

Korean species of *Aleochara* Gravenhorst subgenus *Xenochara* Mulsant & Rey (Coleoptera, Staphylinidae, Aleocharinae)

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Abstract

A taxonomic review of *Aleochara* Gravenhorst subgenus *Xenochara* Mulsant & Rey in Korea is presented. Five species are recognized, with one species, *A. (Baryodina) intricata* Mannerheim, newly transferred to the subgenus *Xenochara*. *Aleochara (X.) asiatica* Kraatz and *A. (X.) peninsulae* Bernhauer are reported for the first time in the Korean peninsula. A key, line drawings of diagnostic characters, and redescriptions of Korean *Xenochara* species are provided.

Keywords

Aleocharini, *Aleochara*, *Xenochara*, redescription, Korea.

Introduction

The staphylinid genus *Aleochara* Gravenhorst includes over 400 species in 19 subgenera worldwide. Fourteen species in six subgenera are recorded in the Korean peninsula (Smetana 2004; Park and Ahn 2009). The subgenera of *Aleochara* have been previously diagnosed using a few characters of the antenna, mesosternal carina, pronotal pubescence and microsculpture, elytral pubescence, maxillary palpi, and genitalia (Klimaszewski 1984). However, the morphologically diverse subgenera such as *Xenochara* are poorly distinguished from other *Aleochara* subgenera by these characters (Klimaszewski 1984).

Therefore, we used characters that are more informative at the subgeneric and species levels. Our character analysis follows the methods of Sawada (1972) and Ashe (1984). The terminology for abdominal segments follows Thayer (2005).

We redescribe five Korean *Xenochara* species herein, and a key and line drawings of diagnostic characters of these species are also provided. The Korean specimens studied are deposited in the Chungnam National University Insect Collection (CNUIC), Daejeon, Korea.

Subgenus *Xenochara* Mulsant & Rey

Xenochara Mulsant & Rey, 1874: 60; Ganglbauer, 1895: 32; Fenyes, 1920: 403; Bernhauer & Scheerpeltz, 1926: 781; Palm, 1972: 426; Seevers, 1978: 137.

Polychara Mulsant & Rey, 1874: 64; Ganglbauer, 1895: 34; Fenyes, 1920: 408; Bernhauer & Scheerpeltz, 1926: 785; Portevin, 1929: 237; Seevers, 1978: 136.

Isochara Bernhauer, 1901: 440, 461.

See Klimaszewski (1984) for complete synonymy and references.

Type species: *Aleochara decorata* Aubé.

Diagnosis. The subgenus *Xenochara* can be distinguished by a combination of the following characters: body compact, robust, pubescent; antennomere 4 usually longer than wide (except *A. tristis*, transverse); carina on each side of midline of ventral surface of head present, attaining or almost attaining gular suture (arrows, Figs 1b, 2b, 3b, 4a, 5a; Klimaszewski 1984: Figs 313, 319, 321); maxillary palpomere 4 usually long (1/3 to 3/4 length of palpomere 3); labral b-seta sharpened or rounded apically (arrows, Figs 1c, 2c, 3c, 4b, 5b); mandibular internal tooth absent or weakly present; β -seta of labial palpi long (Figs 1e, 2e, 3e, 4d, 5d); mesoventrite completely or almost completely carinate (Figs 1a, 2a, 3a); pronotum evenly pubescent; spines of lateral margins of fore- and meso-tibia present but absent in meta-tibia.

Remarks. This diagnosis is modified from Klimaszewski (1984:35). New diagnostic characters based on mouthparts are added, and these are consistent at the subgenus level.

Key to the *Aleochara* (*Xenochara*) species from Korea

1. Elytra with emarginate latero-posterior margins..... 2
- Elytra with rounded latero-posterior margins..... 3
2. Labral b-seta acute (arrow, Fig. 3c), labium with a pair of distal setae (arrow, Fig. 3d), male abdominal tergite VIII with undulate posterior margin (secondary sexual dimorphism; Fig. 3g), male abdominal sternite VIII with produced posterior margin (secondary sexual dimorphism; arrow, Fig. 3i), paramere with fovea in hinge zone (arrow, Fig. 3k), spermathecal duct not coiled (Fig. 3n) *A. peninsulae* Bernhauer

- Labral b-seta rounded at tip (arrow, Fig. 4b), labium without distal setae (Fig. 4c), male abdominal tergite VIII without undulate posterior margin (Fig. 4f), male abdominal sternite VIII with rounded posterior margin (Fig. 4g), paramere without fovea in hinge zone (Fig. 4j), spermathecal duct coiled (Fig. 4l) *A. puberula* Klug
- 3. Antennomeres 5–6 longer than wide, abdominal tergite VIII with deeply emarginate posterior margin (Figs 1g, 1h), male tergite VIII with undulate posterior margin (secondary sexual dimorphism; Fig. 1g) *A. asiatica* Kraatz
- Antennomeres 5–6 transverse, abdominal tergite VIII with weakly emarginate posterior margin (Figs 2g, 5f), male tergite VIII without undulate posterior margin (Figs 2g, 5f) 4
- 4. Antennomere 4 longer than wide, labral b-seta rounded at tip (arrow, Fig. 2c), labium without distal setae (Fig. 2d), paramere without fovea in hinge zone (Fig. 2j), median lobe without coiled flagellum (Fig. 2k), spermathecal duct not coiled (Fig. 2m) *A. intricata* Mannerheim
- Antennomere 4 transverse, labral b-seta acute (arrow, Fig. 5b), labium with a pair of distal setae (arrow, Fig. 5c), paramere with fovea in hinge zone (arrow, Fig. 5i), median lobe with coiled flagellum (arrow, Fig. 5j), spermathecal duct coiled (Fig. 5l) *A. tristis* Gravenhorst

***Aleochara (Xenochara) asiatica* Kraatz**

Fig. 1

Aleochara asiatica Kraatz, 1859: 15; Bernhauer & Scheerpeltz, 1926: 780; Pace, 2001: 35 (mentioned as subgenus *Xenochara*); Smetana, 2004: 356 (mentioned as subgenus *Euryodma*).

