# PERBEDAAN KARAKTERISTIK HABITAT HUTAN MANGROVE WANA TIRTA KULON PROGO SETELAH ADA KEGIATAN TAMBAK

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## INTISARI

Indonesia mempunyai hutan mangrove terluas di dunia, mencakup lebih dari 24 persen total luas hutan mangrove dunia. Hutan mangrove memiliki banyak peran secara ekologi, sosial, dan ekonomi. Melihat banyaknya peran yang diberikan hutan mangrove, konservasi hutan mangrove sangat penting diupayakan untuk mencegah kerusakannya. Adanya tambak udang di kawasan mangrove dapat berpotensi menyebabkan perubahan karakteristik habitat Hutan Mangrove. Penelitian ini bertujuan untuk mengetahui karakteristik habitat Hutan Mangrove Wana Tirta serta perbedaan karakteristik habitatnya setelah ada kegiatan tambak.

Penelitian dilakukan di Hutan Mangrove Wana Tirta seluas 7 ha dengan intensitas sampling 2,5% sehingga diperoleh total 18 plot. Plot tersebut diletakkan secara *systematic with random start*. Data yang diambil meliputi karakteristik fisik yaitu suhu, ketebalan lumpur, dan kecerahan air, karakteristik kimia yaitu oksigen terlarut, pH, dan salinitas, serta karakteristik biologi yaitu plankton, nekton, dan makrobenthos. Karakteristik fisik dan kimia dianalisis secara deskriptif, karakteristik biologi dilakukan perhitungan keanekaragaman menggunakan indeks Shannon-Wiener. Perbedaan karakteristik habitat antara lokasi yang terdapat tambak dan tidak terdapat tambak dilakukan analisis varian dengan *software* SPSS.

Hasil penelitian menunjukkan bahwa karakteristik habitat pada Hutan Mangrove Wana Tirta dalam kondisi yang baik pada parameter oksigen terlarut, ketebalan lumpur, pH, dan salinitas. Sementara itu, parameter suhu tidak optimal untuk ekosistem mangrove. Indeks keanekaragaman plankton termasuk dalam kategori sedang, sementara keanekaragaman nekton dan makrobenthos termasuk dalam kategori rendah-sedang. Karakteristik habitat Hutan Mangrove Wana Tirta pada kawasan dengan dominasi tambak, tambak dan mangrove seimbang, serta tanpa tambak memiliki nilai signifikan <0,05 yang menunjukkan adanya perbedaan signifikan pada parameter ketebalan lumpur, kecerahan air, pH, dan salinitas, serta nilai signifikansi >0,05 pada parameter yang menunjukkan tidak adanya perbedaan signifikan pada parameter suhu dan oksigen terlarut.

Kata kunci: Konservasi, karakteristik habitat, hutan mangrove

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# DIFFERENCES IN CHARACTERISTICS OF WANA TIRTA KULON PROGO MANGROVE FOREST HABITAT AFTER POND ACTIVITIES

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## ABSTRACT

Indonesia has the largest mangrove forest in the world, covering more than 24 percent of the world's total mangrove forest area. Mangrove forests have many ecological, social and economic roles. Seeing the many roles given to mangrove forests, it is very important to conserve mangrove forests to prevent their destruction. The existence of shrimp ponds in mangrove areas has the potential to cause changes in the characteristics of the Mangrove Forest habitat. This research aims to determine the characteristics of the Wana Tirta Mangrove Forest habitat and the differences in habitat characteristics after pond activities.

The research was carried out in the Wana Tirta Mangrove Forest covering an area of 7 ha with a sampling intensity of 2.5%, resulting in a total of 18 plots. The plot is laid out systematically with a random start. The data taken includes physical characteristics, namely temperature, mud thickness and air brightness, chemical characteristics, namely dissolved oxygen, pH and salinity, as well as biological characteristics, namely plankton, nekton and macrobenthos. Physical and chemical characteristics are explained descriptively, biological characteristics are calculated using the Shannon-Wiener index. Differences in habitat characteristics between locations with ponds and those without ponds were analyzed using SPSS software.

The research results show that the habitat characteristics of the Wana Tirta Mangrove Forest are in good condition regarding the parameters of dissolved oxygen, mud thickness, pH and salinity. Meanwhile, temperature parameters are not optimal for mangrove ecosystems. The plankton diversity index is in the medium category, while the diversity of nekton and macrobenthos is in the low-medium category. The characteristics of the Wana Tirta Mangrove Forest habitat in areas dominated by ponds, balanced ponds and mangroves, and without ponds have a significant value of <0.05 which indicates a significant difference in the parameters of mud thickness, air clarity, pH and salinity, as well as a significance value of >0 .05 on parameters which shows no significant differences in temperature and dissolved oxygen parameters.

Key words: Conservation, habitat characteristics, mangrove forests

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