

## ABSTRACT

***Nur Rohmawati. 2019. The diversity Order of the Orthoptera in the Taman Kehati Kiara Payung Kabupaten Sumedang. Advisors: Dr. rer. nat. H. Ama Denny, M. Sc., and Fitri Aryanti, S.T., M. Pd.***

*Forest conservation Taman Kehati Kiara Payung Kabupaten Sumedang is one of the forest is heterogeneous, which is still in the stage of succession to maintain the local biodiversity as well as conservation of flora and fauna. Grasshopper is one of the insect fauna has an important role in maintaining the balance of forest ecosystems. The diversity of grasshopper will be more stable on the ecosystem is not disturbed. This study aims to renew and add to the information data the diversity of the order Orthoptera in the Taman Kehati Kiara Payung Kabupaten Sumedang. Research design using the belt transect and purposive sampling technique. Method of catching insects used is a pitfall trap, insect net, hand sorting, beating tray and a flotation litter. The research was conducted in June 2019 dry season. The results of the research that has been done obtained 2 sub orders, 6 families, 19 genera, and 20 species of the order Orthoptera which have identified as many as 218 of the individual. Species of Orthoptera are the most dominate that species *Valanga nigricornis*, *Trimerotropis pallidipennis*, and *Sexava* sp. Environmental factors greatly influence the diversity of a contracting environment, the results of the counting of the environmental factors measured include air temperature the optimal range 19,75-27,50 C, the temperature of the soil range optimal 19,50-26,00 C, humidity range optimal 28,00-of 91.00%, soil moisture range of optimum 9,17-21,67%, the pH of the soil optimal range 6.22 to to 7.00, and the light intensity of the optimal range 1568,67-22839,42 lux. Based on the results of calculation of the index of diversity of Shanon-Wiener diversity order Orthoptera in the Taman Kehati Kiara Payung Kabupaten Sumedang included in the diversity category with the value of the world's greatest diversity of ( $H' = 2,34$ ) and the value of diversity is low ( $H' = 1,71$ ).*

*Keywords: Diversity, Orthoptera, Taman Kehati Kiara Payung*