

**Fourth taxonomical contribution to the subgenus
Coprochara MULSANT & REY, 1874 of the
genus *Aleochara* GRAVENHORST, 1802.
Description of four new species
(Coleoptera: Staphylinidae)**

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Abstract

The following species of *Aleochara* (*Coprochara*) (Coleoptera: Staphylinidae) are described and illustrated: *A. schuelkei* sp.n. from China, *A. trachynoptera* sp.n. from Colombia and Brasil, *A. ashei* sp.n. from California, and *A. pycnostichia* sp.n. from Peru. Phylogenetic relationships of the species within the subgenus *Coprochara* are briefly discussed.

Key words: Coleoptera, Staphylinidae, Aleocharinae, *Aleochara*, *Coprochara*, taxonomy, systematics, phylogeny.

Introduction

After the recent description of four new *Coprochara* species (MAUS 1999), additional material became available containing four undescribed species. Descriptions of these new species are provided in this paper. Detailed general information on *Coprochara* is given in the introduction of MAUS (1998) and in MAUS & ASHE (1998). Species of *Coprochara* are difficult to recognize and have caused many taxonomic problems. The material of three of the new taxa has been kept in collections for many decades without being recognized as new, partially due to considerable ectoskeletal similarity to already known species. With the present descriptions of the four new species, the number of known *Coprochara* species is raised to 37 (MAUS 1998, 1999, 2000, KLIMASZEWSKI & MAUS 1999).

Material and methods

Type specimens were dissected, with genitalia embedded in water soluble polyvinyl pyrrolidone on a transparent plastic microslide attached to the pin of each individual specimen. Outline drawings of genitalia were made using a Leitz Dialux microscope with drawing tube. Morphological terminology (especially regarding male and female genitalia) follows KLIMASZEWSKI (1984) and MAUS (1998). Labels of types are cited using quotation marks (") separating different labels and slashes (/) to separate different lines on one label.

Abbreviations

Institutions and private collections:

- CMF C. Maus Collection, Freiburg, Germany
 CSB M. Schülke Collection, Berlin, Germany
 DEI Deutsches Entomologisches Institut, Eberswalde, Germany
 FMC The Field Museum, Chicago, Illinois, USA
 NMW Naturhistorisches Museum Wien, Vienna, Austria
 SEM Snow Entomological Museum, University of Kansas, Lawrence, Kansas, USA

Morphometric data:

WHP = ratio of maximum head width to maximum pronotal width; WPE = ratio of maximum pronotal width to maximum width of elytra; PLW = ratio of pronotal length to maximum pronotal width; LPE = ratio of pronotal length to length of elytra; 8AWL = ratio of width to length of the 8th antennal segment; L = body length; LWA = body length without abdomen (measured from labrum to sutural angle).

Descriptions of the new species

Aleochara (Coprochara) schuelkei sp.n.

TYPE LOCALITY: Surong, Ngola Shan Mountains in Qinghai, Central China.

TYPE MATERIAL: Holotype (σ): "China: Qinghai or. / Ngola Shan Mts., Surong / 3700 m, 1.-2. VII. 1998 / leg. L. Bieber", "*Aleochara (Coprochara) / schuelkei* Maus, 2000 / HOLOTYPUS" (CSB). Paratypes: 3 σ σ , 4 φ φ : same data as holotype "*Aleochara (Coprochara) / schuelkei* Maus, 2000 / PARATYPUS" (2 σ σ , 3 φ φ CSB, 1 σ , 1 φ CMF).

Description: Head circular, slightly longitudinally, or transversely oval, black, punctures fine to moderately fine, moderately to very scarce. Longitudinal midline of head glabrous without punctures. Pubescence of head fine, scarce, directed forward laterally, inward centrally, and anteriorly frontally. Sometimes there are extremely fine microsculptures on the head, or microsculptures are absent.

Pronotum suborbicular, transversely oval, subconical, or transversely rectangular with strongly rounded-off corners, strongly convex transversely, and mostly distinctly convex longitudinally, dark brown to black with marginal areas frequently brightened. Punctures except for dorsal rows fine to very fine, scarce, concentrated in regions near edges of pronotum. Punctures of dorsal rows moderately to very fine, moderately scarce to moderately dense, rarely slightly blurred basally. In basal and apical parts of rows, at most two punctures side by side. Pubescence fine, short, scarce, directed obliquely latero-basally. Microsculpture usually absent, but if present then hardly visible.

