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INSECTS OF IRAN

The List of Lepidoptera in the Hayk Mirzayans Insect Museum of
Iranian Research Institute of Plant Protection

Family: Cossidae

By:

H. Alipanah & R. V. Yakovlev



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By: **Helen Alipanah** (Iranian Research Institute of Plant Protection (IRIPP), Agricultural Research, Education and Extension Organization (AREEO), Tehran, Iran; email: alipanah@iripp.ir, halipanah@gmail.com) and **Roman V. Yakovlev** (^aAltai State University, Barnaul, Russia; ^bTomsk State University, Laboratory of Biodiversity and Ecology, Tomsk, Russia; email: yakovlev_asu@mail.ru).

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Address:

Iranian Research Institute of Plant Protection, P.O. Box 1454, Tehran 19395, Iran
Tel.: +98(21) 22403012-16, Fax: +98(21) 22403691

In the Name of God

The list of Lepidoptera in Hayk Mirzayans Insect Museum of the
Iranian Research Institute of Plant Protection

Lepidoptera: Cossidae

By:

H. Alipanah & R.V. Yakovlev

The family Cossidae is one of the seven representatives of the superfamily Cossoidea (van Nieukerken *et al.*, 2011). They are among the earliest branches of Apoditrysia having a relatively plesiomorphic wing venation with the M-stem forked in both fore- and hindwings in most cossoids (Edward *et al.* 1998). This family has a worldwide distribution, and many of them are specific to arid areas of the Palaearctic Region (Yakovlev & Dubatolov 2013). They are small to very large-sized, usually robust moths and the adults are exclusively nocturnal in activity (Edward *et al.* 1998). The family currently includes 971 species in 151 genera (van Neukerkin *et al.* 2011). Medially adjacent well projecting parapatagia in prothorax is the only known autapomorphy of this family; although the character is weakly developed in some Cossinae (Edward *et al.* 1998). The family Cossidae is divided into 10 subfamilies namely, Catoptinae, Chilecomadiinae, Cossinae, Cossulinae, Hypoptinae, Mehariinae, Politzariellinae, Pseudocossinae, Stygiinae, and Zeuzerinae (Yakovlev 2014, 2018).

The earliest report of the Cossidae of Iran returns to Christoph (1876) who reported *Cossus cossus* L. from Shahrud. From the late 19th to the early 20th centuries, a

series of original descriptions of Cossidae from Iran and neighboring Turkmenistan and Azerbaijan areas were appeared (Grum-Grshimailo 1893, 1895, 1899, 1902; Christoph 1873, 1876, 1884, 1885, 1887a, b, 1888, 1889a, b, 1893; Staudinger 1891; Röber 1896; Austaut 1897; Püngeler 1898, 1899, 1900; Strand 1911; Rothschild 1912; Schawerda 1913). However, the main investigations on the Cossidae of Iran were conducted by: 1) Dalla-Torre (1923), who published all the references of primary descriptions and brief data on the distribution of the world carpenter moths including Iran; and 2) Daniel (1932a, b, c), through his work on the fauna of southern Turkey which was accompanied with some new records for the Cossidae fauna of Iran. His studies were extended by a number of articles (Daniel 1933, 1937, 1938, 1939, 1940, 1949, 1953, 1956, 1961, 1962, 1963, 1964a, b, 1965b 1969a, b, 1971) and some new records were thereby added to the fauna of Iran. At the same times, several other specialists have carried out some studies on the fauna of Iran and adjacent territories beside those of Daniel's (Wagner, 1937; Brandt, 1938; Schwingenschuss, 1939a, b, c; Wiltshire, 1939, 1946a, b, c, 1949a, 1957; Bryk, 1947; Sutton, 1963; Barou, 1967). Some brief data on the taxonomy of Cossidae of the Palearctic Region, including Iran, were also published by Daniel during 1955 to 1965 (Daniel 1955, 1959, 1960, 1961, 1962, 1963, 1965a, b). In 1990, de Freina and Witt renewed the studies of the Cossidae of Iran in their major work on "Macroheterocera of the western Palaearctic". Later, de Freina (1983, 1994), Witt (1983), Wieser *et al.* (2001), Yakovlev (2004, 2006a, b, 2007, 2008, 2009, 2011), Yakovlev *et al.* (2007), Saldaitis *et al.* (2007) and Yakovlev & Witt (2017a, b) appended some other information on the Cossidae fauna of Iran and adjacent countries. However, the complete and inclusive revision of the family Cossidae in Iran has recently been conducted by Alipanah *et al.* (2019, in press).

Based on the above mentioned literature, a total of 68 species and 18 subspecies belonging to 26 genera and five subfamilies (Catoptinae, Mehariinae, Stygiinae, Cossinae, and Zeuzerinae) are presently known from Iran. Among them, the specimens of 52 species and 16 subspecies in 23 genera are deposited in the Lepidoptera collection of the Hayk Mirzayans Insect Museum (HMIM). There are no specimens available for the following 16 species and two subspecies in the Lepidoptera Collection of HMIM: *Dypsessa derbenti* Daniel, 1964, *D. kabylaria* A. Bang-Haas, 1906, *D. hethitica* Daniel, 1932, *Stygioides colchica colchica* (Herrich-Schäffer, 1851), *Holcocerus nobilis* Staudinger, 1884, *H. witti* Yakovlev, Saldaitis & Ivinskis, 2007, *H. zarudnyi* Grum-Grshimailo, 1902, *Cossulus argentatus* Staudinger, 1887, *C. herzi* (Alpheraky, 1893), *C. kopetdaghi* Yakovlev & Alipanah, 2019 (in press), *C. strioliger* (Alpheraky, 1893), *C. zoroastres* (Grum-Grshimailo, 1902), *Dypsessacossus funkei* (Röber, 1896), *Vartiania drangianica* (Grum-Grshimailo, 1902), *Acossus terebrus* ([Denis & Schiffermüller], [1776]), *Paropta paradoxa paradoxa* (Herrich-Schäffer, [1851]) and *Phragmacossia ariana* (Grum-Grshimailo, 1899). In the present study, a list of the available species as well as the detailed information on their distribution in Iran are provided.

We particularly appreciate to Dr. Thomas Witt (Museum Witt, München, Germany) for giving the opportunity to study some specimens of his private collection and to Hossein Falsafi (Iranian Research Institute of Plant Protection, IRIPP) for preparing the administrative divisions map of Iran. Our sincere regards goes to Mohammad Reza Nematian, Hossein Falsafi, and Abolfazl Hajiesmailian who spread the collected material carefully. We also thank to all our colleagues in the IRIPP who have collected the material from different parts of Iran during the last 75 years.

We are also grateful to the centres of Department of Environment in Golestan, Khorasan-e Jonubi, Khorasan-e Razavi, Khorasan-e Shomali and Semnan Provinces for getting permission of sampling in Golestan, Tandoreh, Saluk and Khar Turan National Parks and other protected areas in these provinces.

THE LIST OF LEPIDOPTERA FROM IRAN

Order: **Lepidoptera**

Superfamily: **Cossoidea** Leach, [1815]

Family: **Cossidae** Leach, [1815]

Subfamily: **Catoptinae** Yakovlev, 2009

Genus: *Catopta* Staudinger, 1899

Catopta kendeivanensis kendeivanensis Daniel, 1937

Material examined:

Alborz:

Karaj: Dizin, 2900 m, 12.VII.1981, 8 ♂♂, leg. Hāshemi; Gachsar, Dizin, 3000 m, 10.-12.VIII.1975, 6 ♂♂ 1 ♀, leg. Pāzuki, Abāi; Karaj, Kandovān, 21.IX.1974, 1 ♂, leg. Abāi, Behbahāni; Kandovān, Sarchāl, 2800 m, 4.-8.VII.1977, 1 ♂, leg. Pāzuki, Mortazavihā.

Tāleghān (6 km. E. Āzādbar): 2350 m, 21.VII.1988, 1 ♂, leg. Mirzāyāns, Badii.

Golestān:

Shāhkuh-e Pāeen: 2600-2800 m, 19.-21.VII.1999, 1 ♂, leg. Hofmann, Meineke, Mōllet.

Māzandarān:

Tonekābon: Sefidāb, 18.VII.1979, 1 ♂, leg. Anonymous.

Siāhbisheh- Yush Rd.: 3 km. Kamarbon vill., N 36° 13' 51.7", E 051° 24' 45.3", 2557 m, 21, 22.VII.2007, 1 ♂, leg. Ālipanāh.

Tehrān:

Damāvand: Gardlash, Āro, 2120 m, 29.VII.1988, 1 ♂, leg. Mirzāyāns, Badii; Tār Lake, 2700 m, 25.VII.1988, 5 ♂♂ 1 ♀, leg. Mirzāyāns, Badii; Tār Lake, 2700 m, 24.VIII.1992, 3 ♂♂ 1 ♀, leg. Ebrāhimi, Badii.

Lār: Lār vall., 2420 m, 24.-25.VIII.1992, 3 ♂♂, leg. Ebrāhimi, Badii; Emāmzādeh, 2500 m, 13.VIII.1993, 1 ♂, leg. Parchami-Arāghi, Ebrāhimi.

***Catopta kendevarensis anjumanica* Daniel, 1964**

Material examined.

Hormozgān:

Bandar Abbās: Isin, 50 m, 6.III.1985, 1 ♂ 1 ♀, leg. Borumand, Hāshemi.

***Catopta hyrcanus* (Christoph, 1888)**

Material examined.

Chāhārmahāl va Bakhtiāri:

Kuhrang: 26.VII.1974, 1 ♂, leg. Hāshemi, Zairi.

Esfahān:

Kāshān: 4 km. S. Jāhagh, 2000 m, 14.-15.VI.1984, 1 ♂, leg. Pāzuki, Hāshemi.

Natanz: Abyāneh, 2300 m, 29.VI.1981, 2 ♂♂, leg. Hāshemi; Targh, 2630 m, 8.VIII.2003, 1 ♂, leg. Ghayurfar, Ebert, Trusch, Nematīān.

Gilān:

Rudsar: Eshkevarāt, N 36° 52' 2.03", E 050° 10' 08.1", 1434 m, 16.VIII.2013, 5 ♂♂, leg. Afsariān.

Golestān:

Gonbad Kāvus: Mīnudasht, Golestān forest, 21.VI.1974, 3 ♂♂, leg. Pāzuki, Rajabi.

Shāhrud (W.): Shāhkuh-e Bālā, 2580 m, 18.VII.2003, 5 ♂♂, leg. Hofmann, Meineke, Tremewan; Shāhkuh-e Pāeen, 1700 m, 18.VII.2003, 4 ♂♂, leg.

Ālipanāh, Ebrāhimi; Kamareh Chehel Dokhtar, 1700 m, 3.VI.1982, 1 ♂, leg. Hāshemi.

Kermān:

Bam: Dehbakri, 2300 m, 23.V.2004, 1 ♂, leg. Rajāei; Dehbakri, 10.VI.1971, 1 ♂, leg. Hāshemi, Naim; SW. Bam, Dehbakri, 2000-2200 m, 18.-21.V.2004, 1 ♀ 1 ♂, leg. Meineke, Hofmann, Tremewan.

Jebāl-e Bārez: Ābtorsh, 12.VI.1971, 1 ♂, leg. Naim, Hāshemi.

Jiroft: Sarbishān Mt. Pass (NW. Jiroft), Shingerā, 2700-2900 m, 3.-4.VI.2002, 2 ♂♂, leg. Meineke, Hofmann, Kallies; Jiroft- Bāft Rd., 55 km. after Jiroft, Shingerā, 2800 m, 24.V.2004, 1 ♂, leg. Rajāei.

Khorāsān-e Razavi:

Bājgirān (W.): 7 km. W. Gharah Chegheh vill., Gharah Chegheh protected area, N 37° 39' 11.8", E 058° 14' 32.9", 2036 m, 21.VI.2013, 3 ♂♂, leg. Ālipanāh, Falsafi.

Daregaz: Tandoreh National Park, Shekarāb, N 37° 21' 43.0", E 058° 42' 32.0", 2135 m, 30.VI.2014, 1 ♂, leg. Ālipanāh, Falsafi; N. Tandoreh National Park, Chelmir- Bandak Rd., N 37° 23' 54.2", E 058° 47' 02.0", 1383 m, 25.VI.2014, 2 ♂♂, leg. Ālipanāh, Falsafi.

Mashhad: 10 km. after Golmakān vill., Binālud Mt. (Asheghān vall.), N 36° 24' 12.9", E 059° 06' 22.5", 1884 m, 4.VI.2016, 2 ♂♂ and one specimen without abdomen, leg. Ālipanāh, Falsafi.

Neyshābur: Zabarkhān Hesār, 1400 m, 12.VI.1977, 1 ♂, leg. Pāzuki, Abāi.

Shāndiz: Zoshk, Binālud, 2000 m, 19.VI.1974, 1 ♂, leg. Rajabi, Pāzuki.

Torbāt-e Heydariyeh: Kadkan, Sorb Mt., 2200- 2400 m, 15.VI.1998, 6 ♂♂, leg. Hofmann, Meineke.

Khorāsān-e Shomāli:

Esfarāyen- Jājarm Rd.: 21 km. W. Esfarāyen, Chāhārmārān, Sāluk protected area, N 37° 12' 23.6", E 057° 15' 25.7", 1463 m, 18.VI.2013, 1 ♂, leg. Ālipanāh, Falsafi.

Golestān National Park: Ālmeh, 1650 m, 17.-18.VIII.1996, 1 ♂, leg. Ebrāhimi, V. Nazari; Yākhti Kālān, 1650 m, 20.VII.1996, 1 ♂, leg. Ebrāhimi, V. Nazari.
Shirvān: Golulsārāni, 2200- 2800 m, 15.-17.VII.1997, 1 ♂, leg. Mirzāyāns, V. Nazari; N. Shirvān, Kopet Dāgh Mt., Sarāni vill., Sarāni protected area, N 37° 48' 22.5", E 057° 56' 29.7", 1500 m, 22.VI.2013, 1 ♂, leg. Ālipanāh, Falsafi.

Semnān:

Shāhrud (W.): Tāsh, Shāhvār Mt., 2900 m, 19.VII.2003, 1 ♀, leg. Hofmann, Meineke, Tremewan.

Sistān va Baluchestān:

Khāsh: Taftān Mt., Jamchin vill., N 28° 35', E 61° 03', 2500 m, 10.IV.2004, 1 ♂, leg. Rajāei.

Tehrān:

Firuzkuh: Chehel Cheshmeh, 2000 m, 24.VI.1998, 3 ♂♂, leg. Mofidi-Neyestānak.

Subfamily: **Stygiinae** Yakovlev, 2011

Genus: *Stygia* Latreille, [1802]

Stygia mosulensis Daniel, 1965

Material examined.

Āzarbāijān-e Gharbi:

Orumiyeh: Ghushchi, N 38° 03' 27", E 44° 59' 23", 1700 m, 17.VII.2005, 4 ♀♀, leg. Zahiri, Golmohammadzādeh-Khiābān.

Āzarbāijān-e Sharghi:

Tabriz: 5.IV.1954, 1 ♀, leg. Anonymous; Bāsmentj, 16.VIII.71, 1 ♀, leg. Damanābi; Khalat Pushān, 3.V.1953, 1 ♀, leg. Anonymous; Khalat Pushān, N 38° 01' 25", E 46° 25' 33", 1680 m, 16.VII.2005, 1 ♀, leg. Zahiri, Golmohammadzādeh-Khiābān.

Fārs:

Mamasani: Chāh Chenār, 8.VIII.1976, 1 ♀, leg. Abāi.

Subfamily: **Mehariinae** Yakovlev, 2011

Genus: **Meharia** Chrétien, 1915

Meharia avicenna Yakovlev, 2011

Material examined:

Fārs:

Fasā: Miāndeh, 1170 m, 15.VIII.2006, 1 ♂, leg. Kuhnavard; Zāhed Shahr, Ghalāt (Citrus garden), 1190 m, 16.IX.2007, 1 ♂, leg. Kuhnavard.

Kāzerun: Parishān Lake, 900 m, 5.VI.1990, 1 ♂, leg. Ebrāhimi, Badii.

Ghom:

Ghom Lake: 22.VI.1969, 1 ♂, leg. Mirzāyāns, Abāi, Broumand.

Semnān:

Sabzevār- Meyami Rd.: 3 km. E. Abbās Ābād vill., Khārturān protected area, 6 km. N. Abbās Ābād Ranger Sta., N 36° 23' 18.7", E 056° 19' 06.9", 1089 m, 11.VI.2016, 2 ♂♂, leg. Ālipanāh, Falsafi.

Meharia baluchestana Alipanah & Yakovlev, 2019

Material examined:

Sistān va Baluchestān:

Bampur: 500 m, 8.X.1996, 1 ♂, leg. Barāri, Sarafrāzi, Parchami-Arāghi.

Pishin: 267 m, 2.XI.2001, 1 ♂ 1 ♀, leg. Gilāsiān, Nematīān.

Meharia incurvariella persica (Wiltshire, 1946)

Material examined:

Esfahān:

Nāin: Gonuiyeh, 2100 m, 1.VII.1981, 1 ♀, leg. Hāshemi.

Fārs:

Shirāz: 8.IX.2003, 1 ♀, leg. Hesāmi.

Kermān:

Bāft: Darreh Pahn, 1750 m, 21.V.1977, 1 ♂, leg. Safavi, Pāzuki, Abāi.

Bam: Dehbakri, 10, 11.VI.1971, 6 ♀♀, leg. Naim, Hāshemi.

Jebāl-e Bārez: 12.VI.1971, 1 ♀, leg. Naim, Hāshemi.

Kermānshāh:

Kangāvar (5 km. E.): 29.VI.1972, 1500 m, 2 ♀♀, leg. Mirzāyāns, Abāi.

Kordestān:

Sanandaj: Āriz, 2200 m, 5.VII.1972, 2 ♀♀, leg. Mirzāyāns, Abāi.

Subfamily: **Cossinae** Leach, 1830

Tribe: **Endagriini** Duponchel, [1845]

Genus: **Dysoessa** Hübner, [1820] 1816

Dysoessa albosignata Rothschild, 1912

Material examined:

Khorāsān-e Shomāli:

Golestān National Park: Sulgerd, 1150 m, 8.V.1999, 2 ♂♂, leg. Moghaddam,
Barāri, Manzari.

Khosrawiyeh: Ālādāgh, 1600 m, 16.VI.1974, 1 ♂, leg. Rajabi, Pāzuki.

Tehrān:

Damāvand: Tār Lake, 2700 m, 24.VIII.1992, 1 ♂ 1 ♀, leg. Ebrāhimi, Badii.

Dysoessa alipanahae Yakovlev, 2008

Material examined:

Hormozgān:

Bandar Abbās: Isin, 150 m, 6.III.1985, 1 ♀, leg. Borumand, Hāshemi.

Dysoessa alpherakyi (Christoph in Romanoff, 1885)

Material examined:

Āzarbāijān-e Gharbi:

Bāzargān: 1450 m, 5.VI.1975, 1 ♂, leg. Abāi.

***Dyssa ariadne* Yakovlev, 2008**

Material examined:

Lorestān:

Aznā: Oshtorānkuh, Parcheh Kabud, 2800 m, 1.-2.VIII.1975, 1 ♂, leg. Pāzuki.

***Dyssa artemis* Yakovlev, 2008**

Material examined:

Esfahān:

Fereydun Shahr: Sibak Mt., 2500 m, 17.-18.VI.2002, 2 ♂♂, leg. Meineke,
Hofmann, Kallies *et al.*

Fārs:

Kāzerun: Tang-e Chogān, 900 m, 9.V.1974, 1 ♂, leg. Abāi, Pāzuki; Gāwkoshak,
1150 m, 18.V.1975, 2 ♂♂, leg. Pāzuki, Borumand.

Mamasani: Chāhtut, 1.-8.VI.1976, 1 ♂, leg. Abāi; Mamasani, Chāhtut, 1.-
8.VI.1976, 1 ♂, leg. Abāi.

Shirāz: 10 km. N. Sivand, 1150 m, 15.V.1974, 1 ♂, leg. Abāi, Pāzuki.

Kohgiluyeh va Boyerahmad:

Sisakht: Khāridun, N 30° 54' 44.07", E 51° 24' 47.16", 1644 m, 9.VII.2011, 1 ♂,
leg. Sarafrazi, Falsafi.

Kordestān:

Bāneh (23 km. NE.): Saghez- Bāneh Rd., 1750 m, 2.VII.1975, 1 ♂, leg. Pāzuki.

Lorestān:

Aznā: Oshtorānkuh, Parcheh Kabud, 2800 m, 1.-2.VIII.1975, 1 ♂, leg. Pāzuki.

***Dyspessa blonda* Yakovlev, 2008**

Material examined:

Āzarbāijān-e Gharbi:

Orumiyeh (15 km.): 10.VI.1975, 1 ♀ and one specimen without abdomen, leg. Abāi.

Fārs:

Jahrom: 1120 m, 11.V.1974, 1 ♀, leg. Abāi, Pāzuki.

