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Diversity of Soil Microarthropods in Rubber plantation of Mavelikara Taluk, Alappuzha District, Kerala State, India

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Diversity of microarthropods was studied in Rubber plantation of Mavelikara Taluk, Alappuzha district, Kerala, India. The period of study was in November 2021 – June 2022. Samples were collected monthly. Hand sorting method and Berlese funnel were used for extracting the organisms. The edaphic factors such as pH, temperature,organic carbon were recorded and analyzed. During the study different orders such as Acari, Collembola, Diplura, Isopoda, Protura, and Symphyla were extracted from the soil samples.The PCA Analysis show the importance of soil edaphic factors on the diversity of micro arthropods in the study area. Chi-Square analysis revealed that there is not much significant difference between the edaphic factors. The two-way ANOVA shows there is significant difference in the population density of microarthropods between different months and between different orders in both seasons. Order Collembola shows highest population density in both pre and post monsoon when compared to other Orders and population density of Order Symphyla are less in both post and pre-monsoon season when compared to other orders. Population density of microarthropods varies in both seasons.

Keywords: Microarthropods, edaphic factors

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