Elytra blackish brown to dark brown, inner and/or apical parts very gradually brightened and ochre to variable extent. Sometimes elytra nearly completely blackish brown with a slightly brightened apical margin. Elytral punctation fine to moderately fine, dense to moderately dense, nearly round, impressed straightly from behind, slightly to distinctly rasp-like. Pubescence directed nearly straight backward, only around sutural angle sometimes obliquely backward. Microsculpture absent.

Abdomen convex to subdepressed, slightly to distinctly tapering apically, black to blackish brown, lateral and apical margins of terga sometimes slightly brightened. Basal impressions deep to shallow on tergum III, deep to moderately deep on tergum IV, and moderately deep to shallow on tergum V. Abdominal punctation fine to moderately coarse, on apical parts of terga and on

apical terga frequently finer and more scarce, sometimes very fine and scarce on apical terga. Abdominal punctures fine to moderately coarse, dense to moderately scarce, frequently finer and scarcer on apical parts of terga and on apical terga, on most apical terga sometimes very fine and very scarce. Punctures round, frequently slightly oblong on middle terga (except for their bases). Microsculptures absent. Male sternum VIII apically very slightly produced, but strongly rounded-off.

Antennae slender, long to moderately long, brown to dark brown. Legs brown to light brown, tarsi frequently brighter.

Morphometric data: WHP: 0.65 (0.64 - 0.68) (N = 8); WPE: 0.91 (0.88 - 0.95) (N = 8); PLW: 0.78 (0.75 - 0.82) (N = 8); LPE: 1.43 (1.38 - 1.55) (N = 8); 8AWL: 1.48 (1.22 - 1.83) (N = 8).

Body size: L: 4.17 mm (3.42 - 4.75 mm) (N = 8); LWA: 1.66 mm (1.50 - 1.92 mm) (N = 8).

Aedeagus (Fig. 1): venter of median lobe strongly curved and distinctly bisinuate, tip slightly reflexed ventrad. Flagellum hardly surpassing tip of aedeagal median lobe, its basis not reaching base of bulb. Sclerites present: X, Y. Sclerite Y large, oval, pointed dorso-basally. Sclerite Z rectangular, its tip arched and narrowly produced apically, hardly surpassing tip of median lobe, the general shape of sclerite Z is similar to that of *A. verna* SAY, 1836 (see MAUS 1998).

Spermatheca (Figs. 2 - 4): capsule slender, subconical. Chamber narrow, reflexed apically. Duct mostly fusiform, sometimes somewhat reflexed laterally, coils moderately stout. Number of coils: 6 (5 - 7, N = 4).

Differential diagnosis: *Aleochara schuelkei* can be distinguished from *A. bipustulata* (LINNAEUS, 1761) and from *A. verna* by lacking a bright elytral terminal spot and by the elytral pubescence which is directed posteriad; from *A. bipustulata* it is additionally distinguished by the larger aedeagal sclerite Z, and by a spermathecal duct with more coils. *Aleochara reinigi* BERNHAUER, 1930 and *A. fuldneriana* MAUS, 1999 both have nearly uniformly yellow elytra and a blunt tip of the aedeagal median lobe or a differently shaped sclerite Z and a longer flagellum, respectively. *Aleochara pamirensis* KIRSCHENBLATT, 1951 is a larger species that has more strongly impressed pronotal dorsal rows and a different elytral coloration and pubescence. *Aleochara schuelkei* is different from *A. bilineata* GYLLENHAL, 1810 by the elytral pubescence which is nearly straight posteriad and by an aedeagal sclerite Z which has a shorter produced tip, and from *A. binotata* KRAATZ, 1856 by the direction of elytral pubescence, less strongly impressed pronotal dorsal rows, apically rounded-off male sternum VIII, larger aedeagal sclerite Z, and smaller spermathecal duct. *Aleochara schuelkei* is extremely similar to the North American *A. suffusa* (CASEY, 1906); it can be distinguished from this species by on an average lighter coloration, on an average slightly more slender body shape and a female spermathecal duct with less coils. *Aleochara brundini* BERNHAUER, 1936 is similar to the new species, too, but it has a more coarse and dense pronotal punctation, a different coloration and also a spermathecal duct with more coils.

