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Taxonomical contributions to the subgenus *Coprochara* MULSANT & REY, 1874 of the genus *Aleochara* GRAVENHORST, 1802 (Coleoptera: Staphylinidae)

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Abstract

The subgenus *Skenochara* BERNHAUER & SCHEERPELTZ of the genus *Aleochara* GRAVENHORST (Coleoptera: Staphylinidae) is synonymized with the subgenus *Coprochara* MULSANT & REY. *Aleochara cedari* LIKOVSKY, *A. minuta* (CASEY), *A. pumilio* (CASEY), *A. tanumi* LIKOVSKY, *A. tecumsehi* MUONA, and *A. tolerata* (CASEY) are recognized as junior synonyms of *A. verna* SAY. *Aleochara binotata mongolica* LIKOVSKY is synonymized with *A. binotata* KRAATZ. Lectotypes of *A. alpicola* HEER, *A. binotata*, *A. composita* (CASEY), *A. freyi* BERNHAUER, *A. fucicola* (SAHLBERG), *A. incrassata* (THOMSON), *A. pumilio*, and *A. tolerata* are designated. *Aleochara lindbergi* LIKOVSKY, *A. freyi*, *A. pamirensis* KIRSCHENBLATT, and *A. composita* are redescribed. The status of *A. brundini* BERNHAUER as a species proprius is confirmed, and additional characteristics to distinguish this species from *A. suffusa* (CASEY) are given. The distributions of *A. bipustulata* LINNAEUS and *A. verna* in the Palaearctic Region are clarified and characteristics that distinguish the two species are given. *Aleochara lineatocollis* BERNHAUER is recorded from the Arabian Peninsula for the first time. *Aleochara srivijaya* PACE, *A. banghaasi* BERNHAUER, *A. speculifera* ERICHSON, *A. actae* OLLIFF, *A. punctum* FAUVEL, *A. bisulcata* (REDTENBACHER), *A. blackburni* BERNHAUER & SCHEERPELTZ, *A. occidentalis* BLACKBURN, and *A. pelagi* BLACKBURN are excluded from *Coprochara*. A world catalogue of the *Coprochara* species, including synonyms is presented.

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

Introduction

The subgenus *Coprochara* MULSANT & REY, 1874 of the genus *Aleochara* GRAVENHORST, 1802 has always been judged a difficult group. This is due to the ectoskeletal similarity of the species belonging here, the extraordinary intraspecific variability, and the wrongly assumed uniformity of their male genitalia. Because of these problems, even in Central Europe, which is coleopterologically very well investigated, an accurate species list was only presented eleven years ago by LOHSE (1986). WELCH (1997) provided the most current revision of European *Aleochara* species, dealing also with *Coprochara*. Recently, excellent monographs of the North American and the South African species were compiled by KLIMASZEWSKI (1984) and KLIMASZEWSKI & JANSEN (1994). For other regions, no current monographic works exist.

Although our knowledge about the taxonomy of *Coprochara* has increased substantially over the last years, in particular through the papers cited above, several problems have remained unsolved. Some of these questions are treated in this study.

Following the taxonomic considerations, a world catalogue of the *Coprochara* species is presented which is based on my own investigations and on the literature.

Clarifying the taxonomy of this subgenus is also interesting with regard to its economic importance. The potential of some *Coprochara* species as effective predators and parasitoids of noxious root maggots (especially *Delia* spp. (Diptera: Anthomyiidae)) was recognized long ago

(e.g. SLINGERLAND 1894). Since then, numerous papers have dealt with these species (in particular *A. bilineata* GYLLENHAL, 1810, *A. bipustulata* (LINNAEUS, 1761), and *A. verna* SAY, 1836) and their role as effective biological control agents (compiled by MAUS & al., in print). Recently, the spectrum of species screened for potential use as natural enemies of fly pest species has been widened (e.g. JONASSON 1994a, b, JONASSON & al. 1996, WRIGHT & al. 1989, WRIGHT & MÜLLER 1989). It would certainly be very promising to investigate further species for possible economic importance, but such projects should be based on sufficient taxonomic knowledge of this group.

Material and Methods

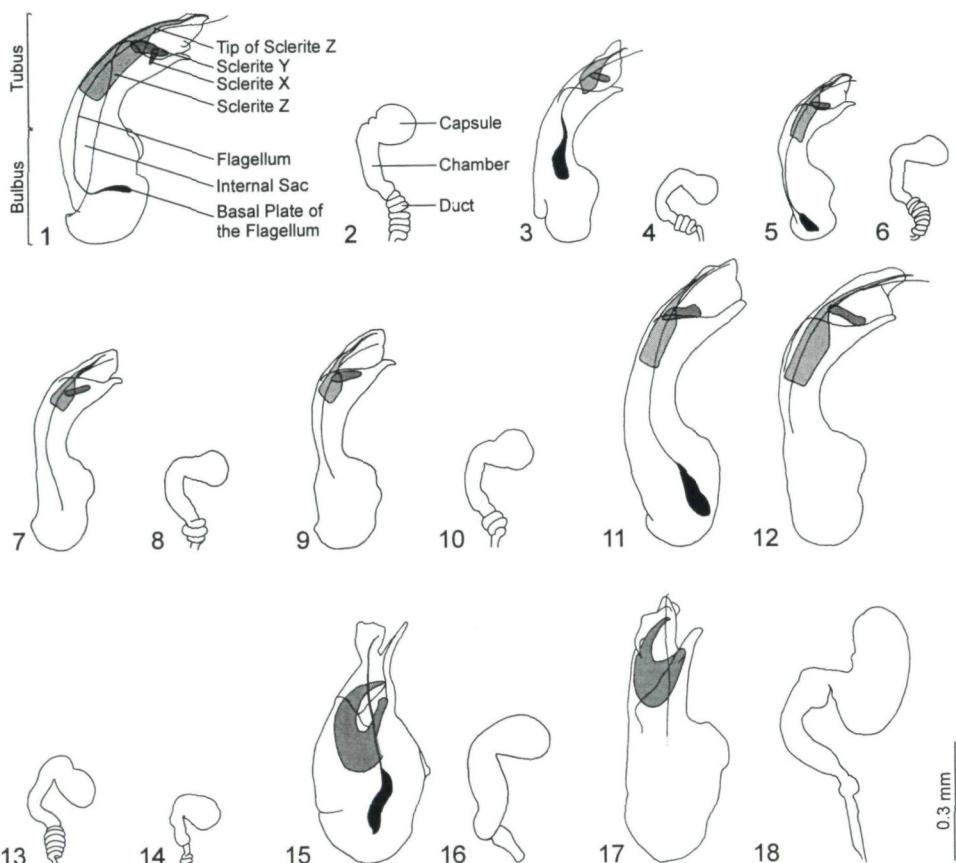
A positive identification of most *Coprochara* species is still difficult. In any case of doubt, the genitalia should be examined. Some species can only be identified by studying the aedeagus or the spermatheca. In males, the shape and order of the internal sclerites of the aedeagal median lobe are particularly important (rather than the shape of the median lobe, which is variable in many cases); in females, the number of turns and the shape of the spermathecal duct (the general shape of the spermatheca, especially the shape of capsule and chamber, is variable within certain limits) are important. It should be noted here that the term "duct" is used in the taxonomic literature with another meaning than in papers on morphology (e.g. GACK & PESCHKE 1994), where it refers to the weakly sclerotized part that joins the spermatheca to the genital chamber. In contrast, here this term characterizes the terminal, sclerotized section of the spermatheca; the following part, i.e. the "duct" of the morphologists is here called "channel". Terminology of the sections of aedeagus and spermatheca and of the aedeagal internal sclerites follows KLIMASZEWSKI (1984), who was the first to recognize the value of the latter structures for species identification in *Coprochara*. For a schematic illustration of an aedeagal median lobe and a spermatheca of a *Coprochara* species see figs. 1 and 2. In the illustrations of the aedeagal median lobes, the entire flagellum could not be depicted in all cases due to strong sclerotization of the aedeagus and poor transparency of some preparations. In these cases, the basal plate of the flagellum is not included in the figure.

In some species the elytral (and sometimes also the abdominal) punctures are more or less conspicuously modified: the front edges of the single punctures are produced backwards into a small, pointed tip, so that the punctated area resembles a rasp. This kind of punctuation is called here "rasp-like".

Where type specimens were investigated, the text of their labels is given; a backslash (\) separates data from different labels.

Beetles from the following institutions were examined:

Australian National Insect Collection, Canberra (ANIC), Deutsches Entomologisches Institut, Eberswalde (DEI), Eidgenössische Technische Hochschule Zürich (ETHZ), Field Museum of Natural History, Chicago (FMC), Hungarian Natural History Museum, Budapest (HNHM), Museo civico di Storia Naturale, Verona (MCV), Museum Alexander König, Bonn (MKB), Museum für Naturkunde, Freiburg i.Br. (MNF), Museum für Naturkunde der Humboldt-Universität, Berlin (HUB), Museum of Zoology of the Lund University (ZML), The Natural History Museum, London (BML), Naturhistorisches Museum Wien (NMW), Forschungsinstitut Senckenberg, Frankfurt a.M. (FSF), Smithsonian Institution, National Museum of Natural History, Washington (SIW), Staatliches Museum für Naturkunde, Karlsruhe (SMNK), Staatliches Museum für Naturkunde, Stuttgart (MNS), St. Petersburg State University (SPSU), Swedish University of Agricultural Sciences, Alnarp (SUAS), Tiroler Landesmuseum Ferdinandeaum, Innsbruck (TLFI), Zoologisches Institut der Universität Freiburg (ZIF), Zoological Museum of the University of Helsingfors (ZMH).



