

A CHECKLIST OF IRANIAN COLLEMBOLA (INSECTA: APTERYGOTA)

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ABSTRACT: A checklist of the species of springtails (Collembola) recorded from Iran is presented. The present list contains 87 species.

KEY WORDS: Collembola, checklist, Iran.

Springtails (Collembola) form the three hexapods group that are widespread and abundant terrestrial microarthropods. They are small, entognathus, wingless hexapods with antenna always present. About 7500 species of Collembola were described Worldwide. Notably, however, all information on taxonomy of these cute animals comes from European and American countries, while little attention has been paid to investigate Asian fauna such as Iran. Due to, there is no reliable taxonomic key for Asian Collembola.

The Collembola fauna of several countries in the world was already overwied in the recent past (Babenko & Fejellberg, 2006), Kaprus et al. (2004) on the Ukraine. In fact, the fauna of Iran is virtually unknown, no keys to species, as very few species are known, last comprehensive article on the Iranian springtail fauna was published about 30 years ago (Cox, 1982).

MATERIAL AND METHODS

The present catalogue is reported for the first time from Iran. Citations of already published data morravej et al (2007), Cox (1982), Yahyapoor et al. (2011) and Falahati Hossein Abad et al. (2011).

Species are listed according to the system of Deharveng (2007), marking the suborders, the families, the subfamilies and the genera. For each species is reported: the Latin name, the complete name of the author and year of publication.

RESULTS

The present catalogue is reported for the first time in Iran that including 4 suborders (Entomobryomorpha, Poduromorpha, Neelipleona, Symphypleona), 15 families, 15 subfamilies, 35 genera and 87 species.

List of Collembola species from Iran Suborder Entomobryomorpha Family Isotomidae

Subfamily Anurophorinae

Anurophorus Nicolet, 1842

Anurophorus coiffaiti Cassagnau and Delamare, 1955

Cryptopygus Willem, 1901*Cryptopygus gibbosa* (Bagnal, 1940)**Subfamily Proisotominae****Folsomia Willem, 1902**

Folsomia cf. *brevifurca* (Bagnall, 1949)
Folsomia quadrioculata (Tullberg, 1871)
Folsomia penicula Bagnall, 1939
Folsomia candida Willem, 1902
Folsomia multiseta Stach, 1947
Folsomia fimetaria (Linnaeus, 1758)
Folsomia litsteri Bagnall, 1939
Folsomia simile Bagnall, 1939

Folsomides Stach, 1922*Folsomides parvulus* Stach, 1922**Proisotoma Börner, 1901**

Proisotoma subminuta Denis, 1931
Proisotoma minuta (Tullberg, 1871)
Proisotoma schoetti (Dalla Torre, 1895)

Subfamily Isotominae**Isotomurus Börner, 1903**

Isotomurus maculatus (Schäffer, 1896)
Isotomurus palustris (Müller, 1776)
Isotomurus punctiferus Yossi, 1963

Isotoma Bourlet, 1839

Isotoma viridis Bourlet, 1839
Isotoma notabilis Schäffer, 1896
Isotoma olivacea Tullberg, 1871

Parisotoma Bagnall, 1940*Parisotoma notabilis* (Schäffer, 1896)**Isotomiella Bagnall, 1939***Isotomiella minor* (Schäffer, 1896)**Isotomina Börner, 1903**

Isotomina pontica Stach, 1947
Isotomina orientalis Stach, 1947
Isotomina thermophila (Axelson, 1947)

Family Entomobryidae**Subfamily Entomobryinae****Entomobrya Rondani, 1861**

Entomobrya multifasciata (Tullberg, 1871)
Entomobrya atrocincta Schött, 1897
Entomobrya lanuginosa (Nicolet, 1841)
Entomobrya corticalis (Nicolet, 1842)
Entomobrya handschini Stach, 1922
Entomobrya unostrigata Stach, 1922
Entomobrya lindbergi Stach, 1960

Pseudosinella Schäffer, 1897

Pseudosinella duodecimpunctata Denis, 1931
Pseudosinella octopunctata Börner, 1901
Pseudosinella imparipunctata Gisin, 1953

Sinella Brook, 1882

Sinella curviseta Brook, 1882
Sinella tenebricosa Folsom, 1902

Subfamily Lepidocyrtinae**Lepidocyrtus Bourlet, 1839***Lepidocyrtus cyaneus* Tullberg, 1871

Lepidocyrtus lanuginosus (Gmelin, 1788)

Lepidocyrtus ruber Schött, 1902

Subfamily Orchesellinae

***Heteromurus* Wankel, 1860**

Heteromurus major (Moniez, 1889)