Kāzerun: Gāwkoshak, 14.-25.X.1976, 1 ♀, leg. Abāi.

***Dyspessa elbursensis elbursensis* Daniel, 1964**

Material examined:

Chāhārmahāl va Bakhtiāri:

Borujen: Gandomān, Sabzeh Kuh, 2450 m, 11.-14.VII.1983, 1 ♂, leg. Mirzāyāns, Borumand.

Fārs:

Kāzerun: Dasht-e Arzhan, 27.V.1977, 1 ♂, leg. Abāi; Gāwkoshak, 16.IV.1975, 4 ♂♂, leg. Borumand; Miān Kotal, 1900 m, 11.VI.1972, 2 ♀♀, leg. Ebert, Pāzuki; Nowdān, 1250 m, 17.V.1975, 5 ♂♂ 1 ♀, leg. Abāi, Pāzuki.

Nur Ābād: Mamasani, Chāh Chenār, 14.V.1976, two specimens without abdomen, leg. Abāi; Chāh Chenār, 26.V.1976, 1 ♂, leg. Abāi.

Shirāz: Khānezeniān, 2000 m, 18.V.1974, 8 ♂♂, leg. Abāi, Pāzuki; Sivand, 28.V.1976, 1 ♀, leg. Abāi.

Kermān:

Jiroft- Bāft Rd. (55 km. after Jiroft): Shingerā, 2800 m, 24.V.2004, 1 ♂, leg. Rajāei.

Kermānshāh:

Ravānsar: 20.VI.1975, 1 ♂, leg. Abāi.

Khuzestān:

Ahwāz: Albāji, 30 km. N. Ahwāz, 1.V.1976, 1 ♂, leg. Pāzuki, Abāi.

Andimeshk: Bidruyeh, 40 km. N. Andimeshk, 350 m, 3.V.1976, 1 ♂, leg. Pāzuki, Abāi.

Lorestān:

Aligudarz: Oshtorānkuh, Narimān, 2400 m, 4.-5.VIII.1975, 1 ♂, leg. Pāzuki.

Pol Dokhtar, 14.V.1975, 730 m, 1 ♂, leg. Pāzuki, Borumand; Tang-e Malāvi, 720 m, 5.V.1976, 2 ♂♂, leg. Pāzuki; Pol Dokhtar, 10 km. W. Bābāzeyd, 880 m, 9.IV.1977, 5 ♂♂ 1 ♀, leg. Pāzuki, Hāshemi.

***Dyspessa pallidata* Staudinger, 1892**

Material examined:

Alborz:

Karaj: 30.IV.1974, 1 ♂, leg. Anonymous.

Tāleghān: 26.-31.VII.1976, 1 ♂ 2 ♀♀, leg. Kāviān.

Āzarbāijān-e Gharbi:

Khoy: 1000 m, 7.VI.1975, 1 ♂ 2 ♀♀, leg. Abāi.

Māku (15 km. NE.): 6.VI.1975, 1 ♂, leg. Abāi.

Orumiyeh: 3.VIII.1969, 1 ♂, leg. Anonymous; Orumiyeh, ?.V.1970, 1 ♀, leg. Javān-Moghaddam; Orumiyeh, 3.X.1973, 1 ♂, leg. Anonymous; Orumiyeh, 1410 m, 11.VI.1975, 1 ♂, leg. Abāi; Orumiyeh, Ghāsemalu, 10.VI.1975, 1 ♂, leg. Abāi; Orumiyeh, 7 km. Silvānā, Kuhe, 1660 m, 22.VII.1976, 18 ♂♂ 4 ♀♀, leg. Pāzuki, Borumand.

Sardasht: 14.VI.1975, 2 ♂♂, leg. Abāi.

Takāb: Takht-e Soleymān, N 36° 35' 40", E 47° 19' 43.5", 2528 m, 1.VII.2013, 7 ♂♂, leg. Afsariān.

Āzarbāijān-e Sharghi:

Bostan Ābād: Chini Bolāgh, 2300 m, 25.VI.1985, 3 ♂♂ 2 ♀♀, leg. Mirzāyāns, Pāzuki.

Tabriz: Gharah Chaman, 1100 m, 23.VI.1985, 11 ♂♂ 1 ♀, leg. Mirzāyāns, Pāzuki.

Chāhārmahāl va Bakhtiāri:

Borujen: S. Gandomān, Gerdbisheh, 2000 m, 12, 13.VI.2002, 1 ♂, leg. Hofmann, Meineke, Kallies.

Kuhrang: Hyregān, N 32° 20' 31", E 50° 26' 56", 2305 m, 6.VI.2005, 1 ♂, leg. Ebrāhimi, Hājiesmailiān.

Zardkuh: 10 km. S. Dehno, 2450 m, 9.VII.1982, 1 ♂ 1 ♀, leg. Borumand, Pāzuki; Zardkuh, 2300 m, 7.-8.VII.1982, 9 ♂♂ 1 ♀, leg. Borumand, Pāzuki.

Esfahān:

Anārak (8 km. NE.): N 33° 22' 43.5", E 53° 43' 13.5", 1560 m, 31.V.2005, 1 ♂, leg. Fibiger, Zahiri.

Fereydun Shahr: 2200 m, 9.VII.1999, 1 ♂, leg. Hofmann, Meineke; Fereydun Shahr, S. Kamarān Mt. pass, 2900-3200 m, 16, 17.VI.2002, 1 ♂, leg. Hofmann, Meineke, Kallies; Ghaleh Sorkh, 2800 m, 20.VI.2001, 1 ♂, leg. Hofmann, Meineke, Tremewan.

Kāshān: Ghohrud, N 33° 39' 40.2", E 51° 25' 15.7", 2380 m, 3.VI.2005, 2 ♂♂, leg. Hājiesmailiān, Ebrāhimi; Kāshān, Niāsar, N 33° 58' 10", E 51° 07' 28", 1800 m, 1.VI.2005, 1 ♂ 1 ♀, leg. Ebrāhimi, Hājiesmailiān, Hesāmi.

Fārs:

Firuz Ābād: Ghir, 1160 m, 11.IV.1975, 1 ♀, leg. Borumand; Mehkuyeh, Eshkaft Barm, 1750 m, 21.-22.VI.1993, 3 ♂♂, leg. Mirzāyāns, Badii.

Kāzerun: Dasht-e Arzhan, 1950 m, 13.V.1974, 1 ♂ 1 ♀, leg. Abāi, Pāzuki; Dasht-e Arzhan, 27.V.1977, 2 ♂♂, leg. Abāi; Farāshband, Harāt Ābād, 770 m, 7.V.1985, 1 ♂, leg. Mirzāyāns, Hāshemi; Farāshband, Sarmashhad, N 29° 17' 30.75", E 51° 42' 27.04", 1780 m, 9.IV.1975, 3 ♀♀, leg. Borumand.

Nur Ābād: Mamasani, Chāh Chenār, 25.V.1976, 2 ♀♀, leg. Abāi; Mamasani, Chāh Chenār, 3.-19.VII.1976, 1 ♂, leg. Abāi.

Shirāz: Khānezeniān, 2000 m, 18.V.1974, 1 ♂, leg. Abāi, Pāzuki.

Hamedān:

Lālejin: Soleymān Ābād, 1730 m, 13, 14.VIII.2007, 2 ♂♂, leg. Ebrāhimi, Gilāsiān, Nematīān.

Hormozgān:

Bandar Abbās- Sirjān (km. 40): 300 m, 30.III.1973, 1 ♂ 1 ♀, leg. Abāi.

Kermānshāh:

Ravānsar: 20.VI.1975, one specimen without abdomen, leg. Abāi.

Kohgiluyeh va Boyerahmad:

Kākān: Hoseinkhāni, 2100 m, 26.-27.V.1995, 1 ♂ 1 ♀, leg. Badii, Sarafrāzi, Hāshemi.

Kordestān:

Bāneh: 83 km. SE. Bāneh, 1750 m, 5.-6.VII.1975, 3 ♂♂, leg. Pāzuki; 23 km. NE.

Bāneh, Saghez- Bāneh Rd., 1750 m, 2.VII.1975, 5 ♂♂, leg. Pāzuki.

Saghez (45 km. SW.): Saghez- Bāneh Rd., 2000 m, 30.VI.1975, 1.VII.1975, 16 ♂♂ 3 ♀♀, leg. Pāzuki.

Lorestān:

Pol Dokhtar: Shāh Ābād, 820 m, 4.V.1976, 1 ♂, leg. Pāzuki, Borumand.

Tehrān:

Kahrizak: Gheysar Ābād, 1000 m, 22.-23.V.1993, 8 ♂♂, leg. Parchami-Arāghi, Badii.

Zanjān:

Zanjān- Gilvān Rd.: Gharāvōl Dāgh, 2500 m, 26, 27.VI.2001, 1 ♂, leg. Hofmann, Meineke, Tremewan.

***Dyspessa salicicola aschabadensis* Daniel, 1953**

Material examined:

Alborz:

Āzadbar- Tāleghān Rd. (6 km. E.): 2350 m, 21.VII.1988, 1 ♂, leg. Mirzāyāns, Badii.

Ardebil:

Ardebil: Namin, 1860 m, 20.VI.2002, 1 ♂, leg. Hājiesmailiān, Mofidi-Neyestānak, Deuve, Montreuil.

Neur Lake: 2500 m, 26.VIII.2010, 1 ♂, leg. Khāni, Mofidi-Neyestānak.

Hashtchin- Khalkhāl Rd.: N 37° 26' 54.5", E 048° 24' 50.6", 837 m, 16.VII.2013, 1 ♂, leg. Afsariān, Sarafrāzi.

Āzarbāijān-e Gharbi:

Māku: Āvājigh, Bāshkand, 1400 m, 16.VI.1976, 1 ♂, leg. Pāzuki, Borumand.

Āzarbāijān-e Sharghi:

Kaleybar: Ghaleh Bābak, 1500 m, 5.VII.1997, 1 ♂, leg. Mofidi-Neyestānak, Barāri.

Gilān:

Eshkevar: Gilānchākān, 1820 m, 27.VI.1997, 1 ♂, leg. Barāri, Mofidi-Neyestānak.

Rudbār: Darreh Dasht, 900 m, 25.VI.2002, 1 ♂, leg. Hājiesmailiān, Serri, Mofidi-Neyestānak, Deuve, Monteuil.

Golestān:

Āghghalā: Chinsivly, 0 m, 2.VII.2001, 2 ♂♂, leg. Ebrāhimi, Osten, Mofidi-Neyestānak.

Golestān National Park: Dasht, 960 m, 18.VI.1977, 2 ♂♂, leg. Pāzuki, Abāi; Gush Cheshmeh, 1000 m, 29.VI.2001, 2 ♂♂, leg. Ebrāhimi, Osten, Mofidi-Neyestānak; Koylar, 1250 m, 23.VII.1996, 2 ♂♂, leg. Ebrāhimi, V. Nazari; Koylar, 1350 m, 29.VII.2001, 1 ♂, leg. Gilāsiān, Moghaddam, Ghayurfar; Mazārli, 350 m, 19.-20.VI.1977, 1 ♂ and two specimens without abdomen, leg. Pāzuki, Abāi; Tang-e Gol, 620 m, 23.-25.V.1986, 5 ♂♂ 1 ♀, leg. Pāzuki; Tange Gol, 700 m, 24.-27.VII.1996, 1 ♂, leg. Ebrāhimi, V. Nazari; Tang-e Rāh, 930 m, 7.V.2000, 1 ♀, leg. Badii, Ebrāhimi, Mofidi-Neyestānak.

Gorgān: Loveh forest, 10.VIII.1967, 3 ♂♂, leg. Abāi.

Khānbebin: Shir Ābād, 80 m, 5.VII.2001, 1 ♂, leg. Mofidi-Neyestānak, Osten, Ebrāhimi.

Tuskāstan: Gorgān- Shāhrud Rd., N 36° 44' 37.6", E 54° 34' 02.6", 660 m, 15.VII.2007, 4 ♂♂, leg. Zahiri, Karimzādeh.

Khorāsān-e Shomālī:

Golestān National Park: Ālmeh, 1600 m, 26.-29.V.1986, 14 ♂♂, leg. Pāzuki; Ālmeh, 1650 m, 17.-25.V.1988, 8 ♂♂, leg. Pāzuki; Ālmeh, 1590 m, 6.V.1999, 3 ♂♂, leg. Mofidi-Neyestānak, Barāri, Manzari; Sulgerd, 1150 m, 8.V.1999, 16 ♂♂, leg. Moghaddam, Barāri, Manzari; Yākhti Kalān, 2.VI.1986, 2 ♂♂ 1 ♀, leg. Pāzuki.

Māzandarān:

Behshahr: Pasand, Pasand Res. Sta., 5.VI.1981, 6.VII.1981, 1 ♂, leg. Anonymous.

Marzan Ābād: 400 m, 6.VII.1995, 1 ♂, leg. Badii, Sarafrāzi, Linnavori.

Siābisheh: 10.VI.1974, 1 ♂, leg. Abāi.

Zanjān:

Zanjān: Armaghān Khāneh, Māri vill., N 36° 59' 52.0", E 48° 28' 39.0", 2300 m, 21.VI.2015, 1 ♂, leg. Nāserzādeh, Hājiesmailiān, Montreuil.

Zanjān- Gilvān Rd.: Gharāvōl Dāgh, Elburz Mt., 2500 m, 3, 4.VII.1999, 1 ♂, leg. Hofmann, Meineke; Gharāvōl Dāgh, 2500 m, 9, 26, 27.VI.2001, 2 ♂♂, leg. Hofmann, Meineke, Tremewan.

***Dyspessa salicicola iranensis* Alipanah & Yakovlev, 2019**

Material examined:

Fārs:

Firuz Ābād: Ghir, 11.IV.1975, 1160 m, 1 ♂, leg. Borumand.

Khuzestān:

Izeh: Susan, 600 m, 26.IV.1995, 1 ♂, leg. Badii, Ardeh, Parchami-Arāghi.

***Dyspessa serica* Brandt, 1938**

Material examined:

Fārs:

Ābādeh: Shurjestān, 2000 m, 30.IV.1985, 1 ♀, leg. Mirzāyāns, Hāshemi.

Khuzestān:

Izeh: Āzhgil, 950 m, 26.IV.1995, 5 ♂♂, leg. Parchami-Arāghi, Ardeh, Badii;

Susan, 600 m, 26.IV.1995, 1 ♂, leg. Badii, Ardeh, Parchami-Arāghi.

Kohgiluyeh va Boyerahmad:

Kākān: Hoseinkhāni, 2100 m, 26.-27.V.1995, 2 ♀♀, leg. Badii, Sarafrazi, Hāshemi.

Sisakht: N 30° 53' 46", E 51° 25' 10", 2430 m, 22.VI.2005, 1 ♀, leg. Zahiri, Montreuil.

***Dyspessa stroehlei* Yakovlev, 2008**

Material examined:

Āzarbāijān-e Gharbi:

Orumiyeh: 24.VII.1976, 1 ♂, leg. Anonymous.

***Dyspessa tsvetaevi* Yakovlev, 2008**

Material examined:

Kermānshāh:

Eslāmābād-e Gharb- Kerend Rd.: Gālivand vill., N 34° 13' 1.4", E 46° 32' 5.1",
1740 m, 22.V.2007, 1 ♂, leg. Zahiri, Montreuil.

Lorestān:

Tang-e Malāvi: 720 m, 5.V.1976, 2 ♂♂, leg. Pāzuki.

***Dyspessa ulula kasrii* Daniel, 1964**

Material examined:

Āzarbāijān-e Gharbi:

Orumiye: Ghāsemlu, 10.VI.1975, one specimen without abdomen, leg. Abāi.

Kermānshāh:

Rijāb (5 km. S.): N 34° 27' 9.9", E 46° 00' 51.4", 1300 m, 24.V.2007, 1 ♀, leg. Zahiri.

Sare Pol-e Zahāb (SE.): Sagān, Navā Mt., N 34° 14' 12.7", E 46° 7' 44", 1270 m, 26.V.2007, 10 ♀♀, leg. Zahiri.

Fārs:

Kāzerun: Gāwkoshak, 1150 m, 18.V.1975, 1 ♀, leg. Pāzuki, Borumand.

Khorāsān-e Shomāli:

Golestān National Park: Ālmeh, 1650 m, 17.-25.V.1988, 1 ♂, leg. Pāzuki.

***Dyspessa wagneri* Schwingenschuss, 1939**

Material examined:

Alborz:

Karaj: Kandovān, Sarchāl, 2800 m, 4.-8.VII.1977, 3 ♂♂, leg. Pāzuki, Mortazavihā.

Esfahān:

Fereydun Shahr: 2200 m, 9.VII.1999, 2 ♂♂, leg. Hofmann, Meineke.

Khānsār: Golestān Kuh, 2700 m, 28, 29.VII.1981, 10 ♂♂, leg. Pāzuki, Borumand;

Golestān Kuh, 2750 m, 5.-6.VII.1982, 15 ♂♂, leg. Borumand, Pāzuki;

Golestān Kuh, 2700 m, 3, 4.VII.1983, 8 ♂♂ 5 ♀♀, leg. Mirzāyāns, Borumand.

Semirom: Pashmeh Kuh, 2750 m, 18.VI.2001, 2 ♂♂, leg. Hofmann, Meineke,

Tremewan; W. Semirom, Pashmeh Kuh vall., 2800 m, 31.V.-2.VI.2004, 15

♂♂ 1 ♀, leg. Hofmann, Meineke, Tremewan; W. Semirom, Pashmeh Kuh,

2800 m, 2.-3.VI.2005, 4 ♂♂, leg. Hofmann, Meineke.

Kermān:

Bāft: Ghanāt-e Marvān, 2800 m, 23.V.1977, 1 ♂, leg. Safavi, Pāzuki, Abāi.

Khorāsān-e Shomāli:

Golestān National Park: Ālmeh, 1600 m, 26.-29.V.1986, 4 ♂♂, leg. Pāzuki;
Ālmeh, 1650 m, 17.-25.VIII.1988, 38 ♂♂, leg. Pāzuki; Ālmeh, 1650 m, 2.-
12.X.1988, 1 ♂, leg. Pāzuki; Ālmeh, 1590 m, 6.V.1999, 1 ♂, leg. Mofidi-
Neyestānak, Barāri, Manzari.

Kordestān:

Bāneh (23 km. NE.): Saghez- Bāneh Rd., 1750 m, 2.VII.1975, 3 ♂♂, leg. Pāzuki.
Saghez (45 km. SW.): Saghez- Bāneh Rd., 2000 m, 30.VI.1975, 1 ♂ 1 ♀, leg.
Pāzuki.

Zanjān:

Zanjān: Gharāvōl Dāgh, 2500 m, 3, 4.VII.1999, 1 ♂, leg. Hofmann, Meineke.

***Dyspessa wiltshirei* Daniel, 1938**

Material examined:

Alborz:

Karaj: Āzādbar, 2400 m, 7.-9.V.1995, 5 ♀♀, leg. Sarafrāzi, Badii, Linnavori;
Kandovān, Sarchāl, 2800 m, 4.-8.VII.1977, 4 ♀♀, leg. Pāzuki, Mortazavihā.

Chāhārmahāl va Bakhtiāri:

Borujen: Gandomān, Sabzeh Kuh, Anchuchak, 2500 m, 15.VII.1982, 1 ♀, leg.
Borumand, Pāzuki; Sabzeh Kuh, 2500 m, 4.-5.VI.1989, 2 ♂♂ 6 ♀♀, leg.
Mirzāyāns, Badii.

Zardkuh: 10 km. S. Dehno, 2450 m, 9.VII.1982, 1 ♀, leg. Borumand, Pāzuki.

Esfahān:

Khānsār: Golestān Kuh, 2700 m, 3, 4.VII.1983, 1 ♂ 1 ♀, leg. Mirzāyāns,
Borumand.

Fārs:

Sepidān: Mārgoon fall, 2020 m, 23.-25.VI.1993, 2 ♀♀, leg. Mirzāyāns, Badii.

Kermānshāh:

Rijāb (5 km. S.): N 34° 27' 9.9", E 46° 00' 51.4", 1300 m, 24.V.2007, 1 ♂, leg. Zahiri.

Sare Pol-e Zahāb (SE.): Sagān, Navā Mt., N 34° 14' 12.7", E 46° 7' 44", 1270 m, 26.V.2007, 5 ♀♀, leg. Zahiri.

Khorāsān-e Shomāli:

Āshkhāneh (42 km. W.): 7 km. W. Mehmānak vill., N 37° 29' 36.5", E 056° 52' 27.6", 1040 m, 17.VI.2013, 10 ♂♂ 1 ♀, leg. Ālipānāh, Falsafi.

Khuzestān:

Izeh: 28 km. N. Bāgh Malek, 800 m, 26.V.1973, 1 ♀, leg. Irānshahr.

Kohgiluyeh va Boyerahmad:

Meymand: Meymand Mt. pass, 2450-2800 m, 14, 15.VI.2001, 1 ♂, leg. Hofmann, Meineke, Tremewan.

Sisakht: Khāridun, N 30° 54' 44.07", E 51° 24' 47.16", 1644 m, 9.VII.2011, 1 ♀, leg. Falsafi, Sarafrāzi.

