

Short communication

A new record of mealybug pest in the south of Iran, *Phenacoccus solenopsis* (Hemiptera: Coccoidea: Pseudococcidae)

M. Moghaddam^{1&*} and A. N. Bagheri²

1. Insect Taxonomy Research Department, Iranian Research Institute of Plant Protection, Tehran, Iran, 2. Hormozgan Agricultural and Natural Resources Research Center, Bandar Abbas, Iran.

*Corresponding author, E-mail: moghaddamm2002@yahoo.com

چکیده

شپشک آردآلود *Phenacoccus solenopsis* Tinsley در تاریخ ۱۳۸۷/۱۰/۱۲ از بندرعباس و میناب در استان هرمزگان از روی ختمی چینی *Hibiscus rosa-sinensis* جمع‌آوری شد. این شپشک که برای اولین بار از ایران گزارش می‌شود، در پاکستان و هند یکی از آفات خسارت‌زا روی محصول پنبه است و سالانه مبالغ هنگفتی صرف کنترل شیمیایی آن می‌گردد. این شپشک خسارت قابل ملاحظه‌ای به گیاهان زینتی در شهرها و درختان میوه، به‌ویژه مرکبات، وارد آورده است.

Mealybug specimens collected on *Hibiscus rosa-sinensis* (Malvaceae), on 1st Jan. 2009 in Bandar Abbas, Hormozgan province (located at N27° 12' 32.0" E56° 17' 27.6") and were identified as *Phenacoccus solenopsis* Tinsley (fig. 1). The adult females gather into mass on the stems of the host plant. The species was originally described from the U.S.A., where it is widespread; afterwards it was reported in South America and the Caribbean (Williams & Granara de Willink, 1992; Ben-Dov *et al.*, 2009). It has been recorded from Asia in most of the major cotton growing regions of Pakistan and in north-western India, and also from Thailand and Taiwan, as well as West Africa from Nigeria, Benin and Cameroon (Hodgson *et al.*, 2008). This mealybug has been found on a relatively wide variety of host plants (Ben-Dov *et al.*, 2009). There have recently been much agricultural trade between Iran and Pakistan and also other Asian countries. Thus the accidental introduction of *P. solenopsis* has already been expected. There are some records of serious damage by this mealybug to ornamental plants and fruit trees in Hormozgan provinces, Iran.

Comparison of adult female specimens of *P. solenopsis* with Pakistani and Iranian material shows that they are similar in appearance; however there are a few differences in their microscopic characteristics. The main dissimilarity is that multilocular disc pores are present submarginally on segments I-VI in Iranian specimens, as discussed by Hodgson *et al.* (2008).

Williams & Granara de Willink (1992) noted that *P. solenopsis* is very similar to *P. solani* Ferris and *P. defectus* Ferris. Hodgson *et al.* (2008) believe that there is some support for the suggestion that the three species might be environmentally induced variants of a single

species. The *P. solani* is recorded from Iran on the roots of ornamental plants in Esfahan and Fars provinces.



Figure 1. *Phenacoccus solenopsis*. Photographed in January 2009, Hormozgan province, Minab.

Adult females of *P. solenopsis* and *P. solani* in Iran are separated by the following key:

1. Antennae 8-9 segmented. Multilocular disc pores on venter present medially on abdominal segments IV-IX, normally absent from anterior edge of segment VII; multilocular disc pores absent on submarginal areas of abdomen. Circulus usually small, slightly oval *solani*
- Antennae 9 segmented. Multilocular disc pores on venter present medially on abdominal segments VI-IX, normally present from anterior edge of segment VII; also usually present on submarginal areas of abdominal segments II-VI. Circulus normally larger, sometimes slightly produced laterally..... *solenopsis*

References

- Ben-Dov, Y., Miller, D. R. & Gibson, G. A. P.** (2009) SCALENET. Available on: www.sel.barc.usda.gov/scalenet/scalenet.htm (accessed September 2009).
- Hodgson, C., Abbas, G., Jalal, M. J., Saeed, S. & Karar, H.** (2008) *Phenacoccus solenopsis* Tinsley (Sternorrhyncha: Coccoidea: Pseudococcidae), an invasive mealybug damaging cotton in Pakistan and India, with a discussion on seasonal morphological variation. *Zootaxa* 1913, 1- 35.

Williams, D. J. & Granara de Willink, M. C. (1992) *Mealybugs of Central and South America*. 635 pp. C.A.B. International, Wallingford.

Received: 28 September 2009

Accepted: 26 January 2010