

Spiders from High Atlas Mountains, Morocco (Arachnida: Araneae)

Christo DELTSHEV

Abstract: A small collection of spiders collected by P. Beron in May 2012, provides the opportunity to follow better the distribution of spiders in the Toubkal National Park (High Atlas, Morocco), to raise the known altitude records for some species, to establish new species for the spider fauna of Morocco and to present a check-list of the spiders known from Atlas Mountains above 2000 m.

Key words: Araneae, Morocco, High Atlas, alticolous fauna

Introduction

The highest part of the Atlas Mountains (High Atlas) is situated in Morocco, with several peaks above 4000 m and many others above 2600 m. PAULIAN & VILLIERS (1939) determined that the beginning of the high altitude fauna of Atlas is above 2500 m. Several araneologists: FAGE (1938), DENIS (1954, 1961, 1968), JOCQUÉ (1977), ALDERWEIRELDT & JOCQUÉ (1992), BOSMANS (1985, 1996), BOSMANS & BLICK (2000) have contributed to the study of spiders from the High Atlas. Most of the altitude records are below 3000 m, with the exceptions of *Araeoncus toubkal* Bosmans, 1996 (3200 m), *Pardosa proxima* (C.L. Koch, 1847) (3000 m), *Drassodes lapidosus* (Walckenaer, 1802) (3200 m), *Euophrys rufibarbis* (Simon, 1868) (3200 m), *Salticus modicus* (Simon, 1875) (3000 m) and *Gnaphosa tigrina* Simon, 1878 – 4000 m. All these data are summarized by BERON (2008), who announced 22 species of 13 families above 2000 m in the Atlas Mountains. The accumulation of new data, due to faunistic material collected by Bulgarian arachnologist Petar Beron enabled this contribution.

Study area and materials

In May 2012 Petar Beron from the National Museum of Natural History in Sofia has collected spiders in Morocco, including in the transect from

the entrance of the Toubkal National Park to the very summit of Toubkal (4167 m). The identification of this small collection provides the opportunity to follow better the distribution of spiders in the Park, to raise the known altitude records for some species, to establish new species for the spider fauna of Morocco and to present a check-list of the spiders known from Atlas Mountains above 2000 m. The distribution of the species follows WSC (2015).

Results and Discussion

The study comprises 11 species from 6 families: Gnaphosidae – 2 species, Linyphiidae – 4 species, Lycosidae – 1 species, Phrurulithidae – 1 species, Salticidae – 2 species, Theridiidae – 1 species. Ten species are new for the spider fauna of the mountain, 5 of these are also new for the fauna of Morocco (marked in the list with 2 and 1 asterisks). The new species for the spider fauna of Morocco are:

Nomisia exornata (C. L. Koch, 1839) – The range of the species covers Europe to Central Asia. The new data enlarge significantly the distribution of the species. The material is collected in the region of Taza, 540 m.

Agyneta rurestris (C. L. Koch, 1836) – widespread in the Palearctic region.

Erigone dentipalpis (Wider, 1834) – widespread in the Holarctic region.

Maso sundevali (Westring, 1851) - widespread in the Holarctic region. The material is collected in a small artificial cave under the wall of Medina.

Phrurlithus prope minimus C. L. Koch, 1839 – establishing genus *Phrurulitus* in Morocco is an interesting fact. The new locality is the southernmost point of the range.

A check-list of spiders known from Atlas Mountains above 2000 m

Agelenidae

Lycosoides subfasciata (Simon, 1870)
Massif of Ayachi, 3800 m (DENIS, 1954)
Lycosoides instabilis Denis, 1954
Massif of Ayachi, 2500 m (DENIS, 1954)

Araneidae

Araneus angulatus Clerck, 1757
Imlil, 2000 m (JOCQUÉ, 1977).
Larinioides sclopetarius (Clerck, 1757)
Ifrane 1600; Imlil, 2500 m (JOCQUÉ, 1977)
Mangora acalypha (Walckenaer, 1802)
Imlil, 2000 m (JOCQUÉ, 1977).