Yāsuj: Tang-e Sorkh, 12.-13.VI.1986, 1 ♂ 3 ♀♀, leg. Mirzāyāns, Hāshemi; 15 km. SE. Yāsuj, 2050 m, 15.VI.1972, 1 ♂ 1 ♀, leg. Ebert, Pāzuki.

Kordestān:

Bāneh (83 km. SE.): 1750 m, 5.-6.VII.1975, 1 ♂ 1 ♀, leg. Pāzuki.

Lorestān:

Aznā: Oshtorānkuh, N. Kamandān, 2040 m, 22.-24.VII.1981, 1 ♀, leg. Pāzuki, Borumand.

Markazi:

Arāk: Shāzand, 1950 m, 21.VII.1981, 1 ♀, leg. Pāzuki, Borumand.

Khomein: Nāzi vill., N 33° 41' 50", E 050° 02' 17.7", 1872 m, 7.VI.2013, 2 ♂♂, leg. Afsariān.

Salafchegān: Garnekān, 1570 m, 14.V.1994, 1 ♀, leg. Sarafrāzi, Hāshemi.

Zanjān:

Taham: Tāzehkand, N 36° 55' 25.4", E 48° 42' 51.4", 1433 m, 29.VII.2013, 1 ♀,
leg. Afsariān.

Dyspessa zurvan Yakovlev, 2008

Material examined:

Ilām:

Mehrān: 19.III.1970, 1 ♂, leg. Abāi, Hāshemi.

Kordestān:

Saghez- Bāneh Rd.: 21 km. NE. Bāneh, 1950 m, 30.VI.-2.VII.1975, 1 ♂, leg.
Ebert, Falkner.

Genus: *Isoceras* Turati, 1924

Isoceras bipunctatum (Staudinger, 1887)

Material examined:

Āzarbāijān-e Gharbi:

Khoy: 30 km. Ghotur, 1480 m, 19.VII.1976, 1 ♂, leg. Pāzuki, Borumand.

Māku (W.): Ghezel Bolāgh, 2220 m, 17.-18.VII.1976, 4 ♂♂, leg. Pāzuki,
Borumand.

Mārmishou: N 37° 34' 26", E 44° 37' 25", 1760 m, 18.VII.2005, 1 ♂, leg. Zahiri,
Golmohammadzādeh-Khiābān.

Orumiyeh: 1410 m, 11.VI.1975, 1 ♂, leg. Abāi; Orumiyeh, Ghāsemlu,
10.VI.1975, 1 ♂, leg. Abāi; 35 km. Orumiyeh, Ghāsemlu, 1440 m,
24.VII.1976, 1 ♂, leg. Pāzuki, Borumand; Orumiyeh, Ghāsemlu, 1440 m,
13.VII.1977, 1 ♂, leg. Abāi, Javān-Moghaddam; Ghāsemlu vall. N 37° 16'
05", E 45° 08' 57", 1650 m, 19.VII.2005, 1 ♂, leg. Zahiri,
Golmohammadzādeh-Khiābān.

Chāhārmahāl va Bakhtiāri:

- Borujen: Gandomān, Sabzeh Kuh, 2450 m, 11.-14.VII.1983, 39 ♂♂, leg. Mirzāyāns, Borumand; SW. Gandomān, Sabzeh Kuh, Anchuchak, 2500 m, 15.VII.1982, 19 ♂♂, leg. Borumand, Pāzuki; Sabzeh Kuh, 2500 m, 4.-5.VI.1989, 41 ♂♂, leg. Mirzāyāns, Badii.
- Kuhrang: 26.VII.1974, 3 ♂♂, leg. Hāshemi, Zairi; Kuhrang, Cheshmeh Chālak, 29.VII.1974, 26 ♂♂ 1 ♀, leg. Hāshemi, Zairi.
- Shalamzār: Tang-e Chezghān (5 km. SW. Shalamzār), 7.-10.VII.1983, 9 ♂♂, leg. Mirzāyāns, Borumand; S. Shalamzār, Tang-e Chezghān, 2200 m, 11.VII.1982, 1 ♂, leg. Borumand, Pāzuki.
- Zardkuh: 2300 m, 7.-8.VII.1982, 4 ♂♂, leg. Borumand, Pāzuki; Zardkuh, 2440 m, 15.VIII.1976, 2 ♂♂, leg. Pāzuki, Borumand; Khoshāb, Zardkuh, 2310 m, 6.VII.1983, 7 ♂♂, leg. Mirzāyāns, Borumand.

Esfahān:

- Fereydun Shahr: 2200 m, 9.VII.1999, 6 ♂♂, leg. Hofmann, Meineke.

Fārs:

- Kāzerun: Dasht-e Arzhan, Kotal Pirehzan, 18.VI.1972, 1 ♂, leg. Ebert, Pāzuki.
- Sepidān: Mārgoon fall, 2020 m, 23.-25.VI.1993, 3 ♂♂, leg. Mirzāyāns, Badii; Sibkhalaj, Komehr, 29.VI.1963, 1 ♂, leg. Mirzāyāns.
- Shirāz: 22.vi.1967, 3 ♂♂, leg. Kashkuli.

Gilān:

- Shaft: Ahmad Gurāb, Siāhmezgi vill., N 37° 0.00' 56.86", E 49° 15' 7.95", 626 m, 23.VII.2010, 1 ♂, leg. Ālipanāh, Falsafi.

Kermanshah:

- Sar-e Pol-e Zahāb (SE.): Sagān, Navā Mt., N 34° 14' 12.7", E 47° 7' 44", 1270 m, 26.V.2007, 1 ♂, leg. Zahiri.

Kohgiluyeh va Boyerahmad:

- Meymand (5 km. N.): NW. Denā Mt., 2210 m, 18.-20.VIII.1976, 27 ♂♂, leg. Pāzuki, Borumand.

Sisakht: 2250 m, 13.VI.1972, 2 ♂♂, leg. Ebert, Pāzuki; Sisakht, 2100 m, 16.VI.1986, 1 ♂, leg. Mirzāyāns, Hāshemi; Sisakht (15 km. SE. Yāsuj), 2050 m, 15.VI.1972, 12 ♂♂, leg. Ebert, Pāzuki.

Yāsuj: 12.VI.1973, 1 ♂, leg. Hāshemi, Zairi; Yāsuj, Tang-e Sorkh, 12.-15.VI.1975, 1 ♂, leg. Ebert, Falkner; Tang-e Sorkh, 12.-13.VI.1986, 1 ♂, leg. Mirzāyāns, Hāshemi; Tang-e Sorkh, (50 km. NW. Sepidān), 2250 m, 16.VI.1972, 6 ♂♂, leg. Ebert, Pāzuki.

Kordestān:

Bāneh (83 km. SE.): 1750 m, 5.-6.VII.1975, 4 ♂♂, leg. Pāzuki.

Marivān: Miāneh Dāgh, 2000 m, 6.VII.1972, 1 ♂, leg. Mirzāyāns, Abāi; 35 km. NE. Marivān, 1550 m, 8.-9.VII.1975, 1 ♂, leg. Pāzuki.

Sanandaj: Āriz, 2200 m, 5.VII.1972, 2 ♂♂, leg. Mirzāyāns, Abāi.

Sardasht: N 36° 06' 59", E 45° 28' 17", 1500 m, 20.VII.2005, 2 ♂♂, leg. Zahiri, Golmohammadzadeh-Khiābān.

Sarvābād- Marivān Rd.: 29 km. to Marivān, N 35° 18' 51.2", E 046° 20' 32.7", 1100 m, 1.VI.2012, 2 ♂♂, leg. Ālipanāh, Falsafī.

Lorestān:

Aligudarz: Ghālikuh, 2500 m, 21.-22.VIII.1994, 10 ♂♂ 2 ♀♀, leg. Mirzāyāns, Sarafrāzi; Ghālikuh, 2200 m, 20.VII.1994, 1 ♂, leg. Mirzāyāns, Sarafrāzi; 95 km. S. Aligudarz, Ghālikuh, 2360 m, 25.-26.VII.1981, 1 ♂, leg. Pāzuki, Borumand; Oshtorānkuh, Narimān, 2400 m, 4.-5.VIII.1975, 9 ♂♂, leg. Pāzuki; Shāh Ābād, Ghālikuh, 2100 m, 2.VIII.1997, 2 ♂♂, leg. Barāri, Mofidi-Neyestānak.

Aznā: N. Kamandān, 2040 m, 22.-24.VII.1981, 28 ♂♂, leg. Pāzuki, Borumand; Kamandān, 2050 m, 1.-2.VII.1990, 2 ♂♂, leg. Hāshemi, Ebrāhimi; Kamandān, 2050 m, 23.VII.1994, 3 ♂♂, leg. Mirzāyāns, Sarafrāzi; Kamandān, 2000 m, 3.VIII.1997, 2 ♂♂, leg. Barāri, Mofidi-Neyestānak; Kamandān, 2050-2300 m, 23.-24.VIII.1994, 1 ♂, leg. Mirzāyāns, Sarafrāzi; Parcheh Kabud, 2800 m, 1.-2.VII.1975, 5 ♂♂, leg. Pāzuki.

Dorud: Sarcheshmeh, 2300 m, 8.VIII.2002, 1 ♂, leg. Hājiesmailiān, Ghayurfar; 15 km. E. Dorud, Sarāvand, Darbāstāneh, 2000 m, 6.VIII.1975, 1 ♂, leg. Pāzuki; Oshdorānkuh, Gokān, 2350 m, 29.-30.VII.1975, 6 ♂♂, leg. Pāzuki.

Sistān va Baluchestān:

Khāsh: Kusheh, 2000 m, 21.V.1972, 2 ♂♂, leg. Abāi, Ebert.

***Isoceras huberi* Eitschberger & Ströhle, 1987**

Material examined:

Ghom:

Fordu (3 km. S.): 2150 m, 5.VI.1984, 1 ♂, leg. Pāzuki, Hāshemi.

***Isoceras saxicola* (Christoph, 1885)**

Material examined:

Esfahān:

Kāshān: Ghohrud, N 33° 39' 40.2", E 51° 25' 15.7", 2380 m, 3.VI.2005, 2 ♂♂, leg. Hājiesmailiān, Ebrāhimi.

Ghazvin:

Alamut: Gāzorkhan, 2080 m, 19.-21.VI.1995, one specimen without abdomen, leg. Ebrāhimi, Ardeh, Parchami-Arāghi.

Rudbār-e Shahrestān: Daryābak, 2150 m, 12.VI.1995, 1 ♂, leg. Parchami-Arāghi, Ebrāhimi, Ardeh.

Hamedān:

Kabudrāhang: Kuhin, 1965m, 12.VIII.2001, 1 ♂, leg. Ebrāhimi, Gilāsian, Nematīān.

Zanjān:

Zanjān- Ābbar Rd.: 40 km. after Zanjān, N 36° 44' 07.8", E 048° 47' 34.2", 1706 m, 5.VI.2012, 2 ♂♂, leg. Ālipanāh, Falsafi.

***Isoceras teheranica* Daniel, 1971**

Material examined:

Āzarbāijān-e Gharbi:

Orumiyeh: Ghāsemīlu, 1440 m, 24.VII.1976, 1 ♂, leg. Pāzuki, Borumand;
Ghāsemīlu vall., N 37° 16' 05", E 45° 08' 57", 1650 m, 19.VII.2005, 1 ♂, leg.
Zahiri, Golmohammadzādeh-Khiābān.

Esfahān:

Khānsār: Golestān Kuh, 2700 m, 3, 4.VII.1983, 1 ♂, leg. Mirzāyāns, Borumand.
Kuhrang: Cheshmeh Chālak, 29.VII.1974, 2 ♀♀, leg. Hāshemi, Zairi.

Gilān:

Asālem: 1250 m, 6.IX.1972, 1 ♂, leg. Borumand, Zairi.

Kordestān:

Bāneh (83 km. SE.): 1750 m, 5.-6.VII.1975, 1 ♂ 1 ♀, leg. Pāzuki; 23 km. NE.
Bāneh, Saghez- Bāneh Rd., 1750 m, 2.VII.1975, 1 ♀, leg. Pāzuki.
Sanandaj: Āriz, 2200 m, 5.VII.1972, 2 ♂♂, leg. Mirzāyāns, Abāi.

Lorestān:

Aznā: Oshtorānkuh, N. Kamandān, 2040 m, 22.-24.VII.1981, 1 ♀, leg. Pāzuki,
Borumand.

Genus: ***Semagystia* Schoorl, 1990**

***Semagystia agilis* (Christoph, 1884)**

Material examined:

Golestān:

Gonbad Kāvus: Minudasht, Golestān forest, 21.VI.1974, 1 ♀, leg. Pāzuki, Rajabi.
Kalāleh: Cheshmeh Olyā, 1200 m, 14.VI.2011, 1 ♀, leg. Ebrāhimi, Mofidi-
Neyestānak.

Khorāsān-e Razavi:

Daregaz: N. Tandoreh National Park, 1 km. after Alibulāgh Ranger Sta., N 37° 33' 25.1", E 058° 38' 42.7", 1297 m, 7.VI.2016, 1 ♂ 2 ♀♀, leg. Ālipanāh, Falsafī;
Daregaz- Kalāt-e Nāder Rd., Lāeen vill. to Khākestar vill. Rd., before Chāhārrāh vill., Hezārmasjed Mts, N 37° 02' 39.5", E 059° 26' 10.11", 1344 m, 27.VI.2014, 5 ♂♂, leg. Ālipanāh, Falsafī; Daregaz, Allāhoakbar, 1950 m, 16.vi.1974, 1 ♂, leg. Rajabi, Pāzuki.

Khorāsān-e Shomālī:

Āshkhāneh- Chamanbid Rd.: 1.7 km. SW. Jozak vill., Jozak Tree Indust., N 37° 25' 25.2", E 056° 40' 28.2", 1148 m, 1.VII.2014, 1 ♀, leg. Ālipanāh, Falsafī.
Bojnurd (30 km. S.): Asadly, 1970 m, 17.VI.1977, 1 ♂, leg. Pāzuki, Abāi.
Golestān National Park: Ālmeh, 1600 m, 26.-29.V.1986, 43 ♂♂ 1 ♀, leg. Pāzuki;
Ālmeh, 1650 m, 17.-25.V.1988, 9 ♂♂, leg. Pāzuki; Ālmeh, 26.VI.1998, 1 ♂ 2 ♀♀, leg. Āgh-Ātābāy, V. Nazari, Hagh.; Sulgerd, 1100 m, 16.-18.VII.1985, 2 ♂♂ 2 ♀♀, leg. Pāzuki; Yākhti Kālān, 2.VI.1986, 3 ♂♂ 2 ♀♀, leg. Pāzuki; Yākhti Kālān, 1460 m, 30.VI.2001, 1 ♂, leg. Mofidi-Neyestānak, Osten, Ebrāhimi.
Khosrawiyeh: Ālādāgh, 1600 m, 16.VI.1974, 9 ♂♂ 4 ♀♀, leg. Rajabi, Pāzuki.

Māzandarān:

Siāhbisheh: 24.VI.1965, 1 ♀, leg. Anonymous.

Tribe: **Holcocerini** Yakovlev, 2006

Genus: **Barchaniella** Yakovlev, 2006

Barchaniella inspersa (Christoph, 1887)

Material examined:

Khorāsān-e Razavi:

Neyshābur: Zabarkhān Hesār, 1400 m, 12.VI.1977, 1 ♀, leg. Pāzuki, Abāi.

Barchaniella mus (Grum-Grshimailo, 1902)

Material examined:

Sistān va Baluchestān:

Irānshahr (18 km. W.): Rig Kabud, 500 m, 15.V.1972, 1 ♀, leg. Abāi, Ebert.

Barchaniella sacara (Grum-Grshimailo, 1902)

Material examined:

Ardebil:

Heyrān Rd.: N 38° 23' 20.9", E 48° 36' 44.1", 1015 m, 21.VI.2007, 1 ♀, leg. Zahiri, Mozaffariān.

Genus: ***Cossulus*** Staudinger, 1887

Cossulus intractatus (Staudinger, 1887)

Material examined:

Khorāsān-e Razavi:

Mashhad: Torogh, summer of 1972, 1 ♀, leg. Anonymous.

Khorāsān-e Shomāli:

Golestān National Park: Ālmeh, 1600 m, 19.-20.VII.1985, 3 ♂♂, leg. Pāzuki.

Cossulus irani (Daniel, 1937)

Material examined:

Alborz:

Karaj: Āzādbar, 2300 m, 12.VII.1996, 2 ♂♂, leg. Barāri, Badii; Arangeh, Sarziārat, 1750 m, 10, 11.VII.1996, 2 ♂♂ 1 ♀, leg. Barāri, Badii; Arangeh, Sijān, Kohneh Bāgh, 2300 m, 11.VIII.1999, 1 ♂, leg. Mofidi-Neyestānak, Badii, Ebrāhimi; Dizin, Velāyat Rood, 2250 m, 28.VII.1994, 1 ♂, leg. Ebrāhimi; Kandovān, 21.VIII.1978, 1 ♂, leg. Hāshemi, Zairi; N. Kandovān, Khākak, 2560 m, 9.VII.1977, 1 ♂, leg. Pāzuki, Mortazavihā; Kandovān,

Sarchāl, 2800 m, 4.-8.VII.1977, 6 ♂♂, leg. Pāzuki, Mortazavihā;
Shahrestānak, Goleh Gileh fount., 2400 m, 20.VII.1988, 2 ♂♂, leg. Mirzāyāns,
Badii.

Golestān:

Golestān National Pārک: Koylar, 1100 m, 6.VIII.1998, 1 ♂, leg. Mofidi-
Neyestānak, V. Nazari.

Gorgān: 28.VI.1970, 1 ♂, leg. Anonymous.

Khorāsān-e Razavi:

Mashhad: Torogh, 7.V.1971, 1 ♂, leg. Shāhrokhī.

Khorāsān-e Shomālī:

Golestān National Pārک: Ālmeh, 1600 m, 19.-20.VII.1985, 2 ♂♂, leg. Pāzuki;
Sulgerd, 1100 m, 16.-18.VII.1985, 6 ♂♂, leg. Pāzuki.

Māzandarān:

Āmol: Malār, 28.VII.1971, 3 ♂♂, leg. Hāshemi, Zairi; Āmol, Rudbār, 1600 m,
20.VIII.1981, 1 ♂, leg. Hāshemi.

Lārijān: Polemun, 20.VII.1971, 2 ♂♂, leg. Hāshemi, Zairi.

Polur: 29.VI.1966, 1 ♂, leg. Moayeri; Polur, Lār, 2500 m, 14.-15.VIII.1981, 1 ♂,
leg. Hāshemi.

Rāmsar: 6 km. Javāherdeh, N 36° 54' 29.3", 050° 35' 13.2", 554 m, 23.VII.2007, 1
♂, leg. Ālipanāh, Zahiri.

Tonekābon: Sefidāb, 18.VIII.1980, 1 ♂, leg. Anonymous.

Semnān:

Golestān National Pārک: Dasht-e Shād, 1400 m, 23.VII.2001, 1 ♂, leg. Ghayurfar,
Gilāsiān, Moghaddam.

Tehrān:

Rudbār-e Ghasrān: Garmābdar, 2300 m, 13, 14.VII.1993, 1 ♂, leg. Ebrāhimi,
Parchami-Arāghi.

Damāvand: Damāvand Mt., S. slope, 2720 m, 23.VII.1988, 1 ♂, leg. Mirzāyāns, Badii.

***Cossulus lignosus* (Brandt, 1938)**

Material examined:

Alborz:

Karaj: Dizin, Velāyat Rood, 2500 m, 15.VII.1994, 2 ♂♂, leg. Ebrāhimi, Parchami-Arāghi leg; Malārd, 18.VII.1971, 1 ♂, leg. Hāshemi, Zairi; 6 km. E. Āzādbar-Taleghān Rd., 2350 m, 21.VII.1988, 1 ♀, leg. Mirzāyāns, Badii.

Tāleghān: 8 km. W. Zidasht, 2200 m, 10.-13.VI.1977, 6 ♂♂ 3 ♀♀, leg. Pāzuki, Mortazavihā.

Ardebil:

Heyrān Rd.: N 38° 23' 20.9", E 48° 36' 44.1", 1015 m, 21.VI.2007, 1 ♀, leg. Zahiri, Mozaffariān.

Meshkin Shahr: Ilāndu, 1800 m, 3.VII.1997, 1 ♀, leg. Barāri, Mofidi-Neyestānak; Sabalān, Qotur Suee, N 38° 21' 53.9", E 47° 51' 43.4", 2270 m, 25.-26.VII.2007, 3 ♂♂ 2 ♀♀, leg. Ālipanāh, Zahiri, Falsafi.

Pārs Ābād: Nahr-e Torāb, N 39° 39' 52.58", E 47° 52' 14.62", 39 m, 21.VII.2009, 1 ♂, leg. Manzari, Hājiesmailiān.

