

Four subfamilies of Platygastroidea (Hymenoptera) in the northwest of Iran with new report of Sceliotrachelinae

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Abstract. The subfamilies Scelioninae, Sceliotrachelinae, Teleasinae and Telenominae are parasitic wasps that have important role in control of agricultural pests. These minute wasps are egg parasitoids of spiders and insects. During 2013-2014, a faunistic study was conducted in some parts of East-Azarbaijan province, Iran. Collections were made by Malaise trap, pan trap and sweeping net. Twenty-four species belonging to nine genera were collected and identified. Eighteen species and four genera - *Afrisolia* Masner & Huggert, *Baryconus* Forster, *Calliscelio* (Ashmead), and *Idris* Foerster - are new records for Iranian fauna. It needs to be mentioned that the subfamily Sceliotrachelinae was found for first time in Iran.

Key words: Platygastriidae, Sceliotrachelinae, new record, East-Azarbaijan, fauna, *Afrisolia*.

Platygastriidae in recent definition has about 6084 valid species under 263 genera worldwide (Johnson 2017) and includes five subfamilies - Telenominae, Teleasinae, Scelioninae, Sceliotrachelinae and Platygastriinae. All of these subfamilies have been reported from Iran (Johnson 1992, Radjabin & Amir Nazari 1989, Rahnemaye-Shahsavari et al. 2011) except Sceliotrachelinae. The subfamily Sceliotrachelinae is known to attack mostly eggs of some Coleoptera and Flatidae or early stages of white flies and mealy bugs (Masner & Huggert 1989).

The family Scelionidae was synonymized with Platygastriidae by Sharkey (2007). These wasps are exclusive egg parasitoids (Austin et al. 2005), larval parasitoids of cecidomyid gall midges and nymphs and adult stages of hemipterans (Rajmohana et al. 2015). Many hosts of platygastroids are pests of considerable importance in agriculture, forestry, and both human and animal health. Austin et al. (2005) listed some of them as follows: the gypsy moth (*Lymantria dispar* L.), locusts (*Locusta migratoria* L., *Chortoicetesterminifera* (Walker)), Hessian fly (*Mayetiola destructor* (Say)), the sunn pest (*Eurygaster integriceps* Puton), southern green stink bug (*Nezara viridula* L.), kissing bugs (*Triatoma*, *Rhodnius*), and horse flies (*Tabanus* spp.). A number of platygastriid species have been used as biological control agents with some success in Iran (Safavi 1974, Sharififar 2000, Hashemi Rad 2008, Khajehzadeh 2004, Narehi et al. 2004).

Taxonomy of this superfamily in Iranian fauna has been poorly and sporadically studied (Samin et al. 2010, 2011a,b, Samin & Asgari 2012, Ghahari & Buhl 2015, Mohammadpour et al. 2016), so some of these species need to be confirmed. Recently, Shamsi et al. (2015a, b, 2016) reported some genera and species such as *Baeus seminulum* Haliday, *Scelio rugosulus* (Latreille) and *Teleas rugosus* Kieffer from northwest of Iran. Results presented in this paper are part of a study that started in the northwest of Iran and will continue with complementary studies, especially on Platygastriinae.

The presented results are from occasional studies of specimens recently collected from East-Azarbaijan, northwest of Iran. Collections were made during 2013-2014 by yellow pan traps, Malaise traps and a standard sweep net that was applied on different plants.

Genera were identified following Masner (1976, 1980) and Kozlov (1988). In addition, some identification keys (Masner 1976, 1980, 1993, 1995, Kozlov 1988, Masner & Huggert 1989, Kononova &

Kozlov 2001, Kononova & Petrov 2002, Kononova & Fursov 1999, 2007) were used for specific determination of collected Platygastriidae in this research.

Studied materials are deposited in the insect collection of the Department of Plant Protection, East-Azarbaijan Research Center for Agriculture and Natural Resources, Tabriz, Iran. Identified species in this study are listed alphabetically.

List of known species from Iran including present species were tabulated and discussed.