Figs. 1 - 10: 1) *Aleochara (Coprochara)* sp., median lobe of the aedeagus, 2) *A. (C.)* sp., spermatheca, 3) *A. bipustulata*, median lobe, 4) *A. bipustulata*, spermatheca, 5) *A. verna*, median lobe, 6) *A. verna*, spermatheca, 7) *A. lindbergi*, median lobe, 8) *A. lindbergi*, spermatheca, 9) *A. freyi*, median lobe, 10) *A. freyi*, spermatheca, 11) *Aleochara reinigi*, median lobe, 12) *A. pamirensis*, median lobe, 13) *A. composita*, spermatheca, 14) *A. banghaasi*, spermatheca, 15) *A. speculifera*, median lobe, 16) *A. speculifera*, spermatheca, 17) *A. actae*, median lobe, 18) *A. punctum*, spermatheca.

Abbreviations

WHP = width head : width pronotum; WPE = width pronotum : width elytrae; PLW = length pronotum : width pronotum; LPE = length pronotum : length elytrae; 8AWL = width 8th antennal segment : length 8th antennal segment; L = body length; LWA = body length without abdomen (measured from labrum to sutural elytral angle).

Results and Discussion

Coprochara MULSANT & REY, 1874

Coprochara MULSANT & REY, 1874: 430.

Skenochara BERNHAUER & SCHEERPELTZ, 1926: 795; *syn.n.*

Characteristics: *Coprochara* is a monophyletic group that is characterized mainly by the following features, which must be considered to be autapomorphies: 1) Two longitudinal, parallel or subparallel rows of punctures on the pronotum, with a glabrous interspace along the pronotal midline. 2) The coiled duct of the female spermatheca; the coils are turned closely around a virtual longitudinal axis (which is sometimes curved). The number of coils can amount from one up to over one hundred. In two species lacking coils (*A. sublaevipennis* FAUVEL, 1907 and *A. granulicauda* CAMERON, 1935) they were probably secondarily reduced (Maus, unpublished data). 3) Median lobe of the male aedeagus with three or five characteristically arranged sclerites, which can be assigned to two or three different types, respectively. A further important feature of the subgenus *Coprochara* is the carinate mesosternum, which is a synapomorphy that *Coprochara* shares with some other subgenera (KLIMASZEWSKI 1984).

Synonymy: The monotypic subgenus *Skenochara* was based on the Japanese *A. squalithorax* SHARP, 1888, which is characterized by the coarse microsculpture of the head, pronotum and elytra. As a consequence of this coarse microsculpture the forebody is completely dull, and the dorsal rows of the pronotum are indistinct. A female specimen (Honshu: Kii: Yuzaki, VI. 1933, leg. Lewis, BML) was examined. A careful examination showed that the dorsal rows are indeed present on the pronotum, although they are inconspicuous due to the microsculpture. Furthermore the spermathecal duct is strongly coiled in this species, and its mesosternum is completely carinate (a comprehensive description of *A. squalithorax* is given by ASSING 1995).

Thus, *A. squalithorax* shows all apomorphies of the subgenus *Coprochara*. Since the spermathecal duct is strongly coiled in this species, *A. squalithorax* is probably highly derived within *Coprochara*. Consequently, *Skenochara* must be classified as a synonym of *Coprochara*, since the exclusion of *A. squalithorax* would make the remaining *Coprochara* species a paraphyletic group.

Aleochara (Coprochara) bipustulata (LINNAEUS, 1761)

Staphylinus bipustulatus LINNAEUS, 1761: 232.

MATERIAL EXAMINED (in order to limit the extent of this list, only location and collection are listed here): Norway: Ostfold: Fredrikstad (HUB). Finland: Helsingfors: Seurasari (ZIF). Denmark: without exact location (NMW). Great Britain: Scilly Islands: Tresco (BML). Hampshire: New Forest (BML). London: Dagenham (BML). Essex: Wrabness, St Lawrence, Northeby (BML). Dorset: Poole (BML). Suffolk: Lakenheath (BML). Isle of Sheppey (BML). Isle of Wright: Chale (BML). Scotland: Nethy Bridge (BML). France: Artois: le Crotoy (MKB). Seine et Oise: Mezy (MNS). Savoie: Col. Chatelard, (HUB). Corse (HUB). Hautes Pyrenees: Gedre (coll. Zerche, DEI). Eastern Pyrenees: Plat de Guilhem (HUB). Netherlands: Valkenburg W Maastricht (MKB). Germany: MecklenburgVorpommern: Groß-Stresow, Waren, Beckerwitz (HUB), Saßnitz (FSF). Brandenburg, Luckenwalde, Lindenberge, Brodowin (FSF), Schönenfließ, Kaulsdorf Süd (HUB). Sachsen: Eibenstock, Mittweida, Frohburg, Connewitz nr. Leipzig (HUB). Sachsen-Anhalt: Bad Kösen (HUB). Thüringen: Nordhausen, Kelbra (HÜB), Buchfart nr. Weimar (FSF). Holstein: Kiel (MNS), Lübeck (HUB). Niedersachsen: Frisian Islands: Spiekeroog (coll. Maus), Eschede nr. Celle, Hardegsen nr. Göttingen (ZIF). Bayern: Arschkerbe nr. Bayreuth, Peutenhausen (MNS), Aschaffenburg (FSF), Würzburg (ZIF). Hessen: Frankfurt a.M (NMW), Schwanheim, Kelsterbach, Taunus, Neuenhain, Darmstadt (FSF). Rheinland-Pfalz: Mainz (MNS), Budenheim (FSF), Donnersberg, Marienthal, Iggelbach, Landau (FSF), Ingelheim (ZIF). Baden-Württemberg: Fichtenberg nr. Schwäbisch Hall, Karlsruhe, Ihringen, Achkarren, Wasenweiler, Buchenbach E. Freiburg, Singen, Überlingen, Neureuth (ZIF), Bad Cannstatt (MNS), Rüppurr nr. Karlsruhe, Ettlingen, Untergrombach, Feldberg (SMNK), Vogtsburg, Tiengen SW Freiburg (coll. Maus), Badenweiler (MNF). Switzerland: Bern: Kippel (NMW). Austria: Niederösterreich: Raxalpe (NMW), Perchtoldsdorf (FSF), Purkersdorf (ZIF). Burgenland: Illmitz (ZIF). Kärnten: Gartnerkofel (coll. Zerche, DEI), Obir (NMW), Koralpe (FSF). Steiermark: Hochschwab (coll. Kapp). Tirol: Kitzbühel (NMW). Spain: Castilia: Albaracin (HUB). Extremadura: Trujillo (ZIF). Tierra de Campos: Palencia (ZIF). Andalusia: San Pedro (MNS), Marbella (FSF). Estartit (MNS). Gibraltar (BML). Canary Islands: Gran Canaria (NMW, HUB), Tenerife (HUB), La Palma (HUB). Italy: Valle d' Aosta: Courmayeur (FSF). Piemonte: Mt. Guglielmo (NMW). Lombardia: Val Seriana NW. Bergamo (FSF). Trentino-Alto Adige: Bolzano, Rovereto, Vallarsa SE. Rovereto (FSF), Monte Baldo (HUB), Monte Pari NW. Riva (NMW). Veneto: Bosco del Cansiglio SE. Belluno (FSF). Elba (HUB). Abruzzi: Monte Greco (HUB). Campania: Pioppi nr. Salerno (HUB). Sicilia: Etna, Alcantara shore (HUB). Poland: Tatra: Morskoe oko (HUB). Szczecin (NMW). Opole: Nysa (FSF). Slovakia: Tatra: Zelené pleso, Podspady nr. Zdiar, Vysoké Tatry, Strbske

Pleso (HUB). **Hungary:** Borsod-Abauj-Zemplen: Agteleki. Somogy: Siofak (HNHM). **Croatia:** Stirovaca (HUB). **Bosnia:** Bjelasnica Mt. nr Sarajevo (DEI, HUB). **Macedonia:** Galicia, Pelisteri Mt. nr. Bitola (NMW), Radusike (HUB). **Romania:** Bihar Mountains: Cucurbeta (NMW). **Bulgaria:** Rila Mts.: "Seven Lakes" (HUB). Stara Planina. Blagoevgrad: Pirin (HUB). Burgas: Micurin, Vlas nr. Nessebar (HUB). **Albania:** Lurja E. Kurbneshi (DEI). **Greece:** Thessalia: Karia (ZIF). Macedonia: Paliouri (coll. Maus). Ionian Islands: Corfu (BML). Crete: Kakopetros, Mesa Potami (ZIF), Sitia (HUB). Dodekanes: Karpathos (HUB). Cyklades: Santorin, (MNS), Pholegandros (HUB), Tinos (ZIF). **Latvia:** Liepaja (HUB). **Russia:** Abchasia: Avadchara (HUB). Dagestan: Kurush (MNS). **Morocco:** Meknes: Ifrane. Khenifra: Jebel Ayachi (BML). **Algeria:** Oujda: Berguent (NMW). **Cyprus:** St. Hilarion (NMW). **Turkey:** Istanbul: Alem Dag (HUB). Kocaeli: Sapanca (HUB), Gök Dag S. Izmit (HUB). Izmir: "Swediköl" (HUB). Cilicia: Bulghar Maaden (FSF). Malatya: Sürgü (ZIF). **Lebanon:** Brummana E. Beirut (NMW). **Iran:** Elburs Mts.: Kendevan Pass (NMW). Luristan (FSF). **Georgia:** Tibliskoje osero, Manglis (coll. Zerche, DEI). **Turkmenistan:** without exact location (ZIF). **Kazakhstan:** Ala Tau Mts. S. Alma-Ata (HUB). "Gr. Tchimgan" N. Tashkent (coll. Zerche, DEI). **Uzbekistan:** Buchara (HUB). **Tajikistan:** Dushanbe, Hissar Mts. N. Dushanbe, Tchitshantan (HUB). **Kyrgyzstan:** Tienshan: Ala Artcha, Tchatkalski: Chrebet Tchimgan, Chrebet Chudadid (HUB). Karaunkur Valley SW. Charvak (MNS). **Pakistan:** Hazara Kaghan Valley: Mt. Makra (ZIF). **Afghanistan:** Nuristan: Bashgul Valley (MKB). **India:** Himachal Pradesh: Simla (HUB). Uttar Pradesh: Bodyar nr. Chakrata (BML).