Āzarbāijān-e Sharghi:

Kaleybar: Arasbārān protected area, Barzandigh- Peyghām Rd., 5 km. W. Peyghām, N 38° 45' 30.3", E 46° 57' 28.4", 1621 m, 25.VI.2015, 1 ♀, leg. Nāserzādeh, Hājiesmailiān, Montreuil.

Lighvān: N. Sahand Mt., 2440 m, 2.-3.VIII.1992, 3 ♂♂, leg. Parchami-Arāghi, Badii.

Esfahān:

Fereydun Shahr: 2200 m, 9.VII.1999, 1 ♂, leg. Hofmann, Meineke.

Khānsār: Golestān Kuh, 2700 m, 28.-29.VII.1981, 1 ♂, leg. Pāzuki, Borumand.

Semirom: Pādenā, Tang-e Bizhan, 2930 m, 13.VIII.1978, 1 ♂, leg. Pāzuki, Borumand.

Fārs:

Kāzerun: Chāh Gāw, 18.VI.1976, 1 ♀, leg. Abāi.

Nur Ābād: Mamasani, Chāh Chenār, 25.VII.1976, 1 ♂, leg. Abāi.

Ghazvin:

Alamut: Gāzorkhān, 24.vi.1994, 1 ♂, leg. Ebrāhimi; Gāzorkhān, 19.-21.VI.1995, 1 ♂, leg. Ebrāhimi, Ardeh, Parchami-Arāghi; Rudbār-e Alamut, Gāzorkhān, 29.VI.1982, 2 ♂♂, leg. Hāshemi,

Khorāsān-e Razavi:

Mashhad: 14.VII.1971, 1 ♂, leg. Pāzuki, Āyatollāhi.

Kohgiluyeh va Boyerahmad:

Meymand (5 km. N.): NW. Dena Mt., 2210 m, 18.-20.VIII.1976, 1 ♂, leg. Pāzuki, Borumand.

Yāsuj- Sepidān Rd. (20 km.): Tang-e Sorkh, 2380 m, 16.VIII.1978, 1 ♂, leg. Pāzuki, Borumand.

Kordestān:

Bāneh (23 km. NE.): Saghez- Bāneh Rd., 1750 m, 2.VII.1975, 1 ♂, leg. Pāzuki.

Marivān: 35 km. NE. Marivān, 1550 m, 8.-9.VII.1975, 9 ♀♀, leg. Pāzuki; 36 km.

NE. Marivān Rd. near Bāneh, 1550 m, 8.-9.VII.1975, 1 ♂, leg. Ebert, Falkner.

Saghez (45 km. SW.): Saghez- Bāneh Rd., 2000 m, 30.VI.1975, 4 ♂♂ 1 ♀, leg. Pāzuki.

Sanandaj: Amir Ābād, 28.VI.1974, 1 ♀, leg. Hāshemi.

Lorestān:

Aznā: Oshtorānkuh, Parcheh Kabud, 2800 m, 1.-2.VIII.1975, 1 ♂, leg. Pāzuki.

***Cossulus mollis* (Christoph, 1887)**

Material examined:

Khorāsān-e Razavi:

Daregaz: N. Tandoreh National Park, Chelmir, N 37° 23' 33.6", E 058° 51' 23.3", 1018 m, 24.VI.2014, 1 ♂ 1 ♀, leg. Ālipanāh, Falsafi; N. Tandoreh National Park, 6 km. after Chelmir, Cheshmeh Rajab, N 37° 23' 35.9", E 058° 48' 35.8", 1206 m, 26.VI.2014, 2 ♂♂, leg. Ālipanāh, Falsafi; Daregaz- Dorbādām Rd., NW. Tandoreh National Park, near Alibolāgh, N 37° 32' 06.2", E 058° 36' 07.3", 1509 m, 29.VI.2014, 4 ♂♂ 2 ♀♀, leg. Ālipanāh, Falsafi; Daregaz-Kalāt-e Nāder Rd., Lāeen vill. to Khākestar vill. Rd. (2.3 km. after Chāhārrāh vill.), Hezārmāsjeed Mts, N 37° 02' 48.3", E 059° 24' 54.5", 1485 m, 28.VI.2014, 1 ♂, leg. Ālipanāh, Falsafi.

Khorāsān-e Shomāli:

Esfarāyen- Jājarm Rd.: 21 km. W. Esfarāyen, Chāhārmārān, Sāluk protected area, N 37° 10' 20.2", E 057° 12' 06.6", 1311 m, 19.VI.2013, 5 ♂♂, leg. Ālipanāh, Falsafi.

***Cossulus mucosus* (Christoph, 1884)**

Material examined:

Alborz:

Karaj: Arangeh, 1550 m, 2.VI.1972, 1 ♂ 1 ♀, leg. Ebert.

Tāleghān: Tāleghān dam, 1650 m, 17.-18.VI.1992, 1 ♀, leg. Ebrāhimi, Badii.

Esfahān:

Kāshān- Meymeh Rd.: Ghohrud, N 33° 39' 04", E 051° 23' 53", 2450 m, 11.-13.V.2005, 1 ♂, leg. Trusch, Petschenka, Müller.

Golestān:

Golestān National Park: Tang-e Gol, 620 m, 23.-25.V.1986, 1 ♀, leg. Pāzuki.

Khorāsān-e Razavi:

Ghuchān: Chakaneh-e Olyā, Fahneh, 1780 m, 11.-12.VI.1979, 1 ♂, leg. Mofidi-Neyestānak.

Daregaz- Dorbadam Rd.: NW. Tandoreh National Park, near Alibolāgh vill., N 37° 32' 06.2", E 058° 36' 07.3", 1509 m, 29.VI.2014, 1 ♂, leg. Ālipanāh, Falsafi.

Mashhad: Torogh, 7, 8.V.1971, 2 ♂♂, leg. Shāhrokhi; Torogh, 30.IV.1971, 1 ♀, leg. Elāhi; Torogh, 12.V.1975, 1 ♂, leg. Anonymous; 10 km. after Golmakān vill., Binālud Mt. (Āsheghān vall.), N 36° 24' 12.9", E 059° 06' 22.5", 1884 m, 4.VI.2016, 1 ♂, leg. Ālipanāh, Falsafi.

Mashhad- Sarakhs Rd. (km. 115): Bazangān Rd., N 36° 16' 45.2", E 060° 32' 51.2", 713 m, 8.VI.2016, 1 ♀, leg. Ālipanāh, Falsafi.

Khorāsān-e Shomāli:

Āshkhāneh (42 km. W.): 7 km. W. Mehmānak vill., N 37° 29' 36.5", E 056° 52' 27.6", 1040 m, 17.VI.2013, 6 ♂♂ 1 ♀, leg. Ālipanāh, Falsafi.

Golestān National Park: Ālmeh, 1600 m, 26.-29.V.1986, 2 ♂♂ 2 ♀♀, leg. Pāzuki; Yākhti Kālān, 2.VI.1986, 1 ♂ 1 ♀, leg. Pāzuki;

Khosrawiyeh- Ālādāgh Rd.: 1600 m, 16.VI.1974, 3 ♂♂, leg. Rajabi, Pāzuki.

Markazi:

Delijān: Hastijān, 1550 m, 29.IV.1985, 1 ♂, leg. Mirzāyāns, Hāshemi.

***Cossulus putridus* (Christoph, 1887)**

Material examined:

Khorāsān-e Shomāli:

Golestān National Park: Ālmeh, 1650 m, 17.-18.VII.1996, 1 ♀, leg. Ebrāhimi, V. Nazari; Yākhti Kalān, 1650 m, 20.VII.1996, 2 ♂♂, leg. Ebrāhimi, V. Nazari; Yākhti Kalān, 1550 m, 20.-21.VII.1996, 1 ♀, leg. Āgh-Ātābāy; Yākhti Kalān, 1460 m, 30.VI.2001, 1 ♂, leg. Mofīdi-Neyestānak, Osten, Ebrāhimi.

Semnān:

Golestān National Park: Dasht-e Shād, 1390 m, 25.-26.VII.1996, 1 ♂, leg. Ebrāhimi, V. Nazari; Dasht-e Shad, 1400 m, 23.VII.2001, 10 ♂♂ 1 ♀, leg. Ghayurfar, Gilāsiān, Moghaddam.

Cossulus stertzi (Püngeler, 1899)

Material examined:

Khorāsān-e Shomāli:

Golestān National Park: Ālmeh, 1630 m, 12.VI.2000, 1 ♂, leg. Moghaddam, Ebrāhimi, Badii, Mofidi-Neyestānak.

Cossulus turcomanica (Christoph, 1893)

Material examined:

Golestān:

Gonbad Kāvus: Minudasht, Golestān forest, 21.VI.1974, 1 ♀, leg. Pāzuki, Rajabi.

Khorāsān-e Razavi:

Chenārān: Akhلامad, 1250 m, 16.VII.1971, 2 ♀♀, leg. Āyatollāhi, Pāzuki.

Daregaz: N. Tandoreh National Park, Chelmir, N 37° 23' 33.6", E 058° 51' 23.3", 1018 m, 24.VI.2014, 1 ♂, leg. Ālipanāh, Falsafi.

Khorāsān-e Shomāli:

Esfarāyen- Jājarm Rd.: 21 km. W. Esfarāyen, Chāhārmārān, Sāluk protected area, N 37° 12' 23.6", E 057° 15' 25.7", 1463 m, 18.VI.2013, 2 ♂♂, leg. Ālipanāh, Falsafi.

Genus: *Cossus* Fabricius, 1793

Cossus cossus araraticus Teich, 1896

Material examined:

Alborz:

Karaj: Āsarā, 110 km. N. Karaj, 1960 m, 27.VI.1971, 1 ♂, leg. Safavi, Borumand, Kāviān, Ghāzioff; Arangeh, 1550 m, 15.VI.1972, 1 ♂, leg. Mirzāyāns, Abāi, Kāviān, Ghāzioff; Kandovān, 2600 m, 3.-4.VII.1995, 2 ♂♂, leg. Sarafrāzi, Linnavori, Badii; Kandovān, Sarchāl, 2800 m, 4.-8.VII.1977, 13 ♂♂, leg. Pāzuki, Mortazavihā; Kondor, 1850 m, 14.VI.1992, 1 ♂, leg. Ebrāhimi, Badii;

Sharestānak, 2100 m, 10.-11.VII.1995, 1 ♂, leg. Sarafrāzi, Linnavori, Badii;
Āzādbar, 2400 m, 7.-9.V.1995, 2 ♂♂, leg. Sarafrāzi, Badii, Linnavori.
Sāvojbolāgh: E. Gatehdeh, Elburs Mts, N 36° 10' 39.6", E 51° 02' 20.9", 2260 m,
31.VII.-1.VIII.2007, 1 ♂, leg. Zahiri, Ālipanāh, Falsafi.
Tāleghān: 8 km. W. Zidasht, 2200 m, 10.-13.VI.1977, 1 ♂, leg. Pāzuki,
Mortazavihā; Tāleghān, 6 km. E. Āzādbar, 2350 m, 21.VII.1988, 4 ♂♂, leg.
Mirzāyāns, Badii.

Ardebil:

Heyrān Rd.: N 38° 23' 20.9", E 48° 36' 44.1", 1015 m, 21.VI.2007, 2 ♂♂, leg.
Zahiri, Mozaffariān.
Khalkhāl: N 37° 35' 41.0", E 48° 37' 45.3", 2000 m, 17.VI.2007, 1 ♂, leg. Zahiri,
Mozaffariān.
Moghān: 20.VI.1968, 1 ♂, leg. Arghand; Moghān, 17.VI.1974, 1 ♂, leg.
Borumand; Sarband, Moghān, 18.V.1961, 2 ♂♂, leg. Mirzāyāns.

Āzarbāijān-e Gharbi:

Khoy: 30 km. Ghotur, 1480 m, 19.VII.1976, 1 ♂, leg. Pāzuki, Borumand.
Māku (W.): Ghezel Bolāgh, 2220 m, 17.-18.VII.1976, 1 ♂, leg. Pāzuki,
Borumand; Ghezel Bolāgh, 1910 m, 27.VII.1976, 1 ♂, leg. Pāzuki, Borumand.
Orumiyeh: 7 km. Silvānā, Kuhe, 1660 m, 22.VII.1976, 1 ♂, leg. Pāzuki,
Borumand; Rāzhān, 30 km. SW. Orumiyeh, 1650 m, 24.VII.1976, 1 ♂, leg.
Pāzuki, Borumand; 35 km. Orumiyeh, Ghāsemlu, 1440 m, 24.VII.1976, 2 ♂♂,
leg. Pāzuki, Borumand.
Sardasht (50 km.): Pirānshahr, 1400 m, 16.VI.1975, 1 ♀, leg. Abāi.
Takāb: Takht-e Soleymān, N 36° 35' 40", E 47° 19' 43.5", 2528 m, 1.VII.2013, 1
♂, leg. Afsariān; Takāb- Shāhindezh Rd., N 36° 32' 19.7", E 46° 41' 43.9",
1521 m, 2.VII.2013, 2 ♂♂, leg. Afsariān.

Āzarbāijān-e Sharghi:

Ahar: Horānd, 1000 m, 3.VIII.1992, 1 ♂, leg. Parchami-Arāghi, Badii.
Bostān Ābād: Chini Bolāgh, 2300 m, 25.VI.1985, 1 ♀, leg. Mirzāyāns, Pāzuki.

- Khalkhāl (62 km.): 1500 m, 29.VII.1976, 1 ♂, leg. Pāzuki, Borumand.
- Khodā Āfarin: 5 ♂♂, Arasbārān forest, Gandomnān, N 38° 59' 25" E 46° 52' 12", 1280 m, 15.VII.2005, leg. Zahiri, Golmohammadzādeh-Khiābān.
- Miyāneh: Bozghush Mt., Torkmānchāy, Kalhor, N 37° 42' 27", E 47° 22' 25", 2150 m, 12.VII.2005, 1 ♂ 1 ♀, leg. Zahiri.
- Osku: Kandovān, Arshad Chaman, 2650 m, 4.VIII.1994, 1 ♂, leg. Ebrāhimi, Sarafrāzi.
- Tabriz: Gharah Chaman, 1100 m, 23.VI.1985, 3 ♂♂, leg. Mirzāyāns, Pāzuki; N. Sahand Mt., 2240 m, 2.-3.VIII.1992, 1 ♂, leg. Parchami-Arāghi, Badii.

Gilān:

- Āstārā: km. 5 Ardebil Rd., 100 m, 26.V.1997, 1 ♂, leg. Sarafrāzi, Badii, V. Nazari; Āstārā, Fandogh Poshteh, 726 m, 18.VI.2001, 1 ♂, leg. Ghayurfar.
- Āstārā- Ardebil Rd.: Meshend, Goudi Evlar vill., N 38° 23' 32.3", E 048° 35' 59.2", 488 m, 1.VIII.2008, 1 ♂, leg. Nematīān, Ālipanāh.
- Āstārā- Namin Rd.: 10 km. W. Āstārā, N 38° 26' 01.7", E 048° 46' 47.3", 97 m, 24.VII.2007, 1 ♂, leg. Zahiri, Ālipanāh.
- Asālem: 250 m, 12.-13.VIII.1992, 1 ♂, leg. Parchami-Arāghi, Badii; Parehsar, 14.V.1977, 2 ♂♂, leg. Abāi; Parehsar, 950 m, 14.VIII.1974, 1 ♂, leg. Mirzāyāns, Abāi.
- Bandar Anzali: 10, 15.VI.1966, 1 ♂ 2 ♀♀, leg. Mirzāyāns; Bandar Anzali, Punel, 30 km. S. Asālem, 250 m, 12.VIII.1974, 1 ♂, leg. Borumand, Mirzāyāns, Ilkhāni.
- Fuman: Gashtrudkhān, N 37° 08' 00.0", E 49° 11' 00.0", 295 m, 29.VI.2008, 1 ♀, leg. Ālipanāh, Nematīān.
- Punel: Dorān forest, N 37° 35' 44.7", E 49° 04' 51.7", 110 m, 19.VII.2013, 5 ♂♂, leg. Afsariān, Sarafrāzi.
- Rudbār: Amlash, Dāmāsh, N 36° 45' 44.6", E 49° 48' 16.8", 1750 m, 13.-15.VI.2006, 1 ♂, leg. Zahiri, Falsafi; Arbenāb, Dorfak, 2400-2700 m, 29.-31.VII.1999, 1 ♂, leg. Ebrāhimi, Badii, Mofidi-Neyestānak.

Tālesh: Lemir, 20 m, 16.VI.2002, 1 ♂, leg. Hājiesmailiān, Mofidi-Neyestānak, Deuve, Montreuil.

Kordestān:

Bāneh (23 km. NE.): Saghez- Bāneh Rd., 1750 m, 2.VII.1975, 3 ♂♂, leg. Pāzuki.

Marivān: 5.VII.1972, 1 ♂, leg. Borumand, Mirzāyāns, Abāi.

Saghez (45 km. SW.): Saghez- Bāneh Rd., 2000 m, 1.VII.1975, 2 ♂♂, leg. Pāzuki.

Sanandaj (28 km.): 1600 m, 16.VI.1975, 4 ♂♂, leg. Abāi.

Māzandarān:

Āmol: Rudbār, 1600 m, 20.VIII.1981, 1 ♂, leg. Hāshemi.

Abbās Ābād: 18.VII.1980, 1 ♂, leg. Hāshemi, Zairi.

Chālus: Vali Ābād, ?.VIII.1967, 1 ♂, leg. Moayeri.

Kelārdasht: 981 m, 23.VI.2001, 1 ♀, leg. Ghayurfār; Kelārdasht, 6.IX.1969, 1 ♂, leg. Zairi; Kelārdasht, 24.VII.1980, 1 ♂, leg. Hāshemi, Zairi.

Marzān Ābād: 400 m, 6.VII.1995, 1 ♂, leg. Badii, Sarafrāzi, Linnavori.

Nashtārūd: Polsarā, 250 m, 7.VI.1982, 5 ♂♂, leg. Hāshemi.

Nekā (S.): Nekā Choob, part 1, Nahālestān, Vanāmak, N. Elburz Mt., N 36° 30' 29.2", E 53° 23' 23.4", 660 m, 16.-17.IX.2007, 1 ♂, leg. Zahiri, Falsafi.

Nowshahr: Hezārcham, ?.VI.1967, 1 ♂, leg. Moayeri.

Nur: 10.VII.1967, 1 ♂, leg. Moayeri; Panjāb, 1250 m, 18.VIII.1981, 1 ♂, leg. Hāshemi.

Rāmsar: Dormod, 1125 m, 4.-5.VII.2000, 1 ♂, leg. Barāri, Mofidi-Neyestānak, Ebrāhimi, Deuve.

Ruyān: Kodirsar, 1200 m, 1.VII.2000, 1 ♂, leg. Mofidi-Neyestānak, Barāri, Deuve.

Sāri: Kiāsar, 1600 m, 23.VI.2000, 7 ♂♂, leg. Barāri, Mofidi-Neyestānak, Deuve;

Kiāsar, N 36° 14' 22. 5", E 53° 32' 53.4", 1360 m, 3.VII.2005, 1 ♂, leg.

Moghaddam, Serri, Hājiesmailiān; Dāmghān- Sāri Rd., Kiāsar, 1600 m, 22.-

23.VII.2000, 1 ♂, leg. Barāri, Mofidi-Neyestānak, Deuve.

Sangdeh: Cheshmeh Bulā, 1650 m, 25.VI.1998, 1 ♂, leg. Mofidi-Neyestānak.

Siāhbisheh: 25.VI.1974, 1 ♂, leg. Abāi.

Tonekābon: 17.VII.1980, 2 ♂♂, leg. Hāshemi, Zairi; Tonekābon lab., 5.VII.1983, 1 ♂, leg. Rudsari; Sehezār, 980 m, 27.VI.1998, 3 ♂♂, leg. Mofidi-Neyestānak; Sehezār, Āsh Mahaleh, 760 m, 7.IX.1990, 1 ♂, leg. Ebrāhimi, Badii; Dohezār, Asal Mahalleh, 1400-1800 m, 9.VIII.1999, 3 ♂♂, leg. Badii, Ebrāhimi, Mofidi-Neyestānak.

Zirāb: Palang Darreh, 540 m, 24.-25.VI.1977, 4 ♂♂, leg. Pāzuki, Mortazavihā.

Tehrān:

Damāvand: Tār Lake, 2700 m, 25.VII.1988, 2 ♂♂, leg. Borumand, Mirzāyāns, Badii.

Firuzkuh: Chehel Cheshmeh, 1930 m, 29.VII.1996, 1 ♂, leg. Ebrāhimi, V. Nazari.

Lār: Emānzādeh, 2500 m, 13.VIII.1993, 1 ♂, leg. Parchami-Arāghi, Ebrāhimi.

Rudbār-e Ghasrān: Garmābdar, 2370 m, 28.-29.V.1991, 1 ♂, leg. Ebrāhimi, Badii.

Rudehen: NE. Tehrān, Mobārak Ābād, 8.VI.1982, 1 ♂, leg. Hāshemi.