Heteromurus sexoculatus Brown, 1926

Family: Cyphoderidae

Subfamily Cyphoderinae

***Cyphoderus* Nicolet, 1842**

Cyphoderus ambigua Christiansen, 1957

Family Tomoceridae

Subfamily Tomocerinae

***Tomocerus* Nicolet, 1842**

Tomocerus minor (Lubbock, 1862)

Tomocerus vulgaris (Tullberg, 1871) Brook, 1883

Suborder Poduromorpha

Family Hypogastruridae

Subfamily Hypogastrurinae

***Hypogastrura* Bourlet, 1839**

Hypogastrura manubrialis (Tullberg, 1869)

Hypogastrura tullbergi (Schäffer, 1900)

Hypogastrura vernalis (Carl, 1901)

Hypogastrura denticulata (Bagnal, 1941)

***Ceratophysella* Börner, 1932**

Ceratophysella gibbosa (Bagnal, 1940)

Ceratophysella stercoraria (Stach, 1963)

***Willemia* Börner, 1901**

Willemia anophthalma Börner, 1901

***Xenylla* Tullberg, 1869**

Xenylla maritima Tullberg, 1869

Xenylla welchi Folsom, 1916

Xenylla humicola (Fabricius, O., 1780)

Family Brachystomellidae

***Brachystomella* Ågren, 1903**

Brachystomella parvula (Schäffer, 1896)

Brachystomella pubila Gisin, 1957

Family Poduridae

Subfamily Poduridae

***Podura* Linnaeus, 1758**

Podura aquatica Linnaeus, 1758

Family Neanuridae

Subfamily: Frieseinae

***Friesea* Dalla Torre, 1895**

Friesea mirabilis (Tullberg, 1871)

Subfamily Neanurinae

***Neanura* MacGillivray, 1893**

Neanura muscorum (Templeton, 1835)

Neanura decolorata Gisin, 1964

Neanura aurantiaca Caroli, 1912

Neanura echinata echinata (Kos, 1940)

Subfamily Pseudachorutinae***Anurida* Laboulbène, 1865***Anurida ellipsoids* Stach, 1949*Anurida sensillata* Gisin, 1953*Anurida thalassophila* (Bagnall, 1939)***Pseudachorutes* Tullberg, 1871***Pseudachorutes dubius* Krausbauer, 1898*Pseudachorutes subcrassus* Tullberg, 1871*Pseudachorutes parvulus* Börner, 1901**Subfamily Odontellidae*****Xenyllodes* Axelson, 1903***Xenyllodes lamellifera* (Axelson, 1903)*Xenyllodes bayeri* Kseneman, 1935**Family Onychiuridae****Subfamily Onychiurinae*****Onychiurus* Gervais, 1841***Onychiurus bicampatus* Gisin, 1956*Onychiurus fimatus* Gisin, 1952*Onychiurus granulosus* Stach, 1930*Onychiurus quadriocellatus* Gisin, 1947*Onychiurus rectapapillatus* Stach, 1933*Onychiurus sibiricus* (Tullberg, 1876)**Family Tullbergiidae****Subfamily Tullbergiinae*****Tullbergia* Lubbock, 1876***Tullbergia krausbaueri* (Börner, 1901)*Tullbergia callipygosa* Börner, 1901*Tullbergia affinis* Börner, 1901**Suborder Neelipleona****Family Neelidae*****Neelus* Folsom, 1896***Neelus murinus* Folsom, 1896**Suborder Symphypleona****Family Dicyrtomidae****Subfamily Dicyrtominae*****Dicyrtoma* Bourlet, 1842***Dicyrtoma minuta* (O. Fabricius, 1783)**Family Arrhopalitidae*****Arrhopalites* Börner, 1906***Arrhopalites caecus* (Tullberg, 1871)**Family Katiannidae*****Sminthurinus* Börner, 1901***Sminthurinus bimaculatus* Axelson, 1902*Sminthurinus elegans* (Fitch, 1863)**Family Sminthurididae*****Sminthurides* Börner, 1900***Sminthurides malmgreni* (Tullberg, 1877)*Sminthurides pumilis* (Krausbauer, 1898)

DISCUSSION

Our review revealed 87 Collembola species recorded so far from Iran. Iran is situated in the south western corner of Asia. Most authors, for example Dasmann (1974) and Darlington (1957), consider Iran as part of the Palearctic region. The fauna of Iran is virtually unknown, no keys to species, as very few species are known, we can highly expect to find even many further species new to the fauna of Iran in the future.

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