New Data on the Family Opomyzidae (Diptera Acalyptratae) in the Fauna of Iran

S. Mohamadzade Namin
Department of Plant Protection, 
Faculty of Agriculture, Varamin-Pishva Branch, 
Islamic Azad University, 
Varamin, Iran.
E-mail: mohamadzade@iauvaramin.ac.ir (corresponding author)

J. Nozari
Department of Plant Protection, 
Faculty of Agriculture, 
University of Tehran, 
Karaj, Iran.
E-mail: nozari@ut.ac.ir

As a result of faunistic studies on flies of the family Opomyzidae in Iran during 2008–2013, 3 species of two genera are found. Geomyza tripunctata Fallén and Opomyza germinationis (Linnaeus) are recorded for the first time for Iranian fauna.

Key words: Diptera, Opomyzidae, Iran, new records.

Introduction

Family Opomyzidae with about 50 described species is a small family of acalyptrate Diptera. The Opomizids are small to minute (2.5–4.5 mm) and rather slender flies with yellowish, reddish brown or black body and with long, narrow and usually maculated wings. Larvae of known biology species are phytophagous and feed within the stems of Poaceae and a few species cause economical damage to agriculture (Drake, 1993; van Zuijlen, 2009).

Very little information is available on the flies of the family Opomyzidae in Iran and only Opomyza florum (Fabricius) previously recorded as a pest of wheat in Iran (Rajabi & Behrozin, 2003).

Material and methods

Materials are collected by standard sweeping net. Species were identified with the keys by Shtakelberg (1989) and Drake (1993). All the material is deposited in the first author’s personal collection (SMNC).

Results

During studies on opomyzid fauna in Iran during 2009–2013, three species from two genera were collected in different provinces of Iran. Geomyza tripunctata Fallén and Opomyza germinationis (Linnaeus) are recorded for the first time for Iranian fauna.
List of species

Geomyza tripunctata Fallén, 1823

Material examined. Alburz Province: Koshk Bala, Chaloos road, 20.06.2009, 1 ♂, 1 ♀; Taleghan, Hasan joon village, 2000 m, 36°12.173’N, 50°45.316’E, 06.09.2009, 6 ♂, 4 ♀; Atashgah, 14.05.2009, 1 ♂; Taleghan, Zidasht, 1900 m, 36°9.941’N, 50°42.785’E, 12.05.2010, 2 ♂; Taleghan, Mehran village, 2100 m, 36°12.645’N, 50°56.303’E, 16.09.2009, 1 ♀ (Mohamadzade leg.); Chaharmahal & Bakhtiari Province: Koohrang, Chelgerd, 05.06.2013, 1 ♂, 3 ♀ (Mohamadzade leg.); Khuzistan Province: 10 km W Masjed Soleyman, 28.03.2013, 2 ♀ (Mohamadzade leg.); Kurdistan Province: Sanandaj, 30 km to Kamiyaran, 1440 m, 34°58.385’N, 46°59.149’E, 07.06.2009, 2 ♂, 2 ♀; Saral, Ghooj village, 2110 m, 35°45.831’N, 46°11.316’E, 20.06.2010, 1 ♂; Marivan, Dezli, Uraman, 1700 m, 35°19.655’N, 46°11.316’E, 06.09.2009, 1 ♂ (Mohamadzade leg.); Mazandaran Province: Haraz road, Rineh, southern mountainside of Damavand, 35°52.168’N, 52°06.329’E, 2500 m, 25.07.2013, 3 ♀ (Mohamadzade leg.); Tehran Province: Lavasatan, 1800 m, 35°49.298’N, 51°40.197’E, 07.05.2009, 1 ♀; Shahr Rey, 23.10.2010, 1 ♀ (M. Karimi leg.); Yazd Province: Khezrabad, 1670 m, 31°52.688’N, 54°31.229’E, 1850 m, 27.07.2011, 2 ♀ (Mohamadzade leg.); Mazandaran Province: Haraz road, Rineh, southern mountainside of Damavand, 35°52.168’N, 52°06.329’E, 2500 m, 08.08.2008, 3 ♀ (Mohamadzade leg.); West Azerbaijan Province: Khoy, 10 km to Ghotur, 38°27.620’N, 44°31.229’E, 1850 m, 27.07.2011, 2 ♀ (Mohamadzade leg.).