Aleochara japonica Sharp, 1874: 8.

Aleochara (Isochara) asiatica Cameron, 1939: 644.

Redescription. Length 4.5–6.5 mm. Body large and robust; brownish black, antenna and legs black; elytra bicolored. Antennomeres 1–3 elongate, 4–6 longer than wide and 7–10 transverse. *Mouthparts.* Labrum transverse, bearing approximately 11 small, setae, and approximately 21 long setae, a-seta, b-seta, and pores present; b-seta rounded apically (arrow indicates b-seta, Fig. 1c). Labium with pseudopores in median area, approximately 2 real pores and pseudopores present in lateral area; a pair of basal pores present (Fig. 1d). Ligula with approximately 4 pairs of small setae apically (Fig. 1d). Labial palpi with large a-, b-, and f-seta of 12 setae present (a–h, α – δ); long β -seta present in the middle of palpomere 1; d-seta higher than c-seta (Fig. 1e). Mentum transverse, bearing 4 pairs of main setae (b, u, v, w), and 6 extra setae, and pores present (Fig. 1f). *Thorax.* Mesoventrite completely carinate (arrow, Fig. 1a). Elytra with round latero-posterior margin. *Abdomen.* Male and female abdominal tergite VIII with many short setae and pores; posterior

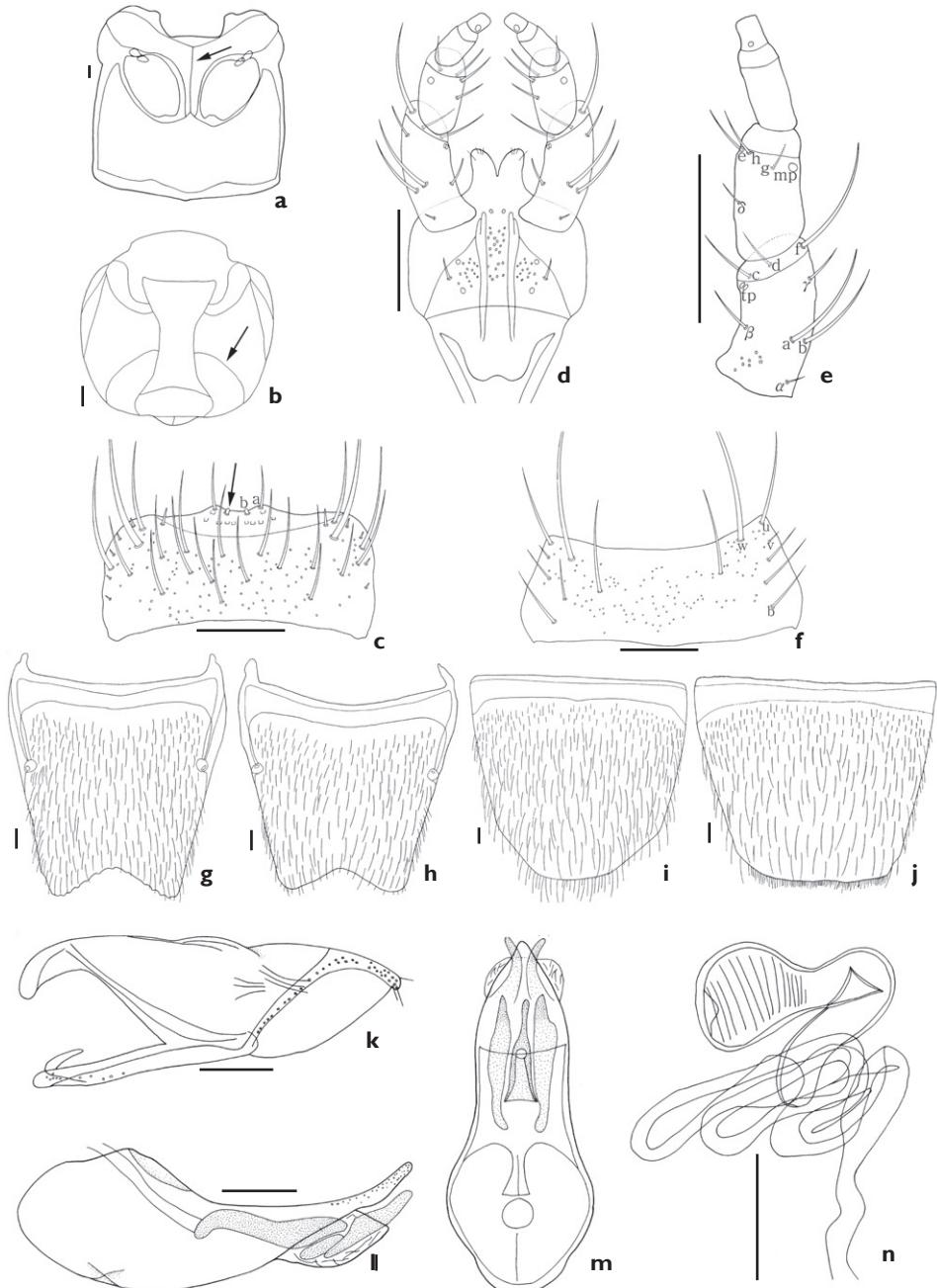


Figure 1. *Aleochara (Xenochara) asiatica*. **a** meso- and metaventrite, ventral aspect **b** head, ventral aspect **c** labrum, dorsal aspect **d** labium, ventral aspect **e** labial palpus, ventral aspect **f** mentum, ventral aspect **g** male tergite VIII, dorsal aspect **h** female tergite VIII, dorsal aspect **i** male sternite VIII, ventral aspect **j** female sternite VIII, ventral aspect **k** paramere, lateral aspect **l** median lobe, lateral aspect **m** median lobe, dorsal aspect **n** spermatheca. Scale bars = 0.1 mm.

margin deeply emarginate and undulate on male (Fig. 1g, h). Male and female abdominal sternite VIII with many short setae and pores, margin rounded and female with many small setae on posterior margin (Fig. 1i, j). *Genitalia.* Median lobe as in Figs 1l and m. Paramere without fovea in hinge zone (Fig. 1k). Spermatheca with duct coiled (Fig. 1n).