Zanjān:

Zanjān: Aramaghān Khāneh: Māri vill., N 36° 59' 52.0", E 48° 28' 39.0", 2300 m, 21.VI.2015, 1 ♀, leg. Nāserzādeh, Hājiesmailiān, Montreuil; Bughdā Kandy, Yukhārichāy: 1000 m, 7.VII.1997, 1 ♂, leg. Barāri, Mofidi-Neyestānak.

Zanjān- Ābbar Rd.: 40 km. after Zanjān, N 36° 44' 07.8", E 46° 47' 34.2", 1706 m, 5.VI.2012, 1 ♂, leg. Ālipānāh, Falsafī.

***Cossus cossus kopetdaghi* Yakovlev, 2009**

Material examined:

Golestān:

Ali Ābād: Shirin Ābād, 22.V.2005, 4 ♂♂, leg. Falsafī, Nematīān; Nāhārkhōrān, 500 m, 5.VI.1982, 1 ♂, leg. Hāshemi.

Golestān National Park: Ghush Cheshmeh, 1000 m, 29.VI.2001, 1 ♂, leg. Ebrāhimi, Osten, Mofidi-Neyestānak; Mazārli, 530 m, 19.-20.VI.1977, 2 ♂♂,

leg. Pāzuki, Abāi; Tang-e Gol, 600 m, 14.-15.VII.1985, 3 ♂♂, leg. Pāzuki;
Tang-e Gol, 5.VII.1999, 1 ♂, leg. Moghaddam, Barāri, Manzari.

Tuskāstān: Gorgān- Shāhrud Rd., N 36° 44' 37.6", E 54° 34' 02.6", 660 m,
15.VII.2007, 2 ♂♂, leg. Zahiri, Karimzādeh; Tuskāstān Rd., Shāhkuh-e Bālā,
10.VIII.2009, 1 ♀, leg. Serri, Nāserzādeh, Hājiesmailiān.

Khorāsān-e Razavi:

Neyskābur: Zabarkhān Hesār, 1400 m, 12.VI.1977, 1 ♂, leg. Pāzuki, Abāi.

Khorāsān-e Shomāli:

Daregaz: Nokhandān, Shahid Ābād, Ghadamgāh, 980 m, 13.VI.2009, 1 ♀, leg.
Mofidi-Neyestānak.

Golestān National Pārک: Ālmeh, 1650 m, 17.-25.V.1988, 1 ♂, leg. Pāzuki; Sulgerd,
1100 m, 16.-18.VII.1985, 1 ♂, leg. Pāzuki; Yākhti Kalān, 1650 m,
20.VII.1996, 1 ♂, leg. Ebrāhimi, V. Nazari.

Khosrawiyeh: Ālādāgh, 1600 m, 16.VI.1974, 1 ♂, leg. Rajabi, Pāzuki.

Semnān:

Golestān National Pārک: Dāsht-e Shād, 1500 m, 9.VI.2000, 1 ♂, leg. Moghaddam,
Mofidi-Neyestānak, Ebrāhimi, Badii; Dāsht-e Shād, 1400 m, 23.VII.2001, 1 ♂,
leg. Ghayurfar, Gilāsiān, Moghaddam.

Shāhrud (W.): Tāsh, Shāhvār Mt., 2900 m, 19.VII.2003, 1 ♂, leg. Hofmann,
Meineke, Tremewan.

***Cossus cossus kossai* Wiltshire, 1957**

Material examined:

Chāhārmahāl va Bakhtiāri:

Borujen: Gandomān, Kallār Mt., 2750 m, 13.-14.VII.1982, 2 ♂♂, leg. Borumand,
Pāzuki; Gandomān, Sabzeh Kuh, 2450 m, 11-14.VII.1983, 5 ♂♂, leg.
Mirzāyāns, Borumand; Sabzeh Kuh, 2500 m, 4.-5.VI.1989, 24 ♂♂, leg.

Mirzāyāns, Badii; SW. Gandomān, Sabzeh Kuh, Anchuchak, 2500 m, 15.VII.1982, 5 ♂♂, leg. Borumand, Pāzuki.

Kuhrang: Cheshmeh Chālak, 29.VII.1974, 2 ♂♂, leg. Hāshemi, Zairi.

Shalamzār: S. Shalamzār, Tang-e Chezghān, 2200 m, 11.VII.1982, 3 ♂♂, leg. Borumand, Pāzuki; 5 km. SW. Shalamzār, Tang-e Chezghān, 7.-10.VII.1983, 2 ♂♂, leg. Mirzāyāns, Borumand.

Zardkuh: 2440 m, 15.VIII.1976, 2 ♂♂, leg. Pāzuki, Borumand; Samsāmi, Cheri Mt. pass, 2800-3100 m, 8.-9.VII.2003, 6 ♂♂, leg. Hofmann, Meineke, Tremewan; Khoshāb, Zardkuh, 2310 m, 6.VII.1983, 8 ♂♂, leg. Mirzāyāns, Borumand.

Esfahān:

Fereydun Shahr: 2200 m, 9.VII.1999, 2 ♂♂, leg. Hofmann, Meineke; S. Kamarān, Ferdon Mt., 2700-3000 m, 10-11.VII.2003, 1 ♂, leg. Hofmann, Meineke, Tremewan; Meydānak, Kamarān, 2750 m, 12.VII.2003, 13 ♂♂, leg. Ghayurfar, Trusch, Ebert, Nematīān; Ghaleh Sorkh, 2800 m, 20.VI.2001, 1 ♂, leg. Hofmann, Meineke, Tremewan.

Natanz: Abyāneh, 2150 m, 6.VI.1988, 2 ♂♂, leg. Hāshemi, Badii; Oureh, 2100 m, 21.VI.1988, 1 ♂, leg. Hāshemi, Badii.

Semirom: Pashmeh Kuh, 2750 m, 18.VI.2001, 2 ♂♂, leg. Hofmann, Meineke, Tremewan.

Fārs:

Kāmfīruz: 140 m, 26.VI.1975, 2 ♂♂, leg. Abāi.

Sepidān: Mārgoon fall, 2020 m, 23.-25.VI.1993, 3 ♂♂, leg. Mirzāyāns, Badii.

Shirāz: 70 km. Dasht-e Arzhan, 1500 m, 16.VII.1975, 2 ♂♂ 1 ♀, leg. Abāi.

Sivand: 1700 m, 24.V.1995, 1 ♂, leg. Hāshemi, Badii, Sarafrāzi.

Tang-e Bolhayāt: 1100 m, 3.VI.1990, 1 ♀, leg. Ebrāhimi, Badii

Hamedān:

Tārik Darreh; 2000 m, 26.VII.1987, 1 ♂, leg. Mirzāyāns, Hāshemi.

Kohgiluyeh va Boyerahmad:

Yāsuj: Tang-e Sorkh, 12.-13.VI.1986, 2 ♂♂, leg. Mirzāyāns, Hāshemi.

Lorestān:

Aznā: Oshtorānkuh, Parcheh Kabud, 2800 m, 1.-2.VIII.1975, 1 ♂, leg. Pāzuki.

Markazi:

Arāk: Shāzand, 1950 m, 21.VII.1981, 1 ♂, leg. Pāzuki, Borumand.

Genus: *Deserticossus* Yakovlev, 2006

Deserticossus arenicola (Staudinger, 1879)

Material examined:

Āzarbāijān-e Sharghi:

Jolfā: Nourduz, Aras river, N 38° 53' 59", E 46° 17' 53", 520 m, 14.VII.2005, 2 ♂♂, leg. Zahiri, Golmohammadzādeh-Khiābān.

Esfahān:

Kāshān: Ghamsar, 8.V.1970, 1 ♂, leg. Mirzāyāns, Abāi.

Fārs:

Dārāb: Korsiā, 1150 m, 28.V.1973, 1 ♂, leg. Hāshemi, Zairi.

Ghom:

Ghom Lake: 27.VI.1969, 2 ♂♂, leg. Mirzāyāns, Abāi, Borumand; Ghom Lake, 2.VI.1970, 1 ♂, leg. Mirzāyāns, Abāi.

Golestān:

Golestān National Pārک: Tang-e Gol, 600 m, 14.-15.VII.1985, 1 ♂, leg. Pāzuki.

Gonbad Kāvus: Mīnudasht, Golestān forest, 21.VI.1974, 2 ♂♂, leg. Pāzuki, Rajabi.

Toskestān: Shāhkuh-e Bālā, 10.VIII.2009, 1 ♀, leg. Serri, Nāserzādeh, Hājiesmailiān.

Hormozgān:

Bandar Abbās: 16.V.1973, 1 ♂, leg. Hāshemi, Borumand; Ganj, 900 m, 27.V.1973, 2 ♂♂, leg. Hāshemi, Zairi.

Hāji Ābād: Tezerj, 84 m, 18.IV.2004, 1 ♂, leg. Moghaddam, Serri.

Mināb: 24, 27.IV.1971, 2 ♂♂, leg. Safavi, Zairi; Mināb, 53 m, 11.IV.2004, 1 ♀, leg. Moghaddam, Serri.

Sirjān (km. 24): 250 m, 2.IV.1973, 1 ♂, leg. Abāi.

Kermān:

Jiroft: 6 km. E. Rameshk, Bāru, 700 m, 14.III.1978, 2 ♂♂, leg. Pāzuki.

Kahnuj (43 km. N.): 540 m, 16.V.1977, 2 ♂♂, leg. Safavi, Pāzuki.

Rafsanjān: 29.IV.1973, 2 ♂♂, leg. Borumand.

Khorāsān-e Razavi:

Bājgirān: Jihad-e Agri. Sta., N 37° 37' 27.5", E 058° 25' 03.7", 1638 m, 22.VI.2013, 1 ♂, leg. Ālipanāh, Falsafi.

Daregaz: N. Tandoreh National Park, Chelmir, N 37° 23' 33.6", E 058° 51' 23.3", 1018 m, 24.VI.2014, 1 ♂ 1 ♀, leg. Ālipanāh, Falsafi; N. Tandoreh National Park, 6 km. after Chelmir, Cheshmeh Rajab, N 37° 23' 35.9", E 058° 48' 35.8", 1206 m, 26.VI.2014, 2 ♂♂, leg. Ālipanāh, Falsafi; N. Tandoreh National Park, Chelmir- Bandak Rd., near Bandak, N 37° 23' 54.2", E 058° 47' 02.0", 1383 m, 25.VI.2014, 6 ♂♂ 1 ♀, leg. Ālipanāh, Falsafi; Daregaz- Dorbadam Rd., NW. Tandoreh National Park, near Alibolāgh, N 37° 32' 06.2", E 058° 36' 07.3", 1509 m, 29.VI.2014, 4 ♂♂, leg. Ālipanāh, Falsafi; Daregaz- Kalāt-e Nāder Rd., Lāeen vill. to Khākestar vill. Rd., before Chāhārrāh vill., Hezārmāsjeed Mts, N 37° 02' 39.5", E 059° 26' 10.11", 1344 m, 27.VI.2014, 10 ♂♂ 1 ♀, leg. Ālipanāh, Falsafi.

Mashhad: 14.VII.1971, 3 ♂♂, leg. Pāzuki, Āyatollāhi.

Khorāsān-e Shomāli:

Golestān National Pārک: Ālmeh, 1650 m, 17.-18.VII.1996, 17 ♂♂, leg. Ebrāhimi, V. Nazari; Ālmeh, 1700 m, 25.VII.2001, 6 ♂♂, leg. Gilāsiān, Moghaddam, Ghayurfar; Sulgerd, 1100 m, 16-18.VII.1985, 7 ♂♂, leg. Pāzuki.

Semnān:

Golestān National Pārک: Dasht-e Shād, 1500 m, 19.vi.2000, 1 ♂, leg. Moghaddam, Mofidi-Neyestānak, Ebrāhimi, Badii.

Sistān va Baluchestān:

Bampur: 4.IV.1973, 1 ♂, leg. Safavi, Borumand; Bampur, 535 m, 4.V.2003, 1 ♂, leg. Moghaddam, Serri; Bampur, N 22° 12' 00.7", E 60° 30' 04.7", 563 m, 25.IV.2012, 1 ♂, leg. Afsariān, Moghaddam, Mozaffariān.

Chābahār: Tis, 10 m, 17.V.1972, 8 ♂♂ 1 ♀, leg. Abāi, Ebert.

Dashtiāri: 14.IV.1950, 1 ♀, leg. Fāmuri.

Khāsh: 3 km. E. Sangān, 1550 m, 19.V.1972, 1 ♂, leg. Ebert, Falkner.

Nikshahr: 8.-10.IV.1973, 1 ♂, leg. Borumand, Safavi.

Rāsk: Ahmad Ābād, 30.IV.2003, 2 ♂♂, leg. Moghaddam, Serri; Bāhukalāt, 4.IV.1973, 2 ♂♂ 1 ♀, leg. Borumand, Safavi.

Zābol: Park-e Jazinak, N 30° 54' 19.7", E 61° 33' 44.3", 497 m, 24.IV.2005, 1 ♂, leg. Ebrāhimi, Moghaddam; Zahak, N 30° 53' 20.8", E 61° 40' 32.2", 500 m, 24.IV.2005, 1 ♀, leg. Ebrāhimi, Moghaddam.

Zāhedān: Kahurak, 23.IV.1973, 3 ♂♂, leg. Borumand, Zāhedān, Kahurak, 510 m, 2.VI.1977, 1 ♂ 1 ♀, leg. Safavi, Pāzuki, Abāi.

***Deserticossus campicola* (Eversmann, 1854)**

Material examined:

Āzarbāijān-e Gharbi:

Mahābād (35 km. N.): Khorkhoreh vill., Kāniborāzān swamp, N 36° 59' 04.8", E 45° 45' 48.8", 1328 m, 28.VI.2015, 2 ♂♂ 1 ♀, leg. Nāserzādeh, Hājiesmailiān.

Āzarbāijān-e Sharghi:

Marand (42 km.): 1100 m, 7.VI.1975, 1 ♀, leg. Abāi.

Genus: *Dysspessacossus* Daniel, 1953

Dysspessacossus fereidun (Grum-Grshimailo, 1895)

Material examined:

Alborz:

Karaj: Āsārā, 40 km. N. Karaj, 1850 m, 27.VI.1871, 1 ♂, leg. Safavi, Borumand, Kāviān, Ghāzioff; Āzādbar, 2250 m, 27.-28.VI.1994, 1 ♂, leg. Ebrāhimi; Arangeh, Sarziārat, 1750 m, 10.-11.VII.1996, 2 ♂♂, leg. Barāri, Badii; Gachsar, 27.VII.1963, 1 ♂, leg. Gharib; Shāh Dasht, 13.-20.VI.1976, 2 ♂♂, leg. Rajabi; Shahrestānak, 2100 m, 10.-11.VII.1995, 3 ♂♂, leg. Sarafrāzi, Linnavori, Badii.

Sāvوجبولāgh: E. Gatehdeh, Elburs Mts., N 36° 10' 39.6", E 51° 02' 20.9", 2260 m, 31.VII.-1.VIII.2007, 5 ♂♂, leg. Zahiri, Ālipanāh, Lehmann & Bittner.

Tāleghān: Kalānak, 1950 m, 26.VI.1994, 1 ♂, leg. Ebrāhimi.

Ardebil:

Khalkhāl (62 km.): 1500 m, 29.VII.1976, 3 ♂♂, leg. Pāzuki, Borumand.

Āzarbāijān-e Gharbi:

Mārmishou: N 37° 34' 26", E 44° 37' 25", 1760 m, 18.VII.2005, 3 ♂♂, leg. Zahiri, Golmohammadzādeh-Khiābān.

Orumiyeh: Orumiyeh, Ghāsemlu, 13.VII.1977, 2 ♂♂, leg. Abāi, Javān-Moghaddam; 35 km. Orumiyeh, Ghāsemlu, 1440 m, 24.VII.1976, 9 ♂♂, leg. Pāzuki, Borumand; Ghāsemlu vall., N 37° 16' 05", E 45° 08' 57", 1650 m, 19.VII.2006, 1 ♂, leg. Zahiri, Golmohammadzādeh-Khiābān; 7 km. Silvānā, Kuhe, 1660 m, 22.VII.1976, 2 ♂♂, leg. Pāzuki, Borumand.

Takāb: Takht-e Soleymān, N 36° 35' 40", E 47° 19' 43.5", 2528 m, 1.VII.2013, 1 ♂, leg. Afsariān.

Āzarbāijān-e Sharghi:

Hashtrud: Gharah Āghāj, 10.VI.1949, 1 ♂, leg. Taghavi.

Marand: Zonuz, N 38° 36' 24", E 45° 48' 40", 1620 m, 13.VII.2006, 1 ♂, leg. Zahiri, Golmohammadzādeh-Khiābān.

Chāhārmahāl va Bakhtiāri:

Shalamzār (5 km. SW.): Tang-e Chezghān, 7.-10.VII.1983, 1 ♂, leg. Mirzāyāns, Borumand.

Esfahān:

Fereydun Shahr: 2200 m, 9.VII.1999, 3 ♂♂, leg. Hofmann, Meineke.

Kordestān:

Bāneh (83 km. SE.): 1750 m, 5.-6.VII.1975, 1 ♀ 52 ♂♂, leg. Pāzuki.

Marivān: 35 km. NE. Marivān, 1550 m, 8.-9.VII.1976, 2 ♂♂, leg. Pāzuki, Marivān- Miāneh Dāgh Rd., 6.VII.1972, 2000 m, 3 ♂♂, leg. Borumand, Pāzuki.

Saghez- Bāneh Rd.: 23 km. NE. Bāneh, 1750 m, 2.VII.1975, 7 ♂♂, leg. Pāzuki; Saghez- Bāneh Rd., 45 km. SW. Saghez, 2000 m, 30.VI.1975, 11 ♂♂, leg. Pāzuki.

Sanandaj: 26.VI.1974, 1 ♂, leg. Hāshemi.

Loresān:

Aznā: N. Kamandān, 2040 m, 22.-24.VII.1981, 1 ♂, leg. Pāzuki, Broumand.

Dorud: Oshtorānkuh, Gokān, 2350 m, 29.-30.VII.1975, 2 ♂♂, leg. Pāzuki.

Māzandarān:

Chālus (N.): Vali Ābād, ?.VIII.1967, 1 ♂, leg. Moayeri.

Tehrān:

Damāvand: 1910 m, 5.-11.VI.1976, 1 ♂, leg. Rajabi; Damāvand, 28.V.1976, 2 ♂♂, leg. Rajabi; Ābsard, 1900 m, 8.VIII.1978, 1 ♂, leg. Pāzuki, Sabzevāri; Cheshmeh Alā, 17.V.1976, 1 ♂, leg. Zairi, Lavallo.

Rudbār-e Ghasrān: Garmābdar, 2370 m, 28.-29.V.1991, 1 ♀ 1 ♂, leg. Ebrāhimi, Badii; Garmābdar, 2300 m, 13, 14.VII.1993, 4 ♂♂, leg. Ebrāhimi, Parchami-Arāghi.

Rudehen: 23.VII.1969, 1 ♂, leg. Borumand, Abāi.

Shemshak: 25.VII.1969, leg. 1 ♂, Borumand, Abāi.

Zanjān:

Taham: Tāzehkand, N 36° 55' 25.4", E 48° 42' 51.4", 1433 m, 29.VII.2013, 1 ♂, leg. Afsariān.

Genus: *Holcocerus* Staudinger, 1884

Holcocerus gloriosa gloriosa (Erschoff, 1874)

Material examined:

Ardebil:

Moghān: 14.VI.1959, 2 ♂♂, leg. Anonymous.

Esfahān:

Abuzeyd Ābād- Kāshān Rd. (1 km. N.): Kāndeh Gusfānd, N 33° 59' 10.02", E 51° 53' 42.48", 940 m, 1.VI.2005, 1 ♂, leg. Fibiger, Zahiri.

Ghom:

Ghom Lake: 27.VI.1969, 17 ♂ 1 ♀, leg. Mirzāyāns, Abāi, Borumand; Ghom Lake, 15.VI.1970, 1 ♂ 1 ♀, leg. Abāi, Mirzāyāns; Ghom Lake, 26.V.1970, 1 ♀, leg. Abāi; Ghom Lake, 21.VI.1976, 1 ♂, leg. Abāi.

Vesf: 2450 m, 24.VI.1981, 1 ♂, leg. Hāshemi.

Golestān:

Gonbad Kāvus: Mīnudasht, Golestān forest, 21.VI.1974, 2 ♂♂, leg. Pāzuki, Rajabi.

Kermānshāh:

Ghasr-e Shirin: Nasr Ābād, 450 m, 17.VIII.1996, 1 ♂, leg. V. Nazari, Parchami-Arāghi, Barāri.

Tehrān:

Varāmin: 1.VIII.1949, 1 ♂, leg. Eghlidi; Abardezh, 16.VII.1985, 1 ♀, leg. Abāi.

Holcocerus gloriosa mesopotamica Watkins & Buxton, 1921

Material examined:

Bushehr:

Ahrām: Tangestān, 100 m, 4.-5.V.1995, 4 ♂♂, leg. Parchami-Arāghi, Badii, Ardeh.