A total of 264 specimens were examined in the present study. Twenty-four species from nine genera were collected and identified. These 24 species belong to four subfamilies - Scelioninae, Sceliotrachelinae, Teleasinae and Telenominae. These subfamilies include 16, 1, 5 and 47 species, respectively. Eighteen species and four genera are new records for Iranian fauna. These genera are *Afrisolia*, *Baryconus*, *Calliscelio* and *Idris*. Also Sceliotrachelinae was found for the first time in Iran.

I-Subfamily Scelioninae

Baeus seminulum Haliday, 1833

Material examined: IRAN, East-Azarbaijan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 25 June 2014, 1♀.

Distribution in Iran: East-Azarbaijan province (Shamsi et al. 2016).

Baryconus europaeus (Kieffer, 1908)

Material examined: IRAN, East-Azarbaijan, Khosroshah, 36°58'28"N, 46°02'55"E, 1346m, Malaise trap, 16 July 2014, H. Lotfalizadeh leg., 1♀.

Distribution in Iran: East-Azarbaijan province (new record for Iran).

Calliscelio ruficollis Szeleyi, 1941

Material examined: IRAN, East-Azarbaijan, Nourduz, 38°49'24"N, 45°42'15"E, 590m, Malaise trap, 16 August 2013, 8♀♀ & 2 ♂♂.

Distribution in Iran: East-Azarbaijan province (new record for Iran).

Gryon muscaeformis Nees, 1818

Material examined: IRAN, East-Azarbaijan, Khosroshah, 36°58'28"N, 46°02'55"E, 1346m, Malaise trap, 7 July 2014, H. Lotfalizadeh leg., 6♂♂ & 12♀♀. East-Azarbaijan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 22 June 2014, 5♀♀ & 4 ♂♂.

Distribution in Iran: East-Azərbayjan province (new record for Iran).

***Gryon solutus* (Kononova and Petrov, 2001)**

Material examined: IRAN, East-Azərbayjan, Shabestar, 38°10'44"N, 45°42'55"E, 1435m, Shamsi M. leg., 30 May 2014, 6♀ & 4♂.

Distribution in Iran: East-Azərbayjan province (new record for Iran).

***Idris aureonitens* Szabo, 1965**

Material examined: IRAN, East-Azərbayjan, Arasbaran, 38°57'11"N, 46°43'27"E, 782m, Lotfalizadeh H. leg., 12 August 2013, 5♀.

Distribution in Iran: East-Azərbayjan province (new record for Iran).

***Idris clypealis* (Huggert, 1979)**

Material examined: IRAN, East-Azərbayjan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 11 June 2014, 5♀ & 4♂.

Distribution in Iran: East-Azərbayjan province (new record for Iran).

***Idris desertorum* (Priesner, 1951)**

Material examined: IRAN, East-Azərbayjan, Shabestar, 38°10'44"N, 45°42'55"E, 1435m, Shamsi M. leg., 30 May 2014, 2♀. East-Azərbayjan, Bilverdi, 38°15'94"N, 46°50'88"E, 1598m, Shamsi M. leg., 12 July 2014, 4♀.

Distribution in Iran: East-Azərbayjan province (new record for Iran).

***Idris diversus* Wollaston, 1858**

Material examined: IRAN, East-Azərbayjan, Khosroshah, 36°58'28"N, 46°02'55"E, 1346m, Malaise trap, 1 July 2013, H. Lotfalizadeh leg., 3♀. East-Azərbayjan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 5 July 2014, 2♀.

Distribution in Iran: East-Azərbayjan province (new record for Iran).

***Idris rufescens* (Kieffer, 1908)**

Material examined: IRAN, East-Azərbayjan, Khosroshah, 36°58'28"N, 46°02'55"E, 1346m, Malaise trap, 6 August 2013, H. Lotfalizadeh leg., 5♀. East-Azərbayjan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 9 June 2014, 3♀.

Distribution in Iran: East-Azərbayjan province (new record for Iran).

