



WEB OBSERVATION OF SOME THERIDIIDS FROM SATPUDA LANDSCAPE, INDIA

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Abstract : Family Theridiidae was described by Sundevall 1833 and is one of the Orb-web Builder families, out of the 7 orb-web building families recorded from Satpuda Landscape during 2013-2015. Theridiids commonly are called as Cob-web spiders. A brief documentation of web pattern of some common Theridiids is done for studying their Ecological aspect with respect to the web and their location. In this paper, web comparison of the collected Theridiid genera is done to have an idea about the web.

Index Terms : Satpuda, Theridiidae, Orb-Weavers, Ecology, Web.

I. INTRODUCTION

Theridiid builds gumfoot-web or cob-web which resembles to the webs of linyphiids to a certain extent. The sheet structure of theridiids, however, is very loose and irregular and also the trapping threads of the webs are furnished with glue droplets. These threads are tightly attached to the substrate and when an insect approaches and touches the thread, it breaks off and the insect is suspended in the air, glued with the thread. In attempting to get free, the victim gets progressively entangled by touching the neighbouring catching threads. The spider then throws further sticky threads over the victim before biting it. Theridiids typically rest upside down in their three-dimensional, irregular, cob-web.

Spiders of Theridiidae shows a web frame which could be simple and can be complex, web being parallel to ground, is not just a simple orb-web, but it is a modified one with a sort of tangled web, which is 3 dimensional. Theridiid shows a habit of building the web once i.e. it is kind of permanent and they don't built the web at regular basis or daily basis. The webs are also called as cob-web, as they become old and dusty.

II. MATERIALS AND METHODS

Spiders from the 7 families were observed day and night for their web pattern. Web images were taken by Sony Cyber-shot DSCH-50. Web images with and without specimen wherever possible were taken and notes were made regarding the appearance of the web and the surrounding environment where the specimen and the web is cited.

III. Observations and Results

Satpuda Landscape was surveyed day and night for studying the web patterns of different genera from **Theridiidae** Sundevall, 1833. Theridiids typically rest upside down in their three-dimensional, irregular, cob-web. Theridiids usually builds the web once i.e. it is kind of permanent and they don't built the web at regular basis or daily basis. The webs of Theridiids are also called as cob-web, since they become old and dusted.

3.1 *Coscinida* Simon, 1895 and *Stemmops* O. Pickard-Cambridge, 1894

These two genera showed vertically oriented web. So, Orientation of the web is **Vertical**

While talking about the web measurement of Theridiids, webs were not measured since they show a degree of variability which ranges from simple to complex for example, Genus *Stemmops*, as we know is quite similar with *Coscinida* with respect to appearance as well as web building pattern. Species of these genera can be cited residing on its web or can also be collected rendering on the ground. Their web consists of simple 4 to 5 threads suspended from shrub branch or twig, as I observed it for 2-3 times. The webs of *Coscinida tibialis* Simon (1895) as well as *Stemmops satpudaensis* Rajoria (2015) are generally noticed closer to the ground. The web is so simple that it sometimes appears that the spider is suspended in air instead of residing on its web.

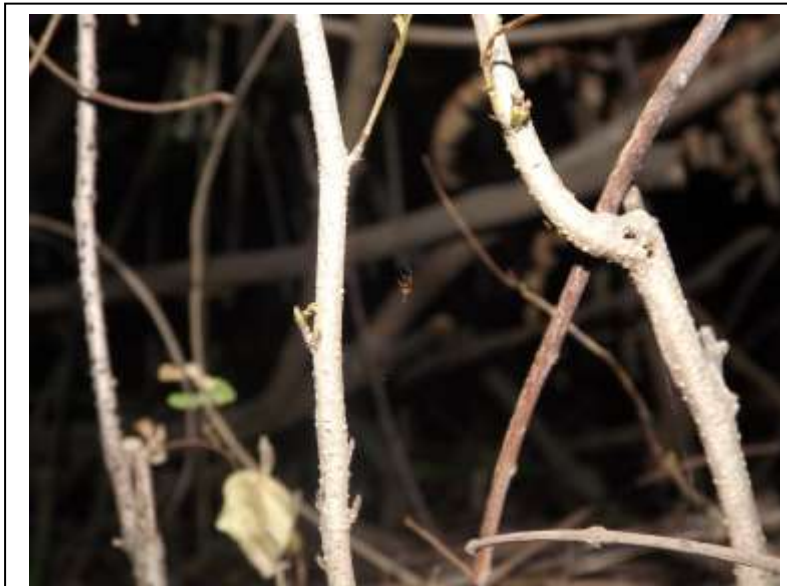


Fig. 1- Web of *Coscinida tibialis* Simon (1895)

3.2 *Parasteatoda* Archer, 1946, *Steatoda* Sundevall, 1833 & *Theridion* Walckenaer, 1805

Specimens like *Theridion melanostictum* Pickard-Cambridge, O. (1876) was collected from ground while another species of *Theridion* was collected from the ceiling and wall corners of buildings. This *Theridion* species shares its website location with that of the spiders of Pholcidae. *Parasteatoda oxymaculata* Zhu, M. S. (1998) spider was collected from its retreat folding the leaf while guarding its egg sac. The web of *Parasteatoda oxymaculata* Zhu, M. S. (1998) appeared old, accumulation of dust, embedded with debris of small leaf litter. *Steatoda erigoniformis* Pickard-Cambridge, O. (1872) was also collected from the ground and was spotted dwelling with ants.



Fig. 2- Web of *Parasteatoda oxymaculata* Zhu, M. S. (1998). Specimen was collected from the web.

IV. DISCUSSION

The orb-weavers include more or less 12,000 species and make up about 26% of spider diversity. Family Theridiidae Sundevall 1833 currently includes 124 genera and 2516 species (WSC, V-22.0). Web constitute an essential part in understanding the ecological as well as behavioural aspect of the spiders and by studying the detailed web characters; structures and related activities, one can easily understand and can identify and characterise the spider by seeing the web.

V. ACKNOWLEDGMENT

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