

Spider Diversity (Arachnida : Araneae) In Deobhog Region , Gariyaband, Chhattisgarh, India

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ABSTRACT

Spiders are small creature in nature and key component of ecosystem. However the spiders of Chhattisgarh are poorly explored and less information about them. Deobhog is border area of Chhattisgarh and Odisha. High spider diversity in Deobhog due to natural habitat and favorable conditions. A total number of 55 species belonging to 45 genera belonging to 13 families spiders species are recorded from study area Deobhog, Gariyaband Chhattisgarh India. Araneidae and Salticidae family are dominant species number.

Key words – spider , ecosystem , diversity , species , Deobhog.

1. INTRODUCTION

Spiders belong to Arachnida class. Spide' s are carnivore, air breathing animals , their body divided into cephalothorax and abdomen and eight jointed legs are attached to cephalothorax. Female spiders are exclusively larger than males. Spiders are found all types of ecosystem. Spiders have eight eyes on anterior part of cephalothorax. Eye configuration in spiders are different in different families. Spiders are released proteinous silk by spinnerets locate posteroventral region of abdomen and spinning webs. Different spiders families spinning different types of webs. Four pairs of legs and chelicerae is the key characters to distinguish them from insects. Spiders are also maintain food chain and ecosystem by eating on insects, its are biological controller. Spiders are usually found plants, trees, shrubs, litter, under the stone and soil cracks. Some spider species are venomous and some are not in the world. About 49,623 species of spiders belong to 129 families has been recorded till August 2021 in the world.

2. STUDY AREA

The study area is Deobhog Tahsil – Deobhog District Gariyaband Chhattisgarh. Total distance from Gariyaband district to Deobhog is 127 km and 217 km from Raipur Division Headquarter. Deobhog is lies 19°53'46"N 82°39'29"E / 19.856 'N 82.658' E . (By [www.gariyaband .com](http://www.gariyaband.com)) The samples is collected from Deobhog village, Dr. M Sharan Patra Aushadhiya Wanaspati

Udyan : Chichia and around the Govt. Pt. Shyam Shankar Mishra College Campus Deobhog. The area is tropical and comparatively high temperature the temperature range is maximum 26°C, minimum 12°C in December month and maximum 45°C , minimum 30°C in May month (by www.accuweather.com). There are great diversity of flora and fauna due to dry humid tropical climate and three cyclic seasons rainy , winter and summer. A lot of vegetation found in Deobhog that are favourable for spider fauna's life.

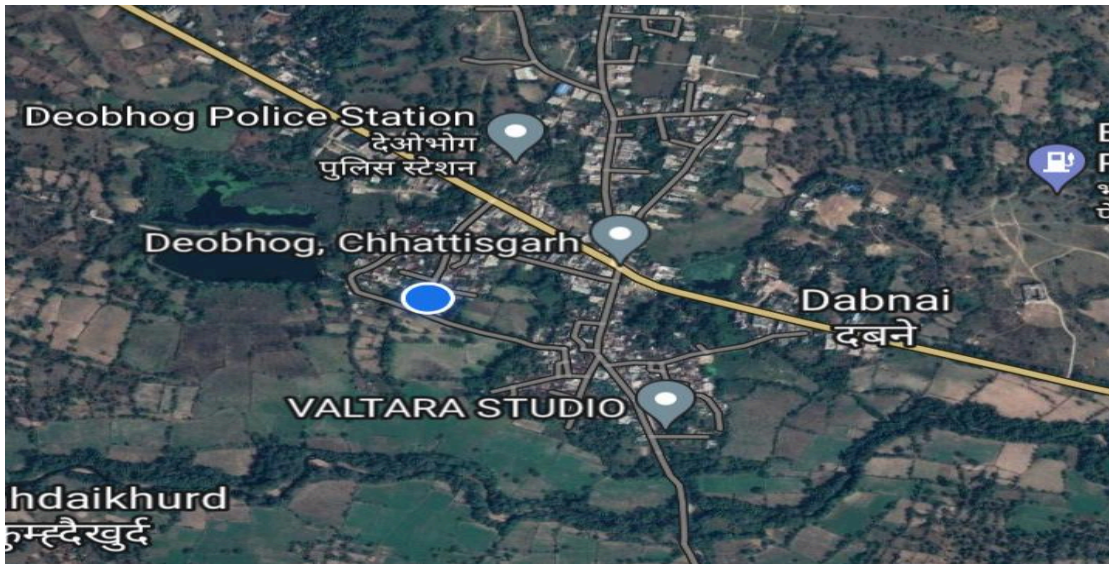


Fig. study area Deobhog Dist.Gariyaband Chhattisgarh



Fig. Dr. M Sharan Patra Aushadhiya Wanaspati Udhyan Chichia(Picture taking from Google map)

3. MATERIAL AND METHOD

Spiders are collected by hand picking method, sweep nesting and Vegetables beating method from many places of Deobhog, Gariyaband Chhattisgarh. Live specimens are taking photographed in collection are by using INFINIX SMART HD camera version 10 and GPS MAP camera version 1.4.22.

