

## New Records of Whiteflies (Homoptera: Aleyrodidae) from Korea

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**Abstract :** Five species of whiteflies, *Aleurolobus iteae* Takahashi, *Aleurolobus vitis* Danzig, *Asterobemisia takahashii* Danzig, *Bemisiella artemisiae* Danzig, and *Massilieuodes euryae* (Takahashi), are newly recorded from Korea.

**Key words:** Homoptera, Aleyrodidae, *Aleurolobus*, *Asterobemisia*, *Bemisiella*, *Massilieuodes*, New record, Korea

### Introduction

Whiteflies (Aleyrodidae) have recently become major pests in Korea causing severe damage to agricultural crops, trees, and shrubs. Species such as *Bemisia tabaci* (Gennadius) and *Trialeurodes vaporariorum* (Westwood) have been notorious pests of crops in glasshouses and shade houses and are subsequently the most commonly reported whiteflies in Korea. Despite their importance, systematic studies of this group have been sporadic, resulting in only seven species of whiteflies being documented in Korea. Therefore, a taxonomic survey was initiated to provide basic information on Korean whiteflies.

In this paper, we add the following species to our knowledge of Korean whitefly fauna: *Aleurolobus iteae* Takahashi, *Aleurolobus vitis* Danzig, *Asterobemisia takahashii* Danzig, *Bemisiella artemisiae* Danzig, and *Massilieuodes euryae* (Takahashi), and provide illustrations and information on the distribution and hosts of each species. An asterisk (\*) is used to indicate new host or distribution records.

#### 1. *Aleurolobus iteae* Takahashi

(Figs. 1-3)

*Aleurolobus iteae* Takahashi, 1957.

**Specimens examined.** Korea. Gyeonggido: Surisan, 35 puparia, on *Melampyrum roseum*, 21. IX. 2003 (S.J. Suh).

**Distribution.** Japan and \*Korea.

**Host plants.** \**Melampyrum roseum* Max. (Scrophulariaceae). In addition, *Itea japonica* (Grossulariaceae) was listed as the host of this species in Japan (Takahashi, 1957).

#### 2. *Aleurolobus vitis* Danzig

(Figs. 4-6)

*Aleurolobus vitis* Danzig, 1966.