Phylogenetic relationships: *Aleochara schuelkei* belongs to the group of rather small *Coprochara* species with two types of aedeagal inner sclerites, rasp-like elytral punctation and elytral pubescence which is directed nearly straight posteriad. This group contains *A. freyi* BERNHAUER, 1940, *A. reinigi* (and probably *A. fuldneriana*), *A. suffusa* and *A. brundini* (as defined by MAUS & ASHE (1998)). Among these species, it is probably most closely related to *A. suffusa* and *A. brundini*; it shares some characteristics like slender antennal segments and a large aedeagal sclerite Z, although the phylogenetic relationships among these three species and *A. reinigi* must be considered to be unresolved due to lack of a sufficient number of unambiguous synapomorphies. All these species are distributed in higher mountainous or arctic regions in the Holarctics. They possibly represent descendants of a common ancestor which was presumably

widely distributed in the Holarctic Region in one of the last glacial periods and adapted to life in cold climates. Its distribution area may have been fragmented after glacial withdrawal, and its descendants may have retained the preference of cold climates from this ancestral species.

Distribution: known only from the type locality.

Bionomics: unknown except for altitude of the type locality (3700 m) and the date of collecting (July).

Derivatio nominis: named after Michael Schülke, Berlin, Germany, who provided the type series from his collection, in honoring his taxonomic work on staphylinid beetles.

***Aleochara (Coprochara) trachynoptera* sp.n.**

TYPE LOCALITY: Brasil (São Paulo).

TYPE MATERIAL: Holotype (♂): "Brasil S. Paulo / Umgbg. v. Ribeirão Preto / Penteadó", "Riedel", "Chicago NHMus / M. Bernhauer / Collection", "Aleochara (Coprochara) / trachynoptera / Maus, 2000 / HOLOTYPE" (coll. Bernhauer: FMC). Paratypes: 1 ♀: same labels as holotype "Aleochara (Coprochara) / trachynoptera / Maus, 2000 / PARATYPUS" (coll. Bernhauer: FMC). 1 ♀: "Brasil S. Paulo / Umgbg. v. Ribeirão Preto / Penteadó", "Riedel", "Aleochara / signaticollis Fm / det. Bernhauer", "ex coll. / Klima", "Aleochara (Coprochara) / trachynoptera / Maus, 2000 / PARATYPUS" (coll. Scheerpeltz: NMW). 1 ♂ "Bogotá Columb. / Thieme", "Bernhauer det. [originally identified as *A. bimaculata*]", "coll. DEI / Eberswalde", "Aleochara (Coprochara) / trachynoptera / Maus, 2000 / PARATYPUS" (DEI).

Description: Head orbicular to slightly oblong, black, punctures moderately coarse to moderately fine, scarce to moderately scarce, with an unpunctured stripe along midline and two additional unpunctured stripes directed from anterior edge of eyes diagonally to middle of head. Pubescence scarce, fine, bright, directed anteriorly laterally, inwards centrally and towards the margins frontally. Micropunctures fine, moderately to very dense.

Pronotum oval, broadly oval or broadly trapezoid, strongly convex transversely and slightly so longitudinally, black to blackish brown. Punctures except for dorsal rows fine to moderately fine, scarce to moderately scarce, concentrated on areas next to basal and lateral margins. Punctures of dorsal rows fine, scarce to moderately scarce, somewhat blurred mainly basally but also slightly apically. Dorsal rows not or slightly impressed in frontal part and shallowly but distinctly impressed in apical part, also slightly enlarged apically. In the rows at most three punctures side by side in basal and at most two in apical part of pronotum. Pronotal pubescence fine, moderately scarce, bright, directed obliquely posteriorly. Micropunctures fine and dense.

