Studies and Reports
Taxonomical Series 21 (1): 153-178, 2025

A review of Old Word *Anisotoma* Panzer, 1797 and *Cyrtoplastus* Reitter, 1885 (Coleoptera: Leiodidae) with the description of ten new species and a new faunistic record

Zdeněk ŠVEC

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

Taxonomy, new species, keys, faunistics, Coleoptera, Leiodidae, Leiodinae, Anisotomini, *Anisotoma, Cyrtoplastus,* Old World

Abstract. *Anisotoma bicornigera*, *A. brevicorne*, *A. clypeata, A. flagellata*, *A. spissa* and *A. triangularis* spp. nov. from Laos, *A. operculata* and *A. cryptoperculata* spp. nov. from China, *Cyrtoplastus hlavaci* sp. nov. from Vietnam and *C. alesi* sp. nov. from China are described and compared with similar species. Keys to the identification of the Old World species of *Anisotoma* Panzer, 1797 and *Cyrtoplastus* Reitter, 1885 are provided. *Anisotoma eos* Perkovsky, 1987 from the Far East of Russia is transferred from *Anisotoma* to the genus *Liodopria* Reitter, 1909. *Cyrtoplastus hlavaci* sp. nov. collected in Vietnam represents the first finding of the genus outside of the Palaearctic Region. *Cyrtoplastus schuelkei* Angelini & Švec, 2000 is recorded from Gansu (China) for the first time.

INTRODUCTION

The present paper deals with Old World species of the genera *Anisotoma* Panzer, 1797 and *Cyrtoplastus* Reitter, 1885 belonging to the tribe Anisotomini that is the most numerous within the subfamily Leiodinae. It comprises 11 genera (Newton 2022) with 1,021 described species (Švec private database).

Species currently assigned to *Anisotoma* Panzer, 1797 were often confused with species in other, more or less related genera. Two important genera of leiodids were described in the late 18th century within a year - *Anisotoma* Panzer, 1797 and *Leiodes* Latreille, 1796 (latter frequently misspelled as *Liodes*). A number of species attributed currently to *Anisotoma*, were originally described under various genera, predominantly *Leiodes* mostly during the 19th or even 20thcenturies. More than 50 species belonging currently to the genus *Leiodes* were originally described as *Anisotoma*. The genus *Anisotoma* currently comprises 57 species, among them 29 species occurring in the Old World. In this paper one of those species is transferred to *Liodopria* Reitter, 1909 and eight species are described as new to science. Therefore altogether 64 species should be attributed to the genus *Anisotoma* at present.

All the 17 species described and currently attributed to the genus *Cyrtoplastus* Reitter, 1885 occur in the Old World within the Palaearctic region. Two species new to science are described in the present paper, so the number of the species attributed to the genus is 19 at present. One of the species new to science described in the present paper comes from Vietnam, representing the first and so far the only record of the genus outside of the Palaearctic Region.

MATERIAL AND METHODS

This paper is based mainly on the material collected in Laos predominantly by the Czech entomologist Vít Kubáň (Brno) in the year 2007 and also later. The material collected by Kubáň in the year 2007 was donated to the author of the present paper by late Volker Assing, specialist in Staphylinidae. The other material collected by Kubáň later than 2007 was borrowed for study from the collection of the National Museum, Prague, Czech Republic. Beside this, Chinese material collected and donated by late specialist in Staphylinidae, Aleš Smetana to the author has been studied as well as the Chinese material collected by the German entomologist Michael Schülke. Finally, a part of the studied material coming from Vietnam was collected by Peter Hlaváč, specialist in Pselaphinae,

Abbreviations of collections:

MSBC Collection Michael Schülke, Natural History Museum Berlin, Germany;
NMPC National Museum, Praha, Czech Republic;
PHPC Peter Hlaváč, private collection, Praha, Czech Republic;
ZSPC Zdeněk Švec, private collection, Praha, Czech Republic.

The abbreviations of country names used in the distribution in the key presented below was taken from Löbl & Löbl (2015). Abbreviations for Laos - LO, Vietnam - VM and Canada - CA are added.

Abbreviations of body parts and measurements:

AII-AXI antennomeres II-XI;
TI-TV tarsomeres I-V;
L length;
W width.
W/L Ratio between measurements.

The examined material has been compared with the type and other leiodid material deposited in ZSPC and in NMPC.

Collecting data cited in quotation marks are taken from the locality labels accompanying the specimens of the type series; the individual lines of the original locality labels are separated by a slash; the individual labels are separated by double slash in this work. The author's notices are put in brackets. Each holotype or paratype is indicated by a red label bearing the status of the specimen (holotypus or paratypus respectively) name of the species, the name of the author and the year of the designation of the types (2024). The red label is attached to the same pin as the relevant specimen. The holotype labels are initialled by the author.

The specimens were relaxed in 4% acetic acid first, then rinsed in water and dissected in a drop of water. Both male and female genitalia were mounted in polyvinylpyrrolidin on a transparent label added to the same pin as the dissected specimen or they were mounted directly on the label near the relevant specimen.

The descriptions are based on the holotypes. Variability is mentioned in the paragraph "Variation" if necessary and includes features exhibited by the paratypes. Important characters of the sexual dimorphism are included in the paragraph "Female."

The measurements of the total body length were taken from all the specimens examined. Specific measurements of the individual body parts were taken from the holotypes only,

except for data about the variation. The measurements of body parts were taken to the first decimal place of millimetre, the measurements of the genitalia were measured to the second decimal place of millimetre.

The types have been deposited in NMPC, ZSPC, MSBC and PHPC.

Terminology:

endophallus = sclerite or sclerites or other structures inside tegmen detectable in transmitted light;

parallelogram = micro-sculpture represented by cells with predominantly parallel long transversally oriented strigosites connecting each other by short conjunctions;

punctate stria or striae = longitudinally seriate rows of punctures on elytra - deepened or not deepened elytral striae with punctures;

sutural stria = predominantly deepened stria closest to elytral suture usually being deepened, lacking punctures in its caudal part, usually with punctures or even becoming a row or rows of punctures anteriorly;

tarsal formula = number of tarsomeres on anterior- mid- and posterior tarsi; e.g. male tarsal formula 5-5-4, female 5-4-4 in *Anisotoma brevicornis* sp. nov.;

tegmen or median lobe = median lobe of aedeagus.

DESCRIPTIONS AND FAUNISTIC RECORD

Genus *Anisotoma* Panzer, 1797

Key to the determination of the Old World *Anisotoma* Panzer, 1797 species

1 Elytra dark with light spots, sometimes entirely reddish, densely setose. 2

\- Elytra unicolorous, never entirely reddish and setose. 5

2(1) Each elytron with light humeral spot. 3

\- Each elytra with longitudinal discal lighter spot or with two spots. Elytra with 8 complete punctate striae. Head and pronotum transversally striolate. Tegmen shortly rounded apically, paramera slightly shorter than tegmen, spermatheca J-shaped. 3.3-3.8 mm. Distribution: Asia - JA. ..... *A. biplagiata* (Portevin, 1927)

3 (2) Elytra distinctly densely setose. 4

\- Elytra without distinct dense setae. Tegmen with small nipple apically. Basal part of spermatheca pear-like shaped, with small gland and swollen ductus seminalis attached. 2.7-3.4 mm. Distribution: Europe - AU BE BY CT CZ DE EN FI FR GE HU IT LA LT NL NR NT PL RO SK SV SZ UK; Asia - FE SC. .... *A. axillaris* Gyllenhal, 1810

4(3) Male with obtrusively enlarged anterior tarsi and with hook-like apical medial thorn on posterior tibia. Tegmen with broadly rounded apex, spermatheca similar to that in *A. axillaris*. 3.1-4.7 mm. Distribution: Europe - AR AU BH BU BY CR CT CZ DE EN FI FR GB GE GG GR HU IR IT LA LT MC NL NR NT PL SK ST SV SZ UK YU; Asia - TR; North of America - CA; USA. .....*A. humeralis* (Herbst, 1791)

\- Male with feebly enlarged anterior tarsi, apical thorn on posterior tibia straight. Tegmen projectile-shaped apically with rounded tip in dorsal view, straight in lateral view, spermatheca oblong oval with stout backward curved reverse apical part half as long as basal part. 3.2-3.5 mm. Distribution: Asia - FE JA (Hokkaido, Honshu), SC. ..... *A. rubromaculata* Hisamatsu, 1985

5(1) Head and elytra black, pronotum red. 6
- Dorsum unicolorous or at most with very slight difference in colour intensity between elytra and pronotum or unicolorous with feeble reddish spot on head and pronotum in some cases. 7
6(5) Body large (4.2-4.3 mm). Tegmen emarginate apically, spermatheca slim, wavy. Distribution: Asia - CH (Sichuan, Yunnan). ..... *A. schneideri* Angelini & Švec, 1994
- Body small (2.1-2.4 mm). Tegmen pointed apically, basal part of spermatheca pear-shaped Distribution: Asia - CH (Yunnan). ..... *A. alesi* Švec, 2012
7(5) At least head and pronotum micro-sculptured (see also *A.curta* under key 36 with indistinct micro-sculpture on head and in male also with opalescent apex and lateral parts of elytra). 8
- Micro-sculpture at most on head or even only on clypeus. 22
8(7) Body flatter, oblong oval. Elytra with 8 complete double striae, stria 9 merging with lateral channel just behind humeri. Striae double, hardly detectable due to presence of dense distinct punctation of intervals. Tegmen slim, emarginate apically, spermatheca J-shaped with knotty base..... 9
- Body convex, oval or short oval, elytra with 8 or 9 complete striae. Genitalia of different shape, if tegmen emarginate at apex, then stout. 11
9(8) Dorsum brown to black. Micro-sculpture on head and pronotum distinct. 10
- Black, elytra brown or reddish-brown. Micro-sculpture of head and pronotum superficial. Tegmen slim feebly emarginate apically in dorsal view, feebly S- shaped in lateral view. 3.4-3.7 mm. Distribution: Asia - FE. ..... *A. korotjaevi* Perkovsky, 1987.
10(9) Pronotum moderately punctate. Tegmen curved, flatly S-shaped in lateral view. 3.5-4.2 mm. Distribution: Europe - AU BH CT CZ DE EN FI FR GB GE HU IT LA LT NL NR NT PL RO SK SP ST SV SZ UK YU. ..... *A. castanea castanea* (Herbst, 1792)
- Pronotum coarsely punctate, Tegmen feebly double curved in lateral view. 2.5-3.5 mm. Distribution: Asia - FE JA (Hokkaido, Honshu, Rishiri I.), SC..... *A. castanea nipponensis* Hisamatsu, 1985
11(8) Elytra with 9 complete punctate striae. Tegmen projectile-shaped or acute apically. 12
- Elytra with 8 complete punctate striae, stria IX confluent with lateral channel. Tegmen emarginate apically, straight or projectile-shaped. 16
12(11) Striae completely or predominantly simply punctate (*A. orbicularis* variable, in some cases with very densely punctate intervals make it difficult to recognize main striae). 13
- Striae double punctate. Black, head with red spot and superficial strigosity. Pronotum with punctures separated by 1-5 times their diameter. Elytra with 9 complete but sometimes irregular and/or double punctate striae. Intervals finely punctate. Tegmen projectile-shaped apically in dorsal view. Spermatheca with small projection in middle of pear-shaped basal part. 3.6-3.8 mm. Distribution: Asia - JA (Honshu).. ..... *A. frontalis* (Portevin, 1927)
13(12) Strial and interval punctures of similar size, therefore striae sometimes hardly distinguished. Dorsum brown to black. AIII/AII=1.0-1.1. Tarsal formula: ♂ 5-5-4, ♀ 4-4-4. Tegmen broadly rounded apically in dorsal view. Spermatheca with globose basal part, distal part slim, curved. 2.6-3.1 mm. Distribution: Europe - AB AL AR AU BH BU BY CT CZ DE EN FI FR GB GE GG HU IR IT LA LT MC NL NR NT PL RO SK SP ST SV SZ TR UK YU; Asia - FE IN JA (Hokkaido) TR. ..... *A. orbicularis* (Herbst, 1792)
- Intervals possess small punctures separated by 1-4 times their diameter or very sparse micro-punctures, therefore striae well recognizable. 14
14(13) Tegmen not emarginate at apex. 15
- Tegmen deeply emarginate at apex. Paramera approximately as long as tegmen. Dorsum black. Pronotal punctures separated by1-2 times their diameter. Punctures of elytral striae dense, separated by 0.3-0.5 times their diameter. AIII/AII = 1.2. Interval punctures separated by 2-4 times their diameter. 3.2-3.5 mm. Distribution: Asia - CH (Yunnan). ..... *A. nigra* Angelini & Švec, 1994
15(14) Body larger, 3.9-4.1 mm. Dorsum black with indistinct reddish spot on vertex and with reddish lateral and basal pronotal margins. Tegmen slim, projectile-shaped in dorsal view. Slim double curved in lateral view. AIII/AII=1.4. Tarsal formula: ♂ 5-5-4, ♀ 5-4-4. Spermatheca U-shaped. Distribution: Asia -FE. . ... *A. boukali* Angelini & Švec, 1993
- Body smaller, 3.1-3.2 mm. Dorsum black. Tegmen rather stout with acute apex (Fig. 20) in dorsal view, stout simply curved in lateral view (Fig. 19). AIII/AII=1.2-1.3. Distribution: Asia - LO. .....