Differential diagnosis: This species is very similar to *A. verna* SAY, 1836 in all ectoskeletal characteristics. Since it is frequently impossible to distinguish these two species by the characteristics given by LOHSE (1986, 1989), additional characteristics are given here:

In *A. bipustulata*, the terminal spot of the elytra is often somewhat larger and more exactly defined than in *A. verna*; in the latter species it is frequently yellowish, in the former usually orange. In *A. bipustulata*, elytral punctures mostly appear to be impressed obliquely from outside-behind, so that they are asymmetrical, crescent-shaped; in *A. verna* they are circular or subcircular. In *A. bipustulata*, abdominal punctures are often more oblong than in *A. verna*, in particular on the apical tergites. In the latter, a distinct micropuncture is often present on the apical tergites, in the former rarely. In *A. bipustulata*, the male sternum VIII is almost never produced apically, in *A. verna* it is frequently so. A difference between both species in the punctures of the basal tergites as described by LOHSE (1989) could not be confirmed. Specimens of *A. verna* are often larger than 3.4 mm, in contrast to the assumption of LOHSE (1989).

Despite these differences, specimens of *A. bipustulata* and *A. verna* can in most cases only be distinguished by examination of their aedeagi or spermathecae.

Males differ in the shape of sclerite Z of the median lobe. In *A. bipustulata*, it is shorter and subtriangular, and its apical tip is shorter and straight or nearly straight; in *A. verna* it is longer and subrectangular, and its apical tip is strongly produced and markedly curved. In addition, the tip of the median lobe is reflexed ventrally more sharply in *A. bipustulata* than in *A. verna* (figs. 3, 5). There is no fundamental difference in the curvature of the venter of the median lobe, as presumed in the drawings by LOHSE (1986, 1989).

Females can easily be distinguished by the number of turns of the spermathecal duct (1 - 5 in *A. bipustulata*, 6 - 19 in *A. verna*); additionally, the spermathecal capsule is subsphaerical in *A. bipustulata*, and usually more slender in *A. verna* (figs. 4, 6).

Distribution: Since European authors did not discriminate between the true *A. verna* and *A. bipustulata* before LOHSE (1986), all older records of *A. bipustulata* have to be considered as doubtful. Therefore, the Palaearctic distribution of both *A. bipustulata* was unclear. An examination of 335 specimens showed that this species is distributed throughout the Palaearctic Region; moreover it occurs in Northern India. Occurrence of *A. bipustulata* in the Nearctic Region and in the Ethiopian Region could not be confirmed so far.

Aleochara (Coprochara) lindbergi LIKOVSKY, 1963

Aleochara lindbergi LIKOVSKY, 1963: 49.

TYPE SPECIMENS EXAMINED: Holotypus: ♂ (ZMH) "Mad. Sierra d'Agua 16.-19.7.1957 Lindberg \ Holotypus \ Holotypus Aleochara lindbergi m. Zb. Likovsky det. 4". Paratypes: 1 ♂ (ZMH): "Mad. Pico Ruivo 27.-29.6.1957

Lindberg \ Paratypus \ Paratypus Aleochara lindbergi m. Zb. Likovsky det.", 1 ♀ (ZMH): "Madeira Rosario 2.7.1957 Lindberg \ Paratypus \ Paratypus Aleochara lindbergi m. Zb. Likovsky det.", 1 ♀ (ZMH): "Madeira Queimadas 14.-16.5.1959 Lindberg \ Paratypus \ Paratypus Aleochara lindbergi m. Zb. Likovsky det.", 1 ♀ (ZMH): "Mad. Queimadas 24.-26.6.1957 Lindberg \ Paratypus \ Paratypus Aleochara lindbergi m. Zb. Likovsky det.", 1 ♀ (ZMH): "Mad. Ribeiro Frio 15.6.1957 Lindberg \ Paratypus \ Paratypus Aleochara lindbergi m. Zb. Likovsky det."

FURTHER MATERIAL EXAMINED: 4 exs., Madeira, coll. Wollaston (BML). 1 ex., Madeira, coll. Sharp (BML). 1 ex., Madeira: Ribeiro Frio, leg. Stora (ZMH). 1 ex., Madeira: Ribeiro do Poco, IX. 1988, leg. Erber (coll. Erber). 1 ex., Madeira: Faja de Nogueira, IX. 1988, leg. Erber (coll. Erber). 1 ex., Madeira: Ribeiro da Cal, IX. 1992, leg. Erber (coll. Erber). 1 ex., Madeira: Paul da Serra: Estanquinhos, IX. 1992, leg. Erber (coll. Erber).

Redescription: Body shape fusiform to subfusiform, slightly depressed to subdepressed.

Head orbicular, rarely suborbicular, black to blackish brown. Punctures moderately coarse to moderately fine, with an impunctate strip along the midline. Pubescence directed forward on lateral areas, medially in central regions, and anteriorly in frontal regions. Micropunctures distinct to extremely fine.

Pronotum transversely oval, rarely more slender or slightly conical, in general relatively strongly convex transversely. Punctures except in the dorsal rows coarse to very fine (different puncture sizes occur within the same individual), scarce to very scarce, irregularly distributed, and somewhat more dense in areas adjoining basis and side edges. Punctures of dorsal rows fine to slightly coarse, dense to scarce; rows not or only weakly impressed, but sometimes slightly enlarged and impressed at their base, where the punctures are often somewhat indistinct and blurred. In the apical part of the pronotum, at most two punctures stand side by side in the rows, in the basal part three. Pronotal pubescence directed obliquely backwards. Micropunctures distinct to fine, rarely absent.

Elytra dark brown to black, area around sutural angle and the apical edge lighter to a variable, usually very little extent, the lighter area is very indistinctly defined, in rare cases present as an indistinct terminal spot. Punctures fine to coarse, dense to scarce, impressed obliquely from outside-behind but nevertheless often subcircular, sometimes very slightly wrinkled, rarely very slightly rasp-like. Elytral pubescence directed posteriad at the sides of the elytra, in the basal inner parts obliquely backwards in an angle of less than 45°, in the inner apical parts of more than 45°. Microsculpture absent.

Abdomen depressed to slightly depressed, slightly tapered towards apex, blackish brown to black, apical part of tergites sometimes slightly translucent. Basal impression on tergite III deep to shallow, on tergite IV deep, on tergite V deep to absent. Punctures moderately coarse to moderately fine, moderately scarce to scarce, rarely dense, on apical parts of tergites usually scarce to very scarce, in particular on apical part of tergite VIII, where punctures are also finer. Punctures on the basal parts of the tergites (except tergite III and IV) usually distinctly oblong, otherwise suborbicular. Punctures on apical tergites sometimes slightly rasp-like. In some cases, fine micropunctures present on the apical tergites. Male sternum VIII not apically produced.

Antennae long to moderately long, slender to moderately slender, blackish brown, often lighter basally. Legs blackish brown to reddish brown, tarsi yellowish brown to reddish brown.

Proportions: WHP: 0.67 (0.50 - 0.73), (N = 16); WPE: 0.84 (0.80 - 0.88), (N = 16); PLW: 0.80 (0.76 - 0.91), (N = 16); LPE: 1.34 (1.15 - 1.40), (N = 16); 8AWL: 1.79 (1.46 - 2.00), (N = 16).

Body size: L: 4.41 mm (3.19 - 5.00 mm), (N = 16); LWA: 1.71 mm (1.23 - 1.94 mm), (N = 16).

Aedeagus (fig. 7): venter of median lobe usually slightly curved, its tip distinctly reflexed ventrally in most cases. Sclerites present: Y, Z. Sclerite Z small, subtriangular, its apical tip produced, not or very slightly curved, hardly rising above tip of median lobe. Flagellum very short, not reaching the basis of the bulbus.

Spermatheca (fig. 8): capsule sphaerical or subsphaerical, sometimes slightly impressed in front. Chamber moderately robust, coils of the duct robust, number of turns: 2 (2 - 3); (N = 7).

Differential diagnosis: *Aleochara lindbergi* can be distinguished from *A. freyi* BERNHAUER, 1940 by its dark elytra and the non-rasp-like (or only slightly rasp-like) elytral punctations, from *A. pauxilla* MULSANT & REY, 1874 and *A. binotata* KRAATZ, 1856 by its dark elytra and the weakly impressed pronotal dorsal rows, from *A. bilineata* by its overall smaller body size and by aedeagal and spermathecal characteristics (i.e. shorter produced tip of sclerite Z, lack of sclerite X, and smaller number of turns of the spermathecal duct), and from *A. verna* by a less distinct elytral terminal spot and the shape of the genitalia. *A. lindbergi* is very similar to *A. bipustulata*. It usually differs from this species by the lack of distinct yellow terminal spots of the elytra. In addition, the pronotum of *A. lindbergi* is frequently more convex than that of *A. bipustulata*, and in *A. lindbergi*, the abdominal tergites are often less densely punctated than in *A. bipustulata*. There are no differences in the shapes of the aedeagi or the spermathecae. However, each of the above characteristics lies within the range of variation of *A. bipustulata*. Therefore, based on morphological features, the two species cannot be discriminated with certainty in all cases.

LIKOVSKY (1963) stated *A. lindbergi* to be very similar to *A. bilineata*. However, the resemblance to this species is superficial and due primarily to the mostly dark color of the elytra.

Discussion of specific status: *Aleochara lindbergi* is very closely related to the very similar *A. bipustulata*. Since the diagnostic characteristics of *A. lindbergi* occur in combination in almost all Madeiran specimens, it is very likely that *A. lindbergi* is not just an individual variation of *A. bipustulata*. However, with the data at hand, based on morphological characteristics, it is not possible to decide whether *A. lindbergi* is a species propria or just an endemic race of *A. bipustulata*. If the true *A. bipustulata* was present on Madeira, a classification of *A. lindbergi* as a species propria would be supported. However, in the present study no Madeiran specimens of the former species could be found. At least as long as no further evidence is found that brings its specific status into question, *A. lindbergi* should still be classified as species propria.

