Penilaian Dampak Gangguan Antropogenik Terhadap Ekosistem Mangrove Menggunakan Index of Waterbird Community Integrity (IWCI) di Taman Wisata Alam Angke Kapuk, Jakarta Utara = Assessment Of Anthropology Disturbance In Mangrove Ecosystem Using Index Of Waterbird Community Integrity (IWCI) In Taman Wisata Alam Angke Kapuk, North Jakarta

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Abstrak

Gangguan antropogenik di wilayah pesisir akhir-akhir ini meningkat karena peningkatan populasi. Gangguan yang dimaksud dapat berupa produk kegiatan manusia yang merusak ekosistem di sekitarnya, seperti sampah, pembangunan industri, perumahan dan fasilitas umum. Salah satu ekosistem yang terancam dari gangguan tersebut adalah ekosistem mangrove. Ekosistem mangrove memiliki berbagai peran bagi lingkungan dan manusia, salah satunya sebagai habitat biota seperti burung air, yang memanfaatkan ekosistem mangrove sebagai tempat bersarang dan mencari mangsa. Pengaruh gangguan antropogenik terhadap lingkungan diketahui melalui media yang mampu menunjukkan hubungan antara keduanya, seperti Index of Waterbird Community Integrity (IWCI) dimana burung air digunakan sebagai bioindikator perubahan kualitas lingkungan. Penelitian ini bertujuan untuk mengetahui hubungan antara faktor gangguan antropogenik berupa penggunaan lahan, jumlah pengunjung, polusi suara, kecerahan air dan kadar fosfat terhadap kualitas lingkungan melalui penilaian skor IWCI. Penelitian dilakukan di Taman Wisata Alam Angke Kapuk (TWAAK) pada bulan Oktober hingga November tahun 2019. Sebanyak 17 jenis burung air berhasil diidentifikasi. Hasil penelitian menunjukkan bahwa nilai IWCI dalam TWAAK berkisar antara 13,75 hingga 17,61 dengan rata-rata 16,02. Berdasarkan kriteria skor IWCI, nilai rata-rata menunjukkan bahwa kualitas lingkungan TWAAK tergolong 'buruk-sedang'. Data korelasi gangguan antropogenik dan skor IWCI menunjukkan hubungan negatif yang signifikan terhadap jumlah pengunjung dan persentase penggunaan lahan. Hasil analisis regresi menunjukkan bahwa hubungan yang signifikan antara jumlah pengunjung mempengaruhi nilai IWCI sebesar -0,109 dan persentase penggunaan lahan yang paling signifikan adalah -0,136.

.....Anthropogenic disturbances in coastal areas have recently increased due to population growth. The disturbance in question can be in the form of a product of human activities that damage the surrounding ecosystem, such as garbage, industrial development, housing and public facilities. One of the ecosystems that are threatened from this disturbance is the mangrove ecosystem. Mangrove ecosystems have various roles for the environment and humans, one of which is as a habitat for biota such as water birds, which use the mangrove ecosystem as a place to nest and find prey. The influence of anthropogenic disturbances on the environment is known through media that are able to show the relationship between the two, such as the Index of Waterbird Community Integrity (IWCI) where waterbirds are used as bioindicators of changes in environmental quality. This study aims to determine the relationship between anthropogenic disturbance factors in the form of land use, number of visitors, noise pollution, water brightness and phosphate levels on environmental quality through an IWCI score assessment. The research was conducted at the Angke Kapuk Nature Tourism Park (TWAAK) from October to November 2019. A total of 17 species of water birds were

identified. The results showed that the IWCI value in the TWAAK ranged from 13.75 to 17.61 with an average of 16.02. Based on the IWCI score criteria, the average score indicates that the environmental quality of TWAAK is classified as 'poor-moderate'. Correlation data of anthropogenic disturbances and IWCI scores showed a significant negative relationship to the number of visitors and the percentage of land use. The results of the regression analysis showed that the significant relationship between the number of visitors affected the IWCI value of -0.109 and the most significant percentage of land use was -0.136.