

## First Record of the Beetle Family Aderidae Winkler (Coleoptera: Tenebrionoidea) in Korea

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### Abstract

The beetle family Aderidae Winkler, represented by *Phytobaenus amabilis amabilis* R. F. Sahlberg, 1834 is identified for the first time in Korea. Photos of adult, redescription and line drawings of diagnostic characters are provided.

**Key words:** *Phytobaenus amabilis*, Aderidae, Coleoptera, taxonomy, Korea

### Introduction

The Aderidae, ant-like leaf beetles, is a relatively small family of Tenebrionoidea. There are approximately 1,000 species known worldwide (Chandler 2002) and about 76 species in the Palearctic region (Nardi 2008). This family is frequently found resting on the underside of leaves of various deciduous shrubs and trees. Larvae are found in rotten wood, leaf litter, and under the bark, however, little is known about the bionomics of most species (Chandler 2002).

Members of Aderidae are characterized by the combination of the following features: body oval to elongate; head strongly deflexed, transverse, mostly wider than pronotum, abruptly constricted at base (except *Phytobaenini*); antennae mostly filiform, subserrate, or clavate, flabellate in male of *Emelinini*; apical maxillary palpomere large securiform; pronotum trapezoidal to transversely oval, base mostly narrower than elytra; tibiae lacking apical spurs, tarsal formula 5-5-4, penultimate tarsomeres very small, antepenultimate tarsomere lobed ventrally; claw simple; elytra with confused punctation (Chandler 2002).

In this paper, I report the family Aderidae, as represented by *Phytobaenus amabilis amabilis* R. F. Sahlberg, 1834, for the first time in Korea. Also photos of adult, redescription and line drawings of diagnostic characters are provided. The specimens studied are deposited in JUNG's Private Insect Collection (Seoul, Korea). The detailed morphological characters are carefully examined under stereomicroscopy (M50, DM2500, Leica, Germany) and captured by using digital camera (Canon, Japan).

### Taxonomic accounts

Family Aderidae Winkler, 1927 **닭은잎벌레붙이과 (신칭)**  
Genus *Phytobaenus* R. F. Sahlberg, 1834 **닭은잎벌레붙이속 (신칭)**

*Phytobaenus* R. F. Sahlberg, 1834: 276.

Type species: *Phytobaenus amabilis* R. F. Sahlberg, 1834.

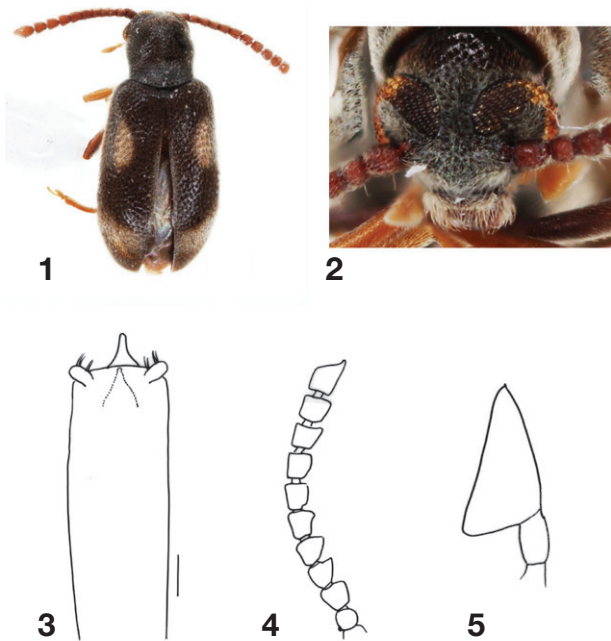
#### ***Phytobaenus amabilis amabilis* R. F. Sahlberg, 1834**

**닭은잎벌레붙이 (신칭) (Figs 1-5)**

*Phytobaenus amabilis amabilis* R. F. Sahlberg, 1834: 277.

### Redescription

Body length 2.5 mm. Body elongate, convex, covered with decumbent greyish white hairs; color mostly black; maxillary and labial palpi brownish yellow; clypeus, labrum, mandibles, antennae, fore and middle legs brown; hind legs blackish brown; elytron with two cream-white markings; one marking longitudinally placed at basal 2/5 part, the others obliquely placed at basal 4/5 part, reaching to suture line. Head strongly deflexed, not visible dorsally and transverse, mostly wider than pronotum; finely and regularly punctate; eyes large and strongly emarginated; ocular distance about 2.2 times narrower than diameter of eyes; antennae weakly serrate from third antennomere to 10th; second antennomere about 1.2 times shorter than third antennomere, length of each antennomere (4-10 antennomeres) almost equal to width; 11th antennomere subcylindrical at basal part and rapidly narrowing apically, forming asymmetrical and nearly subconical shape; frontoclypeal suture straight; apical maxillary palpomere large and wide triangular; apical



**Figures 1-5.** *Phytobaenus amabilis*: 1. body of adult (dorsal); 2. head (front); 3. Genitalia (female, scale bar=0.1 mm); 4. Antenna; 5. Apical maxillary palpomere.

labial palpomere subcylindrical. Pronotum narrower than elytral base, broadest at basal 2/3 part and gradually narrowed posteriorly, forming a neck-like structure; densely and moderately punctate and strongly convex; anterior margin indistinct and round; lateral margins weakly rimmed; basal margin round and weakly rimmed, with oblique impressions at mid-basal part. Scutellum tongue shape. Elytra elongate and nearly parallel-sided, narrowing from apical 1/5 part to apex; not punctate-striate; surface with dense, large, coarse punctures and weakly rugose. Leg rather long; femora strongly swollen; tibiae lacking apical spurs; tarsi with dense seta ventrally; tarsal formula 5-5-4, third hind tarsomere (fourth tarsomeres of fore and mid) bilobed ventral-

ly, strongly larger than penultimate tarsomere; claws simple.

*Male*: Hind tibia weakly curved inward; *Female*: Hind tibia not curved inward.

**Specimens examined.** 1 ♀, near Gwangneung, Jinjeop-eup, Namyangju-si, Gyeonggi-do, 2.VI.2014, W.G. Kim; 2 ♂, Gohan-ri, Gohan-eup, Jeongseon-gun, Gangwon-do, 5.VI.2015, J.B. Seung.

**Distribution.** Korea (new record), Japan, Russia (East Siberia, Far East), China (Nei Mongoi), Europe (Belarus, Croatia, Czech Republic, Finland, France, Germany, Hungary, Italy, Latvia, Poland, Romania, Slovakia, Ukraine).

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