

## Contributions to the knowledge of the distribution of select Coleoptera families from Iran

### Materiały do poznania rozmieszczenia wybranych rodzin chrząszczy (Coleoptera) Iranu

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**ABSTRACT:** This paper deals with a faunistic survey on Coleoptera of Iran. In total, 63 species within 8 families were collected and identified: Cerambycidae (7 species), Ciidae (5 species), Curculionidae (12 species), Lycidae (3 species), Scarabaeidae (9 species), Staphylinidae (12 species), Tenebrionidae (12 species), and Zopheridae (3 species). 7 species are new records for the fauna of Iran.

**KEY WORDS:** Coleoptera, Cerambycidae, Ciidae, Curculionidae, Lycidae, Scarabaeidae, Staphylinidae, Tenebrionidae, Zopheridae, faunistics, new data, Iran.

## **Introduction**

The order Coleoptera is the largest order in animal kingdom, which includes 40% of all insects and nearly 30% of all animal species (KAZMI & RAMAMURTHY 2004, PARVEZ & SRIVASTAVA 2010). It comprises 166 families and more than 360,000 species (BOUCHARD & al. 2009; LAWRENCE & al. 2011). They are functionally important, being the dominant above-ground invertebrate in pastures and natural grassland when judged by biomass (NICHOLSA 2008; BHARAMAL & al. 2014).

The fauna of Iranian Coleoptera is very diverse and studied rather well; some families of Iranian Coleoptera were catalogued (LEGALOV & al. 2010: Curculionoidea; LASOŃ & GHAHARI 2013: Kateretidae and Nitidulidae; BUNALSKI & al. 2014: Scarabaeoidea; BARTOLOZZI & al. 2014: Lucanidae; GHAHARI & al. 2015: Buprestidae; NOVÁK & GHAHARI 2015: Alleculinae; GHAHARI & HÁVA 2015: Silphidae; BEAVER & al. 2016: Platypodinae and Scolytinae; JÄCH & al. 2016: Byrrhoidea; PLATIA & GHAHARI 2016: Elateridae; LIU & al. 2016: Bostrichidae; ZAPPI & GHAHARI 2016: Cleridae; MASCAGNI & al. 2016: Dryopidae and Heteroceridae; THOMAS & GHAHARI 2016: Cucujidae, Laemophloeidae and Silvanidae; MIRUTENKO & GHAHARI 2016: Malachiidae; OTERO & al. 2017: Cryptophagidae; GHAHARI & BOROWIEC 2017: Bruchinae; PERREAU & al. 2017: Leiodidae; RUZZIER & al. 2017: Mordellidae; OTERO & GHAHARI 2017: Latridiidae; ASLAN & GHAHARI 2017: Alticini; GHAHARI & al. 2017: Histeridae; GHAHARI & HÁVA 2017: Dermestidae; VIÑOLAS & GHAHARI 2017: Ptinidae; DARILMAZ & al. 2018: Hydraenidae; MIRUTENKO & al. 2018: Melyridae, Prionoceridae and Trogossitidae; GENTILI & al. 2018: Hydrophilidae; PLONSKI & GHAHARI 2018: Dasytidae and Rhadalidae). The aim of this paper is to present the results of the faunistic survey on Iranian Coleoptera with some new country records and new distributional data.

## Material and methods

The specimens of this research were collected by sweep nets, light traps, and knockdown from some regions of Iran during occasional field surveys. Additionally, some specimens of different insect collections from Iranian universities (Qaemshahr, Garmsar, and Science & Research Branches of Islamic Azad University) were checked and their data have also been included in this paper. All the collected specimens were put in alcohol (ethanol 80%) and examined by the authors and some other authorized taxonomists, and preserved in their collections. The classification and nomenclature suggested by LÖBL & SMETANA (2004, 2006, 2007, 2008, 2010), LÖBL & LÖBL (2016) and ALONSO-ZARAZAGA (2017) have been followed.

## Results

In total, 63 species from 8 families of Coleoptera were collected and identified from different regions of Iran. 7 species – *Cis lineatocribratus* MELLIÉ, 1848, *Strigocis bicornis* MELLIÉ, 1848 (Ciidae), *Coeliastes lamii* FABRICIUS, 1792 (Curculionidae), *Erotides schneideri* KIESENWETTER, 1877, *Pyropterus nigroruber* DE GEER, 1774 (Lycidae), *Colobicus parilis* PASCOE, 1860 and *Orthocerus clavicornis* LINNAEUS, 1758 (Zopheridae) – are the new records for the fauna of Iran. The list of families and species is given below, alphabetically.