Remarks: At least part of the literature records of *A. bipustulata* from Madeira (e.g. WOLLASTON 1857, JANSSON 1940, LUNDBLAD 1958, SERRANO 1987) probably refer to *A. lindbergi*. The same might be true for records of *A. bilineata* (e.g. LUNDBLAD 1958).

Aleochara (Coprochara) verna SAY, 1836

Aleochara verna SAY, 1836: 156.

Baryodma minuta CASEY, 1906: 161, nec GRAVENHORST, 1806; syn.n.

Baryodma tolerata CASEY, 1911: 6; syn.n.

Baryodma pumilio CASEY, 1911: 6, nec GRAVENHORST, 1802; syn.n.

Aleochara tecumsehi MUONA, 1977: 16; syn.n.

Aleochara tanumi LIKOVSKY, 1984: 8; syn.n.

Aleochara cedari LIKOVSKY, 1984: 8; syn.n.

TYPE SPECIMENS EXAMINED OF *B. minuta*: Lectotypus: ♀ (SIW) "Pom Cal Mts I.25.97 \ minuta Cas. \ Type USNM 39671". Paratypes: 1 ♀ (SIW) same label data as lectotype, 2♂♂, 3 ♀♀ (SIW): "Cal \ minuta paratype USNM 39671" The paratype labels are numbered individually with numbers between 3 and 9. 1 ♂ (SIW): "(...)" (illegible, handwritten text) Los Ang. Co Cal \ minuta - 10 Paratype USNM 39671".

TYPE SPECIMEN OF *B. tolerata*: Lectotypus (here designated): ♀ (SIW): "Dunsmuir, Cal. Wickham \ Type USNM 39678 \ tolerata Csy. \ ♀ \ Homotype compared by J. Klimaszewski \ Aleochara tolerata Casey Lectotypus des. Ch. Maus 1996".

TYPE SPECIMEN OF *B. pumilio*: Lectotypus (here designated): ♂ (SIW) "Ia \ Type USNM 39672 \ pumilio Csy. \ Aleochara pumilio Casey Lectotypus des. Ch. Maus 1996".

FURTHER MATERIAL EXAMINED: (in order to limit the extent of this list, only location and collection are listed here)
Great Britain: Hampshire: New Forest (BML). Essex: St. Osyth, Barcombe Mills (BML). Sussex: Rye, Ditchling (BML). Suffolk: Woodton (BML). Isle of Sheppey: Elmey Marshes, Eastchurch (BML). Devon: Lundy (BML).

Kent: Seasalter, Bonnington, Cobham (BML), Grain, Haysden (coll. Owen). Merionitshire: Towyn (coll. Owen). Surrey: Richmond Park (BML, coll. Owen). Dorset: Poole (BML). Berkshire: Walbury, Reading (BML). London (BML). Middlesex: Staines (BML). Wales: Portmadoc (BML). Scotland: Coll, Tarbet (coll. Owen). Holme on Sea (BML). France: Bretagne (FSF). Medoc: Bordeaux (MKB). Corse: St. Giulia (HUB). La Neuville (in France, different places of this name exist) (HUB). Ain: Bugey (NMW). Netherlands: Lippenhuijen (HUB). Germany: Mecklenburg-Vorpommern: Hiddensee (HUB). Berlin (DEI). Thüringen: Zscheiplitz nr. Freyburg, Meuselbach-Schwarzmühle (HUB). Schleswig-Holstein: Beltingharder Koog nr. Husum (coll. Assing). Hamburg (coll. Assing). Niedersachsen: Frisian Islands: Spiekeroog (coll. Maus), Tießau (coll. Assing). Hessen: Frankfurt a.M. (NMW), Schwanheim (FSF). Baden-Württemberg: Stuttgart (MNS). Austria: Burgenland: Ilmitz (ZIF). Niederösterreich: Raxalpe (NMW). Kärnten: Koralpe (FSF). Steiermark: Hochschwab (coll. Kapp). Portugal: Azores (DEI, BML). Madeira: Carnacha (NMW), Porto Santo (coll. Erber). Madeira, without exact location (BML). Spain: Canary Islands: Gran Canaria (NMW), Hierro: Valverde (BML). Canary Islands, without exact location (DEI, BML). Andalusia: Mt. Mulhacen nr. Granada (BML), Sierra Nevada (MKB). Italy: Valle d' Aosta: Courmayeur (FSF). Veneto: Dolomites: Ampezzo (FSF). Liguria: Rapallo (FSF). Elba (HUB, NMW). Puglia: Castellano (coll. Assing). Czech Republic: Praha (MKB). Slovakia: Tatra: Nizke Tatry: Demanovska Dolina, Vel'ka Studena (HUB). Mala Fatra: Chata na Grumi (HUB). Hungary: Csongrad: Szeged (HNHM). "Heves m. Kerecsend" (HNHM). Hortobagy N.P. (HNHM). Dömsöd (HNHM). Györ-Sopron: Fertö (NMW). Croatia: Stirovaca (HUB). Alancic Mt. (HUB). Bosnia: Bjelasnica Mt. nr. Sarajevo (DEI, NMW). Travnik (NMW). Romania: Prahova: Sinaia (HUB). Maramures: Iza Valley (HUB). Bulgaria: Burgas: Micurin (HUB). Rila Mts: "Seven Lakes" (HUB). Greece: Attika: Phaleron (NMW). Ionian Islands: Corfu (NMW). Crete (HUB). Russia: Adygeian area: Lagonakhi SE. Maikop (MNS). Morocco: Marrakech: Agoundis Valley S. Asni (BML). Essaouira (NMW). Dar-Caid-Medböh (NMW). Algeria: Beskra (HUB). Oran: Tlemcen (MKB). Saint Arnaud ESE. Stif (MKB). Libya: Tripolis. Misselfata nr. Tripolis (HUB). Egypt: Sidi Bishr E. Alexandria (HUB). Cairo (FSF). "Makattam Mountains" (possibly a location ca. 100 km SW Alexandria) (NMW). Without exact location (DEI). Turkey: Central Turkey: Tuz Gölü (MNS). Erzincan: Munzur Silsilesi (ZIF). Israel: Khudeira nr. Haifa (NMW). Syria: Ghonta nr. Damaskus (HUB). Sabkhat al Jaboul (coll. Assing). Iran: Elburz Mts: Kendevan Pass (NMW). Georgia: Arachlo nr. Bolnisi (coll. Zerche, DEI). Azerbaijan: Lenkoran (NMW). Turkmenistan: Imam-baba nr. Murgab River (NMW). Kazakhstan: Transilian s. Alma-Ata (HUB). Uzbekistan: Buchara: Karategin (HUB). Tashkent: "Gr. Tchimgan" (coll. Zerche, DEI). Tajikistan: Dushanbe, Hissar Mts. nr. Dushanbe (HUB). Afghanistan: Konarha: Konar Valley: Asmar (MKB). Nuristan: Bashgul Valley (MKB). China: Xinjiang: Polu: Saibak nr. Polu (HUB). Shaanxi: Qin Ling (coll. Schülke). Japan: Honshu: Yokohama: Konsei pass (BML). Nepal: Phulcoki (BML, FSF). India: Kashmir: Gulmarg (BML). Ladakh: Shey, Leh (FSF). Uttar Pradesh: Jadi Gad nr. Chakrata (BML). Himachal Pradesh: Simla Hills: Narkanda (BML).

Distribution: The distribution of *A. verna* in the Palaearctic region was unclear. An examination of 265 Palaearctic specimens of *A. verna* showed that this species is distributed throughout the Palaearctic Region; moreover it occurs in Northern India. Thus, and since the oldest European specimens of *A. verna* investigated in this study are about 150 years old, *A. verna* is not a Nearctic species that was recently introduced into the Palaearctic region, as presumed by KLIMASZEWSKI (pers. comm. after WHITEHEAD 1993).

The occurrence of *A. verna* in the Palaearctic Region was first recognized by LOHSE (1986). For identification of *A. verna* and distinctive characteristics from *A. bipustulata*, see the latter species.

Synonymy: *Aleochara minuta*: This taxon was comprehensively redescribed and a lectotype was designated by KLIMASZEWSKI (1992). The lectotype and nine paralectotypes were examined. *Aleochara minuta* is conspecific with *A. verna*. The distinctive marks given by KLIMASZEWSKI (1992), i.e. shape of pronotum and size of terminal spots of the elytra, do not fall outside the range of variation of *A. verna*. The dorsal rows of the pronotum are characterized by KLIMASZEWSKI (1992) as more weakly impressed in their basal part than in *A. verna*, but they are impressed in some specimens of the *A. minuta* type series in the same way as in typical *A. verna* specimens. Furthermore, certain *A. verna* specimens were examined that have weakly impressed dorsal rows, as described for *A. minuta*. The difference in body size that KLIMASZEWSKI (1992) mentions could not be confirmed in this study. In the redescription, *A. minuta* is characterized as brown, while *A. verna* is black (both except for the elytral terminal spots). The type specimens of *A. minuta* are indeed brown, but this is probably due to postmortal fading of colors (they are almost 100 years old); *A. verna* specimens of similar age are often brown as well. This view is supported by the fact that *A. minuta* is characterized as black in the original description. Finally,

an apically produced male sternum VIII sometimes occurs in *A. verna*, as well as in the type specimens of *A. minuta*. There are no differences in the male or female genitalia.

Aleochara tolerata : A single female of this taxon that was taken at the locus typicus is kept in coll. Casey (SIW). This specimen is designated here as lectotype. It belongs to *A. verna*.

Aleochara pumilio: A single male specimen from the type locality (Cedar Rapids, Iowa/USA), which is here designated as lectotype, is housed in coll. Casey (SIW). An examination of this specimen showed that this taxon is conspecific with *A. verna*.

Aleochara tecumsehi and *A. cedarii*: Both taxa are nomina nova for the preoccupied name *A. pumilio*, so they have to be considered as synonyms of *A. verna*.

Aleochara tanumi: This taxon is a nomen novum for the preoccupied name *A. minuta*. Consequently, it is also a synonym of *A. verna*.