Material examined. 1♂, Daeheungsa-temple, Samsan-myeon, Haenam-gun, Jeonnam Prov., Korea, 23.IV.1983, Y.B. Cho; 4♂♂2♀♀, Jeju Prov., Korea, 22.VII.1985, Y.B. Cho (1♂ 1♀, on slide); 1♀, Donnaeko, Sanghyo-dong, Seogwipo-city, Jeju Prov., Korea, 18.X.1985, K.-S. Lee; 1♀, Donnaeko, Sanghyo-dong, Seogwipo-city, Jeju Prov., Korea, 22.X.1985, K.-S. Lee; 1♀, Jeongbangpolpo-waterfall, Donghong-dong, Seogwipo-city, Jeju Prov., Korea, 29.X.1985, K.-S. Lee; 1♂, Gasi-ri, Pyoseon-myeon, Namjeju-gun, Jeju Prov., Korea, 5.V.1985, K.-S. Lee; 2, Japan, G. Lewis, 1910–320, Nagasaki, 22.V–3.VI.81; 2, Japan, G. Lewis, 1910–320, Kumamoto, 23.IV–26.IV.81; 3, Japan, G. Lewis, 1905–313 (1, Holotype of *Aleochara japonica* Sharp, deposited in the Natural History Museum, London); 1, Japan, G. Lewis, 1910–320.

Distribution. China, India, Japan, Korea, Nepal, Taiwan (see Smetana, 2004: 356).

Remarks. This species is a new record for the Korean peninsula.

Aleochara (Xenochara) intricata Mannerheim

Fig. 2

Aleochara intricata Mannerheim, 1830: 96; Fenyes, 1920: 404; Bernhauer & Scheerpeltz, 1926: 782; Portevin, 1929: 236; Palm, 1972: 428; Lohse, 1974: 296; Welch, 1997: 26; Smetana, 2004: 354; Assing, 2007a: 60; 2007b: 184.

Aleochara terminata Stephens, 1832: 158.

Aleochara celer Stephens, 1832: 161.

Aleochara biguttata Heer, 1839: 315.

Aleochara croatica Penecke, 1901: 12.

Redescription. Length 3.5–6.0 mm. Body large and robust; brownish black; antennomeres 1–3 and legs brown; elytra yellow to yellowish brown and bicolored. Antennomeres 1–3 elongate, 4 longer than wide, 5–8 weakly transverse and 9–10 transverse. *Mouthparts.* Labrum transverse, bearing approximately 8 small, setae, and approximately 26 long setae, a-seta, b-seta, and pores present; b-seta rounded apically (arrow indicates b-seta, Fig. 2c). Labium with pseudopores in median area; approximately 3 real pores and pseudopores present in lateral area; pair of basal pores present (Fig. 2d). Ligula with approximately 4 pairs of small setae apically (Fig. 2d). Labial palpi with large a-, b-, and f-seta of 12 setae (a–h, α–δ) present; β-seta close to twin pores (tp); d- and c-seta at same level (Fig. 2e). Mentum transverse, bearing 4 pairs of main setae (b, u, v, w), and 4 extra setae, and pores present (Fig. 2f). *Thorax.* Mesoventrite completely carinate (arrow, Fig. 2a). Elytra with round latero-posterior margin. *Abdomen.* Abdominal tergite VIII with many short setae and pores; posterior margin weakly emarginate (Fig. 2g). Abdominal sternite VIII with many short setae

