

New Faunistic Records of Ground Beetles (Coleoptera: Carabidae) in Iran¹

Saeed Azadbakhsh²

Hormozgan Province, Bandar Abbas, Iran. 79187-99963

J. Entomol. Sci. 52(4): 427–435 (October 2017)

Abstract Field-based research conducted in 2016 in Iran resulted in the collection of ground beetles (Coleoptera: Carabidae). Three species—*Brachinus* (*Brachinus*) *alexandri* (F. Battoni, 1984), *Sinechostictus* (*Sinechostictus*) *lederi* (Reitter, 1888), and *Amblystomus metallescens* (Dejean, 1829)—are reported from Iran for the first time. In addition, *Calomera sturmi* (Ménétriés, 1832), *Bembidion* (*Nepha*) *menetriesii* (Kolenati, 1845), *Bembidion* (*Peryphus*) *obscurum turanicum* (Csiki, 1928), and *Lionychus* (*Lionychus*) *orientalis* (K. Daniel, 1901) are reported from the Alburz Province for the first time. *Microlestes plagiatum* (Duftschmid, 1812) is reported from the Mazandarn Province for the first time and *Myriochila* (*Myriochila*) *semicircumcincta* (Mandl, 1959) is reported from Hormozgan Province for the first time.

Key Words Carabidae, Mazandaran, Alburz, Hormozgan, Fars, Iran, new record

Azadbakhsh and Nozari (2015) previously reported 955 species of ground beetles (Coleoptera: Carabidae) from Iran; however, based on the geographic and climatic diversity and the paucity of published studies on carabid occurrence in Iran, additional carabid species likely reside there and could be discovered through surveys and other research activities. Therefore, this study reports survey efforts in Iran, mainly in the southern and northern areas of the country, with the objective of adding to the known carabid fauna in Iran and enhancing our knowledge of their distribution.

Materials and Methods

Specimens were collected by hand from the ground, under stones, on tree trunks, along banks of streams and rivers, and other habitats from northern and southern Iran during the spring and summer of 2016. All specimens were transported to the laboratory where they were identified by the author and deposited in my personal collection in Bandar Abbas City. The list of species collected follows the nomenclature of Lorenz (2005), and distribution notes follow those of Löbl and Smetana (2003), Azadbakhsh and Nozari (2015), and my own personal observations.

¹Received 12 February 2017; accepted for publication 05 June 2017.

²Corresponding author (email: azadbakhsh@live.com).

Results

Forty-five species of carabid beetles were collected and identified from the provinces of Alburz, Fars, Hormozgan, and Mazandaran. Three species—*Brachinus* (*Brachinus*) *alexandri* (F. Battoni, 1984), *Amblystomus metallescens* (Dejean, 1829) and *Sinechostictus* (*Sinechostictus*) *lederi* (Reitter, 1888)—are new records of occurrence in Iran. *Calomera sturmi* (Ménétriés, 1832), *Bembidion* (*Nepha*) *menetriesii* (Kolenati, 1845), *Bembidion* (*Peryphus*) *obscurum turanicum* (Csiki, 1928), and *Lionychus* (*Lionychus*) *orientalis* (K. Daniel, 1901) are first occurrences from the Alburz Province; *Microlestes plagiatus* (Duftschmid, 1812) is reported for the first time from the Mazandarn Province, and *Myriochila* (*Myriochila*) *semicircumcincta* (Mandl, 1959) is reported from Hormozgan Province for the first time. Species collected along with occurrence and distribution records are listed by subfamily.

Subfamily Brachininae (Bonelli, 1810)

Brachinus (*Brachinus*) *alexandri* (F. Battoni, 1984)

Material examined. 3 ex, Mazandaran Province, Sari env., 5.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Azerbaijan, Albania, Armenia, Bulgaria, Greece, Russia, Turkey, Ukraine, and now Iran. **New record for Iran.**

Brachinus (*Brachinus*) *crepitans* (L., 1758)

Material examined. 4 ex, Mazandaran Province, Sari env., 5.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Europe and western Asia. In Iran, this species is cited from northern parts of the country by Azadbakhsh and Nozri (2015) and Azadbakhsh et al. (2015).

Brachinus (*Brachinus*) *psophia* (Audinet-Serville, 1821)

Material examined. 5 ex, Mazandaran Province, Sari env., 5.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Europe and western Asia. In Iran, this species is cited from northern parts of country by Azadbakhsh and Nozri (2015).

