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Sea Surface Temperature Variability at Tahura Ngurah Rai, Bali

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Tahura Ngurah Rai is a brackish forest-type area that is always inundated with brackish water and is affected by tides in the Badung Strait waters. The area in general is heavily influenced by the Ocean-Atmosphere interaction and the ITCZ (Inter Tropical Convergence Zone). The waters of the Badung Strait, Bali are also a branch of the Lombok Strait which is traversed by the Indonesian Traffic Flow (ITF), where the variability of ITF will be followed by changes in sea surface temperature. This water mass has high salinity, low temperature, and is rich in nutrients, so it positively impacts the level of water fertility. The aim of the study was to determine the pattern of changes in sea surface temperature in the Ngurah Rai Tahura Area from NOAA satellite imagery and Benoa Automatic Weather Station (AWS) observation data and to compare remote sensing data from NOAA satellite imagery and Benoa AWS observation data. The results of AWS data processing show that sea surface temperatures ranged from 25.68 – 32.56 C in the research period from January 2021 to June 2022. Meanwhile, the NOAA OISST satellite analysis shows variations in sea surface temperature of 26.08 – 29.91 C. Thus, NOAA OISST satellite data cannot be used to replace sea surface temperature observation data in the Benoa area including the Tahura Ngurah Rai area.