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A contribution to knowledge of the Italian and French *Agathidium* Panzer, 1797 (Coleoptera: Leiodidae: Leiodinae)

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Abstract. *Agathidium* (*Agathidium*) *kociani* sp. nov. from Italy is described and compared with similar taxa. A new status of *Agathidium* (*A.*) *devillei* Hlisnikovský, 1964 from France is proposed; it is raised from subspecific status *Agathidium* (*A.*) *dentatum devillei* Hlisnikovský, 1964. A key to the determination of the French and the Italian species of the subgenus *Agathidium* s. str. is provided.

INTRODUCTION

The genus *Agathidium* Panzer 1797 is the most numerous genus within Leiodinae and Leiodidae at all. It comprises 845 species described up to now. The majority of the species is known from Asia.

Altogether 22 species of four subgenera are known from France and 34 species attributed to the three subgenera were known from Italy up to now.

The examination of the type material of *Agathidium dentatum devillei* Hlisnikovský, 1964 that seems to be endemic in the French Alps Maritimes brought the opinion that the characters detected in aedeagus justify to change the status of the taxon and propose new status as *Agathidium devillei* Hlisnikovský, 1964. During the studies of the leiodid material, collected recently in Italy, a species of *Agathidium* new to science has been discovered.

MATERIAL AND METHODS

This paper is based on the studies of the type material preserved in the collection of the National Museum in Praha, Czech Republic (NMPC) and material collected by Matúš Kocian (Praha, Czech Republic) in Italy (Veneto, Emilia-Romagna, Lombardy, Liguria, Toscana, Piedmont, Sicily) deposited in the author's collection (ZSPC).

Collecting data cited in quotation marks are taken from the locality labels accompanying the examined examples. The individual lines from the original locality labels are separated by a slash; the individual labels are separated by double slash in this work. The holotype and each 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, the year 2021 and attached to the same pin as the relevant specimen.

The specimens had been relaxed in 4% acetic acid first, then rinsed in water and dissected in a drop of water. The male genitalia were mounted in Arabic gum on the same label as

the relevant specimen; the female genitalia (spermatheca) in polyvinylpyrrolidone on a transparent label added to the same pin as the dissected specimen or directly on the label near the respective specimen.

The description is based on the holotype. Variability is mentioned in the paragraph "Variability" and includes features exhibited by the paratypes. Also the important characters of the sexual dimorphism are included in the mentioned paragraph. Those characters that seem to be usual in the genus - e.g. presence of short recumbent setae in dorsal punctures, microsculpture of venter, setosity on antennae, legs and venter are not mentioned in the descriptions.

The measurements of the total body length were taken from all specimens examined. Specific measurements of the individual body parts were taken from the holotype only except of the data about the variation. The measurements of morphologic body parts were measured to the first decimal place of millimetre, the measurements of the genitalia were measured to the second decimal place of millimetre. The ratios of measurements of the metaventrite were approximated on integers.

Abbreviations of body parts and measurements:

AII-AXI antennomeres II-XI.
TI-TIII tarsomeres I-III.
AIII/AII The ratio of the length or width of the antennomeres III:II, analogously ratios of others antennomeres.
L Length.
W Width.
L/W or W/L Ratio between measurements.
MTLM Length of metaventrite measured at midline from the top of anterior process and top of posterior process of metaventrite.
MTLC Length of metaventrite measured at the shortest distance (between mid- and hind-coxae).
MTW Width of metaventrite measured between outermost postero-lateral points.
MTW/MTLM or MTLC Ratio between relevant measurements.

Geographic abbreviations:

n - north, e- east, w- west, s - south.
Abbreviations of countries are taken from Löbl & Löbl (2015).