.....*A. spissa* sp. nov.

16(11) Elytral striae simply punctate. Stria IX merging with lateral channel near mid-length or behind mid-length of elytra. 17

- Elytral striae double punctate. Tegmen projectile-shaped apically. Body large, 3.0-3.9 mm. Intervals sparsely punctate by fine punctures separated by 3-4 times their diameter. Dorsum red to brown-black, AIII/AII=1.0. Distribution: Asia - FE JA (Honshu). .....*A. didymata* (Portevin, 1927)

17(16) Body broadly oval, large 3.9-4.2 mm. Tegmen emarginate or truncate apically. Brown to black. 18

- Body oval, smaller, 2.4-2.8 mm. Tegmen projectile-shaped. Red-brown to black. 20

18(17) Clypeus with two emarginations forming three small triangular teeth on anterior margin. Elytra without micro-sculpture. Short 10th stria present on humeri. 19

- Clypeus with simply convex anterior margin. Elytra micro-sculptured. 10th stria not developed. Pronotal punctures separated by 1-4 times their diameter. AIII/AII=1.2. Tegmen parallel, with straight emargination. 3.9-4.4 mm. Distribution: Europe - AU BY CT CZ DE EN FI FR GB GE HU IT LA LT NL NR NT PL RO SK SV SZ UK; Asia - FE JA (Honshu) TR "Siberia". .....*A. glabra* (Fabricius, 1787)

19(18) Micro-sculpture on head very fine, superficial. Pronotal strigosity distinct. Tegmen stout, cylindrical, narrowed and feebly emarginate apically in dorsal view (Fig. 11), with straight apex in lateral view. Spermatheca with oblong oval basal part and reversely bent stout apical part (Fig. 10). 4.1-4.2 mm. Distribution: Asia - FE JA. .....*A. annae* Švec, 1992

- Micro-sculpture only on clypeus, remainder of head smooth, only punctate. Micro-sculpture on pronotum extremely fine and superficial, hardly detectable. Tegmen stout, cylindrical, narrowed and broadly rounded apically in dorsal view, with declined apex laterally viewed (Figs. 7, 8). Spermatheca with oblong oval basal part and reversely bent stout apical part (Fig. 9). 3.7-4.3 mm. Distribution: Asia - LO. ....*A. clypeata* sp. nov.

20(17) Brown to black. Intervals with well impressed dense punctures separated by about 3-4 times their diameter. Tarsal formula: ♂ 5-5-4, ♀ 5-4-4. Tegmen roundly tapered, pointed apically, paramera slightly but distinctly enlarged. AIII/AII=1.2. Distribution: Asia - CH (Yunnan). Length 2.4-2.6 mm. ....*A. yunnanica* Angelini & Švec, 1995

- Dorsum red-brown to brown. Intervals unobtrusively, very sparsely, superficially punctate. Tegmen roundly tapered, pointed apically, paramera slim. 21

21(20) Apex of tegmen straight in lateral view. Pronotal punctures a little larger than those on head. Basal part of spermatheca pear-shaped, without additional vesicle. Length 2.6-2.7 mm. Distribution: Asia - CH (Yunnan).....*A. dundai* Angelini & Švec, 1994

- Apex of tegmen declined in lateral view (Fig. 5). Dorsal view of tegmen in Fig. 6. Pronotal punctures a little finer than those on head. Spermathecal basal part pear-shaped with additional vesicle. (Fig. 4). 2.6-3.2 mm. Distribution: Asia - CH (Yunnan) LO. .....*A. brevicornis* sp. nov.

22(7) Elytra irregularly punctate or at most with unclear traces of punctate striae. Variable *A. krali* is repeated under keys 26 and 35. 23

- Elytra with at least two or more simple or double, regular or irregular, but well recognizable punctate striae. 29

23(22) Elytra lacking any punctate striae.....24

Traces of punctate striae in some places detectable on elytra. 26

24(23) Tegmen apically with notch or deep emargination. 25

- Tegmen with long acute process apically. Paramera lacking setae reaching mid-length of aedeagal length. Spermatheca with pear-shaped basal part and simply reverse bent apical part. Elytra densely punctate, punctures separated by one time their diameter. AIII/AII=1.6. AVII strongly asymmetric. 2.4-2.7 mm. Distribution: Asia - JA (Kyushu, Honshu), FE. .....*A. galloisi* (Portevin, 1908)

25(24) Body smaller. Antennomeres AVII-AX black, slim. Tegmen (Figs. 1, 2) with process apically possessing narrow notch, therefore bifurcate in dorsal view. Spermatheca J-shaped with basal part two times longer than apical part (Fig. 3). Dorsum dark chest-nut, clypeus and central part of head lighter coloured. Elytral punctures irregularly distributed separated by about 2-5 times their diameter. 2.5-2.8 mm. Distribution: Asia - LO. .....*A. bicornigera* sp.nov.

- Body larger. Antenna including club red-brown, stout. Tegmen deeply emarginate at apex. Aedeagus as in Figs. 16, 17. Spermatheca stout, J-shaped with basal part 3 times as long as apical part (Fig18). Dorsum reddish. Elytral punctures irregularly distributed separated by about 2 times their diameter. 2.8-3.2 mm. Distribution: A- LO. .....*A. operculata* sp nov.

26(23) Body smaller, 2.4-3.1 mm. AIII/AII=1.1-1.3, AIII shorter than AIV and AV together. 27

- Body larger, 3.4-3.5 mm. AIII/AII=1.5. AIII longer than AIV and AV together. Elytral disc with double striae hardly or not distinguishable from similar, at most a little smaller, interval punctures. Dorsum dark brown to black with reddish spot on head. Tarsal formula ♂ 5-5-4, ♀ 4-4-4. Apex of operculum notched, bi-corned, visible in dorsal view in deep apical emargination of tegmen. Paramera bisetose, a little shorter than tegmen. Spermatheca question mark-shaped. Distribution: Asia - CH (Sichuan, Yunnan). ....*A.krali* Angelini & Švec, 1995

27(26) Pronotum with punctures similar to those on head or smaller, separated by about 6-10 or more times their diameter. 28

- Pronotum with punctures a little larger than those on head, separated by 1-5 times their diameter. Elytra densely punctate, punctures separated by 1-2 times their diameter, here and there tend to form traces of irregular striae. AIII/AII=1.1. Tarsal formula ♂ 5-5-4, ♀ 5-4-4. Tegmen with short acute tip apically in dorsal view. Basal part of spermatheca pear-shaped, apical part simply reverse. Length 2.5-3.1 mm. Distribution: Asia - CH (Sichuan, Yunnan). .....*A. pseudobecvari* Angelini & Švec, 1995

28(27) Elytra here and there with simply seriate 5-6 punctures. Punctures separated by 1-6 times their diameter, some micro-punctures interposed. Tarsal formula ♀ 4-4-4, male unknown. Pronotal punctures smaller than those on head, separated by about 6-10 times their diameter, rare small punctures interposed. Species similar to *A. galloisi* differing by sparser punctation. 2.4 mm. Distribution: Asia - NE. ....*A. loebli* Angelini & De Marzo, 1986

- Elytra here and there with double irregularly seriate punctures at disc and near sutural stria. Punctures separated by about 2 times their diameter. Punctures becoming feeble anteriorly, stronger posteriorly. Apical part of elytra irregularly strongly densely punctate, punctures separated by about 2-3 times their diameter. Some micro-punctures sparsely interposed. Apex of tegmen terminating in acute tip (Fig. 12) in dorsal view. 2.2 mm. Distribution: Asia - LO. ..... *A. flagellata* sp. nov.

29(22) Elytra with strial punctures distinctly stronger and larger than interval punctures at least on elytral disc. 30

- Elytra with strial and interval punctures equal in size and strength. Elytral interval punctures arranged in longitudinal rows similar to main striae on elytral disc. Anteriorly punctures becoming sparser, finer and smaller; posteriorly punctures become larger, denser and irregularly arranged. Dorsum lightly chest-nut coloured. Apex of tegmen roof-like triangular shaped (Fig. 22) in dorsal view. Body smaller, 1.9 mm. Distribution: Asia - LO. .....*A. triangularis* sp. nov.

30(29) Body smaller, 2.1-2.3 mm, subglobose. Tegmen with terminal process. 31

- Body larger, 2.6-2.9 mm. Tegmen with terminal process or acute, or with apical emargination. 32

31(30) Dorsum chest-nut to dark brown. Pronotal punctation much sparser than that on head, punctures separated by 4-10 or more times their diameter. Elytral striae very fine, simply sparsely punctate. Punctures separated by about 3 times their diameter in median 2 stria, becoming smaller and sparser laterally and distally. Intervals between striae possess very fine and sparse punctures much smaller than those in rows separated by about 4-6 times their diameter. Tegmen with slim acute process apically. 2.1 mm. Distribution: Asia - CH (Sichuan). .....*A. brevis* Švec & Zhang, 2020.