***Scelio rugosulus* (Latreille, 1805)**

Material examined: IRAN, East-Azərbayjan, Khosroshah, 36°58'28"N, 46°02'55"E, 1346m, Malaise trap, 7 April 2013, H. Lotfalizadeh leg., 2♂ & 1♀. Same data, 2 June 2014, 3♀ & 1♂. East-Azərbayjan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 3 August 2014, 1♂ & 1♀. Same data, 17 August 2014, 1♀; 9 September 2014, 1♂ & 1♀.

Distribution in Iran: East-Azərbayjan province (Shamsi et al. 2015a).

II- Subfamily Sceliotrachelinae

***Afrisolia* sp.**

Material examined: IRAN, East-Azərbayjan, Khosroshah, 36°58'28"N, 46°02'55"E, 1346m, Malaise trap, 18 June 2014, H. Lotfalizadeh leg., 1♂. East-Azərbayjan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 25 June 2014, 1♂.

Distribution in Iran: East-Azərbayjan province (new re-

cord for Iran and Palaearctic).

Identity of this genus was confirmed by Dr. N. F. Johnson, but examined specimens were male which did not allow for species identification. This genus is known only from South Africa (Masner & Huggert 1989) and it was thought to be an endemic species of the Afrotropical realm, but in this study it was found for the first time out of this region – in the northwest of Iran – in the west of the Palaearctic realm.

III- Subfamily Teleasinae

***Teleas rugosus* (Kieffer, 1908)**

Material examined: IRAN, East-Azərbayjan, Khosroshah, 36°58'28"N, 46°02'55"E, 1346m, Malaise trap, 18 July 2013, H. Lotfalizadeh leg., 1♀.

Distribution in Iran: East-Azərbayjan province (Shamsi et al. 2015b).

***Teleas szabo* Fabritius, 1964**

Material examined: IRAN, East-Azərbayjan, Khosroshah, 36°58'28"N, 46°02'55"E, 1346m, Malaise trap, 9 August 2013, H. Lotfalizadeh leg., 1♂ & 1♀.

Distribution in Iran: East-Azərbayjan province (new record for Iran).

IV- Subfamily Telenominae

***Telenomus angustatus* Thomson, 1861**

Material examined: IRAN, East-Azərbayjan, Khosroshah, 36°58'28"N, 46°02'55"E, 1346m, Malaise trap, 3 August, 2013, H. Lotfalizadeh leg., 4♀. East-Azərbayjan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 24 June 2014, 3♂ & 6♀. East-Azərbayjan, Shabestar, 38°10'44"N, 45°42'55"E, 1435m, M. Shamsi leg., 9 July 2014, 7♀.

Distribution in Iran: East-Azərbayjan province, Sistan & Baluchestan (Samin et al. 2011).

***Telenomus harpyiae* Mayr, 1879**

Material examined: IRAN, East-Azərbayjan, Khosroshah, 36°58'28"N, 46°02'55"E, 1346m, Malaise trap, 25 June 2014, H. Lotfalizadeh leg., 6♂ & 7♀. East-Azərbayjan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 22 May 2014, 3♂ & 4♀. East-Azərbayjan, Bilverdi, 38°15'94"N, 46°50'88"E, 1598m, M. Shamsi leg., 24 July 2014, 4♀.

Distribution in Iran: East-Azərbayjan province (new record for Iran).

***Telenomus hofmanni* Mayr, 1879**

Material examined: IRAN, East-Azərbayjan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 5 June 2014, 4♀. East-Azərbayjan, Shabestar, 38°10'44"N, 45°42'55"E, 1435m, Shamsi M. leg., 28 May 2014, 2♂ & 6♀.

Distribution in Iran: East-Azərbayjan province (new record for Iran).

***Telenomus pentophera* Mayr, 1879**

Material examined: IRAN, East-Azərbayjan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 7 July 2014, 7♂ & 5♀. East-Azərbayjan, Bilverdi, 38°15'94"N, 46°50'88"E, 1598m, M. Shamsi leg., 11 June 2014, 2♂ & 4♀.

