

Project Profile

Title:	Orthopteran diversity of the Nilgiri Biosphere Reserve (Tamil Nadu part)
Principle Investigator:	Dr.N.Senthilkumar
Co Investigators:	Dr.S.Murugesan Dr. K. R. Sasidharan
Duration:	3 years 2010-2013
Objectives:	<ol style="list-style-type: none"> 1. To study the distribution of orthopteran fauna and assess their diversity in different habitat types. 2. To understand tropic diversity through analysis of feeding behaviour, host selection strategies and feeding guilds and elucidate seasonality of important orthopteran species. 3. To study the impact of anthropogenic landscape changes on orthopteran diversity and evolve conservation strategies.
Funding Agency:	ICFRE
Summary/Achievements	<p>A total of 44 species of Orthoptera belonging to three different families was recorded from seven different habitat types viz., Scrub jungle, Deciduous forest, evergreen forest, grassland, plantations, sholas and swamp forests in NBR. Seven habitats namely Scrub jungle at Masinagudi; Deciduous forest at Mudumalai; Shola forest at Kothagiri; Grassland at Kodanadu; Teak Plantation at Kargudi and Evergreen forest at Gudalur have been surveyed at regular interval to observe the incidence and seasonality of Orthopteran insects. The species <i>Xenocatantop shumilis</i>, <i>Conocephalus maculatus</i> and <i>Phlaeoba infumata</i> are common in all habitat types surveyed. Studied the host range of <i>Xenocatantop shumilis</i>, <i>Phlaeoba infumata</i>, <i>Oxya sp.</i> <i>Acrida sp.</i> <i>Gastrimargus sp.</i> And <i>Orthacris maindroni</i>. Conducted extensive study on orthopteran diversity of high altitude shunted wet evergreen forests called shola to understand the impact of landscape changes. The upland forests act as refuges for highly mobile polyphagous insects like grasshoppers. <i>Oxyapusco vitata</i>, <i>Phaleobain fumata</i>, <i>Oxyanitidula</i> and <i>Xenocatantop shumilis</i> species were recorded during the orthopteran population survey conducted in shola forest, grasslands and swamps at Kotagiri and Kodanaad. Diversity of grasshoppers in Nilgiris shola forests at three different locations each in Nilgiris north and Nilgiris south divisions respectively based on anthropogenic pressure and climate change have been studied. A total of 15 species including an unknown gryllid and two unidentified Acridid have been recorded from Nilgiris Shola forests and grasslands. Prioritization of Orthopteran species for conservation of sites and vice-versa has been made using root weighting method and studied the impact of Anthropogenic disturbances on Orthopteran diversity in different sites.</p>