Brachinus (*Brachynolomus*) *explosens* (Duftschmid, 1812)

Material examined. 1 ex, Fars Province, Shiraz env., 14.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Albania, Armenia, Austria, Belgium, Bulgaria, Croatia, Czech, Estonia, France, Germany, Georgia, Greece, Hungary, Iran, Iraq, Israel, Italy, Kyrgyzstan, Kazakhstan, Latvia, Lithuania, Luxembourg, Moldavia, Netherlands, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Syria, Tadjikistan, Turkmenistan, Turkey, Ukraine, and Uzbekistan. In Iran, this species is cited from Ardabil, Fars, Golestan, Kermanshah, Mazandaran and Razavi Khorasan provinces by Azadbakhsh and Nozri (2015).

Subfamily Cicindelinae (Latreille, 1802)*Calomera fischeri fischeri* (M.F. Adams, 1817)

Material examined. 4 ex, Alburz Province, Taleghan env., 1.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region and in Iran (Azadbakhsh and Nozri 2015).

Calomera sturmi (Ménétriés, 1832)

Material examined. 4 ex, Alburz Province, Taleghan env., 1.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Afghanistan, China (Xinjiang), Iran, Kyrgyzstan, Kazakhstan, Russia, Tadjikistan, Turkmenistan, and Uzbekistan. In Iran, this species is cited from the provinces Gilan and Mazandaran by Azadbakhsh and Nozri (2015). **New record for Alburz Province.**

Myriochila (Myriochila) semicircumcincta (Mandl, 1959)

Material examined. 4 ex, Hormozgan Province, Bandar Abbas env., 29.III.2016, S. Azadbakhsh leg. & det.

Distribution. Endemic of Iran. In Iran, this species is cited from Kerman, Khuzestan, and Sistan va Baluchestan by Azadbakhsh and Nozri (2015). **New record for Hormozgan Province.**

Subfamily Nebriinae (Laporte, 1834)*Nebria (Eunebria) nigerrima nigerrima* (Chaudoir, 1846)

Material examined. 1 ex, Mazandaran Province, after Ghachsar Tunnel, before Siya Bisheh, 4.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Azerbaijan, Armenia, Iran, Russia, and Turkey. In Iran, this species is cited from Kouhe-Kahar, and Hasan Keif Village (Prov. of Mazandaran) by Azadbakhsh and Nozri (2015).

Subfamily Scaritinae (Bonelli, 1810)*Scarites (Parallelomorphus) terricola terricola* (Bonelli, 1813)

Material examined. 1 ex, Mazandaran Province, Amol env., 31.V.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region. In Iran, this species is distributed over the country.

Distichus (Distichus) planus (Bonelli, 1813)

Material examined. 6 ex, Mazandaran Province, Sari env., 5.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Azerbaijan, Egypt, France, Georgia, Greece, Iran, Iraq, Italy, Jordan, Kazakhstan, Malta, Morocco, Pakistan, Portugal, Saudi Arabia, Spain, Syria,

Tadzhikistan, Turkmenistan, Turkey, Tunisia, Uzbekistan, and Yemen. In Iran, this species is distributed over the country (Azadbakhsh and Nozari 2015, Azadbakhsh et al. 2015).

Subfamily Trechinae (Bonelli, 1810)

Perileptus (Perileptus) areolatus areolatus (Creutzer, 1799)

Material examined. 2 ex, Mazandaran Province, Siah-Bisheh env., 31.V.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region. In Iran, this species is cited from the provinces Tehran, Fars, Mazandarana, and Esfahan by Azadbakhsh and Nozari (2015).

Sinechostictus (Sinechostictus) lederi (Reitter, 1888)

Material examined. 2 ex, Mazandaran Province, Siah-Bisheh env., 31.V.2016, S. Azadbakhsh leg. & L. Toledano det.

Distribution. Armenia, Georgia, Russia (C Caucas), Turkey, and now in Iran. **New record for Iran.**

Bembidion (Nepha) menetriesii (Kolenati, 1845)

Material examined. 1 ex, Alburz Province, Taleghan env., 27.V.2016, S. Azadbakhsh leg. & det.

Distribution. Armenia, Iran, Kyrgyzstan, Kazakhstan, Russia (C of Russian plains; S of Russian plains), Turkey, and Uzbekistan. In Iran, this species is cited from the Markazi Province by Azadbakhsh and Nozari (2015). **New record for Alburz Province.**

Bembidion (Peryphus) obscurellum turanicum (Csiki, 1928)

Material examined. 6 ex, Alburz Province, Taleghan env., 27.V.2016, S. Azadbakhsh leg. & det.