### **Family: Cerambycidae LATREILLE, 1802**

*Acmaeops pratensis* (LAICHARTING, 1784)

Material examined: Golestan prov., Golestan National Park, IX 2007, 2 exx.

*Alosterna tabacicolor tabacicolor* (DE GEER, 1775)

Material examined: Kuhgiloyeh & Boyer-Ahmad prov., Dogonbadan, 30°35'N / 50°79'E, VII 2009, 3 exx.

*Arhopalus ferus* (MULSANT, 1839)

Material examined: Chaharmahal & Bakhtiari prov., Farsan (32°15'N / 50°34'E), VIII 2013, 1 ex.

*Arhopalus rusticus* (LINNAEUS, 1758)

Material examined: Ardabil prov., Germe (39°00'N / 47°57'E), VII 2014, 3 exx.

*Mesoprionus besikanus* (FAIRMAIRE, 1855)

Material examined: West Azarbaijan prov., Ourmieh (37°33'N / 45°00'E), VI 2015, 1 ex.

*Spondylis buprestoides* (LINNAEUS, 1758)

Material examined: Golestan prov., Golestan National Park, IX 2007, 2 exx.

*Strangalia attenuata* (LINNAEUS, 1758)

Material examined: Semnan prov., Shahrud (35°30'N / 55°30'E, IV 2011), 3 exx.

**Family: Ciidae LEACH, 1819**

*Cis castaneus* (HERBST, 1793)

Material examined: Isfahan prov., Natanz (33°50'N / 51°92'E), VII 2008, 1 ex.

*Cis lineatocribratus* MELLIÉ, 1848

Material examined: Fars prov., Kazerun (29°35'N / 51°40'E), IV 2012, 2 exx.

*Cis villosulus* (MARSHAM, 1802)

Material examined: Guilan prov., Siahkal (36°56'N / 49°54'E), IX 2014, 1 ex.

*Strigocis bicornis* (MELLIÉ, 1848)

Material examined: East Azarbaijan prov., Bonab (37°20'N / 46°03'E), VII 2010, 1 ex.

*Sulcacis nitidus* (FABRICIUS, 1792)

Material examined: Yazd prov., Ardakan (32°20'N / 54°00'E), V 2006, 3 exx.

**Family: Curculionidae LATREILLE, 1802***Baris nesapia* FAUST, 1887

Material examined: Mazandaran prov., Behshahr (Abbas-Abad) (36°41'N / 53°44'E), IV 2010, 3 exx.

*Ceutorhynchus nitidipennis* (SCHULTZE, 1898)

Material examined: Zanjan prov., Mah-Neshan (36°40'N / 47°30'E), VI 2005, 1 ex.

*Coeliastes lamii* (FABRICIUS, 1792)

Material examined: Kordestan prov., Bijar (35°52'N / 47°36'E), VII 2002, 1 ex. New record for Iran.

*Datonychus scabrirostris* (HOCHHUTH, 1847)

Material examined: Ardabil prov., Givi (37°68'N / 48°34'E), VII 2008, 1 ex.

*Euoxyonyx lukjanovitshi* (KOROTYAEV, 1982)

Material examined: Lorestan prov., Shool-Abad (33°18'N / 49°19'E), VIII 2009, 1 ex.

*Glocianus polystriatus* (SCHULTZE, 1898)

Material examined: West Azarbaijan prov., Makoo (39°19'N / 44°48'E), IX 2006, 2 exx.

*Limnobaris t-album* (LINNAEUS, 1758)

Material examined: Guilan prov., Siyahkal (37°16'N / 49°87'E), VI 2010, 3 exx.

*Microplontus triangulum* (BOHEMAN, 1845)

Material examined: Lorestan prov., Shool-Abad (33°18'N / 49°19'E), VIII 2009, 2 exx.

*Otiorhynchus (Choilisanus) velutinus* GERMAR, 1823

Material examined: Ardabil prov., Ardabil (38°29'N / 48°33'E), VI 2009, 2 exx.

*Otiorhynchus (Vedopranus) tatarchani tatarchani* REITTER, 1882

Material examined: Lorestan prov., Shool-Abad (33°18'N / 49°19'E), VIII 2009, 1 ex.

*Phyllobius (Alsus) brevis* Gyllenhal, 1834

Material examined: East Azarbaijan prov., Azarshahr, 20 km E Nadilu (37°43'N / 45°54'E), VII 2004, 2 exx.

