

**AN INVESTIGATION OF THE FRUIT FLIES
(DIPTERA: TEPHRITIDAE) FAUNA IN AJABSHIR
REGION (EAST AZERBAIJAN PROVINCE)
WITH THE NEW RECORD FROM IRAN (PART 2)**

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ABSTRACT: Based on specimens collected from Ajabshir region during 2009-2010, forty nine species of sixteen genera were recognized which *Orellia distans* Loew, 1847 is being newly reported for the Iran insect fauna. In this part, the locality, host plants, distribution of the studied species and references are prepared.

KEY WORDS: Tephritidae, Fruit flies, Ajabshir region, Iran, New record.

Family Tephritidae

Tribe Myopitini

***Urophora affinis* (Frauenfeld, 1857)**

Material examined: (3♂♂, 1♀): Ajabshir, Gunbed, 37°30' N, 46°01' E, 1437 m, 13 February 2010; (1♀): Ajabshir, Tejarak, 37°28' N, 45°49' E, 1660 m, 13 February 2010 (Gharajedaghi).

Host plants: *Centaurea* spp. (Korneyev & With, 1993).

Distribution: Central Europe, east to Afghanistan; introduced to western North America (White & Korneyev, 1989) and Iran (Gharajedaghi et al., 2011b).

***Urophora doganlari* Kutuk, 2006**

Material examined: (1♀): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 27 March 2010 (Gharajedaghi).

Host plants: *Centaurea bornmuelleria* (Kutuk, 2006).

Distribution: Turkey (Kutuk, 2006) and Iran (Khaghaninia et al., unpublished).

***Urophora hermonis* Freidberg 1974**

Material examined: (1♀): Ajabshir, Yengeje, 37°33' N, 45°58' E, 1788 m, 9 February 2010 (Gharajedaghi).

Host plants: *Cousinia hermonis* (White & Komeyev, 1989).

Distribution: western Palaearctic (White & Komeyev, 1989) and Iran (Zarghani et al., 2011a).

***Urophora impicta* (Hering, 1942)**

Material examined: (1♀): Ajabshir, Huri, 37°32' N, 45°50' E, 1750 m, 1 April 2010 (Gharajedaghi).

Host plants: *Cousinia eryngioides* (Korneyev & White, 1993).

Distribution: Russia, Turkmenistan, Afghanistan (Thompson, 1998) and Iran (Gharali et al., 2005).

***Urophora jaceana* (Hering, 1935)**

Material examined: (5♂♂, 2♀♀): Ajabshir, Dashbulagh, 37°28' N, 45°41' E, 1318 m, 10 February 2010; (1♂, 2♀♀): Ajabshir, Yengeje, 37°33' N, 45°58' E, 1788 m, 9 February 2010 (Gharajedaghi).

Host plants: *Centaurea jacea* L., and *C. nigra* L. (White & Korneyev, 1989).

Distribution: Most of Europe; from Ireland and France in the West and Norway and Northern Russia (Kola Peninsula) in the North to the Pyrenees, Alps, Caucasus, and Turkey in the South and Ural Mountains in the East; introduced into Eastern America (Korneyev & White, 1999; Kutuk, 2003) and Iran (Khaghaninia et al., 2012).

***Urophora mauritanica* Macquart, 1851**

Material examined: (1♂, 1♀): Ajabshir, Mehrab, 37°32' N, 45°50' E, 1750 m, 1 April 2010 (Gharajedaghi).

Host plants: *Carthamus arborescens* M.Bieb., *C. glaucus* M.Bieb., *C. tinctorius* L., *C. lanatus* L., and *C. tenuis* (Boiss.) Bornm. (White & Korneyev, 1989; Freidberg & Kugler, 1989).

Distribution: Albania, Algeria, Bulgaria, Crete, Cyprus, Czech Republic, French mainland, Greek mainland, Italian mainland, Sardinia, FYR Macedonia, Malta, Moldova, Morocco, south of European Russia, Spain, Ukraine, Turkey, Azerbaijan, Kazakhstan, Uzbekistan, Israel, Algeria, Libya (White & Korneyev, 1989; Merz & Korneyev, 2004) and Iran (Gharali et al., 2005).

