SPATIAL AND TEMPORAL ANALYSIS FOR BIOLOGICAL DIVERSITY OF KINGDOM ANIMALIA AT THE MASSANG RIVER, UIRYEONG-GUN IN KOREA

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ABSTRACT

Spatial and temporal analyses were performed to study the spatial pattern of the temporal dynamics of the animal species for four stations at the Massang River in Korea during four seasons. Although this area was not wide, the fauna community at the Massang River on 2016 was identified with 64 taxa, representing five classes. Shannon-Weaver indices (H´) of diversity for mammals was varied from 1.860 to 2.231. H´ for birds was varied from 2.136 to 2.455. Reptiles/amphibians, fish, and invertebrates also varied among the stations and seasons. The values of ß-diversity for animals were varied from 0.182 for reptiles/amphibians to 0.311 for invertebrates. The estimate of Bray-Curtis' distances ranged from 0.096 between Station C and Station D to 0.264 between Station A and Station C. Similarity in animal community composition often decreases with both increasing geographic distance and environmental dissimilarity between localities.

Keywords: Biodiversity, Massang River, richness indices, Shannon-Weaver indices, spatial and temporal analyses.