



## Spider diversity of Wan Wild life Sanctuary, Vidharbha , India

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### ABSTRACT

Wan wild life sanctuary located south of Melghat TR and named after a prominent river of the region, this WS shares its eastern boundary with Narnala WS and its western boundary with Ambabarwa WS. To its n-e lies MTR and Melghat Sanctuary Wan Sanctuary in the MTR is spread over 211 square kilometers in Dharni and Chikhaldara Tahasils of Amravati district of the Maharashtra state. The attempt has been made to explore the spider world of the Wan Sanctuary. This WS protects the natural habitat of large endangered mammals like Tigers and Leopards Preliminary reveals 17 species of spiders belonging to 7 families was recorded in a one day survey of the sanctuary . Of all the species collected, 82.35 % were identified to species, 17.64 % were identified to genus member of family Aranidae, Eresidae, Lycosidae, miturgidae, salticidae, sparassidae & Tetragnathidae are found in abundance.

**Keywords :** preliminary spider Diversity, wan Wild life Sanctuary

### Introduction:

Spider diversity of wan sanctuary as a way of better understanding these ecosystems and improving their management, and hence their productivity, while promoting the conservation of native biodiversity. Spiders play an important role in stabilizing or regulating insect populations because they are one of the most numerous insectivores and exhibit a wide variety of lifestyles and foraging strategies. Additionally, spiders are an important food source for birds, lizards, wasps and other animals. Spiders are predatory invertebrate animals that have two body segments, eight legs, no chewing mouth parts and no wings. They are classified in the order Araneae of the class Arachnida of the phylum Arthropoda. This area is part and parcel of Melghat and is rich in floral and faunal biodiversity. The hilly rugged terrain possesses Tropical Dry Deciduous forests. However, the knowledge of the invertebrate fauna in this region is limited. So there is urgent need to explore spider diversity of this region .

### Matrial and Method

#### Study Area

Melghat TR and other small WS it forms an important conservation unit for Maharashtra. The ecological study was conducted at wan sanctuary (Figure 1.1) Wan sanctuary located longitudinally -760 46' 0" to 770 5' 0" and latitude 210 11' 20" to 210 18' 45" and comprises 205.86 sq km sq.kilometer forest land area and 5.14 sq km private land Spider were collected from bank of wan river , Wan road area and interior of Tarubandha village as a one day survey for preliminary spider diversity study .The present study is undertaken since October 2011 to make checklist of families, genera and species of spiders in Wan Sanctuary This is the only preliminary study; still the study is in progress. In near future, more faunal surveys are planned to study in detail the spider diversity.

**Table 3.1. Provisional checklist of spiders from Wan forest habitats of a highland dry deciduous forest in Akola district, The fourth column represents the guilds where, WB = Web builders, PW = Plant wanderers.**

Family	Genus	Species	Guild	Total
Aranidae	Araneus	Araneus diadematus	WB	4
	Araneus	Araneus mitificus	WB	2
	Cyclosa	Cyclosa confusa	WB	20

	Cyclosa	Cyclosa hexatuberculata	WB	10
	Cyclosa	Cyclosa insulana	WB	5
	Cyclosa	Cyclosa sp.	WB	3
	Cyrtophora	Cyrtophora kohaensis	WB	3
	Larinioides	Larinioides Indica	WB	6
Eresidae	Stegodyphus	Stegodyphus diptiae	WB	2
	Stegodyphus	Stegodyphus sanjeevānae	WB	3
Lysicodae	Lycosa	Lycosa sp.	FWB	5
Miturgidae	Cheiracanthium	Cheiracanthium sp.	PW	2
Salticidae	Evarcha	Evarcha culicivora	PW	10
	Plexippus	Plexippus paykulli	PW	8
	Telamonia	Telamonia dimidiata	PW	6
Sparassidae	Heteropoda	Heteropoda venatoria	PW	2
Tetragnathidae	Leucauge	Leucauge decorata	WB	10
Total				101

### Photos:

Araneus diadematus



Araneus mitificus



Cheiracanthium sp



Cyclosa confuse



Cyclosa Insulana



Evarcha culicivora



Stegodyphus diptiae



Telamonia dimidiata



Telamonia dimidiata

**Result and Discussion:**

Preliminary reveals 17 species of spiders (Table 3.1) belonging to 7 families was recorded in a one day survey of the sanctuary . Of all the species collected, 82.35 % were identified to species, 17.64 % were identified to genus. Amongst these 7 families the most dominant family was Araneidae 101 specimens collected in total, Araneidae was the numerically predominant family, forming 47.05% of the sample. It was followed by Salticidae (17.64 %), Eresidae (11.76%) Lycosidae (5.88%), Miturgidae (5.88%), Sparassidae (5.88%) and Tetragnathidae (5.88%). The most abundant species was *Cyclosa confusa*, which represented 23.64% of all the specimens collected, and 80.96% of all the Araneidae collected. Other very abundant species were Salticidae sp. (Salticidae) (8.21%), *Aelurillus* sp. (Salticidae) (5.01%), *Runcinia flavida* Simon (Thomisidae) (4.65%) and *Oxyopes* sp. 1 (Oxyopidae) (4.64 %). The study shows that spider diversity of this region is rich and more intensive studies may yield more information about the spider diversity especially with reference to the diversity of spiders to the species level of this area.

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