***Urophora quadrifasciata* (Meigen, 1826)**

Material examined: (1♂, 1♀): Ajabshir, Mehrab, 37°32' N, 45°50' E, 1750 m, 1 April 2010 (Gharajedaghi).

Host plants: The larvae develop in flowerhead galls on *Centaurea iberica* Trev. ex Spreng, *C. solstitialis* L., *C. aspera* L., *C. sterilis* L., *C. breviceps* Trev. ex Spreng., *C. nicaeensis* Trev. ex Spreng., *C. procurrens* Sieb., *C. jacea* L., *C. maculosa* Lam., *C. splendens* Sieb., *C. nigrescens* L., *C. cyanus* L., *C. calpitropa* L., *C. nigra* L., and *Serratula tinctoria* L. (Giray, 1979; White, 1988; White & Korneyev, 1989; Freidberg & Kugler, 1989; Merz, 1994; White et al., 2000; Kutuk, 2003).

Distribution: Most of Europe, Turkey, Kazakhstan, Israel, Iran, East Palaearctic and Nearctic region, and North Africa (Kutuk & Ozgur, 2003; Merz & Korneyev, 2004) and Iran (Karimpoor & Merz, 2006).

***Urophora solaris* Korneyev, 1984**

Material examined: (3♂♂, 4♀♀): Ajabshir, Zaviyeh, 37°29.988' N, 45°52.560' E, 1320 m, 24 March 2010 (Gharajedaghi).

Host plants: *Centaurea iberica* (Korneyev & White, 1999).

Distribution: Turkey, Tajikistan (Korneyev & White, 1993; Kutuk, 2003) and Iran (Gharajedaghi et al., 2011c).

***Urophora solstitialis* (Linnaeus, 1758)**

Material examined: (1♀): Ajabshir, Zaviyeh, 37°29.988' N, 45°52.560' E, 1320 m, 24 March 2010; (1♀): Ajabshir, Galachay, 37°31' N, 46°07' E, 1469 m, 24 March 2010 (Gharajedaghi).

Hostplants: *Carduus defloratus* L., *C. nutans* L., *C. personata* (L.) Jacq., *C. acanthoides* L., *C. crispus* L., *Cirsium vulgare* (Savi) Ten., and *C. heterophyllum* (L.) Hill. (White, 1988; Merz, 1994; Kutuk, 2003).

Distribution: Most of Europe, except Spain and Mediterranean region (Merz & Korneyev, 2004), North Caucasus, Armenia, Turkey, Kazakhstan, Western China (Xingjian), Far East Russia (Magadan) (Korneyev & White, 1999), North America, Australia, and New Zealand (Norrbohm et al., 1999), and Iran (Gharajedaghi et al., 2011c).

***Urophora stalker* Korneyev, 1984**

Material examined: (1♀): Ajabshir, Galachay, 37°31' N, 46°07' E, 1469 m, 24 March 2010 (Gharajedaghi).

Host plants: *Cousinia vicaria* and *C. severtzovi* (Korneyev & White, 1993).

Distribution: Tajikistan, Uzbekistan: Kazakhstan, Turkmenistan (Korneyev & White, 1993) and Iran (Gharajedaghi et al., unpublished b).

***Urophora stylata* (Fabricius, 1775)**

Material examined: (1♂, 1♀): Ajabshir, Gunbed, 37°30' N, 46°01' E, 1437 m, 13 February 2010 (Gharajedaghi).

Host plants: *Cirsium phyllocephalon*, *C. gaillardoti*, *Cirsium arvense* and *C. vulgare* (Freidberg & Kugler, 1989; Merz, 1994).

Distribution: Throughout Europe to Japan; Israel; Pakistan, India; Australia; North America (Norrboom et al., 1999) and Iran (Karimpoor & Merz, 2006).

***Urophora terebrans* (Loew, 1850)**

Material examined: (2♂): Ajabshir, Tejarak, 37°28' N, 45°49' E, 1660 m, 13 February 2010 (Gharajedaghi).

