Autalia villosa, a new species from Korea, and an annotated catalog of the genus Autalia Leach (Coleoptera: Staphylinidae: Aleocharinae)

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Abstract

A new species, Autalia villosa Park & Ahn (type locality: Mt. Seoraksan, Gangwon Prov., Korea), is described from Korea. An illustration of the habitus and line drawings of diagnostic characters are presented. An annotated world catalog of the genus Autalia Leach is provided.

Key words: Coleoptera, Staphylinidae, Aleocharinae, Autalia, new species, Korea, World catalog

Introduction

The genus Autalia Leach, 1819 currently contains 34 species; ten from the Afrotropical region (Klimaszewski 1992), five from the Nearctic region (Hoebeke 1988), seven from the Neotropical region (Hoebeke & Ashe 1994), ten from the Palaearctic region (Assing 1997) and two from the Oriental region (Assing 1999; Pace 2002). A complete taxonomic history is presented in the catalog below in this paper. Most species of Autalia are found in humus, dung, litter and fungi, some are known to be myrmecophilous (Assing 1997; Klimaszewski 1992). Members of the distinctive genus Autalia are easily recognized among aleocharine genera by the combination of following characters: head with neck; long and narrow ligula divided into two divergent lobes apically; anterior margin of mentum deeply and narrowly emarginated (Fig. 3); pronotum usually with longitudinal foveae basally; mesosternum with complete carina; tarsal formula 4-4-5; elytra with 2 basal foveae; abdominal tergites III–V transversely impressed at base, with strong median carina and lateral carinae (Hoebeke & Ashe 1994; Ashe 2001).

In this paper we describe one new species with illustrations of diagnostic characters and provide an annotated taxonomic catalog of the species of Autalia. Microscopic preparations were performed using the techniques described by Hanley and Ashe (2003). The terminology of the chaetotaxy and microstructures follows Sawada (1972) and Ashe 2001.
(1984). Holotype and one paratype are deposited in the Chungnam National University Insect Collection, Daejeon, Korea (CNUIC).

Autalia villosa Park & Ahn, new species
(Figs. 1–9)


FIGURE 1. Autalia villosa Park & Ahn, sp. n. Holotype, body length 3.2 mm.
**Diagnosis.** *Australia villosa* Park & Ahn, sp. n. may be distinguished from *A. inopinata* and *A. puncticollis* by having a larger body size, 4 pairs of setae on male sternite VII (Fig. 6) and a longer flagellum of median lobe (Figs. 7–8). And this new species differs from *A. impressa* and *A. longicornis* in having 4 pairs of setae on male sternite VII (Fig. 6) and a uncoiled flagellum of median lobe (Figs. 7–8).

**FIGURES 24.** *Australia villosa* Park & Ahn, sp. n. 2, labrum, dorsal aspect; 3, mentum, ventral aspect; 4, labial palpi, ventral aspect. Scale bars = 0.1 mm (chaetotaxy nomenclature as in Sawada 1972).

**Description.** Length 3.2 mm. Body parallel-sided, reddish brown, antennae and legs brown, long and dense hairs present. Head as wide as pronotum, basal angles distinctly rounded; neck distinctly narrow, about 1/3 as wide as head; eyes large and prominent, ratio of eye length to tempora about 1.28. Antennae long, antennomeres 4–7 longer than wide, 8–10 subquadrate. **Mouthparts.** Mandibles acute apically. Labrum (Fig. 2) transverse, weakly emarginated apically, 15–17 setae and several pores present. Maxillary palpomere 1 smallest, 3 largest, 4 subulate and pubescent. Prementum with basal pores, medial setae adjacent to each other, pseudopores in median area absent, in lateral area setal pores, 7–8 real pores and pseudopores present Labial palpi (Fig. 4) with 11 setae (setae b–h, α–δ; see
Sawada, 1972) present, seta a absent, distal pore, median pore, twin pores present. Ligula thick and long, apically divided into two divergent lobes. Mentum (Fig. 3) deeply emarginated apically, many setae present. Thorax Pronotum about 1.04 times as long as wide; convex, narrowed apically, broadest in apical third, densely punctured; apparent U-shaped fovea and basal foveae present. Elytra Elongate, weakly convex and pubescent; foveae present basally, outer apical angle rounded. Abdomen. Abdominal tergites III–V transversely impressed and microsculpture present, tergites III–IV with one complete median carina and incomplete lateral carinae present, tergite V with three incomplete carinae present. Abdominal sternites III–IV with wavelike carinae, sternites III–VII with scattered micropores present basally. Male tergite VIII (Fig. 5) with 2 pairs of setae present posteriorly; lateral one bigger than basal one. Male sternite VIII (Fig. 6) with 4 pairs of setae present posteriorly, basal one smaller than others; posterior margin prolonged. Aedeagus. Median lobe as in Figs. 7 and 8. Paramere as in Fig. 9. Female unknown.