Elytra black to blackish brown, mostly with a distinct yellow, yellowish brown or orange terminal spot extending from near suture to outer 2/3 of disc and from apical edge to basal 1/4 or 1/3 of disc. Terminal spot well defined or gradually darkened marginally. Sometimes terminal spots blurred and indistinct and inner apical areas of elytra just indistinctly brightened and yellowish brown. Elytral punctures dense, fine to moderately fine, distinctly asperate and rasp-like or completely transformed into rasp-like granulations. Punctures impressed from outside-behind but nevertheless nearly round, sometimes slightly wrinkled transversely. Elytral pubescence dense, directed posteriorly laterally, in inner basal parts latero-posteriorly at an angle smaller than 45° and in inner apical parts at an angle greater than 45°. Microsculpture absent.

Abdomen subcylindrical, slightly depressed dorsally and slightly tapering apically, black, apical margins of terga frequently slightly brightened. Basal impressions very shallow to moderately shallow on tergum III, deep on tergum IV, and very shallow to moderately shallow on tergum V. Abdominal punctures fine, dense to very dense, and especially on the middle terga somewhat oblong to suboblong. The apical part of tergum VI bears punctures that are mostly more scarce,

and on tergum VII they are mostly finer apically. Microsculpture absent. Male sternum VIII rounded-off or truncate apically.

Antennae moderately long, moderately slender, blackish brown to dark brown, basis reddish brown to light reddish brown. Legs reddish brown to light brown, tarsi sometimes yellowish brown.

Morphometric data: WHP: 0.62 (0.60 - 0.63) (N = 4); WPE: 0.90 (0.88 - 0.92) (N = 4); PLW: 0.77 (0.74 - 0.80) (N = 4); LPE: 1.63 (1.52 - 1.70) (N = 4); 8AWL: 2.13 (2.00 - 2.38) (N = 3).

Body size: L: 5.65 mm (4.00 - 7.25 mm) (N = 4); LWA: 2.25 mm (1.67 - 2.50 mm) (N = 4).

Aedeagus (Figs. 5 - 6): venter of median lobe nearly straight to straight, very slightly bisinuate; its tip blunt, thickened and not pointed, not or hardly reflexed ventrad. Sclerites present: X, Y, Z. Sclerite Z medium-sized, rectangular with rounded-off corners, its apical tip is very long produced and distinctly curved, distinctly surpassing tip of median lobe. Sclerite Y oblong, not very large, sclerite X oblong and smaller than sclerite Y. Flagellum short, not reaching basis of bulb. Apical lobes of lateral lobes short.

Spermatheca (Figs. 7-8): capsule orbicular, chamber moderately stout, reflexed apically. Duct regularly coiled, cylindrical, coils of duct moderately stout. Spermatheca generally similar to that of *A. bipustulata*. Number of coils: 3 (N = 2).

Differential diagnosis: *Aleochara trachynoptera* can be distinguished from *A. verna* by on an average larger body size, asperate elytral punctures and a spermathecal duct with less coils, and from *A. composita* (CASEY, 1906) by the same characteristics and the presence of mostly distinct elytral terminal spots. *Aleochara notula* ERICHSON, 1839 and *A. signaticollis* FAIRMAIRE & GERMAIN, 1861 both have a less rasp-like elytral punctation; furthermore there are differences in the genitalia: *A. signaticollis* has a flagellum coiled in the aedeagal bulb and a female spermatheca with a more strongly coiled duct; *A. notula* has a ventral projection on the tip of aedeagal sclerite Z and a much more slender spermathecal capsule. *Aleochara pycnostichia* is different from *A. trachynoptera* by coarser pronotal punctures and by the coiled aedeagal flagellum, *A. ashei* by the coiled aedeagal flagellum and unicolored, red elytra. In *A. peschkeana* MAUS, 1999, the abdominal punctures are more scarce, the elytral punctures are less asperate, and the aedeagal flagellum is coiled, furthermore the spermathecal duct has more coils. *Aleochara mutare* BLACKWELDER, 1944 and *A. solieri* BERNHAUER & SCHEERPELTZ, 1926 mostly have more distinctly impressed pronotal dorsal rows, less rasp-like elytral punctation and a coiled aedeagal flagellum. *Aleochara sulcicollis* MANNERHEIM, 1843 can be distinguished from *A. trachynoptera* by emarginate outer apical angles of elytra and strongly impressed pronotal dorsal rows, and *A. densissima* BERNHAUER, 1906 by smaller body size, lack of distinct bright elytral terminal spot and a much smaller aedeagal sclerite Z. In all ectoskeletal characteristics, *A. trachynoptera* is extremely similar to *A. bimaculata* GRAVENHORST, 1802; the former species has, however, a slightly more convex pronotum (the pronotal shape of *A. trachynoptera* is as in *A. notula*) with a less dense and shorter pubescence. In contrast, there are substantial differences in the genitalia: the aedeagal flagellum is long and coiled in *A. bimaculata*, but short and straight in *A. trachynoptera*, and the spermathecal duct has 6-13 coils in *A. bimaculata*, but only three in *A. trachynoptera*.

