

NEW RECORDS OF NEUROPTERA FROM IRAN

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Seven provinces of Iran were surveyed for Neuroptera. Three species are newly listed for the fauna of Iran.

Key words: Neuroptera, Iran

INTRODUCTION

A list of 39 species of Neuroptera from various parts of Iran were identified and published by MIRMOAYEDI (1998) and later supplemented by a further 16 species (MIRMOAYEDI *et al.* 1999). The list presented here contains 23 species of Neuroptera of Iran of which 3 species are new for the fauna of Iran: one species of Chrysopidae, and two species of Coniopterygidae. The total estimated number of species of Neuroptera in Iran is 168.

MATERIALS AND METHODS

Seven different provinces of Iran (Fars, Golestan, Hamadan, Hormozgan, Kermanshah, Khorassan and Kurdistan) were surveyed and Neuropteran species belonging to 7 different families were captured from 19 locations, in hand net and the light trap samples. Most of the specimens were captured with a 200 watts tungsten light trap. Specimens were preserved dry, except Coniopterygidae which were preserved in 70% ethanol. Genitalia of the all male specimens were dissected, treated in 10% hot KOH, washed with 70% ethanol, studied and stored in glycerine in plastic vials. The material is housed in the Department of Plant Protection, College of Agriculture, Razi University of Kermanshah, Iran.

The following locations (indicated by arabic numerals in the map of Iran – Fig. 1) yielded Neuroptera. Abbreviations refer to provinces:

Gol – Golestan province, north of Iran. Habitats include steppe, forest and bushland. Golestan National park (GNP) is situated in this province and has an area of ninety thousand hectares. The Neuroptera fauna of GNP has been carefully described by YASSAYIE & MIRMOAYEDI (1998) and MIRMOAYEDI *et al.* (1999).

Hor – Hormozgan Province; South of Iran. The climate is hot and humid; the temperature of certain days in summers going as high as 48 centigrade.

Ham – Hamadan Province. This mountainous region has cold weather in the winter and high temperatures in the summer.

Khor – Khorassan Province. The Dasht Kavir desert covers half of this province and is saline and unarable.

Ker – Kermanshah Province. A principally mountainous western province of Iran, with a temperate mediterranean climate.

Kurd – Kurdistan Province. A principally mountainous western province of Iran with cold climate in winter, (as low as -10°C), but hot (sometimes 40°C) in summer.

Fars – Fars Province. The collecting location – Mehran Racing Club (MRC) – is situated in Shiraz, the principal town of Fars province.

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| 1. Badelan serkan (Ham) 1850 m, | 11. Razab marivan (kur) 1320 m, |
| 2. Bandar Lengeh (Hor) 10 m, | 12. Minoodasht (Gol) 180 m, |
| 3. Bazangan (Khor) 1100 m, | 13. Assadabad Neishabur (Khor) 1210 m, |
| 4. Dasht (GNP) 150 m, | 14. Robat sarposh sabzevar (Khor) 960 m, |
| 5. Gazir (Hor) 12 m, | 15. Sarakhs (Khor) 275 m, |
| 6. Golzar camping (GNP) 150 m, | 16. Sharlegh (GNP) 190 m, |
| 7. Guilangharb (Ker) 1420 m, | 17. Shiraz (MRC) 1540 m, |
| 8. Kermanshah (Ker) 1300 m, | 18. Tange Gol (Gol, GNP) 170 m, |
| 9. Tang Kenesht (Ker) 1300 m, | 19. Tehran 1110 m, |
| 10. Shahinghaleh Mashad (Khor) 970 m, | |