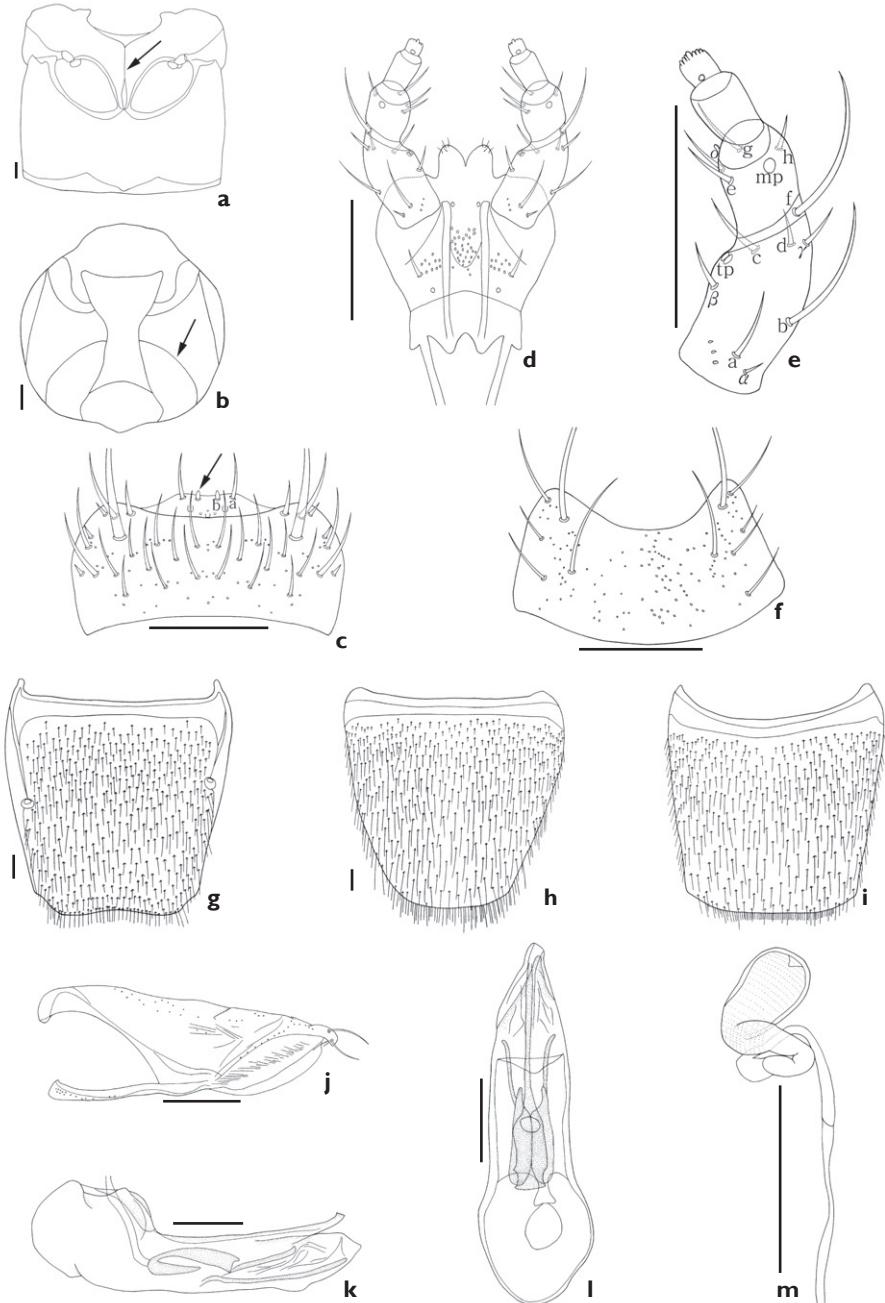


Figure 2. *Aleochara (Xenochara) intricata*. **a** meso- and metaventrite, ventral aspect **b** head, ventral aspect **c** labrum, dorsal aspect **d** labium, ventral aspect **e** labial palpus, ventral aspect **f** mentum, ventral aspect **g** tergite VIII, dorsal aspect **h** male sternite VIII, ventral aspect **i** female sternite VIII, ventral aspect **j** paramere, lateral aspect **k** median lobe, lateral aspect **l** median lobe, dorsal aspect **m** spermatheca. Scale bars = 0.1 mm.

and pores; posterior margin rounded (Fig. 2h, i). *Genitalia*. Median lobe as in Figs 2k and l. Paramere without fovea in hinge zone (Fig. 2j). Spermatheca as in Fig. 2m.

Material examined. 7, Hol-ri, Ganseong-eup, Goseong-gun, Gangwon Prov., Korea, 31.VIII–1.IX.1984, Y.-S. Kim (2♂♂2♀♀, on slide); 1, Gohan-ri, Sabuk-eup, Gangwon Prov., Korea, 27.IV.1985, J.-I. Kim; 1, Deakwan-ryeong, Gangwon Prov., Korea, 28.VI.1984, Y.-S. Kim; 2, Oigapyeong, Inje-gun, Gangwon Prov., Korea, 26.V.1986, Y.-S. Kim; 1, Baekdamsa-temple, Inje-gun, Gangwon Prov., Korea, 26.V.1986, Y.-S. Kim; 1, Dammaeul, Cheongsong, Gyeongbuk Prov., Korea, 24.VI.1988, K.-S. Jang; 1, Tonghan, Anjeong, Jeonbuk Prov., Korea, 5.VI.1988, Y.-S. Kim; 6, Seilles, carriere 1, 11/19 VIII 1945, G. Fagel; 2, Anseremme car, vers Freyr, 26 VIII 1946, G. Fagel; 2, Abruzzo, A. colomba, Italy, 26.VII.1894, P Fiori; 12, Lazio, Roma, Lirezzi, Italy, A. Fiori.

Distribution. Korea, Asia, Europe, North Africa (see Smetana, 2004: 354).

Remarks. This species is a new record for South Korea.

Aleochara (Xenochara) peninsulae Bernhauer

Fig. 3

Aleochara peninsulae Bernhauer, 1936: 325; Smetana, 2004: 360.

Holotype examined. Male mounted on card, with mouthparts, aedeagus and abdominal apex (segment VIII+) mounted in balsam on two transparent cards, labeled as follows: “Shimabara Unzen 2200F 2. 8. 34. Suenson” [printed]; “peninsulae Brnh. Typus un. *Polychara*” [handwritten yellow label]; “peninsulae Brnh. Typus unic.” [handwritten white label]; “Chicago NHMus M. Bernhauer Collection” [printed]; “HOLOTYPE *Aleochara peninsulae* Bernhauer, 1936 teste Park & Ahn 2007”. Deposited in the Field Museum of Natural History (FMNH), Chicago, USA.