Phylogenetic relationships: *Aleochara trachynoptera* shares some phylogenetically important characters (three types of aedeagal sclerites, straight aedeagal flagellum, elytra with distinct terminal spots) with *A. notula*. Since no clear autapomorphic characteristics could be found that only these two species have in common, it is possible that either *A. trachynoptera* is the sister species of *A. notula*, or it is more closely related to the group of the New-World species with a coiled aedeagal flagellum (as defined by MAUS & ASHE 1998).

Remark: *Aleochara trachynoptera* ectoskeletally strongly resembles *A. bimaculata* as well as *A. notula*, and it may presumably be present in the collections under one of these names.

Distribution: known only from Brasil and Colombia. Probably more widely distributed in South America.

Bionomics: unknown.

Derivatio nominis: τραχύνειν: roughen (Ancient Greek), and πτερον: wing, here: elytron (Ancient Greek), referring to the asperate, rasp-like elytral punctation.

***Aleochara (Coprochara) ashei* sp.n.**

TYPE LOCALITY: Yosemite National Park in California, USA.

TYPE MATERIAL: Holotype (♂): "Yosemite Nat. Pk. / Calif. VIII - 1 - 40 / R. H. Beamer", "*Aleochara (Coprochara) / ashei* Maus, 2000 / HOLOTYPE" (SEM).

Description: Head orbicular, black, punctation moderately fine, scarce, with an impunctate longitudinal area along midline and two additional impunctate stripes extending from anterior edge of eyes diagonally to middle of head. Pubescence fine, scarce, directed forward laterally, inward centrally, and toward anterior margins frontally. Micropunctation very fine and scarce.

Pronotum broadly oval, widest between basal 1/3 and middle, distinctly convex transversely and slightly so longitudinally, blackish brown. Punctation except for dorsal rows moderately coarse, scarce, more dense near basal and lateral edges, punctures of dorsal rows fine, scarce; at most three punctures side by side in basal part and two in apical part of rows. Dorsal rows not impressed, but slightly enlarged and deepened at their basis. Pubescence thin, scarce, directed obliquely latero-basad. Micropunctation very fine and scarce.

Elytra light red, area around scutellum slightly and indistinctly darkened. Punctation shallow, fine, scarce, largely transformed into rasp-like granulation. Elytral pubescence directed posteriad at sides, obliquely backwards at an angle of less than 45° on inner basal parts and greater than 45° on inner apical parts. Micropunctures absent.

Abdomen subcylindrical, slightly depressed dorsally and slightly tapered apically, blackish brown, slightly brightened apically. Basal impressions moderately shallow on tergum III, deep on tergum IV, and moderately deep on tergum V. Abdominal punctation moderately fine (fine on tergum VII), moderately dense to dense at bases of terga and scarce at their apical parts. Punctures round to suborbicular, slightly longitudinally elongate on middle terga. Microsculpture absent, male tergum VIII rounded-off apically.

Antennae moderately slender, moderately short, dark reddish brown. Legs dark reddish brown, with bright reddish brown tarsi.

Morphometric data: WHP: 0.62 (N = 1); WPE: 0.92 (N = 1); PLW: 0.79 (N = 1); LPE: 1.41 (N = 1); 8AWL: 1.80 (N = 1).

Body size: L: 5.16 mm (N = 1); LWA: 2.03 mm (N = 1).