Host plants: *Carlina vulgaris*, *Cirsium eriophorum*, *Ci. ukranicum*, *Cynara cardunculus*, *Onopordum acanthium* (Korneyev & White, 2000).

Distribution: Europe, Russian, Armenia, Azerbaijan and Turkey (Norrboom et al., 1999) and Iran (Gharali et al., 2005).

Tribe Noetini***Ensina sonchi* (Linnaeus, 1767)**

Material examined: (2♀♀): Ajabshir, Tejarak, 37°28' N, 45°49' E, 1660 m, 20 February 2009 (Gharajedaghi).

Host plants: Various Cichorieae (*Chondrilla*, *Cichorium*, *Crepis*, *Helminthia*, *Hypochoeris*, *Lactuca*, *Picris*, *Prenanthes*, *Scorzonera*, *Sonchus*, *Taraxacum*, *Tragopogon* spp.) and *Leucanthemum vulgare* (Freidberg & Kugler, 1989; Merz, 1994).

Distribution: Most of Europe (Merz & Korneyev, 2004); North Africa; Asia from Transcaucasia (Richter, 1970), Turkey, Israel, Russia, Japan, and China, introduced into tropical Asia, Ethiopia, and Hawaii (Giray, 1979; Freidberg & Kugler, 1989; Merz, 1994; Norrbom et al., 1999; Merz & Korneyev, 2004) and Iran (Mohamadzade, 2010b).

Tribe Tephrellini***Oxyaciura tibialis* (Robineau-Desvoidy, 1830)**

Material examined: (1♀): Ajabshir, Gunbed, 37°30' N, 46°01' E, 1437 m, 13 February 2009 (Gharajedaghi).

Host plants: In flower heads of *Nepeta septemcrenata* and *Lavandula coronopifolia* (Freidberg & Kugler, 1989).

Distribution: Europe, Africa, Syria, Kazakhstan, Iran, Saudi Arabia, UAE, Afghanistan (Norrboom et al., 1999; Korneyev & Dirlbek, 2000; Merz & Dawah, 2005; Merz, 2008).

Tribe Tephritini***Acanthophilus helianthi* (Rossi, 1794)**

Material examined: (8♂♂, 14♀♀): Ajabshir, Zaviyeh, 37°29' N, 45°52' E, 1320 m, 24 March 2010; (4♂♂, 8♀♀): Ajabshir, Gunbed, 37°30' N, 46°01' E, 1437 m, 13 February 2010; (3♂♂): Ajabshir, Tejarak, 37°28' N, 45°49' E, 1660 m, 13 February 2010 (Gharajedaghi).

Host plants: The larvae develop in flower heads of various species of *Carthamus*, *Centaurea* and related genera of the family Asteraceae (Hendel, 1927; Freidberg & Kugler, 1989; Merz, 1994).

Distribution: North and East Africa; Central and South Europe; Kazakhstan, Kyrgyzstan, China, Transcaucasia, Turkey, Near and Middle East including Iran; Saudi Arabia, UAE, Pakistan, India and Thailand (Norrboom et al., 1999; Korneyev & Dirlbek, 2000; Merz & Dawah, 2005; Merz, 2008).

***Compiglossa loewiana* (Hendel, 1927)**

Material examined: (4♂♂, 1♀): Ajabshir, Galachay, 37°31' N, 46°07' E, 1469 m, 24 March 2010, from flower heads of *Centaurea stoebe* (Gharajedaghi).

Host plants: *Solidago virgaurea* (White, 1988).

Distribution: Throughout the British Isles, throughout the Palaearctic region (White, 1988) and Iran (Gharajedaghi et al., 2011d).

***Euaresta bullans* (Wiedemann, 1830)**

Material examined: (2♂♂, 1♀): Ajabshir, Zaviyeh, 37°29.988' N, 45°52.560' E, 1320 m, 24 March 2010 (Gharajedaghi).

Host plants: *Xanthium spinosum* (Mohamadzade et al, 2010a).

Distribution: Southern Europe from Spain to Southern Ukraine, Turkey, Israel, North America, South America, Southern Africa, Australia (Norrbom et al., 1999) and Iran (Mohamadzade et al, 2010a).