*Rhinusa emmrichi* (BAJTENOV, 1979)

Material examined: Semnan prov., Shahrud, Jangal-e Abr (35°30'N / 55°30'E), VI 2011, 1 ex.

**Family: Lycidae LAPORTE, 1838**

*Erotides (Glabroplatycis) cosnardi* (CHEVROLAT, 1831)

Material examined: West Azarbaijan prov., Maku, Mirzadulmaz (39°16'N / 44°45'E), VI 1995, 1 ex.

*Erotides schneideri* (KIESENWETTER, 1877)

Material examined: Ardabil prov., Germe, Husainkhanlu (39°06'N / 47°53'E), IX 2009, 2 exx. New record for Iran.

*Pyropterus nigroruber* (DE GEER, 1774)

Material examined: Guilan prov., Masal (37°34'N 49°22'E), VII 2004, 2 exx. New record for Iran.

**Family: Scarabaeidae LATREILLE, 1802**

*Aphodius (Acrossus) rufipes* (LINNAEUS, 1758)

Material examined: Semnan prov., Shahrud (35°30'N / 55°30'E), VI 2011, 5 exx.

*Aphodius (Eupleurus) subterraneus subterraneus* (LINNAEUS, 1758)

Material examined: Isfahan prov., Semirom (31°25'N / 51°35'E), IX 1999, 5 exx.

*Aphodius (Liothorax) plagiatus* (LINNAEUS, 1767)

Material examined: Qazvin prov., Takestan (36°00'N / 49°33'E), VI 2013, 3 exx.

*Aphodius (Melinopterus) sphacelatus* (PANZER, 1798)

Material examined: Zanjan prov., Mah-Neshan (36°40'N / 47°30'E), VI 2013, 2 exx.

*Aphodius (Mendidius) bispinifrons* (REITTER, 1889)

Material examined: Golestan prov., Minudasht (37°10'N / 55°30'E), VIII 2007, 4 exx.

*Aphodius (Plagiogonus) arenarius* (OLIVIERI, 1789)

Material examined: Lorestan prov., Noor-Abad (34°05'N / 47°97'E), VI 2012, 4 exx.

*Onthophagus (Palaeonthophagus) leucostigma* (STEVENS, 1811)

Material examined: Golestan prov., Golestan National Park, Ghoosh-Cheshmeh, VIII 2007, 4 exx.

*Onthophagus (Palaeonthophagus) nuchicornis* (LINNAEUS, 1758)

Material examined: Razavi Khorasan prov., Ferdows (34°10'N / 57°40'E), V 2013, 6 exx.

*Rhyssemus germanus* (LINNAEUS, 1767)

Material examined: Semnan prov., Shahrud (35°30'N / 55°30'E), VI 2011, 3 exx.

**Family: Staphylinidae LATREILLE, 1802***Astenus thaboris* (SAULCY, 1865)

Material examined: Golestan prov., Golestan National Park, Dasht-e-Mirzabaylu, VIII 2007, 2 exx.

*Claviger katharinae* ESCHERICH, 1897

Material examined: Mazandaran prov., Amol (36°46'N / 52°35'E), IV 2013, 4 exx.

*Cryptobium fracticorne* (PAYKULL, 1800)

Material examined: Ardabil prov., Givi (37°68'N / 48°34'E), VIII 2015, 4 exx.

*Ischnosoma longicorne* (MÄKLIN, 1847)

Material examined: Semnan prov., Damghan (35°30'N / 54°20'E), VI 2016, 2 exx.; West Azarbaijan prov., Piranshahr (36°42'N / 45°10'E), VI 2012, 3 exx.

*Philonthus intermedius* (LACORDAIRE, 1835)

Material examined: Guilan prov., Siahkal (36°56'N / 49°54'E), IX 2014, 2 exx.

*Philonthus velatipennis* SOLSKY, 1869

Material examined: Mazandaran prov., Amol (36°46'N / 52°35'E), IV 2013, 2 exx.

*Protenus atomarius* ERICHSON, 1840

Material examined: Razavi Khorasan prov., Ferdows (34°10'N / 57°40'E), V 2013, 2 exx.

*Stenus aceris* (STEPHENS, 1833)

Material examined: Yazd prov., Ardakan (32°20'N / 54°00'E), V 2015, 2 exx.