Redescription. Length 3.8–5.4 mm. Body compact and robust; reddish black; antenna, elytra, and legs brownish black; elytra bicolored. Antennomeres 1–3 elongate, 4 longer than wide, 5 subquadrate, and 6–10 transverse. *Mouthparts*. Labrum transverse, bearing approximately 8 small, setae, and approximately 19 long setae, a-seta, b-seta and pores present; b-seta acute (arrow indicates b-seta, Fig. 3c). Labium with pseudopores in median area; approximately 3 pores and pseudopores present in lateral area; a pair of distal setae present (arrow indicates distal seta, Fig. 3d). Ligula with approximately 3 pairs of small setae apically (Fig. 3d). Labial palpi with large a-, b-, and f-seta of 12 setae present (a–h, α–δ); β-seta close to twin pores (tp); d-seta higher than c-seta (Fig. 3e). Mentum transverse, bearing 4 pairs of main setae (b, u, v, w), and approximately 2 extra setae, and pores present (Fig. 3f). *Thorax*. Mesoventrite completely carinate (arrow, Fig. 3a). Elytral latero-posterior margin emarginate. *Abdomen*. Abdominal tergite VIII with many short setae and pores; posterior margin emarginate; undulate on male (Fig. 3g, h). Male abdominal sternite VIII with many short setae and pores; posterior margin produced on male (arrow, Fig. 3i) and rounded

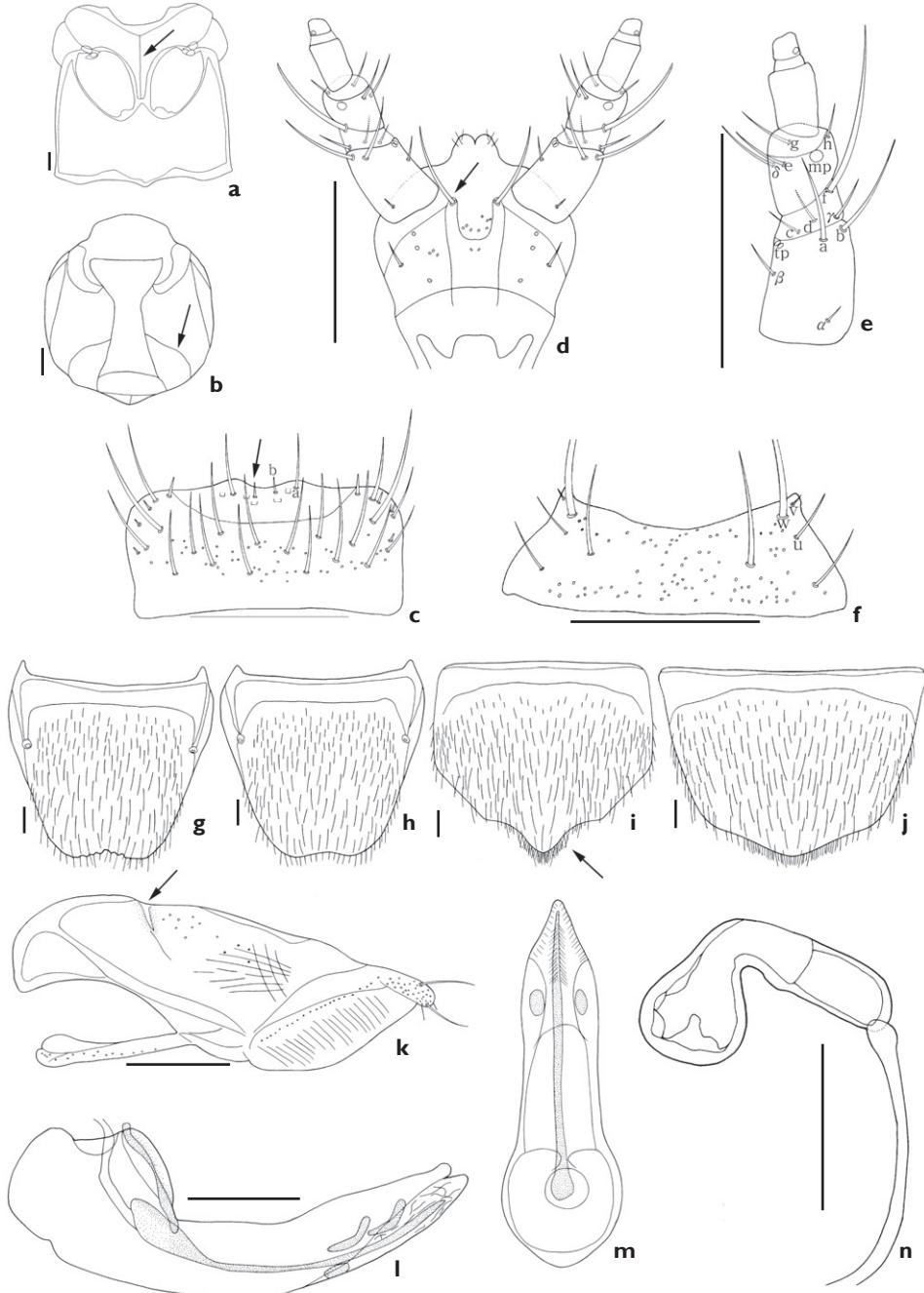


Figure 3. *Aleochara (Xenochara) peninsulae*. **a** meso- and metaventrite, ventral aspect **b** head, ventral aspect **c** labrum, dorsal aspect **d** labium, ventral aspect **e** labial palpus, ventral aspect **f** mentum, ventral aspect **g** male tergite VIII, dorsal aspect **h** female tergite VIII, dorsal aspect **i** male sternite VIII, ventral aspect **j** female sternite VIII, ventral aspect **k** paramere, lateral aspect **l** median lobe, lateral aspect **m** median lobe, dorsal aspect **n** spermatheca. Scale bars = 0.1 mm.

on female (Fig. 3j). *Genitalia*. Median lobe as in Figs 3l and m. Paramere with fovea in hinge zone (arrow, Fig. 3k). Spermatheca as in Fig. 3n.