***Heringina guttata* (Fallen, 1814)**

Material examined: (3♀♀): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 1 April 2010 (Gharajedaghi).

Host plants: The larvae develop in flower head galls on *Anthemis arvensis*, *Leucanthemum vulgare*, *Cirsium palustre*, *Hieracium sabaudum* and *Helichrysum arenarium* (Rikhter, 1989; Merz, 1994).

Distribution: Sweden, Finland, Ukraine and Kazakhstan (Norrbom et al., 1999) and Iran (Zaitzev, 1947).

***Sphenella marginata* (Fallen, 1814)**

Material examined: (2♂♂, 3♀♀): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 1 April 2010; (1♀): Ajabshir, Tapikdare, 37°29' N, 45°53' E, 1540 m, 20 February 2010 (Gharajedaghi).

Host plants: *Senecio alpinus*, *S. erucifolius*, *S. jacobaea* *S. rupester*, *S. viscosus* and *S. vulgaris* (Merz, 1994).

Distribution: Europe, Asian, Russia (West Siberia), Egypt, Israel, Afghanistan (Norrbom et al., 1999; Freidberg & Kugler, 1989) and Iran (Mohamadzade et al., 2010a).

***Tephritis bardanae* (Schrank, 1803)**

Material examined: (1♂): Ajabshir, Zaviyeh, 37°29.988' N, 45°52.560' E, 1320 m, 24 March 2010 (Gharajedaghi).

Host plants: *Arctium lapa* and *A. tomentosum* (White, 1988).

Distribution: Northwest, South, Crimea, Caucasus, Kazakhstan, Western Europe (White, 1988) and Iran (Gilasian & Merz, 2008).

***Tephritis cometa* (Loew, 1840)**

Material examined: (3♂♂, 1♀): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 31 December 2010 (Gharajedaghi).

Host plants: *Cirsium gaillardotii*, *C. vulgare*, *C. arvense*, and *C. palustre* (Giray, 1979; White, 1988; Freidberg & Kugler, 1989; Merz, 1994).

Distribution: West and Middle Asia, Israel, Afghanistan, Russia, Estonia, Latvia, Lithuania, Ukraine, Moldova, Azerbaijan, Georgia, Armenia, Kazakhstan, Uzbek, Tajikistan, Kirghis, Turkomanas, Switzerland, England, Germany and Turkey (Foote, 1984; White, 1988; Freidberg & Kugler, 1989; Merz, 1994; Kutuk & Ozgur, 2003) and Iran (Mohamadzade et al. 2010b).

***Tephritis dioscurea* (Loew, 1856)**

Material examined: (1♀): Ajabshir, Galachay, 37°31' N, 46°07' E, 1469 m, 24 March 2010 (Gharajedaghi).

Host plants: *Cirsium gaillardotii*, *C. vulgare*, *C. arvense*, and *C. palustre* (Giray, 1979; White, 1988; Freidberg & Kugler, 1989; Merz, 1994).

Distribution: West and Middle Asia, Israel, Afghanistan, Russia, Estonia, Latvia, Lithuania, Ukraine, Moldova, Azerbaijan, Georgia, Armenia, Kazakhstan, Uzbek, Tajikistan, Kirghis, Turkomanas, Switzerland, England, Germany and Turkey (Foote, 1984; White, 1988; Freidberg & Kugler, 1989; Merz, 1994; Kutuk & Ozgur, 2003) and Iran (Mohamadzade et al. 2010b).

***Tephritis formosa* (Loew, 1844)**

Material examined: (1♀): Ajabshir, Zaviyeh, 37°29.988' N, 45°52.560' E, 1320 m, 24 March 2010 (Gharajedaghi).

Host plants: *Sonchus oleraceus*, *S. aspera*, *S. arvensis*, *Hypochaeris radicata*, and *Crepis virens* (White, 1988; Freidberg & Kugler, 1989; Merz, 1994).

Distribution: Europe, Israel and Iran (Norrbon et al., 1999).

***Tephritis hurvitzi* Freidberg, 1982**

Material examined: (5♂♂, 3♀♀): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 1 January 2010; (1♂, 1♀): Ajabshir, Sad, 37°28' N, 45°53' E, 1750 m, 24 March 2010 (Gharajedaghi).