**FIGURES 59.** Autalia villosa Park & Ahn, sp. n. 5, male tergite , dorsal aspect; 6, male sternite , ventral aspect; 7, median lobe, lateral aspect; 8, median lobe, dorsal aspect; 9, paramere, lateral aspect. Scale bars = 0.1 mm.

**Distribution.** Korea.

**Etymology.** The specific name *villosa* refers to hairy body.
Key to the species of *Autalia* in the Palaeartic region
(modified from Assing 2003: 49)

9 Pronotum with long median furrow, posteriorly reaching basal transverse furrow; impressions of anterior abdominal tergites with pronounced carinae........................................... 9
- Pronotum with shorter median furrow confined to anterior half of midline, posteriorly not reaching basal transverse furrow; impressions of anterior abdominal tergites with less pronounced carinae. Genitalia different................................................................. 10

9 Smaller species, less than 3.0 mm; antennomeres 4–10 transverse; aedeagus as illustrated by Assing (1997: Fig. 5a). Holarctic species; in the eastern Palaeartic recorded from China, the Russian Far East, and Japan .................. *A. rivularis* (Gravenhorst)
- Larger species, more than 3.0 mm; antennomeres 4–7 longer than wide, 8–10 subquadrate; aedeagus as in Figs. 7–9. Korea ......................... *A. villosa* Park & Ahn, sp. n.

Annotated Taxonomic Catalog of *Autalia* species

*Autalia* Leach, 1819

Type species: *Autalia impressa* (Olivier, 1795), originally described as *Staphylinus*


*Autalia africana* Cameron, 1950


Distribution: Zaire.
**Autalia bierigi** Hoebeke & Ashe, 1994

*Autalia bierigi* Hoebeke & Ashe, 1994: 198 (original description, key to Neotropical species of *Autalia*, illustrated).
Distribution: Costa Rica.

**Autalia breviflagellata** Assing, 2001

Distribution: Nepal.

**Autalia capensis** Tottenham, 1957

Distribution: South Africa.

**Autalia chapada** Hoebeke & Ashe, 1994

Distribution: Brazil.

**Autalia elegans** Casey, 1886

Distribution: California (USA).

**Autalia ethiopia** Klimaszewski, 1992

Distribution: Ethiopia.
**Autalia formosa** Assing, 1999


Distribution: Taiwan.

**Autalia frontalis** Pace, 1986


Distribution: Kenya.

**Autalia gomyi** Pace, 1985

*Autalia gomyi* Pace, 1985: 624 (original description based on female, illustrated).

Distribution: Grand Comore.

**Autalia imbecilla** Assing, 2003


Distribution: China.

**Autalia impressa** (Olivier, 1795)

(synonym of *A. impressa*). Dauphin, 1993: 31 (synonym of *A. impressa*). Assing, 1997: 73
(synonym of *A. impressa*).

*Autalia ruficornis* Stephens, 1832: 102 (original description). Ganglbauer, 1895: 262 (synonym of
*A. impressa*). Fenyes, 1920: 108 (synonym of *A. impressa*). Bernhauer & Scheerpeltz, 1926:
569 (synonym of *A. impressa*). Dauphin, 1993: 31 (synonym of *A. impressa*). Assing, 1997: 73
(synonym of *A. impressa*).

