



International Journal of Fauna and Biological Studies

Available online at www.faunajournal.com

I
J
F
B
S
International
Journal of
Fauna And
Biological
Studies

ISSN 2347-2677
IJFBS 2016; 3(2): 22-23
Received: 13-01-2016
Accepted: 20-02-2016

Sachin R Patil
Zoological Survey of India,
Western Regional Centre,
Pune-411044, Maharashtra,
India.

Sharmila Roy
Division of Natural Resources &
Environment, Central Arid Zone
Research Institute, Jodhpur-
330363, Rajasthan, India.

Ruquaeya Bano
Zoological Survey of India,
Western Regional Centre,
Pune-411044, Maharashtra,
India.

A note on soil spiders (Arachnida: Araneae) from Jaisalmer district, Rajasthan

Sachin R Patil, Sharmila Roy, Ruquaeya Bano

Abstract

The present study is based on surveys conducted in Jaisalmer district of Rajasthan during 2013. Spiders are abundant and widespread in almost all ecosystems. Ground and soil dwelling spiders are predominated by Salticids and Zodariids. There is no report on the spider fauna of soil from Rajasthan earlier. In present paper altogether 5 species of spiders belonging to 3 genera under 2 families from the different localities of Jaisalmer district are studied and reported as new record for the state of Rajasthan.

Keywords: Soil, Spider, Rajasthan, Salticidae, Zodariidae.

1. Introduction

Spiders are abundant and widespread in almost all ecosystems. Spiders have a very significant role in ecology by being exclusive predators of insects including those harmful to man and help maintaining ecological equilibrium. Spiders act as effective Bio-control agents by feeding on various agricultural pests. Ground and soil dwelling spiders are predominated by Salticids and Zodariids. The spider fauna of this region is totally unexplored and there is no report on the spider fauna of soil from Rajasthan earlier. In present paper altogether 5 species of spiders belonging to 3 genera under 2 families from the different localities of Jaisalmer district are studied and reported as new record for the state of Rajasthan (Table 1.).

2. Materials and Methods

Soil spiders were collected during surveys undertaken under institutional programmes of the Central Arid Zone Research Institute, Jodhpur (Rajasthan). Different localities from Jaisalmer district of Rajasthan were explored during 2013 to collect soil samples. Land use patterns of the study area were mainly categorised as Silvopasture system, Managed-no grazing (Chandan Farm), Unmanaged Rangeland, Cropland (Jaisalmer Farm), Managed-controlled grazing, and Unmanaged-open grazing (Farmers Field). Pitfall trap method was used to collect ground dwelling spiders. Ethylene Glycol was used to kill the collected specimens. Preservation of collected specimens was done in 70% Ethanol. LEICA Stereo-zoom microscope was used for identification of spiders. Spiders were identified up to family level following Dippenaar-Schoeman and Jocque (2006) [1]. Species level identification of Salticid spiders was done using key given by Proszynski and Caleb (2015) [2]. The latest nomenclature of the identified species is based on World Spider Catalog (2016) [3]. All the identified specimens were deposited and registered at National Zoological Collections of the Zoological Survey of India, Western Regional Centre, Pune.

3. Results

Table 1: Systematic list of Spiders from Jaisalmer district (Rajasthan).

ID. Reg. No. (ZSI, Pune)	Systematic List	No. of Specimens	Locality in Jaisalmer Dist., (Rajasthan)
	Phylum: Arthropoda		
	Class: Arachnida		
	Order: Araneae		
	Family: Salticidae Blackwall, 1841		
Ar/465	<i>Aelurillus improvisus</i> Azarkina, 2002	1 ♀	Chandan Farm
Ar/466	<i>Brettus albolimbatus</i> Simon, 1900	1 ♂	Jaisalmer Farm
Ar/467	<i>Aelurillus improvisus</i> Azarkina, 2002	1 ♂	Chandan Farm
Ar/468	<i>Brettus albolimbatus</i> Simon, 1900	1 ♂	Jaisalmer Farm
Ar/469	<i>Aelurillus minimontanus</i> Azarkina, 2002	1 ♀	Farmers Field
Ar/470	<i>Brettus anchorum</i> Wanless, 1979	1 ♀	Farmers Field
	Family: Zodariidae		
Ar/471	<i>Suffasia tigrina</i> (Simon, 1893)	1 ♂	Farmers Field

Correspondence:
Sachin R Patil
Zoological Survey of India,
Western Regional Centre,
Pune-411044, Maharashtra,
India.

4. Conclusion

The soil dwelling spiders have been studied comprehensively from Jaisalmer district Rajasthan. Altogether 5 species of spiders belonging to 3 genera under 2 families are reported from the different localities of Jaisalmer district. All of them are newly recorded from the state of Rajasthan.

5. Acknowledgements

Authors are thankful to the Director, Zoological Survey of India, Kolkata for providing facilities. Authors are also grateful to the Director, Central Arid Zone Research Institute, Jodhpur for providing facilities for collection. We are also grateful to Dr. N. R. Panwar and Dr. M. Kumar for collecting the specimens from Rajasthan.

6. References

1. Dippenaar-Schoeman A.S., Jocque R. Spider Families of the World, Royal Museum for Central Africa, Tervuren, 2006, 1-336.
2. Proszynski J., Caleb J.T.D. Key to Identification of Salticidae (Araneae) of the Indian Subcontinent. Proszynski's Salticidae of the World: <http://www.salticidae.org>, 2015.
3. World Spider Catalog. Natural History Museum Bern, <http://www.wsc.nmbe.ch>, version 2016; 16:5.