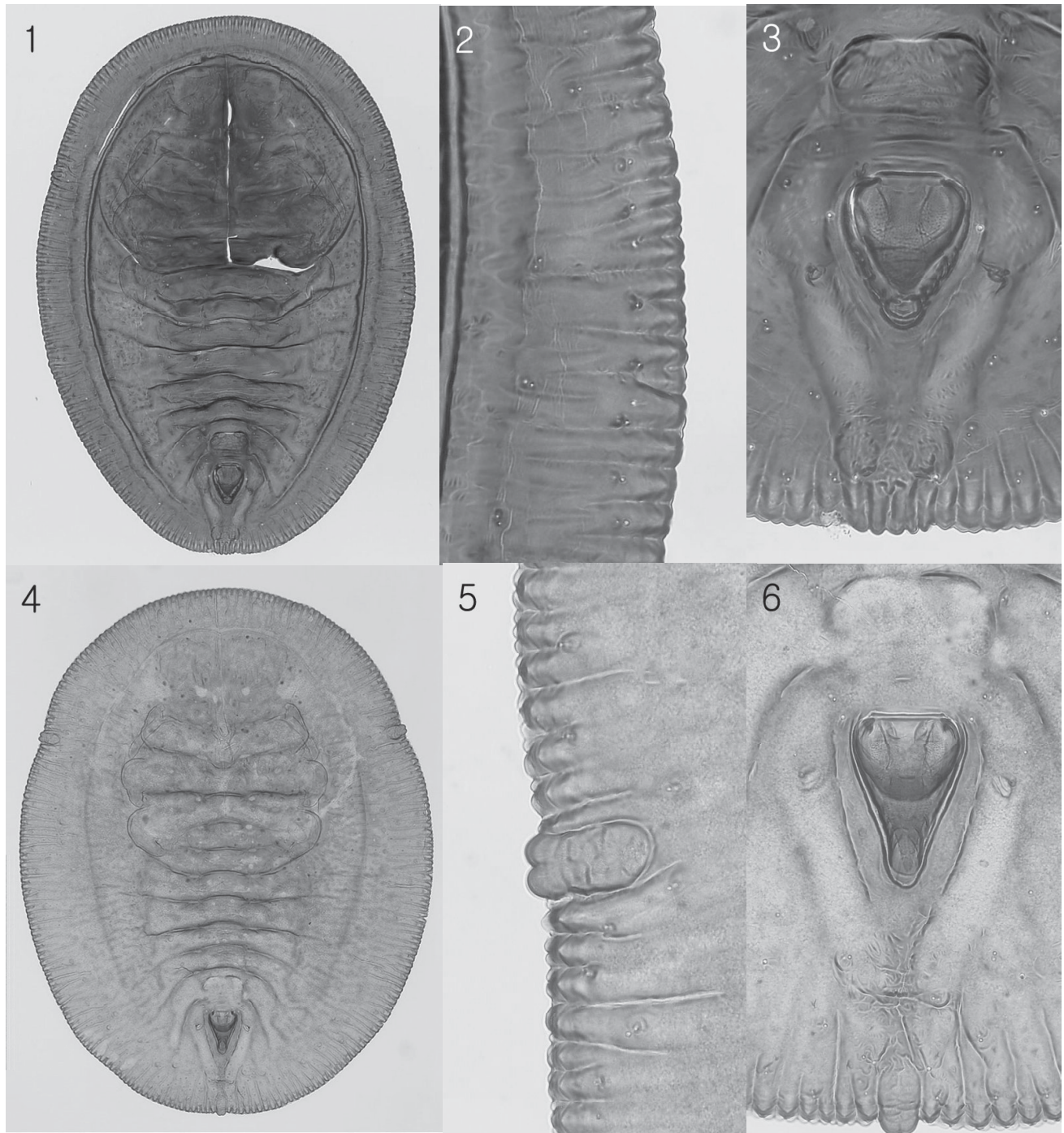
**Specimens examined.** Korea. Gyeonggido: Surisan, 6 puparia, on *Vitis coignetiae*, 21. IX. 2003 (S.J. Suh).

**Distribution.** \*Korea and Russia (southern Maritime Territory).

**Host plants.** \**Vitis coignetiae* Pulliat ex Planchon (Vitaceae). This species is also known from *Vitis amurensis* in Russia (Danzig, 1966).

#### 3. *Asterobemisia takahashii* Danzig

(Figs. 7-9)