Aedeagus (Fig. 9): venter of median lobe slightly curved, very slightly bisinuate, its tip rather rounded-off than pointed, very slightly reflexed ventrad. Sclerites present: X, Y, Z. Sclerite Z large, apically produced into a long, slightly curved tip which surpasses the tip of median lobe and reflexed ventrad at its apex. Extent and structure of basal part of sclerite Z could not be clearly defined. Sclerite Y large, claviform, sclerite X thin, stick-shaped. Flagellum once coiled in the moderately large bulbous. Angle between ventral projection of aedeagal median lobe (which is located at base of bulbous bearing the external carina) and bulbous is about 90°.

Spermatheca: unknown.

Differential diagnosis: *Aleochara ashei* can be distinguished from *A. bimaculata* by its elytral coloration, distinctly finer and scarcer punctation on pronotum, elytra and abdomen, and by a less thickened tip of the aedeagal median lobe. All the following species lack besides of the listed characteristics a coiled aedeagal flagellum and, except for *A. notula* and *A. bilineata*, an aedeagal sclerite X. *Aleochara notula* has mostly dark elytra with bright terminal spot; the same is true for *A. verna* which has also a different elytral punctation. *Aleochara suffusa* is smaller and more slender, and the elytral pubescence is nearly completely directed posteriad. *Aleochara bilineata* and *A. composita* can be distinguished from *A. ashei* by dark elytra and by their different elytral punctation. *Aleochara densissima* has a more dense and conspicuous pubescence of the forebody and more densely punctate elytra. *Aleochara sulcicollis* is easily distinguishable from *A. ashei* by much coarser and denser elytral punctation, strongly impressed pronotal dorsal rows and emarginate posterior outer angles of the elytra.

Phylogenetic relationships: due to the coiled flagellum and the presence of three types of aedeagal sclerites, *A. ashei* clearly belongs to the group of *A. signaticollis*, *A. bimaculata*, *A. peschkeana*, *A. pycnostichia*, *A. mutare*, and *A. solieri* as defined by MAUS & ASHE (1998). Since some new species have been added to this group within the last few years, a careful re-examination of phylogenetic relationships within this group is necessary.

Remark: the existence of a formerly unknown *Coprochara* species in a relatively well investigated country like USA is noteworthy, especially since *A. ashei* is a conspicuous species among *Coprochara*. It is unlikely that it has previously been overlooked due to confusion with other *Coprochara* species. There may be, however, a superficial similarity to certain specimens of *A. suffusa* with bright-colored elytra, but *A. ashei* can easily be distinguished from this species by the characteristics given above.

Distribution: known only from the type locality.

Bionomics: unknown except for the collection date in August.

Derivatio nominis: dedicated to Dr. J.S. Ashe (SEM), honoring his taxonomic work on Aleocharinae.

Aleochara (Coprochara) pycnostichia sp.n.

TYPE LOCALITY: Quebrada Verde near Lima (Prov. Lima), Peru.

TYPE MATERIAL: Holotype (♂): "Peru: Quebrada / Verde bei Lima / 100 m / Dr. Weyrauch", "*Aleochara* / (*Coprochara*) / spec.", "FC 302 / Quebrada Verde / bei Lima. Peru / 100 m. leg. P. Aguilar", "♂", "ex coll. / Scheerpeltz", "..." (green, unlettered label), "*Aleochara* (*Coprochara*) / *pycnostichia* / Maus, 2000 / HOLOTYPE" (coll. Scheerpeltz: NMW).

Description: Head slightly transversely oval, blackish brown. Punctures of head coarse, moderately dense; longitudinal midline nearly impunctate. Pubescence bright, coarse, bristle-like, erect, directed forward laterally, inward centrally, and toward anterior margins frontally. Micropunctures distinct, very coarse, dense.

Pronotum broadly oval, truncate anteriorly, distinctly convex transversely, slightly convex longitudinally, blackish brown. Punctures except for dorsal rows very coarse to moderately coarse, moderately dense, irregularly arranged, on areas next to dorsal rows slightly less densely than on remaining parts (except for basis of pronotum). Punctures of dorsal rows coarse, dense to very dense. In basal part of pronotum, at most four punctures side by side, and in apical part three. Dorsal rows slightly impressed, at basis slightly deepened and enlarged. Pronotal

pubescence short, bright, coarse, erect, bristle-like, directed obliquely latero-basad. Micropunctures distinct, very coarse, dense to moderately dense.