Distribution in Iran: East-Azərbayjan province (new record for Iran).

***Telenomus punctatissimus* Ratzeburg, 1844**

Material examined: IRAN, East-Azərbayjan, Basmenj,

38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 21 July 2014, 6♂♂ & 4♀♀. East-Azarbaijan, Khajeh, 38°09'37"N, 46°35'89"E, 1521m, 15 June 2014, 4♂♂ & 4♀♀.

Distribution in Iran: East-Azarbaijan province (new record for Iran).

Trissolcus basalis (Wollaston, 1858)

Material examined: IRAN, East-Azerbaijan, Khosroshahr, 36°58'28"N, 46°02'55"E, 1346m, 21 August 2010, Malaise trap, H. Lotfalizadeh leg., 2♀♀. East-Azerbaijan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, 22 May 2014, Pan trap, M. Shamsi leg., 5♀♀. East-Azerbaijan, Ahar, 38°09'37"N, 46°35'89"E, 1521m, 11 June 2014, Pan trap, M. Shamsi leg., 5♀♀. East Azerbaijan, Khajeh, 38°09'37"N, 46°35'89"E, 1521m, 3 June 2014, Pan trap, M. Shamsi leg., 4♀♀.

Distribution in Iran: Kermanshah (Samin et al. 2011), Isfahan (Samin & Asgari 2012), Qazvin, West-Azarbaijan, Kordestan (Ghahari & Buhl 2015) and East-Azarbaijan provinces.

Trissolcus cantus (Kozlov & Le, 1977)

Material examined: IRAN, East-Azarbaijan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 20 July 2014, 12♀♀. East-Azarbaijan, Khajeh, 38°09'37"N, 46°35'89"E, 1521m, 3 June 2014, 9♀♀.

Distribution in Iran: East-Azarbaijan province (new record for Iran).

Trissolcus cephalotes (Kozlov & Le, 1977)

Material examined: IRAN, East-Azarbaijan, Khosroshahr, 36°58'28"N, 46°02'55"E, 1346m, Malaise trap, 18 July 2014, H. Lotfalizadeh leg., 7♀♀. East-Azarbaijan, Basmenj, 38°01'36"N, 46°26'66"E, 1647m, Malaise trap, M. Shamsi leg., 20 August 2014, 8♀♀.

Distribution in Iran: East-Azarbaijan province (new record for Iran).

Trissolcus djadetchko (Rjachovskiy, 1959)

Material examined: IRAN, East-Azarbaijan, Ahar, 38°09'37"N, 46°35'89"E, 1521m, 11 June 2014, Malaise trap, M. Shamsi leg., 1♀.

Distribution in Iran: West-Azarbaijan, Kerman (Samin et al. 2011a), Isfahan (Samin & Asgari 2012), Kordestan (Ghahari & Buhl 2015) and East-Azarbaijan provinces.

Trissolcus rufiventris (Mayr, 1907)

Material examined: IRAN, East Azerbaijan province, Khosroshahr, 36°58'28"N, 46°02'55"E, 1346m, 14 July 2011, Malaise trap, H. Lotfalizadeh leg., 2♀♀. East-Azerbaijan, Khajeh, 38°09'37"N, 46°35'89"E, 1521m, 3 June 2014, M. Shamsi leg., 3♀♀. East-Azerbaijan, Shabestar, 38°10'44"N, 45°42'55"E,

1435m, M. Shamsi leg., 15 July 2014, 5♀♀.

Distribution in Iran: Kermanshah, South Khorasan, Kerman provinces (Samin et al. 2011a, Modarres Awal 1997, Ghahari & Buhl 2015).

From the 24 identified species, 18 species from four genera are new records for Iran (Table 1). With these new records Iranian fauna reaches 69 species from 15 genera (Table 2). Telenominae contained just a little over 68% of all Platygastriidae species recorded from Iran, making it the most species-rich subfamily.

