Comparing the invertebrate community structure of Northern Coastal Mountain range (II) – the effects of agro-landscape component on functional discrepancy[1]

Sih-Sheng Cai[2] Hung-Chang Hsu[2] Chung-Yu Hsu[3]* Kwok-Ching Wong[4]

Abstract

Understanding the linkages among ecosystems through landscape scales which contribute to agricultural management strategies employed. Surveys were conducted on socio-ecological production landscape and seascape of North Coastal Mountain range to investigate the community structure of aquatic and rice straw invertebrate and also explored which variables of land use has high explanatory. Species were identified to several functional feeding groups and count the ratio for sampling assemblages. BIOENV analysis indicated that adjacent weedy rice ridge, woodland and their combined factors have higher correlations with community structure. As examination of feeding groups, SinShe have relatively higher ratio of scavengers in rice straw and also higher collector ratio in aquatic habitat. This study supports the maintenance of the landscape heterogeneity can contribute to species diversity, food productivity and also reduce the ecological capacity. It suggested that field management shall consider species needs and adjust farming to improve the supply of ecological services in the relatively monotonous landscape.

Keywords: paddy, functional group, Satoyama Initiative, functional trait, coral reef

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2.Contract-based assistant, Division of Crop Environment, Hualien DARES.

3.Assistant researcher, Division of Crop Environment, Hualien DARES. (*Corresponding Author)

4.Associate Professor, Department of Natural Resources and Environmental Studies, National Dong Hwa University.