

Annotated checklist of the Iranian Coniopterygidae (Neuroptera)

GYÖRGY SZIRÁKI & ALINAGHI MIRMOAYEDI

ABSTRACT: An annotated list of all the 24 Coniopterygidae species known at the present time from Iran is given. Five of them were described originally from this country, while *Aleuropteryx vartianorum* Aspöck & Aspöck, 1967, *Coniopteryx (C.) borealis* Tjeder, 1930, *C. (X.) arenicola* Sziráki, 2010, *C. (X.) kerzhneri* Meinander, 1971, *C. (X.) latigonarcuata* Meinander, 1972 and *Hemisemidalis hreblayi* Sziráki, 1999 are new to the fauna of Iran. The usually erroneously given geographical distribution of *Nimboa ashadeva* Rausch & Aspöck, 1978 is corrected.

Introduction

The first data on Iranian coniopterygids were given by ASPÖCK & ASPÖCK (1965), who reported the presence of two dusty lacewing species from this country. About fifteen years later this number increased to six due to the publishing activity of Austrian neuropterologists (RAUSCH & ASPÖCK 1978a,b, ASÖCK et al. 1980). An important advance was taken place by the establishment of the Iranian neuropterology in the nineties of the last century. As a result of the intensive collecting activity – among others – a significant number of coniopterygids was obtained from different territories of Iran. A part of this material was worked out and published already (MONSERRAT 1994, MEINANDER 1998, MIRMOAYEDI 1998, 2002, MIRMOAYEDI et al. 1998). An other part of the earlier determined specimens remained hitherto unpublished; in present work these are designed as „unpublished finding(s)”. The more recently collected Iranian coniopterygids were identified in present study. Only these specimens are designed as „specimen(s) examined” in present paper.

Material and methods

The dusty lacewing specimens obtained in the framework of the entomological program carried out by the second author were captured by Malaise or light traps. In the latter case 200-W tungsten bulbs were employed. The material handled as „unpublished finding(s)” or „specimen(s) examined” is housed in Insect Collection of Department of Plant Protection, College of Agriculture, Razi University, Kermanshah, Iran.

List of the species

ALEUOPTERYGINAE Enderlein, 1905

Aleuropteryx resslii Rausch, Aspöck & Ohm, 1978

Described from Iran. Type locality: Iran, Fars Province, E of Kazerun, 29°35'N, 51°40'E (RAUSCH et al. 1978). Other published records from Iran: Kermanshah Province (West Iran), Kermashah (MONSERRAT 1994); Kermashah Province, Ridjab (MEINANDER 1998).

Unpublished finding from Iran: 2 ♂, Kermanshah Province, Ridjab, 34°36'N, 45°57'E, 650 m a. s. l., 15.07.1995, leg.: MIRMOAYEDI.

Geographical distribution: Iran.

Aleuropteryx vartianorum Aspöck & Aspöck, 1967

Described from Pakistan (ASPÖCK & ASPÖCK 1967).

Specimens examined: 2 ♂, Iran, Fars Province, Miyan Jangal Fasa, 15.07.2010, leg.: MOHAMMADI. New to the fauna of Iran.

Geographical distribution: Pakistan, Arabian Peninsula, Iran.

Helicoconis (Ohmopteryx) pseudolutea Ohm, 1965

Described from Switzerland (OHM 1965). Published records from Iran: Hormozgan Province, Bandar Khamir (MONSERRAT 1994); Kermashah Province, Ridjab (MEINANDER 1998); Tehran Province, Darband, as *Helicoconis kurdica* (OHM 1965).

Geographical distribution: Central Europe, Mediterranean territories, Iran, Iraq.

CONIOPTERYGINAE Burmeister, 1839

Nimboa ashadeva Rausch & Aspöck, 1978

Described from Iran. Type locality: Iran, Fars Province, Miyan Kotal, 29°30'N, 51°47'E, 2100 m a.s.l. (RAUSCH & ASPÖCK 1978a). Other published records from Iran: Hormozgan Province, Gazir; Kurdistan Province, Razab Marivan (MIRMOAYEDI 2002).

Geographical distribution: Iran.