Borāzjān: Dālaki, 100 m, 6.V.1985, 4 ♂♂, leg. Mirzāyāns, Hāshemi; Heleh protected area, N 29° 14' 27.1", E 050° 54' 29.9", 64 m, 10.V.2016, 3 ♂♂ 8 ♀♀, leg. Afsariān, Mozhdehi.

Dayyer: Domeygez, 0 m, 20.-22.IV.1999, 2 ♀♀ and one specimen without abdomen, leg. Kalānaki, Mofidi-Neyestānak; Gorm Isl., 22.-23.IV.1999, 2 ♂♂ 4 ♀♀, leg. Kalānaki, Mofidi-Neyestānak.

Genāveh- Siāhmakān Rd.: 200 m, 17.IV.1977, 6 ♂♂ 1 ♀, leg. Pāzuki, Hāshemi.

Khormoj (65 km. SE.): Jāshak, 110 m, 20.IV.1977, 1 ♀, leg. Pāzuki, Hāshemi.

Fārs:

Farāshband: Harāt Ābād, 770 m, 7.V.1985, 1 ♂, leg. Mirzāyāns, Hāshemi.

Jahrom: 4.VI.1950, 2 ♂♂, leg. Borumand; Jahrom, 8.VII.1970, 1 ♂, leg. Safavi, Hāshemi.

Kāzerun: Sarmashhad, 16.V.1969, 1 ♂, leg. Kalāli, Mojibi.

Hormozgān:

Bandar Abbās: 25.IV.1949, 8.V.1950, 2 ♂♂, leg. Fasihi; Bandar Abbās, 18.III.1950, 1 ♂, leg. Abāi; Bandar Abbās, 150 m, 1.IV.1973, 1 ♂ 1 ♀, leg. Abāi; Bandar Abbās, 16.V.1973, one specimen without abdomen, leg. Hāshemi, Borumand; Bandar Abbās, 24.IV.1977, 8 ♂♂ 3 ♀♀, leg. Mortazavilhā; Bandar Abbās, N. Geno Mt., Bāgh Tang, 410 m, 7.-8.V.1977, 1 ♂, leg. Pāzuki; Isin, 25.IV.1971, 1 ♀, leg. Safavi, Zairi; Isin, 11.-14.V.1973, 1 ♀, leg. Hāshemi, Borumand; Isin, 130 m, 28.-30.IV.1977, 1 ♀, leg. Pāzuki, Hāshemi; Isin, 130 m, 1.-6.V.1977, 1 ♂ 3 ♀♀, leg. Pāzuki; Niān, N 27° 31' 50.3", E 056° 51' 30.9", 203 m, 5.V.2016, 1 ♂ 1 ♀, leg. Afsariān, Mozhdehi.

Bandar Chārak (5 km. N.): 70 m, 24.IV.1977, 15 ♂♂ 2 ♀♀, leg. Pāzuki, Hāshemi.

Bandar Khamir: 50 m, 26.IV.1986, 1 ♂, leg. Mirzāyāns, Borumand; Kahurestān, 200 m, 21.IV.1994, 16 ♂♂ 2 ♀♀, leg. Ebrāhimi, Parchami-Arāghi; Sāyeh-Khosh, 50 m, 20.IV.1994, 1 ♂, leg. Parchami-Arāghi, Ebrāhimi.

Bandar Lengeh: 26.III.1950, 2 ♂♂, leg. Fasihi; Chāh Kuh, 25.IV.1977, 3 ♂♂, leg. Pāzuki, Hāshemi.

Mināb: 26.IV.1949, 1 ♂, leg. Fasihi; Mināb, 23, 24.IV.1971, 3 ♂♂ 3 ♀♀, leg. Safavi, Zairi; Mināb, 200 m, 3.IV.1973, one specimen without abdomen, leg. Abāi; Mināb, 18, 22.V.1973, 1 ♂ 1 ♀, leg. Hāshemi, Borumand; Mināb, 53 m, 11.IV.2004, 1 ♂ 1 ♀, leg. Serri, Moghaddam; Mināb, Dehbārez, 270 m, 29.IV.1986, 6 ♂♂ 1 ♀, leg. Mirzāyāns, Borumand; Mināb, Hasanlengi, 24.-26.V.1973, 1 ♀, leg. Hāshemi, Zairi; Mināb, Rāvāng, N 27° 4' 03.6", E 057° 10' 22.9", 34 m, 4.V.2016, 6 ♂♂ 1 ♀, leg. Afsariān, Mozhdehi; Mināb, Sandark, Gru, 150 m, 29.IV.1996, 5 ♂♂ 1 ♀, leg. Ardeh, Badii, V. Nazari; Mināb, Tiāb, N 27° 07' 11.7", E 057° 05' 30.2", 5 m, 3.V.2016, 3 ♂♂ 1 ♀, leg. Afsariān, Mozhdehi; Bandar Abbās- Mināb Rd., km. 15, 150 m, 1.IV.1973, 17 ♂♂ 3 ♀♀, leg. Abāi.

Pārsiān (15 km.): N 27° 9' 57.5", E 053° 10' 58.0", 113 m, 7.V.2016, 1 ♀, leg. Afsariān, Mozhdehi.

Sirik: Khārgush, 0 m, 16.IV.1994, 1 ♂, leg. Ebrāhimi, Parchami-Arāghi.

Kermān:

Jiroft: 43 km. N. Kahnuj, 540 m, 16.V.1977, 6 ♂♂ 2 ♀♀, leg. Safavi, Pāzuki; Esfandagheh, 20.IV.1971, 1 ♂, leg. Safavi, Zairi.

Jiroft- Mijān Rd.: 1200 m, 11.V.1968, 1 ♂, leg. Hāshemi, Pāzuki.

Shahdād: 670 m, 31.V.1977, 1 ♂, leg. Safavi, Pāzuki, Abāi.

Khuzestān:

Ahwāz: Mollāsāni, 20 m, 16.V.1975, 3 ♂♂ 1 ♀, leg. Pāzuki, Borumand.

Masjed Soleymān: 60 m, 8.V.1975, 1 ♂, leg. Pāzuki, Borumand.

Shushtar: Kārun Co., 10.VI.1998, 1 ♂, leg. Ebrāhimi, Mofidi-Neyestānak.

Sistān va Baluchestān:

Bampur: 570 m, 16.IV.1968, 1 ♀, leg. Hāshemi, Pāzuki; Bampur, 4.IV.1973, 1 ♀, leg. Safavi, Borumand.

Chābahār: Tis, 10 m, 17.V.1972, 1 ♂ 1 ♀, leg. Abāi, Ebert; Zarābād, 26.IV.2003,
2 ♀♀, leg. Moghaddam, Serri.

Ghasr-e Ghand: 7.VI.1950, 1 ♀, leg. Salavātiān.

Zābol: 12.V.1950, 1 ♂, leg. Mirzāyāns.

***Holcocerus holosericeus holosericeus* Staudinger, 1884**

Material examined:

Golestān:

Gonbad Kāvus (36 km. N.): 830 m, 7.VI.1977, 31 ♂♂ 16 ♀♀, leg. Safavi, Pāzuki,
Abāi.

Khorāsān-e Razavi:

Mashhad- Sarakhs Rd. (km. 115): Bazangān Rd., N 36° 16' 45.2", E 060° 32'
51.2", 713 m, 8.VI.2016, 14 ♂♂ 1 ♀, leg. Ālipanāh, Falsafī.

Neyshābur: Zabarkhān Hesār, 1400 m, 12.VI.1977, 1 ♂, leg. Pāzuki, Abāi.

Sabzevār (10 km. S.): Hāres Ābād, 940 m, 15.VI.1977, 3 ♂♂ 2 ♀♀, leg. Pāzuki,
Abāi.

Māzandarān:

Amol: Chamestān, Vāz vill., N 36° 21' 49.6", E 052° 06' 03.1", 557 m,
28.VI.2007, 1 ♂, leg. Ālipanāh, Nematīān.

Semnān:

Sabzevār- Meyami Rd.: 3 km. E. Abbās Ābād vill., Khārturān protected area, 3
km. S. Abbās-Ābād Ranger Sta., N 36° 22' 14.7", E 056° 15' 49.2", 1084 m,
10.VI.2016, 5 ♂♂ 2 ♀♀, leg. Falsafī, Ālipanāh.

Tehrān:

Varāmin: Abardezh, 2.VII.1986, 3 ♂♂, leg. Abāi.

***Holcocerus holosericeus darwesthana* Daniel, 1959**

Material examined:

Hormozgān:

Bandar Lengeh: 1 ♂, 50 m, 27.IV.1986, leg. Mirzāyāns, Borumand.

Kermān:

Rāyen: 2150 m, 16.VI.1988, 4 ♂♂, leg. Hāshemi, Badii.

Kohgiluyeh va Boyerahmad:

Yāsuj: Ganjegin, N 30° 25' 03", E 51° 44' 17", 2190 m, 16.VI.2005, 1 ♂, leg. Zahiri, Nematīān, Falsafi.

Markazi:

Meymeh: Delijān, 2000 m, 18.VI.1984, 8 ♂♂, leg. Pāzuki, Hāshemi.

Sistān va Baluchestān:

Zābol: 1.VI.1950, 1 ♀, leg. Anonymous; Khājeh Mt., 490 m, 3.-4.VI.1977, 7 ♂♂
2 ♀♀, leg. Safavi, Pāzuki, Abāi; Park-e Jazinak, N 30° 54' 19.7", E 61° 33'
44.3", 497 m, 24.IV.2005, 2 ♂♂ 3 ♀♀, leg. Ebrāhimi, Moghaddam.

***Holcocerus tancrei* Püngeler, 1898**

Material examined:

Esfahān:

Esfahān: Kabutar Ābād, 29.VII.1969, 1 ♀, leg. Daftari.

Khorāsān-e Razavi:

Gonābād (36 km. N.): 830 m, 7.VI.1977, 6 ♂♂ 6 ♀♀, leg. Safavi, Pāzuki, Abāi.

Sabzevār (10 km. S.): Hāres Abād, 940 m, 15.VII.1977, 1 ♀, leg. Pāzuki, Abāi.

Semnān:

Sabzevār- Meyami Rd.: 3 km. E. Abbās Ābād vill., Khārturān protected area, 3
km. S. Abbās-Ābād Ranger Sta., N 36° 22' 14.7", E 056° 15' 49.2", 1084 m,
10.VI.2016, 1 ♀, leg. Falsafi, Ālipanāh.

Genus: ***Kotchevnik*** Yakovlev, 2004

Kotchevnik durelli Yakovlev, 2004

Material examined:

Āzarbāijān-e Gharbi:

Khoy: 1000 m, 7.VI.1975, 1 ♂, leg. Abāi; 30 km. Ghotur, 1480 m, 19.VII.1976, 2 ♂♂, leg. Pāzuki, Borumand.

Māku (W.): Ghezel Bolāgh, 2220 m, 17.-18.VII.1976, 1 ♂, leg. Pāzuki, Borumand.

Āzarbāijān-e Sharghi:

Jolfā: Nourduz, Aras river, N 38° 53' 59", E 46° 17' 53", 520 m, 14.VII.2005, 1 ♀, leg. Zahiri, Golmohammadzādeh-Khiābān.

Khodā Āfarin: Arasbārān forest, Gandomnān, N 38° 59' 25", E 46° 52' 12", 1280 m, 15.VII.2005, 1 ♂ leg. Zahiri, Golmohammadzādeh-Khiābān.

***Kotchevnik tapinus* (Püngeler, 1898)**

Material examined:

Fārs:

Ābādeh: Shuljestān, 2000 m, 30.IV.1985, 1 ♂, leg. Mirzāyāns, Hāshemi.

Hormozgān:

Hāji Ābād: Tezerj, 84 m, 18.IV.2004, 1 ♂, leg. Moghaddam, Serri.

Kermān:

Bāft: Darreh Pahn, 1750 m, 21.V.1977, 2 ♂♂, leg. Safavi, Pāzuki, Abāi.

Jiroft: 43 km. N. Kahnuj, 540 m, 16.V.1977, 2 ♂♂, leg. Safavi, Pāzuki.

Rafsanjān: Sarcheshmeh, 2250, 19.V.1996, 1 ♂, leg. Sarafrāzi, Badii.

Khuzestān:

Dezful: Haft Tappeh, 70 m, 13.V.1975, 1 ♂ 1 ♀, leg. Pāzuki, Borumand.

Shushtar: Kārun Co., 10.VI.1998, 1 ♂, leg. Ebrāhimi, Mofidi-Neyestānak.

Sistān va Baluchestān Prov:

Chābahār: Tis, 10 m, 17.V.1972, 1 ♂, leg. Abāi, Ebert.

Tehrān:

Parchin: 40 km. E. Tehrān, 26.V.2005, 2 ♂♂, leg. Fibiger, Zahiri.

Genus: *Mormogystia* Schoorl, 1990

Mormogystia reibellii (Oberthür, 1876)

Material examined:

Hormozgān:

Bandar Abbās: 24.IV.1977, 1 ♀, leg. Mortazavihā.

Genus: *Paracossulus* Schoorl, 1990

Paracossulus thrips (Hübner, 1818)

Material examined:

Āzarbāijan-e Gharbi:

Orumiyeh: Ghāsemlu, 1440 m, 24.VII.1976, 1 ♂, leg. Pāzuki, Borumand.

Āzarbāijan-e Sharghi:

Kaleybar: Arasbārān protected area, Barzandigh to Peyghām Rd., 5 km. W. Peyghām, N 38° 45' 30.3", E 46° 57' 28.4", 1621 m, 25.VI.2015, 2 ♂♂, leg. Nāserzādeh, Hājiesmailiān, Montreuil.

Kordestān:

Sanandaj: 16.VI.1975, 1 ♂, leg. Abāi; Āriz, 2200 m, 5.VII.1972, 2 ♂♂, leg. Mirzāyāns, Abāi.

Zanjān:

Soltāniyeh: Gheydār, 1950 m, 2.VII.1974, 2 ♂♂, leg. Termeh, Mousavi.
Zanjān: Armaghān Khāneh, Māri vill., N 36° 59' 52.0", E 48° 28' 39.0", 2300 m, 21.VI.2015, 1 ♂ 1 ♀, leg. Nāserzādeh, Hājiesmailiān, Montreuil.

Genus: *Vartiania* Yakovlev, 2004

Vartiania senganensis (Daniel, 1949)

Material examined:

Sistān va Baluchestān:

Chābahār, Tis, 10 m, 17.V.1972, 4 ♂♂, leg. Abāi, Ebert.

Irānshahr (18 km. W.): Rig Kabud, 500 m, 15.V.1972, 1 ♂, leg. Abāi, Ebert.

Khāsh: 3 km. S. Sangān, 1550 m, 19.V.1972, 1 ♂, leg. Ebert, Falkner.

***Vartiania zaratustra* Yakovlev, 2004**

Material examined:

Hormozgān:

Bandar Abbās: Geno Mt., 1500 m, 6.VI.1997, 6 ♂♂, leg. V. Nazari; Geno Mt., 450 m, 21.V.2001, 1 ♂, leg. Osten, Ebrāhimi, Mofidi-Neyestānak; Geno Mt., Bāgh Tang, 410 m, 7.-8.V.1977, 2 ♂♂, leg. Pāzuki.

Bashāgard: 20 km. E. Senderk, 300 m, 11.V.1977, 7 ♂♂, leg. Safavi, Pāzuki; Senderk, 220 m, 12.V.1977, 5 ♂♂, leg. Safavi, Pāzuki.

Kermān:

Jiroft: Dalfārd, N 29° 00.0' 14.3", E 057° 36' 45.3", 2112 m, 27.IV.2012, 1 ♂, leg. Afsariān, Moghaddam, Mozaffariān.

Tribe: ***Zeuzerocossini*** Yakovlev, 2008

Genus: ***Eremocossus*** Hampson, 1892

***Eremocossus vaulogeri blanca* (Daniel, 1949)**

Material examined:

Bushehr:

Dālaki: 130 m, 20.III.1973, 1 ♂, leg. Abāi.

Mārmishou: N 37° 34' 26", E 44° 37' 25", 1760 m, 18.VII.2005, 1 ♂, leg. Zahiri, Golmohammadzādeh-Khiābān.

Hormozgān:

Bandar Abbās: Tang-e Bostāu, 25.II.1997, 1 ♀, leg. Āgh-Ātābāy, V. Nazari; 75 km. N. Bandar Abbās, 3.IV.1974, 1 ♂, leg. Vartian; Bandar Abbās- Dehbārez Rd., 400 m, 4.IV.1973, 2 ♂♂ 1 ♀, leg. Abāi; Bandar Abbās- Mināb Rd. (km. 15), 150 m, 1.IV.1973, 2 ♀♀, leg. Abāi; Bandar Abbās- Sirjān Rd., km. 40, 300 m, 30.III.1973, 2 ♂♂, leg. Abāi.

Gheshm Isl.: Salakh, 50 m, 6.III.2002, 1 ♀, leg. Hājiesmailiān, Mofidi-Neyestānak, Sādeghi.

Mināb: 13.III.1971, 1 ♀, leg. Āyatollāhi, Pāzuki.

Sarzeh: Goldasht, 400 m, 13.IV.1994, 1 ♀, leg. Ebrāhimi, Parchami-Arāghi.

Sirik: 70 m, 18.-19.IV.1992, 1 ♀, leg. Mirzāyāns, Badii.

Kermān:

Bam (SW.): Dehbakri, 2000-2200 m, 18.-21.V.2004, 1 ♀, leg. Hofmann, Meineke, Tremewan.

***Eremocossus vaulogeri erebuni* Yakovlev, 2008**

Material examined:

Āzarbāijān-e Gharbi:

Māku (15 km. NE.): 6.VI.1975, 2 ♂♂, leg. Abāi.

Unplaced genus

Genus: *Dieida* Strand in Stichel, 1911

***Dieida persa* Strand in Stichel, 1911**

Material examined:

Esfahān:

Semirom: Dolat Gharin, N 31° 32' 22.1", E 051° 37' 26.8", 2750 m, 13.V.2007, 1 ♀, leg. Gilāsīān.

Subfamily: **Zeuserinae** Boisduval, [1828]

Genus: **Azygophleps** Hampson, 1892

Azygophleps larseni Yakovlev & Saldaitis in Yakovlev, 2011

Material examined:

Hormozgān:

Bandar Lengeh: Moghuyeh, 60 m, 20.XI.1997, 2 ♂♂ 2 ♀♀, leg. V. Nazari, Barāri,
Mofid-Neyestānak.

Grouk: 0 m, 6.III.1995, 1 ♂, leg. Badii, Sarafrāzi.

Mināb (km. 15): 150 m, 1.IV.1973, 1 ♀, leg. Abāi.

Azygophleps regia (Staudinger, 1891)

Material examined:

Alborz:

Karaj: Karaj dam, 26.VII.1969, 2 ♂♂, leg. Mirzāyāns, Abāi.

Fārs:

Sepidān: Mārgoon fall, 2020 m, 23.-25.VI.1993, 3 ♂♂, leg. Borumand, Badii.

Shirāz: 70 km. Dasht-e Arzhān, 1500 m, 16.VII.1975, 1 ♂, leg. Abāi.

Lorestān:

Aznā: Oshtorānkuh, N. Kamandān, 2040 m, 22.-24.VII.1987, 1 ♂, leg. Pāzuki,
Borumand.

Tehrān:

Rudehen: 23.VII.1969, 1 ♂, leg. Mirzāyāns, Abāi.

Genus: **Cecryphalus** Schoorl, 1990

Cecryphalus nubila (Staudinger, 1895)

Material examined:

Ardebil:

Hashtchin- Khalkhāl Rd.: N 37° 26' 54.5", E 048° 24' 50.6", 837 m, 16.VII.2013, 5 ♂♂, leg. Afsariān, Sarafrāzi.

Pārs Ābād: Nahr-e Torāb, Aras river side, N 39° 39' 52.58", E 47° 52' 14.62", 39 m, 21.VII.2009, 1 ♂, leg. Manzari, Hājiesmailiān.

Āzarbāijān-e Sharghi:

Jolfā: Nourduz, Aras river, N 38° 53' 59", E 46° 17' 53", 520 m, 14.VII.2005, 1 ♂, leg. Zahiri, Golmohammadzādeh-Khiābān.

Genus: *Phragmacossia* Schawerda, 1924

Phragmacossia territa (Staudinger, 1879)

Material examined:

Alborz:

Karaj: Shahrestānak, Goleh Gileh fount., 2400 m, 20.VII.1988, 1 ♂, leg. Mirzāyāns, Badii; 30 km. N. Karaj, 11.IX.1969, 3 ♂♂, leg. Mirzāyāns, Abāi.
Sāvojbolāgh: E. Gatehdeh, Elburz Mt., N 36° 10' 39.6", E 51° 02' 20.9", 2260 m, 31.VII.-1.VIII.2007, 5 ♂♂, leg. Zahiri, Ālipanāh, Falsafi.
Tāleghān: Tijkuh, 1950 m, 9.VII.1997, 1 ♂, leg. Barāri, Mofidi-Neyestānak; 8 km. W. Zidasht, 2200 m, 10.-13.VI.1977, 8 ♂♂, leg. Pāzuki, Mortazavihā.

