

New Asian *Leiodes* species with notes on Leiodinae from the collection of the Naturkundemuseum Erfurt (Coleoptera, Leiodidae)

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Summary

Leiodes matthiasi sp. n. from Kazakhstan and Uzbekistan and *L. lehmanni* sp. n. from Kyrgyzstan are described. *Sogda (Trichohydnoebius) secunda* (Guillebeau, 1897) and *Leiodes xinjiangensis* Angelini & Švec, 1994 from Tadzhikistan, *L. stocki* Švec, 1996 from Georgia, *Liocyrtusa minuta* (Ahrens, 1812) from West Siberia and Kazakhstan and *Pseudocolenis rotundata* Daffner, 1988 from Nepal are recorded for the first time.

Zusammenfassung

Leiodes matthiasi sp. n. aus Kasachstan und Uzbekistan und *L. lehmanni* sp. n. aus Kirgistan werden beschrieben. *Sogda (Trichohydnoebius) secunda* (Guillebeau, 1897) und *Leiodes xinjiangensis* Angelini & Švec, 1994 aus Tadschikistan, *L. stocki* Švec, 1996 aus Georgien, *Liocyrtusa minuta* (Ahrens, 1812) aus West Siberia und Kasachstan und *Pseudocolenis rotundata* Daffner, 1988 aus Nepal konnten erstmals nachgewiesen werden.

Keywords: *Leiodes*, *Sogda*, *Liocyrtusa*, new species, Asia

1. Introduction

The Leiodinae of Central Asia had been mainly studied by DAFFNER (1983), ANGELINI & ŠVEC (1998) and ŠVEC (1996). Most of species were included in or described under the genus *Leiodes* Latreille, 1796. The *Leiodes* species described in the present paper raising their number to 18. New faunistic data about two *Leiodes* species and three other species of Leiodinae are presented.

2. Material

The rich leiodid material from the collection of the Naturkundemuseum Erfurt recently collected in

Georgia and Kazakhstan as well as the specimens collected by some Czech and German entomologists in Central Asia and West Siberia were studied. It contains 285 specimens in 7 species.

The material mentioned in this paper is kept in the collection of the Naturkundemuseum Erfurt (NME), collection of Andreas Pütz from Eisenhüttenstadt, Germany (PC) and the author's collection (SC). Data drawn from locality labels are given in quotation marks. Author's remarks and additions with respect to the locality data are given in brackets. Morphological nomenclature (the type of mesosternal carina) follows DAFFNER (1983).

3. Results

Sogda (Trichohydnoebius) secunda (Guillebeau, 1897)

Hydnobius secundus Guillebeau, 1897: 224

Material examined: male, "Tadshikistan, Pamir reg., Dschirgatal, Muxu-Fluß, Geb. b. Dep-Shaar, 2200 m NN, 7.VII. 1990, leg. Hartmann"; 3 females, the same. Male and 2 females deposited in NME, 1 female SC.

Distribution: France, Italy, Afghanistan, Mongolia, Kazakhstan, Uzbekistan, Tadzhikistan. New record for Tadzhikistan.

Leiodes matthiasi sp. n. (Figs 1-3)

Type material. Holotype: male, "Kasachstan, Taldy-Kurgan Geb., Ili-Tal Altyn-Emel National Park, 5-900 m NN, 05.-13.V.1995, leg. V. Lukhtanov"; paratypes: 84 males, 65 females, the same locality and data; 29 males, 25 females, "Kasachstan, Taldy-Kurgan Geb., Ili 500 m NN, 43°58'N, 79°39'E, 04.VI.1993, leg. V. Lukhtanov"; 4 males, 3 females, "Kasachstan, Taldy-Kurgan-Gebiet, Koktal, 44°06'N, 70°47'E, 500 m NN, 08.VI.1993, leg. V.&A Lukhtanov"; 1 male,

"Kasachstan, Dschambul- Geb., Kurdai-Pass, 1000 m NN, 03.VIII.1995, leg. V. Lukhtanov"; 7 males, 10 females, "Kasachstan, Alma-Ata Gebiet, 20 km SW Tschundscha, 500 m NN, 28.-30.V.1995, leg. V. Lukhtanov"; 11 males, 8 females, the same locality, 30.V.1995; 11 males, 13 females, "Kasachstan, Alma-Ata Gebiet, Taschkarasu, 500 m NN, 43°48'N, 79°39'E, 5.-8.VI.1993, leg. V. Lukhtanov"; 3 males, 2 females, "Kasachstan, Alma-Ata-Gebiet, Pristan Dubinskaja, 550 m NN, 43°45'N, 80°13'E, 15.-18.VI.1993, leg. V. & A. Lukhtanov"; 1 female, "Uzbekistan, R. Zeravshan Vall. pr. Samarkand, V.1995, Strejček & Strejčková lgt."

