



Intisari

Pengaruh ENSO dan IOD terhadap Zona Potensi Penangkapan Ikan Cakalang di WPPNRI 714

Penelitian ini bertujuan untuk mengetahui lokasi zona potensi penangkapan ikan cakalang di WPPNRI 714 ketika Monsun Tenggara dan Monsun Barat Laut menggunakan data penginderaan jauh, serta mengetahui pengaruh El Niño-Southern Oscillation (ENSO) dan Indian Ocean Dipole (IOD) terhadap kondisi permukaan laut zona potensi penangkapan cakalang di Laut Banda. Penelitian ini menggunakan data penginderaan jauh klorofil-a, suhu permukaan laut (SPL), dan kecepatan angin selama 16 tahun (2003-2018) yang diperoleh dari satelit Aqua Moderate-resolution Imaging Spectroradiometer (MODIS) dan Advanced Scatterometer (ASCAT). Hasil penelitian menunjukkan ZPPI cakalang selama Monsun Tenggara diduga terdistribusi di Laut Banda bagian barat (3° - 9° LS; 124° - 131° BT) dan bagian selatan (9° - 10° LS; 125° - 134° BT). Sedangkan ZPPI cakalang selama Monsun Barat Laut diduga terdistribusi di Laut Banda bagian barat ($5,5^{\circ}$ - 9° LS; 124° - 127° BT), bagian selatan (9° - 10° LS; 127° - 134° BT), sekitar Pulau Seram Buru dan Kei, Tanimbar, Alor, dan pantai Papua Barat bagian selatan (3° - 5° LS; 127° - 134° BT). ZPPI cakalang di WPPNRI 714 mengalami perubahan ketika terjadi ENSO dan IOD. Peristiwa ENSO dan IOD memberikan pengaruh yang berbeda terhadap kondisi permukaan Laut Banda. Secara keseluruhan informasi spasial ini dapat digunakan sebagai bahan pertimbangan dalam manajemen sumber daya cakalang secara berkelanjutan.

Kata kunci: cakalang, penginderaan jauh, ENSO, IOD, WPPNRI 714



Abstract

The Influence of ENSO and IOD on the Potential Fishing Zone Skipjack Tuna in WPPNRI 714

The present study aims to determine the potential fishing zone of skipjack tuna in the WPPNRI 714 during Southeast and Northwest Monsoons using remote sensing data. The research also elucidates the effect of ENSO and IOD on sea surface condition of the potential fishing zone of skipjack tuna in the Banda Sea. This study analyzed satellite-derived chlorophyll-a, sea surface temperature (SST), and wind speed for 16 years (2003-2018) obtained from the Aqua Moderate-resolution Imaging Spectroradiometer (MODIS) and Advanced Scatterometer (ASCAT) satellites. The results showed that potential fishing zone of skipjack tuna in the Banda Sea during Southeast Monsoon is estimated to be distributed in the western (3° - 9° S; 124° - 131° E) and southern (9° - 10° S; 125° - 134° E) Banda Sea. Whereas during Northwest Monsoon the potential fishing zone of skipjack tuna distributed in the western Banda Sea ($5,5^{\circ}$ - 9° S; 124° - 127° E), southern Banda Sea (9° - 10° S; 127° - 134° E), around Seram, Buru, and Kei Islands, Tanimbar, Alor, and southern West Papua coast (3° - 5° S; 127° - 134° E). Skipjack ZPPI in the WPPNRI 714 experienced changes during ENSO and IOD. The ENSO and IOD events exert different effects on surface condition of the Banda Sea. Overall, this spatial information is useful for the sustainable management of skipjack tuna.

Keyword: skipjack tuna, remote sensing, ENSO, IOD, WPPNRI 714