Distribution. Afghanistan, China, Iran, Kashmir, Kyrgyzstan, Kazakhstan, Mongolia, Russia, and Turkmenistan. In Iran, this species is cited from the provinces Tehran, Kerman and Khorasan by Azadbakhsh and Nozari (2015). **New record for Alburz Province.**

Bembidion (Peryphanes) dalmatinum haupti (Reitter, 1908)

Material examined. 10 ex, Alburz Province, Taleghan env., 27.V.2016, S. Azadbakhsh leg. & det.

Distribution. Armenia, Iran, and Turkey. In Iran, this species is cited from the provinces Elburz, Chahar Mahal va Bakhtiari, Kermanshah, Esfahan, Tehran, and Golestan by Azadbakhsh and Nozari (2015).

Bembidion (Nepha) caucasicum (Motschulsky, 1844)

Material examined. 2 ex, Mazandaran Province, Gachsar env., After Kandovan Tunnel, 26.V.2016, S. Azadbakhsh leg. & det.

Distribution. Armenia, Bosnia and Herzegovina, Bulgaria, Georgia, Greece, Lebanon, Macedonia, Russia (S of Russian plains), Serbia, and Turkey. In Iran, this species is cited from the provinces Elburz, Mazandaran, and East Azarbaijan by Azadbakhsh and Nozari (2015).

Bembidion (Ocydromus) siculum durudense (Marggi & Huber, 1999)

Material examined. 10 ex, Mazandaran Province, Gachsar env., After Kandovan Tunnel, 26.V.2016, S. Azadbakhsh leg. & det.

Distribution. Species distributed in Armenia, Georgia, Iran, and Russia (S of Russian plains). In Iran, this species is cited from the provinces Tehran, Esfahan, Lurestan, Hamadan, Kordestan, and Mazandaran by Azadbakhsh and Nozari (2015).

Bembidion (Peryphus) subcostatum subcostatum (Motschulsky, 1850)

Material examined. 12 ex, Mazandaran Province, Gachsar env., After Kandovan Tunnel, 26.V.2016, S. Azadbakhsh leg. & det.

Distribution. Species distributed in Armenia, Georgia, Iran, and Russia (S of Russian plains). In Iran, this species is cited from the Mazandaran Province by Azadbakhsh and Nozari (2015) and Azadbakhsh et al. (2015).

Trechus (Trechus) quadristriatus (Schrank, 1781)

Material examined. Many ex, Fars Province, Shiraz env., 14.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Europe and western Asia. In Iran, this species is cited from Golestan, Kerman, Khuzestan, Mazandaran, and Tehran provinces by Azadbakhsh and Nozari (2015).

Subfamily Pterostichinae (Bonelli, 1810)

Poecilus (Poecilus) cupreus cupreus (L., 1758)

Material examined. 5 ex, Mazandaran Province, Sari env., 5.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Europe and western Asia. In Iran, this species is cited on the northern border (Azadbakhsh and Nozari 2015).

Pterostichus (Lyrothorax) caspius (Ménétriés, 1832)

Material examined. 7 ex, Mazandaran Province, Babol env., 2.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Azerbaijan and northern Iran.

Subfamily Licininae (Bonelli, 1810)

Chlaenius (Dinodes) cruralis (Fischer von Waldheim, 1829)

Material examined. 1 ex, Mazandaran Province, Sari env., 5.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in western Asia. In Iran, this species distributed along the northern border (Azadbakhsh and Nozari 2015).

Chlaenius (Dinodes) huedepohli (Mandl, 1983)

Material examined. 1 ex, Mazandaran Province, Sari env., 6.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed on the northern border of Iran (Azadbakhsh and Nozari 2015).

Chlaenius (Chlaeniellus) flavipes (Ménétriés, 1832)

Material examined. 3 ex, Alburz Province, Amir-Kabir Dam, 26.V.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in western Asia and Iran (Azadbakhsh and Nozari 2015).

Chlaenius (Stenochlaenius) dostojevskii (Tschitschérine, 1895)

Material examined. 9 ex, Fars Province, Shiraz env, 14.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Afghanistan, Iran, Kashmir, Kazakhstan, Tadzhikistan, and Uzbekistan. In Iran, this species is cited from Kerman and Hormozgan provinces by Azadbakhsh and Nozari (2015). **New record for Fars Province.**

Subfamily Harpalinae (Bonelli, 1810)

Anisodactylus (Anisodactylus) binotatus (F., 1787)

Material examined. 3 ex, Mazandaran Province, Chalus env., 30.V.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region.