Aleochara (Coprochara) freyi BERNHAUER, 1940

Aleochara Freyi BERNHAUER, 1940: 8.

TYPE SPECIMENS EXAMINED: Lectotypus (here designated): ♀ (FMC) "Azores: Pico, Pico 10.VII. Frey \ blue label without lettering \ 1716 \ Freyi Bernh. Typus Coprochara \ Coprochara Freyi Bernh. Type \ Aleochara freyi Bernh. Lectotypus des. Ch. Maus 1996". Paralectotypes: 1 ♀ (ZMH): "Azores: Pico, Pico 10.VII. Frey 1762 \ Mus. Zool. H.'fors spec. typ. No. 2581 A. (C.) freyi Bernh. \ Aleochara freyi Bernh. Paralectotypus des. Ch. Maus 1996", 1 ♂ (ZMH): "Azores: Pico, Pico 10.VII. Frey \ blue label without lettering \ 1714 \ Mus. Zool. H.'fors spec. typ. No. 2580 A. (C.) freyi Bernh. \ Aleochara freyi Bernh. Type \ Aleochara freyi Bernh. Paralectotypus des. Ch. Maus 1996".

A fourth syntype that is mentioned in the original description, could not be found.

Redescription: Since its description, this endemic Azorean species has been very few published on. In the original description, not all important characteristics have been described, further aedeagus and spermatheca have not been depicted hitherto. Thus, a comprehensive redescription is given here.

Body shape fusiform to subfusiform, slightly depressed to subdepressed.

Head circular, dark reddish-brown to blackish brown. Punctures coarse but shallowly impressed, moderately dense, with an impunctate strip along the midline. Pubescence directed forward on lateral areas, medially in central regions, and anteriorly in frontal regions. Micropunctures fine to distinct.

Pronotum broadly oval, sometimes distinctly convex transversely. Dark brown to dark reddish-brown. Punctures except of dorsal rows coarse and dense in the basal part, moderately coarse and more scarce in the apical part. Punctures of the dorsal rows dense and fine apically, moderately fine and blurred basally. Rows not or weakly impressed apically, slightly, but distinctly impressed and slightly enlarged basally. Apically, at most three punctures stand side by side in the rows, basally five punctures. Interspace between dorsal rows slightly convex, slightly tapered towards base of pronotum. Pronotal pubescence directed obliquely backwards to nearly horizontally from median part towards lateral margins. Micropunctures distinct to fine, often dense.

Elytra light reddish-brown, sides (except the area around the shoulders) and an area around the scutellum diffusely darkened. Punctures moderately coarse, dense, very distinctly obliquely wrinkled, bluntly rasp-like. Elytral pubescence directed obliquely backwards in angle of less than 20°, but up to 45° around the posterior part of the elytral suture. Microsculpture absent.

Abdomen slightly depressed, usually slightly tapered towards the apex. Blackish brown, the posterior margin of tergites, sometimes only of the apical ones, is lighter. Basal impression on tergite III very shallow, on tergite IV shallow to moderately deep, on tergite V very shallow to absent. Punctures moderately coarse and moderately dense, on the posterior part of tergite V-VII

scarce, and on tergite VII or only on its posterior part very fine. On tergite V-VII, the punctures oblong, on tergite VII sometimes only on the anterior part. Punctures often rasp-like, especially on the posterior part of the tergites. Very fine, indistinct micropunctures on the apical tergites. Male sternum VIII not produced apically.

Antennae moderately robust to slender, moderately short to long, dark reddish-brown, segment 1-2 and basal part of segment 3 yellowish red. Legs yellowish red.

Proportions: WHP: 0.68 (0.65 - 0.69); (N = 3); WPE: 0.83 (0.83 - 0.85); (N = 3); PLW: 0.78 (0.77 - 0.78); (N = 3); LPE: 1.36 (1.31 - 1.46); (N = 3); 8AWL: 1.88 (1.75 - 2.00); (N = 3).

Body size: L: 4.16 mm (4.03 - 4.74 mm); (N = 3); LWA: 1.71 mm (1.71- 2.00 mm); (N = 3).

Aedeagus (fig. 9): venter of median lobe slightly curved, its tip distinctly reflexed ventrally. Sclerites present: Y, Z. Sclerite Z relatively small, subtriangular, apical tip long and slightly curved produced, not rising above tip of median lobe. Flagellum reaching basis of bulbus of median lobe.

Spermatheca (fig. 10): capsule subsphaerical, chamber moderately robust, coils of the duct robust. Number of turns: 2 - 4 (N = 2).

Differential diagnosis: *Aleochara freyi* can be distinguished from all other *Coprochara* species occurring on the Atlantic Islands by its color and by the rasp-like punctures of the elytra.

Aleochara (Coprochara) reinigi BERNHAUER, 1930a

Aleochara reinigi BERNHAUER, 1930a: 241.

TYPE SPECIMEN: Holotypus: (FMC) "West-Pamir VII.-X. 28 leg. Reinig \ Jul masar 13.8. 3850 m \ Reinigi Brnh. Typ-unic. don. Reinig".

FURTHER MATERIAL EXAMINED: 14 exs., Mongolia: Uvs aimak: Lake Örög-nuur, VI.-VII. 1968, leg. Kaszab (HMNH). 1 ex., Mongolia: Bajan-Ölgij aimak, Lake Tolbo-nuur, VII. 1968, leg. Kaszab (HMNH).

This species occurs in Tajikistan (locus typicus) and Mongolia. The only illustration of the aedeagus was so far given by LIKOVSKY (1968). Since this illustration does not show all important characteristics, a further illustration and a description of the median lobe is given here.

Description of aedeagal median lobe (fig. 11): venter nearly straight or very slightly curved, tip conspicuously blunt. Sclerites present: Y, Z. Sclerite Z medium-sized, apical tip long and straight produced, rising hardly above tip of median lobe. Basis of flagellum not reflexed, located in basis of bulbus.

Aleochara (Coprochara) brundini BERNHAUER, 1936

Aleochara verna ssp. *Brundini* BERNHAUER, 1936: 58.

TYPE SPECIMENS EXAMINED: Lectotypus: ♂ (FMC) "Lapp. Torn. Abisko L. Brundin \ Brundini Bernh. Typ. \ ssp. Brundini Bernh. Typus verna Say \ Lectotypus Aleochara brundini Bernh. Des. J. Klimaszewski". **Paralectotypes:** 1 ex. (sex?) (FMC) "Lapp. Torn. Abisko L. Brundin \ 127 \ ssp. brundini Bernh. Cotypus", 1 ex. (sex?) (FMC): "Ober Engadin Graubünden v. Bodemeyer \ verna Say Schweiz Bodemeyer \ ssp. Brundini Bernh. Cotypus verna Say", 1 ♂ (BML): "Lapp. Torn. Abisko L. Brundin \ 1935. 161\ 127 \ ssp. Brundini Bernh. Cotypus \ Cotype".

FURTHER MATERIAL EXAMINED: 10 exs., Norway: Troms: Holt, leg. Johansen (SUAS). 3 exs., Norway: Rundhaug, leg. Strand (HUB and coll. Scheerpeltz, NMW). 1 ex., Norway: Kirkestuen, leg. Strand (coll. Scheerpeltz, NMW). 1 ex., Norway: Maalselven: Bjerkeng, VIII. 1936, leg. Strand (coll. Scheerpeltz, NMW). 5 exs., Sweden: Torne: Abisko, VII. 1986, leg. Kahlen (coll. Kahlen). 1 ex., Sweden: Torne: Abisko, leg. Brundin (coll. Bosch, FSF). 2 exs., Finland: Paana Järvi, VII. 1936, leg. Krogerus (coll. Scheerpeltz, NMW). 1 ex., Switzerland: Graubünden: Roseggal, leg. v. Bodemeyer (coll. Scheerpeltz, NMW). 3 exs., Switzerland: Valais: Zinal (coll. Odier, BML). 1 ex., Switzerland: Valais: Arolla, VII. 1907 (coll. Odier, BML). 3 ex., Austria: Osttirol: Frosnitztal, VIII. 1993, leg. Kahlen (coll. Kahlen). 1 ex., Austria: Nordtirol: Ehrwald, VIII. 1992, leg. Maus (coll. Maus). 2 exs., Italy: Veneto: Dolomites: Pralongia, VIII. 1968, leg. v. Peez (TLFI).

Due to the similarity of *A. brundini* to the closely related *A. suffusa* (CASEY, 1906), its specific status has been controversially treated in the literature. In order to clarify this problem, the types of both specimens and of some additional material were investigated.

Differential diagnosis: *Aleochara brundini* can be distinguished from *A. suffusa* by a broader pronotum, slightly coarser punctures of the pronotal dorsal rows, overall lighter elytra which are more densely punctured and whose punctures are more distinctly rasp-like, and by the coarser punctures of the abdomen. In contrast to the description by LOHSE (1986), there are no significant differences in the arrangement of the elytral pubescence. In *A. suffusa*, the elytra are not always uniformly dark, as described by KLIMASZEWSKI (1984) and LOHSE (1986). Furthermore, in *A. brundini* the antennal segments are not always as slender as described by LOHSE (1986, 1989).

Discussion of specific status: *Aleochara brundini* was stated to be a synonym of *A. suffusa* by KLIMASZEWSKI (1984), but LOHSE (1986, 1991) classified it as a species propria again. The latter view was confirmed in this study: both taxa can be readily distinguished by the above characteristics.

Remarks: The Scandinavian specimens of *A. brundini* show no morphological differences in comparision to specimens from the Alps. Therefore there are no indications of the occurrence of subspecies.

Aleochara (Coprochara) binotata KRAATZ, 1856

Aleochara binotata KRAATZ, 1856: 106.

Baryodma incrassata THOMSON, 1860: 255.

Baryodma fucicola SAHLBERG, 1876: 80, nec SHARP, 1874.

Aleochara verna ssp. *mongolica* LIKOVSKY, 1965: 54; syn.n.

