

A contribution to the study of Iranian Coleoptera with some new records

Materiały do poznania chrząszczy Iranu
z nowymi danymi o ich rozmieszczeniu

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ABSTRACT: This paper deals with faunistic surveys on some families of Coleoptera from different regions of Iran. In total, 89 species of 13 families were collected and identified: Anthicidae (1 species), Anthribidae (2 species, 2 genera), Attelabidae (3 species, 3 genera), Brentidae (10 species, 9 genera), Carabidae (10 species, 10 genera), Clambidae (1 species), Curculionidae (42 species, 33 genera), Dasytidae (3 species, 2 genera), Hydrophilidae (1 species), Meloidae (5 species, 4 genera), Nemonychidae (1 species), Rhipiceridae (1 species) and Scarabaeidae (9 species, 8 genera).

KEY WORDS: Coleoptera, beetles, faunistic records, chorology, Iran.

Introduction

The Coleoptera are the largest order of insects and therefore the most diverse group of organisms on earth, comprising over 360,000 described

species (BOUCHARD & al. 2009). The oldest beetle fossils are from the Lower Permian, about 265 million years old (PONOMARENKO 1995). As such, beetles represent an excellent system for addressing a broad spectrum of evolutionary questions, particularly those pertaining to causes and correlates of diversification (LAWRENCE & al. 2011). The great morphological diversity of beetles has led to the proliferation of suprageneric taxa at various ranks (BOUCHARD & al. 2011). The aim of this paper is reporting the Coleoptera species which were collected from different regions of Iran.

Material and methods

The specimens of this research were collected from different regions of Iran and also some materials were obtained from insect collections deposited in some branches of Islamic Azad University, private collections and some museums. Data about classification, nomenclature and distribution data are mainly based on LÖBL & SMETANA (2006, 2007, 2010, 2011) and LÖBL & LÖBL (2015).

Results

Totally 89 species of 13 families of Coleoptera have been collected and identified from different regions of Iran, which of them 17 species are new records for the fauna of Iran: *Enedreytes hilaris* FÄHRAEUS, 1839 – Anthribidae; *Rhynchites (Rhynchites) lenaeus* FAUST, 1891 – Attelabidae; *Diplapion stolidum* (GERMAR, 1817), *Perapion (Perapion) oblongum* (GYLLENHAL, 1839), *Pseudoprotapion pseudelegantulum* (WAGNER, 1912) – Brentidae; *Bagous (Bagous) lutulentus* (GYLLENHAL, 1813), *Ceutorhynchus aeneicollis* GERMAR, 1823, *Chlorophanus caudatus* FÄHRAEUS, 1840, *Hexarthrum duplicatum* FOLWACZNY, 1966, *Neoprohinus cinnamomeus* (SCHULTZE, 1897), *Rhyncolus (Axenomimetes) heydeni* (FAUST, 1892), *Trachyphloeus (Trachyphloeus) alternans* GYLLENHAL, 1834 – Curculionidae; *Dasytes (Mesodasytes) nigroaeneus* KÜSTER, 1850 – Dasytidae; *Muzimes caucasicus* (MAŘAN, 1940), *Mylabris (Micrabris) inculta* (ESCHERICH, 1899) – Meloidae; *Nemonyx lepturoides* (FABRICIUS, 1801) – Nemonychidae and *Loraspis frater* (MULSANT & REY, 1870) – Scarabaeidae. The list of species is given below alphabetically.

Family Anthicidae

Anthicus balachanus PIC, 1906

- Razavi Khorasan prov., Fariman, 35°69'N/59°84'E, X 2011, 1 ex., 1404 m.

Family Anthribidae

Dissoleucas niveirostris (FABRICIUS, 1798)

- Chaharmahal & Bakhtiari prov., Kuhrang (Ghaleh-Bakhtiar), 32°25'27"N/50°16'06"E, 22 VIII 2003, 2 exx.