Host plants: *Scorzonera syrica* and *Tragopogon longirostris* (Freidberg & Kugler, 1989).

Distribution: Europe, Middle Asia, Israel, Syria, Jordan, Lebanon, Iraq and Iran (Norrbon et al., 1999; Korneyev & Dirlbek, 2000).

***Tephritis hyoscyami* (L., 1758)**

Material examined: (1♂): Ajabshir, Galachay, 37°31' N, 46°07' E, 1469 m, 24 March 2010 (Gharajedaghi).

Host plants: *Carduus crispus*, *C. defloratus*, *C. personata* and *C. acanthoides* (Merz, 1994).

Distribution: North and Middle Europe, Russia, Estonia, Latvia, Ukraine, Lithuania, Moldova, Azerbaijan, Georgia, Armenia, China, Switzerland and Turkey (Foote, 1984; Thompson, 1998; Merz, 1994; Kutuk & Ozgur, 2003) and Iran (Zarghani et al., 2010).

***Tephritis nigricauda* (Loew, 1856)**

Material examined: (2♂♂, 1♀): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 1 April 2010; (1♀): Ajabshir, Mehrab, 37°32' N, 45°50' E, 1750 m, 15 March 2010 (Gharajedaghi).

Host plants: *Achillea millefolium*, *Achillea ptarmica*, *Anthemis arvensis* and *Matricaria inodora* (Kutuk, M. 2005; Norrbom et al., 1999).

Distribution: Austria, Switzerland, Russia, Estonia, Latvia, Lithuania, Ukraine, Moldova, Syria, Afghanistan, Turkey (Foote, 1984; Merz, 1994; Kutuk & Ozgur 2003) and Iran (Gharajedaghi et al., 2011c).

***Tephritis oedipus* (Hendel, 1927)**

Material examined: (1♀): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 25 February 2010 (Gharajedaghi).

Host plants: *Lactuca tatarica* (Korneyev & Karpyuk, 2009).

Distribution: China, Mongolia, Middle Asia, South East of the European Territory of Russia, Ukraine, Kazakhstan (Korneyev & Karpyuk, 2009) and Iran (Gharajedaghi et al., 2011d).

***Tephritis postica* (Loew, 1844)**

Material examined: (2♀♀): Ajabshir; Bag dara; 37°29' N 45°52' E, 2037 m, 2010.

Host plants: *Onopordum cynarocephalum* and *O. acanthium* (Freidberg & Kugler, 1989; Merz, 1994).

Distribution: North Europe, West Asia, Iran, Italy, Spain, Israel, France, Switzerland, Germany and Turkey (Giray, 1979; Foote, 1984; Merz, 1994; Kutuk & Ozgur, 2003; Ozgur & Kutuk, 2003).

***Tephritis praecox* (Loew, 1844)**

Material examined: (3♂♂, 1♀): Ajabshir; Galachay; 37°31' N 46°07' E, 1469 m, 24 March 2010 (Gharajedaghi).

Host plants: *Calendula arvensis* (Merz, 1994).

Distribution: South Europe, North Africa, Israel, Syria, Iraq and Uzbekistan and Iran (Norrbon et al., 1999; Korneyev & Dirlbek, 2000).

***Tephritomyia lauta* (Loew, 1869)**

Material examined: (30♂♂, 25♀♀): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 1 January 2010; (3♂♂, 6♀♀): Ajabshir, Yengeje, 37°33' N, 45°58' E, 1788 m, 9 February 2010 (Gharajedaghi).

Host plants: Flower heads of *Echinops viscosus* (Freidberg & Kugler, 1989).

Distribution: Greece, Israel, Tunisia and Egypt (Norrbon et al., 1999) and Iran (Gharali et al., 2005).

***Trupanea amoena* (Frauenfeld, 1857)**

Material examined: (1♂, 1♀): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 13 February 2010 (Gharajedaghi).

Host plants: *Lactuca* sp., *Picris hieracioides* and *Sonchus* sp. (Merz, 1994).