Holotype, 121 male paratypes and 103 female paratypes from Kazakhstan deposited in NME, 28 male and 23 female paratypes from Kazakhstan and 1 paratype from Uzbekistan in SC.

Description:

Body: Shortly oval. Shape of body as in Fig. 1. Dorsum yellow-red to lightly red-brown, mouthparts lighter; tips of mandibulae brown. Antennae uniformly yellow-red to red, antennal club or some of club segments slightly infuscate in 32 from 276 type specimens. Infuscation also occurs rarely only on one of both antennae. Antennal segments 9 and 10 black, segment 11 infuscate in one of paratypes. Venter lightly yellow-red to red with darker mesosternal carina and margins of metasternum. Hairs on metasternum and abdomen yellow. Length of body 2.0-2.9 mm, in holotype 2.4 mm. Head in holotype 0.2 mm, pronotum 0.6 mm, elytra 1.6 mm, antenna 0.6 mm. Maximal width of head in holotype 0.7 mm, pronotum 1.3 mm at base, elytra 1.3 mm at base, 1.4 mm in basal fourth.

Head: Distinctly punctate, punctures separated by 3-4 times of their own diameters. Interstices without microsculpture. Four large punctures placed in transversal row before posterior level of eyes; 5th one rarely developed. Last antennal segment as wide as previous one. Ratio of length of antennal segments 2 to 11 (the 2nd equal to 1.0) = 1.0 - 1.8 - 0.8 - 0.8 - 0.6 - 1.0 - 0.5 - 1.0 - 0.9 - 1.8. Ratio of width of club segments 7 to 11 (7th equal to 1.0): 1.0 - 0.7 - 1.3 - 1.4 - 1.4. Ratio of width : length of the antennal club segments = 1.3 - 1.8 - 1.6 - 2.0 - 1.1. Antenna as in Fig. 2.

Pronotum: Pronotum widest at base, lateral margins roundly converging toward anterior angles. Posterior sharp angles broadly rounded in dorsal view. In lateral view very blunt posterior angles

broadly rounded. Margins of pronotum roundly tapered to anterior angles in lateral view. Punctuation sparser and finer than on head. Punctures separated by about 5-6 times, or by 4-8 times of their own diameters in some paratypes. With several punctures before base postero-laterally. Two large punctures regularly present before pronotal base above scutellum.

Scutellum: With several punctures as large as those on pronotum. Interstices without microreticulation.

Elytra: Widest at anterior fourth of length. Lateral margins visible simultaneously partly at distal half of elytra in dorsal view. Surface without microreticulation. With regular rows of punctures. Rows 1 and 2 composed of strong punctures separated by 1.5-2.0 or by 1.5-3.0 times of their own diameters in some paratypes. Punctures placed in rest rows separated by 2.0-2.5 times, or by 1.5-4.0 times of their own diameters in some paratypes. Distinctly oblique short ninth row ending far from lateral channel at anterior third of elytral length. Odd intervals with several punctures nearly as large as those in rows. All intervals sparsely punctate. Punctures similar to those on pronotum separated by 4-8 times of their own diameters. Punctuation denser at base of elytra. Membranous wings fully developed.

Mesosternum: Low carina of type A.

Legs: 1st to 3rd segments of anterior tarsi and mesotarsi very slightly dilated in male; slim in female. Anterior tibiae apically about twice as wide as at base. Simply shaped posterior femora very slightly lobed dorso-distally with small short triangular dens on ventral margin at apex in male; broadly lobed ventrally at their distal part in female. Hind tibiae very slightly simply curved in male; straight in female.

Genitalia: Aedeagus with reduced internal sclerites as in Fig. 3.

Bionomy: Not known.