*Stenus pseudofossulatus* (SCHEERPELTZ, 1960)

Material examined: Kerman prov., Sirjan (29°30'N / 55°30'E), IX 2014, 1 ex.

*Stenus solutus* ERICHSON, 1840

Material examined: Ardabil prov., Givi (37°68'N / 48°34'E), VIII 2015, 4 exx.

*Stenus turbulentus* BONDROIT, 1912

Material examined: West Azarbaijan prov., Piranshahr (36°42'N / 45°10'E), VI 2012, 2 exx.



*Trichophya pilicornis* (GYLLENHAL, 1810)

Material examined: Mazandaran prov., Behshahr (36°41'N / 53°44'E), IX 2014, 1 ex.

**Family: Tenebrionidae LATREILLE, 1802***Adesmia (Oteroscelis) cothurnata cothurnata* (FORSKÅL, 1775)

Material examined: Fars prov., Kazerun (29°35'N / 51°40'E), IV 2008, 1 ex.

*Akis elongata elongata* BRULLÉ, 1832

Material examined: Razavi Khorasan prov., Ferdows (34°10'N / 57°40'E), V 2013, 3 exx.

*Alphitobius diaperinus* (PANZER, 1796)

Material examined: Fars prov., Abadeh (31°15'N / 52°30'E), IV 2008, 2 exx.

*Alphitobius laevigatus* (FABRICIUS, 1781)

Material examined: Semnan prov., Damghan (35°30'N / 54°20'E), VI 2011, 1 ex.

*Cnemeplatia atropos atropos* A. COSTA, 1847

Material examined: Yazd prov., Ardakan (32°20'N / 54°00'E), V 2006, 3 exx.

*Corticeus (Corticeus) fraxini* (KUGELANN, 1794)

Material examined: Semnan prov., Shahrud (35°30'N / 55°30'E), VI 2011, 1 ex.

*Dailognatha nasuta* (MÉNÉTRIÉS, 1849)

Material examined: Razavi Khorasan prov., Ferdows (34°10'N / 57°40'E), V 2013, 2 exx.

*Diaclina fagi* (PANZER, 1799)

Material examined: Zanzan prov., Mah-Neshan (36°40'N / 47°30'E), VI 2013, 2 exx.

*Eledona agricola* HERBST, 1783

Material examined: Kuhgiloyeh & Boyer-Ahmad prov., Dogonbadan (30°35'N / 50°79'E), VII 2009, 2 exx.

*Neopachypterus serrulatus* (REITTER, 1904)

Material examined: Kerman prov., Sirjan (29°30'N / 55°30'E), IX 2014, 1 ex.

*Netuschilia hauseri* (REITTER, 1897)

Material examined: Fars prov., Abadeh (31°15'N / 52°30'E), IV 2008, 2 exx.

*Tagenostola turkestanica turkestanica* REITTER, 1886

Material examined: Golestan prov., Golestan National Park, VIII 2007, 1 ex.

**Family: Zopheridae SOLIER, 1834**

*Colobicus parilis* PASCOE, 1860

Material examined: Golestan prov., Golestan forest, 40 km NE Minudasht, VI 2006, 1 ex. New record for Iran.

*Endophloeus markovichianus* (PILLER et MITTERPACHER, 1783)

Material examined: Semnan prov., Damghan (35°30'N / 54°20'E), VI 2011, 2 exx.

*Orthocerus clavicornis* (LINNAEUS, 1758)

Material examined: Mazandaran prov., Tonekabon, Jangal-e (36°38'N / 50°49'E), VII 1996, 2 exx. New record for Iran.

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## STRESZCZENIE

Na bazie materiałów pochodzących z obszaru Iranu podano nowe informacje faunistyczne dotyczące 63 gatunków z rodzin: Cerambycidae – 7 gatunków, Ciidae – 5, Curculionidae – 12, Lycidae – 3, Scarabaeidae – 9, Staphylinidae – 13, Tenebrionidae – 12 i Zopheridae – 3 gatunki. Siedem z nich: *Cis lineatocribratus* MELLIÉ, 1848, *Strigocis bicornis* MELLIÉ, 1848 (Ciidae), *Coeliastes lamii* FABRICIUS, 1792 (Curculionidae), *Erotides schneideri* KIESENWETTER, 1877, *Pyropterus nigroruber* DE GEER, 1774 (Lycidae), *Colobicus parilis* PASCOE, 1860 i *Orthocerus clavicornis* LINNAEUS, 1758 (Zopheridae) zostało wykazanych z Iranu po raz pierwszy.

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