Distribution. Widespread in Europe (except Crete, Malta, Moldova, Northern Ireland and Slovenia) and Russia (Zuijlen, 2004; Shtakelberg, 1988). New record for Iran.

Diagnosis. Mesonotum with 4 pairs of dorso-central setae. Aepisternum with one strong seta in addition to 1–2 weak setae. Wing with a distinct spot at its base, spreading from near the end of Rs and covering the fork of R2+3 and R4+5 in addition to spots on r-m and dm-cu crossveins and apical spot (Fig. 1). Male and female genitalia as in Figs. 2–3.

Opomyza florum (Fabricius, 1794)

Material examined. Alborz Province: Taleghan, Hasan joon village, 2000 m, 36°12.173’N, 50°45.316’E, 21.08.2009, 1 ♂, 1 ♀; Taleghan, Mehran village, 2100 m, 36°12.645’N, 50°56.303’E, 12.06.2010, 3 ♂, 5 ♀ (Mohamadzade leg.); Ardebil Province: northern mountainside of Sabalan, 2900 m, 29.08.2010, 1 ♂; 10 km E Namin, 1400 m, 05.08.2013, 4 ♂, 7 ♀ (Mohamadzade leg.); Khorasan Razavi Province: Chaldran, Firizi village, 36°28.433’N, 58°56.774’E, 2000 m, 12.07.2011, 2 ♀ (Mohamadzade leg.); Mazandaran Province: Haraz road, Rineh, southern mountainside of Damavand, 35°52.168’N, 52°06.329’E, 2500 m, 08.08.2008, 3 ♀ (Mohamadzade leg.); West Azerbaijan Province: Khoy, 10 km to Ghotur, 38°27.620’N, 44°31.229’E, 1850 m, 27.07.2011, 2 ♀ (Mohamadzade leg.).

Distribution. Widespread in Europe (except Belarus, Canary Is., Corsica, Crete, Cyprus, Iceland, Liechtenstein, Luxembourg, Madeira, Malta, Moldova, Northern Ireland, Portuguese mainland, San Marino and former Yugoslavia),
Opomyza germinationis (Linnaeus, 1758)

Material examined. Alburz Province: Taleghan, Hasan joon village, 2000 m, 36°12.173´N, 50°45.316´E, 21.08.2009, 1 ♂, 5 ♀ (Mohamadzade & Najarpoor leg.); Mazandaran Province: Haraz road, Rineh, southern mountainside of Damavand, 35°52.168´N, 52°06.329 E, 2500 m, 8.VIII.2008, 2 ♂, 1 ♀; 7 km west kelardasht, 13.05.2012, 1 ♀ (Mohamadzade leg.); West Azerbaijan Province: Khoy, 10 km to Ghotur, 38°27.620´N 44°31.229´E, 1850 m, 27.07.2011, 3 ♀ (Mohamadzade & Najarpoor leg.).

Distribution. Widespread in Europe (except Belarus, Canary Is., Corsica, Crete, Cyprus, Iceland, Luxemburg, Madeira, Malta, Moldova and San Marino) and Russia (Zuijlen, 2004; Shtakelberg, 1988). New record for Iran.

Diagnosis. This species is similar with O. petrei Mesnil, in having darkened costal margin beyond vein Rs and pleura with brown marks (Fig. 8). Abdominal tergites in O. germinationis is dark with rounded yellow patches at the sides of each tergite. Proepisternum without setulae midway between the coxa and postpronotal lobe. In O. petrei, abdominal tergites are yellow with dark stripes in central and lateral part and proepisternum with several setulae midway between the coxae and postpronotal lobe (Drake, 1993; Fig. 4g). Cerci ending in a flattened point (Fig. 10); female genitalia as in Fig. 11.

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References