TYPE SPECIMENS of *A. binotata*: **Lectotypus** (here designated): ♀ (DEI) "Berol. \ coll. Kraatz \ binotata mihi Germ. \ Syntypus \ Aleochara binotata Kraatz Lectotypus des. Ch. Maus 1996". **Paralectotypes**: 1 ♀ (DEI) "Danzig \ Kamm. \ coll. Kraatz \ Syntypus \ Aleochara binotata Kraatz Paralectotypus des. Ch. Maus 1996", 1 ♀ (DEI): "Berol. \ coll. Kraatz \ Syntypus \ Aleochara binotata Kraatz Paralectotypus des. Ch. Maus 1996 \ Aleochara verna Say det. Ch. Maus 1996".

TYPE SPECIMENS of *B. incrassata*: **Lectotypus** (here designated): ♀ (ZML) "Raby 9/40 \ 160 \ Aleochara incrassata Thoms. Lectotypus des. Ch. Maus 1996". **Paralectotypus**: 1 ♀ (ZML) "(...)" (illegibly lettered label) \ 161 \ Aleochara incrassata Thoms. Paralectotypus des. Ch. Maus 1996".

TYPE SPECIMENS of *B. fucicola*: **Lectotypus** (here designated): ♀ (ZMH) "Soroka \ J. Sahlbg. \ Spec. typ. \ 1550 \ red label without lettering \ Mus. Zool. H: fors Spec. typ. No. 191 Baryodma fucicola J. Sbg. \ Aleochara fucicola Sahlbg. Lectotypus des. Ch. Maus 1996". **Paralectotypus**: 1 ♂ (ZMH) "Kouta \ J. Sahlbg. \ spec. typ. \ red label without lettering \ 609 \ Mus. Zool. H: fors spec. typ. No. 190 Baryodma fucicola J. Sbg. \ Aleochara fucicola Sahlbg. Paralectotypus des. Ch. Maus 1996".

MATERIAL EXAMINED of *A. verna* ssp. *mongolica*: 2 exs., Mongolia: Archangaj aimak: Koschoo zaidam nr. Chogschin-Orchon: Somon Lun, VII. 1964. 7 exs., Mongolia: Suchebaator aimak: Molzog elis s. Somon Darigana, VIII. 1965. 2 ex., Mongolia: Central Gobi: s. Somon Delgerzogt, VI. 1967. 2 exs., Mongolia: Bajan-Ölgij aimak: Lake Tolbo nuur, VII. 1968. 1 ex., Mongolia: Uvs aimak nw. Somon Naranbulag, VII. 1968. 1 ex., Mongolia: Uvs aimak: Lake Chjargas se. Somon Naranbulag, VII. 1968. 1 ex., Mongolia: "Central aimak": se. Somon Bajanzogt, VI. 1966. 1 ex., Mongolia: Chentej aimak: sw. Somon Batnorov, VIII. 1965. 3 exs., Mongolia: Cojbalsan aimak: Chamardavas se. Somon Chalchingol, VIII. 1965. All leg. Kaszab (HMNH).

Type designation and synonymy: *Aleochara binotata*: Three type specimens present in coll. Kraatz (DEI) were examined. All three specimens are females. One of the specimens collected at Berlin belongs to *A. verna*, the others belong to the species that LOHSE (1986, 1989) considered to be *A. binotata*. The true *A. binotata* specimen from Berlin is here designated as lectotype, the other two are paralectotypes.

Aleochara incrassata: This taxon was regarded as a synonym of *A. binotata* by BERNHAUER (1901). Four specimens are housed in coll. Thomson (ZML). They were collected at Raby,

Husie, Lund and Örtofta (all locations in Sweden). Since the two latter locations are not mentioned in the original description, it is doubtful whether the respective specimens are syntypes. All four specimens are small females of *A. binotata*. They all correspond to the original description, except for their pale colors, which are probably due to postmortal fading. The specimen from Raby is designated here as lectotype, the specimen from Husie is a paralectotype.

Aleochara fucicola: This taxon was described from Finland and Russian Lapland. EPPELSHÉIM (1883) proposed the name *A. sahlbergi* as a nomen novum to replace the preoccupied name *A. fucicola*. *Aleochara sahlbergi* was classified as a synonym of *A. binotata* by HELLEN (1939).

Two type specimens of *A. fucicola* are housed in the ZMH. They both belong to *A. binotata*. The female specimen is designated here as lectotype, the male is a paralectotype. Further specimens belonging to the type series, which are mentioned in the original description (collected at Soroka and Hvita), could not be found. The type specimens correspond largely to the original description, except for elytral punctures which are less coarse than stated there. Furthermore the color of the elytra is paler than described by SAHLBERG (1876), a condition which is possibly due to postmortal fading.

Aleochara verna ssp. *mongolica*: I examined 23 specimens of this taxon from HMNH determined by Likovsky. All these specimens belong to the typical *A. binotata*. No fundamental differences between these specimens and individuals from other parts of the distribution range of *A. binotata* could be found. All the characteristics given in the original description lie within the range of variation of the typical *A. binotata*. The coloring of this species is highly variable, and specimens colored in the same way as stated as characteristical for ssp. *mongolica* by LIKOVSKY (1965), also occur in other regions than in Mongolia. The shape of sclerite Y of the male median lobe ("Häkchen des Penisinnensackes") is variable as well. Specimens with more slender, apically narrowed sclerites (see illustration in LIKOVSKY 1968) also occur throughout the distribution area of *A. binotata*, and are not restricted to Central Asia.

Consequently, *A. binotata mongolica* is considered to be a synonym of *A. binotata*, although the types of the former taxon could not be examined.

Aleochara (Coprochara) pamirensis KIRSCHENBLATT, 1951

Aleochara pamirensis KIRSCHENBLATT, 1951: 545.

TYPE SPECIMEN: Holotypus: ♂ (SPSU) "Pamir, s.-v. bereg, oz. Kara-kul Reichardt 10. VII. 28 (in Cyrillic) \ Aleochara pamirensis sp.n. Type Kirshenblat [sic!] det. \ round, golden label without lettering".

Redescription: This taxon is very poorly known; since its description, it has rarely been mentioned in the literature. An investigation of the holotype confirmed its status as a species propria. Since the original description does not mention all important characters of this species, a comprehensive redescription is given here.

Body shape subcylindrical, slightly depressed.

Head subcircular, blackish brown. Punctures coarse and moderately scarce, with an impunctate strip along midline and two very indistinct additional impunctate strips directed from anterior edge of eyes diagonally to middle of head. Pubescence directed forward laterally, towards the midline centrally, and in a star-shaped pattern in all directions in front of the additional diagonal stripes. Micropunctures distinct.

Pronotum blackish brown, subconical with rounded-off angles, transversely distinctly convex. Punctures except dorsal rows coarse and moderately dense, somewhat less dense in an area behind the front edge and lateral to the dorsal rows on each side. Punctures of dorsal rows coarse and dense, at most two punctures stand side by side in the rows apically, and three basally. Rows slightly impressed, their interspace slightly convex. Pronotal pubescence directed obliquely backwards. Micropunctures distinct.

Elytra light reddish-brown, basis and a triangular area around scutellum diffusely darkened. Punctures moderately coarse and moderately dense, impressed obliquely from outside-behind but nevertheless subcircular, shallowly impressed, finer basally and medially than in the apical and outer parts, where they become somewhat diffuse. Elytral pubescence directed backwards at the sides of the elytra, obliquely backwards in an angle of less than 45° basally and more than 45° apically. Microsculpture absent.

Abdomen subcylindrical, slightly depressed, blackish brown. Basal impression on tergite III moderately deep, on tergite IV deep, on tergite V moderately deep, and on tergite VI very shallow. Punctures dense, on the apical tergites moderately coarse, on the basal ones moderately fine. On posterior parts of tergite VI and VII punctures oblong, on the anterior parts of tergite VII and VIII suboblong, on other tergites subcircular. On the apical tergites, especially on their posterior parts, punctures rasp-like. On these tergites, a very fine microsculpture is present. Male sternum VIII apically bluntly and indistinctly produced.

Antennae short, relatively slender, fusiform, dark brown. Legs dark reddish-brown, tarsi yellowish brown.

Proportions: WHP: 0.74; (N = 1); WPE: 0.79; (N = 1); PLW: 0.76; (N = 1); LPE: 1.21; (N = 1); 8AWL: 1.83; (N = 1).

Body size: L: 6.29 mm; (N = 1); LWA: 2.42 mm; (N = 1).

Aedeagus (fig. 12): venter of median lobe nearly straight, its tip hardly reflexed ventrally, almost blunt. Sclerites present: Y, Z. Sclerite Z medium-sized, apical tip long and straight produced, not rising above tip of median lobe. Sclerite Y relatively large.

Differential diagnosis: *Aleochara pamirensis* can be distinguished from *A. bilineata*, which has uniformly dark elytra in most cases, and from *A. bipustulata* and *A. verna*, which usually both have yellow-spotted elytra, by the color of elytra, and also from *A. reinigi*, which has yellow elytra. Specimens of *A. binotata* are usually smaller than *A. pamirensis*.

Aleochara (Coprochara) lineatocollis BERNHAUER, 1930b

Aleochara lineatocollis BERNHAUER, 1930b: 206.

MATERIAL EXAMINED: 1 ex., Yemen: sw. Ma'bar, Birkat Ghel Masnah, III. 1938, leg. Schott & Britton (BML). 1 ex., Yemen: San'a: Bir el Azab, I.I. 1938, leg. Schott & Britton (BML). 1 ex., Yemen: Wadi Dhakar nw. San'a, I. 1938, leg. Schott & Britton (BML).

Distribution: KLIMASZEWSKI & JANSEN (1994) record this species from South Africa, Zimbabwe, Botswana, Namibia, and Zaïre. In the BML, three specimens are also housed from Yemen (Arabian Peninsula).

Aleochara (Coprochara) composita CASEY, 1906

Baryodma composita CASEY, 1906: 164.

