

## **Biodiversity of Spider at Ralamandal Sanctuary Indore (Madhya Pradesh) India**

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**Abstract:** This study is based on the biodiversity of spider at ralamandal sanctuary Indore. In this study I had found that the sanctuary have great divers region for spider diversity. The spider of ralamandal sanctuary were collected from first week of January 2012 to third week of April 2012, Spider were collected by using active search, beating and pit fall trapping methods. During this study 100 specimens were collected from ralamandal sanctuary Indore. Among these 41 spider specimens belonging to 10 families were recorded from the sanctuary. Family Araneidae represented 16 species, Clubionidae represented 01 species, Erasidae represented 03 species, Gnaphosidae represented 01 species, Miturgidae represented 02 species, Oxyopidae represented 01 species, Salticidae represented 09 species, Theridiidae represented 03 species, Philodromidae represented 03 species and Thomisidae represented 02 species. The study indicates that the ralamandal sanctuary has a great diversity of spider during winter session.

**Keywords:** biodiversity, spider, ralamandal sanctuary

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### **I. Introduction**

Biodiversity short for biological diversity refers to all the population species and communities in a defined area (sharma at all 2010) the term biodiversity refers to totality of genes, species and ecosystem of a region. Biological diversity includes three hierarchical levels: Genetic diversity, species diversity and community & ecosystem diversity. Here I had find out diversity of spiders in ralamandal sanctuary. Spiders are arthropods called arachnids. They belong to order araneae. It is a large group of animals. Spiders occupy an important part of the overall predatory arthropod fauna in different terrestrial ecosystem.

### **II. Study Area**

Ralamandal sanctuary is located 15 km south from Indore on tillore road near ralamandal village, this lies in compartment no 206 and covers an area of 269 hectares and its attitude varies from 294.51 meter to 782.62 meter (960-2567 ft.) above mean sea level with slopes in all directions. The area in and around ralamandal was declared as reserve forest vide govt. of Madhya bhara forest department notification no. 1623/X/F/14-54 dated 09.10.1954 and handed over the forest department. This reserve forest of compartment no 206 area 234.55 hectare was declared as game sanctuary vide section no 18 of Indian wild life act 1972 notification no.14-20-X-II-88 dated 09.02.1989 and developing it from the eco-tourism prospective. This is gradually become a Centre of great attraction for Indore city dwellers.

### **III. Material And Methods**

Spiders were collected by different collecting methods given by arachnology society Amravati in the period of four month of January 2012 to April 2012 from ralamandal sanctuary Indore. Basically spiders were collected by using pit fall trap, active search, vegetation beating methods. After the collection spiders were putting in 70% alcohol. And identified it on the basis of body shape, eyes arrangement given by bug guide and arachnology society Amravati and akra, K, and E.Hauge (2003), Blackwall, J.(1865), Biswas and Biswas(1992), Bhandari, R and P. Gajbe (2001d), Bhandari, R and P. Gajbe (2001b), Blagoev, G.A. (2005), Blandin, P.(1986), Bleckmann, H & T L otz, (1987), Cardoso, P.(2005), Carico, J.E.(1973), Coyel, Fredrick A.(2006), Donadale, C.D. & J.H.Render (1990), Emerson, B.C. and N.Kolm (2005), Gajbe, U.A. (1995b), Gajbe, P.(2003a), Gajbe, U.A. and P.Gajbe (1999i), Gajbe, U.A. and P. Gajbe(2000c), Hawksworth D.L., M.T. Kalin-Arroyo (1995).