The subfamily Sceliotrachelinae was found for the first time in Iran with one genus, *Afrisolia*. Therefore, Iran is so far the northernmost limit of its geographical distribution and this is second report of this genus after South Africa (Masner & Huggert 1989).

Most of the studied specimens were collected during May to August in the northwest of Iran (Fig. 1) that is a mountainous area with elevation more than 1300m with cold Mediterranean to temperate semi-arid weather.

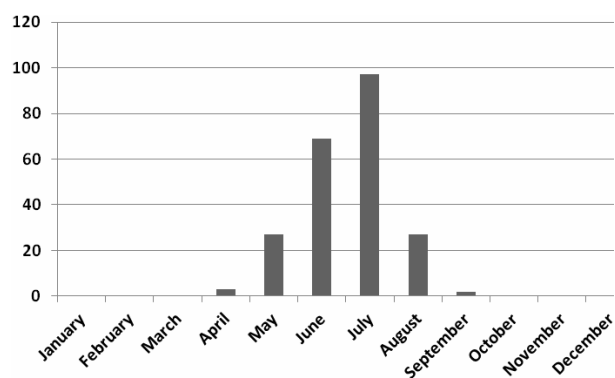


Figure 1. Cumulative number of collected platygastriids in different months in this study.

Table 2. Number of genera and species with number of new records of four subfamilies of Platygastriidae in Iran.

Subfamilies	Genus		Species	
	Total	New records	Total	New records
Scelioninae	7	3	16	9
Sceliotrachelinae	1	1	1	1
Teleasinae	2	0	5	1
Telenominae	5	0	47	7
Total	15	4	69	18

Table 1. Four subfamilies of Platygastriidae and their distribution in Iran (* new record for Iran, † were not examined and their identity needs to be confirmed).

Subfamily	Genus	Species	Distribution in Iran (province)	References
Scelioninae	<i>Anteris</i>	<i>Anteris simulans</i> (Kieffer, 1908) †	West-Azarbaijan	Samin et al. (2011b)
	<i>Baeus</i>	<i>Baeus seminulum</i> (Haliday, 1833)	East-Azarbaijan	Shamsi et al. (2016)
	<i>Baryconus</i> *	<i>Baryconus europaeus</i> (Kieffer, 1908)*	East-Azarbaijan	Present research
	<i>Calliscelio</i> *	<i>Calliscelio ruficollis</i> (Szeleyi, 1941)*	East-Azarbaijan	Present research
	<i>Gryon</i>	<i>Gryon monspeliense</i> (Picard 1924) †	Isfahan	Samin & Asgari (2012)
			Lorestan	Ghahari & Buhl (2015)
		<i>Gryon muscaeformis</i> (Nees, 1834)*	East-Azarbaijan	Present research
		<i>Gryon pedestre</i> (Nees 1834) †	Isfahan	Samin & Asgari (2012)
		<i>Gryon solutus</i> (Kononova and Petrov, 2001)*	East-Azarbaijan	Present research

Table 1. (continued)