TYPE SPECIMEN: Lectotypus (here designated): ♀ (SIW) "Mex D.F. \ Type USNM 39670 \ composita Cs" \ *Aleochara composita* Casey Lectotypus des. Ch. Maus 1996".

Redescription: Apparently, only the specimen from Mexico, Distrito Federal (environs of Mexico City), on which CASEY (1906) based the original description, is known until now. Since the original description is quite short and lacks some important characteristics, a comprehensive redescription is given here.

Body shape subparallel, slightly depressed.

Head subcircular, black, coarsely and scarcely punctured, with an impunctate strip along the midline. Pubescence partly matted, partly rubbed off in lectotype. Micropunctures very fine.

Pronotum oval and slender, blackish brown. Punctures except of the dorsal rows scarce, irregularly arranged, consisting of punctures of different sizes. Punctures of dorsal rows moderately coarse and moderately dense. Rows hardly impressed anteriorly, slightly impressed and enlarged posteriorly. Dorsal rows with at most two punctures side by side. Pronotal pubescence directed obliquely backwards. Micropunctures very fine.

Elytra blackish brown, posterior edge diffusely slightly lighter. Punctures moderately coarse and moderately dense, impressed slightly obliquely from outside-behind but nevertheless subcircular. Elytral pubescence directed backwards laterally, and obliquely backwards at an angle of less than 20° on the disc.

Abdomen slightly depressed, blackish brown. Basal impression on tergite III moderately deep, on tergite IV very shallow. Punctures fine, moderately dense to dense, on posterior part of tergite VIII very fine and scarce. On tergite V and VI, punctures oblong and, as on tergite VII, slightly rasp-like. Micropunctures extremely fine, indistinct.

Antennae black, moderately long and moderately slender. Legs black, tarsi dark brown.

Proportions: WHP: 0.68 (N = 1); WPE: 0.82 (N = 1); PLW: 0.80 (N = 1); LPE: 1.14 (N = 1); 8AWL: 2.14 (N = 1).

Body size: L: ca. 3.9 mm (N = 1); LWA: ca. 1.5 mm (N = 1) (body size could not be measured exactly due to unsuitable preparation of the type specimen).

Aedeagus: unknown.

Spermatheca (fig. 13): capsule subspherical, chamber slender, reflexed immediately before the capsule. Duct fusiform, coils slender, number of turns: 6 (N = 1).

Differential diagnosis: *Aleochara composita* can be distinguished from *A. verna* and *A. notula* ERICHSON, 1839 by its elytra which lack any terminal spots, and by the capsule of the spermatheca which is almost spherical in *A. composita*, but more slender in *A. verna* and even more so in *A. notula*. In specimens of *A. suffusa*, the spermathecal duct is coiled more strongly than in *A. composita*. In *A. bilineata*, the spermathecal duct is parallel or subparallel, and not fusiform like in *A. composita*. *Aleochara bimaculata* GRAVENHORST, 1802 has elytra with terminal spots and strongly rasp-like punctures. In *A. densissima* BERNHAUER, 1906 the elytral punctures are also rasp-like, and the pronotal and elytral pubescence are more dense, and in *A. sulcicollis* MANNERHEIM, 1843 the dorsal rows are more strongly impressed.

The type specimen resembles a small specimen of *A. bilineata*, but in this latter species, the spermathecal duct has a different shape. Further, there is a certain resemblance to *A. notula*. However, this latter species also differs in the shape of the spermathecal capsule and chamber, and its elytra have a yellow terminal spot.

Discussion of specific status: It is difficult to decide if *A. composita* is a species propria or an aberrant individual of another species, based on the type specimen alone. Provisionally, it should be stated as a species propria.

Aleochara (Coprochara) bilineata GYLLENHAL, 1810

Aleochara bilineata GYLLENHAL, 1810: 436.

Aleochara alpicola HEER, 1839: 317.

TYPE SPECIMEN: Lectotypus (here designated): ♀ (ETHZ) "a \ red, triangular, unlettered label \ wahrscheinlich Typus v. alpicola Heer \ Aleochara alpicola Heer Hololectotypus des. Ch. Maus 1996". This specimen is a small male of *A. bilineata* that corresponds in all features to the original description, and which was taken at the type locality (Switzerland, Unter-Engadin, Alp Urschein). According to Merz i.l. it most probably must be considered to be the holotype.

Species to be excluded from *Coprochara*:

Aleochara (Xenochara s.l.) srivijaya PACE, 1992

This species was described as a *Coprochara*, and is only known from the holotype (MCV), which is a female collected in Thailand. An investigation of the holotype showed that the arrangement of the pronotal punctures of *A. srivijaya* only bears rather superficial resemblance to the typical dorsal rows of the *Coprochara* species: the pronotal punctures are arranged in indistinct rows, but there is no glabrous longitudinal interspace in the middle of the pronotum. Instead the midline of the pronotum is rather equally punctuated, contrary to the specification of the original description. Furthermore, the spermathecal duct of *A. srivijaya* shows no coils. Consequently, *A. srivijaya* has to be excluded of the subgenus *Coprochara*. It must be transferred to the subgenus *Xenochara* MULSANT & REY, 1874 s.l. sensu KLIMASZEWSKI (1984).

Aleochara (Xenochara s.l.) banghaasi BERNHAUER, 1936

Until now, only the holotype, which is a female collected at Hong Kong (FMC), is known of this species. In the original description, BERNHAUER (1936) included it with reservation in the subgenus *Coprochara*. An investigation of the holotype showed that *A. banghaasi* does not belong to that subgenus: the pronotal punctures are arranged almost uniformly, no rows of punctures are recognizable, further the spermathecal duct does not show the typical structure of the *Coprochara* species. Since it does not share the autapomorphic character states of *Coprochara*, *Aleochara banghaasi* has to be excluded from *Coprochara* and (at least preliminarily) assigned to *Xenochara* s.l. sensu KLIMASZEWSKI (1984). The spermatheca, which has not been depicted before, is shown in fig. 14.

***Aleochara (Aleochara s.str.) speculifera* species group**

This group comprises the following species: *A. speculifera* ERICHSON, 1842, *A. actae* OLLIFF, 1886, *A. punctum* FAUVEL, 1878, *A. bisulcata* (REDTENBACHER, 1867), *A. blackburni* BERNHAUER & SCHEERPELTZ, 1926, *A. occidentalis* BLACKBURN, 1887, and *A. pelagi* BLACKBURN, 1887. They are all distributed in the Australian Region. BERNHAUER & SCHEERPELTZ (1926) assigned them to *Coprochara* or to *Eucharina* CASEY, 1906, which is a synonym of *Coprochara* (after KLIMASZEWSKI 1984).

These species have impressed and punctured areas on the pronotum, which more or less superficially resemble the pronotal dorsal rows of *Coprochara*. In *A. punctum*, the array of the punctures is even very similar to the punctuation pattern in *Coprochara*.

However, these species have no or an incomplete mesosternal carina. Consequently, they do not belong to *Coprochara*, since they lack this apomorphy. Further their body shape is mostly broader and more flattened than in the *Coprochara* species. Additionally, the species, whose genitalia have been investigated in this study (*A. speculifera*, *A. actae*, and *A. punctum*) show internal sclerites of the median lobe of the male aedeagus that do not correspond to the sclerite types present in *Coprochara*, and the female spermathecal duct of these species is not coiled. Figs. 15 - 18 show the male and/or female genitalia of these species, which have not been illustrated before.

The species of this group should be provisionally transferred to the subgenus *Aleochara* GRAVENHORST, 1802 s.str. Probably they represent an own subgeneric unit which is undescribed up to now. *Aleochara kershawi* LEA, 1908, of which a paratype (ANIC) was investigated, also belongs to that group. It was previously included in the subgenus *Aleochara* s.str. by BERNHAUER & SCHEERPELTZ (1926).

World Catalogue of *Coprochara* species*Coprochara* MULSANT & REY, 1874*Mecorhopalus* SOLIER, 1849*Baryodma* auct. nec CASEY, 1906 partim, nec THOMSON 1858*Eucharina* CASEY, 1906*Skenochara* BERNHAUER & SCHEERPELTZ, 1926; syn.n.*Funda* BLACKWELDER, 1952Ann. Soc. Linn. Lyon N.S. **20**, 430in: GAY, Hist. fis. pol. Chile, Zool., **4**, 437Trans. Acad. Sci. St. Louis **16**, 165, nec AGASSIZ, 1860

Col. Cat. 82, Staph. VI., 795

Bull. Smithson. Inst. U.S. Natn. Mus. **200**, 1661. *densissima* BERNHAUER, 1906

Mexico, Southwestern USA

densiventralis (CASEY, 1906)*humboldti* (CASEY, 1910)

Dt. ent. Z. 1906, 345

Trans. Acad. Sci. St. Louis **16**, 158, nec BERNHAUER, 1906
Can. Ent. **42**, 1082. *bipustulata* (LINNAEUS, 1761)

Palaearctic Region, Northern India

? *bipunctata* GRAVENHORST, 1802? *nitida* GRAVENHORST, 1802*cursor* STEPHENS 1832,? *velox* STEPHENS, 1832? *dorsalis* STEPHENS, 1832? *biguttula* (KOLENATI, 1832)? *fusconotata* MULSANT & REY, 1874? *transita* MULSANT & REY, 1874? *laetipennis* MULSANT & REY, 1874? *a. unicolor* EVERTS, 1918

Fauna suecica ed. II, 232

Col. micropt. Brunsvic. p. 93, nec OLIVIER, 1795

Col. micropt. Brunsvic. p. 97

Illustr. Brit. Ent., Mand. V, 159

Illustr. Brit. Ent., Mand. V, 159

Illustr. Brit. Ent., Mand. V, 160

Melet. Ent. 3, 8

Ann. Soc. Linn. Lyon **20**, 439Ann. Soc. Linn. Lyon **20**, 439Ann. Soc. Linn. Lyon **20**, 439Ent. Berichten **5**, 45, nec SCHILSKY, 19083. *lindbergi* LIKOVSKY, 1963

Madeira

Comment. Biol. **25/2**, 494. *bisolata* (CASEY, 1906)

South Africa, Namibia, Botswana

dubiosa CAMERON, 1944Trans. Acad. Sci. St. Louis **16**, 320Ann. Mag. Nat. Hist. **11**, **11**, 7305. *freyi* BERNHAUER, 1940

Azores

Comment. Biol. **8/2**, 86. *reinigi* BERNHAUER, 1930

Mongolia, Tajikistan

Mitt. Mus. Zool. Berlin **16**, 2417. *suffusa* (CASEY, 1906)

Northern North America, Rocky Mountains

acuminata (CASEY, 1906)*perturbans* FENYES, 1921*leadvilleana* LIKOVSKY, 1984Trans. Acad. Sci. St. Louis **16**, 162Trans. Acad. Sci. St. Louis **16**, 162, nec STEPHENS, 1832Bull. Mus. Comp. Zool. Harv. **65/2**, 32Annot. Zool. Botan. **160**, 88. *brundini* BERNHAUER, 1936

Scandinavia, Alps, ? Spain

Koleopt. Rdsch. **22**, 589. *verna* SAY, 1836

Holartic Region, Central America, Northern India

altilcola SHARP, 1883*minuta* (CASEY, 1906); syn.n.