Distribution: Iran: East Azerbaijan (Zaitzev, 1947), Khorasan Jonubi, Sistan and Baluchestan (Hering, 1956), Tehran (Gilasian et al., 2008); Europe, Israel, Syria, Iraq, Saudi Arabia and UAE (Norrbon et al., 1999; Korneyev & Dirlbek, 2000; Merz & Dawah, 2005; Merz, 2008).

***Trupanea stellata* (Fuesslin, 1775)**

Material examined: (1♀): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 17 March 2010 (Gharajedaghi).

Host plants: *Senecio* spp., *Artemisia judaica*, *Inula graveolens* and *I. viscosa* in Israel (Freidberg & Kugler, 1989). In Europe reared from *Anthemis* spp., *Aster* sp., *Bidens* sp., *Centaurea* spp., *Crepis* spp., *Inula* sp., *Picris* sp., *Senecio* sp. and *Serratula* sp. (Merz, 1994).

Distribution: Iran: Kerman, Sistan and Baluchestan (Dirlbek, 1980), Europe, Israel, Iraq, Armenia, Saudi Arabia, India, Mongolia and Africa (Norrbon et al., 1999; Korneyev & Dirlbek, 2000; Merz & Dawah, 2005).

Tribe Terelliini

***Chaetorellia australis* Hering, 1940**

Material examined: (1♂, 1♀): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 20 March 2009 (Gharajedaghi).

Host plants: *Centaurea cyanus* (Mohammadzade et al., 2010b).

Distribution: Poland, Hungary, Ukraine, Russia, Moldova, Bulgaria, Greece and Turkey (White & Marquardt, 1989; Merz & Korneyev, 2004) and Iran (Mohammadzade et al., 2010b).

***Chaetorellia jaceae* (Robineau-Desvoidy, 1830)**

Material examined: (1♂): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 12 March 2009; (1♂, 2♀): Ajabshir, Bag dara, 37°29.885' N, 45°52.344' E, 2037 m, 25 March 2010 (Gharajedaghi).

Host plants: *Centaurea nigra* and *Cirsium* spp. (Korneyev & Konovalov, 2010; Richter, 1970; White, 1988).

Distribution: Western and central England (White, 1988), Northwest, central belt, south, Crimea, Central belt, south of Western Europe, Asia Minor (Richter, 1970) and Iran (Gharajedaghi et al., unpublished a).

***Chaetostomella cylindrica* (Robineau-Desvoidy, 1830)**

Material examined: (1♀): Ajabshir, Galachay, 37°31' N, 46°07' E, 1469 m, 24 March 2010 (Gharajedaghi).

Host plants: *Centaurea nigra* and many species of Cardueae (White, 1988).

Distribution: Southern England, Europe, North Africa, Asia as far east as Mongolia (White, 1988) and Iran (Mohammadzade et al., 2010b).

***Orellia distans* (Loew, 1847)**

Material examined: (1♂): Ajabshir, Galachay, 37°31' N, 46°07' E, 1469 m, 20 March 2009 (Gharajedaghi).

Host plants: Larvae in flower heads of *Scorzonera* spp. (Korneyev, 2003).

Distribution: Europe (Richter, 1970; Korneyev, 2003). **New record for the Iran insect fauna.**

Diagnostic characters: *Orellia distans* similar to *O. falcata* and *O. stictica*, but, preapical and apical crossbands of wings in *O. distans* are separate (Fig. 26, 27, 28).

***Orellia falcata* (Scopoli, 1763)**

Material examined: (3♀♀, 3♂♂): Ajabshir, Mehrab, 37°32' N, 45°50' E, 1750 m, 15 March 2010 (Gharajedaghi).

Host plants: Larvae bore into the stem base and root of *Tragopogon pratensis* (White, 1988; Richter, 1970).

Distribution: England, Scotland, Europe (White, 1988) and Iran (Gilasian & Merz, 2008).

***Orellia stictica* (Gmelin, 1790)**

Material examined: (2♀♀): Ajabshir, Gunbed, 37°30' N, 46°01' E, 1437 m, 13 February 2010 (Gharajedaghi).