Āzarbāijān-e Gharbi:

Orumiyeh: Ghāsemalu vall., N 37° 16' 05", E 45° 08' 57", 1650 m, 19.VII.2005, 1 ♂, leg. Zahiri, Golmohammadzādeh-Khiābān; 35 km. Orumiyeh, Ghāsemalu, 1440 m, 24.VII.1976, 7 ♂♂, leg. Pāzuki, Borumand; Orumiyeh, 8 km. Band (Mirzā Ābād), 1450 m, 21.VII.1976, 1 ♂, leg. Pāzuki, Borumand; Orumiyeh, 7 km. Silvānā, Kuhe, 1660 m, 22.VII.1976, 1 ♂, leg. Pāzuki, Borumand; 30 km. SW. Orumiyeh, Rāzhān, 1650 m, 24.VII.1976, 1 ♂, leg. Pāzuki, Borumand.

Āzarbāijān-e Sharghi:

Ahar: 20.VII.1968, 1 ♀, leg. Mojibi, Abāi.

Kaleybar: Ghaleh Bābak, 2000 m, 2.VIII.1997, 1 ♂, leg. V. Nazari.

Khodā Āfarin: Arasbārān forest, Gandomnān, N 38° 59' 25", E 46° 52' 12", 1280 m, 15.VII.2005, 1 ♂, leg. Zahiri, Golmohammadzādeh-Khiābān.

Marand: Zonuz, N 38° 36' 24", E 45° 48' 40", 1620 m, 13.VII.2005, 1 ♂, leg. Zahiri, Golmohammadzādeh-Khiābān.

Tabriz: Khalat Pushān, 26.VIII.1974, 2 ♂♂, leg. Mashāyekhi.

Chāhārmahāl va Bakhtiāri:

Ardal: 1720 m, 5.IX.1991, 1 ♂, leg. Ebrāhimi, Badii.

Borujen: Gandomān, Kallār Mt., 2750 m, 13.-14.VII.1982, 6 ♂♂, leg. Borumand, Pāzuki; Choghākhor, N 31° 56' 09", E 50° 49' 44.4", 2463 m, 6.VIII.2011, 1 ♂, leg. Sarafrāzi, Falsafi.

Kuhrang: Cheshmeh Chālak, 29.VII.1974, 1 ♂, leg. Hāshemi, Zairi.

Shahrekord: Farah Shahr, 23.VII.1974, 1 ♂, leg. Hāshemi, Zairi.

Shalamzār: Tang-e Chezghān (S. Shalamzār), 2200 m, 11.VII.1982, 4 ♂♂, leg. Borumand, Pāzuki; 5 km. SW. Shalamzār, Tang-e Chezghān, 7.-10.VII.1983, 2 ♂♂, leg. Mirzāyāns, Borumand.

Esfahān:

Ardestān: 1550 m, 30.VI.1981, 1 ♂, leg. Hāshemi.

Fereydun Shahr: 2200 m, 9.VII.1999, 2 ♂♂, leg. Hofmann, Meineke.

Kāshān: Ghohrud, Hezeh, 2300 m, 1.-3.VIII.1983, 5 ♂♂ 1 ♀, leg. Pāzuki, Hāshemi; Karkas Mt., 2800 m, 29.VII.1974, 1 ♂, leg. Hāshemi, Zairi; Karkas Mt., Bidhand, 2200 m, 4.-7.VIII.1983, 2 ♀♀, leg. Pāzuki, Hāshemi; Shāh Ābād, 1560 m, 10.IX.1978, 1 ♀, leg. Hāshemi, Zairi.

Khānsār: Golestān Kuh, 2750 m, 5.-6.VII.1982, 1 ♂, leg. Pāzuki, Borumand; Golestān Kuh, 2700 m, 3.-4.VII.1983, 6 ♂♂, leg. Pāzuki.

Meymeh (35 km. N.): 2050 m, 6.VIII.1978, 1 ♀, leg. Pāzuki, Borumand.

Natanz: Abyāneh, 2300 m, 29.VI.1981, 2 ♂♂, leg. Hāshemi.

Semirom: Khafr, 2320 m, 10.VIII.1978, 14 ♂♂, 10 ♀♀, leg. Pāzuki, Borumand; Pādenā, Tang-e Bizhan, 2930 m, 13.VIII.1978, 6 ♂♂, leg. Pāzuki, Borumand; Zamān Kahriz, 2380 m, 12.VIII.1978, 9 ♂♂, leg. Pāzuki, Borumand; 30 km.

N. Semirom, 2450 m, 7.VIII.1978, 5 ♂♂, leg. Pāzuki, Borumand; Sivar, 2150 m, 9.VIII.1978, 3 ♂♂ 3 ♀♀, leg. Pāzuki, Borumand.

Fārs:

Eghlid: Basirān, Bidhāshem, 2600 m, 12.IX.1998, 1 ♂, leg. Manzari, Mofidi-Neyestānak.

Kāmfīruz: 1900 m, 6.IX.1974, 1 ♀, leg. Pāzuki, Hāshemi.

Kāzerun: Dasht-e Arzhan, 1900 m, 14.IX.1974, 26 ♂♂ 1 ♀, leg. Pāzuki, Hāshemi.

Sarvestān: Miānjangal, 12.IX.1971, 1 ♂, leg. Borumand.

Sepidān: 14 km. Komehr, 2820 m, 17.VIII.1978, 5 ♂♂, leg. Pāzuki; Komehr, Mārgoon, 2100 m, 20.VIII.2000, 1 ♀, leg. Badii, Mofidi-Neyestānak, Moghaddam; Mārgoon fall, 2020 m, 23.-25.VI.1993, 1 ♂, leg. Mirzāyāns, Badii.

Shirāz: Sivand, 1750 m, 11.IX.1974, 3 ♂♂, leg. Abāi, S. Shirāz, 70 km. Dasht-e Arzhan, 1500 m, 16.VII.1975, 3 ♂♂, leg. Abāi.

Ghazvin:

Āvaj: 2080 m, 10.VIII.1996, 1 ♀, leg. Badii, V. Nazari, Parchami-Arāghi.

Ghom:

Vesf: 2300 m, 5.VIII.1988, 1 ♂, leg. Hāshemi; 8 km. S. Fordu, 2320 m, 26.-28.VII.1983, 1 ♂, leg. Pāzuki, Hāshemi.

Gilān:

Rudbār: 320 m, 26.VI.1997, 1 ♂, leg. Barāri, Mofidi-Neyestānak.

Golestān:

Golestān National Park: Koylar, 1250 m, 23.VII.1996, 3 ♂♂, leg. Ebrāhimi, V. Nazari.

Hamedān:

Arzānfud: 2240 m, 29.VII.1987, 3 ♂♂, leg. Mirzayans, Hāshemi.

Asad Ābād: 2200 m, 30.VII.1987, 1 ♂, leg. Mirzāyāns, Hāshemi; Asad Ābād, 2180 m, 1.VIII.1987, 3 ♂♂, leg. Mirzāyāns, Hāshemi.

Barāt: 2350 m, 8.VIII.1997, 11 ♂♂ 2 ♀♀, leg. Barāri, Mofidi-Neyestānak.

Nahāvand: Gāmāsiāb, 1750 m, 7.VIII.1997, 1 ♀, leg. Barāri, Mofidi-Neyestānak.

Razan: 2100 m, 3.VIII.1987, 13 ♂♂, leg. Mirzāyāns, Hāshemi.

Tārik Darreh: 2000 m, 26.VII.1987, 13 ♂♂ 2 ♀♀, leg. Mirzāyāns, Hāshemi.

Kermānshāh:

Eslāmābād-e Gharb (45 km. NW.): Sorkkeh Dizeh, 1320 m, 14.VI.1975, 2 ♂♂,
leg. Pāzuki.

Khorāsān-e Jonubi:

Tabas: Nāibandān protected area, Ali Ābād Ranger Sta., N 32° 29' 9.2", E 57° 25' 13.4", 1458 m, 1.-2.VI.2014, 1 ♂, leg. Nāserzādeh.

Khorāsān-e Razavi:

Chenārān: Akhلامad, 2 ♂♂, 1250 m, 15.VII.1971, leg. Pāzuki, Āyatollāhi.

Daregaz: 2, 27.VIII.1971, 6 ♂♂, leg. Pāzuki, Āyatollāhi; Tandoreh, Chelmir, 1950 m, 18.-19.VII.1997, 2 ♂♂, leg. Mirzāyāns, V. Nazari; N. Tandoreh National Park, Chelmir, N 37° 23' 33.6", E 058° 51' 23.3", 1018 m, 24.VI.2014, 3 ♂♂ 1 ♀, leg. Ālipanāh, Falsafi; Daregaz- Kalāt-e Nāder Rd., Lāeen vill. to Khākestar vill. Rd., before Chāhārrāh vill., Hezārmasjed Mts, N 37° 02' 39.5", E 059° 26' 10.11", 1344 m, 27.VI.2014, 2 ♂♂, leg. Ālipanāh, Falsafi; Daregaz- Kalāt-e Nāder Rd., Lāeen vill. to Khākestar vill. Rd. (2.3 km. after Chāhārrāh vill.), Hezārmasjed Mts, N 37° 02' 48.3", E 059° 24' 54.5", 1485 m, 28.VI.2014, 3 ♂♂, leg. Ālipanāh, Falsafi; Allāhoakbar Mt., 1950 m, 16.VI.1974, 1 ♂, leg. Rajabi, Pāzuki.

Ghuchān: 30.VII.1971, 2 ♂♂, leg. Pāzuki, Āyatollāhi.

Mashhad: Torogh, 11.VII.1971, 1 ♂, leg. Zāre; Torogh, 12.VIII.1971, 1 ♂ 1 ♀,
leg. Kalāli.

Neyshābur, 27.VII.1971, 4 ♂♂, leg. Pāzuki, Āyatollāhi; Zabarkhān Hesār, 1400 m, 12.VI.1977, 1 ♀, leg. Pāzuki, Abāi.

Sabzevār (10 km. S. Hāres Ābād): 940 m, 15.VI.1977, 1 ♂, leg. Pāzuki, Abāi.

Khorāsān-e Shomāli:

Bojnurd: Ghush Ghaleh, Rostami Tomato farm, 28.VIII.-20.IX.2007, 1 ♂, leg. Alavi.

Esfarāyen (20 km. SE.): Rishi, 1350 m, 16.VI.1977, 1 ♂, leg. Pāzuki, Abāi.

Golestān National Pārk: Ālmeh, 1600 m, 19.-20.VII.1985, 1 ♂, leg. Pāzuki; Sulgerd, 1100 m, 16.-18.VII.1985, 7 ♂♂, leg. Pāzuki; Sulgerd, 1150 m, 20.-21.VII.1996, 10 ♂♂ 2 ♀♀, leg. Ebrāhimi, V. Nazari.

Kohgiluyeh va Boyerahmad:

Kākān: 5.IX.1971, 1 ♂, leg. Borumand.

Meymand (5 km. N.): NW. Denā Mt., 2210 m, 18.-20.VIII.1976, 3 ♂♂, leg. Pāzuki, Borumand.

Sisakht: Denā Mt., 2200 m, 11.IX.1974, 28 ♂♂, leg. Pāzuki, Hāshemi; Bizhan Mt. pass, 2700 m, 12.IX.1991, 1 ♂, leg. Ebrāhimi, Badii.

Yāsuj: Tang-e Sorkh, 2200 m, 9.IX.1974, 9 ♂♂, leg. Pāzuki, Hāshemi; 20 km. Yāsuj- Sepidān Rd., Tang-e Sorkh, 2380 m, 16.VIII.1978, 2 ♂♂, leg. Pāzuki, Borumand.

Kordestān:

Bāneh: 25 km. E. Bāneh, 1950 m, 4.VII.1975, 4 ♂♂, leg. Pāzuki; 83 km. SE. Bāneh, 1750 m, 5.-6.VII.1975, 6 ♂♂, leg. Pāzuki.

Marivān: Miāneh Dāgh, 2000 m, 6.VII.1972, 1 ♂, leg. Mirzāyāns, Abāi; 35 km. NE. Marivān, 1550 m, 8.-9.VII.1975, 6 ♂♂, leg. Pāzuki.

Saghez: Ākhand, 29.VII.1978, 14 ♂♂ 1 ♀, leg. Hāshemi, Zairi.

Lorestān:

Aligudarz: Shāh Ābād, Ghālikuh, 2100 m, 2.VIII.1997, 4 ♂♂, leg. Barāri, Mofidi-Neyestānak.

Aznā: Oshtorānkuh, N. Kamandān, 2040 m, 22.-24.VII.1981, 3 ♂♂, leg. Pāzuki, Borumand; Kamandān, 2050-2300 m, 23.-24.VIII.1994, 2 ♂♂, leg. Mirzāyāns, Sarafrāzi; Kamandān, 2000 m, 3.VIII.1997, 1 ♂, leg. Barāri, Mofidi-Neyestānak; Parcheh Kabud, 2800 m, 1.-2.VIII.1975, 3 ♂♂, leg. Pāzuki.

Borujerd (28 km. E.): Zālīān Rd. 2300 m, 27.VII.1975, 2 ♂♂, leg. Pāzuki.

Dorud: Darbāstāneh, 1750 m, 4.VIII.1997, 1 ♂, leg. Barāri, Mofidi-Neyestānak;
15 km. E. Dorud, Sarāvand, Darbāstāneh, 2000 m, 6.VIII.1975, 5 ♂♂, leg.
Pāzuki; Gokān, 2350 m, 29.-30.VII.1975, 2 ♀♀, leg. Pāzuki.

Markazi:

Āshtiān: Āhu, Bidsukhteh vall., 2000 m, 29.VII.1997, 1 ♀, leg. Barāri, Mofidi-
Neyestānak; Tafresh, Abdol Ābād-e Bālā, 2500 m, 20.VII.1981, 5 ♂♂, leg.
Pāzuki, Borumand.

Mahallāt: Bozijān, N 33° 59' 32.6", E 50° 13' 4.3", 2363 m, 26.VIII.2009, 1 ♂, leg.
Mofidi-Neyestānak, Nāserzādeh, Hājiesmailiān; Bozijān, Cheshmeh Derāz,
2000 m, 31.VII.1997, 13 ♂♂ 1 ♀, leg. Barāri, Mofidi-Neyestānak.

Nobarān: Sangak, 2100 m, 20.VIII.2009, 1 ♂ 1 ♀, leg. Mofidi-Neyestānak,
Hājiesmailiān.

Māzandarān:

Polur: Lār dam, 2500 m, 7.-8.VII.1988, 1 ♂, leg. Pāzuki.

Semnān:

Shāhrud: Khosh Yeylāgh, 1920 m, 20.-21.VIII.1982, 1 ♂ 1 ♀, leg. Hāshemi.

Tehrān:

Damāvand: 1910 m, 8.-25.VIII.1976, 1 ♂, leg. Rajabi; Ābsard, 1900 m,
3.VIII.1978, 2 ♂♂, leg. Pāzuki, Sabzevāri.

Rudehen: 9.IX.1970, 2 ♂♂, leg. Ebert, Abāi.

Shemshak: 25.VII.1969, 1 ♂, leg. Mirzāyāns, Abāi.

Yazd:

Shir Kuh: 3300 m, 3.VII.1981, 1 ♂, leg. Hāshemi.

Zanjān:

Soltāniyeh: Gheydār, 1950 m, 2.VII.1974, 1 ♂, leg. Termeh, Mousavi.

Genus: *Phragmataecia* Newman, 1850

Phragmataecia albida Erschoff, 1874

Material examined:

Āzarbāijān-e Gharbi:

Khoy: 30 km. Ghotur, 1480 m, 19.VII.1976, 4 ♂♂, leg. Pāzuki, Borumand.

Māku (W.): Ghezel Bolāgh, 2220 m, 17.-18.VII.1976, 1 ♂, leg. Pāzuki, Borumand.

Kordestān:

Sanandaj: 16.VI.1975, 1 ♂, leg. Abāi.

***Phragmataecia castaneae* (Hübner, 1790)**

Material examined:

Ardebil:

Moghān: 27.VI.1967, 1 ♀, leg. Damanābi; Moghān, Doost Kandy, N 39° 41' 07.4", E 047° 57' 58.6", 34 m, 18.VIII.2014, 3 ♂♂ 1 ♀, leg. Afsariān; Moghān, Oltān, Aras river, N 39° 36' 17.6", E 047° 45' 00.3", 138 m, 17.VIII.2014, 1 ♀, leg. Afsariān; Moghān, Pārs Ābād, Aras river, N 37° 35' 41.0", E 48° 37' 45.3", 65 m, 19.VI.2007, 3 ♀♀, leg. Zahiri, Mozaffariān.

Fārs:

Farāshband: Chāh Torkaman, 1200 m, 10.IV.1975, 1 ♂, leg. Borumand.

Kāzerun: Parishān Lake, 900 m, 5.VI.1990, 1 ♂, leg. Ebrāhimi, Badii.

Ilam:

Mehrān: ? .IV.1947, 1 ♂, leg. Farahbakhsh.

Khuzestān:

Ābādān: Kuteshā Hnuf, 5 m, 11.V.1995, 1 ♀, leg. Hāshemi, Sarafrāzi.

Haft Tappeh: 70 m, 26.IV.1976, 1 ♂, leg. Pāzuki, Abāi.

Mīnu Isl.: 14.IV.2002, 1 ♂, leg. Ghayurfar.

Sarrākhiyeh: Tālāb-e Shādegān, N 30° 41.0' 1.6", E 048° 3.2' 23.1", 6 m, 12.V.2016, 1 ♂, leg. Afsariān, Mozhdehi.

Shushtar: Kārun Agro. Indust., 50 m, 24.IV.1995, 1 ♂ and one specimen without abdomen, leg. Parchami-Arāghi, Ardeh, Badii.

***Phragmataecia turkmenbashi* Yakovlev, 2008**

Material examined:

Khorāsān-e Shomāli:

Golestān National Pārک: Ālmeh, 1600 m, 26.-29.V.1986, 1 ♂, leg. Pāzuki; Ālmeh, 1650 m, 17.-18.VII.1996, 1 ♂, leg. Ebrāhimi, V. Nazari; Sulgerd, 1100 m, 16.-18.VII.1985, 1 ♂, leg. Pāzuki; Sulgerd, 1100 m, 1.-3.VI.1986, 1 ♂, leg. Pāzuki; Sulgerd, 1150 m, 20.-21.VII.1996, 2 ♂♂, leg. Ebrāhimi, V. Nazari; Sulgerd, 1150 m, 8.V.1999, 1 ♂, leg. Moghaddam, Barāri, Manzari.

Genus: ***Zeuzera*** Latreille, 1804

Zeuzera pyrina (Linnaeus, 1761)

Material examined:

Alborz:

Karaj: Māh Dasht, 13.-20.VI.1976, 4 ♂♂, leg. Rajabi.

Āzarbāijān-e Sharghi:

Ahar: Horānd, 1000 m, 3.VIII.1992, 1 ♂, leg. Parchami-Arāghi, Badii.

Kaleybar: Vāyeghān, 1440 m, 5.-6.VIII.1992, 1 ♂, leg. Parchami-Arāghi, Badii;
Tātār, Aras river, N 39° 01' 12.2", E 46° 44' 29.4", 350 m, 29.VII.2007, 1 ♂, leg. Ālipanāh, Zahiri, Falsafi.

Khodā Āfarin: Arasbārān forest, Gandomnān, N 38° 59' 25", E 46° 52' 12", 1280 m, 15.VII.2005, 5 ♂♂, leg. Zahiri, Golmohammadzādeh-Khiābān.

Esfahān:

Natanz: Targh, 2630 m, 8.VII.2003, 2 ♂♂, leg. Ghayurfar, Ebert, Trusch, Nematian.