4. PRESERVATION AND IDENTIFICATION

The live specimens are preserved in 70% , 80% and ,90% Alcohol for latter identification. The identification of all spider specimens are based on taxonomic key for Indian spiders by Tikader (1982, 1987) , recent Published literature (2017-2021) and INATURALIST mobile app , INSECTS IDENTIFICATION APP.

5. OBSERVATION

Table- List of Spiders of Deobhog.

S.No.	Family	Species
1	Araneidae	Araneus mitificus (Simon,1886)
2		Argiope aemula (Walckeneer, 1841)
3		Argiope anasuja (Thorell, 1887)
4		Argiope pulchella (Thorell, 1881)
5		Cyclosa hexatuberculata (Tikader, 1982)
6		Cyrtophora cicatrosa (Stoliczka, 1869)
7		Eriovixia excelsa (Simon, 1889)
8		Eriovixia laglaizei (Simon, 1877)
9		Herenia multipunctata (Doleschall 1859)
10		Larinioides cornatus (Clerck, 1757)
11		Neoscona mukerjei (Tikader, 1980)
12		Neoscona vigilans (Blackwall, 1865)
13		Neoscona thesi (Walckeneer,1841)
14		Nephila pilipes (Fabricius,1793)
15		Thelacantha brevispina (Doleschall, 1857)
16	Hersillidae	Hersilia savignyi (Lucas,1836)
17	Lycosidae	Hippasa greenalliae (Blackwall, 1867)
18		Lycosa bistrata (Gravely,1924)
19		Pardosa pseudoannulata (Bosenberge & Strand,1906)
20		Wadicosa quadrifera (Gravely,1924)
21	Oecobiidae	Oecobius putus (O. Pickard-Cambridge,1876)
22	Oxyopidae	Oxyopes javanus (Theroll,1887)
23		Oxyopes macilentus (Koch,1878)
24		Peucetia viridona (Stoliczka,1869)
25	Pholcidae	Artema atlanta (Walckeneer,1837)
26		Crossopriza lyoni (Blackwall,1867)

27		Pholcus phalangioides (Fuesslin,1757)
28	Salticidae	Carrhotus viduus (Koch,1846)
29		Chrysilla volupe (Karsch,1879)
30		Harmochirus zabkai (Logunov,2001)
31		Hasarius adansoni (Audouin,1826)
32		Hyllus semicupreus (Simon,1885)
33		Menemerus bivittatus (Dufour,1831)
34		Phintella vittata (Koch,1846)
35		Plexippus paykulli (Audouin,1826)
36		Plexippus Petersi (Karsch,1878)
37		Rhene flavicomans (Simon,1902)
38		Telamonia dimidiata (Simon ,1899)
39		Thyene imperialis (Rossi,(1846)
40	Scytodidae	Scytodes lugubris (Thorell,1887)
41	Sparassidae	Heteropoda venatoria (Linnaeus,1767)
42		Olios milleti (Pocock,1901)
43	Tetragnathidae	Guizygiela indica
44		Guizygiela melanocrania (Thorell,1887)
45		Leucauge decorata (Blackwall,1864)
46		Tetragnatha extensa (Linnaeus,1758)
47		Tetragnatha mandibulata (Walckeneer,1841)
48	Theridiidae	Meotipa multuma (Murthappa et al.,2017)
49		Nesticodes rufipes (Archer,1950)
50		Nihonhimea mundula (Koch 1872)
51	Thomisidae	Indoxysticus minutus (Tikader,1960)
52		Synema decoratum (Tikader,1960)
53		Thomisus lobosus (Tikader,1965)
54		Thomisus pugilism (Stoliczka,1869)
55	Uloboridae	Uloborus sp.

6. RESULT AND DISCUSSION

Present study of Spiders fauna in Deobhog, Gariyaband Chhattisgarh is done during 05 November 2022 to 01 June 2023 almost 6 months. The result of the study is that 55 species under 45 Genera belonging 13 families found in Deobhog. All families represent great diversity of Spiders fauna. Family Araneidae (15 species) and Salticidae (12 species) are predominant. Other families are Tetragnathidae (5 species), Lycosidae (4 species), Thomisidae (4 species), Oxyopidae (3 species), Pholcidae (3 species), Theridiidae (3 species), Sparassidae (2 species), Hersiliidae (1 species), Oecobiidae (1 species), Scytodidae (1 species), Uloboridae (1 species in genera level) .



Fig – A. *Araneus mitificus* | B. *Argiope anasuja* | C. *Eriovixia laglaizie* | D. *Neoscona thesi* | E. *Oxyopes macilentus* | F. *Chysilla volupe* | G. *Hyllus semicupreus* | H. *Rhene flavicomans* | I. *Olios mileti* | J. *Guizygiela indica* | K. *Indoxysicus minutes* | L. *Thomisus pugilism*.

7. CONCLUSION

The study period is almost 6 months. During the study we found that have high spider species diversity. Spiders fauna easily survive in the favorable conditions of Deobhog Gariyaband Chhattisgarh. Spiders are important predator of insects and biological controller in ecosystem. Deobhog is home of Spiders fauna and we hope that future works has been done continue.

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