Subfamily	Genus	Species	Distribution in Iran (province)	References
	<i>Scelio</i>	<i>Scelio flavibarbis</i> (Marshall, 1874) †	Khuzestan	Ghahari et al. (2015)
		<i>Scelio remaudierei</i> (Ferriere, 1952) †	Kermanshah	Samin et al. (2011b)
		<i>Scelio rugosulus</i> (Latreille, 1805)	East-Azarbaijan	Shamsi et al. (2015b)
Sceliotrachelinae	<i>Afrisolia</i> *	<i>Afrisolia</i> sp.*	East-Azarbaijan	Present research
Teleasinae	<i>Sparasion</i>	<i>Sparasion emarginatum</i> Kieffer, 1906†	Khorasan	Samin et al. (2011a)
		<i>Sparasion punctatissimum</i> Kieffer, 1906†	Khorasan	Samin et al. (2011a)
		<i>Sparasion subleve</i> Kieffer, 1906†	Khorasan	Samin et al. (2011a)
	<i>Teleas</i>	<i>Teleas rugosus</i> (Kieffer, 1908)	East-Azarbaijan	Shamsi et al. (2015a)
		<i>Teleas szabo</i> Fabritius, 1964*	East-Azarbaijan	Present research
Telenominae	<i>Eumicrosoma</i>	<i>Eumicrosoma phaeax</i> (Nixon, 1938) †	Khorasan	Samin et al. (2011a)
	<i>Platytenomus</i>	<i>Platytenomus hylas</i> Nixon, 1935	Khuzestan	Sharififar (2000)
	<i>Psix</i>	<i>Psix abnormis</i> Kozlov et Le, 1976†	Khorasan	Samin et al. (2011a)
		<i>Psix lacunatus</i> (Johnson and Masner, 1985) †	Isfahan	Samin & Asgari (2012)
			Kerman	Samin et al. (2011a)
		<i>Psix striaticiceps</i> (Dodd, 1920)	Kerman	Hashemi Rad (2008)
			Kordestan	Samin et al. (2011)
	<i>Telenomus</i>	<i>Telenomus acrobates</i> (Giard, 1895) †	Tehran	Shahpouri Arani et al. (2005)
			East-Azarbaijan	Samin et al. (2010)
			Isfahan	Samin & Asgari (2012)
		<i>Telenomus angustatus</i> (Thomson, 1861)*	East-Azarbaijan	Present research
		<i>Telenomus benefactor</i> Crawford, 1911†	Khorasan	Samin et al. (2011a)
		<i>Telenomus beneficiens</i> (Zehntner, 1896) †	Kerman	Samin et al. (2011a)
		<i>Telenomus busseolae</i> (Gahan, 1922)	Khuzestan	Abbasipour et al. (1991)
			East-Azarbaijan	Samin et al. (2010)
			Isfahan	Samin & Asgari (2012)
			Gholestan	Ghahari & Buhl (2015)
		<i>Telenomus chrysopae</i> (Ashmead, 1893)	Isfahan	Rakhshani et al. (2008)
			East-Azarbaijan	Samin et al. (2010)
		<i>Telenomus dignus</i> (Gahan, 1925) †	Kerman	Samin et al. (2010)
			Khorasan	Samin et al. (2011a)
		<i>Telenomus harpyiae</i> (Mayr, 1879)*	East-Azarbaijan	Present research
		<i>Telenomus heydeni</i> (Mayr, 1879) †	West-Azarbaijan	Parvizi & Javan Moghaddam (1988)
			Isfahan	Samin & Asgari (2012)
		<i>Telenomus hofmanni</i> (Mayr, 1879)*	East-Azarbaijan	Present research
		<i>Telenomus minimus</i> (Ashmead, 1893) †	Mazandaran, Gilan	Modarres Awal (1997)
		<i>Telenomus pentophaerae</i> (Mayr, 1879)*	East-Azarbaijan	Present research
		<i>Telenomus phalaenarum</i> (Nees et Esenbeck, 1834) †	Kermanshah	Samin et al. (2010)
		<i>Telenomus politus</i> (Thomson, 1861) †	Tehran	Modarres Awal (1997)
			Isfahan	Samin & Asgari (2012)
		<i>Telenomus punctatissimus</i> (Ratzeburg, 1844)*	East-Azarbaijan	Present research
		<i>Telenomus remus</i> Nixon, 1937†	Sistan & Baluchestan	Samin et al. (2011a)
		<i>Telenomus sechellensis</i> (Kieffer, 1910) †	Khuzestan	Samin et al. (2010)
		<i>Telenomus turesis</i> Walker, 1836	Isfahan, Tehran	Modarres Awal (1997)
		(under <i>T. chloropus</i> (Thomson, 1861)	Mazandaran	
			East-Azarbaijan	Samin et al. (2010)
			Khorasan	Samin et al. (2011a)
			Tehran	Ghahari & Buhl (2015)
	<i>Trissolcus</i>	<i>Trissolcus agriope</i> (Kozlov and Le, 1976)	Kerman	Mohammadpour et al. (2016)
		<i>Trissolcus basalis</i> (Wollaston, 1858)	East-Azarbaijan	Present research
			Kermanshah	Samin et al. (2011)
			Isfahan	Samin & Asgari (2012)
			Qazvin,	Ghahari & Buhl (2015)
			West-Azarbaijan,	
			Kordestan	
		<i>Trissolcus cantus</i> (Kozlov & Le, 1977)*	East-Azarbaijan	Present research
		<i>Trissolcus cephalotes</i> (Kozlov & Le, 1977)*	East-Azarbaijan	Present research
		<i>Trissolcus crypticus</i> Clarke, 1993†	Sistan & Baluchestan	Samin et al. (2011a)
		<i>Trissolcus delucchii</i> Kozlov, 1968	Kerman	Mohammadpour et al. (2016)
		<i>Trissolcus deserticola</i> (Kozlov, 1972)	Kerman	Mohammadpour et al. (2016)