- Dorsum black. Pronotal punctation distinctly stronger than that on head. Striae well developed on lateral and apical parts of elytra. Tegmen straight, narrowed to acute apex in dorsal view. Spermatheca with globose basal part, and simply rectangular bent apical part. 2.0-2.3 mm. Distribution: Asia - CH (Yunnan, Sichuan, Hubei). .....*A. becvari* Angelini & Švec, 1994

32(30) Body smaller, 2.6-2.7 mm. 33

- Body larger, 3.4-3.8 mm. 34

33(32) Tarsal formula ♂ and ♀ 4-4-4. Tegmen preapically slightly concave terminating in acute tip. Basal part of spermatheca pear-shaped, apical part simply reversely bent. 2.7 mm. Distribution: Asia - NE. ....*A. martensi* Angelini & De Marzo, 1994

- Tarsal formula: ♂ 5-5-4, ♀ 4-4-4. Tegmen with lateral outline fluently turning to slim pointed process apically. Spermatheca with globose base, apical part stout, simply reversely curved. 2.6-2.9 mm. Distribution: Asia - JA SC. ..... *A. besucheti* Angelini & De Marzo, 1988

34(32) Elytral striae predominantly double punctate. 35

- Elytral striae fully or predominantly simply punctate. 36

35(34) Dorsum dark brown to black with reddish spot on head. Strial punctures separated by about one time their diameter. Striae irregular, predominantly double. Intervals punctate sparser, punctures well impressed similar to strial punctures but one third smaller. AIII/AII=1.5. Tarsal formula ♂ 5-5-4, ♀ 4-4-4. Apex of operculum notched, bi-corned with two closely standing horns. Paramera bisetose, a little shorter than tegmen. Spermatheca S-shaped. 3.4-3.5 mm. Distribution: Asia - CH (Sichuan, Yunnan). ....*A.krali* Angelini & Švec, 1995

- Dorsum black, body larger, 3.5 mm. Tarsal formula: ♂ 5-5-4, ♀ unknown. Strial punctures sparsely arranged, separated by 2-5 times their diameter. Striae I-VI regular, predominantly double, well recognizable from interval punctation. Striae located laterally with small, irregularly arranged punctures hardly distinguished from interval punctures. Tegmen deeply emarginate apically (Fid.14). Apex of operculum possess two, widely distant horns hidden in dorsal view. Distribution: Asia - CH (Sichuan). ... . *A. cryptoperculata* sp. nov.

36(34) Dorsum brown, body smaller, 3.4 mm. Pronotum densely punctate, punctures separated by 1-2 tímes their diameter. AIII/AII=1.1. Punctures of elytral striae separated by 1-2 times their diameter. Stria IX confluent with lateral channel at caudal half of elytra. Spermatheca L-shaped. Distribution: Asia - ES (central Siberia). ..... *A. tuvense* Perkovsky, 1992

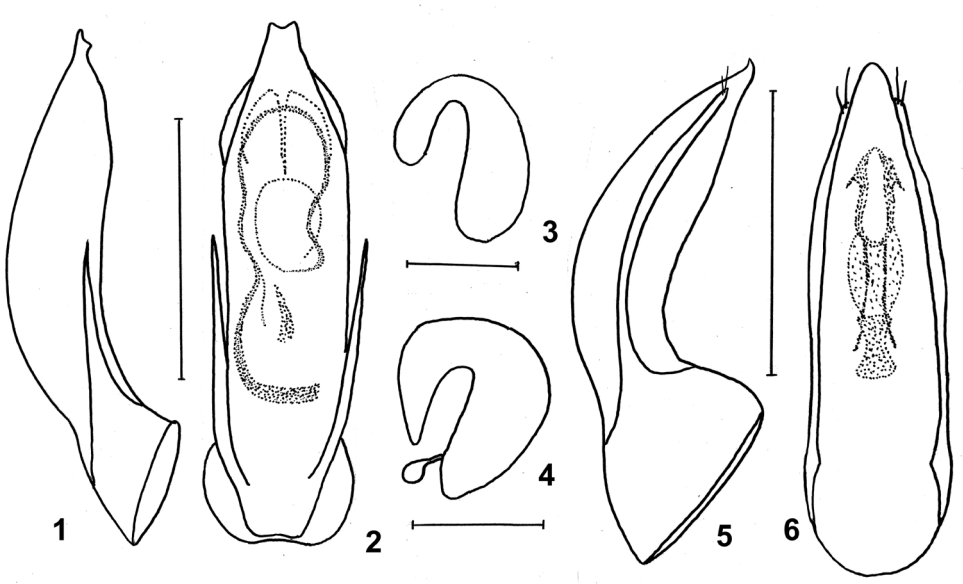
- Dorsum black, body larger, 3.8 mm. Pronotum moderately punctate, punctures separated by 3-4 times their diameter. AIII/AII=1.3. Strigostity indistinct on head, stria IX confluent with lateral channel in mid-length of elytra; intervals very sparsely and finely punctate. Elytra in male partly opalescent (laterally and posteriorly). Tegmen deeply emarginate apically, spermatheca S-shaped with knotted base. Distribution: Asia - FE JA NC SC SCH. ..... *A. curta* (Portevin, 1927)

Remark.
Perkovsky (1987) described *Anisotoma eos* from the Far East of Russia. This species is newly transferred in the genus *Liodopria* in this paper below.

Anisotoma bicornigera sp. nov.
(Figs. 1-3)

Type material. Holotype (♂): "LAOS-Houa Phan prov. / Phu Phan Mt. 20°12'N, / 104°01´E, ca 1750 m, / 17.V.-3.VI. 2007 / leg Vít Kubáň", (ZSPC). Paratypes: (3 ♂♂): the same data, (ZSPC); (1 ♂, 1 ♀): "LAOS-NE, Houa Phan prov. / 20°13´09-19´´N, / 103°59´54´´- / 104º00´03´´E, 1480-1510 m / PHOU PANE Mt. [sic], 2.-22.vi. / 2011 Vít Kubáň leg. // Primary mountain forest/flight intercept. trap / Laos 2011 Expedition / National Museum Prague, Czech Republic", (NMPC); (3 ♂♂, 4 ♀♀): "LAOS-NE, Houa Phan prov. / 20°11´50´´N, / 103°59´54´´- / 104º01´04´´E, 1870 m / Phou Pane Mt. [sic], 14.-24.vi. 2012 / Vít Kubáň leg. // Primary mountain forest/ Flight intercept trap / Laos 2012 Expedition / National Museum Prague / Czech Republic", (NMPC, ZSPC); (1 ♀): "LAOS-NE, Houa Phan prov. / 20°12-13.5´´N, / 103°59.5´-104º01´´E, / Bau Saluei→Phou Pane Mt. [sic], 1340-1870 m, 22.iv.15.v.2008 / Vít Kubáň & Lao coll. leg. // Primary mountain forest/ intercept trap / LAOS 2008 Expedition / National Museum Prague / Czech Republic", (NMPC); (1 ♀): "LAOS-NE, Houa Phan prov. / 19°38´20´´N, / 103°20.20´E,/ Phousavan (30 km NE) 1870 m/ Phou Sane Mt., 10.-30.v. 2009 / 1420 m, V. Kubáň leg. // Secondary mountain forest/ Flight intercept trap / Laos 2009 Expedition / NHMB Basel / NMPC Prague", (NMPC).

Description. Length 2.5 mm. Length of body parts: head 0.3 mm, pronotum 0.7 mm, elytra 1.5 mm, antenna 0.8 mm, aedeagus 1.01 mm. Maximum width of body parts: head 0.3 mm,



Figs. 1-6. 1-3 *Anisotoma bicornigera* sp. nov.; 4-6 *A. brevicornis* sp. nov. 1, 5- aedeagus laterally; 2, 6- aedeagus dorsally, 3, 4- spermatheca. Scale bars 0.5 mm in Figs. 1, 2, 5, 6; 0.2 mm in Figs. 3, 4.

pronotum 0.7 mm before base at posterior angles, elytra 1.5 mm at basal fourth. Short oval; dorsum dark chest-nut, head a little lighter coloured centrally on vertex. Clypeus yellow-brown. Femora and tibiae brown, tarsi red-brown. Antennomeres AI-AVI reddish, AVII-basal half of AXI brown, apical half of AXI lighter. Venter yellow-brown, metaventrite a little darker. Entire dorsum punctate without any micro-sculpture.

Head. Dorsal surface with punctures separated by about 2-4 times their diameter, two large punctures behind clypeal line and other two large punctures placed close to median margin of eye. Antenna with feeble expressed 5 segmented club. L ratio of AII:AXI=1.0-1.2-0.7-0.8-0.8-1.1-0.9-1.4-1.4-2.4; W ratio of AII:AXI=1.0-0.9-1.0-1.3-1.4-1.7-1.6-2.4-2.7-2.4; W/L ratio of AII-AXI=0.8-0.5-1.2-1.3-1.4-1.7-1.4-1.3-1.5-0.8.

Pronotum. Base straight at middle half, laterally angled toward posterior angles. Lateral sides almost straight in lateral view. Posterior angles obtuse, rounded in dorsal view. Punctation finer and smaller than that of head.

Elytra. Elytra confusedly punctate, punctures distinct, separated by about 2-5 times their diameter, large, much larger than those on pronotum. Sutural striae distinct, impressed, reaching anterior third of elytral length.

Legs. Tarsal formula 5-5-4. Anterior TI-TIV feebly widened, mid- and hind legs without specific characters.

Membranous wings developed.

Metaventrite. Metaventrite smooth centrally and just above posterior coxae, remainder of metaventrite with large, shallow punctures with recumbent setae.

Genitalia. Aedeagus as in Figs. 1, 2.

Female. Tarsal formula in females 4-4-4, anterior tarsi slim. Spermatheca (Fig. 3) 0.15 mm.

Variation. Length of body varies between 2.4-2.8 mm. AIII/AII = 1.2-1.5.

Differential diagnosis. *Anisotoma bicornigera* sp. nov. is morphologically similar to *A. operculata* sp. nov. in the lack of dorsal micro-sculpture and elytral surface sculpture. *A. bicornigera* is also morphologically similar to *A. krali* Angelini & Švec, 1992 having confusedly punctate elytra in one of the two known morphological forms *A. krali* Angelini & Švec, 1994 (see the key to the identification of the Old World *Anisotoma* species above). While *A. operculata* and *A. krali* possess deeply emarginated apex of tegmen *A. bicornigera* can be distinguished by the apex of tegmen protracted in a process possessing deep notch apically, not deep emargination.

Etymology. The name of the new species is based on the notched, two-horned (in Latin bicornigera) apex of the tegmen.

Anisotoma brevicornis sp. nov
(Figs. 4-6)

Type material. Holotype (♂): "LAOS-NE Houa Phan prov. / 20°12-13.5' N, 103°59.5"-104°01'E / Ban Saluei→ Phou Pane Mt. [sic]/ 1340-1870 m, 22.iv.-15.v. 2008, leg Vít Kubáň & Lao coll. leg. // Primary mountain forest/ intercept trap / LAOS Expedition / National Museum Prague, / Czech Republic", (NMPC). Paratypes: (9 ♂♂, 6 ♀♀, 5 spec. sex indet.): same data, (NMPC, ZSPC); (7 ♀♀): "LAOS-NE Houa Phan prov. / 20°13.09-19' N, 103°59'54"- / 104°00'03" E, 1480-1510 m, / PHOU PANE Mt. [sic] 22.iv.-14.v. / 2008, Vít Kubáň leg.", (NMPC, ZSCP); (1 ♂): "CHINA Yunnan [C07-14], Baoshan / Pref. Gaoligong Shan, 33 km SE / Tengchong, 2100-2200 m, 24°51'22" N/ 98°45'36" E, decid. forest, littler, wood, fungi sifted, 31.v.2007, M. Schülke", (MSBC).

Description. Length 2.8 mm. Length of body parts: head 0.4 mm, pronotum 0.7 mm, elytra 1.7 mm, antenna 0.8 mm, aedeagus 0.89 mm. Maximum width of body parts: head 0.6 mm, pronotum 1.5 mm before base at posterior angles, elytra 1.7 mm approximately at anterior third. Short oval, dorsum yellow-brown, head, pronotum and scutellum a little darker, legs brown, antenna almost unicolorous - light brown, club a little darker than remainder of antenna. Venter dark red-brown. Metaventrite smooth medially, punctate laterally with setose punctures separated by about 3-4 times their diameter. Entire dorsum punctate, clypeus and pronotum with micro-sculpture.

