



## First record of *Rhinocola aceris* (L. 1758) (Hemiptera: Aphalaridae) in Iran

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**Abstract.** During a faunistic survey of the jumping plant-lice in the Mazandaran province of Iran in the summer of 2022, *Rhinocola aceris* (L. 1758) was collected on *Acer* sp. (Sapindales, Sapindaceae), which is newly recorded from Iran. This is also the first record of the genus *Rhinocola* Förster for the country.

**Keywords:** Psylloidea, *Acer* sp., Mazandaran, Iran

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*Rhinocola* Förster 1848 (Psylloidea: Aphalaridae) is a west-Palaearctic genus (Hodkinson & White, 1979; Burckhardt & Lauterer, 1989) containing three described species (Ouvrard, 2023). Among them, *Rhinocola aceris* (Linnaeus) and *R. fusca* Burckhardt are associated with maple trees, *Acer* spp. (Sapindales, Sapindaceae) (Burckhardt & Lauterer, 1989; Ouvrard, 2023).

*Rhinocola aceris* has a single generation per year and hibernates in the nymph stage under the bud scales of its host plant (Hodkinson & White, 1979; Burckhardt & Lauterer, 1989). Adults appear in late April to early May and spend a long period in the dormancy of a parapause type. The mature females lay eggs in July when the new overwintering buds of the host are beginning to develop (Burckhardt & Lauterer, 1989). The long, strongly sclerotized valvulae of the female in *Rhinocola* are probably used to laying eggs beneath bud scales (Burckhardt & Lauterer, 1989).

During a faunistic survey of the jumping plant-lice in Mazandaran Province, Iran, in the summer of 2022, *R. aceris* was collected on a maple tree (*Acer* sp.). Here, we report the species and the genus *Rhinocola* Förster for the first time from Iran.

The examined specimens are deposited in the Department of Biodiversity, Institute of Science and High Technology and Environmental Sciences, Graduate University of Advanced Technology, Kerman, Iran.

### *Rhinocola aceris* (L. 1758) (Figs 1-8)

#### Material examined

IRAN: 8 ♂, 10 ♀, Mazandaran province, N 36°47.14', E 50° 31.06', 1551 m, 4 June 2022, on *Acer* sp., leg. M. Lashkari.

#### Adult

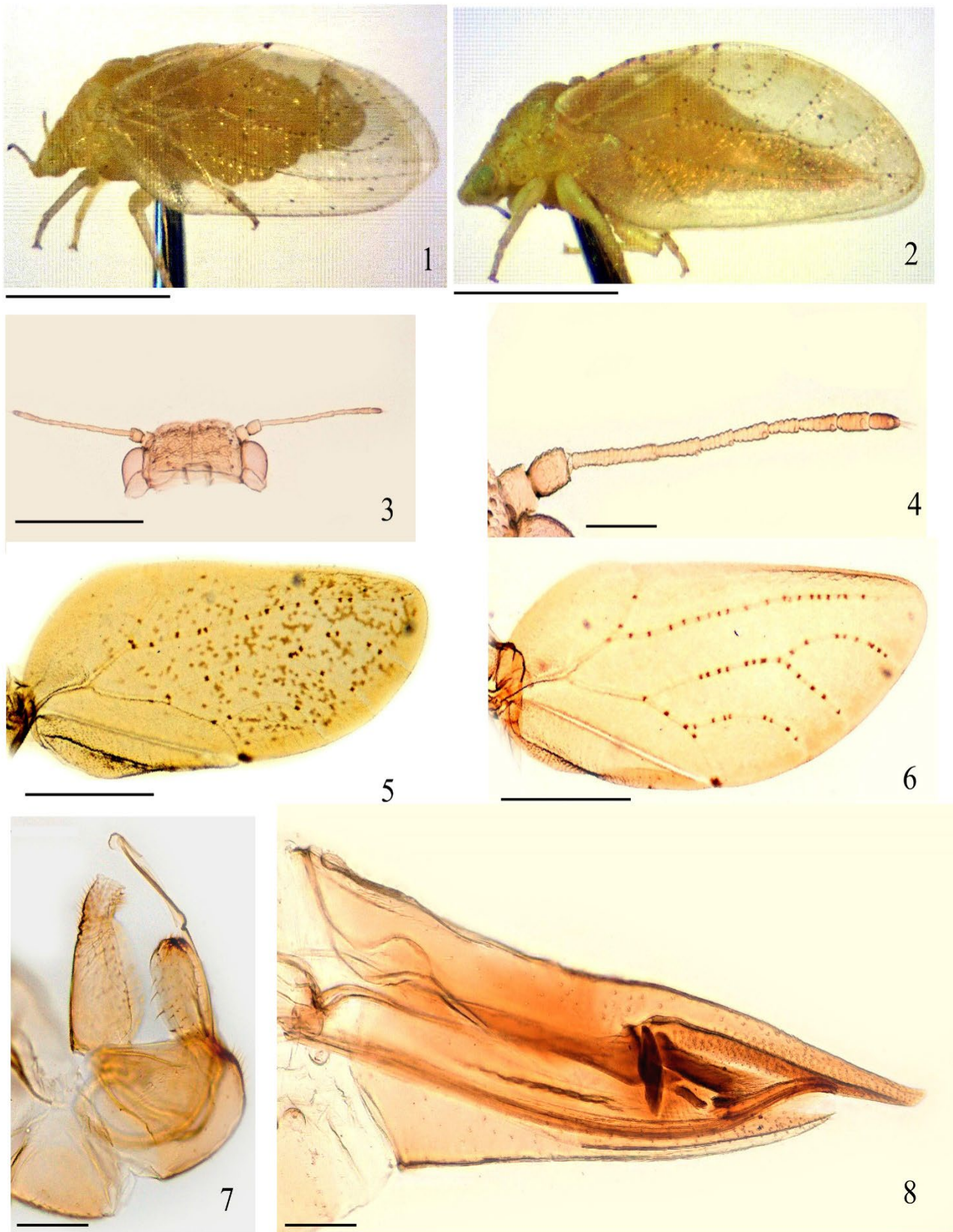
Described by Vondráček (1957), Dobreanu & Manolache (1962), Klimaszewski (1975), Hodkinson & White (1979), Burckhardt (1984) and Burckhardt & Lauterer (1989).

