

Aleochara pseudochrysothorax, a new species from southern Brazil (Coleoptera: Staphylinidae: Aleocharinae), with a complete checklist of Neotropical species of the genus

Edilson Caron ¹; Kleber M. Mise ¹ & Jan Klimaszewski ²

¹ Laboratório de Sistemática e Bioecologia de Coleoptera, Departamento de Zoologia, Universidade Federal do Paraná. Caixa Postal 19020, 81531-980, Curitiba, Paraná, Brasil. E-mail: caron@ufpr.br; klebermise@yahoo.com.br

² Natural Resources Canada, Canadian Forest Service, Laurentian Forestry Centre. 1055 du PEPS, P.O. Box 10380 Ste-Foy, Québec, Québec, Canada G1V 4C7. E-mail: jklimaszewski@cfl.forestry.ca

ABSTRACT. The ectoparasitoid habit of larvae and the active predatory habit of adults of *Aleochara* Gravenhorst, 1802 established this group as natural fly regulators and important for ecological studies, biological control programs and forensic entomology. In the current study, a new aleocharine species, *Aleochara pseudochrysothorax* **sp. nov.**, from southern Brazil, is described and its natural history is briefly discussed. The species has a robust body, uniformly dark-brown to black with apex of abdomen rust-brown, median lobe of male with expanded bulbous, sclerites of internal sac forming complex arrangement, and female with spermatheca L-shaped. *Aleochara pseudochrysothorax* **sp. nov.** may be considered to be closely related to the species belonging to the *lustrica* group. A complete checklist of Neotropical species of *Aleochara* is also provided. Nomenclatural problems are also discussed. *Aleochara lateralis* Erichson, 1839 is a junior primary homonym of *A. lateralis* Heer, 1839, and is replaced by the available name *Aleochara bonariensis* Lynch, 1884. A new name, *Aleochara newtoni* **nom. nov.**, is proposed to replace *Maseochara* (= *Aleochara*) *duplicata* Sharp, 1883, which is a junior secondary homonym of *A. duplicata* Erichson, 1839.

KEY WORDS. Forensic entomology; new name; rove beetle; South America; taxonomy.

RESUMO. *Aleochara pseudochrysothorax*, nova espécie do sul do Brasil (Coleoptera: Staphylinidae: Aleocharinae), com uma lista completa das espécies Neotropicals do gênero. Os hábitos ectoparasitóide da larva e predador ativo dos adultos de *Aleochara* Gravenhorst, 1802 faz deste um grupo regulador natural de moscas e importante para estudos ecológicos, programas de controle biológico e entomologia forense. No presente estudo, uma nova espécie de Aleocharinae, *Aleochara pseudochrysothorax* **sp. nov.**, do sul do Brasil é descrita e notas de sua história-natural são brevemente discutidas. A espécie possui corpo robusto, uniformemente castanho-escuro a preto e ápice do abdome castanho-avermelhado, o macho possui lobo médio com base bulbosa e uma complexa estrutura dos escleritos no saco-interno, e a fêmea possui espermateca em forma de "L". *Aleochara pseudochrysothorax* **sp. nov.** pode ser considerada fortemente relacionada com as espécies do grupo *lustrica*. Uma lista completa das espécies Neotropicals de *Aleochara* é também apresentada. Também são discutidos problemas nomenclaturais. *Aleochara lateralis* Erichson, 1839 é homônimo primário júnior de *A. lateralis* Heer, 1839, e é substituído por *Aleochara bonariensis* Lynch, 1884. Um novo nome, *Aleochara newtoni* **nom. nov.**, é proposto para substituir *Maseochara* (= *Aleochara*) *duplicata* Sharp, 1883, que é homônimo secundário júnior de *A. duplicata* Erichson, 1839.

PALAVRAS-CHAVE. América do Sul; entomologia forense; estafilínídeos; nome novo; taxonomia.

Adults and larvae of *Aleochara* Gravenhorst, 1802 are found in fly-infested habitats such as animal droppings, carrion, and decaying organic matter such as forest litter, mushrooms, fermented fruit and decaying seaweed (KLIMASZEWSKI & JANSEN 1993). The adults prey on eggs, larvae and pupae of cyclorrhaphous Diptera, and larvae feed on pupae inside puparia (PESCHKE & FULDNER 1977, KLIMASZEWSKI 1984, KLIMASZEWSKI & JANSEN 1993, MAUS *et al.* 1998). The females lay their eggs in

sites infested with fly larvae, and the newly emerged first-instar larvae hunt for dipteran pupae, and feed on them until pupation takes place, either in the soil or within host puparia (KLIMASZEWSKI 1984, MAUS *et al.* 1998).

The ectoparasitoid habit of larvae and the active predatory habit of adults of *Aleochara* established this group as natural fly regulators and important for ecological studies (JONASSON 1994), biological control programs (JONES 1967, BROMAND 1980, WRIGHT

et al. 1989, JONASSON 1990) and forensic indicators (SOUZA & LINHARES 1997, TABOR *et al.* 2005, MISE *et al.* 2007). The extensive natural history of *Aleochara* is published in KLIMASZEWSKI & JANSEN (1993) and a complete list of host records in MAUS *et al.* (1998).

Aleochara comprises some 437 species worldwide (NEWTON & THAYER 2005) of which about 81 species occur in the Neotropical region. Since the revision of the Nearctic species of *Aleochara* (KLIMASZEWSKI 1984), several attempts have been made to study type specimens of *Aleochara* species from the Neotropical region (KLIMASZEWSKI & GÉNIER 1986, KLIMASZEWSKI *et al.* 1987, KLIMASZEWSKI 1989, KLIMASZEWSKI & MAUS 1999, MAUS 1998, 2001). Furthermore, several species have been described (PACE 1987, 1990, 2000, KLIMASZEWSKI 1990, KLIMASZEWSKI & ASHE 1992, MAUS 1999, 2000). The goal of the present study is to describe a new species of *Aleochara* (*s. str.*) from southern Brazil, with brief comments on its probable phylogenetic relationships and notes on its natural history. In addition, a complete checklist of Neotropical species of *Aleochara*, with synonymic list, type locality, subgeneric affiliation and currently known distribution are also provided. Nomenclatural problems (two homonyms) are also discussed.

MATERIAL AND METHODS

Dried specimens were macerated in boiling water for five minutes and then segments VIII-X were separated from the abdomen, dissected and cleared in boiling 10% KOH for two minutes. The dissections were carried out under a Zeiss Stemi SV6 stereoscopic microscope and the drawings were made using a Zeiss Standard 20 optical microscope with attached drawing tube. Photographs were taken using a Leica MZ 16 stereoscopic microscope with a Leica DFC 500 digital camera. The images were captured with IM 50 (Image Manager) computer software and combined using Auto-Montage Pro 5.03.0040 image processing software. The final drawings and photographs were produced using Adobe Photoshop software, version 7.0.

Measurements were taken using the micrometric ocular in a Wild M5 stereoscopic microscope. The following abbreviations were used: (BL) body length (from anterior margin of head to posterior margin of tergite VIII); (EW) elytra width (maximum); (PL) pronotum length (maximum); (PW) pronotum width (maximum); (EL) elytra length (maximum).

The terminology used in the text is adopted from BLACKWELDER (1936) and KLIMASZEWSKI (1984).

Specimens are deposited in the Coleção de Entomologia Pe J.S. Moure, Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Brazil (DZUP); Instituto Nacional de Pesquisas da Amazônia, Manaus, Brazil (INPA); Museu Nacional do Rio de Janeiro, Rio de Janeiro, Brazil (MNRJ); Museu Paraense Emílio Goeldi, Belém, Brazil (MPEG); Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil (MZSP); Museu de Ciências Naturais da Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre, Brazil (MCNZ); American Museum of Natural History, New York, USA (AMNH); The Natural History Museum, London, England (BMNH); Centro de Estudios en Zoología,

Entomología, Universidad de Guadalajara, Guadalajara, Mexico (CZUG); Field Museum of Natural History, Chicago, USA (FMNH); the Insectarium R. Martineau, Laurentian Forestry Centre, Quebec, Canada (LFC); Museo de La Plata, La Plata, Argentina (MLP); and Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima, Peru (MUSM).

Label data of type material are in brackets ([]), the data from each label are enclosed within double quotes (" ") and a forward slash (/) separates lines.

In the checklist, subgenera and species are arranged alphabetically, with the original names and the synonyms listed chronologically under valid specific names.

