Short communication

A new host record of *Allothrombium triticium* (Acari: Prostigmata: Trombidiidae) larvae ectoparasitic on *Adalia bipunctata* (Coleoptera: Coccinellidae) from Turkey

Ş. Bayram¹, S. Çobanoglu¹ and A. Saboori^{2&*}

1. University of Ankara, Agricultural Faculty, Plant Protection Department, 06110 Ankara, Turkey, 2. Department of Plant Protection, College of Agriculture, University of Tehran, Karaj, Iran.

*Corresponding author, E-mail: saboori@ut.ac.ir

چکیده

لارو کنهی *Allothrombium triticium Z*hang فقط به عنوان انگل خارجی شته ها گزارش شده است. در طی بررسی فـون کنـههـای خـانوادهی Trombidiidae ترکیـه، لاروهـای ایــن کنـه بـه عنــوان انگــل خــارجی لاروهــای کفشــدوزک (Adalia bipunctata (Linnaeus) از آنکارا جمع آوری شد.

Velvet mites of the family Trombidiidae (Acari: Prostigmata) are ectoparasitic in the larval stages and predator in the post-larval stages on several small arthropod groups. Members of this family are parasitic on various insects and arachnids and occur on several phytophagous insect orders including serious pests of many cultivated plants (Eickwort, 1982; Welbourn, 1983; Zhang & Norbakhsh, 1995; Zhang & Saboori, 1996; Zhang, 1998; Goldarezana et al., 2000). Several trombidiid species have been reported as being ectoparasitic on small insects especially on Coleoptera, Orthoptera, Diptera, Lepidoptera, Hemiptera, Homoptera, Hymenoptera (Welbourn, 1983). Allothrombium pulvinum Ewing is an important natural enemy of aphids, spider mites and ectoparasite on the Macrosiphum rosae L., Aphis gossypii Glov. and Hyalopterus amygdali (Blach.) in Iran (Hosseini et al., 2002). Also, A. pulvinum is the predator of Planococcus citri (Risso) and Pulvinaria aurantii Cockerel eggs on citrus leaves (Saboori et al., 2003). It has been reported that the larvae of Allothrombium species were common ectoparasites of many species of aphids and could also attack larvae of Noctuidae, Chrysomelidae and Coccinellidae (Anonymous, 1983).

Cobanoğlu et al. (2003) collected A. pulvinum from ornamental plants and reported it for the first time in Turkey. The larva of Azaritrombium telletxeae (Goldarazena, Zhang & Jordana) was described from thrips in Turkey (Goldarezana et al., 2000). Allothrombium triticium Zhang, a predator with larvae ectoparasitic on wheat aphids, was described from Iran (Zhang & Norbakhsh, 1995). Saboori & Kamali (2000) described the adult female of A. triticium from specimens collected under the stones in Tehran, Iran. This species was reported by Haitlinger (2000) for the first time in Turkey.

6 Short communication

On 3 June 2002, the senior author found larvae of *A. triticium* ectoparasitic on the larvae of *Adalia bipunctata* (L.) (Col.: Coccinellidae), on *Crateagus monogyna* Jacg. (Rosaceae) in Ankara, Turkey. Three larvae of the cocciellids were infected by this mite. The coccinellid larvae were bred in laboratory conditions. As a result, hind wings of emerged adults were defected so they couldn't close their elytra.

Zhang & Saboori (1996) reported that *A. triticium* larvae were ectoparsite on *Coccinella septempunctata* L. in Iran. This indicates that *A. triticium* larvae can attack Coccinellidae. *Adalia bipunctata* is a new host for *A. triticium*.

Acknowledgements

We thank Dr. Huseyin Özdikmen (Gazi University, Faculty of Arts and Sciences, Department of Biology, 06500 Ankara, Turkey) for identification of the coccinellid specimens.

References

- **Anonymous** (1983) Preliminary observations on *Allothrombium* sp. a natural enemy of cotton aphids. *Shaanxi Agricultural Science* 3, 31-33 [in Chinese].
- Eickwort, C. G. (1982) Potential use of mites as biological control agents of leaf-feeding Insects. pp. 41-53 in Hoy, M. A., Cunningham, G. L. & Knutson, L. (Eds) *Biological control of pests by mites*. University of California Press.
- **Cobanoğlu, S., Uysal, C. & Ökten, E.** (2003) The complex of the beneficial mite fauna of ornamental trees and shrubs in Ankara, Turkey. *Entomologist's Monthly Magazine* 139, 7-12.
- **Goldarezana, A., Zhang, Z.-Q. & Jordana, R.** (2000) A new species and a new record of ectoparasitic mites from thrips in Turkey (Acari: Trombidiidae and Erythraeidae). *Systematic Parasitology* 45, 75-80.
- **Haitlinger, R.** (2000) New larval mites (Acari: Prostigmata: Erythraeidae, Microtrombidiidae, Trombidiidae) from Turkey, Peru and Poland. *Wiadomosci Parazytologiczne* 46(3), 379-396.
- Hosseini, M. Hatami, B. & Saboori, A. (2002) Host preference by *Allothrombium pulvinum* (Acari: Trombidiidae) larvae on aphids: *Macrosiphum rosae*, *Aphis gossypii* and *Hyalopterus amygdali* (Homoptera: Aphididae). *Experimental and Applied Acarology* 27(4), 297-302.

- Saboori, A., Hosseini, M. & Hatami, B. (2003) Preference of adults of *Allothrombium* pulvinum Ewing (Acari: Trombidiidae) to eggs of *Planococcus citri* (Risso) and *Pulvinaria aurantii* Cockerell on citrus leaves in the laboratory. *Systematic and Applied Acarology* 8, 49-54.
- **Saboori, A. & Kamali, K.** (2000) Description of *Allothrombium triticium* adult (Acari: Trombidiidae) from Iran. *Systematic and Applied Acarology* 5, 207-208.
- Welbourn, W. C. (1983) Potential use of trombidioid and erythraeoid mites as biological control agents of insects. pp. 103-140 in Hoy, M. A., Cunningham, G. L. & Knutson, L. (Eds) *Biological control of pests by mites*. University of California Press.
- **Zhang, Z.-Q.** (1998) Review biology and ecology of trombidiid mites (Acari: Trombidioidea). *Experimental and Applied Acarology* 22(3), 139-155.
- **Zhang, Z.-Q. & Norbakhsh, H.** (1995) A new genus and three species of mites (Acari: Trombidiidae) described from larvae ectoparasitic on aphids from Iran. *European Journal of Entomology* 92, 705-718.
- Zhang, Z.-Q. & Saboori, A. (1996) A new host record of Allothrombium triticium larvae (Acari: Trombidiidae) ectoparasitic on Coccinella septempunctata (Coleoptera: Coccinellidae). Systematic and Applied Acarology 1, 207-208.

Received: 31 December 2005 Accepted: 1 August 2006