Host plants: Larvae in flowerheads of various species of *Tragopogon*, occasionally *Taraxacum serotinum* (Waldst. and Kit.) and *Scorzonera* spp. (Korneyev, 1987); *Tragopogon orientalis* L. (Merz, 1994; Kutuk & Ozgur, 2003).

Distribution: Austria, Bulgaria, Czech Republic, France, Germany, Hungary, Romania, Sweden, Ukraine (Merz & Korneyev, 2004); Armenia, Azerbaijan, Syria (Korneyev, 1987), Turkey (Kutuk & Ozgur, 2003), Kazakhstan, Kyrgyzstan, Far East Russia (Korneyev & Ovchinnikova, 2004) and Iran (Gilasian & Merz, 2008).

***Terellia colon* (Meigen, 1826)**

Material examined: (1♂, 1♀): Ajabshir, Gunbed, 37°30' N, 46°01' E, 1437 m, 25 February 2010 (Gharajedaghi).

Host plants: *Centaurea scabiosa*, *C. cyanus* and *Jurinea mollis* (Richter, 1989).

Distribution: Northwest, south, Crimea, Caucasus, Kazakhstan, Central Asia, Western Siberia, Western Europe, northern Africa, Asia Minor (Richter, 1989) and Iran (Karimpoor & Merz, 2006).

***Terellia fuscicornis* (Loew, 1844)**

Material examined: (1♂): Ajabshir, Zaviyeh, 37°29.988' N, 45°52.560' E, 1320 m, 9 March 2009; (2♀♀): Ajabshir, Galachay, 37°31' N, 46°07' E, 1469 m, 24 March 2010 (Gharajedaghi).

Host plants: *Carthamus syriacus* (Boiss.) and *C. tenuis* (Boiss. and Blanche), *C. tinctorius* (Boiss.), *Onopordum acanthium* L. and (Khouzama et al., 2002).

Distribution: Crete, Cyprus, France, Greece, Italy, Madeira, Malta, Sardinia, Sicily, Spain, Israel, Turkey, North Africa (Freidberg & Kugler 1989; Ozgur & Kutuk 2003; Merz & Korneyev 2004) and Iran (Zarghani et al., 2011a).

***Terellia gynaecochroma* (Hering, 1937)**

Material examined: (5♀♀): Ajabshir, Galachay, 37°31' N, 46°07' E, 1469 m, 24 March 2010 (Gharajedaghi).

Host plants: *Carduus acanthoides* L., *Onopordum acanthium* L. (Hendel, 1927; Kutuk, 2006; Mohamadzade, 2010a,b), *O. anisacanthum* Boiss., *O. illyricum* L. (Khouzama et al., 2002) and *O. heteracanthum* (Mohamadzade, 2010b).

Distribution: North West, South, Crimea, Trans-caucasus, Central belt, Europe (Richter, 1970), Cyprus, Israel, Jordan, Syria (Freidberg & Kugler, 1989; Norrbom et al., 1999; Korneyev & Dirlbek, 2000) and Iran (Mohamadzade, 2010a,b).

***Terellia luteola* (Wiedemann, 1830)**

Material examined: (1♀): Ajabshir, Gunbed, 37°30' N, 46°01' E, 1437 m, 13 February 2010 (Gharajedaghi).

Host plants: *Carthamus glaucus* M.Bieb., *C. lanatus* L. and *C. tenuis* (Boiss.) Bornm. (Kugler & Freidberg, 1975).

Distribution: Mediterranean region (Spain, Italy, Greece, Turkey, Lebanon, Israel, Tunisia, and Egypt (including Sinai Peninsula) (Norrbom et al., 1999; Khouzama et al., 2002; Merz & Korneyev, 2004) and Iran (Gilasian & Merz, 2008).

***Terellia nigronota* Korneyev, 1985**

Material examined: (2♂♂, 4♀♀): Ajabshir, Mehrab, 37°32' N, 45°50' E, 1750 m, 1 April 2010 (Gharajedaghi).

Host plants: *Centaurea scabiosa* (Korneyev & Konovalov, 2010).

Distribution: Russia, Georgia (Norrbon et al., 1999) and Iran (Zarghani et al., 2010c).

