

Effect of Global Warming on Chlorophyll-a Concentration in the Indonesian Waters

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Abstrak

Chlorophyll-a is a pigment that is contained in phytoplankton. Through the photosynthesis process, chlorophyll-a plays an important role in the global carbon cycle. The purpose of this research is to investigate the effect of global warming on chlorophyll-a concentration in Indonesian waters. The data used includes the monthly data of sea surface temperatures from 1984-2013, CO₂ concentrations from 1980-2014, and chlorophyll-a concentrations from 2003-2014. The method used is linear regression. The results show that sea surface temperatures in Indonesian waters increased by about 0.51 °C from 1984-2013. The effects of global warming on chlorophyll-a concentrations varies between different areas of Indonesian waters. From the 12 research sites, 9 showed a decrease in concentration and 3 showed an increase.