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Diversity of Soil Insects on Vegetable Gardens in Tomohon City

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Abstract Diversity is one indicator of the stability of a community. One of the resources that play a role in the community is ground insects. Insects as a component of biodiversity have an important role in the food web, namely, as herbivores, carnivores, and detritivores. In the Tomohon City area, it is a potential source of vegetable producers and has high biodiversity and has not been studied much, such as soil insects on vegetable crops. There are several parameters that can be measured to determine the state of an ecosystem, for example by looking at the value of diversity. This study aims to determine the diversity of soil insects using the pitfall trap technique on vegetable fields in Tomohon City. Soil insect sampling was carried out at three vegetable production centers in the city of Tomohon, North Sulawesi using the pitfall trap method. The traps were set at 10 points randomly and spread out at each center of vegetable crop production. The traps were set for two days and repeated as many as three times. The collected insects were sorted and identified and numbered to obtain the diversity index value using the Shannon-Wiener formula. The results of the study found eight orders consisting of 18 families of insect species including decomposers (four families), detritivores (two families), predators (seven families), herbivores (five families) to moderate and the value of the dominance index ranges from 0.125 – 0.710 .

Key-words : Insect diversity, soil insects.

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