Terminology:

Supraocular carina = Antero-lateral raised marginal bead of head i.e. carina at antero-lateral margin of head dorsum running from clypeus just above eyes (if present) caudally;
subocular line = line or even carina bordering eyes on ventral side, if present;
femoral lines = divergent V-shaped line on metaventrite with two branches running antero-laterally;
femoral lines complete = long lines reaching almost antero-lateral margin of metaventrite (according to Angelini & De Marzo1980);
femoral lines incomplete = lines shortened, terminating far from antero-lateral margin of metaventrite (according to Angelini & De Marzo1980);

lateral lines = lines connecting medially to mesoventral longitudinal carina running obliquely anterio-laterally, if present (according to Angelini & De Marzo1980);

lateral angle = angle on lateral margin of the Agathidium species located approximately at anterior third of the elytral length - feeble, hardly detectable e.g. in Agathidium s.s.tr., more distinct to obtrusive e.g. in *Neoceble* Gozis, 1886 (= humeral angle in some other papers);

basal part of median lobe = median foramen;

median lobe = median lobe of aedeagus;

paramere = lateral lobe.

shape of eyes = classified according Švec (2021) as follows:

eyes parabola slice-shaped = symmetric or almost symmetric eyes resembling parabola slice;

eyes drop-shaped = eyes gradually widened caudally with broadly rounded apex;

eyes flattened = eyes well developed but flattened laterally;

eyes strip-shape = eyes reduced to a strip.

DESCRIPTION AND KEY

The classification of the aedeagi in *Agathidium* based on the shape of the basal part of the median lobe have been used when assessing the status of the taxon *Agathidium* (*Agathidium*) *dentatum devillei* Hlisnikovský, 1964. Švec & Angelini (2019) pointed out that obtained experience ensures that the shape of the basal part of the median lobe is very stable in the individual species. The author of *A. dentatum devillei* completely omitted this character neither mentioned the shape nor figured the relevant part of aedeagus. The basal part of the male genitalia can be straight, bent in various degrees and directions, twisted or knotted. Švec & Angelini (2019) sorted the *Agathidium* aedeagus into seven basic types A-G.

The basal part of the median lobe can be:

A - straight, long or short, truncate or rounded at the basal orifice;

B - feebly bent, the basal orifice opened obliquely or in rectangular direction away from median lobe;

C - bent in the shape of the letter J, the basal orifice opened in the direction toward ventral side of the median lobe;

D - narrowly or openly ring-shaped

E - spiral-shaped twisted in the longitudinal axis of median lobe and/or laterally of the axis or also with proximal part twisted in reverse direction

F -irregularly knotted in two or three dimensions

G - spiral or irregular tightly or loosely shaped approximately in the horizontal direction in comparison in view of the longitudinal axis of median lobe.

This classification is used in the following diagnosis and a key.

Agathidium (*Agathidium*) *devillei* Hlisnikovský, 1964 stat. nov.
(Figs. 4-6)

Agathidium (*Agathidium*) *dentatum devillei* Hlisnikovský, 1964: 182.