Enedreytes hilaris FÄHRAEUS, 1839

- West Azarbaijan prov., Myandoab (Qarehghozlu), 36°57'N/46°00'E, 6 VIII 2010, 1 ex. New record for Iran.

Family Attelabidae

Deporaus (Deporaus) betulae (LINNAEUS, 1758)

- Mazandaran prov., Savadkuh, Kamberpesht, 35°58'23"N/53°3'42"E, 14 VII 2004, 2 exx.

Lasiorrhynchites (Lasiorrhynchites) cavifrons (GYLLENHAL, 1833)

- Guilan prov., Astara, Tileh-Khan, 38°23'N/48°49'E, IV 2000, 2 exx., on *Quercus petraea* (MATT.) (Fagaceae).

Rhynchites (Rhynchites) lenaeus FAUST, 1891

- West Azarbaijan prov., Ourmieh, Zeynaloo, 37°37'57"N/45°0'22"E, 13 IX 2007, 2 exx., 1612 m, on *Prunus* sp. (Rosaceae). New record for Iran.

Family Brentidae

Apion strigipenne (SCHILSKY, 1902)

- Golestan prov., Golestan National Park, VI 2009, 2 exx.

Ceratapion (Angustapion) kasbekianum (GERSTAECKER, 1854)

- West Azarbaijan prov., Makoo, 39°19'N/44°48'E, IX 2012, 1 ex., 1730 m.

Diplapion stolidum (GERMAR, 1817)

- Mazandaran prov., Nur National Reserve, 36°34.51'N/52°02.56'E, 4 V 2010, 2 exx., 8 m. New record for Iran.

Nanophyes marmoratus marmoratus (GOEZE, 1777)

- Mazandaran prov., Tonekabon (Jangale), 36°38'N/50°49'E, 8 VII 1996, 3 exx.

Omphalapion dispar (GERMAR, 1817)

- Guilan prov., Lahijan, 37°14'N/50°02'E, IX 2011, 1 ex., 16 m.

Perapion (Perapion) curtirostre (GEFFNAR, 1817)

- Zanjan prov., Abhar, 36°16'N/49°03'E, 4 VII 2003, 2 exx.

Perapion (Perapion) oblongum (GYLLENHAL, 1839)

- Zanjan prov., Khodabandeh, Durakhlu, 35°87'82"N/48°50'73"E, 26 V 2001, 1 ex. New record for Iran.

Protapion interjectum interjectum (DESBROCHERS des LOGES, 1895)

- East Azarbaijan, Varzaqan, 38°51'N/46°64'E, VIII 2011, 2 exx., 1687 m.

Pseudoprotapion pseudelegantulun (WAGNER, 1912)

- Semnan prov., 50 km N Semnam (Shemirzad), 23-25 V 2005, 1 ex., 1800 m. New record for Iran.

Taeniapion urticarium urticarium (HERBST, 1784)

- East Azarbaijan prov., Azarshahr, 20 km E Nadilu, 37°43'N/45°54'E, 11 VIII 2004, 2 exx., 117 m.

Family Carabidae*Bembidion (Trepanes) articulatum* (PANZER, 1796)

- Semnan prov., 50 km N Semnam (Shemirzad), 23-25 V 2005, 3 exx., 1800 m.

Calomera concolor (DEJEAN, 1822)

- Zanjan prov., Abhar, 36°16'N/49°03'E, 4 VII 2003, 1 ex.

Cephalota (Taenidia) eiselti eiselti (MANDL, 1967)

- Golestan prov., Golestan National Park, VI 2009, 2 exx.

Chlaenius (Chlaeniostenodes) canariensis persicus REDTENBACHER, 1850

- Guilan prov., Lahijan, 37°14'N/50°02'E, IX 2011, 2 exx., 16 m.
- Qazvin prov., Moalem Kelayeh, 36°45'N/50°47'E, VI 2012, 4 exx., 1517 m.

Cicindela (Cicindela) monticola monticola MÉNÉTRIÉS, 1832

- East Azarbaijan prov., Varzaqan, 38°51'N/46°64'E, VIII 2011, 2 exx., 1687 m.