Material examined. 2, Gyeongsang Univ., Gajo-Dong, Jinju-city, Gyeongnam Prov., Korea, 26.III.2003, C.-S. Lim, *ex* bait trap; 2, Gyeongsang Univ., Gajo-Dong, Jinju-city, Gyeongnam Prov., Korea, 2 VI 2003, C.-S. Lim, *ex* bait trap; 1, Gyeongsang Univ., Gajo-Dong, Jinju-city, Gyeongnam Prov., Korea, 27.III.2003, C.-S. Lim, *ex* bait trap; 2, Gyeongsang Univ., Gajo-Dong, Jinju-city, Gyeongnam Prov., Korea, 22.III.2003, C.-S. Lim, *ex* bait trap; 1, Gyeongsang Univ., Gajo-Dong, Jinju-city, Gyeongnam Prov., Korea, 12.III.2003, C.-S. Lim, *ex* bait trap; 1, Gyeongsang Univ., Gajo-Dong, Jinju-city, Gyeongnam Prov., Korea, 7.IV.2003, C.-S. Lim, *ex* bait trap; 1, Gyeongsang Univ., Gajo-Dong, Jinju-city, Gyeongnam Prov., Korea, 15.III.2003, C.-S. Lim, *ex* bait trap; 1, Gyeongsang Univ., Gajo-Dong, Jinju-city, Gyeongnam Prov., Korea, 24.III.2003, C.-S. Lim, *ex* bait trap; 1, Gyeongsang Univ., Gajo-Dong, Jinju-city, Gyeongnam Prov., Korea, 29.V.2003, C.-S. Lim, *ex* bait trap; 1, Gyeongsang Univ., Gajo-Dong, Jinju-city, Gyeongnam Prov., Korea, 30.III.2003, C.-S. Lim, *ex* bait trap; 1, near 1100m Rest Area, Jeju Prov., Korea, 30.V–17.VI.2003, Y.-B. Cho, *ex* bait trap.

Distribution. Japan, Korea.

Remarks. This species is a new record for the Korean peninsula.

Aleochara (Xenochara) puberula Klug

Fig. 4

Aleochara puberula Klug, 1832: 139; Ganglbauer, 1895: 32; Fenyes, 1920: 403; Bernhauer & Scheerpeltz, 1926: 781; Portevin, 1929: 236; Palm, 1972: 426; Lohse, 1974: 296; Klimaszewski, 1984: 46; Smetana, 2004: 360.

Aleochara vaga Erichson, 1839: 172.

Aleochara deserta Erichson, 1839: 173.

Aleochara decorata Aubé, 1850: 311.

Aleochara armitagei Wollaston, 1854: 559.

Aleochara badia Motschulsky, 1858: 237.

Oxypoda sanguinolenta Motschulsky, 1858: 241.

Oxypoda brunnescens Motschulsky, 1858: 243.

Aleochara dubia Fauvel, 1863: 428.

Oxypoda analis MacLeay, 1873: 135.

Baryodma bipartita Casey, 1894: 287.

Aleochara major Eichelbaum, 1912: 176.

See Klimaszewski (1984) for additional synonymies and references.

Redescription. Length 3.5–5.5 mm. Body reddish brown; antennomeres 1–3, elytra, and legs brown; elytra bicolored. Antennomeres 1–3 elongate, 4 longer than wide, 5 subquadrate, and 6–10 transverse. *Mouthparts*. Labrum transverse, bearing approximately 11 small, setae, and approximately 19 long setae, a-seta, b-seta, and pores present; b-seta