Elytra yellowish, very basal part blackish brown, sides and area around basal 3/4 of suture very diffusely darkened and brown. Punctures dense, very shallow, moderately fine, largely blurred and transformed into moderately dense, rasp-like granulations, slightly wrinkled transversely. Elytral pubescence bright, coarse, erect, bristle-like, directed posteriad laterally; on remaining parts of elytra, pubescence missing due to abrasion in holotype. There is a distinct microreticulation on the elytra.

Abdomen subcylindrical, slightly depressed dorsally and very slightly tapering apically, blackish brown, apical 1/2 to 1/3 of the terga dark brown. Basal impressions moderately shallow on tergum III, moderately deep on tergum IV, and moderately shallow on tergum V. Abdominal punctures fine, scarce to very scarce except for the basal parts of tergum IV to VI where punctuation is moderately scarce. Punctures round or suborbicular, partially transformed into rasp-like granulations on tergum VII and on apical parts of remaining terga. There is a very fine micropunctuation, mainly on apical and subapical terga. Male tergum VIII not produced apically.

Antennae reddish brown, short, stout, slightly thickened apically. Legs brightly reddish brown.

Morphometric data: WHP: 0.71 (N = 1); WPE: 0.87 (N = 1); PLW: 0.83 (N = 1); LPE: 1.63 (N = 1); 8AWL: 2.22 (N = 1).

Body size: L: 5.32 mm (N = 1); LWA: 2.03 mm (N = 1).

Aedeagus (Fig. 10): venter of median lobe nearly straight, very slightly bisinuate, tip slightly thickened, nearly rounded-off, not reflexed ventrad. Sclerites present: X, Y, Z. Sclerite Z large, apically produced into a long, nearly straight tip extending above tip of median lobe and slightly reflexed ventrad at its apex. Extent and structure of basal part of sclerite Z could not be clearly defined. Sclerite Y relatively narrow, elongately claviform. Sclerite X thin, stick-shaped. Flagellum long, two times coiled in the large bulbus. Angle between ventral projection of aedeagal median lobe (located at base of bulbus bearing the external carina) and bulbus smaller than 90°.