Coryza carinifrons (REITTER, 1900)

- Mazandaran prov., Marzan-Abad, 36°45'N/51°30'E, VII 2013, 1 ex., 545 m.

Ophonus (Ophonus) laticollis MANNERHEIM, 1825

- Mazandaran prov., Gazanak, 35°09'N/52°22'E, IV 2014, 2 exx., 1592 m.

Pachycarus (Mystropterus) brevipennis CHAUDOIR, 1850

- West Azarbaijan prov., Makoo, 39°19'N/44°48'E, IX 2012, 2 exx., 1730 m.

Scybalicus oblongiusculus (DEJEAN, 1829)

- Markazi prov., Khomeyn, 33°64'N/50°08'E, VI 2008, 2 exx., 1813 m.

Zabrus (Zabrus) morio morio MÉNÉTRIÉS, 1832

- Chahar-Mahal va Bakhtiary prov., Boldaji, 31°94'N/51°06'E, VII 2014, 2 exx., 2184 m.

Family Clambidae*Clambus caucasus* ENDRÖDY-YOUNGA, 1960

- Qazvin prov., Moalem Kelayeh, 36°45'N/50°47'E, VI 2012, 1 ex., 1517 m.

Family Curculionidae*Amalus scortillum* (HERBST, 1795)

- North Khorasan prov., Raz, 37°94'N 57°01'E, IV 2013, 3 exx., 1312 m.

Ammocleonus ramakrishnai G.A.K. MARSHALL, 1943

- Kerman prov., Bardsir, 29°91'N/56°58'E, VIII 2011, 2 exx., 2113 m.

Anthypurinus loginovae KOROTYAEV, 1990

- North Khorasan, Raz, 37°94'N/57°01'E, IV 2013, 1 ex., 1312 m.

Arthrostenus fullo BOHEMAN, 1836

- North Khorasan prov., Raz, 37°94'N/57°01'E, IV 2013, 2 exx., 1312 m.

Bagous (Bagous) lutulentus (GYLLENHAL, 1813)

- Markazi prov., Khomeyn, 33°64'N/50°08'E, VI 2008, 1 ex., 1813 m.
New record for Iran.

Bagous (Macropelmus) geniculatus (HOCHHUTH, 1847)

- North Khorasan prov., Jajarm, 36°99'N/56°34'E, IV 2013, 2 exx., 993 m.

Bagous (Macropelmus) lutosus (GYLLENHAL, 1813)

- West Azarbaijan prov., Makoo, 39°19'N/44°48'E, IX 2012, 1 ex., 1730 m.

Boragosirocalus rinderae (BECKER, 1864)

- Golestan prov., Qezlar, 37°08'N/54°99'E, VI 2010, 1 ex., 106 m.

Brachycerus quadrisulcatus FISCHER von WALDHEIM, 1830

- Kordestan prov., Bijar, 35°52'N/47°36'E, VI 2014, 1 ex., 1746 m.

Ceutorhynchus aeneicollis GERMAR, 1823

- Golestan prov., Golestan National Park, VI 2009, 2 exx. New record for Iran.

Ceutorhynchus kipchak KOROTYAEV, 1996

- Hamedan prov., Gol-Tappeh, 32°22'N/48°20'E, IX 2013, 1 ex., 2125 m.

Ceutorhynchus roberti (GYLLENHAL, 1837)

- Chahar-Mahal va Bakhtiary prov., Boldaji, 31°94'N/51°06'E, VII 2014, 4 exx., 2184 m.

Ceutorhynchus viridanus GYLLENHAL, 1837

- Markazi prov., Khomeyn, 33°64'N/50°08'E, VI 2008, 2 exx., 1813 m.

Icaris sparganii pertinax (GYLLENHAL, 1835)

- Esfahan prov., Jandagh, 34°03'N/54°41'E, IV 2007, 3 exx., 1005 m.