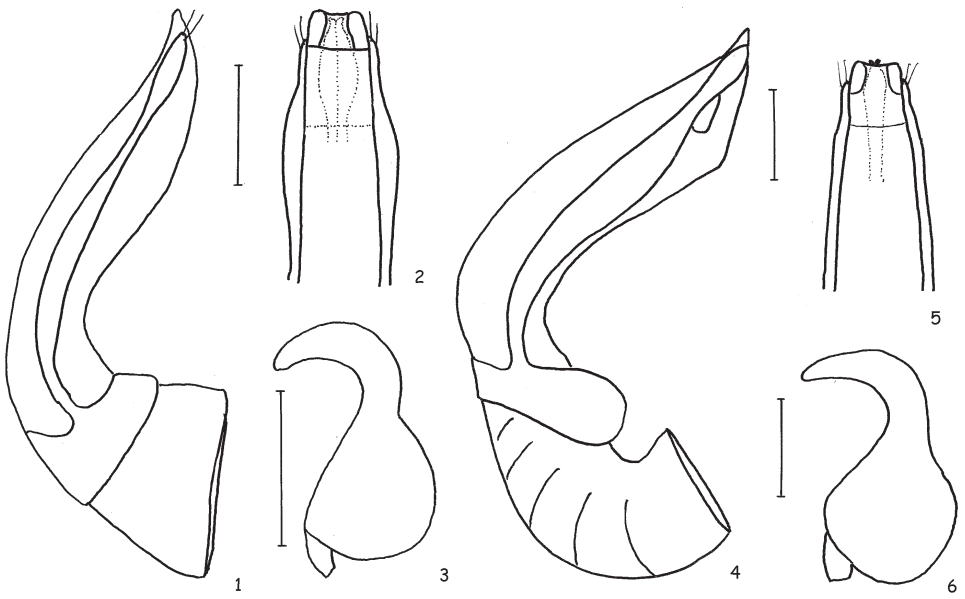
Examined material. Holotype (♂): "le Farguet (Alp Marit.^{mes}) / S^{te} Cl. Deville // Type // *AGATHIDIUM DENTATUM* /s. *DEVILLEI* m. HOLOTYP. / det. Hlisnikovský 1954 // pinxit I. 56 / Hlisnikovský / Nr. 136 // Mus. Nat. Pragae / Inv. 65176 // ex coll. J. Hlisnikowsky / National Museum/ Prague, Czech Republic" (NMPC). Allotype: (♀), "L´AUTHION / (ALPES MARITIMES) / S^{te}-CLAIRE DEVILLE // Type // *AGATHIDIUM DENTATUM* / s. *DEVILLEI* m. ALLOTYP. / det. Hlisnikovský 1954 // Mus. Nat. Pragae / Inv. 65177 // ex coll. J. Hlisnikowsky / National Museum / Prague, Czech Republic" (NMPC). Paratype: (1 ♂): "le Farguet (Alp. Marit^{mes})/ S^{te} Cl. DEVILLE // Cotype // *AGATHIDIUM DENTATUM*/ s. *DEVILLEI* m. Paratyp. ♂ / det. Hlisnikovský 1954 // Museum Nat. Pragae/ Inv. 65178// ex coll. J. Hlisnikowsky / National Museum / Prague, Czech Republic" (NMPC); (1 ♂), "L´AUTHION / (ALPES MARITIMES) / S^{te}-CLAIRE DEVILLE // *Agathidium bohemicum*? / det. J. Strejček 61 // ex coll. / J. Strejček / *Agathidium / devillei* Hlisnikovský/ det. Švec." (ZSPC).

Remark. The taxon was described by Hlisnikovský (1964) as a subspecies of *A. dentatum* Mulsant & Rey, 1861. The description was accurate enough therefore the taxon was not redescribed in the present paper. Nevertheless the basic features of the male genitalia - the shape of the basal part of the aedeagus was neither figured nor described. The shape of parameres in the image published by Hlisnikovský (1964: 185, Fig. 289) differs from the reality.

Therefore the shape of the male genitalia is figured in this paper (Figs. 4, 5). Based on morphological differences and including those detected in the male genitalia, I consider that the differences between the two mentioned taxa - *A. dentatum* and *A. devillei* justify erection of the taxon into the rank of species. The mentioned differences are described in the following paragraph "Differential diagnosis".

Differential diagnosis. The aedeagus differs significantly in *A. devillei* Hlisnikovský, 1964 (Figs. 4, 5) from that in *A. dentatum* Mulsant & Rey, 1861 (Figs. 1, 2) and also from the similar species new to science described below - *A. kociani* sp. nov. (Figs. 7, 8). While aedeagus is of the type B in *A. devillei* (Fig. 4) and *A. kociani* (Fig. 7), the type of the aedeagus in *A. dentatum* is A (Fig. 1). Parameres of all the compared species are also of different shapes. Parameres of *A. devillei* are latero-medially depressed, broadest in proximal two thirds of their length, then they are narrowed at their next quarter and eventually parameres are a little widened with oblong oval apical part in lateral view (Fig. 4). Both parameres are adjacent to the median lobe, therefore are slim, narrow in the dorsal view (Fig. 5).

Parameres in *A. dentatum* and also in *A. kociani* are first latero-medially depressed and parallel-sided in the basal ¾ of their length in dorsal view, then they are dorso-ventrally depressed and therefore laterally widened in long lobes narrowing distally and finely depressed latero-medially again before pointed apex (Figs. 1, 7). Bases of both parameres are merged dorsally and protracted in a lobe directed ventrally as usual in the genus. In lateral view paramere in *A. dentatum* and also in *A. kociani* are first parallel-sided, slightly bent, approximately at distal quarter of the parameral length it is dorso-ventrally depressed, and eventually terminating as a swollen parameral apex (Figs. 2, 8).