The Neotropical region as treated here includes Mexico, Central and South America. Extra-Neotropical distributions are listed by regions based on NEWTON *et al.* (2005).

RESULTS

Aleochara (Aleochara) pseudochrysochora Caron, Mise & Klimaszewski sp. nov.

Figs 1-10

Type material. Holotype (male) ["Curitiba – PR – Brazil/Centro Politécnico/25°26'45"S 49°13'58"W/919meters/15-XII-2005/Mise, K.M. col.", "Pig carcass/Modified Shannon/Trap" (DZUP). Paratypes, 453 with the same labels as the holotype, except the date: 01-XI-2005 (9 DZUP), 02-XI-2005 (4 DZUP), 03-XI-2005 (8 DZUP), 05-XI-2005 (16 MNRJ), 06-XI-2005 (26 DZUP), 07-XI-2005 (2 DZUP), 10-XI-2005 (6 DZUP), 11-XI-2005 (3 DZUP), 12-XI-2005 (14 DZUP), 13-XI-2005 (15 MLP), 14-XI-2005 (15 DZUP), 15-XI-2005 (18 AMNH), 16-XI-2005 (6 DZUP), 17-XI-2005 (5 DZUP), 19-XI-2005 (11 DZUP), 20-XI-2005 (6 DZUP), 21-XI-2005 (7 DZUP), 22-XI-2005 (8 DZUP), 23-XI-2005 (15 DZUP), 24-XI-2005 (21 MZSP), 26-XI-2005 (3 DZUP), 27-XI-2005 (2 DZUP), 28-XI-2005 (3 DZUP), 29-XI-2005 (22 LFC), 30-XI-2005 (12 DZUP), 01-XII-2005 (15 MPEG), 02-XII-2005 (5 DZUP), 04-XII-2005 (4 DZUP), 05-XII-2005 (18 BMNH), 06-XII-2005 (5 DZUP), 07-XII-2005 (1 DZUP), 09-XII-2005 (5 DZUP), 10-XII-2005 (11 DZUP), 11-XII-2005 (3 DZUP), 13-XII-2005 (6 MUSM), 14-XII-2005 (9 INPA), 15-XII-2005 (11 DZUP), 16-XII-2005 (31 FMNH), 17-XII-2005 (8 DZUP), 18-XII-2005 (1 DZUP), 19-XII-2005 (3 DZUP), 20-XII-2005 (16 MCNZ), 22-XII-2005 (1 DZUP), 23-XII-2005 (4 DZUP), 24-XII-2005 (5 DZUP), 25-XII-2005 (2 DZUP), 26-XII-2005 (1 DZUP), 28-XII-2005 (3 DZUP), 29-XII-2005 (2 DZUP), 30-XII-2005 (11 DZUP), 31-XII-2005 (15 CZUG).

Diagnosis. Body robust, uniformly dark-brown to black with apex of abdomen rust-brown (Figs 1 and 2). Dorsal surface glossy, pubescent, and setigerous pores impressed. Median lobe of male with expanded bulbus (Fig. 8), short tubus and acute apex, without subapical-ventral projection in lateral view, and sclerites of internal sac forming complex arrangement (Figs 8 and 9: a-f). Female with spermatheca L-shaped, capsule spherical and stem elongate (Fig. 10).

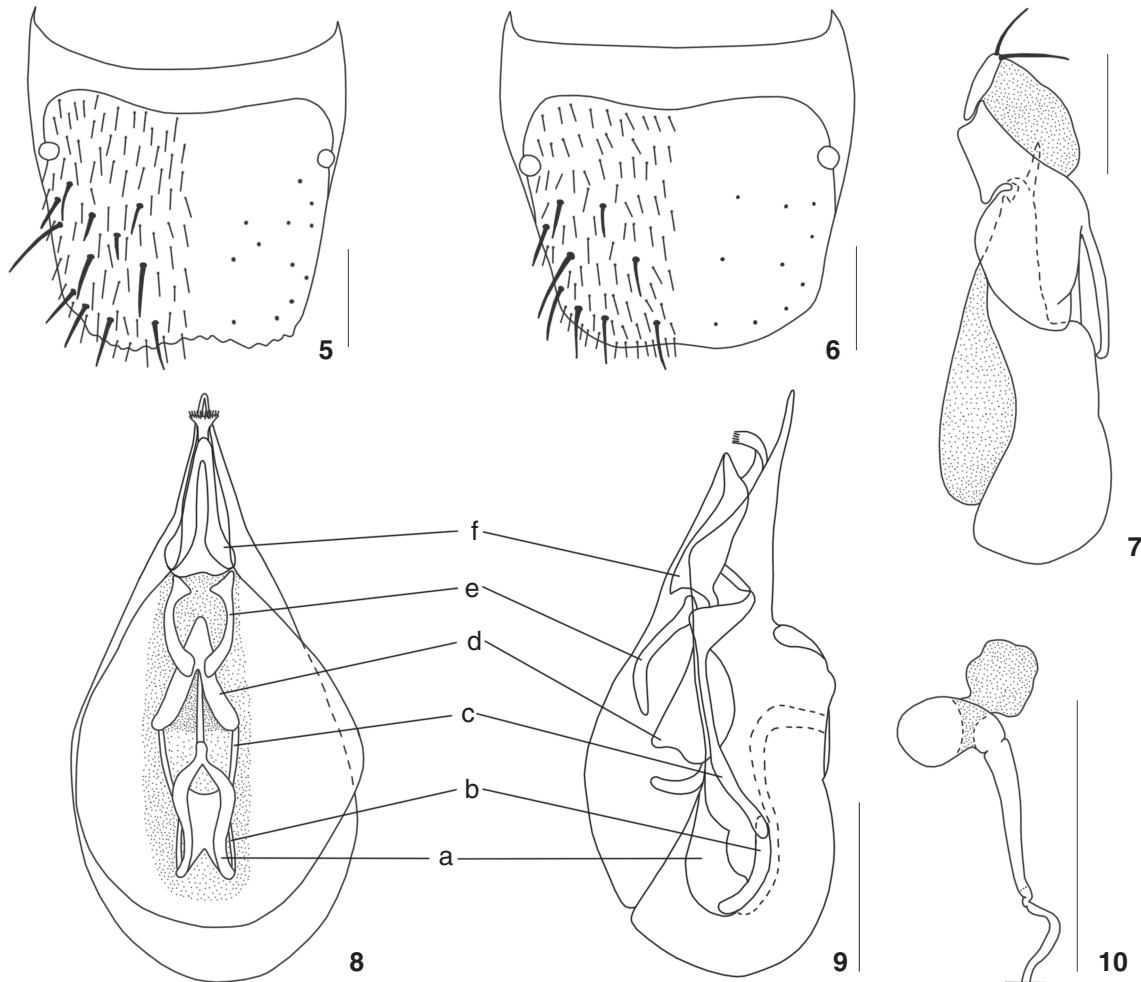


Figures 1-4. *Aleochara pseudochrysoorrhoea* sp. nov.: (1) dorsal view; (2) lateral view; (3) head, frontal view; (4) meso and metaventrite, ventral view.

Description. BL: 5.42-7.75 mm; EW: 1.58-2.25 mm.

Body compact and robust (Fig. 1), elytra slightly broader than pronotum; uniformly dark-brown to black, with antennae, maxillary palpi, labial palpi, legs and apex of abdomen (apical half of abdominal segment VII and the segments VIII-X) rust-brown (Figs 1-3). Dorsal surface glossy; pubescent, appearing yellowish-brown in artificial light; setigerous pores impressed. Head approximately circular, as wide as long; frons triangularly produced and sharply pointed; pubescence directed anterad and mediad; eyes expanded, twice the length of temples; antennae with antennomere 4 slightly transverse and antennomeres 5-10 each twice as wide as long (Fig. 3); maxilla with palpus 4-articulated and with minute pseudopalpomere on apex of last palpomere, which is approximately the same length as palpomere 3. Pronotum transverse (PW/PL: 1.44), with posterior margin broadly arcuate; densely pubescent, with pubescence straight and directed posterad in the midline of the disc and posterad and laterad elsewhere. Mesoventrite broadly rounded posteriorly, reaching posterior portion of mesocoxae

