



Species Diversity and Composition of Spiders (Arachnida: Araneae) of Different Micro-habitats in Nilgiri Foothills, Western Ghats, Tamil Nadu, India

Vijay Kumar Yadav, John T.D. Caleb¹ and R. Revathi²

Department of Forestry, Mewar University, Gangrar, Chittorgarh-312901, India

¹No. 27, Saravana Nagar, Manigantapuram, Thirumullaivoyal, Chennai-600 062, India

²Forest College and Research Institute, Mettupalayam, TNAU, Coimbatore-642110, India

E-mail: yadavvijaykumar3@gmail.com

Abstract: Spider diversity and composition was assessed by various field surveys in the campus and its surroundings of Forest College and Research Institute, Mettupalayam, located in foothills of Nilgiris, Western Ghats, Coimbatore district, Tamil Nadu from January 2019 to June 2019. Four micro-habitats identified for the study purpose were *Jatropha* plantation & surrounding (JPS), *Melia dubia* plantation and surrounding (MPS), campus buildings and garden (CBG) and campus forest nursery (CFN). A total of 410 individuals of spiders were collected from 16 families, 42 genera and 55 species. Tukey Post Hoc multiple comparison test showed that mean spider density was significantly higher in CBG site as compare to other micro-habitats, followed by MPS and CFN, however, maximum 39 spiders species were recorded in MPS. Mean species richness was significantly higher in CFN, followed by MPS and CBG micro-habitats. Spider species were grouped in seven different feeding guilds, in which stalkers was dominant guild (40%), followed by orb-web builders (25%). Diversity indices, Shannon-Wiener, Simpson, Margalef and Pilon's Evenness Indexs, were calculated as 3.44, 0.95, 8.98, and 0.86 respectively. Maximum value for relative diversity indices (RDi) was for family – Salticidae (33.33 RDi for genera and 30.91 RDi for species). These results show that micro-habitats play an important role in composition and survival of spiders.

Keywords: Diversity, Institute campus, Micro-habitat, Species composition, Spider