Figs. 1-6. Figs. 1-3: *Agathidium* (*Agathidium*) *dentatum* Mulsant & Rey, 1861; Figs. 4-6: *A*. (*A*.) *devillei* Hlisnikovský, 1964 (♂ holotype, ♀ paratype). 1, 4- aedeagus, lateral view; 2, 5- distal part of aedeagus, dorsal view; 3, 6- spermatheca. Scale in Figs. 1, 2, 4, 5 = 0.2 mm; in Figs. 3, 6 = 0.1 mm.

More difficult is the determination according to the morphological features. The most obtrusive character is the body size. *A. devillei* is distinctly larger (2.9-3.5 mm) while *A. dentatum* and also *A. kociani* are distinctly smaller (range of length 2.2-2.8 mm and 2.3-2.7 mm respectively). Lateral lines on mesoventrite are incomplete and femoral lines on metaventrite are complete in *A. devillei* and *A. kociani* while it is the other way around in *A. dentatum*. Both density and intensity of the dorsal puncturation to be used for the differentiation of the similar taxa *A. dentatum dentatum* and *A. dentatum devillei* (Hlisnikovský 1964, Angelini 1995) are hardly useful due to strong variability of the dorsal puncturation at least in *A. dentatum*.

***Agathidium* (*Agathidium*) *kociani* sp. nov.**

(Figs. 7-9)

Type material. Holotype (♂): "ITALIA - Piemonte, above Certosa di Pesio, 1200m/ mixed forest, sifting/ 44.212067N, 7.6645E / 18.IV.2016 M. Kocian lgt." (ZSPC). Paratypes: (6 ♂♂, 4 ♀♀): same data as holotype; (5 ♂♂, 2 ♀♀): "ITALIA, Piemonte, Alpi / Marittime, Palanfré, 1400 m / deciduous forest, sifting / 44.188367N, 7.497733E / 17.V.2016 M. Kocian lgt."; (3 ♂♂, 5 ♀♀): " ITALIA - Piemonte, Sorgenti/ del Belbo, Montezemolo env. / deciduous forest, sifting, 660 m / 44.3957N, 8.14E / 21.V.2016 M. Kocian lgt"; (1♀): " ITALIA, Piemonte, Alpi, above / Pontebemardo, 1700 m / near snow residues, sifting / / 44.328625N, 6.992839E/ 8.VII, 2019 M. Kocian lgt."; (ZSPC).

Description. Length 2.3-2.7 mm. Length of body in holotype 2.5 mm, maximum length of head 0.4 mm, of pronotum 0.9 mm, of elytra 1.2 mm; antenna 0.9 mm; aedeagus 0.89 mm; maximum width of head 1.0 mm, pronotum 1.5 mm, elytra 1.4 mm at basal quarter.

Oval, dorsum, antenna and legs light chest-nut. Dorsum smooth without micro-sculpture, punctured. Punctures equipped by very short adjacent hairs. Hairs at most at long as spaces between punctures. Ventral surface light chest-nut.

Head. Broadest at caudal part of slightly drop-shaped eyes. Head narrowed caudally behind eyes. Supraocular carina present, subocular carina absent. Antero-lateral carina between eyes and clypeus low, of the equal height. Clypeal line missing. Clypeus very slightly emarginate. Antennal club 3-segmented. Ratio of length of antennomeres II-XI (standard AII=1.0) = 1.0-1.7-0.9-0.7-0.7-0.6-0.6-1.0-1.0-1.9. Ratio of width of AII-AXI (standard AII=1.0): 1.0-1.0-1.0-1.0-1.1-1.4-1.7-2.4-2.6-2.3. Ratio of W/L of AII-AXI= 0.7-0.4-0.8-1.0-1.1-1.7-2.0-1.7-1.8-0.8. With simple puncturation. Punctures distinct, dense, less regular, punctures separated by 2-5 times their diameters.

Pronotum. Base almost straight roundly beveled towards to broadly rounded lateral margins in dorsal view. Lateral margins very broadly rounded in lateral view. With simple puncturation very similar like that on head. Punctures distributed regularly, separated by about 2-3 times their diameter.

Elytra. With simple puncturation similar like that on head and pronotum. Punctures regularly distributed, not arranged in rows, separated by about 3-4 times their diameter. Very fine irregular transverse and oblique furrows forming irregualar large cells containing usually one puncture. Sutural striae missing.