(Fig. 4). Elytra as long as pronotum (EL/PL: 1.02); elytra about twice as wide as long (EW/EL: 1.74); densely pubescent, with straight pubescence directed posterad. Hind wings well developed. Abdomen gradually narrowed posteriorly, glossy, and with sparse pubescence directed posterad; first three visible terga deeply transversely impressed in the anterior region, and fourth tergum shallowly impressed anteriorly (Fig. 1). Male. Tergite VIII sparsely pubescent, bearing a few prominent setae in posterior half; posterior margin serrate and slightly emarginate (Fig. 5). Sternite VIII with sparse pubescence, a few prominent macrosetae in posterior half; posterior margin truncate. Tergite IX divided and with asymmetrical ventral struts. Tergite X, with posterior margin slightly emarginated. Aedeagus: median lobe with expanded bulbus (Fig. 8); short tubus and acute apex, without subapical-ventral projection in lateral view; sclerites of internal sac forming a complex arrangement (Figs 8 and 9: a-f); parameres well developed, exceeding the apex of median lobe (Fig. 7). Female. Tergite and sternite VIII similar to those of male, except for lack of serration on posterior margin of



Figures 5-10. *Aleochara pseudochrysorrhoea* sp. nov.: (5) tergite VIII (right setae removed), male, dorsal view; (6) tergite VIII (right setae removed), female, dorsal view; (7) aedeagus (median lobe and paramere), lateral view; (8) median lobe, dorsal view; (9) median lobe, lateral view; (10) spermataeca. Scale: 0.25 mm.

tergite VIII (Fig. 6), and posterior margin broadly rounded with short and dense setae; tergite IX without ventral struts. Spermataeca somewhat L-shaped, with narrowly spherical capsule and elongate stem (Fig. 10).

Etymology. The species name derives from the prefix *pseudo-* (false) added to the epithet *chrysorrhoea* (as in *Aleochara chrysorrhoea* Erichson, 1839).

Distribution. Southeastern Brazil (Paraná, Curitiba).

Remarks. The subgenus *Aleochara* was redefined by KLIMASZEWSKI (1984) and the most distinctive features of this taxon are the strongly transverse antennomeres 5-10 (Fig. 3), strongly elongate last maxillary palpomere, stout and broad body without dorsal microsculpture, evenly pubescent pronotum (Fig. 1), and usually wide and non-carinated mesoventrite (Fig. 4). Our species belongs to the *lustrica* species group, defined by KLIMASZEWSKI (1984) and diagnosed by the antennomere 4 transverse (Fig. 3),

antennomeres 5-10 strongly transverse and at least twice as wide as long, glossy integument (Fig. 1), moderately to densely pubescent pronotum, large eyes (at least twice as long as temples) (Fig. 2), median lobe of the aedeagus with expanded bulbus and reduced triangularly shaped tubus (Figs 8 and 9) and spermataeca with sac-shaped capsule and elongate narrow stem (Fig. 10).

Due to these similarities *A. pseudochrysorrhoea* sp. nov. may be considered to be closely related to the following species: *A. breviscula* Erichson, 1839; *A. boliviana* Pace, 1990; *A. centralis* Sharp, 1883; *A. chrysorrhoea*; *A. curtula* (Goeze, 1777); *A. hidalgo* Klimaszewski, 1990; *A. bonariensis* Lynch, 1884 (= *A. lateralis* Erichson, 1839); *A. lustrica* Say, 1832; and *A. pseudolustrica* Klimaszewski *et al.*, 1990.

Aleochara pseudochrysorrhoea sp. nov. however, differs from the species listed above by the median lobe with acute apex and without subapical-ventral projection (Fig. 9), different ar-

rangement of sclerites of internal sac (Figs 8 and 9); and spermatheca with spherical capsule (Fig. 10).

In the general form, *A. pseudochrysochorrea* sp. nov. is very similar to *A. chrysochorrea*, from which it can be distinguished mainly by the shape of the spermatheca: *A. pseudochrysochorrea* sp. nov. has a spermatheca with a narrowly spherical capsule in contrast with elongate capsule of *A. chrysochorrea* (KLIMASZEWSKI *et al.* 1987: 251, Fig. 1). The male of *A. chrysochorrea* is unknown (KLIMASZEWSKI *et al.* 1987).

Natural history notes. *Aleochara pseudochrysochorrea* sp. nov. was collected on carcasses of domestic pig, *Sus scrofa* (Linné, 1758) (Artyodactyla, Suidae), in Curitiba, Brazil. This species was referred to as *Aleochara* sp.1 in MISE *et al.* (2007), and it was the most abundant species collected by hand sampling and in modified Shannon traps and one of the first species of Coleoptera to arrive on carcasses.

Aleochara pseudochrysochorrea sp. nov. was collected year-round, from “fresh” to “butyric fermentation” decompositional stages as defined by BORNEMISSZA (1957). In spring and summer this species has greater importance to the *post mortem* interval (IPM) determination, since it occurs throughout the entire period, in contrast to autumn and winter, in which it occurs periodically, colonizes, departs and recolonizes the carcass, making the intervals of the first or second colonization difficult to determine (MISE *et al.* 2007).

Checklist of Neotropical species of *Aleochara*

Aleocharinae, Fleming, 1821

Aleocharini Fleming, 1821

Aleochara Gravenhorst, 1802

Type species: *Staphylinus curtulus* Goeze, 1777: 730 (= *Staphylinus fuscipes* sensu Gravenhorst, 1802) (SMETANA 2004). For review of literature of the genus, see KLIMASZEWSKI (1984), SMETANA (2004) and GOUIX & KLIMASZEWSKI (2007). For redescription of the genus, see KLIMASZEWSKI (1984).

Subgenus *Aleochara* Gravenhorst, 1802

For redescription of the subgenus, see KLIMASZEWSKI (1984).

Aleochara atra (Solier, 1849: 348) (as *Mecorhopalus ater*). [Type locality: “Santiago y en Valdivia” (SOLIER 1849)]. Note: FAIRMAIRE & GERMAIN (1861) cited this species as *Aleochara atra* (Solier, 1849). The specific name is an adjective and was changed to the feminine spelling to agree with the gender of the generic name (Alfred F. Newton, from FMNH, pers. comm.).

Aleochara humilis Fauvel, 1866: 286. [Type locality: “Santiago” (FAUVEL 1866)]. Remarks: synonymized by PACE (1990) (error: Fauvel, 1865).

Aleochara gravenhorsti Blackwelder, 1944: 167. [Type locality: “Santiago y en Valdivia” (SOLIER 1849)]. Note: proposed as a new name for *Aleochara atra* (Solier, 1849) (not Gravenhorst, 1806).

Aleochara paleoatra Pace, 2000: 404. [Type locality: “Santiago y en Valdivia” (SOLIER 1849)]. Note: Proposed as a new name for *Aleochara atra* (Solier, 1849) (not Gravenhorst, 1806).

Remarks. We propose to keep *A. atra* (Solier, 1849) as the valid name, because ERICHSON (1837) already transferred *A. atra* Gravenhorst, 1806 to the *Tachyusa* Erichson, 1837 and it is presently in the *Thinonoma* Thomson, 1859. Since these homonyms have not been congeneric for a long time, and the two replacement names have not come into use, *A. atra* (Solier) can be retained as valid by provision of Article 59.3 of the International Code of Zoological Nomenclature (ICZN 1999), and the replacement names proposed by BLACKWELDER (1944) and PACE (2000) are unnecessary (Alfred F. Newton, from FMNH, pers. comm.).

Subgeneric assignment. *Aleochara* (PACE 2000).

Distribution. Chile, Argentina (SCHEERPELTZ 1972, PACE 2000).

Aleochara auricomma Sharp, 1876: 70. [Type locality: “Ega” (SHARP 1876)].

Subgeneric assignment. *Aleochara* (BERNHAEUER & SCHEERPELTZ 1926).

Distribution. Brazil (BLACKWELDER 1944).

Aleochara boliviana Pace, 1990: 172. [Type locality: “Bolivia, Yungas de La Paz” (PACE 1990)].

Subgeneric assignment. *Aleochara* (PACE 1990).

Distribution. Ecuador, Bolivia, Peru (PACE 1990).

Aleochara bonariensis Lynch, 1884: 70. [Type locality: “Chacabuco” (LYNCH 1884)].

Aleochara lateralis Erichson, 1839: 161 (not Heer, 1839). [Type locality: “Aragua” (KLIMASZEWSKI *et al.* 1987)]. Note: *A. lateralis* Erichson, 1839 is a junior primary homonym of *A. lateralis* Heer, 1839, and must be rejected (Alfred F. Newton, from FMNH, pers. comm.). The relative priority of the Erichson and Heer publications was discussed by NEWTON & THAYER (1992).