Head. With transversal micro-sculpture. Dorsal surface distinctly punctate; punctures separated by about 3-4 times their diameter. Antenna noticeably short with wide club. L ratio of AII:AXI (AII=1.0): 1.0-1.2-0.6-0.7-0.8-1.1-0.4-1.6-1.6-2.2. W ratio of AII-AXI(AII=1.0) = 1.0-0.8-0.8-1.0-1.1-2.5-1.8-3.0-3.1-2.2; W/L ratio of AII-AXI=0.9-0.6-1.2-1.3-1.3-1.7-3.5-1.7-1.8-1.0.

Pronotum. Base very feebly bowed posteriorly, almost straight approximately at middle 8/10, laterally angled toward posterior angles. Sides roundly tapered anteriorly in dorsal and lateral view. Posterior angles obtuse, rounded, in both dorsal and lateral views. Micro-

sculpture extremely fine, finer than that on head. Punctation finer and sparser than that of head, punctures separated by about 4-5 times their diameter. Lateral margins with a few large setose punctures.

Elytra. With nine striae formed by predominantly simple rows of punctures separated by about 1-2 times their diameter. Striae rarely here and there doubled. Stria IX merging with lateral margin of elytra behind mid-length of elytra. Intervals with micro-punctures separated by 10 or more times their diameter. Rare large setose punctures a little smaller than those in striae present in odd intervals. Sutural striae distinct, confined apical two thirds of elytral length.

Legs. Tarsal formula 5-5-4. Anterior TII-TIV feebly widened. Posterior margin of hind femora concave at apical half.

Membranous wings developed.

Metaventrite. Smooth in central part, lateral parts with punctures separated by 3-4 times puncture diameter, with adjacent light short seta.

Genitalia. Aedeagus as in Figs. 5, 6.

Female. Tarsal formula 5-4-4. Anterior tarsi slim. Posterior margin of hind femora without specific characters. Spermatheca (Fig. 4) 0.27 mm.

Variation. Length of body 2.6-3.2 mm, AIII/AII = 1.2-1.3, dorsum yellow-reddish to light red-brown.

Differential diagnosis. *Anisotoma brevicornis* sp. nov. is similar to *Anisotoma dundai* Angelini & Švec, 1994 in the length and shape of body, in the presence of micro-sculpture on head and pronotum, in the possessing nine simply punctate striae merging with lateral margin behind elytral mid-length and by the shape of tegmen in dorsal view. *Anisotoma breviconis* sp. nov. differs from *A. dundai* by pronotal punctures a little finer than those on head, by the tegmen declined on the apex in the lateral view while the same is straight in *A. dundai*. Both species differ also by the shape of the endophallic structures. Basal part of the spermatheca in *A. brevicornis* sp. nov. possess an additional vesicle that is missing in *A. dundai*.

Etymology. The name of the new species is derived from two words - short (in Latin brevis) and antenna (in Latin cornu).

Anisotoma clypeata sp. nov.

(Figs. 7-9)

Type material. Holotype (♂): "LAOS-Houa Phan prov., / Phu Phan Mt. 20°12'N, / 104°01'E, ca 1750 m, / 17.V.-3. VI. 2007 / leg Vít Kubáň", (ZSPC). Paratypes: (3 ♀♀): the same data, (ZSPC).

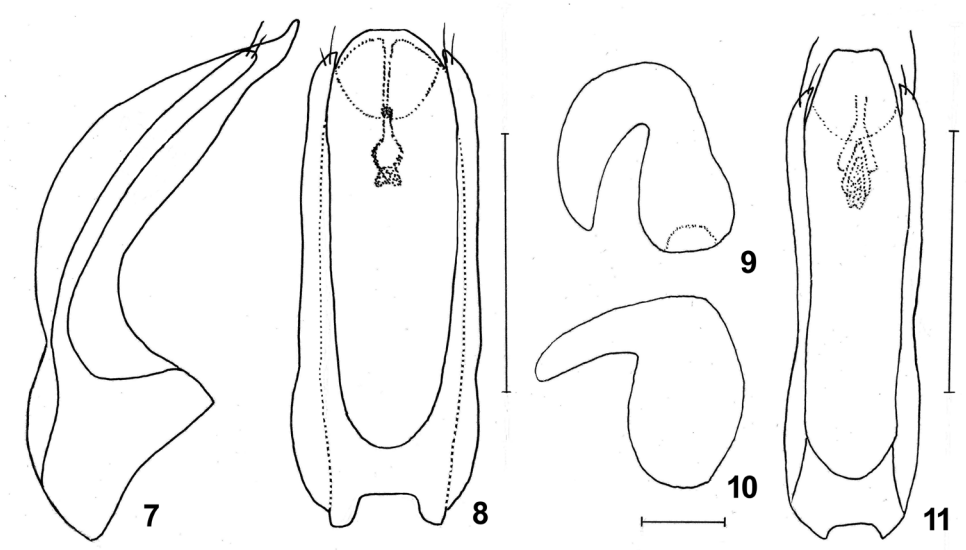
Description. Length 3.7 mm. Length of body parts: head 0.5 mm, pronotum 1.1 mm, elytra 2.1 mm, antenna 1.1 mm, aedeagus 0.65 mm. Maximum width of body parts: head 1.2 mm, pronotum 2.1 mm before base at posterior angles, elytra 2.3 mm just behind humeri. Short

oval, dorsum dark chest-nut, head with feeble lighter spot between eyes, legs brown, antenna reddish-brown, AXI a little lighter than remainder of antenna. Venter chest-nut. Whole dorsum punctate, clypeus and pronotum with traces of micro-sculpture.

Head. Clypeus anteriorly with two emarginations forming three acute tooth. Clypeus with transversal feeble micro-sculpture, remainder of head without any micro-sculpture. Dorsal surface double punctate; basal punctures separated by about 1-4 times their diameter, some micro-punctures interposed. L ratio of AII:AXI (AII=1.0): 1.0-1.8-1.0-1.2-0.8-1.3-0.8-1.5-1.6-2.9. Ratio of W of AII-AXI (AII=1.0) = 1.0-0.8-1.0-1.4-1.2-2.0-1.0-2.3-2.3-1.8; W/L of AII-AXI=1.2-0.5-1.2-1.4-1.8-1.8-1.8-1.9-1.8-0.8.

Pronotum. Widest at posterior angles. Base very feebly bowed posteriorly, almost straight approximately at middle 8/10, laterally angled toward posterior angles. Sides roundly tapered anteriorly in dorsal and lateral view. Posterior angles obtuse, rounded, in both dorsal and lateral views. Micro-sculpture extremely fine as superficial traces, hardly detectable. Punctation finer and sparser than that of head, punctures separated by about 3-8 times their diameter. Along pronotal margins a few large setose punctures.

Elytra. Broadest just behind humeri. With 10 striae formed by simple rows of punctures separated predominantly by about one time their diameter. Striae I-V complete, VI-VIII apically shortened, stria IX merging with lateral margin of elytra behind mid-length of elytra, stria X present on humeral part consisting of several punctures only. Intervals with micro-punctures separated by 8-10 or more times their diameter. A few large punctures a little smaller than those in striae present in odd intervals. Sutural striae distinct, impressed, continuing anteriorly and irregularly double punctate.



Figs. 7-11. 7-9 *Anisotoma clypeata* sp. nov.; 10, 11- *A. annae* Švec, 2004. 7- aedeagus laterally, 8, 11- aedeagus dorsally; 9, 10- spermatheca. Scale bars 0.5 mm in Figs. 7, 8, 11; 0.1 mm in Figs. 9, 10.

Legs. Tarsal formula 5-5-(posterior tarsi in the holotype missing). Anterior TI-TIV feebly widened. Meta-tibiae simply feebly bowed. Meso-femora without any specific characters, meta-femora with small tooth in mid-length of femoral hind margin, with concave apical half of posterior margin and with rounded apical lobe.

Membranous wings developed.

Metaventrite. Smooth in central part, lateral parts with coarse punctures, with short, recumbent light setae, separated by 3-4 times puncture diameter, strip above posterior coxae and central part not punctate. Transversely micro-sculptured, centrally with shallow circular depression.

Genitalia. Aedeagus as in Figs. 7-8.

Female. Clypeus with two small teeth and three angles at anterior margin similar to those in the holotype. Metaventrite with shallow depression in females. Tarsal formula in females 4-4-4, anterior tarsi slim, posterior tibiae simply feebly bowed, posterior femora concave at apical half of posterior margin with small apical lobe. Spermatheca (Fig. 9) 0.23 mm, basally pear-shaped with stout reverse apical part.

Variation. Length of body varies between 3.7 and 4.3 mm, AIII/AII = 1.6-1.8. One of the paratypes with black pronotum and lighter pronotal lateral margins. Density of strial punctures varies between 1-0.5 their diameter on elytral disc.

Differential diagnosis. *Anisotoma clypeata* sp. nov, is morphologically very similar to *Anisotoma annae* Švec, 1994 in the size, shape of body, colour, elytral sculpture, shape of the aedeagus (Figs. 7, 8, 11) spermatheca (Figs. 9, 10) and by strikingly modified anterior margin of clypeus. It differs from *A. annae* by lack of the micro-sculpture on the head (with the exception of feeble micro-sculpture on clypeus), by possessing very superficial, almost undetectable, micro-sculpture on pronotum, that is distinctly developed in the compared species, by the tegmen roundly truncate, not emarginate apically in dorsal view (Fig. 8) and by apex of tegmen feebly declined in lateral view while the same is straight in *A. annae*.

Etymology. The name of the new species refers to having the clypeus with small triangular teeth (Latin expression clypeata refers to the shape of the clypeus which is similar in both species).

Anisotoma cryptoperculata sp. nov.
(Figs. 14-15)

Type material. Holotype (♂): "CHINA: Sichuan Emeishan / Leidongping, 2500 m, 18.vii. 1996 / 29°32'N, 103°21'E / A. Smetana, J. Farkač, P. Kabátek", (ZSPC).