Chlorophanus caudatus FÅHRAEUS, 1840

- Chahar-Mahal va Bakhtiary prov., Boldaji, 31°94'N/51°06'E, VII 2014, 2 exx., 2184 m. New record for Iran.

Cionus tuberculosus (SCOPOLI, 1763)

- Mazandaran prov., Marzan-Abad, 36°45'N/51°30'E, VII 2013, 3 exx., 545 m.

Cleopomiarus graminis (GYLLENHAL, 1813)

- Mazandaran prov., Gazanak, 35°09'N/52°22'E, IV 2014, 2 exx., 1592 m.

Coeliodinus rubicundus (HERBST, 1795)

- Golestan prov., Golestan National Park, VI 2009, 2 exx.

Cossonus (Caenocossonus) cylindricus C.R. SAHLBERG, 1835

- East Azarbaijan prov., Varzaqan, 38°51'N/46°64'E, VII 2011, 1 ex., 1687 m.

Entymetopus (Entymetopus) lineolatus (MOTSCHULSKY, 1860)

- Mazandaran prov., Gazanak, 35°09'N/52°22'E, IV 2014, 1 ex., 1592 m.

Foucartia squamulata (HERBST, 1795)

- Mazandaran prov., Marzan-Abad, 36°45'N/51°30'E, VII 2013, 4 exx., 545 m.

Hexarthrum duplicatum FOLWACZNY, 1966

- Razavi Khorasan prov., Fariman, 35°69'N/59°84'E, X 2011, 1 ex., 1404 m. New record for Iran.

Hexarthrum exiguum (BOHEMAN, 1838)

- Tehran prov., Fasham, 35°93'N/51°53'E, VIII 2015, 2 exx., 1378 m.

Lixus (Dilixellus) fasciculatus BOHEMAN, 1835

- Markazi prov., Khomeyn, 33°64'N/50°08'E, VI 2008, 1 ex., 1813 m.

Lixus (Eulixus) kraatzi CAPIOMONT, 1875

- East Azarbaijan prov., Tasooj, 38°31'N/45°36'E, VIII 2011, 2 exx., 1392 m.

Mecinus janthinus GERMAR, 1821

- Kordestan prov., Bijar, 35°52'N/47°36'E, VII 2014, 2 exx., 1746 m.

Meneclonus kosswigi VOSS, 1958

- Golestan prov., Golestan National Park, VI 2009, 2 exx.

Neoprohinus cinnamomeus (SCHULTZE, 1897)

- Golestan prov., Qezlar, 37°08'N/54°99'E, VI 2010, 2 exx., 106 m. New record for Iran.

Pelenomus quadrituberculatus (FABRICIUS, 1787)

- Golestan prov., Gomishan, 37°07'N/54°08'E, VI 2010, 4 exx., -19 m.

Phyllobius (Metaphyllobius) glaucus (SCOPOLI, 1763)

- East Azarbaijan prov., Tasooj, 38°31'N/45°36'E, VIII 2011, 3 exx., 1392 m.

Pseudomylocerus schneideri SCHILSKY, 1911

- Ardebil prov., Ardebil, 38°29'N/48°33'E, 10 VII 2009, 1 ex., 1299 m.

Rhabdorrhynchus crucifer (HOCHHUTH, 1847)

- Razavi Khorasan prov., Dareh-Gaz, 37°44'N/59°11'E, X 2011, 2 exx., 439 m.

Rhamphus pulicarius (HERBST, 1795)

- Golestan prov., Golestan National Park, VI 2009, 2 exx.

Rhyncolus (Axenomimetes) heydeni FAUST, 1892

- Mazandaran prov., Marzan-Abad, 36°45'N/51°30'E, VII 2013, 1 ex., 545 m. New record for Iran.

Sharpia rubida (ROSENHAUER, 1856)

- Golestan prov., Gomishan, 37°07'N/54°08'E, VI 2010, 2 exx., -19 m.

Smicronyx (Smicronyx) balassogloi FAUST, 1885

- Razavi Khorasan prov., Dareh-Gaz, 37°44'N/59°11'E, X 2011, 1 ex., 439 m.

