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Calommata (Atypidae) and new spider species (Araneae) from Israel

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Abstract

The extraordinary finding in Israel of *Calommata*, a unique mygalomorph atypid, is reviewed. Another new find out of range concerns the cybaeid genus *Paracedicus*, represented in Israel by two new species: *P. baram* and *P. geshur.* Pitfall trapping yielded several new species disclosing among others populations inhabiting the sands of the southern Arava Valley of *Oxyopes elifaz* **n. sp.** or *Cerbalus aravaensis* **n. sp.** that resemble very closely psammophilous species living in the Haluza sands of the Negev. The unknown males of *Ozyptila clavigera* (O.P.-Cambridge, 1872), *Tmarus hazevensis* Levy, 1973, and *Ebo eremus* Levy, 1999 are described. In addition the following new species are described: *Zoropsis thaleri, Zodarion geshur, Z. odem, Hahnia carmelita, Ozyptila sedotmikha, Xysticus sansan, Theridion zekharya, Singa ammophila* and *Neoscona lotan.*

Key words: Spider fauna, new species, Israel

Introduction

The problem to recognize even common spiders frequently arises in ecological studies. Undetermined specimens have accumulated in the collections, mainly from pitfall trapping projects implemented in a few areas in Israel. Apart from the Atypidae and the cybaeid genus *Paracedicus*, all the other species addressed below are new additions to genera and spider families formerly revised in Israel. The study on new gnaphosid species is still pending. The capture of the rare atypid *Calommata*, a unique mygalomorph spider, is remarkable, in particular, for its occurrence in Israel. Pitfall trapping in the sands along the Arava, in the southern Rift Valley, revealed also that the sandy enclave is inhabited by unique populations that differ from their close congeners living in the sand dunes of Haluza, in the northern Negev. The species considered are *Oxyopes elifaz* **n. sp.** of the Arava that closely resembles *O. badhyzicus* Mikailov & Fet from Haluza, or *Cerbalus aravaensis* **n. sp.**, the largest sparassid of the Middle East, that resembles *C. psammodes* Levy known from Haluza. A similar case of allopatry is known from psammophilous scorpions of the genus *Buthacus* (Levy & Amitai 1980). Pitfall traps frequently contain more males than females, possibly due to the mate searching activity of males. The capture, thereby, of certain males solved some riddles. Thus, the unknown male of *Ozyptila clavigera* (O.P.-Cambridge, 1872) was eventually discovered, as well as the enigmatic males of *Tmarus hazevensis* Levy, 1973, and of *Ebo eremus* Levy, 1999; the latter represents along with another local *Ebo* species, a peculiar line of *Ebo* males with patellar apophyses on their palpi.

Material and methods

The present study is based on material deposited in the collections of the Hebrew University of Jerusalem (HUJ), Muséum National d'Histoire Naturelle, Paris (MNHN), and Hope Entomological Collections, Oxford (HECO). Localities in Israel are listed from north to south and UTM coordinates are given for less well-known places. Scales of drawings are in mm. Measurements (mm) are from preserved adult specimens. The abbreviations AME, PME refer to the anterior median and posterior median eyes, respectively. The length of the leg is the combined length of all segments (each measured separately) from femur to tarsus; the more proximal segments are excluded. The proportional indices used are the carapace index (length divided by width), clypeus index (height of clypeus divided by diameter of one AME), and patella-tibia index (combined length of both segments of first leg divided by length of carapace).