***Terellia quadratula* (Loew, 1869)**

Material examined: (2♂♂, 4♀♀): Ajabshir, Gunbed, 37°30' N, 46°01' E, 1437 m, 13 February 2010 (Gharajedaghi).

Host plants: *Echinops viscosus* (Freidberg & Kugler, 1989).

Distribution: Armenia, Azerbaijan, Caucasus, Georgia, Israel, Lebanon Turkey, Iran (Freidberg & Kugler 1989; Kutuk & Ozgur 2003; Mohamadzade, 2010b).

***Terellia ruficauda* (Fabricius, 1794)**

Material examined: (2♀): Ajabshir, Zaviyeh, 37°29.988' N, 45°52.560' E, 1320 m, 24 March 2010 (Gharajedaghi).

Host plants: *Cirsium arvense* (Mohamadzade, 2010b), *C. palustre* (L.) Scop., *C. arvense* (L.) Scop., *C. eriophorum* (L.) Scop., and *C. dissectum* (L.) Scop. (White, 1988; Merz, 1994; Kutuk & Ozgur, 2003).

Distribution: North America, Most of Europe, Russia, Kazakhstan, Kyrgyzstan, Mongolia, China (Norrbon et al., 1999; Merz & Korneyev, 2004) and Iran (Mohamadzade, 2010b).

***Terellia serratulae* (Linnaeus, 1758)**

Material examined: (3♂♂, 4♀♀): Ajabshir, Zaviyeh, 37°29' N, 45°52' E, 2037 m, 24 March 2010 (Gharajedaghi).

Host plants: *Cirsium arvense*, (Mohamadzade, 2010b), *Carduus acanthoides* L., *Card. defloratus* L., *Card. nutans* L., *Cirsium alatum* (Gmel.) Bobr., *Cirs. erisithales* (Jacq.) Scop., *Cirs. oleraceum* (L.) Scop., *Cirs. tuberosum* (L.) and *Cirs. vulgare* (Ten.) Savi are recorded (Zwolfer, 1965; White, 1988; Merz, 1994). *Cirs. arvense* (L.) Scop., *Cirs. Phyllocephalum* Boiss., (Kugler and Freidberg, 1975), *Galactites tomentosa* Moench., *Lamyropsis cynaroides* (Lam.) Dittrich, and *Card. pycnocephalus* L. (Neuenschwander & Freidberg, 1983).

Distribution: British Is., Scandinavia, Kazakhstan, Israel, Syria, Iraq and Africa (Norrbon et al., 1999; Korneyev & Dirlbek, 2000) and Iran (Gilasian & Merz, 2008).

***Terellia uncinata* White, 1989**

Material examined: (7♂♂, 4♀♀): Ajabshir, Zaviyeh, 37°29' N, 45°52' E, 2037 m, 24 March 2010 (Gharajedaghi).

Host plants: *Centaurea solstitialis* (Norrbon et al., 1999).

Distribution: Italy, Albania, Bulgaria, Greece, Turkey (Norrbon et al., 1999; Merz & Korneyev, 2004) and Iran (Hajighorbani et al., 2010).

***Terellia virens* (Loew, 1846)**

Material examined: (5♂♂, 4♀♀): Ajabshir, Mehrab, 37°32' N, 45°50' E, 1750 m, 1 April 2010 (Gharajedaghi).

Host plants: *Centaurea rhenana* L. (Hendel, 1927); *C. stoebe* (Korneyev & Kanavalov, 2010).

Distribution: Most of Europe, Turkey, Afghanistan, Kazakhstan, North Africa (Merz & Korneyev, 2004) and Iran (Gharajedaghi et al., 2011c).

Tribe Xyphosiini

***Xyphosia miliaris* Hendel, 1927**

Material examined: (1♀): Ajabshir, Mehrab, 37°32' N, 45°50' E, 1750 m, 5 March 2009 (Gharajedaghi).

Host plants: *Carduus* sp. and *Cirsium* sp. (Merz, 1994).

Distribution: Europe; Asian Russia; Turkey, Kazakhstan, Kyrgyzstan, Mongolia and China (Norrbon et al., 1999) and Iran (Mohamadzade et al., 2010b).

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