Dysderidae

Dysdera atlantea Denis, 1954
Ayachi, 2500 m (DENIS, 1954).
D. crocata C.L. Koch, 1838
Ighil Mgoun, 2000-2500 m (DENIS, 1961).
D. ravidata Simon, 1909
Bougmez, 2000-2500 m (DENIS, 1961).

Gnaphosidae

Drassodes lapidosus (Walckenaer, 1802)
Massif of Toubkal, 3200 m (JOCQUÉ, 1977)
Drassodes lutescens (C. L. Koch, 1839)
Massif of Ayachi, 2500 m (DENIS, 1954).
New data: Massif of Toubkal, Mouflons Refuge,
3000-3200 m.
Gnaphosa tigrina Simon, 1878
Massif of Toubkal, 3200 m (JOCQUÉ, 1977, FAGE
1938)
New data: Massif of Toubkal, 3500-3800 m; the
summit, 4000-4167 m.
Micaria coarctata (Lucas, 1846)
Massif of Tizi 'n Tichka– 2260 m (BOSMANS &
BLICK, 2000)
Micaria cherifa Jocqué, 1977
Imlil, 2000 m (JOCQUÉ, 1977).

Linyphiidae

***Agyoneta rurestris* (C. L. Koch, 1836)
New data: Massif of Toubkal, Sidi Chamharoudh,
ca 2350 m.
Araeoncus toubkal Bosmans, 1996
Massif of Toubkal, 3200 m (FAGE, 1938, DENIS,
1968, JOCQUÉ, 1977, BOSMANS, 1996)

***Erigone dentipalpis* (Wider, 1834)

New data: Massif of Toubkal, Mouflons Refuge,
3000-3200 m.

Lepthyphantes longihamatus Bosmans, 1985
Imilchil, grotte Achia inz Rebi, alt. 2500 m
(BOSMANS, 1985).

**Tenuiphantes tenuis* (Blackwall, 1852)

New data: Massif of Toubkal, the Refuges,
3250- 3500 m.

**Walckenaeria erithrina* (Simon, 1884)

New data: Massif of Toubkal, the hut, ca 2800
m; Mouflons Refuge, 3000-3200 m.

Lycosidae

Arctosa lacustris (Simon, 1876)
Imlil, 2000-2200 m (ALDERWEIRELDT &
JOCQUÉ, 1992).
Hogna radiata (Latreille, 1817)
Imlil, 2000 m (ALDERWEIRELDT & JOCQUÉ, 1992).
Pardosa proxima (C.L. Koch, 1847)
Imlil, 2000-3000 m (ALDERWEIRELDT &
JOCQUÉ, 1992).

New data: Massif of Toubkal, the Refuges, 3250-
3500 m.

Palpimanidae

Palpimanus sp
Massif of Toubkal, 3200 m (JOCQUÉ, 1977)

Philodromidae

Philodromus aureolus (Clerck, 1757)
Imlil, 2000 m (JOCQUÉ, 1977).

Phrurulithidae

** *Phrurlithus prope minimus* C. L. Koch, 1839
New data: Massif of Toubkal, the hut, ca 2800 m.

Segestriidae

Segestria florentina (Rossi, 1790)
High Atlas – 2000-2500 m (DENIS, 1961).

Salticidae

**Euophrys gambosa* (Simon, 1868)
New data: Massif de Toubkal, 3000 m
Euophrys rufibarbis (Simon, 1868)
Massif de Toubkal, 3200 m (JOCQUÉ, 1977)
**Euophrys* sp.
New data: Massif of Toubkal, the hut, ca 2800 m;
above the hut ca 3500 m; the summit, 4000-4167 m.
Menemerus semilimbatus (Hahn, 1829)
Massif de Toubkal, 2100 m (JOCQUÉ, 1977)
Salticus modicus (Simon, 1875)
Massif of Toubkal, 3000 m (JOCQUÉ, 1977)

Theridiidae

Phylloneta impressa (L. Koch, 1881)
Imlil, 2000 m (JOCQUÉ, 1977).
**Steatoda triangulosa* (Walckenaer, 1802)
New data: Massif of Toubkal, the hut, ca 2800
m; Mouflons Refuge, 3000-3200 m.