Remarks. *Aleochara bonariensis* Lynch, 1884, was cited as a junior synonym of *A. lateralis* Erichson, 1839, by BERNHAEUER & SCHEERPELTZ (1926). We follow Article 23.3.5 of the International Code of Zoological Nomenclature (ICZN), which requires that “... if a name in use for a taxon is found to be unavailable or invalid it must be replaced by the next oldest available name from among its synonyms” (ICZN 1999).

Subgeneric assignment. *Aleochara* (KLIMASZEWSKI *et al.* 1987).

Distribution. Mexico, Colombia, Venezuela, Suriname, French Guiana, Brazil, Paraguay, Argentina, Cuba (SOLSKY 1872, NEWTON *et al.* 2005).

Aleochara breviscula Erichson, 1839: 161. [Type locality: “Colombia” (KLIMASZEWSKI *et al.* 1987)].

Subgeneric assignment. *Aleochara* (KLIMASZEWSKI *et al.* 1987).

Distribution. Colombia (NEWTON *et al.* 2005).

- Aleochara bruchi* Bernhauer, 1927: 263. [Type locality: "Republic Argentina, Caspinchango Catamarca" (KLIMASZEWSKI & MAUS 1999)].
Subgeneric assignment. *Aleochara* (KLIMASZEWSKI & MAUS 1999).
Distribution. Argentina (KLIMASZEWSKI & MAUS 1999).
- Aleochara cameroni* Bernhauer & Scheerpeltz, 1926: 776. [Type locality: "Grenada, St. Vincent" (CAMERON 1923)]. Note: Replacement name for *A. bugnioni* Cameron, 1923, preoccupied by *A. curtula bugnioni* Fauvel, 1901.
Aleochara bugnioni Cameron, 1923: 389 (not Fauvel, 1901). [Type locality: "Grenada, St. Vincent" (CAMERON 1923)].
Remarks. The above list of synonyms is from BERNHAUER & SCHEERPELTZ (1926).
Subgeneric assignment. *Aleochara* (BERNHAEUER & SCHEERPELTZ 1926).
Distribution. Grenada, Saint Vincent Island (Saint Vincent and the Grenadines) (BLACKWELDER 1944).
- Aleochara cayennensis* Laporte, 1835: 136. [Type locality: "Cayenne" (LAPORTE 1835)].
Subgeneric assignment. *Aleochara* (BERNHAEUER & SCHEERPELTZ 1926).
Distribution. French Guiana (BLACKWELDER 1944).
- Aleochara centralis* Sharp, 1883: 146. [Type locality: "Costa Rica, Irazu 6000 to 7000 ft" (KLIMASZEWSKI 1984)].
Aleochara stygialis Sharp, 1887: 775. [Type locality: "Mexico, Zapotlan, Colima" (KLIMASZEWSKI 1984)].
Remarks. The above list of synonyms is from KLIMASZEWSKI (1984).
Subgeneric assignment. *Aleochara* (KLIMASZEWSKI 1984).
Distribution. Mexico, Guatemala, Costa Rica, Panama; Nearctic (Arizona, USA) (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara chrysorrhoea* Erichson, 1839: 160. [Type locality: "Brazil" (KLIMASZEWSKI *et al.* 1987)].
Subgeneric assignment. *Aleochara* (KLIMASZEWSKI *et al.* 1987).
Distribution. Brazil (KLIMASZEWSKI *et al.* 1987).
- Aleochara cribricollis* Fairmaire & Germain, 1861: 413. [Type locality: "Santiago" (FAIRMAIRE & GERMAIN 1861)].
Subgeneric assignment. *Aleochara* (BERNHAEUER & SCHEERPELTZ 1926).
Distribution. Peru, Chile (SOLSKY 1872; BLACKWELDER 1944).
- Aleochara curtula* (Goeze, 1777: 730) (as *Staphylinus curtulus*). [Type locality: "France" (KLIMASZEWSKI 1984)].
Staphylinus fuscipes Gravenhorst, 1802: 92 [Type locality: not given in GRAVENHORST (1802)].
Staphylinus brachypterus Fourcroy, 1785: 167. [Type locality: "probably in France" (KLIMASZEWSKI 1984)].
Staphylinus limbatus Fabricius, 1801: 600. [Type locality: "Germany" (KLIMASZEWSKI 1984)].
- Aleochara brevis* Heer, 1839: 315. [Type locality: "Switzerland, Aigle" (KLIMASZEWSKI 1984)].
Aleochara puncticeps Thomson, 1860: 248. [Type locality: "Sweden, Gotheborg" (KLIMASZEWSKI 1984)].
Aleochara discoidea Sharp, 1874: 7. [Type locality: "Japan" (KLIMASZEWSKI 1984)].
Aleochara discordia Duvivier, 1883: 99. [Type locality: "Japan" (KLIMASZEWSKI 1984)]. Note: misspelling for *A. discoidea* Sharp, 1874.
Aleochara curtula bugnioni Fauvel, 1901: 90. [Type locality: "Colombia, Sierra Nevada" (KLIMASZEWSKI 1984)].
Remarks. The above list of synonyms is from GOUIX & KLIMASZEWSKI (2007).
Subgeneric assignment. *Aleochara* (KLIMASZEWSKI 1984).
Distribution. Colombia, French Guiana, Peru, Bolivia, Brazil, Chile, Grenada, Saint Vincent Island (Saint Vincent and the Grenadines); Nearctic, Palearctic, Oriental, Afrotropical regions (FAUVEL 1901, NEWTON *et al.* 2005).
- Aleochara funeralis* Motschulsky, 1858: 236. [Type locality: "Colombie" (MOTSCHULSKY 1858)].
Subgeneric assignment. *Aleochara* (BERNHAEUER & SCHEERPELTZ 1926).
Distribution. Colombia (NEWTON *et al.* 2005).
- Aleochara hidalgo* Klimaszewski, 1990: 174. [Type locality: "Mexico, Hidalgo, Tlanchinol, Alt. 1550m" (KLIMASZEWSKI 1990)].
Subgeneric assignment. *Aleochara* (KLIMASZEWSKI 1990).
Distribution. Mexico, Costa Rica (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara hilaris* Sharp, 1887: 776. [Type locality: "Panama, Bugaba" (SHARP 1887)].
Subgeneric assignment. *Aleochara* (BERNHAEUER & SCHEERPELTZ 1926).
Distribution. Panama (BLACKWELDER 1944).
- Aleochara lata* Gravenhorst, 1802: 186. [Type locality: "North America (America septentrionalis)" (KLIMASZEWSKI 1984)].
Subgeneric assignment. *Aleochara* (KLIMASZEWSKI 1984).
Distribution. Mexico, Peru, Chile; Nearctic and Palearctic regions (SOLSKY 1872, NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara lustrica* Say, 1832: 55. [Type locality: "USA, Pennsylvania" (KLIMASZEWSKI 1984)].
Aleochara pauper Sharp, 1883: 147. [Type locality: "Mexico, Jalapa" (KLIMASZEWSKI 1984)].
Aleochara serrata Sharp, 1883: 147. [Type locality: "Mexico, Tehuantepec" (KLIMASZEWSKI 1984)].
Aleochara texana Casey, 1906: 137. [Type locality: "USA, Texas" (KLIMASZEWSKI 1984)].
Aleochara fusicornis Casey, 1906: 138. [Type locality: "USA" (KLIMASZEWSKI 1984)].
Aleochara sternalis Casey, 1906: 138. [Type locality: "USA, New York" (KLIMASZEWSKI 1984)].