Remark: There are not any concrete data concerning this species out of Iran. Therefore, „Turkey” (MEINANDER 1990), „Anatolia” (ASPÖCK et al. 2001), or „Asia Minor” (SZIRÁKI 2004, 2011) were erroneously designed as territories, where this species is distributed.

Nimboa macroptera Aspöck & Aspöck, 1965

Described from Afganistan (ASPÖCK & ASPÖCK 1965). Published record from Iran: Kermanshah Province, Ridjab (MEINANDER 1998).

Geographical distribution: Afganistan, Arabian Peninsula, Iran, Lebanon, Canary Islands, Egypt, Sudan, Crete.

Coniopteryx (Coniopteryx) borealis Tjeder, 1930

Described from Denmark, Finland, Scotland and Sweden (TJEDER 1931).

Unpublished finding from Iran: 1 ♂, Golestan Province, Golestan National Park, Sharlegh, 190 m a. s. l., 10.08.1996, leg.: MIRMOAYEDI. New to the fauna of Iran.

Geographical distribution: Europe, Morocco, Tunisia, Azerbaijan, Georgia, Iran.

Coniopteryx (Holoconiopteryx) drammonti Rousset, 1964

Described from France (ROUSSET 1964, cit. MEINANDER 1972a). Published record from Iran: Hamadan Province, Dehpayien Serkan (MIRMOAYEDI 2002).

Unpublished finding from Iran: 1 ♂, Hamadan Province, Dehpayien Serkan, 34°22'N, 48°27'E, 2031 m a. s. l., 17.09.1996, leg.: MIRMOAYEDI.

Geographical distribution: South and Central Europe, Morocco, Asia Minor, Georgia, Iran.

Coniopteryx (Metaconiopteryx) lentiae Aspöck & Aspöck, 1964

Described from Austria (ASPÖCK & ASPÖCK 1964). Published record from Iran: Kermanshah Province, Ridjab (MEINANDER 1998).

Geographical distribution: Europe, Asia Minor, Near and Middle East.

Coniopteryx (Xeroconiopteryx) arenicola Sziraki, 2010

Described from United Arab Emirates (SZIRÁKI 2010).

Specimens examined: 2 ♂, Iran, Hormozgan Province, Minab, 20-30.03.1995, leg.: MIRMOAYEDI. New to the fauna of Iran.

Geographical distribution: United Arab Emirates, Iran.

Coniopteryx (Xeroconiopteryx) atlasensis Meinander, 1963

Described from Morocco (MEINANDER 1963). Published record from Iran: Occurrence of this species in Iran is mentioned and showed in a map just South of the Caspian Sea by ASPÖCK et al. (1980) – without exact locality.

Unpublished finding from Iran: 1 ♂, Golestan Province, Golestan National Park, Almehr, 37°21'N, 56°00'E, 150-170 m a. s. l., 17.09.1996, leg.: MIRMOAYEDI.

Geographical distribution: Morocco, Canary Islands, Central Asia (including Afghanistan and Northeastern Iran), Turkey, Crete, Iberian Peninsula.

Coniopteryx (Xeroconiopteryx) deserta Meinander, 1979

Described from Saudi Arabia (MEINANDER 1979). Published records from Iran: Hormozgan Province, Bandar Khamir (MONSERRAT 1994); Kermanshah Province, Ridjab (MIRMOAYEDI 1998).

Geographical distribution: Arabian Peninsula, Iran.

Coniopteryx (Xeroconiopteryx) hastata Meinander, 1998

Described from Iran. Type locality: Iran, Hormozgan Province, Gazir (MEINANDER 1998).

Geographical distribution: Iran, Arabian Peninsula.

Coniopteryx (Xeroconiopteryx) kerzhneri Meinander, 1971

Described from Mongolia (MEINANDER 1971).

Specimens examined: 2 ♂, Iran, Fars Province, Miyan Jangal Fasa, 28°56'N, 53°39'E, 1130 m a. s. l., 15.07.2010, dry mountain bushland, with wild pistachio trees, Malaise trap, leg.: MOHAMMADI; 1 ♂, Iran, West Azerbaijan Province, Khoy, ?.07.2008. New to the fauna of Iran.