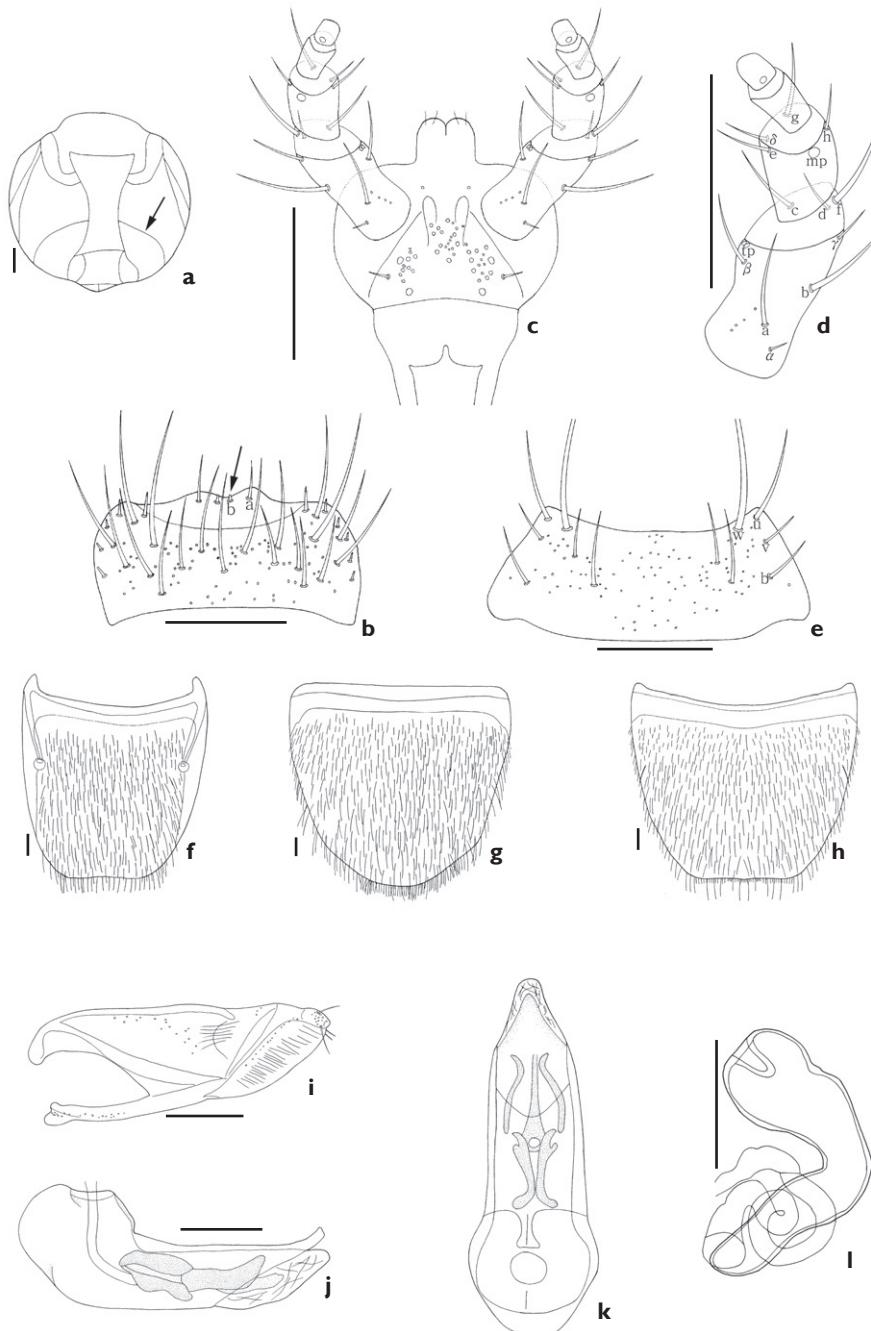


Figure 4. *Aleochara (Xenochara) puberula*. **a** head, ventral aspect **b** labrum, dorsal aspect **c** labium, ventral aspect **d** labial palpus, ventral aspect **e** mentum, ventral aspect **f** tergite VIII, dorsal aspect **g** male sternite VIII, ventral aspect **h** female sternite VIII, ventral aspect **i** paramere, lateral aspect **j** median lobe, lateral aspect **k** median lobe, dorsal aspect **l** spermatheca. Scale bars = 0.1 mm.

rounded at tip (arrow indicates b-seta, Fig. 4b). Labium with pseudopores in median area; approximately 3 real pores and pseudopores present in lateral area; a pair of basal pores present (Fig. 4c). Ligula with approximately 2 pairs of small setae apically (Fig. 4c). Labial palpi with large a-, b-, and f-seta of 12 setae present (a–h, α – δ); β -seta close to twin pores (tp); c-seta higher than d-seta (Fig. 4d). Mentum transverse, bearing 4 pairs of main setae (b, u, v, w), and 4 extra setae, and pores present (Fig. 4e). *Thorax*. Elytral latero-posterior margin emarginate. *Abdomen*. Abdominal tergite VIII with many short setae and pores; posterior margin weakly emarginate (Fig. 4f). Abdominal sternite VIII with many short setae and pores; apical margin rounded on male (Fig. 4g) and truncated on female (Fig. 4h). *Genitalia*. Median lobe as in Figs 4j and k. Paramere with fovea absent in hinge zone (Fig. 4i). Spermatheca coiled in duct (Fig. 4l).

Material examined. 2, Seoguipo-city, Jeju Prov., Korea, 18.VI.1985, K.-S. Lee; 1, Anseong, Muju-gun, Jeonbuk Prov., Korea, 5.VI.1988, G.-S. Jang; 22, Reunion 22–23.I.1992, Ravine de St. Gilles Bassin Cormoran, J. Janaj lgt; 1, Philippinen, Manila, Luy, 2.XI.1914; 1, Argentina, Prov. Tucuman, 450m, I 1905, Steinbach; 1, N. Palawan, Bakuit, 12.XI–22.XII 1913, Bottcher; 4, Sud algérien: Mrhaier 120 Km S de Biskra, 14.V.1954, G. Fagel; 4, China, B. M. 1980–491, P. M. Hammond, Guangdong, Guangzhou, Baiyunshan, 27.IX.80; 4, China, B. M. 1980–491, P. M. Hammond, Guizhou, 20m, S. Guilin, 22.IX.80; 1, Japan, Honshu, B. M. 1980–492, P. M. Hammond, Nara, ft of Mt. Kasuga, 20.VIII.80; 2, Japan, Sharp Coll., 1905–313; 4, Japan, G. Lewis, 1910–320.

Distribution. Japan, Korea, Asia, Europe, North Africa, North America (see Smetana, 2004: 360).

Aleochara (Xenochara) tristis Gravenhorst

Fig. 5

Aleochara tristis Gravenhorst, 1806: 170; Mulsant & Rey, 1874: 72; Fowler, 1888: 14; Ganglbauer, 1895: 34; Fenyes, 1920: 405; Bernhauer & Scheerpeltz, 1926: 784; Portevin, 1929: 237; Palm, 1972: 428; Lohse, 1974: 296; Klimaszewski, 1984: 37; Welch, 1997: 26; Smetana, 2004: 361.

Staphylinus bipunctata Olivier, 1795: 31.

Staphylinus geometrica Schrank, 1798: 642.

Aleochara flavomaculata Ménétriés, 1832: 147.

Aleochara bimaculata Stephens, 1832: 158.

Aleochara nigripes Miller, 1853: 27.

Aleochara erectasetosa Jekel, 1873: 41.

Baryodma nigripennis Mulsant & Rey, 1874: 76.

See Klimaszewski (1984) for additional synonymies and references.