Description. Length 3.5 mm. Length of body parts: head 0.5 mm, pronotum 0.8 mm, elytra 2.2 mm, antenna 1.1 mm, aedeagus 1.21 mm. Maximum width of body parts: head 0.8 mm, pronotum 1.8 mm before base at posterior angles, elytra 2.0 mm at basal third. Oblong oval. Dorsum black, head with feeble reddish spot on vertex, margins of pronotum and suture

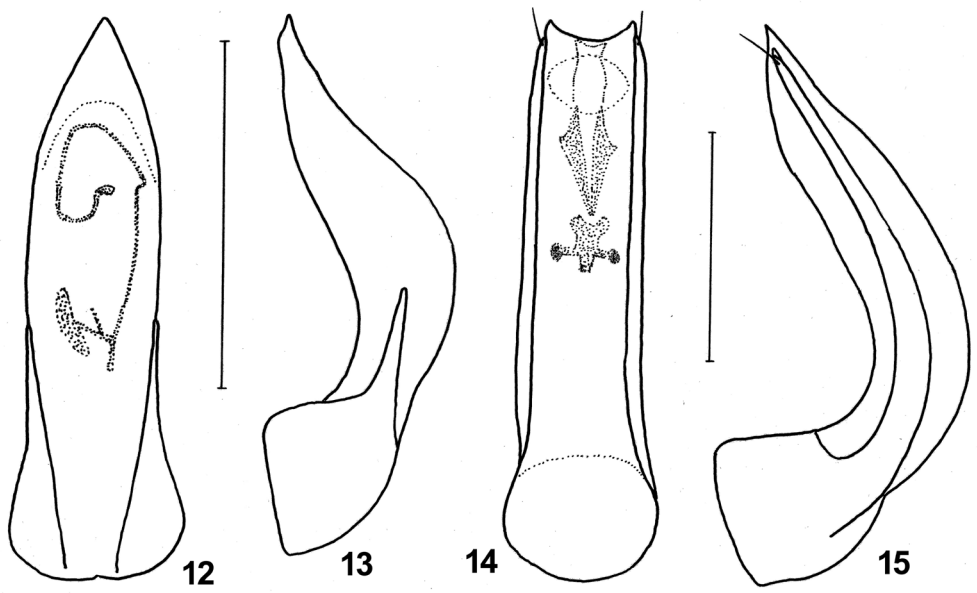
lighter; femora and tibiae brown, tarsi reddish; antennomeres AI-AVI, AVIII and apex of AXI reddish, AVII, AIX, AX and basal part of AXI black. Venter brown, epipleurae lighter. Entire dorsum punctate, head partly micro-sculptured.

Head. Clypeus with transverse strigosity, head on front, vertex and near eyes with latero-caudally oriented paralellograms. Dorsal surface with strong, distinctly developed punctures separated by about 1-3 times their diameter; with a few micro-punctures. L ratio of AII:AXI=1.0-1.3-0.7-0.7-0.6-1.2-0.5-1.2-1.3-2.3; W ratio of AII:AXI=1.0-0.9-1.0-1.3-1.3-2.5-1.5-2.6-2.6-2.4; W/L ratio of AII-AXI=0.7-0.4-1.0-1.3-1.4-1.4-2.0-1.5-1.4-0.7.

Pronotum. Base straight. Sides flatly round in dorsal and round in lateral view. Posterior angles acute, rounded shortly, in dorsal view, obtuse rounded shortly in lateral views. Punctation finer and smaller than that of head, punctures separated by about 5-7 times their diameter. A very few larger punctures irregularly dispersed throughout dorsal surface. Except punctation pronotal surface smooth without micro-sculpture.

Elytra. Elytra with medial striae II and III distinct, double with punctures separated by 2-3 times their diameter, striae IV-VI difficult to recognize with confusedly arranged punctures separated by about 3-4 times their diameter. Lateral parts of elytra confusedly punctate. Punctation of elytra triple, consisting of largest punctures in striae and few punctures in odd intervals, smaller punctures in intervals and interposed micro-punctures. Sutural stria distinct, impressed, reaching anterior third of elytral length, continuing anteriorly as simply punctate stria.

Legs. Tarsal formula 5-5-4. Anterior TI-TIV widened, gradually narrower toward apex.



Figs. 12-15. 12, 13- *Anisotoma flagellata* sp. nov.; 14, 15- *A. cryptoperculata* sp. nov. 12, 14- aedeagus dorsally; 13, 15- aedeagus laterally. Scale bars 0.5 mm.

Tibiae and femora without specific characters.

Membranous wings developed.

Metaventrite. Metaventrite transversely strigose, very sparsely and finely punctate except medial part, punctures with very fine recumbent setae. Small fovea with several erect setae located medially at anterior fourth of metaventral length.

Genitalia. Aedeagus as in Figs. 14, 15.

Female. Unknown.

Differential diagnosis. *Anisotoma cryptoperculata* sp. nov. is morphologically similar to *A. operculata* sp. nov. and also *A. krali* Angelini & Švec, 1995 having deeply emarginate apex of tegmen, parameres almost as long as the tegmen and by very similar shape of endophallus. *A. cryptoperculata* differs from both species compared beside others by partly developed distinct punctate striae on elytra and mainly by short apically emarginate operculum, not visible dorsally.

Etymology. The name of the new species refers to the hidden, in dorsal view not visible operculum (Latin word crypticus means hidden).

Anisotoma flagellata sp. nov.
(Figs. 12-13)

Type material. Holotype (♂): "LAOS-Houa Phan prov., / Phu Phan Mt. 20°12'N, / 104°01'E, ca 1750 m, / 17.V.-3. VI. 2007 / leg Vít Kubáň" (ZSPC). Paratype: (1 ♂): same data, (ZSPC).

Description. Length 2.2 mm. Length of body parts: head 0.4 mm, pronotum 0.6 mm, elytra 1.2 mm, antenna 0.8 mm, aedeagus 0.77 mm. Maximum width of body parts: head 0.8 mm, pronotum 1.3 mm before base at posterior angles, elytra 1.5 mm at basal fourth. Oval, dorsum chest-nut, pronotum a little lighter, legs yellow-red; antennomeres AI-AVIII yellow-red, AIX and AX brown, AXI red-brown. Venter brown. Entire dorsum punctate, without any micro-sculpture.

Head. Dorsal surface with punctures very fine, small and sparse, separated by about 4-10 or more times their diameter. Several large punctures disseminated - mainly behind clypeal line. L ratio of AII:AXI=1.0-1.5-0.8-0.9-0.8-0.9-0.8-1.5-1.5-2.8; W ratio of AII:AXI=1.0-0.8-0.8-1.0-1.2-1.7-1.7-2.5-3.0-2.7; W/L ratio of AII-AXI=0.8-0.4-0.8-0.9-1.2-1.4-1.7-1.3-1.5-0.7.

Pronotum. Base slightly bowed posteriorly, feebly emarginate above scutellum, laterally roundly tilted toward posterior angle. Sides flatly roundly tapered anteriorly in dorsal view, straight in lateral view. Posterior angles obtuse, broadly rounded, in both dorsal and lateral views. Punctation similar to that on head but sparser, punctures separated by about 10 or more times their diameter. Laterally with several erect setae.

Elytra. Elytral punctures arranged in eight striae. Five medial striae feebly expressed, predominantly double or even triple punctate, 6th to 8th rows less distinguishable, irregular, predominantly simply punctate. Strial punctures separated by about 2 times their diameter

on disc. Interval punctures of three sizes, sparsely scattered - several larger punctures similar to strial punctures located in odd intervals, smaller basic interval punctures and rare micro-punctures interposed. Sutural stria distinct, impressed, reaching to anterior third of elytral length. Lateral sides and apical part with rare, erect, light setae. Punctures of odd intervals with erect light seta.

Legs. Tarsal formula 4-4-4. Anterior TI-TIV slim. Legs without specific characters.

Membranous wings developed.

Metaventrite. Metaventrite sparsely and finely punctate, punctures with very fine recumbent setae.

Genitalia. Aedeagus as in Figs. 12, 13.

Female. Unknown.

Variation. Length of body varies between 2.2-2.5 mm, AIII/AII = 1.4-1.5. Strial punctures sparser, separated by about 3-4 times their diameter in the paratype.

D**ifferential diagnosis.** *Anisotoma flagellata* sp. nov. is similar to *Anisotoma becvari* Angelini & Švec, 1994 in the size of body, lack of the dorsal micro-sculpture and the shape of the aedeagus. *Anisotoma flagellata* differs from *A. becvari* by the presence of strial punctures on elytra, by apex straight narrowed toward acute tip of tegmen while the apex of tegmen in *A. becvari* is roundly tapered to apex terminating in a small nipple.

Etymology. The name of the new species refers the endophallus containing a long distinct flagellum.

Anistoma operculata sp. nov.

(Figs. 16-18)

Type material. Holotype (♂): "CHINA: N-Yunnan / Diquin Tibet Aut Pr. / Zhongdian Co., Xue / Shan near Lake // 23 km S Zhongdian / 27°37.1'N, 99°38.5'E, / 3895 m, 15.vi. 2005 / A. Smetana [C169]", (ZSPC). Paratypes: (1 ♀): same data, (ZSPC); (1 ♂, 2 ♀♀): "CHINA: N-Yunnan [C2005-02] / Diqing Tibet Aut. Pref. / Zhongdian Co., Xue Shan, 23 km / S Zhongdian, 3675-3725 m // 27º36.3′ N 99º41.5′ E, devas- / tated mixed forest sifted from / leaf litter, dead wood, 2.vi. / 2005, M. Schülke [C2005-02]", (MSBC, ZSPC).

Description. Length 3.2 mm. Length of body parts: head 0.4 mm, pronotum 0.7 mm, elytra 2.1 mm, antenna 1.1 mm, aedeagus 1.19 mm. Maximum width of body parts: head 0.8 mm, pronotum 1.8 mm before base at posterior angles, elytra 2.1 mm at basal third. Acutely oval toward elytral apex; dorsum reddish-brown, basal margin of pronotum, scutellum and suture darker, legs red-brown, tarsi yellow-red; antenna unicolorous reddish-brown. Venter reddish, metaventrite a little darker. Entire dorsum punctate, clypeus with traces of micro-sculpture.

Head. Clypeus with traces of transversal feeble micro-sculpture, remainder of head without any micro-sculpture. Dorsal surface with punctures separated by about 2-3 times their diameter, clypeus with several punctures. L ratio of AII:AXI=1.0-1.5-0.4-0.8-0.8-1.1-0.6-1.1-1.1-1.9; W ratio of AII:AXI=1.0-0.9-0.9-1.0-1.1-1.7-1.4-2.7-3.1-2.8. W/L ratio of AII-AXI=0.6-0.4-0.7-0.7-0.9-0.9-1.4-1.5-1.7-0.9.

Pronotum. Base straight. Sides roundly tapered anteriorly in dorsal and lateral view. Posterior angles obtuse, abruptly rounded, in both dorsal and lateral views. Punctation finer and smaller than that of head, punctures separated by about 1-3 times their diameter. Along base and lateral margins with several setose punctures.

Elytra. Punctures irregularly distributed, tend to seriate in some places near suture. Elytral punctures separated by about 1-2 times their diameter becoming finer and sparser laterally and caudally. Sides with sparse erect seta. Sutural stria distinct, impressed continuing anteriorly as irregularly doubled punctate stria.

Legs. Tarsal formula 5-5-4. Anterior AI-AIV feebly widened. Legs without specific characters.

Membranous wings developed.

Metaventrite. Metaventrite transversely strigose, very sparsely and finely punctate, punctures with very fine recumbent setae.

Abdomen. Without specific characters.

Genitalia. Aedeagus as in Figs. 16, 17.

Female. Tarsal formula in females 4-4-4, anterior tarsi slim. Length of spermatheca (Fig. 18) 0.43 mm.

Variation. Length of body varies between 2.8-3.2 mm, AIII/AII = 1.3-1.5.

Differential diagnosis. *Anisotoma operculata* sp. nov. is similar to *A. bicornigera* sp. nov. being similar in the shape of body, lack of the dorsal micro-sculpture and also *A. krali* Angelini & Švec, 1994 possessing confusedly punctate elytra occurring in *A. bicornigera* and also in one of the two known morphological forms of *A. krali* (see the key to the identification of the Old Word *Anisotoma* species above). Besides that *A. operculata* and *A. krali* possess identical shape of tegmen that is deeply emarginate at apex. Both species also differ by the shape of operculum that is simply acute apically in *A. operculatum* while the same is notched at its apex in *A. krali*. The apex of tegmen in *A. bicornigera* is not emarginated, it is protracted in a process possessing deep notch apically.