- Aleochara algonquina* Casey, 1906: 139. [Type locality: "USA, Ohio, Cincinnati" (KLIMASZEWSKI 1984)].
- Aleochara medialis* Casey, 1906: 140. [Type locality: "USA, New York" (KLIMASZEWSKI 1984)].
- Remarks. The above list of synonyms is from KLIMASZEWSKI (1984).
- Subgeneric assignment. *Aleochara* (KLIMASZEWSKI 1984).
- Distribution. Mexico, Brazil, Chile; Nearctic region (PACE 1999, NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara mundana* Sharp, 1876: 71. [Type locality: "Pará, Tapajos and Ega" (SHARP 1876)].
- Subgeneric assignment. *Aleochara* (BERNHAEUER & SCHEERPELTZ 1926).
- Distribution. Brazil (BLACKWELDER 1944).
- Aleochara nigrocaerulea* Cameron, 1923: 389. [Type locality: "Jamaica" (CAMERON 1923)].
- Subgeneric assignment. *Aleochara* (BERNHAEUER & SCHEERPELTZ 1926).
- Distribution. Jamaica (BLACKWELDER 1944).
- Aleochara obscuricollis* Say, 1832: 55. [Type locality: "Mexico" (SAY 1832)].
- Subgeneric assignment. *Aleochara* (BERNHAEUER & SCHEERPELTZ 1926).
- Distribution. Mexico (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara parvicollis* Bernhauer, 1904: 241. [Type locality: "Marcapata, Peru, 1000-2000m" (KLIMASZEWSKI & MAUS 1999)].
- Subgeneric assignment. *Aleochara* (KLIMASZEWSKI & MAUS 1999).
- Distribution. Colombia, Peru (NEWTON *et al.* 2005).
- Aleochara prisca* Sharp, 1876: 69. [Type locality: "Ega" (SHARP 1876)].
- Subgeneric assignment. *Aleochara* (BERNHAEUER & SCHEERPELTZ 1926).
- Distribution. Brazil (BLACKWELDER 1944).
- Aleochara pseudochrysorrhoea* Caron, Mise & Klimaszewski *sp. nov.*
- Subgeneric assignment. *Aleochara*.
- Distribution. Brazil.
- Aleochara solskyiana* Likovský, 1984: 5. [Type locality: "Cayenne" (SOLSKY 1870)]. Note: Replacement name for *A. humeralis* Solsky, 1870, preoccupied by *A. humeralis* Gravenhorst, 1802.
- Aleochara humeralis* Solsky, 1870: 257 (not Gravenhorst, 1802). [Type locality: "Cayenne" (SOLSKY 1870)].
- Remarks. The above list of synonyms is from LIKOVSKÝ (1984).
- Subgeneric assignment. *Aleochara* (BERNHAEUER & SCHEERPELTZ 1926).
- Distribution. French Guiana (BLACKWELDER 1944).
- Aleochara verecunda* Sharp, 1876: 69. [Type locality: "Tapajos" (SHARP 1876)].
- Subgeneric assignment. *Aleochara* (BERNHAEUER & SCHEERPELTZ 1926).
- Distribution. Brazil (BLACKWELDER 1944).
- Subgenus *Calochara* Casey, 1906**
- Type species: *Calochara rubripennis* Casey, 1906: 150. Fixed by CASEY (1906) by original designation and monotypy. For review of literature, see GOUIX & KLIMASZEWSKI (2007). For redescription of the subgenus, see KLIMASZEWSKI (1984).
- Aleochara andina* Pace, 1987: 517. [Type locality: "Santiago, Puelma" (PACE 1987)].
- Subgeneric assignment. *Calochara* (PACE 1987).
- Distribution. Chile (PACE 1987).
- Aleochara speculicollis* Bernhauer, 1901: 371. [Type locality: "USA, Texas" (KLIMASZEWSKI 1984)].
- Subgeneric assignment. *Calochara* (KLIMASZEWSKI 1984).
- Distribution. Mexico; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).
- Subgenus *Coprochara* Mulsant & Rey, 1874**
- Type species: *Aleochara bilineata* Gyllenhal, 1810: 436. Fixed by FENYES (1918) in subsequent designation. For review of literature, see GOUIX & KLIMASZEWSKI (2007). For redescription of the subgenus, see KLIMASZEWSKI (1984).
- Aleochara bilineata* Gyllenhal, 1810: 436. [Type locality: "Switzerland, Unter-Engadin, Alp Urschein" (MAUS 1998)].
- Aleochara agilis* Stephens, 1832: 154. [Type locality: "England" (KLIMASZEWSKI 1984)].
- Aleochara immaculata* Stephens, 1832: 154. [Type locality: "England" (KLIMASZEWSKI 1984)].
- Aleochara alpicola* Heer, 1839: 317. [Type locality: "Switzerland, Alps near Unter Engadin" (KLIMASZEWSKI 1984)].
- Aleochara nigricornis* Gredler, 1866: 464. [Type locality: "Austria, southern Tyrol" (KLIMASZEWSKI 1984)].
- Aleochara anthomyiae* Sprague, 1870: 370. [Type locality: "Massachusetts, Boston" (KLIMASZEWSKI 1984)].
- Baryodma ontarionis* Casey, 1916: 71. [Type locality: "Canada, Ontario, Ottawa" (KLIMASZEWSKI 1984)].
- Remarks. The above list of synonyms is modified from MAUS (1998). Note: In MAUS (1998) there are two other listed synonyms, *Aleochara nitida* Erichson, 1837: 358 (not Gravenhorst, 1802) and *Aleochara bimaculata* Burks, 1952: 379 (not Gravenhorst, 1802), which are only misidentifications by the respective authors.
- Subgeneric assignment. *Coprochara* (KLIMASZEWSKI 1984).
- Distribution. Guadeloupe; Nearctic, Palaearctic and Oriental regions (KLIMASZEWSKI 1984; MAUS 1998).
- Aleochara bimaculata* Gravenhorst, 1802: 187. [Type locality: "Pennsylvania" (KLIMASZEWSKI 1984)].
- Baryodma obsolescens* Casey, 1906: 158. [Type locality: "USA, California" (KLIMASZEWSKI 1984)].
- Baryodma recta* Casey, 1906: 159. [Type locality: "USA, New Mexico" (KLIMASZEWSKI 1984)].

- Baryodma deserticola* Casey, 1906: 160. [Type locality: "USA, Arizona" (KLIMASZEWSKI 1984)].
- Baryodma innocua* Casey, 1906: 160. [Type locality: "USA, California" (KLIMASZEWSKI 1984)].
- Remarks. The above list of synonyms is from KLIMASZEWSKI (1984).
- Subgeneric assignment. *Coprochara* (KLIMASZEWSKI 1984).
- Distribution. Mexico, Guatemala, Colombia, Venezuela, Ecuador, Brazil, Chile, Argentina, Haiti; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara composita* (Casey, 1906: 164) (as *Baryodma*). [Type locality: "Mex D.F." (MAUS 1998)].
- Subgeneric assignment. *Coprochara* (MAUS 1998).
- Distribution. Mexico (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara densissima* Bernhauer, 1906: 345. [Type locality: "USA, California, Palm Springs" (KLIMASZEWSKI 1984)].
- Baryodma densiventris* Casey, 1906: 158 (not Bernhauer, 1906). [Type locality: "USA, New Mexico" (KLIMASZEWSKI 1984)].
- Baryodma humboldti* Casey, 1910: 108. [Type locality: "USA, New Mexico" (KLIMASZEWSKI 1984)]. Note: Replacement name for *B. densiventris* Casey, 1906, preoccupied by *A. densiventris* Bernhauer, 1906.
- Remarks. The above list of synonyms is from KLIMASZEWSKI (1984).
- Subgeneric assignment. *Coprochara* (KLIMASZEWSKI 1984).
- Distribution. Mexico; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara mutare* Blackwelder, 1944: 167. [Type locality: "Copiapo" (SOLIER 1849)]. Note: Replacement name for *Mecorhopalus elongatus* Solier, 1849, preoccupied by *A. elongata* Stephens, 1832.
- Mecorhopalus elongatus* Solier, 1849: 348 (not Stephens, 1832). [Type locality: "Copiapo" (SOLIER 1849)].
- Remarks. The above list of synonyms is from MAUS (1998).
- Subgeneric assignment. *Coprochara* (MAUS 1998).
- Distribution. Chile (MAUS 1998).
- Aleochara notula* Erichson, 1839: 167. [Type locality: "St. Thomas" (MAUS 2001)].
- Aleochara duplicata* Erichson, 1839: 167. [Type locality: "Columbia" (MAUS 2001)].
- Baryodma nanella* Casey, 1906: 160. [Type locality: "Brownsville, Texas" (MAUS 2001)].
- Baryodma nitidicollis* Casey, 1906: 160 (not Solier, 1849). [Type locality: "Tex" (MAUS 2001)].
- Aleochara permix* Blackwelder, 1944: 167. [Type locality: "Tex" (MAUS 2001)]. Note: Replacement name for *B. nitidicollis* Casey, 1906, preoccupied by *A. nitidicollis* Solier, 1849.
- Remarks. The above list of synonyms is from MAUS (2001).
- Subgeneric assignment. *Coprochara* (MAUS 2001).
- Distribution. Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Peru, Bolivia, Brazil, Chile, Paraguay, Argentina, Cuba, Jamaica, Puerto Rico, Dominica; Nearctic region (SOLSKY 1872, PACE 1999, MAUS 2001, NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara peschkeana* Maus, 1999: 365. [Type locality: "Bogota, Columb." (MAUS 1999)].
- Subgeneric assignment. *Coprochara* (MAUS 1999).
- Distribution. Colombia (MAUS 1999).
- Aleochara pycnostichia* Maus, 2000: 75. [Type locality: "Peru: Quebrada Verde bei Lima 100m" (MAUS 2000)].
- Subgeneric assignment. *Coprochara* (MAUS 2000).
- Distribution. Peru (MAUS 2000).
- Aleochara repetita* Sharp, 1887: 776. [Type locality: "Panama, San Feliz; Amazons, Pará" (SHARP 1887)].
- Subgeneric assignment. *Coprochara*. Note: Bernhauer & Scheerpeltz (1926) cited this species within the subgenus *Baryodma*. *Baryodma* is a junior synonym of *Coprochara* (GOUIX & KLIMASZEWSKI 2007).
- Distribution. Panama, Brazil (BLACKWELDER 1944).
- Aleochara signaticollis* Fairmaire & Germain, 1861: 413. [Type locality: "Santiago" (FAIRMAIRE & GERMAIN 1861)].
- Subgeneric assignment. *Coprochara* (MAUS 2001).
- Distribution. Peru, Bolivia, Brazil, Chile, Argentina, Uruguay (MAUS 2001).
- Aleochara solieri* Bernhauer & Scheerpeltz, 1926: 794. [Type locality: "Carelmapú" (SOLIER 1849)]. Note: Replacement name for *Mecorhopalus bipustulatus* Solier, 1849, preoccupied by *A. bipustulata* Linné, 1760.
- Mecorhopalus bipustulatus* Solier, 1849: 348 (not Linné, 1760). [Type locality: "Carelmapú" (SOLIER 1849)].
- Remarks. The above list of synonyms is from MAUS (1998).
- Subgeneric assignment. *Coprochara* (MAUS 1998).
- Distribution. Chile (MAUS 1998).
- Aleochara sulcicollis* Mannerheim, 1843: 225. [Type locality: "USA, Alaska, Sitka Is." (KLIMASZEWSKI 1984)].
- Eucharina rugosa* Casey, 1906: 166. [Type locality: "Canada, British Columbia, Queen Charlotte Islands" (KLIMASZEWSKI 1984)].
- Eucharina tibialis* Casey, 1906: 166. [Type locality: "USA, California" (KLIMASZEWSKI 1984)].
- Eucharina cylindrella* Casey, 1906: 167. [Type locality: "USA, California, San Diego." (KLIMASZEWSKI 1984)].
- Eucharina debilicornis* Casey, 1906: 167. [Type locality: "USA, California" (KLIMASZEWSKI 1984)].
- Remarks. The above list of synonyms is from KLIMASZEWSKI (1984).
- Subgeneric assignment. *Coprochara* (KLIMASZEWSKI 1984).
- Distribution. Mexico, Chile; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara trachynoptera* Maus, 2000: 72. [Type locality: "Brasil S. Paulo, Umgbg. v. Ribeirão Preto" (MAUS 2000)].