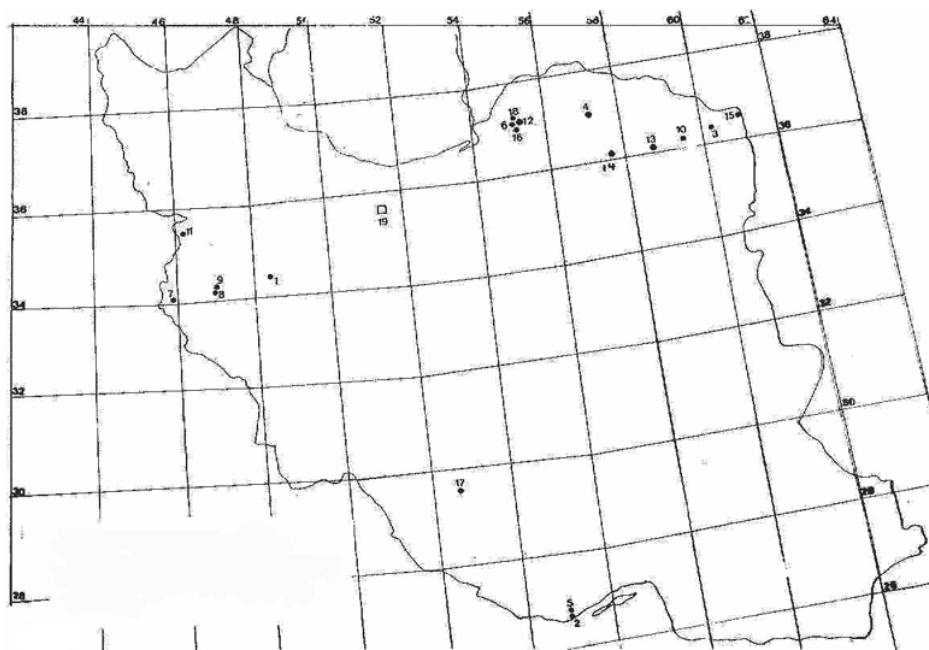


Fig. 1. Collecting sites in Iran, from which Neuroptera have been recorded

RESULTS

Twenty-three species were found among the Neuroptera captured in different regions of Iran from 1995 to 1999, including 3 Chrysopidae, 5 Coniopterygidae, 9 Myrmeleontidae, 1 Ascalaphidae, 1 Dilaridae, 2 Nemopteridae, and 2 Mantispidae. The species determined are as follows :

Chrysopidae

Anisochrysa flavifrons (BRAUER, 1851) – 1 male, Razab Marivan; 2.06.1998.

Chrysoperla sillemi (ESBEN-PETERSEN, 1935) – 1 male, Badelan Serkan, 20.08.1999; (first report for Iran).

Italochrysa vartianorum HÖLZEL, 1967 – 1 male, Razab Marivan, 3.07.1997.

The fauna of Chrysopidae of Iran was studied by HÖLZEL (1966, 1967, 1981). The total number of Chrysopidae from Iran, reported by him and other authors, is 45 species.

Coniopterygidae

Coniopteryx (Holoconiopteryx) drammonti ROUSSET, 1964 – 1 male, Dehpayien serkan, 21.08.1999; (first report for Iran).

Coniopteryx (Xeroconiopteryx) furcata MEINANDER, 1998 – 7 males, 2 females, Shatinghaleh Machad, 14.08.1999.

Coniopteryx (Xeroconiopteryx) manka ASPÖCK, H. & U, 1965 – 1 male, Shiraz, 24.07.1998; (first report for Iran).

Hemisemidalis pallida (WITHYCOMBE, 1924) – 2 males, Razab Marivan, 1.05.1998; 1 male, Gazir, 12.07.1994.

Nimboa asadeva RAUSCH & ASPÖCK, 1978 – 1 male, Razab Marivan, 1.05.1998; 1 male, Gazir, 12.07.1997.

The Coniopterygidae of Iran was studied by ASPÖCK & ASPÖCK (1965), RAUSCH & ASPÖCK (1978), MEINANDER (1998), MIRMOAYEDI (1998) and the total number of species reported from Iran is 25 species.

Dilaridae

Dilar kirgisus ASPÖCK, H. & U., 1967 – 20 males, Tang Gol (GNP), 1.08.1997

Myrmeleontidae

- Palpares libelluloides* (LINNAEUS, 1764) – 2 females, Kermanshah, 1–13.07.2000.
Palpares solidus GERSTAECKER, 1894 – 1 male, Kermanshah, 1.07.2000.
Acanthaclisis occitanica (VILLERS, 1789) – 1 male, Almehr (GNP), 17.9.1996; 1 male, Guilan Gharb, 9.6.1996; 1 male, Islamabad gharb, 1.06.1999.
Distoleon tetragrammicus (FABRICIUS, 1798) – 1 male, Kermanshah, 1.07.2000.
Neuroleon diana HÖLZEL, 1972, 1 female, Islamabad, 15.06.1999.
Macronemurus persicus (NAVÁS, 1915) – 5 males, 8 females, Bazangan, 60 km to Sarakhs, 15.06, 17.8.1999.
Creoleon plumbeus (OLIVIER, 1811) – 10 males, 10 females, Kermanshah, 12.08.1996, 12.06.1997; 5 km to Sarakhs, 15.06.1999; Badelan Serkan, 16.8.1999.
Creoleon griseus (KLUG in EHRENBERG, 1834) – 1 male, Kermanshah, 11.7.1999.
Delfimeus intricatus (HÖLZEL, 1972) – 1 male, Badelan Serkan, 15.8.1999.

The Myrmeleontidae of Iran was studied by HÖLZEL (1968, 1972). The total number of species from Iran, reported by him and other authors, is 80. Some other species, not included in the above list remain to be determined, for example, a lot of specimens of *Myrmecaelurus* sp.n., known from Iran (MIRMOAYEDI *et al.*, 1999) were captured from new localities.

Ascalaphidae

- Bubopsis hamatus* (KLUG in EHRENBERG, 1834) – 1 male, 1 female, Kermanshah, 14.08.1997

Nemopteridae

- Dielocroce maxima* HÖLZEL, 1975 – 1 male, Badelan Serkan, 20.8.1999.
Dielocroce vartiana HÖLZEL, 1975 – 2 males, Razab Marivan.18.6.1997.

The Nemopteridae of Iran was studied by ALEXANDROV-MARTYNOV (1930) and HÖLZEL (1975); the total number of Nemopteridae from Iran, reported by these authors, is 15 species. In the Plant Protection collection, 3 more undetermined, putatively new, species are present.

Mantispidae

- Mantispa styriaca* (PODA, 1761) – 1 male, Golzar camping (GNP), 27.7.1997.
Mantispa aphavexelte ASPÖCK, U. & H., 1994 – 1 male, Sharlegh (GNP), 28.7.1997.

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