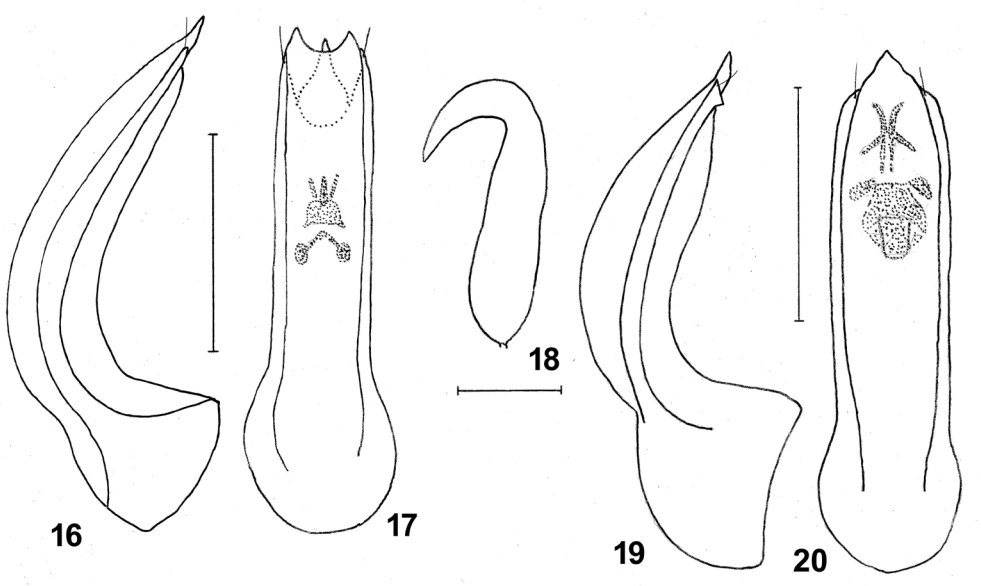
Etymology. The name of the new species should attract the attention to the operculum of its tegmen that is of quite different shape than in the very similar *Anisotoma krali* Angelini & Švec, 1994.

Anisotoma spissa sp. nov.

(Figs. 19-20)

Type material. Holotype (♂): "LAOS-Houa Phan prov. / Phu Phan Mt. 20°12'N, / 104°01'E, ca 1750 m, / 17.V.-3. VI. 2007, / leg Vít Kubáň", (ZSPC) Paratype: (1 ♂): same data, (ZSPC).

Description. Length 3.2 mm. Length of body parts: head 0.6 mm, pronotum 0.7 mm, elytra 1.9 mm, antenna 0.9 mm, aedeagus 1.16 mm. Maximum width of body parts: head 0.9 mm, pronotum 1.8 mm before base at posterior angles, elytra 2.0 mm at basal fourth. Black,



Figs. 16-20. 16-18 *Anisotoma operculata* sp. nov.; 19-20 *A. spissa* sp. nov. 16, 19- aedeagus laterally; 17, 20- aedeagus dorsally, 18- spermatheca. Scale bars 0.5 mm in Figs. 16, 17, 19, 20, 5, 6; 0.2 mm in Fig. 18.

lateral margins and basal margin of pronotum light, legs and AI-AVI brown, AVII-AX black, AXI black with lighter apex. Head with feeble light spot between eyes. Venter dark brown. Entire dorsum punctate, head and pronotum with micro-sculpture.

Head. Surface with fine paralellograms oblique at eyes, transversal on front and vertex, clypeus with transversal feeble micro-sculpture. Dorsal surface finely sparsely punctate; punctures fine, separated more than 10 times their diameter. L ratio of AII:AXI=1.0-1.2-0.9-0.9-0.7-1.3-0.6-1.6-1.6-3.3; W ratio of AII:AXI=1.0-1.1-1.0-1.3-1.5-2.5-1.4-2.8-3.0-2.6; W/L ratio of AII-AXI=0.9-0.8-1.0-1.3-2.0-1.7-2.2-1.6-1.7-0.7.

Pronotum. Base straight in its central 8/10, laterally angled toward posterior angles. Sides roundly tapered anteriorly in dorsal and lateral views. Posterior angles obtuse, rounded, in both dorsal and lateral views. Micro-sculpture extremely fine, present as superficial transverse strigosity, hardly detectable. Punctation finer and sparser than that of head, punctures separated by more than 10 times their diameter. Pronotal margins with a few large setose punctures.

Elytra. With nine striae formed by simple rows of punctures separated predominantly by about one time their diameter. All striae complete, a little deepened, stria IX widely separated from lateral margin basally, obliquely runs latero-posteriorly. Intervals almost smooth with a few, hardly detectable micro-punctures separated by much more than10 times their diameter. Some punctures as large as strial punctures present in odd intervals. Sides of elytra with laterally oriented sparse light long setae. Sutural stria distinct, impressed, continuing at anterior third as irregularly double punctate stria.

Legs. Tarsal formula 5-5-4. Anterior TI feebly widened. Meta-femora angled in third distal quarter of femoral length at hind margin, with feebly concave basal three quarters of posterior margin.

Membranous wings developed.

Metaventrite. Smooth in central part, bordered by a ring of erect setae, laterally with coarse punctures.

Genitalia. Aedeagus as in Figs. 19, 20.

Female. Unknown.

Variation. Length of body varies between 3.1 and 3.2 mm, AIII/AII = 1.1-1.2.

Differential diagnosis. *Anisotoma spissa* sp. nov, is similar to *A. boukali* Angelini & Švec, 1993 in colour of body and antenna, in partly micro-sculptured dorsum, in the presence of nine completely developed striae. Both species distinctly differ in the size of body (3.1-3.2 in *A. spissa*, 3.9-4.1 mm in *A. boukali*) and above all by the shape of tegmen, that is thick in lateral view, simply bowed in *A. spissa*, while the same is slim, twice curved in *A. boukali*).

Etymology. The name of the new species points to the thick aedeagus in both dorsal and lateral views. (Latin word spissa means thick).

Anisotoma triangularis sp. nov.

(Figs. 21-23)

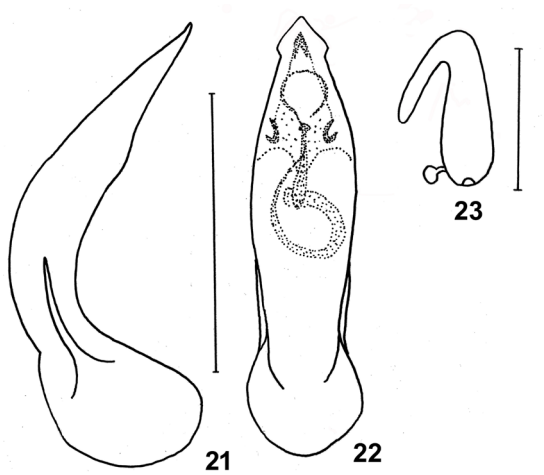
Type material. Holotype (♂): "LAOS-Houa Phan prov. / Phu Phan Mt. 20°12'N, / 104°01'E, ca 1750 m / 17.V.-3. VI. 2007 / leg Vít Kubáň" (ZSPC). Paratype: (1 ♀): same data, (ZSPC).

Description. Length 1.9 mm. Length of body parts: head 0.2 mm, pronotum 0.5 mm, elytra 1.2 mm, antenna 0.6 mm, aedeagus 0.79 mm. Maximum width of body parts: head 0.7 mm, pronotum 1.1 mm at posterior angles, elytra 1.3 mm at basal third of elytral length. Short oval, dorsum light chest-nut, femora and tibiae brown, antennomeres I-VI and AVIII light chest-nut, AVII, AXI-AXI brown-black. Venter chest-nut. Entire dorsum punctate, without micro-sculpture.

Head. Dorsal surface irregularly punctate; punctures separated by about 1-4 times their diameter. L ratio of AII:AXI=1.0-1.0-0.7-0.9-0.4-1.1-0.3-1.4-1.3-2.0; W ratio of AII:AXI=1.0-0.8-0.8-0.8-1.3-2.2-1.5-3.0-3.2-3.0; W/L ratio of AII-AXI=0.9-0.7-1.0-0.8-2.7-0.6-4.5-1.8-2.1-1.3.

Pronotum. Base very feebly bowed posteriorly, almost straight. Sides roundly tapered anteriorly in dorsal and lateral view. Posterior angles acute rounded in dorsal view, obtuse, very broadly rounded in lateral view. Punctation a little finer and sparser than that of head, punctures separated by about 3-5 times their diameter.

Elytra. Striae formed by simple rows of punctures separated predominantly by 2-3 times their diameter on disc. Punctures becoming smaller and sparser separated by about 4 times their diameter on anterior third of elytra. Punctures larger, deeper and denser toward apex.



Figs. 21-23: *Anisotoma triangularis* sp. nov. 21- aedeagus laterally, 22- aedeagus dorsally; 23- spermatheca. Scale bars 0.5 mm in Figs. 21, 22; 0.1 mm in Fig. 23.

Rows becoming irregular on elytral apex. Interval punctures of the same size, intensity and density, seriate, therefore hardly distinguishable from row punctures. Sutural stria distinct, impressed, strongly approaching suture, confined to apical half of elytral length

Legs. Tarsal formula 5-5-4. Anterior TI-TIV very feebly widened. Femora and tibiae without any specific characters.

Membranous wings developed.

Metaventrite. Smooth in central part and a strip above posterior coxae, laterally with dense punctures, separated by 2-3 times their diameter. Closely behind mid-coxae with pair of brushes of erect lightly coloured setae.

Genitalia. Aedeagus as in Figs. 21, 22. Tegmen gable roof-like shaped apically.

Female. Female paratype yellow-brown. Tarsal formula 4-4-4. Spermatheca 0.11 mm, slim, as in Fig. 23.

Differential diagnosis. *Anisotoma triangularis* sp. nov. is the smallest of the Old world species within the genus. It is similar to *A. flagellata* sp. nov. in the body shape, colour and also in the elytral sculpture. *A. triangularis* can be easily distinguished not only from *A. flagellata* but also from all known species of the genus by the gable roof-like, triangular shape of tegmen.

Etymology. The name of the new species refers to the unusual triangular shape of the apical part of the tegmen.

Liodopria eos (Perkovsky, 1987) comb. nov.

Anisotoma eos Perkovsky, 1987: 21.

The original genus of the species was *Anisotoma* Panzer, 1797. Subsequently,

Perkovsky's (1987) description and the drawings, especially of the antenna with strongly asymmetric antennomeres VI-X lead the author to the conclusion that the species should be transferred to the genus *Liodopria*.

