

## ABSTRACT

Rice (*Oryza sativa* L.) is a cultivated crop that produces rice, which is a source of food. In practice, farmers use pesticides to control pests. In addition to controlling pests, pesticides can also kill natural predators such as predatory spiders. This study aims to see the diversity of arthropod species, especially spiders in the agroecosystem of rice which is influenced by the growth phase of rice plants and varieties. This research was conducted in Sei Lapan Subdistrict and Babalan Subdistrict, Langkat Regency and in the laboratory of Plant Pests and Diseases, Faculty of Agriculture, Malikussaleh University from January to May 2024. The method used in this research was descriptive method by selecting two rice fields with different varieties. Sampling was carried out using the insect net method, trail traps, and mechanical techniques. The results of the research showed that in rice fields of the inpari 32 variety, 10 species were found consisting of 1 order, 6 families and 10 genus. While the ciherang variety found 7 species consisting of 1 order, 6 families and 7 genus. In the diversity and evenness index, the index value in the generative phase was higher than the vegetative phase in the Inpari 32 variety, while in the Ciherang variety, the index value in the vegetative phase was higher than the generative phase. The level of species similarity in the vegetative and generative phases of the inpari 32 variety was included in the low category with a similarity index value of 0.40, the similarity index value in the vegetative and generative phases of the ciherang variety was 0.43 including low similarity and in the inpari 32 and ciherang varieties the similarity index value was 0.54 including in the high similarity category. Species that dominate in this study were *Tetragnatha* spp, *Agyneta conigera*, *Pardosa* sp, *Oxyopes* sp and *Enoplognatha* sp.

Keywords: Dominance, diversity, predatory spider, rice, variety