Penthus tenebrioides (Waltl, 1838)

Material examined. 12 ex, Fars Province, Sepidan env., 12.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Armenia, Georgia, Greece, Iraq, Iran, Israel, Lebanon, Romania, Syria, Turkey, and Ukraine. In Iran, this species is cited from Gilan, Hamadan, Kordestan, and Qazvin provinces by Azadbakhsh and Nozari (2015).

Harpalus (Harpalus) affinis (Schrank, 1781)

Material examined. 5 ex, Mazandaran Province, Amol env., 1.VI.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region. In Iran this species distributed on the northern border (Azadbakhsh and Nozari 2015).

Harpalus (Harpalus) distinguendus distinguendus (Duftschmid, 1812)

Material examined. 4 ex, Mazandaran Province, Sari env., 2.VI.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region. In Iran, this species is distributed over most of the country (Azadbakhsh and Nozari 2015).

Harpalus (Harpalus) rubripes (Dufischmid, 1812)

Material examined. 3 ex, Mazandaran Province, Chalus env., 30.V.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region. In Iran, this species distributed on the northern border (Azadbakhsh and Nozari 2015).

Harpalus (Harpalus) rufipalpis (Sturm, 1818)

Material examined. 3 ex, Mazandaran Province, Chalus env., 30.V.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region. In Iran, this species is distributed on the northern border (Azadbakhsh and Nozari 2015).

Harpalus (Harpalus) smyrnensis medicus (Kataev, 1993)

Material examined. 6 ex, Mazandaran Province, Sari env., 2.VI.2016, S. Azadbakhsh leg. & det.

Distribution. Azerbaijan, Armenia, Georgia, Iran, Iraq, Israel, Lebanon, Syria, and Turkey. In Iran, this species is distributed on the northern border (Azadbakhsh and Nozari 2015).

Harpalus (Harpalus) tardus (Panzer, 1796)

Material examined. 2 ex, Mazandaran Province, Siah-Bisheh env., 29.V.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region. In Iran, this species is cited from Mazandaran and Gilan provinces by Azadbakhsh and Nozari (2015).

Stenolophus (Stenolophus) teutonius (Schrank, 1781)

Material examined. 4 ex, Fars Province, Shiraz env., 14.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region. In Iran, this species is cited from East Azarbaijan, Esfahan, Kerman, and Mazandaran provinces by Azadbakhsh and Nozari (2015). **New record for Fars Province.**

Amblystomus metallescens (Dejean, 1829)

Material examined. 1 ex, Fars Province, Shiraz env., 14.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Afghanistan, Algeria, Albania, Armenia, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Egypt, France, Georgia, Greece, Hungary, Iraq, Israel, Italy, Kyrgyzstan, Kazakhstan, Moldavia, Morocco, Portugal, Russia, Spain, Tadzhikistan, Turkmenistan, Turkey, Tunisia, Ukraine, and Uzbekistan. **New record for Iran.**

Ophonus (Hesperophonius) azureus (F., 1775)

Material examined. 2 ex, Fars Province, Shiraz env., 14.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region. In Iran, this species is cited from Mazandaran Province by Azadbakhsh and Nozari (2015). **New record for Fars Province.**

Ditomus calydonius oriens (Dvořák, 1993)

Material examined. 2 ex, Fars Province, Shiraz env., 14.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Azerbaijan, Afghanistan, Armenia, Georgia, Iran, Iraq, Israel, Kyrgyzstan, Kazakhstan, Lebanon, Russia, Syria, Tadzhikistan, Turkmenistan, Ukraine, and Uzbekistan. In Iran, this species is cited from East Azarbayjan and Qazvin provinces by Azadbakhsh and Nozari (2015). **New record for Fars Province.**

Subfamily Platyninae (Bonelli, 1810)*Calathus (Calathus) syriacus* (Chaudoir, 1863)

Material examined. Many ex, Fars Province, Shiraz env., 14-16.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Azerbaijan, Armenia, Georgia, Greece, Iran, Israel, Lebanon, Russia, Syria, and Turkey. In Iran, this species is cited from Ardabil, Chahar Mahal va Bakhtiari, Kerman, Mazandaran, and Tehran provinces by Azadbakhsh and Nozari (2015).