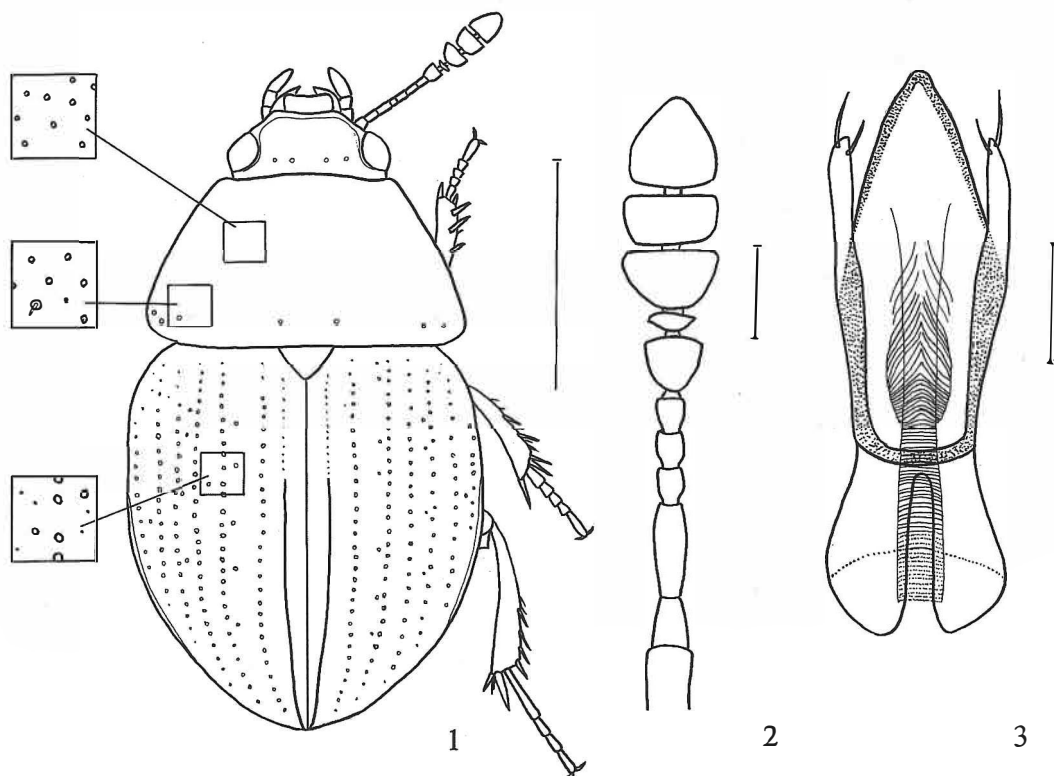
Derivatio nominis: The new species is dedicated to Matthias Hartmann curator at the Naturkundemuseum Erfurt.

Differential diagnosis: *L. matthiasi* sp. n. resembles *L. brunnea* (Sturm, 1807) by the shape of body, by the type of dorsal punctuation and by the same type of mesosternal carina. Antennal segment 11 is as broad as the 10th one in both species compared. *L. matthiasi* sp. n. differs from *L. brunnea* by longer antennae and mainly by the shape of aedeagus, which is convergently narrowed from midlength, and by endophalic sclerites reduced while aedeagus

in *L. brunnea* is triangularly convergent close before tip. The endophallic sclerites are well visible in the species compared.

Remark. The infuscation of antennal club is most frequently present in material from localities Taschkarasu, 500 m NN, 43°48'N, 79°39'E, 5.-

8.VI.1993 and Taldy-Kurgan Geb., Ili 500 m NN, 43°58'N, 79°39'E, 04.VI.1993 (18 from 75 specimens). Fungi have attacked the material from these localities. It leads me to the conclusion that the infuscation of antennal clubs is perhaps an artifact.



Figs 1-3: *Leiodes matthiasi* sp. n., holotype, male; 1 - shape of body; 2 - antenna; 3 - aedeagus dorsally. Scale = 0.1 mm.

Leiodes lehmanni sp. n. (Figs 4-7)

Type material. Holotype: male, "Kirghizstan, sept., Kirghizski range, Tschunkurtschak, 7.-12.7.1996, Leg. L. Lehmann"; paratypes: 2 males, 6 females, the same data as in holotype; 1 female, "Kirghizstan sept., Kirghizski range, Belsaz env., 1.-6.7.1996". Holotype, 1 female paratype from Tschunkurtschak and 1 female paratype from Belsaz deposited in SC, 2 males and 5 females paratypes in PC.

