

## ABSTRAK

Perairan Selat Makassar bagian selatan merupakan perairan yang di indikasikan terjadinya *upwelling*. *Upwelling* merupakan suatu fenomena naiknya massa air dari perairan dalam ke permukaan. Naiknya massa air akan mempengaruhi kondisi kestabilan massa air. Penelitian ini bertujuan untuk mengidentifikasi adanya *upwelling* di perairan Selat Makassar bagian selatan selama periode 2015-2018, mengetahui kondisi kestabilan massa air, dan mengetahui hubungan terjadinya *upwelling* dengan kestabilan massa air. Identifikasi *upwelling* dapat dilihat dari nilai sebaran suhu, salinitas, densitas dan *Brunt-Vaisala Frequency* (BVF). Metode yang digunakan adalah metode observasi. Data suhu dan salinitas diperoleh dari Hycom dengan resolusi  $1/12^\circ$ . Hasil analisa menunjukkan adanya *upwelling* yang dapat diidentifikasi dari penurunan suhu sebesar  $\pm 2^\circ\text{C}$ , peningkatan salinitas sebesar  $\pm 2$  psu, peningkatan densitas  $\pm 2\text{ kg/m}^3$ . Kondisi perairan yang tidak stabil ( $N^2 < 0$ ) ditemukan pada kedalaman  $< 20$  meter. *Upwelling* terjadi pada musim timur dan mencapai puncak pada September. Kemudian pada Oktober-Desember *upwelling* mulai melemah dan menghilang. Kestabilan kolom perairan di lapisan permukaan masih dipengaruhi oleh gangguan atmosfer berupa pelemahan dan penguatan angin. Berdasarkan analisis yang telah dilakukan, nilai kestabilan massa air (BVF) memiliki korelasi yang sangat rendah dengan nilai densitas.

**Kata Kunci:** *Upwelling*, kestabilan massa air, Selat Makassar.

## ABSTRACT

The waters of the southern part of the Makassar Strait were waters that indicated upwelling. Upwelling was a phenomenon of rising water masses from deep waters to the surface. The increase in water mass would affect the stability of the water mass. This study purposed to identify the presence of upwelling in the waters of the southern part of the Makassar Strait during the 2015-2018 period, determined the stability of the water mass, and determined the relationship between the occurrence of upwelling and the stability of the water mass. Identification of upwelling could be seen from the distribution values of temperature, salinity, density and Brunt-Vaisala Frequency (BVF). The method used was the observation method. Temperature and salinity data were obtained from Hycom with a resolution of  $1/12^\circ$ . The results of the analysis showed that there was upwelling which could be identified from a decrease in temperature of  $\pm 2^\circ\text{C}$ , an increase in salinity of  $\pm 2$  psu, an increase in density of  $\pm 2$  kg/m<sup>3</sup>. Unstable water conditions ( $N^2 < 0$ ) were found at depths  $< 20$  meters. Upwelling occurred during the east monsoon and reached a peak in September. Then in October-December the upwelling began to weaken and disappear. The stability of the water column in the surface layer was still influenced by atmospheric disturbances in the form of weakening and strengthening winds. Based on the analysis that has been carried out, the value of water mass stability (BVF) has a very low correlation with the density value.

**Keywords:** Upwelling, stability of water masses, Makassar Strait.