Sphenophorus abbreviatus (FABRICIUS, 1787)

- Mazandaran prov., Gazanak, 35°09'N/52°22'E, IV 2014, 3 exx., 1592 m.

Thryogenes festucae (HERBST, 1795)

- North Khorasan prov., Jajarm, 36°99'N/56°34'E, IV 2013, 2 exx., 993 m.

Thamiocolus signatus (GYLLENHAL, 1837)

- East Azarbaijan prov., Varzaqan, 38°51'N/46°64'E, VIII 2011, 2 exx., 1687 m.

Trachyphloeus (Trachyphloeus) alternans GYLLENHAL, 1834

- Golestan prov., Golestan National Park, VI 2009, 2 exx. New record for Iran.

Tychius (Tychius) beckeri TOURNIER, 1874

- North Khorasan prov., Jajarm, 36°99'N/56°34'E, IV 2013, 2 exx., 993 m.

Tychius (Tychius) hauseri FAUST, 1889

- East Azarbaijan prov., Varzaqan, 38°51'N/46°64'E, VIII 2011, 4 exx., 1687 m.

Family Dasytidae*Dasytes (Dasytes) striatulus* BRULLÉ, 1832

- Razavi Khorasan prov., Dareh-Gaz, 37°44'N/59°11'E, X 2011, 2 exx., 439 m.

Dasytes (Mesodasytes) nigroaeneus KÜSTER, 1850

- West Azarbaijan prov., Makoo, 39°19'N/44°48'E, IX 2012, 1 ex., 1730 m. New record for Iran.

Dolichosoma lineare (P. ROSSI, 1794)

- Kordestan prov., Bijar, 35°52'N/47°36'E, VII 2014, 3 exx., 1746 m.

Family Hydrophilidae*Sphaeridium substriatum* FALDERMANN, 1838

- Ardebil prov., Ardebil, 38°29'N/48°33'E, 10 VIII 2009, 2 exx., 1299 m.

Family Meloidae*Alosimus syriacus austriacus* (SCHRANK, 1781)

- Golestan, Gomishan, 37°07'N/54°08'E, VI 2010, 1 ex., -19 m.

Euzonitis fulvipennis (FABRICIUS, 1792)

- East Azarbaijan prov., Kaleybar, 38°54'N/47°03'E, 26 IX 2010, 1 ex.

Muzimes caucasicus (MAŘAN, 1940)

- Razavi Khorasan prov., Dareh-Gaz, 37°44'N/59°11'E, X 2011, 3 exx., 439 m. New record for Iran.

Mylabris (Chalcabris) festiva (PALLAS, 1773)

- Kordestan prov., Bijar, 35°52'N/47°36'E, VII 2014, 2 exx., 1746 m.

Mylabris (Micrabris) inculta (ESCHERICH, 1899)

- West Azarbaijan prov., Makoo, 39°19'N/44°48'E, IX 2012, 1 ex., 1730 m. New record for Iran.

Family Nemonychidae*Nemonyx lepturoides* (FABRICIUS, 1801)

- East Azarbaijan prov., Ahar (Shahmoradlu), 38°31'05"N/47°25'09"E, 16 V 2011, 2 exx. New record for Iran.

Family Rhipiceridae*Arrhaphipterus schelkownikoffi* (REITTER, 1893)

- West Azarbaijan prov., Makoo, 39°19'N/44°48'E, IX 2012, 1 ex., 1730 m.

Family Scarabaeidae*Chilothorax planus* (D. KOSHANTSCHIKOV, 1894)

- Ardebil prov., Ardebil, 38°29'N/48°33'E, 10 VII 2009, 2 exx., 1299 m.

Colobopterus brignolii (CARPANETO, 1973)

- Zanzan prov., Khodabandeh, Durakhlu, 35°87'82"N/48°50'73"E, 26 V 2001, 2 exx.