Tetragnathidae

Tetragnatha extensa (Linnaeus, 1758)
Imlil, 1600-2200 m (JOCQUÉ, 1977).

Fam. Thomisidae

Xysticus erraticus (Blackwall, 1834)
Imlil, 2000 m (JOCQUÉ, 1977).

X. kochi Thorell, 1872

Imlil, 2000 m (JOCQUÉ, 1977).

Uloboridae

Uloboros walckenarius Latreille, 1806
Imlil, 2000 (JOCQUÉ, 1977).

References

- ALDERWEIRELDT M., JOCQUÉ R. 1992. A contribution to the knowledge of the wolf spider fauna of Morocco: new species and new records (Araneae: Lycosidae). – *Phegea*, **20**(3): 115-119.
- BERON P. 2008. High Altitude Isopoda, Arachnida and Myriapoda in the Old World. – *Bureschiana*, **1**: 556 pp.
- BOSMANS R. 1985. Les genres *Troglohyphantes* Joseph et *Lepthyphantes* Menge en Afrique du Nord (Araneae, Linyphiidae). Études sur les Linyphiidae nord-africaines, III. – *Revue Arachnologique*, **6**(4): 135-178.
- BOSMANS R. 1996. The genera *Araeoncus* Simon, *Delorripis* Simon and *Diplocephalus* Bertkau in Northern Africa (Araneae: Linyphiidae, Erigoninae). *Studies on North African Linyphiidae VII*. – *Belgian Journal of Zoology*, **126**(2): 123-151.
- BOSMANS R., BLICK T. 2000. Contribution to the knowledge of the genus *Micaria* in the West-palaearctic region, with description of the new genus *Arboricaria* and three new species (Araneae Gnaphosidae). – *Memorie Societa Entomologica Italiana*, **78**(2): 443-476
- DENIS J. 1954. Notes d'aranéologie marocaine. III. Quelques Araignées du Massif de l' Ayachi, avec une étude sur les *Textrix* du Maroc. – *Revue Française d'Entomologie*, **21**:
- DENIS J. 1961. Notes d'aranéologie marocaine. IX. Les Araignées du Maroc. I. Orthognatha et Haplogynae. – *Bulletin de la Société des Sciences naturelles du Maroc*, **41**: 141-167.
- DENIS J. 1968. Notes d'aranéologie marocaine. X. Les érigonides du Maroc. – *Bulletin de la Société des Sciences naturelles du Maroc*, **47**: 137-164.
- FAGE L. 1938. Sur quelques araignées du Haut-Atlas Marocain. A propos d'une espèce nouvelle: *Agelena atlantea* sp. nov. – *Bulletin de la Société des Sciences naturelles du Maroc*, **18**: 120-122.
- JOCQUÉ R. 1977. Sur une collection estivale d'araignées du Maroc. – *Bulletin Ann. de la Société royale belge d'Entomologie*, **113**: 321-337.
- PAULIAN R. & VILLIERS A. 1939. Récoltes de R. Paulian et A. Villiers dans le Haut Atlas Marocain, 1938. Larves de Coléoptères. – *Revue Française d'Entomologie*, **6**: 44-58.
- WORLD SPIDER CATALOG 2015. World Spider Catalog. Version 16.5. Natural History Museum Bern. URL: <http://wsc.nmbe.ch> (last accessed October 2015)

Received: 11.11.2015

Author's address:

Christo Deltchev, National Museum of Natural History – BAS, Tsar Osvoboditel Blvd. 1, 1000 Sofia, Bulgaria, deltshev@gmail.com

Паяци от Високия Атлас – Мароко (Arachnida: Araneae)

Христо Делчев

(Резюме)

Малка колекция от паяци, събрани от П. Берон май 2012, дава възможност да се проследи тяхното разпространение в Националния парк Тубкал (Високия Атлас, Мароко) до неговата най-високата точка на в. Тубкал, Освен това са установени нови видове, както за паяковата фауна на планината, така и нови видове за фауната на Мароко. Представен е чек лист на известните видове паяци, срещащи се над 2000 метра във Високия Атлас.