Description:

Body: Shortly oval. Dorsum red to lightly red-brown with posterior margin of pronotum and with lateral margins of elytra darker in anterior half of their length. Anterior tarsi or all legs with mouthparts entirely lightly yellow-red. Tips of mandibulae brown. Antennae yellow-red except of yellow-brown club. Venter red-brown with darker mesosternal carina and anterior margins of metasternum. Hairs on metasternum and abdomen yellow.

Length of body 1.8-2.4 mm, in holotype 2.4 mm. Head in holotype 0.4 mm, pronotum 0.6 mm, elytra 1.4 mm, antenna 0.7 mm. Maximal width of head in holotype 0.6 mm, pronotum 1.2 mm at base, elytra 1.3 mm at base.

Head: Irregularly but distinctly strongly punctate, punctures separated by 2-7 times of their own diameters. Interstices without microsculpture. Four large punctures placed in transversal row before posterior level of eyes. Last antennal segment as wide as long, narrower than previous one. Ratio of length of antennal segments 2 to 11 (the 2nd equal to 1.0) : 1.0 - 2.0 - 1.0 - 1.0 - 0.8 - 1.3 - 0.7 - 1.7 - 1.5 - 2.3. Ratio of width of club segments 7 to 11 (7th equal to 1.0): 1.0 - 0.8 - 1.4 - 1.5 - 1.3. Ratio of width : length of the antennal club segments = 1.4 - 2.3 - 1.5 - 1.8 - 1.0. Antenna as in Fig. 7.

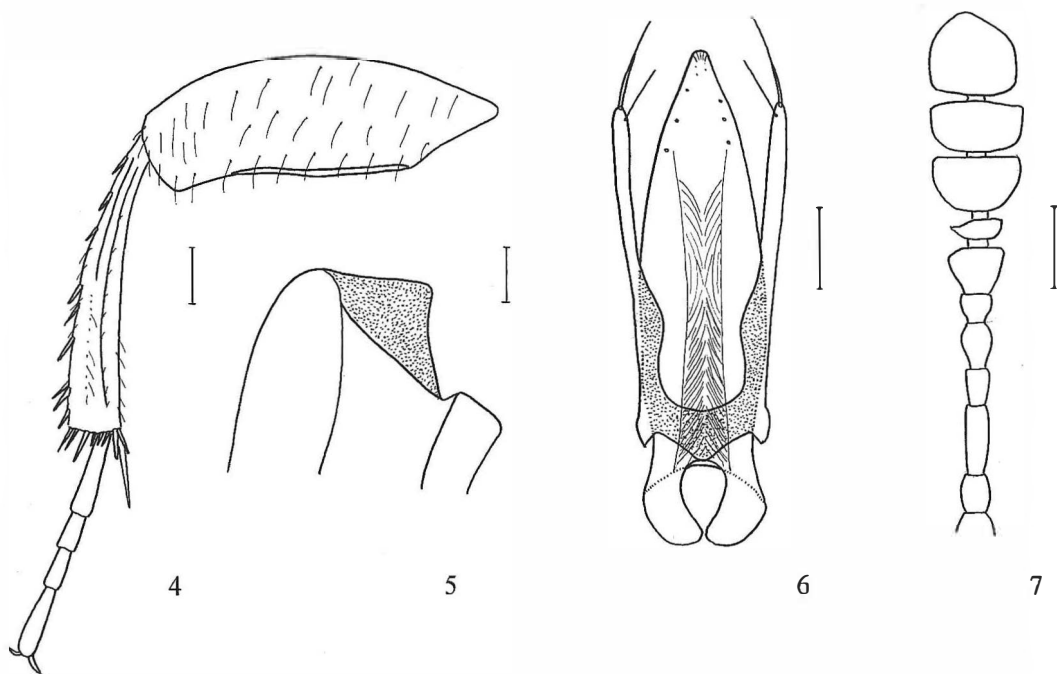
Pronotum: Pronotum widest at base, lateral margins roundly converging towards anterior angles. Posterior sharp angles shortly rounded in dorsal

view. Slightly blunt posterior angles broadly rounded in lateral view. Hind half of length of pronotal margins straight; roundly tapered to anterior angles from midlength in lateral view. Punctuation distinctly developed but sparser and finer than on head. Punctures separated by about 4-7 times of their own diameters.

