



## First distribution record of spider fauna (Aracnida: Araneae) in Navegaon National Park (NNTR) Gondia Maharashtra

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### Abstract

The paper presents a study on the diversity of spiders in Navegaon National Park of NNTR Gondia. Navegaon National Park is an important biodiversity conservation area in Gondia district of Maharashtra. Many of the other biological reports are known from this area except on spiders. The study was undertaken as an opportunistic survey for spiders in Navegaon National Park during the period from Jan. 2012 to Dec. 2017. Spider species were observed and identified with the help of standard literature. This study is aimed towards contributing to the biodiversity atlas for further management and development strategies. A total of 20 species belonging to 16 genera and 9 families were recorded from the study area. Among all these 9 families, high diversity was observed in the family Salticidae (6 species) while Sparassidae (3 species), Araneidae (3 species), Nephilidae (2 species), Tetragnathidae (2 species) Lycosidae (1 species) Hersillidae (1 species) Oxyopidae (1 species) Pholcidae (1 species).

**Keywords:** spider, diversity, Navegaon national park, gondia, Maharashtra

### Introduction

Spiders (Phylum: Arthropoda, Class: Arachnida, Order: Araneae) having a body structure composed by cephalothorax and abdomen joined by the thin pedicel, eight walking legs and no antennae and wings on body. There are various species and groups of spiders existing in India. They play a significant role in the regulation of insect and other invertebrate populations in most ecosystems (Wise, 1993; Russell-Smith, 1999; Raghavendra, 2001) [8, 4, 3]. But due to the lack of interest in spiders their study in some important ecosystems has always remained largely ignored. Spiders generally have humidity and temperature preference that limit them to areas within the range of their "physiological tolerances" which make them ideal candidates for land conservation studies (Riechert, Gillespie 1986) [5]. Therefore in the present paper the scientific documentation on spider diversity pattern was recorded for all season which will be helpful for further biodiversity assessment and conservation programme. According to the World Spider Catalogue (2018), 47761 species of spiders belonging to 4101 genera under 118 families are known from the world. A total of 1520 species of spiders as in 377 genera from 60 families are reported from India (Mathew et al., 2009) [2]. The present study was carried out in Navegaon National Park of NNTR, situated in Gondia district, Maharashtra. Navegaon National Park is an important biodiversity conservation area in Gondia district of Maharashtra. Many of the other biological reports

are known from this area except on spiders. This is a first record from this biological important area.

### Material and Method

Navegaon National Park is situated in Gondia district of Maharashtra (20°56'N 80°10'E). It is now recognized as Navegaon-Nagzira Tiger Reserve (NNTR) in 2013. Its 5th Tiger reserve of Maharashtra. It is situated in Gondia and Bhandara Districts in the North-Eastern corner of Maharashtra. Gondia district shares common boundaries with the states of MP and CG on North and Eastern side respectively. It has various type of vegetation ranging from dry mixed forest to moist forest. According classification of forest type, it is 5A/C3 southern tropical dry deciduous forest. In the present study the spiders were found in various places like forest edge, houses, road side bushes, bark of trees, etc. The identification of spiders is done by the standard literature of Tikader (1980) [6], Tikader & Malhotra (1980) [7] and Gajbe (2004) [1]. Spiders were only photographed for identification and no specimens were collected.

### Observation and Result

The following list of spiders was recorded from Navegaon National Park. A total of 20 species (Table-1) belonging to 16 genera and 9 families were recorded from the study area during year 2012-2017.

**Table 1:** List of spiders in Navegaon National Park

Sr. No.	Family	Scientific Name
1	Tetragnathidae	<i>Leucauge decorata</i> , Blackwall, 1864
2		<i>Tetragnatha</i> sps.
3	Salticidae	<i>Plexippus paykulli</i> Andouin, 1826
4		<i>Telamonia dimidiata</i> Simon, 1899
5		<i>Plexippus</i> sps.
6		<i>Menemerus</i> sps.
7		<i>Hyllus</i> sps.
8		<i>Salticidae</i> sps.
9	Nephilidae	<i>Nephila pilipes</i>
10		<i>Nephila kuhlii</i>
11	Sparassidae	<i>Olios</i> sps.
12		<i>Heteropoda</i> sps.
13		<i>Heteropoda venatoria</i> , Linnaeus, 1767
14	Lycosidae	<i>Hippasa agelena</i>
15	Hersillidae	<i>Hersilia Savignyi</i> Lucas, 1836
16	Araneidae	<i>Neoscona</i> sps.
17		<i>Neoscona sinhagadensis</i> , Tikader, 1975
18		<i>Argiope anasuja</i> Thorell, 1887
19	Oxyopidae	<i>Oxyopes</i> sps
20	Pholcidae	<i>Crossopriza</i> sps



*Leucauge decorata*



*Plexippus paykulli*



*Telamonia dimidiata*



*Nephila* sps



*Olios* sps.



*Unidentified* sps



*Hippasa agelena*



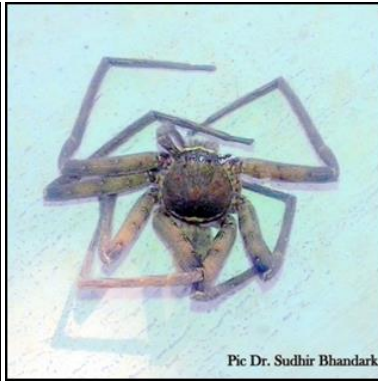
*Plexippus* sps.



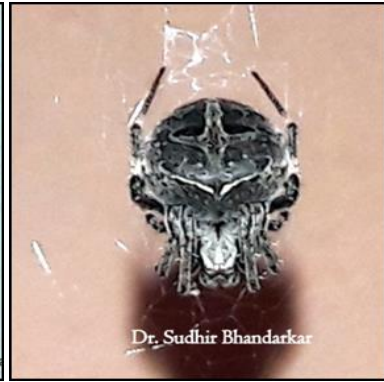
*Nephila kuhlii*



*Hersilia savignyi*



*Heteropoda sps.*



*Neoscona sps*



*Heteropoda venatoria*



*Neoscona sinhagadensis*



*Oxyopes sps.*



*Nephila pilipes*



*Neoscona sps*



*Argiope anasuja*



*Tetragnatha sps.*



*Hyllus sps. salticidae*



*Salticidae sps.*

**Discussion**

Among all these 9 families of spiders, high diversity was observed in the family Salticidae (6 species) while Sparassidae (3 species), Araneidae (3 species), Nephilidae (2 species), Tetragnathidae (2 species) Lycosidae (1 species) Hersillidae (1 species)

Oxyopidae (1 species) Pholcidae (1 species). Thus the results indicate the dominance of ground dwelling spiders like Salticids and Araneids are abundant in the study area. A total of 20 species belonging to 16 genera and 9 families were recorded from the study area during year 2012-2017.

## References

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