Mesoventrite. Longitudinal carina slightly developed, lateral lines developed, incomplete. Caudal part deepened.

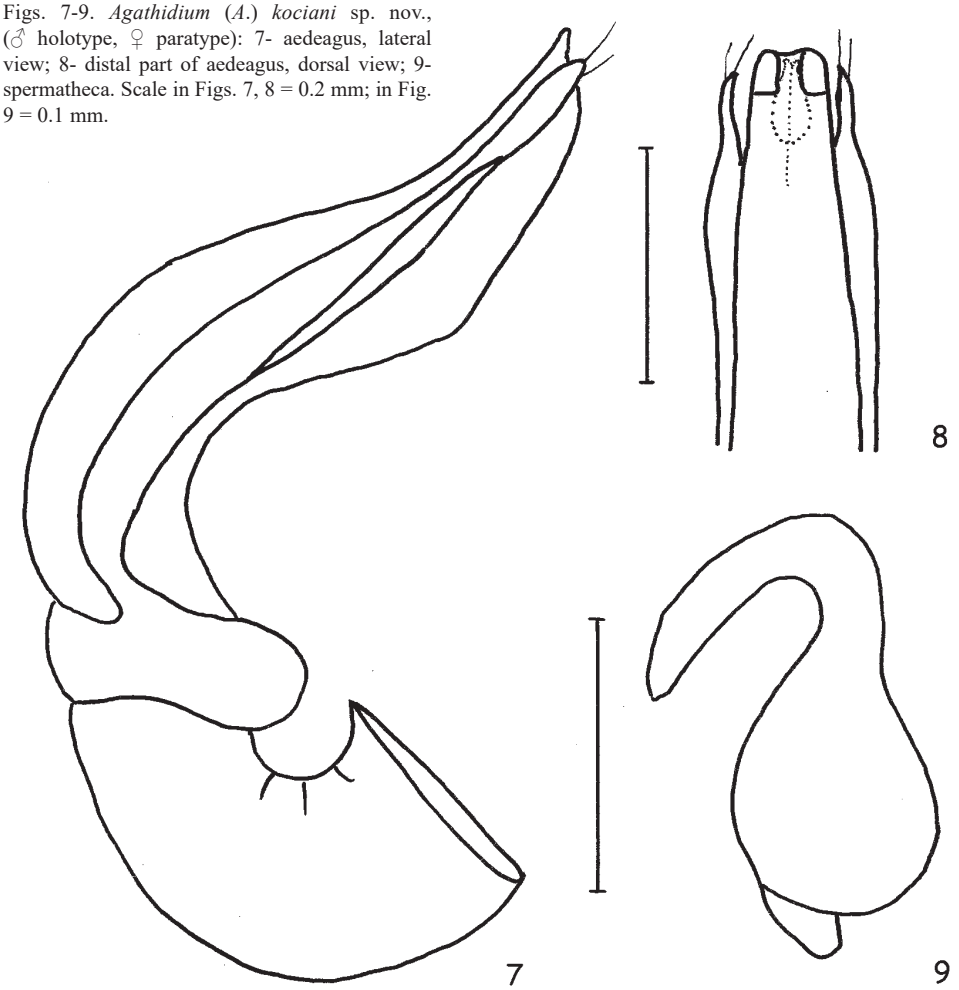
Metaventrite. A little convex medially, covered by lightly coloured semi-recumbent setae. With complete femoral lines. Membranous wings lacking. MTW/MTLM = 5, MTW/MTLC = 9.

Legs. Tarsal formula 5-5-4 in male, 5-4-4 in female. Tarsomere I of pro- and mesotarsi is distinctly dilated in male. Metafemur with strong, distinct triangular tooth sub-apically at its posterior margin in male. Similarly as in similar species (see the paragraph Differential diagnosis) its hypotenuse confined to apical half of femoral length. All tibiae slim.

Genitalia. Aedeagus is of type B with J-shaped basal part, parameres laterally widened in dorsal view (Figs. 7, 8). Basal part of spermatheca is sub-sphaeric to sphaeric with short basal appendix, its distal part tubulose, rectangular bent with pointed apex (Fig. 9), quite similar as that in *A. dentatum* and *A. devillei* (Figs. 3, 6). Length of spermatheca 0.16 mm.