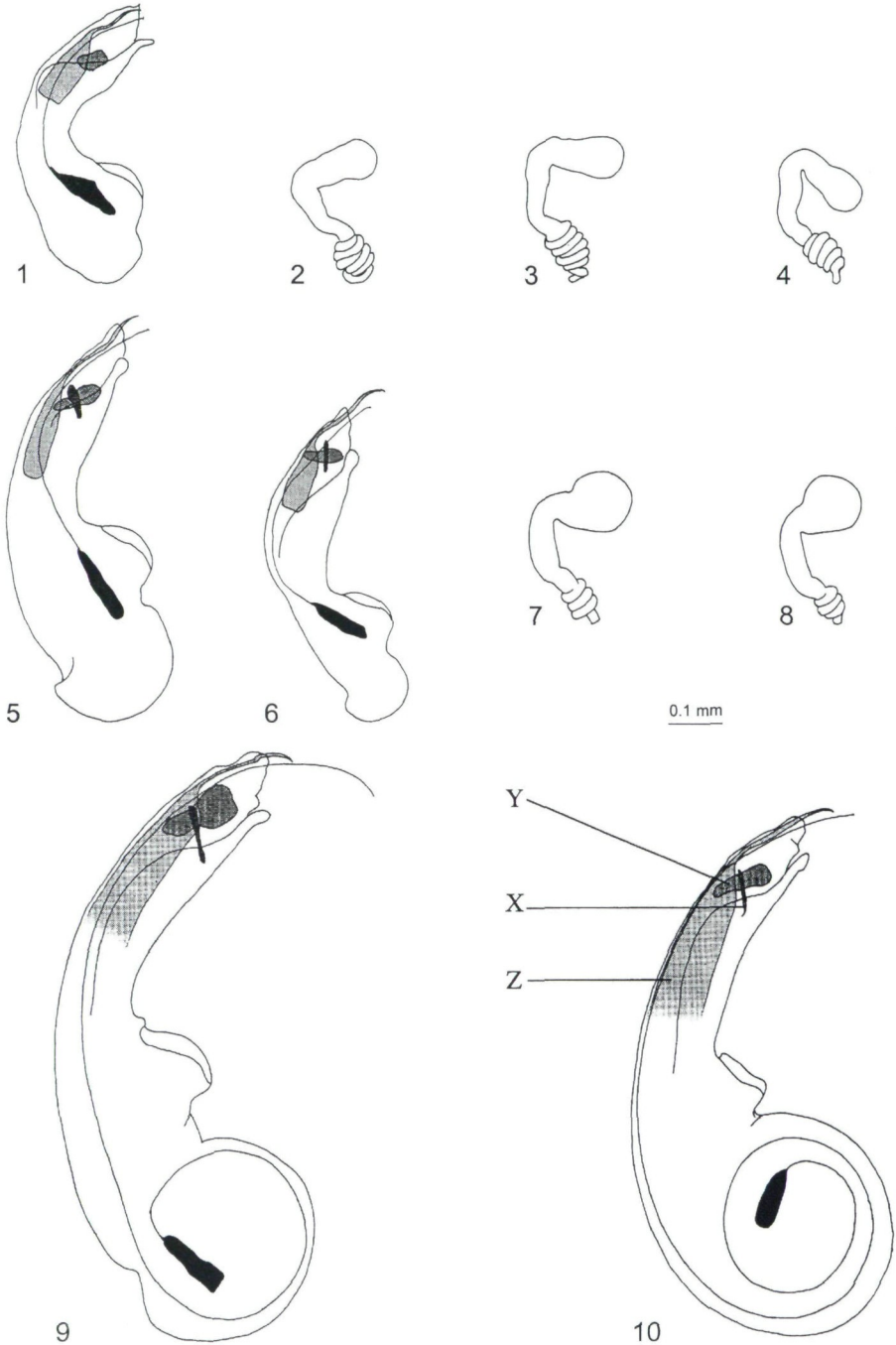
Spermatheca unknown.

Differential diagnosis: *Aleochara pycnostichia* can be distinguished from *A. bimaculata* by its much finer elytral and abdominal punctuation and by coarser punctuation of the pronotal dorsal rows. *Aleochara peschkeana*, *A. verna* and *A. composita* all have much finer punctures in the pronotal dorsal rows and a different kind of elytral punctuation. In *A. notula* and *A. signaticollis*, punctures of pronotal dorsal rows are also much finer, abdominal punctures more dense, and aedeagal flagellum only once coiled (*A. signaticollis*) or not coiled at all (*A. notula*). *Aleochara densissima* and *A. trachynoptera* can be distinguished from *A. pycnostichia* by finer punctures of pronotal dorsal rows and by only two types of aedeagal sclerites and an aedeagal flagellum which is not coiled. *Aleochara sulcicollis* has a much coarser elytral punctuation and emarginate outer apical angles of elytra. *Aleochara mutare* and *A. solieri* have less extensive pronotal dorsal rows, much denser and coarser elytral and abdominal punctuation, and the aedeagal flagellum less strongly coiled.

Phylogenetic relationships: *Aleochara pycnostichia* belongs to the same group as *A. ashei* (see above for discussion of phylogenetic relationships).

Remark: *Aleochara pycnostichia* superficially resembles small specimens of *A. mutare* and *A. solieri* and may be misidentified in collections under these names.

Distribution: known only from the type locality.



Figs 1 – 10: Genitalia of *Aleochara* (*Coprochara*) spp.: 1) *A. schuelkei*, aedeagal median lobe. 2-4) *A. schuelkei*, spermatheca. 5-6) *A. trachynoptera*, aedeagal median lobe. 7-8) *A. trachynoptera*, spermatheca. 9) *A. ashei*, aedeagal median lobe. 10) *A. pycnostichia*, aedeagal median lobe. Location of the sclerites X, Y, and Z is indicated in Fig. 10.

Bionomics: unknown except for the altitude of the type locality which is 100 m.

Derivatio nominis: πυκνος (dense), and στιχος (row), referring to the densely punctate dorsal rows of pronotum.

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