ABSTRACT


Sea surface temperature (SST) and chlorophyll-a are two important oceanographic parameters determining the abundance and distribution of fish. The aim of this research is to determine the variability of SST, chlorophyll-a, fish catch and the relationship between SST, chlorophyll-a with fish catch. This study took place in East Kalimantan waters. The data of this study has been taken from Aqua MODIS level 3 satellite images, data of meteorology and fish catch. East Kalimantan waters provides pelagic fish resource dominated by scads, frigate tuna and stripped mackerel. The amount of fish catch from east Kalimantan waters landed at PPI Selili Samarinda city was significantly correlated with SST (r = 0.53) and chlorophyll-a concentration (r = 0.63). Both oceanography parameters were fluctuate seasonally. The SST reached its maximum (30.49 °C) during west to east switchover season and reached its minimum (28.67 °C) during north west monsoon season. Mean while the chlorophyll-a content reached its maximum (0.420 mg/m^3) during west season and reached its minimum (0.118 mg/m^3) during east to west switchover season. The peak of fish landing at PPI Selili Samarinda city occurred during north west monsoon season when SST was low and chlorophyll-a concentration is high, vice versa, the poor fish landing occurred during west to east switchover season when SST was high and chlorophyll-a was low.

Key words: remote sensing, SST, chlorophyll-a, fishing ground.