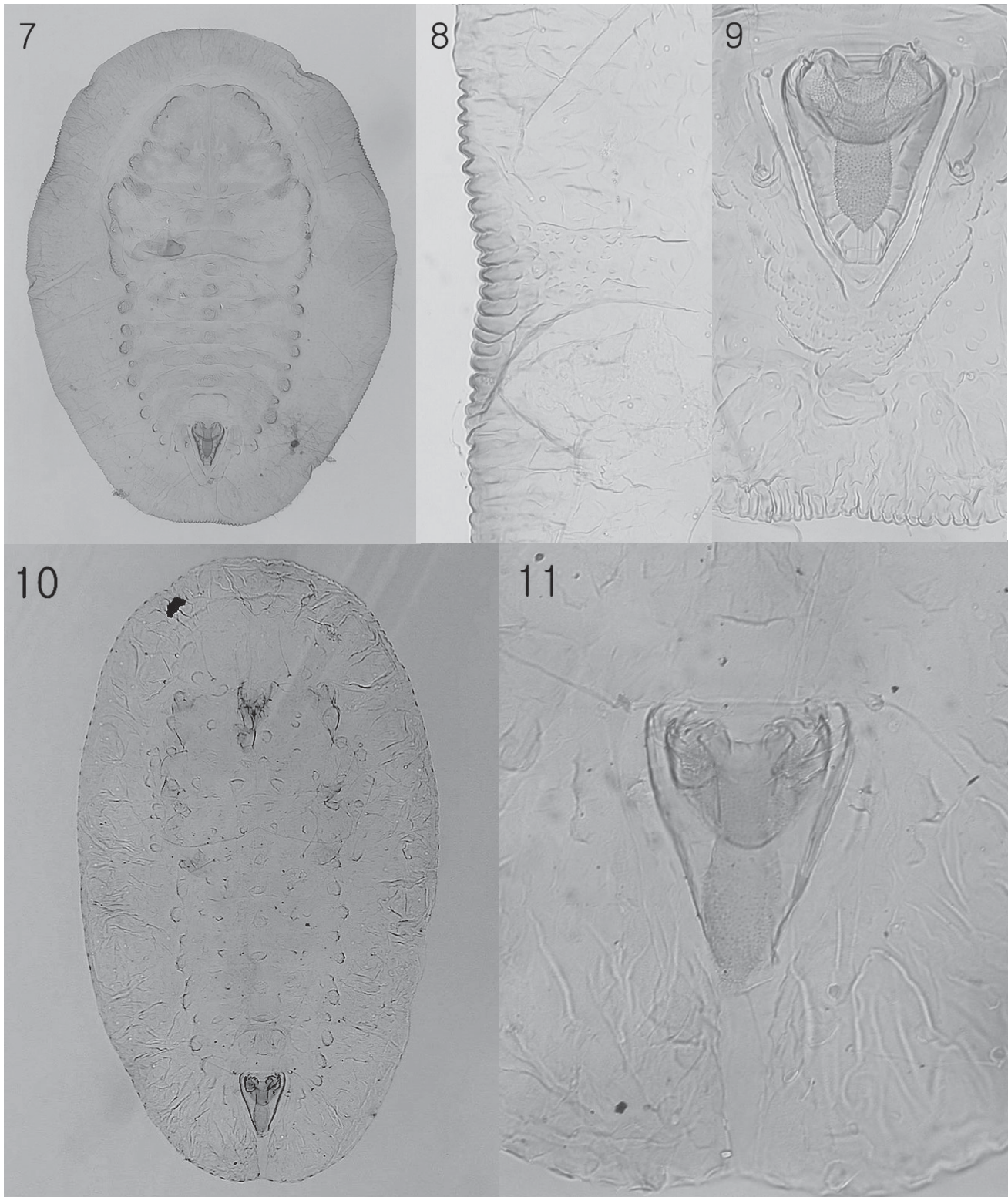
Figures 1-6. 1) *Aleurolobus iteae*, puparium; 2) *A. iteae*, margin; 3) *A. iteae*, vasisform orifice; 4) *Aleurolobus vitis*, puparium; 5) *A. vitis*, thoracic tracheal margin; 6) *A. vitis*, vasisform orifice.

*Asterobemisia takahashii* Danzig, 1966.

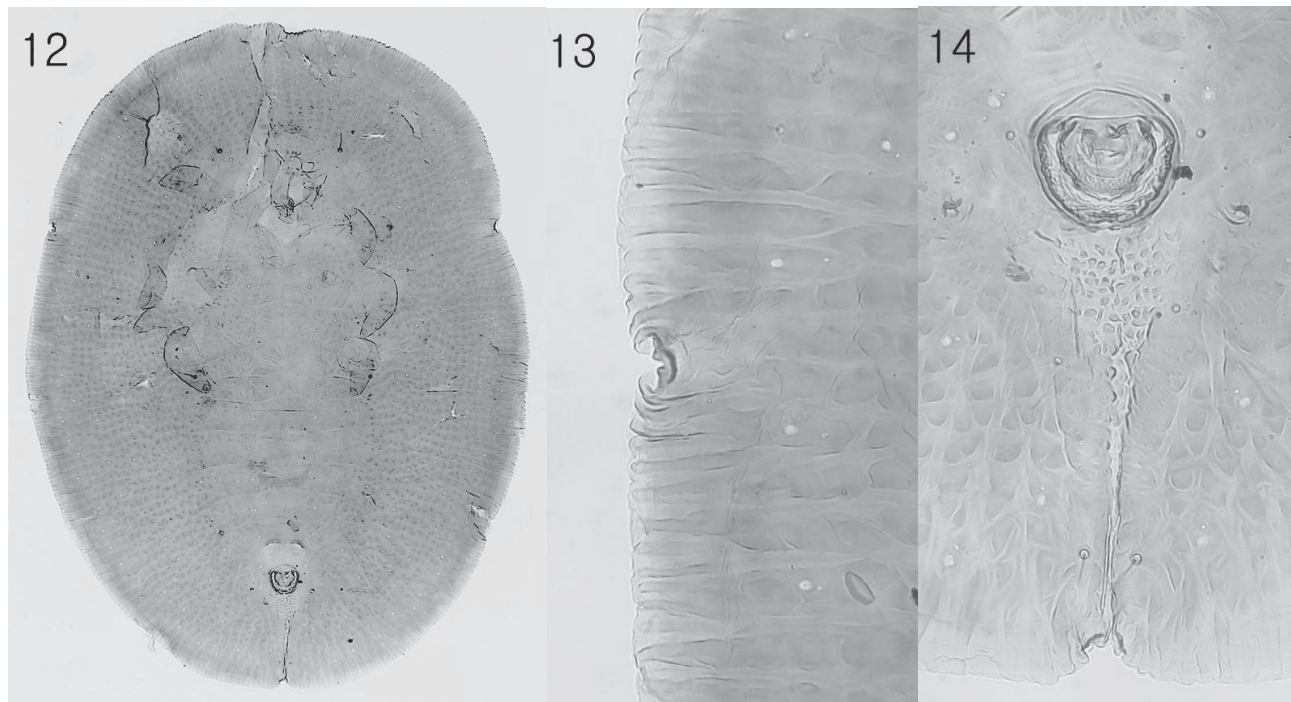
**Specimens examined.** Korea. Gyeonggido: Surisan, 3 puparia, on *Pueraria thunbergiana*, 21. IX. 2003 (S.J. Suh).