GRAVENHORST 1806

tolerata (CASEY, 1911); syn.n.*pumilio* (CASEY, 1911); syn.n.*tecumsehi* MUONA, 1977; syn.n.*cedari* LIKOVSKY, 1984; syn.n.*tanumi* LIKOVSKY, 1984; syn.n.Trans. Amer. Philosoph. Soc., Ser. **2**, **6**, 156Biol. Centr. Amer., Ins. Col. **1/2**, 148Trans. Acad. Sci. St. Louis **16**, 161, necMem. Col. **2**, 6Mem. Col. **2**, 6, nec GRAVENHORST, 1802Notulae Ent. **57**, 16Annot. Zool. Botan. **160**, 8Annot. Zool. Botan. **160**, 810. *polychroma* IABLOKOFF-KHNZORIAN, 1966

Armenia

Dokl. Akad. Nauk. Armjansk. SSR **42/3**, 17511. *robusta* KLIMASZEWSKI & JANSEN, 1994

South Africa

Ann. Transvaal Mus. **36/10**, 16112. *binotata* KRAATZ, 1856

Palaearctic Region, Northern India

longula HEER, 1839*incrassata* (THOMSEN, 1860)*verna* auct. nec SAY, 1836*notatipennis* HOCHHUTH, 1871Naturgesch. Ins. Deutschl. **1**, **II**, 106Fauna Col. Helvet. **I/2**, 318Skand. Col. **II**, 255Bull. Soc. Imp. Nat. Moscou **44/3**, 95

- fucicola* (SAHLBERG, 1876)
subtilis (SAHLBERG, 1876)
sahlbergi EPPELSHIM, 1883
mongolica LIKOVSKY, 1965; syn.n.
13. *pauxilla* MULSANT & REY, 1874
Mediterranean Region, Central Europe
14. *pamirensis* KIRSCHENBLATT, 1951
Tajikistan
15. *hluhluwe* KLIMASZEWSKI & JANSEN, 1994
South Africa
16. *lineatocollis* BERNHAUER, 1930
Ethiopian Region
17. *sublaevipennis* FAUVEL, 1907
Kenya, Zaïre, Botswana, Namibia, South Africa
18. *granulicauda* CAMERON, 1935
Mauritius, Reunion
19. *composita* (CASEY, 1906)
Mexico
20. *bilineata* GYLLENHAL, 1810
Holartic Region, Guadeloupe, India, Nepal, Burma, ? Eastern Africa
agilis STEPHENS, 1832
immaculata STEPHENS, 1832
nitida ERICHSON, 1837
alpicola HEER, 1839
nigricornis GREDLER, 1866
anthomyiae SPRAGUE, 1870
ontariorum (CASEY, 1916)
bimaculata BURKS, 1952
21. *notula* ERICHSON, 1839
South and Central America, Southern USA
duplicata ERICHSON, 1839
signaticollis FAIRMAIRE & GERMAIN, 1861
nanella (CASEY, 1906)
nitidicollis (CASEY, 1906)
pernix BLACKWELDER, 1944
22. *bimaculata* GRAVENHORST, 1802
Nearctic Region, Neotropical Region
obsoletes (CASEY, 1906)
recta (CASEY, 1906)
deserticola (CASEY, 1906)
innocua (CASEY, 1906)
23. *solieri* BERNHAUER & SCHEERPELTZ, 1926
Chile
bipustulata (SOLIER, 1849)
24. *mutare* BLACKWELDER, 1944
Chile
elongata (SOLIER, 1849)
25. *salsipotens* BERNHAUER, 1912
South Africa, Namibia
var. *distincta* CAMERON, 1944
var. *differens* CAMERON, 1944
var. *distinguenda* CAMERON, 1944
f. *nigrosoma* KLIMASZEWSKI & JANSEN, 1994
f. *nigrominuta* KLIMASZEWSKI & JANSEN, 1994
26. *sulcicollis* MANNERHEIM, 1843
Pacific Coast of North America and Chile
rugosa (CASEY, 1906)
tibialis (CASEY, 1906)
cylindrella (CASEY, 1906)
- Acta Soc. Faun. Flor. Fenn 1, 80, nec SHARP, 1874
Acta Soc. Faun. Flor. Fenn 1, 81
Cat. Col. Eur. Caucas. 3, 39
Reichenbachia 7/4, 54
- Ann. Soc. Linn. Lyon N.S. 20, 443
- Ent. obozr. 31/3-4, 545
- Ann. Transvaal Mus. 36/10, 155
- Folia zool. hydrobiol. 1, 206
- Rev. Ent. 26, 70
- Ent. Monthl. Mag. 17, 36
- Trans. Acad. Sci. St. Louis 16, 164
- Ins. Suec. I/2, 436
- Illustr. Brit. Ent., Mand. V, 154
Illustr. Brit. Ent., Mand. V, 154
Käfer Mark Brand. I/1, 358, nec GRAVENHORST, 1802
Fauna Col. Helvet. I, 317
Käfer Tirol 2, 464
Am. Ent. 2, 370
Can. Ent. 48, 71
Ins. Yearb. Agric. p. 379, nec GRAVENHORST, 1802
- Gen. spec. Staph. Ins. Col. Fam. p. 167
- Gen. spec. Staph. Ins. Col. Fam. p. 167
Ann. Soc. ent. Fr. 4/1, 413
Trans. Acad. Sci. St. Louis 16, 160
Trans. Acad. Sci. St. Louis 16, 160, nec SOLIER, 1849
Bull. Smithson. Inst. U. S. Natn. Mus. 185, 167
- Col. micropt. Brunsv. p. 187
- Trans. Acad. Sci. St. Louis 16, 158
Trans. Acad. Sci. St. Louis 16, 159
Trans. Acad. Sci. St. Louis 16, 160
Trans. Acad. Sci. St. Louis 16, 160
- in: JUNK & SCHENKLING, Col. Cat. 82, Staph.VI, p. 794
- in: GAY, Hist.fis.pol.Chile, Zool. 4, 348, nec LINNAEUS, 1761
- Bull. Smithson. Inst. U. S. Natn. Mus. 185, 167
- in: GAY, Hist.fis.pol. Chile, Zool. 4, 348, nec STEPHENS, 1832
- Ent. Mitt. 1, 209
- Ann. Mag. Nat. Hist. 11, 11, 730
Ann. Mag. Nat. Hist. 11, 11, 730
Ann. Mag. Nat. Hist. 11, 11, 730
Ann. Transvaal Mus. 36/10, 151
Ann. Transvaal Mus. 36/10, 151
- Bull. Soc. imp. Nat. Moscou 16/2, 225
- Trans. Acad. Sci. St. Louis 16, 166
Trans. Acad. Sci. St. Louis 16, 166
Trans. Acad. Sci. St. Louis 16, 166

- debilicornis* (CASEY, 1906) Trans. Acad. Sci. St. Louis 16, 166
27. *squalithorax* SHARP, 1888 Ann. Mag. Nat. Hist. 6, 2, 282
Japan
28. ? *weiseri* BERNHAUER, 1921 Wiener Ent. Z. 38, 178
Argentina, Chile, Bolivia, Peru, Ecuador
29. ? *glabra* BERNHAUER, 1921 Wiener Ent. Z. 38, 179
Argentina
30. ? *semicarinata* SAY, 1834 Trans. Amer. Philosoph. Soc. 4, 470
USA (Missouri)

Species, that have to be excluded from *Coprochara*:

- srivijaya* PACE, 1992 Boll. Mus. civ. Stor. Nat. Verona 16 (1989), 263 (*Xenochara*)
Thailand
- banghaasi* BERNHAUER, 1936 Koleopt. Rdsch. 22, 58 (*Xenochara*)
China
- speculifera* ERICHSON, 1842 Arch. Naturg. 8, 134 (*Aleochara* s.str.)
Australia
- actae* OLLIFF, 1886 Proc. Linn. N. S. Wales (2) I, 458 (*Aleochara* s.str.)
Australia
- punctum* FAUVEL, 1878 Ann. Mus. Stor. Nat. Genova 13, 593 (*Aleochara* s.str.)
Australia
- bisulcata* (REDTENBACHER, 1867) Reise Novara, Zool. II, Col., 27 (*Aleochara* s.str.)
Australia
- blackburni* BERNHAUER & SCHEERPELTZ, 1926 Col. Cat. 82, Staph. VI, p. 795 (*Aleochara* s.str.)
Australia
- laeta* BLACKBURN, 1887 Trans. R. Soc. S. Austral. 10, 46
- occidentalis* BLACKBURN, 1887 Trans. R. Soc. S. Austral. 10, 46 (*Aleochara* s.str.)
Australia
- pelagi* BLACKBURN, 1887 Trans. R. Soc. S. Austral. 10, 45 (*Aleochara* s.str.)
Australia

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