Genus *Cyrtoplastus* Reitter, 1885

Key to the determination of *Cyrtoplastus* Reitter, 1885 species

1 Species from Africa, Cyprus and Azerbaijan. Elytra without any punctured striae. 2
- Species from Europe and remaining parts of Asia. Elytra with or without punctured striae. 4
2(1) Species from Azerbaijan and Cyprus. 3
- Species from North of Africa. Subglobose, black with green metallic head; clypeus emarginate at each side above the articulation of antenna; length of body 0.5 mm. Distribution: North Africa - AG. (The species may not belong to the genus *Cyrtoplastus*)..... *C. cloueti* (Guillebeau, 1896)
3(2) Species from Azerbaijan. Oblong oval, chest-nut with punctured striae. Antennomeres gradually thickened to 3 segmented club. 2.6 mm. Distribution: Asia - AZ. ..... *A. successor* Reitter, 1898
- Species from Cyprus. Elytra without rows of punctures; densely punctured, punctures separated by about 0.5-1 times their diameter. Antennae unicolorous, testaceous. Maximum width of head just behind eyes. Tegmen long strongly narrowed, shortly rounded on apex. 3.3-3.6 mm. Distribution: Asia - CY. .... *C. assingi* Angelini, 2002
4(1) Elytra with feeble almost indistinct striae, or with confusedly punctate striae or lacking striae at all. 5
- Elytra with distinct punctate striae. 10
5(4) Elytra without punctate striae, irregularly densely punctate, punctures separated by 0.5-2 times their diameter. 6
- Elytra with feebly punctate striae, or striae possessing small, sparse punctures vanishing laterally and at apical half of elytra..... 9
6(5) Elytral punctation dense, punctures separated about 0.5-2 times puncture diameter. 7
- Elytral punctation sparse, punctures separated by 2-10 or more times their diameter. 8
7(6) Elytral punctures separated by 1-2 times their diameter. 2.8 mm. Distribution: A - Far East, Amur region. ..... *C. kabakovi* Lafer, 1989
- Elytra double punctate, larger punctures separated about 0.5 times puncture diameter. Smaller punctures microscopic, sparse. Elytra extremely fine chagrined. Tegmen very pointed apically. 2.8-3.2 mm. Distribution: N. Africa - MO..... *C. irregularis* Reitter, 1898
8(7) Reddish-brown with head and AIX and AX a little darker. AIII/AII=1. Aedeagus acutely rounded apically, parameres slim, spermatheca with short piriform base, distal part bent. Laterally aedeagus simply bent with raised apex. 2.4-2.7 mm. Distribution: Asia - CH (Taiwan). .... *C. smetanai* Angelini & De Marzo, 1995
- Dorsum black. Antenna light, unicolorous. Elytral punctures separated by about 4 times their diameter. Tegmen broadly rounded apically, paramera a little widened apically. Basal part of spermatheca pear-shaped, distal part bent. 2.0-2.5 mm. Distribution: Asia - JA. ..... *C. laevis* Hisamatsu, 1985
9(5) Body small - 1.8-2.0 mm. Dorsum yellowish red. Punctate rows very faint, punctures separated by about 6 or more times their diameter. Tegmen rounded in dorsal view, paramera widened apically (Figs. 24, 25). Spermatheca with pear-shaped basal part and rectangular bent apical part (Fig. 26). Distribution: Asia - CH (Shaanxi). ..... *C. alesi* sp. nov.
- Body larger, 2.3-3.0 mm. Antenna including club yellow-red Head and pronotum red-brown, elytra black, or entire dorsum brown, club dark. Row punctures arranged in 8 striae, punctures small, superficial, separated by 6-8 times their diameter, confused anteriorly, less visible or vanishing posteriorly. AIII/AII=1.5. Sutural stria short, confined apical 1/6. Tegmen evenly roundly narrowed to shortly rounded apex. Paramera slim, a little widened at the most apex. 2.8-3.1 mm. Distribution: China (Sichuan). .... *C. sveci* Angelini, 2002

10(4) Four to six punctate medial elytral striae distinct, regular. Lateral striae confusedly punctate. 11

- Eight punctate elytral striae regular, distinct. Lateral striae confusedly punctate. 12

11(10) Six punctate elytral striae regular, well developed, lateral ones hardly detectable, confusedly and sparsely punctate. Punctures of all elytral intervals small, superficial and very sparsely arranged, separated by about 1-10 times their diameter except for punctures near 7th and 8th stria that are of similar strength a size and density as strial punctures. Strial punctures separated by 0.5-2 times their diameter. Black, elytral margins and suture lighter. Sutural stria confined apical 1/3 of elytral length. Spermatheca similar to that in *Agathidium pseudopallidum*. Male unknown. 3.1 mm. Distribution: Asia - CH (Zhejiang). .... *C. rougemonti* Angelini & Cooter, 1998

- Four punctate elytral striae regular, well developed, lateral ones hardly detectable, confusedly and sparsely punctate. Stria I and II with punctures separated by 2-4 times their diameter, punctures in striae III and IV separated by about 4-6 times their dimeter. Head chest-nut, pronotum lighter, elytra yellowish-red. AI-AVI and AXI yellowish-red, AVII-AX yellow-brown. AIII/AII=1.5. Tegmen regularly narrowed to rounded apex. Spermatheca S-shaped. 2.4-2.5 mm. Distribution: A- Nepal. ..... *C. himalayanus* Švec, 2012

12(10) Antennae with dark club. 13

Antennae uniformly testaceous. Elytral striae impressed, punctures separated by 2-3 times their diameter. Interval punctures very small, superficial, separated by 3-10 times their diameter. AIII/AII=1.3. Tegmen roundly truncate apically, paramera widened at apex, there turned medially toward tegmen. 3.3 mm. Distribution: A - CH (BEI, HUB SCH, SHA). ..... *C. chinensis* Angelini & Švec, 1994

13(12) Palaearctic species. Paramera (if male is known) usually slightly widened apically. 14

- Species from Vietnam. Paramera strikingly widened apically. Aedeagus as in Figs. 27, 28. Colour of dorsum variable from bicoloured specimens with head, pronotum, scutellum and anterior part of suture black and elytra reddish to unicolorous form completely yellowish. Row punctures separated by 1-3 times their diameter. Aedeagus with broad nipple at apex. Female not known. 2.9-3.2 mm. Distribution: Asia - VM..... *C. hlavaci* sp. nov.

14(13) Elytral interval punctation simple, much finer than that in striae, sparse. 15

- Elytral interval punctation double, larger punctures similar to strial punctures. Dorsum entirely black. Strial punctures separated approximately by one time their diameter. Aedeagus angulate at roundly triangular apex. Oblong oval basal part of spermatheca slim with ductus connected at middle of its length. Distal part bent. 2.6 - 4.0 mm. Distribution: Europe - AU FR GE IT NL RO SK SZ; Asia - FE JA MG SC TAI. ..... *C. seriepunctatus* (Brisout de Barneville, 1868)

15(14) Elytral stria VIII longer than 1/3 of elytral length. At least some antennomeres of club darker than remainder of antenna. Dorsum black or at least head and pronotum black, elytra predominantly reddish-brown. 16

- Elytral stria VIII shortened confined to 1/3 of elytral length. AIII/AII=1.3. Dorsum dark brown to black. Antenna almost unicolorous, reddish-brown. Punctures of striae I-V separated by about one time their diameter, lateral ones distinctly sparser. Tegmen with feeble expressed nipple apically. Paramera slightly widened toward apex. 5 mm. Distribution: A - JA (Honshu). ..... *C. hiranoi* Hoshina, 1996

16(15) AIII longer than AIV+AV together. 17

AIII shorter than AIV+AV together. Punctation of pronotum double, large punctures separated by about 1-5 times their diameter. Strial elytral punctures separated by their own diameter. Head and pronotum black, elytra dark red-brown. Antenna testaceous, AIX and AX a little darker. Male unknown. 3.1 mm, Distribution: Asia - CH (Shaanxi). ..... *C. cooteri* Angelini, 2002

17(16) Tegmen with nipple or broad rounded process apically. 18

- Tegmen parallel-sided, very broadly rounded at apex dorsally seen, bumpy in lateral view. Dorsal colouring varies from entirely black to black head, pronotum, scutellum and elytral suture, AII/AII = 1.4. Clypeal line superficial. Female unknown. 2.5-2.6 mm. Distribution: Asia - CH (Sichuan). .... *C. schuelkei* Angelini & Švec, 2000

18(17) Tegmen with distinct large rounded process apically, paramera feebly widened at apex. Antennomeres VIII-X dark, AIII/AII=1.2. Head and pronotum reddish-brown, elytra almost black. Elytral strial punctures separated by their diameter, interval punctures small, superficial separated by 2-10 times their diameter. 2.9 - 3.0 mm. Distribution: Asia - CH (Fujian). ..... *C. fujianus* Angelini & Cooter, 2004

- Tegmen evenly narrowed to apex possessing small nipple in dorsal view. evenly bent with raised top in lateral view. Paramera slim. Dorsum reddish-brown. AIII/AII=1.2. Female not known. 3.0 mm. Distribution: A - CH (Zhejiang). ..... *C. tianmuensis* Angelini & Cooter, 1998

Remark. Judging from the original description, *Cyrtoplastus cloueti* Guillebeau, 1896 probably does not belong to the genus.

Cyrtoplastus alesi sp. nov.
(Figs. 24-26)

Type material. Holotype (♂): "CHINA: S Shaanxi / Quinling Shan mt. / range W pass on rd / Xi´an-Shagoujie // 45 km SSW Xi´an/ 33º52′N, 108º46′E / 2600 m 25.vii.2001 / A. Smetana [C118]", (ZSPC). Paratype: (1 ♀): the same data, (ZSPC).

Description. Length 2.0 mm. Length of body parts: head 0.2 mm, pronotum 0.5 mm, elytra 1.3 mm, antenna 0.6 mm, aedeagus 0.89 mm. Maximum width of body parts: head 0.7 mm, pronotum 1.1 mm at base, elytra 1.3 mm approximately at anterior third. Short oval, dorsum, antenna and legs yellow-red, pronotal margins, clypeal line, elytral suture and some of strial punctures on elytra brown. Venter yellowish-red with darker metaventrite, margins of coxae and trochanters. Entire dorsum punctate, without micro-sculpture.

Head. Dorsal surface double punctate with small superficial punctures separated predominantly by 4 times their diameter; and a few micro-punctures. Antennal club 3-segmented. L ratio of AII:AXI (AII=1.0): 1.0-1.0-0.5-0.5-0.5-0.5-0.6-1.0-1.0-1.4; W ratio of AII-AXI(AII=1.0) = 1.0-0.6-0.6-0.6-0.6-0.7-0.9-2.0-2.0-2.0; W/L ratio AII-AXI=0.7-0.6-0.8-0.8-0.8-1.0-1.0-1.4-1.4-1.0. Eyes large, antero-laterally oriented; tempora developed behind eyes as very narrow strip. Head widest at temples.

Pronotum. Base very feebly bowed posteriorly, almost straight approximately at middle 8/10, laterally angled toward posterior angles. Sides roundly tapered anteriorly in dorsal and lateral view. Posterior angles obliquely truncate, obtusely rounded in dorsal and lateral view. Punctation double, finer and much sparser than that of head. A few micro-punctures interposed. Basal punctures separated by about 4-10 or more times their diameters.

Elytra. With eight striae formed by simple rows of sparse punctures separated by about 6 or more times their diameter. Punctures becoming sparser toward apex. Intervals with micro-punctures separated by 4-10 times their diameter. A few larger punctures in odd intervals. Sutural stria shallow, confined to posterior fourth of elytra.

Legs. Tarsal formula 5-5-4. Anterior tarsi a little widened, conically narrowed apically. Tibiae slim with median margin straight, lateral margin flatly bent.