#### IV. Result And Discussion

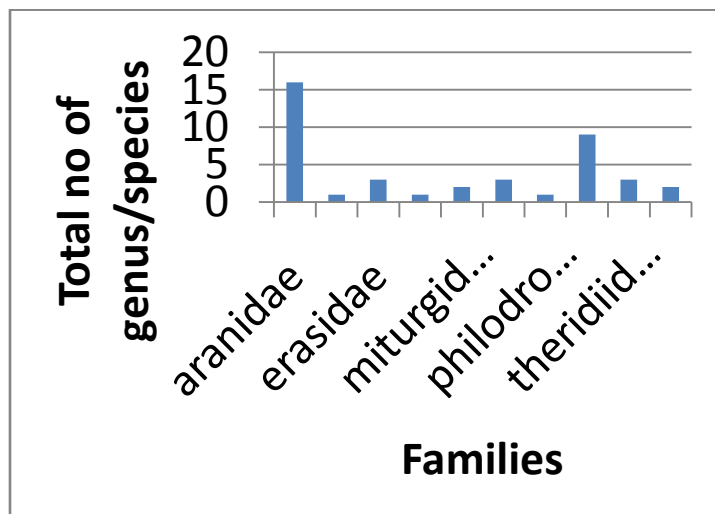
A total of 110 spider specimens were collected from ralamandal sanctuary indore. Among these 41 spiders were identified and kept in 10 families during the period of four month. Out of which most of the individuals were adult and some of these are small in size. I could identify studied family Araneidae represented 16 species, clubionidae represented 01 species, erasidae represented 03 species, gnaphosidae represented 01 species, miturgidae represented 02 species, oxyopidae represented 01 species, salticidae represented 09 species, theridiidae represented 03 species, philodromidae represented 03 species and thomisidae represented 02 species. During the study I could find that the density and the abundance of spiders are maximum in ralamandal sanctuary Indore. This was the first study to measure spider diversity in Ralamandal Sanctuary Indore.

Checklist of the spider species from Ralamandal sanctuary, Indore (Madhya Pradesh)

S.No	FAMILY	GENUS/SPECIES		
1.	Araneidae	Aranus sp.1		
		Aranus sp.2		
		Aranusmitifica		
		Argiopeaemula		
		Cyclosahexatuberculata		
		Cyclosaspirifera		
		Cyclosamoondensis		
		Cyclosa sp.		
		Neosconatheis		
		Neoscona sp.1		
		Neoscona sp.2		
		Neoscona sp.1		
		Neoscona sp.2		
		Neoscona sp.1		
		Larinia sp.		
		Zygilla sp.		
2.	Clubionidae	Clubioan sp.		
3.	Erasidae	Stegodyphus sp.		
		Stegodyphus sp.		
		Stegodyphussarasinorium		
4.	Gnaphosidea (Mouse Spider)	Haplodrassus sp.		
5.	Miturgidae (Dark Sac spider)	Cheiracanthium sp.		
		Cheiracanthium sp.		
6.	Oxyopidae (Lynx spider)	Oxyopuspankaji.		
		Oxyopopus		
		Oxyopus sp.		
7.	Philodromidae	Philodromus sp.		
8.	Salticidae	Myrmarachne sp.		
		Phintella sp.		
		Marpissa sp.		
		Thyne sp.		
		Thinia sp.		
		Telamonia sp.		
		Europhrys sp.		
		Phidippus sp.		
		Plexipus sp.		
		9.	Theridiidae	Theridian sp.
				Leucauge decorate
Leucauge sp.				
10.	Thomisidae (Crab Spider)	Thomisus sp.		
		Xysticus sp.		

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Spiders recorded in Ralamandal Sanctuary, Indore

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Oxyopus sp. (F.Oxyopidae)



Drassodes sp.(F.Gnaphosidae)



Cheiracanthium sp (F.Miturgidae) Argiope (F.Areanidae)



Haplodrassus sp (F.Gnaphosidae) Argiope (F.Areanidae)



Achaeearanea sp (F. Theridiidae)



Xysticus sp (F.Thomisidae)



Cyrtophora sp.(F.Areanidae)



Jumping sp.(F.Salticidae) Telamonia sp.(F.Salticidae)



Clubian sp (F.Clubionidae)

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