

## DIVERSITY OF SPIDER IN ACHANAKMAR, WILD LIFE SANCTUARY DISTRICT BILASPUR (CHHATTISGARH)

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**ABSTRACT:** Spiders are the highly diverse group of invertebrates and occupy various habitats. Diversity of spider in areas with crop, non crop, river valley forest at Achanakmar wildlife sanctuary of Bilaspur dist. of Chhattisgarh state, have been studied from 15<sup>th</sup> June-15<sup>th</sup> July, 2019. During this period 27 specimens collected from the different area at wildlife sanctuary of Achanakmar, Bilaspur (Chhattisgarh). The study revealed that seventeen species belonging to seven families (Salticidae, Lycocidae, Nephelidae, Agelinidae, Sparassidae, Araneidae and Tetragnathidae) were indennified.

**Key words :** Spider, Diversity, Family - Araneae.

### INTRODUCTION

India is rich in both flora and fauna and is mega diverse country knowledge about the diversity. Spider is one of the most diverse group of organism. Spider are air breathing Arthropods called Arachnids. They belong to Order-Araneae that have eight legs and Chelicerae with fangs that inject venom and they are the largest order of Arachnids and rank seventh in total species diversity among all other group of organism. The Achanakmar wild life sanctuary is located in Bilaspur district of Chhattisgarh state. It has been established in 1975 under the provision of the Indian Wild life protection act of 1972. It has a part of the Achanakmar-Amkantak biosphere reserve. Achanakmar is a part of the large contiguous forest tract that form the central Indian Tiger heart land. As of spider catalog at least 45,000 spider species and 114 Families have been recorded by taxonomist in India. Tikader (1987), Gajbe (1995,2003,2004,2007), Sebastian & Peter (2009), Patil (2011), Platnick (2014), Ekka & Kujur (2015) and Jose *et al.* (2018). The study of spider is not completely known in this region. During present study a total, 27 species were recorded from Achanakmar wild life sanctuary, which are belonging to seven families.

### MATERIAL AND METHODS

The Achanakmar wild life sanctuary has a total geographical area of 555.55 km<sup>2</sup>. The sanctuary is close to Amarkantak the water source of the Sone river and Narmada river. Its geographical coordinates are 22°50'52"N, 81°77'87"E. It has sub tropical continental semi-arid monsoon type of climate with short rainy season, hot summer and cold winter. Because of the geographical condition shown above the study of spider diversity is good at Achanakmar wild life sanctuary (Wikipedia,2018)

The spiders were collected from forest, plantation,

crops, river valley, forest land and agriculture fields, forest area building. Photographs were also taken in different view to get the clear eye position, pattern of eye and shades of cephalothorax and abdomen, hair and spines pattern etc. The collected spiders were identified with the help of available literature of Tikader (1987) and Gajbe (2003,2004).

#### Systematic position of spider :

Kingdom	-	Animalia
Phylum	-	Arthropoda
Sub Phylum	-	Chelicerata
Class	-	Arachnida
Order	-	Araneae
Sub Order	-	Mesothelae, Mygalomorpha, Araneomorpha

### RESULTS AND DISCUSSION

The spider fauna of India is represented by 1686 (Check list of Indian spider,2012). Species of spider belonging to 438 genera and 114 family. The Achanakmar wild life sanctuary, district Bilaspur (Chhattisgarh) is rich in spider diversity. Achanakmar wild life sanctuary also inhabited good number of spider and remarkable diversity of spider fauna. There is a lack of information on taxonomy of spider in this region. In this present study a total, 27 species were recorded from Achanakmar wild life sanctuary, which are belonging to seven families (Table.1 and Figs.1&2).

Sharma *et al.* (2010) recorded the diversity and abundance of spider fauna of Narmada river at Rajghat, Barwani (M.P.) and identified of 117 specimens of spider belonging to 12 families and 44 species. Keswani *et al.* (2012) prepared by check list of Indian spider families and the number of genera and species found in India. A total of 1686 (91 species were from Mygalomorpha and 1595 species from Araneomorpha). Whitmore *et al.* (2002) studied diversity of spider (Araneae) in Savanna reserve, Northern province, South Africa and re-

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