Variation. The body length varies between 2.3-2.7 mm. The length ratio of antennomeres III:II varies in the range 1.5-1.8. The holotype and the paratypes from the type locality are lightly chest-nut coloured; the others dark brown, sometimes with brown pronotum or dorsum is black with lighter pronotal margins. Tarsi slim in female, posterior femur without specific characters in female. Some of the paratypes from Montezemolo with sparser and finer punctures compared to holotype.

Figs. 7-9. *Agathidium* (*A.*) *kociani* sp. nov., (♂ holotype, ♀ paratype): 7- aedeagus, lateral view; 8- distal part of aedeagus, dorsal view; 9- spermatheca. Scale in Figs. 7, 8 = 0.2 mm; in Fig. 9 = 0.1 mm.



Differential diagnosis. The new species is most similar to *A. devillei* Hlisnikovský, 1964. The type B of the aedeagus is the same in both species. On the other hand, parameres of both compared species are of a different shape.

Paramere of *A. devillei* is latero-medially depressed, broadest in proximal two thirds of their length, then they are narrowed at their next quarter and eventually a little widened with oblong oval apical part in lateral view (Fig. 4). Both parameres are adjacent to the median lobe, therefore they are slim, narrow in the dorsal view (Fig. 5).

The paramere in *A. kociani* is first parallel-sided, laterally seen, slightly bent, then it is dorso-ventrally depressed, forming widened lateral lobe approximately at distal quarter of the parameral length visible in dorsal view and eventually terminating in dorsal view as a slim, curved apex depressed again latero-medially (Figs. 7, 8) while its apex is oblong oval laterally seen.

A. kociani and *A. devillei* differ significantly by body size. *A. kociani* is distinctly smaller (2.3-2.7 mm, respectively) than larger *A. devillei* (2.9-3.5 mm). The dorsal puncturation in *A. kociani* is distinct, uniform. The puncturation on head, pronotum and elytra, its intensity and density, is almost uniform in *A. kociani*, while the puncturation is detectably slighter and sparser on elytra than on head and pronotum in *A. devillei*.

Etymology. The new species is named to honour of its collector, my entomological friend, Matúš Kocian (Prague, Czech Republic).

The following key is focused on subgenus *Agathidium* s.str. Beside it includes *A. nigripenne* (Fabricius, 1792) despite it belongs to the subg. *Neoceble* Gozis, 1886 as the species shows features typical not only for *Neoceble* but also for *Agathidium* s.str.

Key to the determination of the Italian and French *Agathidium* Panzer, 1797 subgenera and the species of *Agathidium* s.str.

1 Dorsum almost bald, at most with very short adjacent, sparse hair. 2
- Dorsum haired, with dense long, erected, hair. Elytra with very blunt, broadly rounded, unobtrusive lateral angle (observe in lateral view). Femoral lines missing (1 sp. in FR) .... Subg. *Chaetoceble* Claire-Deville, 1899

2(1) Outline of head usually convergent or parallel caudally of eyes without tempora, rarely divergent with tempora distinctly shorter than half of eye length. 3
- Outline of head divergent caudally in dorsal view, tempora approximately as long as or longer than length of eye. Metaventrite long, well developed, without femoral lines. (3 spp. in both IT and FR). .... Subg. *Cyphoceble* Thomson, 1859

3(2) Metaventrite long, well developed, without femoral lines. Body oval or short oval, strongly convex, elytra with lateral very distinct angle; exceptionally (*A. nigripenne* - see the key to *Agathidium* s.str.) body is almost parallel-sided in dorsal view with unobtrusive lateral elytral angle. (17 spp. in IT; 10 spp. in FR). .. .. Subg. *Neoceble* Gozis, 1886
- Metaventrite long, well developed, always with femoral lines. Body oval or short oval, feebly convex, elytra with very blunt, broadly rounded, unobtrusive lateral angle (Subg. *Agathidium* s.str., 14 spp. in IT, 8 spp. in FR). 4

