

ABSTRAK

This study aims to evaluate the biodiversity, ecological index, habitat utilization, and frequency of bird presence in the coastal area of Lhokseumawe City. The research questions include: (1) the bird biodiversity in the area, (2) the ecological indices of birds, including diversity, dominance, and evenness indices, (3) the level of habitat utilization by birds, and (4) the frequency of bird presence. Biodiversity data were analyzed using the Shannon-Wiener index, evenness index as the ratio of H' to $\ln S$, and dominance index calculated from the squared ratio of individual species to the total number of individuals. Habitat utilization was assessed based on the proportion of bird species using specific habitats or vegetation, while the frequency of bird presence was determined by the ratio of the number of observations of a particular species to the total number of observations. The results showed that the coastal area of Lhokseumawe City harbored 18 bird species from 17 genera and 11 families. The overall bird diversity and dominance indices were low, while the evenness index was moderate. The highest habitat utilization was found at Station 3 (Pusong Reservoir waters), with the highest frequency of presence recorded for *Egretta alba*, indicating a very abundant presence.

Keywords: Bird biodiversity, Ecological index, Habitat utilization