



Assessment of the Diversity of Thrips species (Thysanoptera) in Solanaceous Vegetable Crops

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Abstract: The study was done during 2019-20 to determine the species composition of thrips in solanaceous vegetable crops namely brinjal, chilli and tomato in southern part of Bihar. Diversity was calculated by Shannon-Weaver Index, Simpson index, Richness index and evenness by Pielou evenness index. Among the thrips species, the most abundant species was *Scirtothrips dorsalis* with 887 specimens were collected from solanaceous vegetable crops and considered as a serious pest species (741 from chilli and 146 from brinjal). The next most abundant species was *Thrips palmi* found with 769 specimens (292 from tomato, 287 from brinjal and 190 from chilli) and followed by *Frankliniella schultzei* reported with 106 specimens from brinjal crop only, and *Thrips tabaci* with 96 specimens only recorded from tomato crops. As far as the diversity index is concerned, the highest Shannon-Wiener index, Margelef richness index and Pielou's evenness index was recorded in the brinjal crop, and it was followed by tomato and chilli crops. The domination coefficient of thrips species was also studied and it revealed that *Scirtothrips dorsalis* and *Thrips palmi* were the most eudominant species, whereas, *Frankliniella schultzei* and *Thrips tabaci* were the subdominant species. The above findings would be useful in the development of monitoring programs and design of pest management strategies.

Keywords: Thrips, Diversity, Relative abundance, Common solanaceous vegetable crops