4(3) Colour of head, pronotum and elytra equal or very similar, unicolorous, reddish, brown or black, usually with lighter pronotal and elytral margins, exceptionally with obscure spots or strips. 5
- Head and pronotum red, elytra black. Body very oblong oval, elytra sub-parallel. Body flat, lateral angle of elytra very slightly expressed almost indistinct. Femoral lines of metaventrite not developed. Aedeagus type A. 2.0-3.5 mm. Distribution: E - AB AR AU BE BH BY CR CZ DE EN FI FR GB GE HU IR IT LA LS LT LU NL NR NT PL RO RU SK SL SV SZ UK YU A - TR. .....*A.* (*N.*) *nigripenne* (Fabricius, 1792)

5(4) Elytra with sutural stria (in *A. badium* Erichson, 1845 and *A. pisanum* Brisout de Barneville, 1872 feebly developed, visible on apex only). 6
- Elytra without sutural stria. 9

6(5) Sutural stria short, feebly developed, visible on apex only. Dorsum with traces of micro-reticulation. Elytra distinctly punctured with deep strong punctures. Dorsum light chest-nut. Maximum width of head just behind eyes. Aedeagus type C. 7
-- Sutural stria well developed, visible in dorsal view confined at least caudal half of elytral length. Dorsum black, exceptionally chest-nut. 8

7(6) Antenna yellow-red with antennomeres IX, X distinctly darker. Top of median lobe of aedeagus broadly rounded. 2.3-3.1 mm. Distribution: E - AB AL AU BH BY CR CT CZ FI FR GE GG GR HU IT LT MC NR NT PL RO TR SK SL ST SV SZ UK YU A - TR. ..... *A. pisanum* Brisout de Barneville, 1872

- Antenna unicolorous - yellow-red. Top of median lobe triangular with rounded tip. 2.1-2.8 mm. Distribution: E - AB AL AR AU BE BH BU BY CR CT CZ DE FI FR GB GE GG GR HU IT LA LT LU MC NL NR NT PL RO SK SL ST SV SZ TR UK YU A - IN TR. ..... *A. badium* Erichson, 1845

8(6) Dorsum without micro-reticulation. Aedeagus of type E. Large species, 2.6-4.3 mm. Distribution: E - AB AL AR AU BE BH BU BY CR CT CZ DE EN FI FR GB GE GG HU IR IT LA LS LT LU MC NL NR NT PL RO SK SL SP ST SV SZ UK YU A - FE TR WS. ..... *A. atrum* (Paykull, 1798)

- Dorsum, especially head and pronotum, distinctly micro-reticulate. Aedeagus type C. Smaller body, 2.6-3.1 mm. Distribution: E - AB AL AR AU BE BH BU BY CR CT CZ DE EN FI FR GB GE GG GR HU IR IT LA LT MD NL NR NT PL RO SK SL SP ST SV SZ UK YU N: AG A - TR "Transcaspia" "Siberia". .... *A. seminulum* (Linnaeus, 1758)

9(5) Dorsum with micro-reticulation. 10

- Dorsum without micro-reticulation. 14

10(9) Antennomere III approximately 1.5 times as long as AII or longer. 11

- AIII as long as AII. Type of aedeagus C, apex deeply excavate. Body small, 1.2-1.5 mm. Distribution: E - IT. ..... *A. minimum* Dodero, 1916

11(10) Antennomere III approximately 1.5 times as long as AII. Tarsal formula 5-5-4 in male, 5-4-4 in female. 12

- AIII more than twice as long as AII. Red-brown with antenna unicolorous brownish. Tarsal formula 5-5-4 in male, 4-4-4 in female. Aedeagus type C, apex bilobed. 3.2-3.7 mm. Distribution: E - IT. .... *A. bartolii* Poggi, 1981

12(11) Species without membranous wings. Only elytra micro-reticulate. Type A of aedeagus. 13

- Species with membranous wings. Whole dorsum with very distinct micro-reticulation. Type C of aedeagus. 2.2-2.7 mm. Distribution: E - AB AL AR AU BE BH BU BY CR CT CZ DE EN FI FR GB GE GG GR HU IR IT LA LS LT LU MA MC MO NL NR NT PL PT RO TR SK SL SP ST SV SZ UK YU A - BT CT CY ES FE HP IN IS MG NP SD TR WS. ..... *A. laevigatum laevigatum* Erichson, 1845