Interstices without microsculpture. Posterior-laterally with some punctures larger than other ones present on pronotum.

Scutellum: With several punctures larger than those on pronotum. Interstices without microreticulation.

Elytra: Widest in range of anterior third of their length. Lateral margins not visible simultaneously in dorsal view at all. Surface without microreticulation. With regular rows of punctures. Rows on disc composed of strong punctures separated by 1.0-2.0 times of their own diameters. Punctures of lateral rows separated by about 0.5 times of their own dia-



Figs 4-7: *Leiodes lehmanni* sp. n., holotype, male; 4 - hind leg ventrally; 5 - mesosternal carina; 6 - aedeagus dorsally; 7 - antenna. Scale = 0.1 mm.

meters. Short 9th row distinctly oblique, ending far from lateral channel at anterior quarter of elytral length. Lateral channel of elytra in posterior quarter of their length with punctures a little smaller than those in rows. Odd intervals with several punctures nearly as large as those in rows on disc; the same ones as large as interval punctures laterally. All intervals on disc sparsely punctate by punctures similar to those on pronotum separated by 3-8 times of their own diameter. Punctuation denser at base of elytra.

A little reduced membranous wings about as long as elytra or slightly longer.

Mesosternum: Highly edged carina of type D as in Fig. 5.

Legs: Segments 1 to 4 of anterior tarsi and mesotarsi very slightly dilated in male; slim in female. Anterior tibiae apically about 2.5 times as wide as at base. Posterior femora simply shaped slightly lobed distally in both sex. Hind tibiae slightly simply curved in male (Fig. 4); straight in female.

Genitalia: Aedeagus with reduced internal sclerites as in Fig. 6.

Bionomy: Not known.

Derivatio nominis: The new species is dedicated to its collector Lutz Lehmann.

Differential diagnosis: *L. lehmanni* sp. n. strongly resembles *L. xinjiangensis* Angelini & Švec, 1994 by all basic external characters including the shape of body, dorsal sculpture, shape of antennae and the type of mesosternal carina. *L. lehmanni* sp. n. differs by bisetose parameres that are multisetose in *L. xinjiangensis*. Lateral margins of elytra invisible in *L. lehmanni* sp. n. in dorsal view while the margins are visible simultaneously in hind half of elytra in *L. xinjiangensis*.

***Leiodes stocki* Švec, 1996**
(ŠVEC 1996: 74.)

Material examined: male, "SU Georgien, Central-kaukasus, Mleti, oberes Tal der weißen Aragwi, östl. Napiskalo-Gipfel, ca 2600 m NN, 30.6.1988, leg. A. Kopetz" (NME).

Distribution: W Siberia (Sayan), Georgia.
New record for Georgia. Only type series has been known till now.

***Leiodes xinjiangensis* Angelini & Švec, 1994**
(ANGELINI & ŠVEC 1994: 28)

Material examined: male, "Tadshikistan, Pamir Dschailgan, Muxu-Gebiet, Umg. Dep-Schaar, 2200 m NN, 30.VI.1990, leg. Hartmann" (NME).

Distribution: China, Tadzhikistan.

New record for Tadzhikistan. Only type series has been known till now.

***Liocyrtusa minuta* (Ahrens, 1812)**

Anisotoma minutum Ahrens, 1812: 20.

Liocyrtusa minuta Daffner, 1983: 133.

Material examined: female, "Russia, [W Siberia], Gorno-Altaysk distr. Cherga vill. env., June of 1992, alpica, leg. A. Chernich"; female, "Kasachstan, Alma-Ata-Gebiet, 20 km SW Tschundscha, 500 m NN, 28.-30.v.19995, leg. A. Lukhtanov"; male, "Tadshikistan, Pamir, Reg. Dschirgatal, Muxu-Fluss, Geb. b. Dep.-Schaar, 2200 m NN, 7.VII.1990, leg. Hartmann" (NME).

Distribution: Europe, Caucasus, Turkmenistan, West Siberia, Kasachstan, Tadzhikistan.

New records for Western Siberia, Kazakhstan, Tadzhikistan.

***Pseudocolenis rotundata* Daffner, 1988**

(DAFFNER 1988: 174)

Material examined: male, " Nepal, 19.5.[19]90, Kathmandu env., St. Snäll leg."; (SC).

Distribution: Nepal, Vietnam. New record for Nepal.

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