Gilān:

- Āstāneh Ashrafiyeh: 1 ♂, Siāhkal, N 37° 09' 09", E 49° 52' 13", 180 m, 15.V.2006, leg. Sarafrāzi, Nematīān.
- Āstārā- Ardebil Rd.: km. 5, 100 m, 26.V.1997, 1 ♂, leg. Sarafrāzi, Badii, V. Nazari.
- Āstārā- Namin Rd.: 10 km. W. Āstārā, N 38° 26' 01.7", E 48° 46' 47.3", 97 m, 24.VII.2007, 2 ♂♂, leg. Zahiri, Ālipanāh.
- Asālem: 18.VII.1972, 2 ♂♂, leg. Abāi; Asālem, 250 m, 14.VIII.1992, 1 ♂, leg. Parchami-Arāghi, Badii; Ābish Gharah, 1250 m, 30.VII.1976, 2 ♂♂, leg. Pāzuki, Borumand; Gisum, 160 m, 18.VIII.1972, 1 ♂, leg. Pāzuki, Borumand; Parehsar, 950 m, 14.VIII.1974, 4 ♂♂, leg. Mirzāyāns, Abāi; Sheikh Mahal, 160 m, 28.-30.VI.1977, 1 ♂, leg. Pāzuki, Mortazavihā; Asālem- Khalkhāl Rd., Asālem forest, N 37° 40' 33.7", E 48° 47' 53.6", 550 m, 15.VI.2006, 1 ♂, leg. Zahiri, Falsafi.
- Bandar Anzali: 10.VII.1966, 1 ♂, leg. Mirzāyāns, Bandar Anzali, 10.VIII.1971, 1 ♂, leg. Ghāzioff.
- Fuman: Gashtrudkhān, N 37° 08' 00.0", E 49° 11' 00.0", 295 m, 29.VI.2008, 2 ♂♂, leg. Ālipanāh, Nematīān.
- Lāhijān: Siāhkal, Bālā Rud, 270 m, 12.VIII.1980, 1 ♂, leg. Pāzuki, Borumand.
- Māsāl: Shālmā, 30.VIII.2005, 1 ♂, leg. Hesāmi, Seyed Ebrāhimi.
- Punel: Dorān forest, N 37° 35' 44.7", E 49° 04' 51.7", 110 m, 19.VII.2013, 5 ♂♂, leg. Afsariān, Sarafrāzi.
- Shaft: Ahmad Gurāb, Siāhmezgi vill., N 37° 00' 56.86", E 49° 15' 7.95", 626 m, 23.VII.2010, 1 ♂, leg. Ālipanāh, Falsafi.
- Tālesh: N 37° 35' 24.6", E 048° 58' 19.7", 1621 m, 27.VIII.2014, 1 ♂, leg. Afsariān; Tālesh, Rig (15 km. Tālesh), 570 m, 31.VIII.1975, 1 ♂, leg. Mirzāyāns; Tālesh, Rig, N 37° 49' 39.1", E 048° 53' 53.7", 75 m, 26.VIII.2014, 2 ♂♂, leg. Afsariān; Tālesh, Kishdibi, N 37° 49' 59.3", E 048° 47' 33.7", 439 m, 18.VII.2013, 2 ♂♂, leg. Afsariān; Tālesh, Tulārlood, N 37° 45' 12.2", E 048° 54' 50.6", 144 m, 17.VII.2013, 1 ♂, leg. Afsariān, Sarafrāzi.

Golestān:

Golestān National Park: Ghush Cheshmeh, 1000 m, 9.VIII.1998, 1 ♂, leg. Mofidi-Neyestānak, V. Nazari; Koylar, 1250 m, 23.VII.1996, 1 ♂, leg. Ebrāhimi, V. Nazari; Koylar, 1100 m, 6.III.1998, 1 ♂, leg. Mofidi-Neyestānak, V. Nazari; Koylar, 1350 m, 29.VII.2001, 1 ♂, leg. Gilāsīān, Moghaddam, Ghayurfar; Mazārli, 530 m, 19.-20.VI.1977, 4 ♂♂ 1 ♀, leg. Pāzuki, Abāi; Tang-e Gol, 600 m, 14.-15.VII.1985, 2 ♂♂, leg. Pāzuki; Tang-e Gol, 630 m, 4.-5.IX.1987, 1 ♂, leg. Pāzuki; Tang-e Gol, 650 m, 13.-14.X.1988, 1 ♂, leg. Pāzuki; Tang-e Gol, 700 m, 24.-27.VII.1996, 5 ♂♂, leg. Ebrāhimi, V. Nazari; Tang-e Gol, 750 m, 20.VII.2001, 2 ♂♂, leg. Ghayurfar, Gilāsīān, Moghaddam.

Gorgān: Ali Ābād, Kabudvāl, 200 m, 22.VIII.1983, 1 ♂, leg. Borumand, Pāzuki.

Rāmiān: Jāmeshurān, 1250 m, 22.VI.1995, 1 ♂, leg. Mirzāyāns, Badii, Sarafrāzi.

Tuskastān: Gorgān- Shāhrud Rd., N 36° 44' 37.6", E 54° 34' 02.6", 660 m, 15.VII.2007, 5 ♂♂, leg. Zahiri, Karimzādeh.

Khorāsān-e Razavi:

Ghuchān: Charāneh-e Olyā, Fahneh, 1780 m, 11, 12.VI.2009, 1 ♂, leg. Mofidi-Neyestānak.

Khorāsān-e Shomāli:

Āshkhāneh: Darkash, 1350 m, 15.VI.2009, 1 ♂, leg. Mofidi-Neyestānak; Āshkhāneh- Chamanbid Rd., 1.7 km. SW. Jozak vill., Jozak Tree Indust., N 37° 25' 25.2", E 056° 40' 28.2", 1.VII.2014, 1148 m, 1 ♂, leg. Ālipanāh, Falsafi.

Shirvān (N.): Kopet Dāgh Mt., Sarāni vill., Sarāni Protected area, N 37° 48' 22.5", E 057° 56' 29.7", 1500 m, 22.VI.2013, 1 ♂, leg. Ālipanāh, Falsafi.

Kohgiluyeh va Boyerahmad:

Sisakht: 2100 m, 16.VI.1986, 1 ♂, leg. Mirzāyāns, Hāshemi.

Yāsuj (30 km. S.): 19.VI.2005, 1 ♂, leg. Zahiri, Falsafi.

Markazi:

Narāgh: Saricheh, 1650 m, 9.-11.VI.1984, 1 ♂, leg. Pāzuki, Hāshemi.

Māzandarān:

Abbās Ābād: 18.VII.1980, 1 ♂, leg. Hāshemi, Zairi.

Bābol: 8.VIII.1949, 1 ♂, leg. Bābāi.

Bābolsar: Kāleh, 19.-21.VI.1989, 2 ♂♂, leg. Pāzuki.

Behshahr: Duk forest, 840 m, 23.VI.1977, 1 ♂, leg. Pāzuki, Mortazavihā,

Behshahr, Pasand, Pasand Res. Sta., 6.VII.1981, 1 ♂, leg. Anonymous.

Kelārdasht: 26.VIII.1976, 1 ♂, leg. Zairi; Dasht Nazar, 19.VIII.1976, 1 ♂, leg. Zairi.

Nowshahr: 10.VII.1969, 1 ♂, leg. Abāi.

Nur (6 km. E.): Rostam Rud, 8.VIII.1980, 1 ♂, leg. Pāzuki, Borumand.

Rāmsar: Javāherdeh, Eshkatehchāl, 1152 m, 25.VII.2002, 1 ♂, leg. Moghaddam,

Nematiān; Rāmsar- Javāherdeh Rd. (km. 6), N 36° 54' 29.3", E 050° 35' 13.2", 554 m, 23.VII.2007, 1 ♂, leg. Ālipanāh, Zahiri, Falsafi.

Tonekābon: 1 ♂, 250 m, 22.VII.1980, leg. Hāshemi, Zairi; Tonekābon lab., 10.-11.VIII.1980, 2 ♂♂, leg. Pāzuki, Borumand.

Zirāb: Palang Darreh, 540 m, 24.-25.VI.1977, 2 ♂♂, leg. Pāzuki, Mortazavihā.

Tehrān:

Damāvand: Ābsard, 1900 m, 3.-7.VII.1978, 3 ♂♂, leg. Pāzuki, Sabzevāri.

Robāt Karim: Urin, 1050 m, 24.-25.V.1993, 1 ♂, leg. Parchami-Arāghi, Badii.

Rudbār-e Ghasrān: Garmābdar, 2370 m, 28.-29.V.1991, 1 ♂, leg. Ebrāhimi, Badii.

Rudehen: 23.VII.1969, 1 ♂, leg. Mirzāyāns, Abāi.

Shahriār: 17.VII.1966, 1 ♂, leg. Shāh-Hosseini.

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<i>zurvan, Dyspessa</i>	22

Old and new names of Localities

<u>Old name</u>	<u>New name</u>
Alafdun Island	Negin Island
Ali Ābād, Shāhi	Ghāemshahr
Ardekān (Fārs)	Sepidān
Astar Ābād	Gorgān
Ashraf	Behshahr
Bahrām Ābād	Rafsanjān
Bandar-e Farahnāz	Kiāshahr
Bandar-e Māhshahr	Emām Shahr
Bandar-e Pahlavi	Bandar-e Anzali
Bandar-e Shāh	Bandar-e Torkeman
Bandar-e Shāpur	Bandar-e Emām Khomeyni
Bārforush	Bābol
Biābān	Sirik
Dasht-e Mishān	Dasht-e Abbās
Dehbid	Safā Shahr
Dogonbadān	Gachsārān
Dozdāb	Zāhedān
Geh	Nikshahr
Ghomsheh	Shahrezā
Golshan	Tabas
Kamareh	Khomeyn
Khāneh	Pirānshahr
Khār	Garmsār
Konārdan	Pārsiān
Mashhadsar	Bābolsar
Mehrestan	Zaboli

Motelghu	Salmānshahr
Pahlavidezh	Āghghaleh
Pol-e Tang	Pā Alam
Rezāieh	Orumiyeh
Rudān	Dehbārez
Saādat Ābād	Saādatshahr
Sabzevārān	Jiroft
Sakhtsar	Rāmsar
Sangsar	Mehdishahr
Shāh Ābād-e Gharb	Eslām Ābād-e Gharb
Shāh Dasht	Māh Dasht
Shāhindezh	Sāinghaleh
Shāhpasand	Āzādshahr
Shāhpur	Salmās
Shahsāvār	Tonekābon
Hashtpar	Tālesh

In order to facilitate the transliteration of Iranian localities in latin characters and provide the correct pronunciation of these names for foreigners, the following signs are proposed.

<u>Sign</u>	<u>Loc.</u>	<u>Persian pronounc.</u>
a	Sanandaj, Karaj	آ
ā	Tehrān, Kāshān	آ
ay	Tayebād, Bandar-e Dayyer	آي
āy	Malāyer, Golpāyegān	آي
ch	Sirch, Chamanbid	چ
e	Kermān, Bāneh	ا
ey	Meymeh, Eyvānkey	اي
g	Gorgān, Angurān	گ
gh	Ghom, Ghazvin	ق - غ
h	Hamadān, Dehbid	ه - ح
i	Isin, Sāri	اي
j	Javarg, Bijār	ج
k	Kākān, Arāk	ك
kh	Khorrām Ābād, Khāsh	خ
o	Osku, Borāzjān	أ
ow	Howeizeh, Dowlat Ābād	أو
s	Sistān, Rāmsar	ص - ث - س
sh	Shirāz, Mashhad	ش

t	Tabas, Alamut	ت - ط
u	Bushehr, Orumiyeh	او
v	Āvaj, Varāmin	و
y	Yazd, Yāsuj	ي
z	Zāhedān, Alborz	ض - ز - ذ - ظ
zh	Dasht-e Arzhan, Gardaneh Bizhan	ژ



به نام خدا

فهرست بال پولک داران موجود در موزه حشرات هایک میرزایانس

مؤسسه تحقیقات گیاه پزشکی کشور

Family: Cossidae

از: هلن عالی پناه و رومن یاکوولو

خانواده Cossidae یکی از هفت خانواده بالاخانواده Cossioidea به شمار می آید (van Nieukerken et al., 2011). اعضای این خانواده به واسطه رگبندی نسبتاً ابتدایی بال و دو شاخه بودن ساقه رگبال M در بیشتر اعضای خانواده، جزو قدیمی ترین شاخه Apoditrysia محسوب می شوند (Edward et al., 1998). این خانواده دارای انتشار جهانی است و بسیاری از اعضای آن به نواحی خشک منطقه پالئارکتیک اختصاص دارند (Yakovlev & Dubatolov 2013). اعضای این خانواده بال پولک دارانی کوچک تا بسیار بزرگ و معمولاً ستبر هستند و افراد بالغ به استثنای زیرخانواده Ratardinae عمدتاً شب فعالند (Edwards et al., 1998). تاکنون ۹۷۱ گونه از ۱۵۱ جنس از این خانواده شناسایی شده است (van Nieukerken et al., 2011). وجود پاراپاتاژیا (Parapatagia) کاملاً برجسته در ناحیه پیش قفسه سینه که در قسمت میانی به هم نزدیک شده اند، تنها صفت اتوآپومورفی این خانواده محسوب می شود که در بعضی از اعضای زیرخانواده Cossinae رشد زیادی پیدا نکرده است (Edwards et al., 1998). خانواده Cossidae به ۱۰ زیر خانواده Catoptinae, Politzariellinae, Mehariinae, Hypoptinae, Cossulinae, Cossinae, Chilecomadiinae, Pseudocossinae, Stygiinae و Zeuzerinae تقسیم می شود (Yakovlev, 2014, 2018).

قدیمی ترین اشاره ای که در منابع به وجود خانواده Cossidae در ایران شده است، به سال ۱۸۷۶ باز می گردد که در آن گونه *Cossus cossus* L. توسط Christoph از شاهرود گزارش شد. در اواخر

قرن نوزدهم و اوایل قرن بیستم میلادی گونه‌های دیگری از این خانواده از ایران و مناطق مجاور آن از جمله ترکمنستان و آذربایجان توصیف شدند (Grum-Grshimailo, 1883, 1895, 1899, 1902)؛ Staudinger, Christoph, 1873, 1876, 1884, 1885, 1887a, b, 1888, 1889a, b, 1893؛ Strand 1911؛ Püngeler, 1898, 1899, 1900؛ Austaut, 1897؛ Röber 1896؛ 1891؛ Schawerda 1913؛ Rothschild 1912).

با این وجود، مهم‌ترین تحقیقات انجام شده دربارهٔ خانواده Cossidae در ایران شامل: (۱) مقالهٔ چاپ شده توسط Dalla-Torre (1923) که به ارائه اطلاعاتی درباره جانوران ایران پرداخته و شرح اولیه و اطلاعات نسبتاً مختصری دربارهٔ انتشار جهانی اعضای خانوادهٔ Cossidae و انتشار گونه‌های آن در ایران نیز ارائه داده است؛ و (۲) کارهای انجام شده توسط F. Daniel (1932a, b, c) است که ضمن معرفی جانوران جنوب ترکیه، تعدادی از گونه‌های این خانواده را از ایران نیز گزارش کرده است. مقالات متعددی توسط Daniel (1933, 1937, 1938, 1939, 1940, 1949, 1953, 1961, 1962, 1963, 1964, 1965a, b, c, 1969a, b, 1971) به چاپ رسیده‌اند که در آن‌ها به تعدادی از گونه‌های این خانواده که در ایران انتشار دارند، اشاره شده است. علاوه بر Daniel و همزمان با آن، محققین دیگری نیز در ایران و سرزمین‌های همسایه در این خصوص تحقیقاتی داشته‌اند (Wagner, 1937؛ Brandt, 1938؛ Schwingenschuss, 1939a, b؛ Wiltshire, 1939, 1946a, b, 1949, 1957؛ Bryk, 1947؛ Sutton, 1963؛ Barou, 1967). همچنین، Daniel (1955-1965)، در رساله خود در مورد تاکسونومی خانوادهٔ Cossidae در منطقهٔ Palaearctic اطلاعات مختصری در مورد ایران منتشر کرده است. دوران مدرن مطالعه Cossidae در ایران به کار ارائه شده توسط J. de Freina و T. J. Witt در سال ۱۹۹۰ و چاپ کتاب "Macroheterocera of the West Palaearctic" باز می‌گردد (Freina & Witt, 1990). بعدها مقالات متعددی دربارهٔ فون خانوادهٔ Cossidae در ایران و مناطق هم‌جوار ایران به چاپ رسیدند که باعث تکمیل‌تر شدن اطلاعات مربوط به این خانواده در ایران شدند (Witt, Freina, 1983, 1994)؛ Yakovlev *et al.*, 1983؛ Wieser *et al.*, 2001؛ Yakovlev, 2004, 2006a, b, 2007, 2008, 2009, 2011؛ Yakovlev & Witt, 2017a, b؛ Saldaitis *et al.*, 2007؛ Aliphanah *et al.* (2019, in press) انجام گرفته است. اما، کامل‌ترین و جامع‌ترین مطالعه بر روی این خانواده در ایران اخیراً توسط

با استناد به منابعی که در بالا به آنها اشاره شد، تاکنون ۶۸ گونه و ۱۸ زیرگونه از ۲۶ جنس و پنج زیرخانواده Catoptinae، Mehariinae، Stygiinae، Cossinae و Zeuzerinae از ایران گزارش شده است که از این میان نمونه‌هایی از ۵۲ گونه و ۱۶ زیرگونه که به ۲۳ جنس تعلق دارند، در مجموعه بال‌پولک‌داران موزه حشرات هایک میرزایانس یافت می‌شوند. از ۱۶ گونه و دو زیرگونه زیر نمونه‌ای در این موزه وجود ندارد که عبارتند از: *Dyspessa Meharia tancredii* Sutton, 1963، *D. kabylaria* A. Bang-Haas، *D. hethitica* Daniel, 1932، *derbenti* Daniel, 1964، *Holcocerus nobilis*، *Stygioides colchica colchica* (Herrich-Schäffer, 1851), 1906، *H. zarudnyi* Grum-*H. witti* Yakovlev, Saldaitis & Ivinskis, 2007، Staudinger, 1884، *C. herzi* (Alpheraky، *Cossulus argentatus* Staudinger, 1887، Grshimailo, 1902، 1893)، *C. strioliger*، *C. kopetdagi* Yakovlev & Alipanah, 2019 (in press)، *Dyspessacossus funkei*، *C. zoroastres* (Grum-Grshimailo, 1902)، (Alpheraky, 1893)، *Acosus terebrus*، *Vartiana drangianica* (Grum-Grshimailo, 1902)، (Röber, 1896)، *Paropta paradoxa paradoxa* (Herrich-، ([Denis & Schiffermüller], [1776])، *Phragmacossia ariana* (Grum-Grshimailo, 1899) و Schaffer, [1851]) در مجموعه حاضر فهرستی از گونه‌های متعلق به خانواده Cossidae که در مجموعه بال‌پولک‌داران موزه حشرات هایک میرزایانس نگهداری می‌شوند، ارائه شده و اطلاعات کاملی از پراکندگی این گونه‌ها آورده شده است.

در اینجا از همکاری‌های دکتر Thomas Witt (Museum Witt, München, Germany) به لحاظ در اختیار قرار دادن برخی از نمونه‌های موزه شخصی خود در طول مطالعه مهندس حسین فلسفی (مؤسسه تحقیقات گیاهپزشکی کشور) که نقشه تقسیمات استانی ایران را تهیه نموده‌اند، قدردانی می‌گردد. از مهندس محمدرضا نعمتیان، مهندس حسین فلسفی و مهندس ابوالفضل حاجی‌اسمعیلیان که در اتالۀ دقیق نمونه‌های جمع‌آوری شده همکاری داشته‌اند، صمیمانه قدردانی می‌گردد. همچنین از تمامی همکاران در مؤسسه تحقیقات گیاهپزشکی کشور که طی ۷۵ سال گذشته در جمع‌آوری نمونه‌ها از قسمت‌های مختلف ایران نقش داشته‌اند، تشکر می‌کنیم. همچنین در اینجا

لازم می‌دانیم از مراکز سازمان حفاظت محیط زیست در استان‌های گلستان، خراسان جنوبی، خراسان رضوی، خراسان شمالی و سمنان برای دادن مجوز نمونه‌برداری در پارک‌های ملی گلستان، تندوره، سالوک و خارتوران و سایر مناطق حفاظت شده در این استان‌ها نهایت تشکر را داشته باشیم.

چاپ این نشریه در سومین جلسه مورخ شورای انتشارات مؤسسه تحقیقات گیاهپزشکی کشور مورد تأیید قرار گرفت.



شناسنامه نشریه:

عنوان نشریه: حشرات ایران: فهرست بالپولک‌داران موجود در موزه حشرات هایک میرزایانس مؤسسه

تحقیقات گیاهپزشکی کشور Family: Cossidae

نام کامل نویسندگان: هلن عالی‌پناه (سازمان تحقیقات، آموزش و ترویج کشاورزی، مؤسسه تحقیقات

گیاهپزشکی کشور)، رومن و. یا کولو (Tomsk State)^a Altai State University, Barnaul, Russia; ^b

University, Laboratory of Biodiversity and Ecology, Tomsk, Russia; email: yakovlev_asu@mail.ru)

نام ناشر: مؤسسه تحقیقات گیاهپزشکی کشور

تاریخ انتشار: دی ماه ۱۳۹۷

تایپ رایانه‌ای: هلن عالی‌پناه - مؤسسه تحقیقات گیاهپزشکی کشور

طرح روی جلد: *Meharia avicenna* Yakovlev (Iran: Semnan Prov., Khārturān protected area)

از هلن عالی‌پناه

این نشریه تحت شماره در تاریخ در مرکز اطلاعات و مدارک علمی کشاورزی به ثبت رسیده است.

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سازمان تحقیقات، آموزش و ترویج

بخش تحقیقات رده‌بندی حشرات

کشاورزی

نشریه شماره ۲۲

حشرات ایران:

فهرست بال‌پولک‌داران موجود در موزه حشرات هایک میرزایانس

مؤسسه تحقیقات گیاهپزشکی کشور

Family: Cossidae

از:

هلن عالی‌پناه و رومن و. یاکوولو

دی ماه ۱۳۹۷