Geographical distribution: Central Asia, Iran, Yemen, North Africa, Spain.

Coniopteryx (Coniopteryx) latigonarcuata Meinander 1972

Described from Mongolia (MEINANDER 1972b).

Specimen examined: 1 ♂, Iran, West Azerbaijan Province, Navayi Khoy, 45°03'E, 38°34'N, 1891 m a. s. l., mountain bushland, with wild pistachio trees and *Thymus – Artemisia* steppe, 15.05.2009, leg.: ERADATI. New to the fauna of Iran.

Geographical distribution: Mongolia, Iran, Jammu and Kashmir.

Coniopteryx (Xeroconiopteryx) loipetsederi Aspöck, 1963

Described from Croatia (ASPÖCK 1963). Published record from Iran: Golestan Province, Golestan National Park, Almeh (MIRMOAYEDI et al. 1998).

Geographical distribution: South Europe, Algeria, Iran, Slovakia.

Coniopteryx (Xeroconiopteryx) manka Aspöck & Aspöck, 1965

Described from Iraq (ASPÖCK & ASPÖCK 1965). Published record from Iran: Fars Province, Shiraz (MIRMOAYEDI 2002).

Geographical distribution: Iraq, Iran.

Coniopteryx (Xeroconiopteryx) martinmeinanderi Sziráki, 2004

Described from Israel as *Coniopteryx (X.) furcata* (MEINANDER 1998). Published record from Iran: Khorasan Province, Shahinghaleh Mashad – as *C. (X.) furcata* (MIRMOAYEDI 2002).

Geographical distribution: Israel, Arabian Peninsula, Iran.

Coniopteryx (Xeroconiopteryx) orba Rausch & Aspöck, 1978

Described from Iran. Type locality: Iran, Laristan Province, 22 km N of Bandar Abbas, 27°12'N, 56°15'E (RAUSCH & ASPÖCK 1978b).

Unpublished findings from Iran: 1 ♂, Golestan Province, Golestan National Park, Sharlegh, 190 m a. s. l., 24.07.1996; 1 ♂, North Khorasan Province, Golestan National Park, Mirzabaylou, 190 m a. s. l., 20.07.1996, leg.: MIRMOAYEDI.

Geographical distribution: Iran, Oman.

Coniopteryx (Xeroconiopteryx) unicef Monserrat, 1996

Described from Yemen (MONSERRAT 1996). Published record from Iran: Hormozgan Province, Gazir (MEINANDER 1998).

Geographical distribution: Yemen, Iran.

Coniopteryx (Xeroconiopteryx) venustula Rausch & Aspöck, 1978

Described from Iran. Type locality: Iran, Laristan Province, Bandar Abbas, 27°12'N, 56°15'E (RAUSCH & ASPÖCK 1978b). Collecting sites of paratypes: Iran, Laristan Province, 13 km N of Bandar Abbas, and 40 km N of Bandar Abbas (RAUSCH & ASPÖCK 1978). Other published record from Iran: Hormozgan Province, Gazir (MEINANDER 1998).

Unpublished finding from Iran: 1 ♂, Hormozgan Province, Minab, 15.03.1997, leg.: MIRMOAYEDI.

Specimen examined: 1 ♂, Iran, Hormozgan Province, Minab, markaz tahghighat Keshavarzi, 20-30.03.1995, leg.: MIRMOAYEDI.

Geographical distribution: Iran, Arabian Peninsula, Pakistan, Sri Lanka.

Hemisemidalis hreblayi Sziráki, 1999

Described from Jammu and Kashmir (SZIRÁKI 1999).

Specimen examined: 1 ♂, Iran, Fars Province, Miyan Jangal Fasa, 28°56'N, 53°39'E, 1130 m a. s. l., mountain dry bushland, with wild terebinth trees, Malaise trap, 15. 07. 2010. New to the fauna of Iran.

Geographical distribution: Jammu and Kashmir, Iran.