Redescription. Length 3.7–6.4 mm. Body black; antenna and legs reddish black; elytra yellow to yellowish brown and bicolored. Antennomeres 1–3 elongate, and

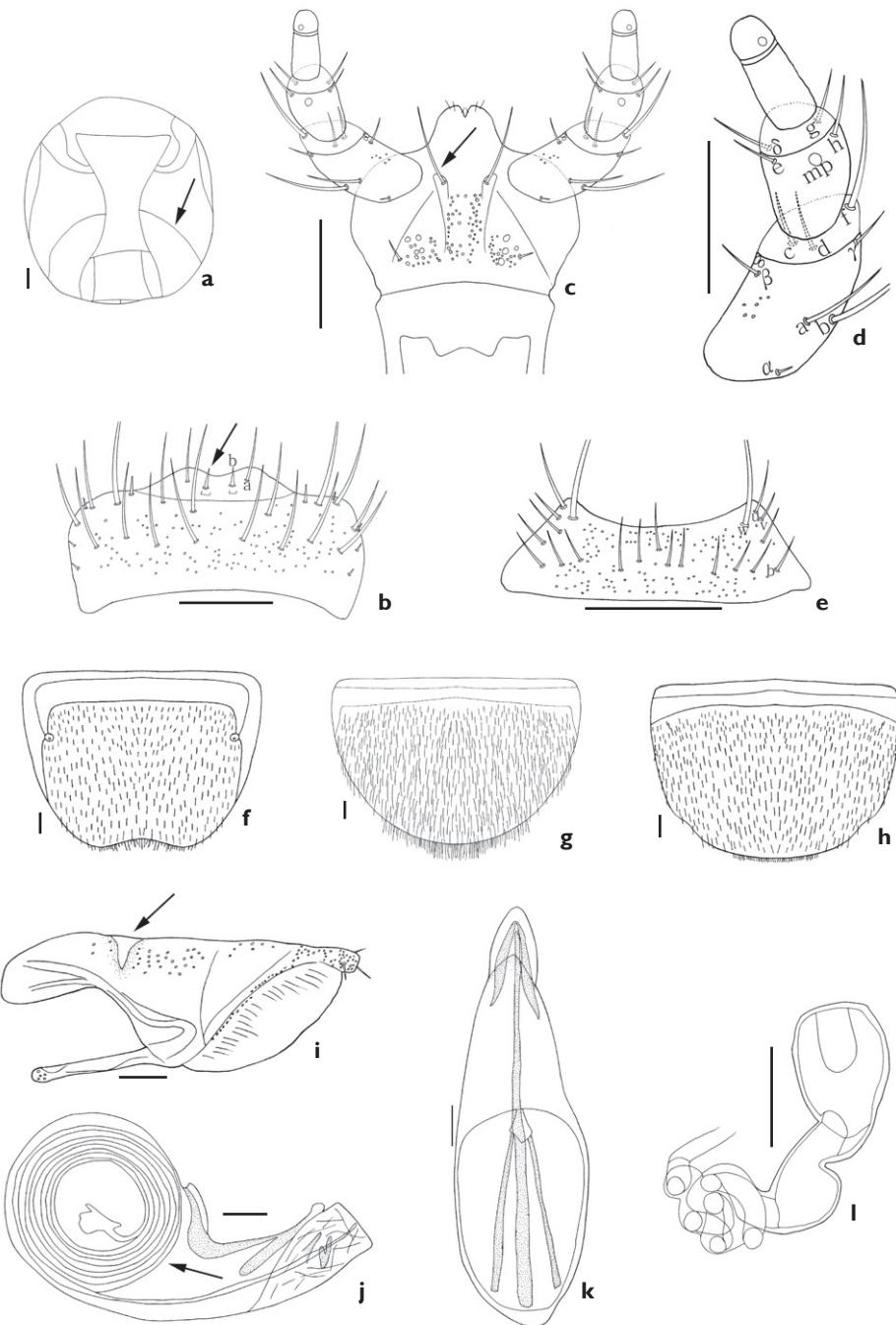


Figure 5. *Aleochara (Xenochara) tristis*. **a** head, ventral aspect **b** labrum, dorsal aspect **c** labium, ventral aspect **d** labial palpus, ventral aspect **e** mentum, ventral aspect **f** tergite VIII, dorsal aspect **g** male sternite VIII, ventral aspect **h** female sternite VIII, ventral aspect **i** paramere, lateral aspect **j** median lobe, lateral aspect **k** median lobe, dorsal aspect **l** spermatheca. Scale bars = 0.1 mm.

4–10 transverse. *Mouthparts.* Labrum transverse, bearing approximately 9 small, setae, and approximately 17 long setae, a-seta, b-seta, and pores resent; b-seta acute (arrow indicates b-seta, Fig. 5b). Labium with pseudopores in median area; about 3 real pores and pseudopores present in lateral area; a pair of distal setae present (arrow indicates distal seta, Fig. 5c). Ligula with approximately 3 pairs of small setae apically (Fig. 5c). Labial palpi with large a-, b-, and f-seta of 12 setae present (a–h, α – δ); β -seta close to twin pores (tp); c- and d-seta same level (Fig. 5d). Mentum transverse, bearing 4 pairs of main setae (b, u, v, w), and 13 extra setae, and pores present (Fig. 5e). *Thorax.* Elytra with round latero-posterior margin. *Abdomen.* Abdominal tergite VIII with many short setae and pores; posterior margin emarginate (Fig. 5f). Abdominal sternite VIII with many short setae and pores; apical margin rounded (Fig. 5g, h). *Genitalia.* Median lobe with coiled flagellum (arrow, Figs 5j and k). Paramere with fovea in hinge zone (arrow, Fig. 5i). Spermathecal duct coiled (Fig. 5l).

Material examined. 1, Russia, Tadzhikistan, 1981, Duechanbe env, on light, 16–18.VI.1981, K. Majer; 36, Russia, Tadzhikistan, Umg. Duechanbe env, 800–1200m, 4–14.IX.1983, U. Arnold.

Distribution. Korea, Asia, Europe, North Africa, North America (see Smetana, 2004: 361).

Remarks. See Klimaszewski (1984: 39) for reason why the older names *Staphylinus bipunctata* Olivier or *S. geometrica* Schrank do not have priority. We used Russian specimens for the redescription.

Acknowledgements

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