**Distribution.** \*Korea and Russia (southern Maritime Territory).

**Host plants.** \**Pueraria thunbergiana* Benth. (Leguminosae). This species was also reported on *Quercus mongolica* (Fagaceae) in Russia (Danzig 1966).



Figures 7-11. 7) *Asterobemisia takahashii*, puparium; 8) *A. takahashii*, thoracic tracheal margin; 9) *A. takahashii*, vasiform orifice; 10) *Bemisiella artemisiae*, puparium; 11) *B. artemisiae*, vasiform orifice.



Figures 12-13. 12) *Massilieurodes euryae*, puparium; 13) *M. euryae*, thoracic tracheal margin; 14) *M. euryae*, vasiform orifice.

#### 4. *Bemisiella artemisiae* Danzig

(Figs. 10-11)

*Bemisiella artemisiae* Danzig, 1966.

**Specimens examined.** Korea. Chungcheongnam-do: Yeongi, 2 puparia, on *Artemisia princeps* var. *orientalis*, 19. VIII. 1997 (D.G. Park).

**Distributions.** \*Korea and Russia (southern Maritime Territory, Crimea).

**Host plants.** \**Artemisia princeps* var. *orientalis* (Pampan.) Hara (Compositae). This species was also reported on *Artemisia* sp. and *Chrysanthemum morifolium* in Russia (Danzig, 1966; Korobitsin, 1967).

#### 5. *Massilieurodes euryae* (Takahashi)

(Figs. 12-14)

*Dialeurodes euryae* Takahashi, 1940.

*Massilieurodes euryae* (Takahashi) Jensen, 2001.

**Specimens examined.** Korea. Jeju-do: Seongsan-nak, 2 puparia, on *Buxus microphylla* var. *koreana*, 24. V. 2000 (M.L. Lee).

**Distribution.** \*Korea and Taiwan.

**Host plants.** \**Buxus microphylla* var. *koreana* Nakai (Buxaceae). This species was also recorded on *Eurya glaberrima* (Theaceae) in Taiwan (Takahashi, 1940).

#### Discussion

Before the present study, only seven species of Aleyrodidae were reported as occurring in Korea; of these, *Bemisia tabaci* and *Trialeurodes vaporariorum*, the most commonly reported species, are the most prolific and widely distributed pest whiteflies. In this paper the following five species are added to the Korean whitefly fauna: *Aleurolobus iteae* Takahashi, *Aleurolobus vitis* Danzig, *Asterobemisia takahashii* Danzig, *Bemisiella artemisiae* Danzig, and *Massilieurodes euryae* (Takahashi). Additional collecting trips and examination of Aleyrodidae collections within Korea will likely result in the discovery of other species of aleyrodids occurring in Korea.

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