Hemisemidalis kasyi Aspöck & Aspöck, 1965

Described from Afghanistan (ASPÖCK & ASPÖCK 1965). Published records from Iran: Kermashah Province, Kermanshah (MIRMOAYEDI 1998); Kermanshah Province, Ridjab (MEINANDER 1998, MIRMOAYEDI 1998).

Geographical distribution: Afghanistan, Arabian Peninsula, Iran, Lebanon.

Hemisemidalis pallida (Withycombe, 1924)

Described from Egypt (WITHYCOMBE 1924). Published records from Iran: Golestan Province, Golestan National Park, Sharlegh (MIRMOAYEDI et al. 1998); Hormozgan Province, Gazir; Kurdistan Province, Razab Marivan (MIRMOAYEDI 2002); Razavi Khorasan Province, Meshed; Razavi Khorasan Province, 20 km E of Salzawar; Tehran Province, Darband (Derbend) (ASPÖCK & ASPÖCK 1965).

Unpublished findings from Iran: 1 ♂, Golestan Province, Golestan National Park, Tang Gol, 17.07.1996, leg.: MIRMOAYEDI; 1 ♂, North Korasan Province, Golestan National Park, Mirzabaylou, 24.07.1996, leg.: MIRMOAYEDI.

Geographical distribution: Mediterranean, Central Asia (including Afghanistan), Near and Middle East.

Semidalis aleyrodiformis (Stephens, 1836)

Described from England (STEPHENS 1836). Published record from Iran: Hormozgan Province, Minab (MIRMOAYEDI 1998).

Geographical distribution: Europe, Asia, North Africa.

References

- ASPÖCK, H. (1963): Coniopteryx loipetsederi nov. spec. (Neuroptera, Coniopterygidae. – Nachrichtenblatt der Bayerischen Entomologen, 12: 95.
- ASPÖCK, H. & ASPÖCK, U. (1964): Synopsis der Systematik, Ökologie und Biogeographie der Neuropteren Mitteleuropas im Spiegel der Neuropteren-Fauna von Linz und Oberösterreich, sowie Bestimmungsschlüssel für die mitteleuropäischen Neuropteren und Beschreibung von Coniopteryx lentiae nov. spec. – Naturkundliches Jahrbuch der Stadt Linz 1964: 127–282.
- ASPÖCK, H. & ASPÖCK, U. (1965): Die Neuropteren Vorderasiens. I. Coniopterygidae. – Beiträge zur Naturkundlichen Forschung in Südwestdeutschland, 24: 159–181.
- ASPÖCK, H. & ASPÖCK, U. (1967): Aleuropteryx vartianorum nov. spec., eine neue Coniopterygiden-Spezies aus Pakistan (Neuroptera, Planipennia). – Entomologisches Nachrichtenblatt, 14: 98–103.
- ASPÖCK, H., HÖLZEL, H., ASPÖCK, U. (2001): Die Neuropteren Europas I–II. – Goecke & Evers, Krefeld. 495 & 355 pp.
- ASPÖCK, H., HÖLZEL, H., ASPÖCK, U. (2001): Kommentierter Katalog der Neuropterida (Insecta: Raphidioptera, Megaloptera, Neuroptera) der Westpaläarktis. – Denisia, 2: 1–666.
- MEINANDER, M. (1963): Coniopterygidae (Neuroptera) from Morocco. – Notulae Entomologicae, 43: 92–109.
- MEINANDER, M. (1971): Coniopterygidae from Mongolia II (Neuroptera). – Notulae Entomologicae, 51: 41–44.

