

Natural enemies of the common pistachio psylla, *Agonoscena pistaciae* in Aran Bidgol pistachio orchards of Kashan

Gholam Hossein Roshani and Habib Abbasipour

Department of Plant Protection, Faculty of Agricultural Sciences, Shahed University, Tehran, Iran, qrosheni@yahoo.com

The common pistachio psylla, *Agonoscena pistaciae* Burckhardt & Lauterer (Hemiptera: Psyllidae), is a significant pest of pistachio trees, *Pistacia vera* Linnaeus, occurring in many countries along the southern borders of the old Soviet Union, and throughout most of the Middle East and Mediterranean region. Several laboratory and field studies have documented the biological parameters of *A. pistaciae* and its natural enemies. However, to-date little effort has been expended to collect and identify natural enemies in pistachio orchards of Kashan, despite the economic importance of pistachio and the effects of this pest in different growing seasons. The present study is believed to be the first on *A. pistaciae* natural enemies and provides information towards understanding the potential of its biocontrol in the region. Natural enemies of *A. pistaciae* were collected with different methods including direct capture, clip cage method and infested leaves collection from seven orchards of Aran Bidgol, Kashan during the two year period 2016-17. Samples were identified by Dr. Lotfalizadeh, East-Azarbaijan Agricultural and Natural Resources Research and Dr. Zare Khormizi, Shiraz Islamic Azad University. Parasitoids and predators were identified, including the following species; parasitoids: *Psyllaephagus pistaciae* Ferrière, 1961; *Psyllaephagus claripes* Trjapitzin, 1967 (Hym.: Encyrtidae), *Dendrocerus* sp. (Hym.: Megaspilidae), *Tetrastichus* sp. (Hym.: Eulophidae); Predators: *Adalia bipunctata* (Linnaeus, 1758); *Coccinella septempunctata* (Linnaeus, 1758); *Hippodamia variegata* (Goeze, 1777); *Oenopia conglobata contaminata* (Menetries, 1859); *Hyperaspis quadrimaculata* Redtenbacher, 1843 (Col.: Coccinellidae), *Chrysoperla carnea* (Stephens, 1836) (Neur.: Chrysopidae). Among identified species, *Tetrastichus* sp. and *Dendrocerus* sp. are reported on pistachio psylla for first time from Iran. The samples have been deposited in Entomology laboratory of Shahed University.

Keywords: *Agonoscena pistaciae*, biological control, parasitoids, pistachio, predators