Subgeneric assignment. *Coprochara* (MAUS 2000).

Distribution. Colombia, Brazil (MAUS 2000).

Aleochara verna Say, 1833: 58. [Type locality: "USA, Missouri" (KLIMASZEWSKI 1984)].

Aleochara bimaculata var. *alticola* Sharp, 1883: 148. [Type locality: "Guatemala, Totonicapán 8500 to 10,500 ft" (KLIMASZEWSKI 1984)].

Baryodma minuta Casey, 1906: 161. [Type locality: "California (San Francisco to Pomona) and Iowa" (CASEY 1906)].

Baryodma pumilio Casey, 1911: 6 (not Gravenhorst, 1802). [Type locality: "Iowa (Cedar Rapids)" (CASEY 1911)].

Baryodma tolerata Casey, 1911: 6. [Type locality: "California (Dunsmuir)" (CASEY 1911)].

Aleochara tecumsehii Muona, 1977: 16. [Type locality: "Iowa (Cedar Rapids)" (CASEY 1911)]. Note: Replacement name for *A. pumilio* (Casey, 1911) preoccupied by *A. pumilio* Gravenhorst, 1802 (MUONA 1977).

Aleochara cedari Likovský, 1984: 8. [Type locality: "Iowa (Cedar Rapids)" (LIKOVSKÝ 1984)]. Note: Replacement name for *A. pumilio* (Casey, 1911) preoccupied by *A. pumilio* Gravenhorst, 1802 (LIKOVSKÝ 1984). The preoccupied name had already been replaced by MUONA (1977).

Aleochara tanumi Likovský, 1984: 8. [Type locality: "California (San Francisco to Pomona) and Iowa" (LIKOVSKÝ 1984)]. Note: Replacement name for *A. minuta* (Casey, 1906) preoccupied by *A. minuta* Gravenhorst, 1806.

Remarks. The above list of synonyms is from NAVARRETE-HEREDIA *et al.* (2002).

Subgeneric assignment. *Coprochara* (KLIMASZEWSKI 1984).

Distribution. Mexico, Venezuela; Nearctic, Palaearctic, Oriental, Pacific regions (NAVARRETE-HEREDIA *et al.* 2002).

Subgenus *Emplenota* Casey, 1884

Type species: *Emplenota maritima* Casey, 1884: 17. Fixed by CASEY (1884) by original designation and monotypy. For review of literature, see GOUIX & KLIMASZEWSKI (2007). For redescription of the subgenus, see KLIMASZEWSKI (1984).

Aleochara litoralis (Mäklin, 1853: 182) (as *Homalota*). [Type locality: "USA, Kodjak" (KLIMASZEWSKI 1984)].

Emplenota maritima Casey, 1884: 17. [Type locality: "USA, New Jersey" (KLIMASZEWSKI 1984)].

Polistoma arenaria Casey, 1894: 289. [Type locality: "USA, California" (KLIMASZEWSKI 1984)].

Emplenota quadrifer Casey, 1906: 175. [Type locality: "USA, California, Redondo" (KLIMASZEWSKI 1984)].

Emplenota trilimbata Casey, 1906: 175. [Type locality: "USA, California" (KLIMASZEWSKI 1984)].

Emplenota longiceps Casey, 1911: 9. [Type locality: "Canada, British Columbia, Metlakatla" (KLIMASZEWSKI 1984)].

Remarks. The above list of synonyms is from KLIMASZEWSKI (1984).

Subgeneric assignment. *Emplenota* (KLIMASZEWSKI 1984).

Distribution. Mexico; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).

Aleochara pacifica (Casey, 1894: 290) (as *Polistoma*). [Type locality: "USA, California, Sta. Barbara" (KLIMASZEWSKI 1984)].

Subgeneric assignment. *Emplenota* (KLIMASZEWSKI 1984).

Distribution. Mexico; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).

Subgenus *Maseochara* Sharp, 1883

Type species: *Maseochara opacella* Sharp, 1883: 154. Fixed by FENYES (1918) by subsequent designation. For review of literature, see KLIMASZEWSKI (1984). For redescription of the subgenus, see KLIMASZEWSKI (1984).

Aleochara depressa (Sharp, 1883: 155) (as *Maseochara*). [Type locality: "Guatemala" (KLIMASZEWSKI 1984)].

Maseochara puberula Casey, 1894: 284. [Type locality: "USA, Arizona" (KLIMASZEWSKI 1984)].

Maseochara basalis Casey, 1906: 171. [Type locality: "USA, California, Arrowhead" (KLIMASZEWSKI 1984)].

Maseochara musta Casey, 1911: 7. [Type locality: "USA, Arizona" (KLIMASZEWSKI 1984)].

Remarks. The above list of synonyms is from KLIMASZEWSKI (1984).

Subgeneric assignment. *Maseochara* (KLIMASZEWSKI 1984).

Distribution. Mexico, Guatemala; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).

Aleochara gracilis (Sharp, 1883: 155) (as *Maseochara*). [Type locality: "Mexico, Guanajuato" (KLIMASZEWSKI 1989)].

Subgeneric assignment. *Maseochara* (NAVARRETE-HEREDIA *et al.* 2002).

Distribution. Mexico (NAVARRETE-HEREDIA *et al.* 2002).