Eudolus quadrinaevulus (REITTER, 1892)

- Mazandaran prov., Marzan-Abad, 36°45'N/51°30'E, VII 2013, 2 exx., 545 m.

Euheptaulacus carinatus carinatus (GERMAR, 1824)

- East Azarbaijan prov., Varzaqan, 38°51'N/46°64'E, VIII 2011, 1 ex., 1687 m.

Liothorax plagiatus (LINNAEUS, 1767)

- Golestan prov., Golestan National Park, VI 2009, 4 exx.

Loraspis frater (MULSANT & REY, 1870)

- West Azarbaijan prov., Myandoab (Qarehghozlu), 36°57'N/46°00'E, 6VIII 2010, 1 ex. New record for Iran.

Melinopterus scuticollis (SEMENOV, 1898)

- North Khorasan prov., Raz, 37°94'N/57°01'E, IV 2013, 2 exx., 1312 m.

Melinopterus sphacelatus (PANZER, 1798)

- Kordestan prov., Bijar, 35°52'N/47°36'E, VII 2014, 2 exx., 1746 m.

Mendidaphodius brancsiki (REITTER, 1899)

- Qazvin prov., Moalem Kelayeh, 36°45'N/50°47'E, VI 2012, 3 exx., 1517 m.

Discussion

The results of this research indicate that the fauna of Iranian Coleoptera is very diverse and on the other hand unknown. Regarding to the various geographical regions and climates in Iran, it is expected high species diversity of Coleoptera in different ecosystems of Iran. The previous faunistic surveys on Iranian Coleoptera by the authors (e.g. SAMIN & SAKENIN 2014; SAMIN 2015; SAMIN & al. 2015a, 2015b, 2016a, 2016b) prove that numerous new country records are remainder to be discovered. Most of the collected species in this research are phytophagous and some of them especially in the family Curculionidae are agricultural pests; so determining of the host plants and also their natural enemies can be invaluable research topics for the researchers.

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STRESZCZENIE

Na podstawie obserwacji faunistycznych przeprowadzonych w różnych prowincjach Iranu podano informacje dotyczące 89 gatunków chrząszczy należących do 13 rodzin: Anthicidae (1 gat.), Anthribidae (2 gat.), Attelabidae (3 gat.), Brentidae (10 gat.), Carabidae (10 gat.), Clambidae (1 gat.), Curculionidae (42 gat.), Dasytidae (3 gat.), Hydrophilidae (1 gat.), Meloidae (5 gat.), Nemonychidae (1 gat.), Rhipiceridae (1 gat.) and Scarabaeidae (9 gat.). Siedemnaście gatunków zostało wykazanych z Iranu po raz pierwszy. Były to: *Enedreytes hilaris* FÄHRAEUS, 1839 – Anthribidae; *Rhynchites (Rhynchites) lenaeus* FAUST, 1891 – Attelabidae; *Diplapion stolidum* (GERMAR, 1817), *Perapion (Perapion) oblongum* (GYLLENHAL, 1839), *Pseudoprotapion pseudelegantulum* (WAGNER, 1912) – Brentidae; *Bagous (Bagous) lutulentus* (GYLLENHAL, 1813), *Ceutorhynchus aeneicollis* GERMAR, 1823, *Chlorophanus caudatus* FÄHRAEUS, 1840, *Hexarthrum duplicatum* FOLWACZNY, 1966, *Neoprohinus cinnamomeus* (SCHULTZE, 1897), *Rhyncolus (Axenomimetes) heydeni* (FAUST, 1892), *Trachyphloeus (Trachyphloeus) alternans* GYLLENHAL, 1834 – Curculionidae; *Dasytes (Mesodasytes) nigroaeneus* KÜSTER, 1850 – Dasytidae; *Muzimes caucasicus* (MAŘAN, 1940), *Mylabris (Micrabris) inculta* (ESCHERICH, 1899) – Meloidae; *Nemonyx lepturoides* (FABRICIUS, 1801) – Nemonychidae i *Loraspis frater* (MULSANT et REY, 1870) – Scarabaeidae.

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