13(12) Male with strong tooth distally at posterior margin of metafemur. Elytra finely micro-reticulate. Apex of aedeagus deeply emarginate. 2:0-2.4 mm. Distribution: E - IT. ..... *A. italicum* Hlisnikovský, 1964

- Male hind femora without tooth. Elytra only with traces of micro-reticulation. Apex of aedeagus feebly emarginate. 1.5-2.0 mm. Distribution: E - IT, FR. ..... *A. laevigatulum* Reitter, 1904

14(9) Eyes parabola-slice shaped. Punctures on head of one size. Types of aedeagus A or B. 17

- Eyes strip-shaped or even strongly reduced in dorsal view. Head with double puncturation. Aedeagus type G. 15

15(14) Eyes strip-shaped, visible in dorsal view. Parameres without obtrusive characters apically..... 16

- Eyes strongly reduced, hardly visible in dorsal view. Paramere with incision before tip. 2.5-3.2 mm. Distribution: E - nw IT. ..... *A. bohemicum rosai* Angelini & De Marzo, 1985

16(15) Larger punctures on head separated by about 3-5 times their own diameter. AIII long, longer as AI-AVI together. Body larger, 2.4-4.0 mm. Distribution: E: AU BU CR CZ GE HU IT-(ne) PL SK SL UK YU. ..... *A. bohemicum bohemicum* Reitter, 1885

- Larger punctures on head denser, separated by about 1-2 times their own diameter. AIII shorter than AIV-VI together. 2.2-2.5 mm. Distribution: E - ne IT. ..... *A. bohemicum heyrovskyi* Hlisnikovský, 1964

17(14) Aedeagus roundly emarginate apically. Elytra distinctly punctured. 18

- Aedeagus with two pointed angles apically, type A. Elytra superficially punctured. 2.3-2.8 mm. Distribution: E - s IT. ..... *A. obenbergeri* Hlisnikovský, 1964

18(17) Aedeagus type B. Species endemic in France or Italy. 19

- Aedeagus type A, parameres widened before apex in dorsal view (Fig. 1, 2). Spermatheca as in Fig. 3. Lateral lines on mesoventrite complete, femoral lines incomplete. 2.1-2.8 mm. Distribution: E - AL AU BU FR GE IT LS SL SZ. ..... *A. dentatum* Mulsant & Rey, 1861

19(18) Male hind femora with distinct tooth preapically on its posterior margin. AIII long, L ratio AIII/AII = 1.7-2.1. 20

- Male hind femora with blunt angle on its distal third of posterior margin. AIII short, L ratio AIII/AII = 1.3-1.5. Mesoventrite without lateral lines. 2.1-2.3 mm. Distribution: E - s IT. .... *A. paganetianum* Hlisnikovský, 1964

20(19) Larger body, 2.6-3.5 mm, dorsum black. Eyes parabola slice- shaped. Parameres narrow, parallel-sided in dorsal view (Fig. 5). Distribution: E - se FR.....*A. devillei* stat. nov.

\- Body smaller, 2.3-2.7, dorsum chest-nut to black. Eyes drop-shaped. Parameres widened before apex in dorsal view (Fig. 8). Distribution: E - ne IT. .....*A. kociani* sp. nov.

CORRECTION

Thanks to Alfred F. Newton's warning (U.S.A., Chicago) I have the opportunity to correct my mistake made in recently published paper about the Nepalese Leiodinae (Švec 2021). The original description of *Agathidium operculatum* Švec, 2021 published in the paper mentioned in the previous sentence lacks the fixing of the collection depository of the holotype.

In accordance with the Article 16.4.2. of the ICZN (International Code of Zoological Nomenclature 1999) I fix hereby the collection depository of the holotype of *Agathidium operculatum* Švec, 2021 (♂, locality data: "NEPAL SO Dhaulagiri Himal/ Rahugat Khola Tal/ Flußufer südl. Dwari, 150 m/ N28°31'03'' E83°30'38''/ 10.V.2002, leg. O. Jäger"). The holotype of *Agathidium operculatum* Švec, 2021 is deposited in the collection of the Senckenberg Museum für Tierkunde Dresden, Germany.

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