Aleochara missionis Klimaszewski & Maus, 1999: 219. [Type locality: "Republic Argentina, Misiones" (KLIMASZEWSKI & MAUS 1999)]. Note: Replacement name for *Maseochara argentina* Bernhauer, 1927, preoccupied by *A. argentina* Bernhauer, 1908.

Maseochara argentina Bernhauer, 1927: 264 (not Bernhauer, 1908). [Type locality: "Republic Argentina, Misiones" (KLIMASZEWSKI & MAUS 1999)].

Remarks. The above list of synonyms is from KLIMASZEWSKI & MAUS (1999).

Subgeneric assignment. *Maseochara* (KLIMASZEWSKI & MAUS 1999).

Distribution. Argentina (KLIMASZEWSKI & MAUS 1999).

Aleochara newtoni Caron, Mise & Klimaszewski, **nom. nov.** [Type locality: "Guatemala, near the city" (KLIMASZEWSKI 1989)].

Maseochara duplicata Sharp, 1883: 156 (not Erichson, 1839). [Type locality: "Guatemala, near the city" (KLIMASZEWSKI 1989)]. Note: This is a junior secondary homonym of *A.*

duplicata Erichson, 1839, which is still congeneric (synonym of *A. notula* Erichson, 1839, above) (Alfred F. Newton, from FMNH, pers. comm.).

Remarks. We follow Article 59.1 and 60.3 of the International Code of Zoological Nomenclature (ICZN), which requires that, respectively, “a junior secondary homonym must be treated as invalid by anyone who considers that the two species-group taxa in question are congeneric” and “If the rejected junior homonym has no known available and potentially valid synonym it must be replaced by a new substitute name, with its own author and date” (ICZN 1999).

Etymology of the new name. In honor of Dr. Alfred F. Newton, from FMNH, for his valuable information on nomenclatural problems of *Aleochara* species from the Neotropical region.

Subgeneric assignment. *Maseochara* (NAVARRETE-HEREDIA *et al.* 2002).

Distribution. Mexico, Guatemala, Panama (NAVARRETE-HEREDIA *et al.* 2002).

Aleochara opacella (Sharp, 1883: 154) (as *Maseochara*). [Type locality: “Mexico, Tehuacan” (KLIMASZEWSKI 1984)].

Maseochara hogeii Sharp, 1887: 777. [Type locality: “Mexico” (KLIMASZEWSKI 1984)].

Maseochara decipiens Casey, 1906: 169. [Type locality: “USA, Arizona” (KLIMASZEWSKI 1984)].

Remarks. The above list of synonyms from KLIMASZEWSKI (1984).

Subgeneric assignment. *Maseochara* (KLIMASZEWSKI 1984).

Distribution. Mexico; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).

Aleochara semivelutina Solsky, 1868: 120. [Type locality: “Mexique et probablement de l’Etat d’Oaxaca” (SOLSKY 1868). Note: SOLSKY (1868) gives this information at the beginning of the paper for all species described in that paper].

Subgeneric assignment. *Maseochara* (NAVARRETE-HEREDIA *et al.* 2002).

Distribution. Mexico; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).

Aleochara valida LeConte, 1858: 16. [Type locality: “USA, California, San Diego” (KLIMASZEWSKI 1984)].

Maseochara robusta Sharp, 1883: 155. [Type locality: “Mexico, Tehuacan” (KLIMASZEWSKI 1984)].

Maseochara californica Casey, 1885: 309. [Type locality: “USA, California” (KLIMASZEWSKI 1984)].

Maseochara ponderosa Casey, 1906: 170. [Type locality: “USA, Arizona” (KLIMASZEWSKI 1984)].

Maseochara ruficauda Casey, 1906: 170. [Type locality: “USA, Arizona” (KLIMASZEWSKI 1984)].

Remarks. The above list of synonyms is from KLIMASZEWSKI (1984).

Subgeneric assignment. *Maseochara* (KLIMASZEWSKI 1984).

Distribution. Mexico; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).

Subgenus *Xenochara* Mulsant & Rey, 1874

Type species: *Aleochara decorata* Aubé, 1850: 311. Fixed by MULSANT & REY (1874) by monotypy. For review of literature, see GOUIX & KLIMASZEWSKI (2007). For redescription of the subgenus, see KLIMASZEWSKI (1984).

Aleochara alajuella Klimaszewski & Ashe, 1992: 405. [Type locality: “Costa Rica: Alajuella Peñas Blancas, 1420m” (KLIMASZEWSKI & ASHE, 1992)].

Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & ASHE, 1992).

Distribution. Costa Rica (KLIMASZEWSKI & ASHE, 1992).

Aleochara aliipennis Bernhauer, 1927: 264. [Type locality: “Argentina: Masao Catamarca” (KLIMASZEWSKI & MAUS 1999)].

Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & MAUS 1999).

Distribution. Chile, Argentina (KLIMASZEWSKI & MAUS 1999).

Aleochara angusticeps Sharp, 1883: 153. [Type locality: “Guatemala, Paso Antonio 400 feet” (KLIMASZEWSKI 1989)].

Subgeneric assignment. *Xenochara* (KLIMASZEWSKI 1989).

Distribution. Guatemala (KLIMASZEWSKI 1989). Note: There is one doubtful record from the USA (Tennessee) (KLIMASZEWSKI 1989).

Aleochara argentina Bernhauer, 1908: 371. [Type locality: in original description: “Argentinien: Chaunar-Region” (BERNHAEUER 1908), and on original label: “Brazil Chaunar-Region” (KLIMASZEWSKI & MAUS 1999, based in lectotype designated)].

Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & MAUS 1999).

Distribution. Brazil, Argentina (KLIMASZEWSKI & MAUS 1999; Alfred F. Newton, from FMNH, pers. comm.).

Aleochara brooksi Klimaszewski & Ashe, 1992: 402. [Type locality: “Costa Rica: Alajuella Peñas Blancas, 870m” (KLIMASZEWSKI & ASHE 1992)].

Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & ASHE 1992).

Distribution. Costa Rica (KLIMASZEWSKI & ASHE 1992).

Aleochara bruchiana Bernhauer, 1927: 263. [Type locality: “Republic Argentina, Prov. San Juan” (KLIMASZEWSKI & MAUS 1999)].

Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & MAUS 1999).

Distribution. Argentina (KLIMASZEWSKI & MAUS 1999).

Aleochara costarica Klimaszewski & Ashe, 1992: 403. [Type locality: “Costa Rica: Alajuella Peñas Blancas, 1420m” (KLIMASZEWSKI & ASHE 1992)].

Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & ASHE 1992).

Distribution. Costa Rica (KLIMASZEWSKI & ASHE 1992).