#### Fifth instar immature

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Described by White & Hodkinson (1982) and Burckhardt & Lauterer (1989).



**Fig.1-8.** *Rhinocola aceris*: 1-2. Habitus of male and female, respectively; 3. Head; 4. Antennal segments; 5-6. Male and female forewings, respectively. 7-8. Male and female terminalia, in profile, respectively. **Scale bars:** 1-2: 1.0 mm; 3, 5-6: 0.5 mm; 4, 7-8: 0.1 mm.

## Distribution

*Rhinocola aceris* is distributed in Armenia, Austria, Baltic States, Belarus, Bulgaria, Caucasus, Czech Republic, Czechoslovakia, Denmark, Finland, France, Georgia, Germany, Great Britain, Greece, Hungary, Italy, Middle Asia, Netherlands, Norway, Poland, Romania, Slovakia, Slovenia, Sweden, Switzerland, Tunisia, Turkey (Ouvrard, 2023) and Iran (current study).

## Host plant

As already mentioned above, *R. aceris* is associated with maple trees including *Acer campestre* L., *A. platanoides* L., *A. pseudoplatanus* L. and *A. tataricum* L. (Ouvrard, 2023).


With the new record from Iran, the known distributional range of *Rhinocola aceris* is expanded eastwards. The close relative species in the west Palaearctic, *Rhinocola fusca*, is more restricted and distributed in Italy (Burckhardt, 1984; Burckhardt & Lauterer, 1989), Algeria (Burckhardt, 1989) and Armenia (Burckhardt & Lauterer, 1989). *Rhinocola aceris* mainly differs from *R. fusca* in the presence of dark spots along the forewing veins and shape of valvulae (sinuous and slender in *R. aceris* compared with straight and broad in *R. fusca*) (Burckhardt & Lauterer, 1989). These species are restricted in distribution and host range and, so far, there are no reports of them being a pest.

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## اولین گزارش پسیل *Rhinocola aceris* (L. 1758) (Hemiptera: Aphalaridae) از ایران

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### چکیده

در بررسی فونستیک بالاخانواده Psylloidea در استان مازندران در تابستان سال ۱۴۰۱، گونه پسیل *Rhinocola aceris* (Linné, 1758) از روی درخت افرا، *Acer* (Sapindales, Sapindaceae) sp. جمع‌آوری شد. این گونه و جنس برای اولین بار از ایران گزارش می‌شود.

کلمات کلیدی: *Acer*, Psylloidea، مازندران، ایران

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