*Autalia conura* Jekel, 1873: 29 (original description). Fenyes, 1920: 108 (synonym of *A. impressa*).
Bernhauer & Scheerpeltz, 1926: 569 (synonym of *A. impressa*).

*Autalia longula* Jekel, 1873: 31 (original description). Fenyes, 1920: 108 (synonym of *A. impressa*).
Bernhauer & Scheerpeltz, 1926: 569 (synonym of *A. impressa*).

*Autalia obscura* Wendeler, 1928: 298 (original description). Scheerpeltz, 1947: 107 (synonym of *A.

*Autalia brevicornis* Blair, 1944: 20 (original description). Scheerpeltz, 1947: 107 (key to Palaearctic
species of *Autalia*). Hansen, 1954: 88 (suspected to be a synonym of *A. impressa*). Fagel,
1959: 1 (agreed as a synonym of *A. impressa*). Palm, 1968: 68 (synonym of *A. impressa*).


*Autalia inopinata* Assing, 2003

*Autalia inopinata* Assing, 2003: 45 (original description, key for identification of Palaearctic spe-
cies, illustrated).
Distribution: Turkey.

*Autalia kabyliana* Fagel, 1959

Assing, 1997: 78 (key for identification of Palaearctic species of *Autalia*, bionomics, illus-
Distribution: Spain, Algeria, Tunisia.

*Autalia kinabaluensis* Pace, 2002

*Autalia kinabaluensis* Pace, 2002: 321 (original description, comparison with *A. minuta*, illus-
trated).
Distribution: Borneo.

*Autalia limata* Assing, 2001

entry).
Distribution: China.
**Autalia longicornis** Scheerpeltz, 1947


Distribution: Europe, Cyprus, Syria.

**Autalia minuta** Cameron, 1936

*Autalia minuta* Cameron, 1936: 13 (original description). Pace, 2002: 321 (comparison with *A. kinabaluensis*).

Distribution: Sumatra.

**Autalia monteverdensis** Hoebeke & Ashe, 1994


Distribution: Costa Rica.

**Autalia myrmecophila** Cameron, 1948


Distribution: Angola.

**Autalia pallescens** Tottenham, 1957


Distribution: Rwanda.
**Autalia phricotrichosa** Hoebeke, 1988


**Autalia pseudoafricana** Klimaszewski, 1992


**Autalia pseudotetracarinata** Klimaszewski, 1992


**Autalia puncticollis** Sharp, 1864


*Autalia rivularis* Sahlberg, 1830: 347 (misidentification). Ganglbauer, 1895: 262 (as synonym of *A. impressa*). Fenyes, 1920: 108 (as synonym of *A. puncticollis*). Bernhauer & Scheerpeltz, 1926: 569 (as synonym of *A. puncticollis*). Dauphin, 1993: 32 (as synonym of *A. puncticollis*).

Distribution: Europe, South America, North America.
**Autalia rivularis** (Gravenhorst, 1802)


**Autalia rufula** Sharp, 1888


**Autalia pulchella** Sawada, 1964: 38 (original description). Assing, 1997: 79 (placed as a junior synonym of *A. rufula*).

**Autalia ruwenzori** Klimaszewski, 1992


Distribution: Uganda.
**Autalia schillhammeri** Assing, 2003

*Autalia schillhammeri* Assing, 2003: 46 (original description, key for identification of Palaearctic species, illustrated).
Distribution: China.

**Autalia schuelkei** Assing, 1998

Distribution: China.

**Autalia smetanai** Pace, 1991

Distribution: Nepal.

**Autalia tetracarinata** Cameron, 1950

Distribution: Zaire, Rwanda.

**Autalia truncatula** Casey, 1911

Distribution: Columbia.

**Autalia yoopaa** Hoebeke & Ashe, 1994

Distribution: Mexico.
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