- Aleochara divergens* Pace, 1990: 172. [Type locality: "Perù, dep. Cuzco, Cosnipata Ebene, 1000m" (PACE 1990)].
Subgeneric assignment. *Xenochara* (PACE 1990).
Distribution. Peru (PACE 1990).
- Aleochara felixiana* Klimaszewski, 1989: 2. [Type locality: "Panama, San Felix" (KLIMASZEWSKI 1989)].
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI 1989).
Distribution. Panama (KLIMASZEWSKI 1989).
- Aleochara festiva* Pace, 1990: 172. [Type locality: "Brasilien, Nova Teutonia" (PACE 1990)].
Subgeneric assignment. *Xenochara* (PACE 1990).
Distribution. Brazil (PACE 1990).
- Aleochara forsteri* Scheerpeltz, 1960: 136. [Type locality: "Bolivien, Cochabamba, 3650 m, Lagunas de Vacas" (SCHEERPELTZ 1960)].
Subgeneric assignment. *Xenochara*. Note: SCHEERPELTZ (1960) cited this species within subgenus *Polychara*. *Polychara* is a junior synonym of *Xenochara* (GOUIX & KLIMASZEWSKI 2007).
Distribution. Bolivia (SCHEERPELTZ 1960).
- Aleochara funestior* Sharp, 1883: 151. [Type locality: "Panama, Volcan de Chiriqui, 3000 to 4000 ft" (KLIMASZEWSKI 1989)].
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI 1989).
Distribution. Guatemala, Panama, Colombia (NEWTON *et al.* 2005).
- Aleochara glabra* Bernhauer, 1921: 179. [Type locality: "Republic Argentina, Prov. Jujuy" (KLIMASZEWSKI & MAUS 1999)].
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & MAUS 1999).
Distribution. Argentina (KLIMASZEWSKI & MAUS 1999).
- Aleochara lacertina* Sharp, 1883: 148. [Type locality: "Mexico, Jalapa" (KLIMASZEWSKI 1984)].
- Baryodma idonea* Casey, 1906: 157. [Type locality: "USA, New Jersey" (KLIMASZEWSKI 1984)].
- Baryodma imbricata* Casey, 1906: 157. [Type locality: "USA, California" (KLIMASZEWSKI 1984)].
- Baryodma salicola* Casey, 1906: 157. [Type locality: "USA, California, Colorado Desert at Salton" (KLIMASZEWSKI 1984)].
- Aleochara (Isochara) densiventris* Bernhauer, 1906: 346. [Type locality: "USA, California, Pasadena" (KLIMASZEWSKI 1984)].
Remarks. The above list of synonyms is from NAVARRETE-HEREDIA *et al.* (2002).
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI 1984).
Distribution. Mexico; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara lacustris* Bernhauer, 1908: 372. [Type locality: "Peru: Titicaca-See" (BERNHAEUER 1908)].
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & MAUS 1999).
Distribution. Peru (KLIMASZEWSKI & MAUS 1999).
- Aleochara lescheni* Klimaszewski & Ashe, 1992: 401. [Type locality: "Costa Rica: Alajuela Peñas Blancas, 800m" (KLIMASZEWSKI & ASHE 1992)].
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & ASHE 1992).
Distribution. Costa Rica (KLIMASZEWSKI & ASHE 1992).
- Aleochara mexicana* Sharp, 1883: 149. [Type locality: "Mexico, Juquila" (KLIMASZEWSKI 1989)].
- Aleochara miradoris* Sharp, 1883: 152. [Type locality: "Mexico, Mirador" (KLIMASZEWSKI 1989)].
Remarks. The above list of synonyms is from NAVARRETE-HEREDIA *et al.* (2002).
Subgeneric assignment. *Xenochara* (NAVARRETE-HEREDIA *et al.* 2002).
Distribution. Mexico, Guatemala, Costa Rica (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara monteverde* Klimaszewski & Ashe, 1992: 404. [Type locality: "Costa Rica: Alajuela Peñas Blancas, 1190m" (KLIMASZEWSKI & ASHE 1992)].
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & ASHE 1992).
Distribution. Costa Rica (KLIMASZEWSKI & ASHE 1992).
- Aleochara opacula* Bernhauer, 1901: 369. [Type locality: "Amazonas" (KLIMASZEWSKI & MAUS 1999)].
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & MAUS 1999).
Distribution. Brazil (KLIMASZEWSKI & MAUS 1999).
- Aleochara otongo* Klimaszewski, 1990: 172. [Type locality: "Mexico, Chiapas, Lacaohatan, La Victoria, Alt. 430m" (KLIMASZEWSKI 1990)].
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI 1990).
Distribution. Mexico (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara oxypodia* Sharp, 1883: 150. [Type locality: "Panama, Volcan de Chiriqui, 2500 to 4000 feet" (KLIMASZEWSKI 1989)].
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI 1989).
Distribution. Mexico, Guatemala, Panama (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara puberula* Klug, 1832: 139. [Type locality: "Madagaskar" (KLIMASZEWSKI 1984)].
- Aleochara deserta* Erichson, 1839: 173. [Type locality: "Arabia desert" (KLIMASZEWSKI 1984)].
- Aleochara vaga* Erichson, 1839: 172. [Type locality: "Promont. bon. Spei, Dom. Bergius" (KLIMASZEWSKI 1984)].
- Aleochara decorata* Aubé, 1850: 311. [Type locality: "France, probably near Paris" (KLIMASZEWSKI 1984)].
- Aleochara armitagei* Wollaston, 1854: 559. [Type locality: "Madeira" (KLIMASZEWSKI 1984)].
- Oxypoda sanguinolenta* Motschulsky, 1858: 241. [Type locality: "Egypt, Alexandria" (KLIMASZEWSKI 1984)].
- Oxypoda brunescens* Motschulsky, 1858: 243. [Type locality: "East Indies" (KLIMASZEWSKI 1984)].

- Aleochara dubia* Fauvel, 1863: 428. [Type locality: "Cuba" (KLIMASZEWSKI 1984)].
- Oxypoda analis* MacLeay, 1873: 135. [Type locality: "Australia, Gayndah, near Burnett River" (KLIMASZEWSKI 1984)].
- Baryodma bipartita* Casey, 1894: 287. [Type locality: "USA, Texas, Galveston" (KLIMASZEWSKI 1984)].
- Aleochara major* Eichelbaum, 1912: 176. [Type locality: "Africa, Parehberg, 1600 m" (KLIMASZEWSKI 1984)].
Remarks. The above list of synonyms is from KLIMASZEWSKI (1984).
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI 1984).
Distribution. South America, Cuba, Guadeloupe; Nearctic, Palaearctic, Afrotropical, Australian regions (KLIMASZEWSKI 1984, NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara punae* Pace, 1990: 170. [Type locality: "Bolivia, Yungas de La Paz, 1000 m" (PACE 1990)].
Subgeneric assignment. *Xenochara* (PACE 1990).
Distribution. Bolivia (PACE 1990).
- Aleochara quadrata* Sharp, 1883: 149. [Type locality: "Mexico" (KLIMASZEWSKI 1984)].
- Baryodma uvidula* Casey, 1906: 153. [Type locality: "USA, California" (KLIMASZEWSKI 1984)].
- Aleochara sparsicollis* Bernhauer, 1906: 347. [Type locality: "USA, California, Monterey Co." (KLIMASZEWSKI 1984)].
Remarks. The above list of synonyms is from KLIMASZEWSKI (1984).
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI 1984).
Distribution. Mexico; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara richteri* Bernhauer, 1912: 82. [Type locality: "Comodoro, Rivadavia, Gobernacion, Santa Cruz" (KLIMASZEWSKI & MAUS 1999)].
- Aleochara wittei* Bernhauer, 1921: 178. [Type locality: "Republic Argentina, Gob. Santa Cruz, 190" (KLIMASZEWSKI & MAUS 1999)].
Remarks. The above list of synonyms is from KLIMASZEWSKI & MAUS (1999).
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & MAUS 1999).
Distribution. Argentina (KLIMASZEWSKI & MAUS 1999).
- Aleochara sallaei* Sharp, 1883: 152. [Type locality: "Mexico, Guanajuato" (KLIMASZEWSKI 1984)].
- Aleochara torquata* Sharp, 1883: 153. [Type locality: "Panama, Volcan de Chiriquí 4000 to 6000 ft" (KLIMASZEWSKI 1984)].
Remarks. The above list of synonyms is from KLIMASZEWSKI (1984).
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI 1984).
Distribution. Mexico, Guatemala, Panama; Nearctic region (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara simulatrix* Sharp, 1883: 151. [Type locality: "Guatemala, El Tumbador, 2500 ft" (KLIMASZEWSKI 1989)].
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI 1989).
Distribution. Guatemala, Panama (SHARP 1883, 1887).
- Aleochara taeniata* Erichson, 1839: 165. [Type locality: "St. Jean" (KLIMASZEWSKI 1984)].
- Oxypoda lapidicola* Sahlberg, 1844: 517. [Type locality: "Brazil, Rio de Janeiro" (KLIMASZEWSKI 1984)].
Remarks. The above list of synonyms is from KLIMASZEWSKI (1984).
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI 1984).
Distribution. Mexico, Guatemala, Costa Rica, Panama, Colombia, French Guiana, Peru, Brazil, West Indies (FAUVEL 1901; KLIMASZEWSKI 1984; NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara verberans* Erichson, 1839: 164. [Type locality: "Colombia" (KLIMASZEWSKI & GÉNIEUR 1986)].
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI *et al.* 1987).
Distribution. Mexico, Colombia, Venezuela, Brazil, Paraguay, Argentina, Uruguay, Cuba (NAVARRETE-HEREDIA *et al.* 2002).
- Aleochara weiseri* Bernhauer, 1921: 178. [Type locality: "Republic Argentina, Prov. Jujuy" (KLIMASZEWSKI & MAUS 1999)].
Subgeneric assignment. *Xenochara* (KLIMASZEWSKI & MAUS 1999).
Distribution. Argentina (KLIMASZEWSKI & MAUS 1999).

Incertae Sedis

- Aleochara nitidicollis* Solier, 1849: 352. [Type locality: "Illapel" (SOLIER 1849)].
Subgeneric assignment. Unknown. Note: BERNHAUER & SCHEERPELTZ (1926) cited this species as "species dubiae" in *Aleochara*.
Distribution. Chile (BLACKWELDER 1944).

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