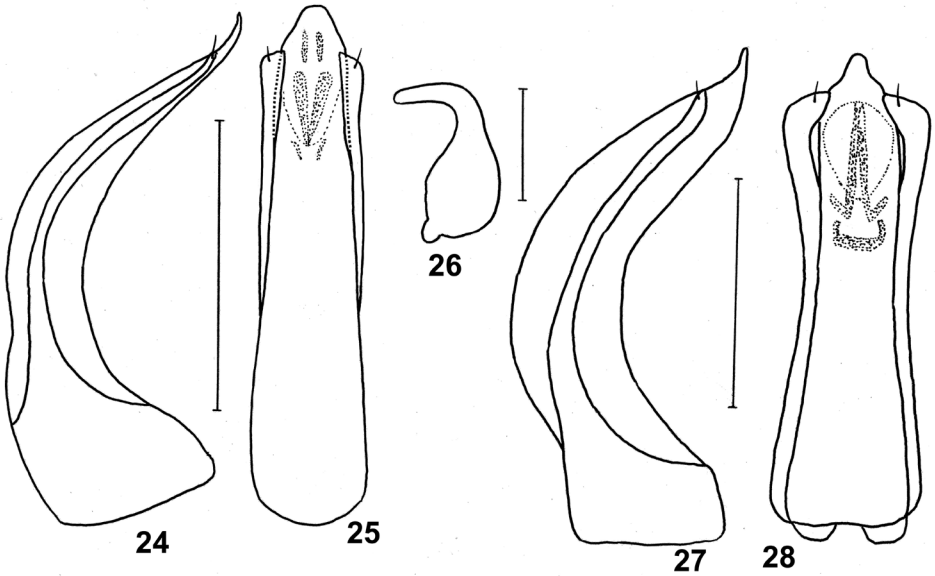
Membranous wings developed.

Metaventrite. Without specific characters.

Genitalia. Aedeagus as in Figs. 24, 25.

Female. Anterior tarsi slim. Female tarsal formula 4-4-4. Spermatheca 0.14 mm (Fig. 26).

Variation. Length of body 1.8-2.0 mm, AIII/AII = 1.0-1.1.



Figs. 24-28. 24-26 *Cyrtoplatus alesi* sp. nov.; 27, 28 *C. hlavaci* sp. nov. 24, 27- aedeagus laterally, 26- spermatheca; 25, 28- aedeagus dorsally. Scale bars 0.5 mm in Figs. 24, 25, 27, 28; 0.1 mm in Fig. 26.

Differential diagnosis. *Cyrtoplastus alesi* sp. nov. can be compared to *C. laevis* Hisamatsu, 1985 from Japan. Both species are similar in the shape and size of body and mainly in the shape of aedeagus, projectile shaped tegmen and apically widened paramera. Both species also possess antenna of same colour. Yellow-red *C. alesi* sp. nov. differs from black *C. laevis* not only by the colour of dorsum but also by the longitudinally striate elytra that are confusedly punctate in *C. laevis*. Additionally tegmen is narrowly rounded apically, while the same is broadly rounded in *A. laevis*.

Etymology. The new species is dedicated to its collector, my late friend Aleš Smetana.

***Cyrtoplastus hlavaci* sp. nov.**
(Figs. 27-30)

Type material. Holotype (♂): "VIETNAM, Phia Oac NP / 22°36'53"N,105°52'08"E / 1790m, 1-6.VI.2024 sifting, cloud forest / P. Hlaváč lgt.", (ZSPC). Paratypes: (4 ♂♂): "VIETNAM, Phia Oac NP / 22°36'28"N, 105°52'14"E / 1600m, 7-8.VI.2024 sifting / in wet forest, P. Hlaváč lgt.", (ZSPC, NMPC, PHPC).

Description. Length 2.9 mm. Length of body parts: head 0.4 mm, pronotum 0.6 mm, elytra 1.9 mm, antenna 0.9 mm, aedeagus 1.06 mm. Maximum width of body parts: head 0.9 mm, pronotum 1.7 mm at base, elytra 2.0 mm approximately at anterior fourth. Short oval (Fig. 31), head black except for yellowish-red clypeus, pronotum, scutellum and lateral margins black, black strip along suture become gradually red at apex, remainder of elytra reddish.

Antennomeres AI-AVI and AXI reddish, AVII infuscate, AVIII-AX brown. Venter chest-nut with darker metaventrite. Entire dorsum punctate, without micro-sculpture.

Head. Dorsal surface double punctate with distinct strong punctures separated predominantly by 4 times their diameter; some micro-punctures interposed. Antennal club 5-segmented. L ratio of AII:AXI (AII=1.0): 1.0-1.6-0.7-0.7-0.6-0.6-0.6-1.1-1.1-1.8; W ratio of AII-AXI(AII=1.0) = 1.0-0.5-0.6-0.7-0.7-1.1-1.3-1.4-1.5-1.5; W/L ratio of AII-AXI=1.0-0.3-0.9-1.0-1.1-1.7-2.0-1.3-1.4-0.9. Eyes large, antero-laterally oriented; tempora developed behind eyes as very narrow strip. Head widest at tempora (Fig. 29, 30).

Pronotum. Base straight. Sides roundly tapered anteriorly in dorsal view, straight in lateral view. Posterior angles acute slightly rounded in dorsal view, obtuse, rounded in lateral view. Punctation double, much finer and sparser than that of head. A few micro-punctures interposed. Basal punctures separated by about 4-8 or more times their diameter.

Elytra. With eight striae formed by simple rows of sparse punctures separated by about 1-3 times their diameter on disc. Punctures becoming sparser toward base, separated by 4-5 times their diameter. Toward apex punctures becoming gradually smaller and sparser. Intervals with micro-punctures separated by 6-8 times their diameter. A few larger punctures in odd intervals. Sutural stria shallow, confined to apical fourth of elytra.

Legs. Tarsal formula 5-5-4. Anterior tarsomeres TI-TIV widened, from widest TI gradually narrowed to TV. Tibiae slim. Femora without specific characters.

Membranous wings developed.

Metaventrite. With pair of shallow depressions located at anterior third of metaventral length, each depression with brush of erect, light seta.

Genitalia. Aedeagus as in Figs. 27, 28. Paramera strikingly widened apically in dorsal view.

Figs. 29, 30 *Cyrtoplastus hlavaci* sp. nov. 29- body, dorsal view; 30- head, dorsal view.

Female. Unknown.

Variation. Length of body 2.8-3.2 mm, AIII/AII = 1.5-1.6. Colour of dorsum varies from bicolored (see the holotype) to unicolorous yellowish-red or yellow specimens.

Differential diagnosis. *Cyrtoplastus hlavaci* sp. nov. is similar to *C. seriepunctatus* (Brisout de Barneville, 1867) not only in the size and shape of body but mainly in the elytral sculpture possessing eight well developed striae consisting of dense punctures. Both species differ by dorsal colouring. While *C. hlavaci* is variable, from bicoloured black-red to reddish or even yellow colour, *C. seriepunctatus* is completely black. Additionally *C. hlavaci* differs from *C. seriepunctatus* and from other known species by five-segmented antennal club and also by strikingly widened top of parameres.

Etymology. The new species is dedicated to its collector, my friend, well known specialist in Pselaphidae, Peter Hlaváč.

Cyrtoplastus schuelkei Angelini & Švec, 2000

Examined material: 1 ♂, "CHINA: S_Gansu, [CH12-05] / W-Quinling Shan 47 km N Chengxian / 34º10′17″ N, 105º42′56′E, 1850 m / mixed secondary forest margin / litter sifted, 29. vii. 2012, M. Schülke", (MSBC).

Distribution. China (Shaanxi, Sichuan, Gansu). New for Gansu.

ACKNOWLEDGEMENTS. My sincere thanks belong to all the persons to whom I am grateful for the leiodid material presented in this paper, for enabling the study of relevant leiodids and for the advice and knowledge they shared with me, namely to my friends, the late Aleš Smetana, Volker Assing and Fernando Angelini and last, but not least to my entomological colleagues or friends Jiří Hájek (National Museum in Prague, Czech Republic), Peter Hlaváč (Prague) and Michael Schülke (Berlin, Deutschland).

ERRATA. The paragraph "Differencial diagnosis" in Švec (2023) on page 397, line 1 contains the erroneous name *Agathidium* (*Macroceble*) *excisum* sp. nov. instead of the correct name *Agathidium* (*Macroceble*) *elevatum* sp. nov.

REFERENCES

Angelini F. 2002: LXXXIII contributo alla conoscenza degli Anisotomini della regione paleartica e orientale: descrizione di nuove specie e nuovi dati corologici (Coleoptera, Leiodidae). *Annali del Museo Civico di Storia Naturale "G. Doria"* 94: 313-394.

Angelini F. 2010: World catalogue of the tribe Anisotomini (Coleoptera, Leiodidae. Leiodinae). Estratto dagli *Annali del Museo Civico di Storia Naturale "G. Doria"* 102: 1-157.

Angelini F. & Cooter J. 1998: New species of Anisotomini Westwood (Coleoptera: Leiodidae, Leiodine) from China. *Entomologist's Gazette* 49: 131-137.

Angelini F & Švec Z. 2000: New species of the genera *Cyrtusa, Pseudcolenis, Cyrtoplastus* and *Agathidium* (Coleoptera: Leiodidae: Leiodinae) from China. *Acta Societatis Zoologicae Bohemicae* 64: 119-141.

Hoshina H. 1996: A taxonomic study of the genus *Cyrtoplastus* (Coleoptera, Leiodidae) of Japan. *Japanese Journal of Systematic Zoology* 2(2): 201-206.

Löbl I. & Löbl D. 2015: *Catalogue of Palaearctic Coleoptera. Vol. 2/1. Hydrophiloidea - Staphylinoidea. Revised and Updated Edition.* Leiden: Koninklijke Brill, XXV + 900 pp.

Miller K. B. & Q. D. Wheeler 2004: Two new genera of Anisotomini from the Nearctic and Neotropical regions (Coleoptera: Leiodidae). *The Coleopterists Bulletin* 58 (4): 466-487.

Newton A. 2022: Leiodidae Fleming, 1821 in StaphBase. In: Bánki O., Roskov Y., Döring M., Ower G., Hernández Robles D. R., Plata Corredor C. A., Stjernegaard Jeppesen T., Örn A., Vandepitte L., Hobern D., Schalk P., DeWalt R. E., Ma K., Miller J., Orrell T., Aalbu R., Abbott J., Adlard R., Adriaenssens E. M., et al., *Catalogue of Life Checklist* (Aug 2022). https://doi.org/10.48580/dfsr-3gk. (Accessed 10 November 2024).

Perkovsky E.E. 1987: Dopolnenie k faune zhukov-leyodid podsemeystva v Leiodinae (Coleoptera, Leiodidae) Dalnego Vostoka s opisaniem trekh novykh vidov (An addition to the fauna of the Leiodinae beetles of the Far East with description of three new species) (in Russian). *Vestnik Zoologii*, 6: 19-24.

Perreau M. 2015: Leiodidae. Pp. 180-290. In: Löbl I. & Löbl D. (eds): *Catalogue of Palaearctic Coleoptera. Volumes 2/1, 2/2. Hydrophiloidea - Staphylinoidea, Revised and Updated Edition*. Leiden & Boston: Brill, xxvi + 1702 pp.

Reitter E. 1885: Bestimmungstabelle der europaischen Coleopteren, XII. Necrophaga. *Verhandlungen des naturforschenden Vereines in Brünn* 23: 3-122.

Švec Z. 1992: On two Palaearctic *Anisotoma*. *Annotationes Zoologicae et Botanicae* 209: 1-4.

Švec Z. 2023: A contribution to knowledge of Chinese species of the genus *Agathidium* Panzer, 1797 (Coleoptera: Leiodidae: Leiodinae) - part V. *Studies and Reports, Taxonomical Series* 19(2): 383-401.

Wheeler Q.D. 1979: Slime mold beetles of the genus *Anisotoma* (Leiodidae): classification and evolution. *Systematic Entomology* 4: 251-309.

Received: 24.11.2024
Accepted: 10.12.2024
Printed: 31.3.2025