- MEINANDER, M. (1972a): A revision of the family Coniopterygidae (Planipennia). – *Acta Zoologica Fennica*, 136: 1–357.
- MEINANDER, M. (1972b): Coniopterygidae from Mongolia III (Neuroptera). – *Notulae Entomologicae*, 52: 127–138.
- MEINANDER, M. (1979): Insects of Saudi Arabia. Neuroptera: Fam. Coniopterygidae. – *Fauna of Saudi Arabia*, 1: 334–341.
- MEINANDER, M. (1990): The Coniopterygidae (Neuroptera, Planipennia). A check-list of the species of the world, descriptions of new species and other new data. – *Acta Zoologica Fennica*, 189: 1–95.
- MEINANDER, M. (1998): Coniopterygidae from the Mediterranean Region and Iran. – *Journal of Neuropterology*, 1: 23–31.
- MIRMOAYEDI, A. (1998): Neuroptera of Iran. – *Acta Zoologica Fennica*, 209: 163–165.
- MIRMOAYEDI, A. (2002): New records of Neuroptera from Iran. – *Acta Zoologica Academiae Scientiarum Hungaricae* 48, Supplementum, 2: 197–201.
- MIRMOAYEDI, A., ZAKHARENKO, A. V., KRIVOKHATSKY, V. A. & YASSAYIE, A. (1998): To the fauna of lacewings (Insecta, Neuroptera) of the Golestan National Park and the Kermanshah Province (Iran). – *Kharkov Entomological Society Gazette*, 6(2): 53–56.
- MONSERRAT, V. J. (1994): Nuevos datos sobre los Coniopterygidos de las regiones Palearctica y Afrotropical (Neuroptera: Coniopterygidae). – *Graellsia*, 50: 109–127.
- MONSERRAT, V. J. (1996): Nuevos datos sobre los coniopterígidios de Yemen (Neuroptera: Coniopterygidae). – *Annali del Museo Civico di Storia Naturale Giacomo Doria*, 91: 1–26.
- OHM, P. (1965): Beiträge zur Kenntnis der Gattung *Helicoconis* Enderlein 1905 (Neuroptera, Coniopterygidae) nebst Diagnose zweier neuer Arten aus dem schweizerischen Nationalpark. – *Ergebnisse der wissenschaftlichen Untersuchungen im Schweizerischen Nationalpark*, 10: 171–207.
- RAUSCH, H. & ASPÖCK, H. (1978a): Zwei neue Spezies des Genus *Nimboa* Navas (Neuroptera: Coniopterygidae) aus Vorderasien. – *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen*, 30: 13–16.
- RAUSCH, H. & ASPÖCK, H. (1978b): Drei neue Spezies des Genus *Coniopteryx* Curtis (Neuroptera, Coniopterygidae) aus dem Iran. – *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen*, 29: 100–104.
- RAUSCH, H., ASPÖCK, H. & OHM, P. (1978): Zwei weitere neue Arten des Genus *Aleoptyx* aus der Westpaläarkt (Neuroptera, Coniopterygidae). – *Entomologische Zeitschrift*, 88: 45–49.
- STEPHENS, J. F. (1836): *Illustration of British Entomology. Mandibulata VI.* – Bladwin & Cradock, London, 240 pp.
- SZIRÁKI, GY. (1999): Coniopterygidae from southwestern parts of Asia. – *Folia entomologica hungarica*, 60: 179–186.
- SZIRÁKI, GY. (2004): Coniopterygidae of Eurasia, New Guinea and North Africa. – *Folia entomologica hungarica* 65, (Supplementum): 1–166.
- SZIRÁKI, GY. (2010): Order Neuroptera, family Coniopterygidae. In: VAN HARTEN, A. (ed.): *Arthropod Fauna of UAE*, Vol. 3. Dar Al Ummah PPDA, Abu Dhabi, pp. 283–298.
- SZIRÁKI, GY. (2011): Coniopterygidae of the world. Annotated check-list and identification keys for living species, species groups and supraspecific taxa of the family. Lambert Academic Publishing, Saarbrücken: 249 pp + VI.
- TJEDER, B. (1931): A revision of the North-European species of the genus *Coniopteryx* Curt. (s. str.) based upon a study of the male and female genitalia. – *Arkiv för Zoologi (A)*, 23: 1–32.
- WITHYCOMBE, C. L. (1924): On two new species of Coniopterygidae (Neuroptera) from Egypt. – *Bulletin Société Entomologique d’Egypte*, 16: 140–151.

György SZIRÁKI
Hungarian Natural History Museum
H-1088 BUDAPEST, Hungary
Baross u. 13.
E-mail: sziraki@zoo.zoo.nhmus.hu

Alinaghi MIRMOAYEDI
College of Agriculture, Razi University
67145-1433 KERMANSHAH, Iran
E-mail: amirmoayedi@hotmail.com