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Table 1. (continued)

Subfamily	Genus	Species	Distribution in Iran (province)	References
		<i>Trissolcus djadetshko</i> (Rjachovsky, 1959)	East-Azarbaijan West-Azarbaijan, Kerman	Present research Samin et al. (2011b)
		<i>Trissolcus dryope</i> (Kozlov et Le 1976) †	Isfahan	Samin & Asgari (2012)
		<i>Trissolcus esmailii</i> (Radjabi, 2001) †	Isfahan	Ghahari & Buhl (2015)
		<i>Trissolcus festiva</i> (Viktorov, 1964) †	Isfahan	Samin & Asgari (2012)
		<i>Trissolcus grandis</i> (Thomson, 1861)	Zanjan, Chaharmahal & Bakhtiari Kerman	Ghahari & Buhl (2015)
		<i>Trissolcus manteroi</i> (Kieffer, 1909) †	West-Azarbaijan	Samin et al. (2011a)
		<i>Trissolcus mitsukurii</i> (Ashmead, 1904)	West-Azarbaijan, Ilam, Kermanshah, Yazd, Chaharmahal & Bakhtiari, Markazi, Khorasan, Kerman	Samin et al. (2011b)
		<i>Trissolcus niceppe</i> (Kozlov and Le, 1976)	Isfahan	Samin & Asgari (2012)
		<i>Trissolcus oobius</i> (Kozlov, 1972)	Kerman	Samin et al. (2011b)
		<i>Trissolcus pseudoturesis</i> (Rjachovsky, 1959) †	Kerman	Mohammadpour et al. (2016)
		<i>Trissolcus radjabii</i> (Iranipour, 2010)	Kerman	Mohammadpour et al. (2016)
		<i>Trissolcus rufiventris</i> (Mayr 1908)	Kordestan	Mohammadpour et al. (2016)
		<i>Trissolcus semistriatus</i> (Nees 1834)	Alborz Alborz, East-Azarbaijan Kermanshah	Iranipour & Johnson (2010)
		<i>Trissolcus simoni</i> (Mayr 1879) †	Alborz, East-Azarbaijan Kermanshah Isfahan	Iranipour & Johnson (2010)
		<i>Trissolcus tumidus</i> (Mayr, 1879) †	East-Azarbaijan	Samin et al. (2011a)
		<i>Trissolcus vassilievi</i> (Mayr 1903) †	East-Azarbaijan Khuzestan, Ilam, Kermanshah, West-Azarbaijan, Ilam	Samin & Asgari (2012)
			Kordestan, Isfahan, Semnan, Golestan, Khorasan, Sistan & Baluchestan	Ghahari & Buhl (2015)
			Kerman	Mohammadpour et al. (2016)
			Khuzestan, Kermanshah	Samin et al. (2011b)
			Isfahan	Samin & Asgari (2012)
			West-Azarbaijan	Samin et al. (2011b)
			Kordestan, East-Azarbaijan, North Khorasan	Samin et al. (2011a)
			Isfahan	Samin & Asgari. (2012)

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