Calathus (Calathus) libanensis pluriseriatus (Putzeys, 1873)

Material examined. 6 ex, Fars Province, Shiraz env., 14-16.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Azerbaijan, Armenia, Iraq, Iran, Turkmenistan, and Turkey. In Iran, this species is cited from Chahar Mahal va Bakhtiari, Esfahan, Fars, Hormozgan, and Kerman provinces by Azadbakhsh and Nozari (2015).

Calathus (Neocalathus) melanocephalus (L., 1758)

Material examined. 1 ex, Fars Province, Shiraz env., 14-16.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region. In Iran, this species is cited from Fars, Kerman, Kerman, and Kermanshah provinces by Azadbakhsh and Nozari (2015).

Calathus (Calathus) fuscipes (Goeze, 1777)

Material examined. 1 ex, Fars Province, Shiraz env., 14-16.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Widely distributed in Palearctic region. In Iran, this species is cited from Ardabil, Esfahan, Fars, and Mazandaran provinces by Azadbakhsh and Nozari (2015).

Subfamily Lebiinae (Bonelli, 1810)*Microlestes plagiatus* (Duftschmid, 1812)

Material examined. 3 ex, Mazandaran Province, Gachsar env., After Kandovan Tunnel, 26.V.2016, S. Azadbakhsh leg. & det.

Distribution. Azerbaijan, Afghanistan, Austria, Bosnia and Herzegovina, Bulgaria, Czech, Georgia, Hungary, Iran, Iraq, Israel, Italy, Kyrgyzstan, Kazakhstan, Macedonia, Mongolia, Poland, Russia, Slovakia, and Turkey. In Iran, this species is cited from the provinces Sistan va Baluchestan, Fars, Kerman, Khuzestan, Razavi Khorasan, and East Azarbaijan by Azadbakhsh and Nozari (2015). **New record for Mazandaran Province.**

Lionychus (Lionychus) orientalis (K.Daniel, 1901)

Material examined. 7 ex, Alburz Province, Taleghan env., 27.V.2016, S. Azadbakhsh leg. & det.

Distribution. Azerbaijan, Turkey, and Iran. In Iran, this species is cited from the Mazandaran Province by Azadbakhsh and Nozari (2015). **New record for Alburz Province.**

Lebia (Lamprias) cyanocephala cyanocephala (L., 1758)

Material examined. 1 ex, Fars Province, Fasa env., 17.IV.2016, S. Azadbakhsh leg. & det.

Distribution. Afghanistan, Algeria, Albania, Armenia, Bosnia and Herzegovina, Bulgaria, Byelorussia, China (Xinjiang), Cyprus, Czech, Denmark, Estonia, Finland, France, Great Britain, Germany, Georgia, Greece, Hungary, Iran, Iraq, Israel, Italy, Kyrgyzstan, Kazakhstan, Latvia, Lithuania, Macedonia, Moldavia, Morocco, Netherlands, Norway, Pakistan, Poland, Portugal, Russia, Slovakia, Spain, Sweden, Syria, Turkey, Tunisia, Ukraine, and Uzbekistan. In Iran, this species is cited from Ardabil, Azarbaygan-e Garbi, Fars, Khorasan, Mazandaran, Tehran, and Yazd provinces by Azadbakhsh and Nozari (2015).

Apristus reticulatus (Schaum, 1857)

Material examined. 1 ex, Alburz Province, Taleghan env., 27.V.2016, S. Azadbakhsh leg. & det.

Distribution. Azerbaijan, Bulgaria, Greece, Iran, Italy, Kyrgyzstan, Turkey, and Uzbekistan. In Iran, this species is cited from the Gilan Province by Azadbakhsh and Nozari (2015). **New record for Alburz Province.**

References Cited

- Azadbakhsh, S. and J. Nozari. 2015.** Checklist of the Iranian ground beetles (Coleoptera; Carabidae). Zootaxa 4024(1): 1–108.
- Azadbakhsh, S., J. Nozari and M. Hartmann, 2015.** A faunal study of ground beetles in Mazandaran Province, Iran (Coleoptera: Carabidae). Entomol. Zeitsch. Schwanfeld 125(1): 44–50.
- Löbl, I. and A. Smetana. 2003.** Catalogue of Palaearctic Coleoptera. Volume 1. Archostemata-Myxophaga-Adephaga, Apollo Books, Stenstrup, 819 pp.
- Lorenz, W. 2005.** Systematic list of extant ground beetles of the world. (Coleoptera "Geadephaga": Trachypachidae and Carabidae incl. Paussinae, Cicindelinae, Rhysodinae). 2nd Edition. Published by the author, Tutzing, 530 pp