovský, 1967

Examined material: (1 ♂): "AFGHANISTAN, N / Nangahar, Darah-i Nur/Sutan vill., 1500 m / VII. 2010, leg. Reuter", (NKME).

Distribution: Mongolia. New to Afghanistan.

Leiodes cinnamomea (Panzer, 1793)

Examined material: (1 ♂): "Türkiye Anatolia bor. / prov. Bolu / Kursunlu E, Gerede / 12.VII. 19691.400 m ü NN/ leg: HEINZ", (NKME); (1 ♂): "Israel – Hermon / 1700 m trap 5 / C. Dress 2.4.2011", (KBSC).

Distribution: Europe: Austria, Croatia, Czech Republic, France, Denmark, Great Britain, Germany, Hungary, Ireland, Italy, The Nederlands, Poland, Romania, Slovakia, Spain, Switzerland, Ukraine. New to Asia and for Israel and Turkey.

Leiodes tarsatula Daffner, 1983

Examined material: (1 ♂): "TK Beyshehir lake / HADZHI AKIF isl. / 4.V.2001 / I. Smatana lgt.", (ZSPC).

Distribution: Europe: Georgia. New to Asia and Turkey.

ACKNOWLEDGEMENTS. I am pleased to express my sincere thanks to my entomological colleagues Matthias Hartmann (Erfurt, Germany), Jiří Hájek (Praha, Czech Republic), Wolfgang Schawaller (Stuttgart, Germany), Hideto Hoshina (Fukui City, Japan) and Kai Burgarth (Stelle, Germany) for allowing me studies the leiodid material.

REFERENCES

Hoshina H. 2012: Review of the tribes Sogdini and Leiodini from Japan and North Chishima Islands. Part II. Genera *Hydnobius* and *Leiode*s (Coleoptera: Leiodidae). *Acta Entomologica Musei Nationalis Pragae* 52 (supplementum 1): 162 pp.

Lompe A. 1986: Ein neues Einbettungsmittel für Insectenpräparate. In Puhtz V. Kleine Mitteilungen. *Entomologishe Blätter* 82: 119.

Perreau M. 2015: Leiodidae. Pp. 180-291. In: Löbl I. & Löbl D. (eds.): *Catalogue of Palaearctic Coleoptera. Revised and updated edition. Vol. 2.* Leiden: Brill Hes & De Graaf, Brill Nijhoff, Brill Rodopi and Hotei Publishing, 1702 pp.

Rye E.C. 1873: Notes on Anisotomidae, with descriptions of three new species (two from Japan and one from Great Britain). *The Entomologist's Monthly Magazine* 10 [1873-1874]: 131-135.

Švec Z. 2008: New Chinese and Nepalese *Leiodes* Latreille (Coleoptera: Leiodidae: Leiodinae). *Studies and Reports of District Museum Prague-East, Taxonomical Series* 4(1-2): 241-258.

Received: 10.12.2017
Accepted: 30.12.2017
Printed: 31.3.2018