ABSTRAK

Penelitian ini berjudul " Studi fitoplankton yang berpotensi sebagai HABs di Plawangan Timur Segara Anakan Cilacap" Segara Anakan secara geografis terletak pada ordinat 7°35'22''–7°47'37'' LS dan 108°45'11''–109°02'54" BT. Segara Anakan terhubung dengan Samudera Hindia melalui dua kanal, salah satunya kanal timur (Plawangan Timur). Plawangan Timur sebagai muara Kembang Kuning, Sapuregel dan Donan. DAS di pengaruhi faktor alami dan antropogenik. Kedua aktifitas tersebut dikhawatirkan berpengaruh pada perairan berupa akumulasi zat hara berlebih (*eutrofikasi*). Selanjutnya berpengaruh terhadap kelimpahan fitoplankton dan klorofil-a, dan dikhawatirkan menyebabkan fitoplankton bloom (HABs). Tujuan penelitian adalah mengetahui kelimpahan, jenis fitoplankton HABs, konsentrasi klorofil-a, nitrat dan fosfat, serta hubungan kelimpahan fitoplankton HABs dengan klorofil-a, nitrat dan fosfat. Metode yang digunakan metode survey dengan teknik pengambilan sampel *purposive random sampling*. Hasil penelitian menunjukan kelimpahan fitoplankton terbanyak dari divisio *Chrysophyta*. Jenis fitoplankton HABs yang di temukan *Chaetosceros* sp. , *Coscinodiscus* sp. , *Pseudo-nitzschia* sp. , *Rhizosolenia* sp. , *Ceratium* sp. , *Peridinium* sp. dan *Protoperidinium* sp. Konsentrasi klorofil-a tergolong kategori oligotrofik , konsentrasi nitrat fosfat dalam kondisi optimal. Kelimpahan fitoplankton yang berpotensi sebagai HABs dengan klorofil-a, fosfat memiliki hubungan yang bebanding lurus, sedangkan dengan nitrat memilik hubungan berbanding terbalik.

***Kata kunci** ; HABs; Fitoplankton ; Plawangan Timur; Segara Anakan*

ABSTRACT

This research entitled " study of Phytoplankton which has the potential as HABs in Plawangan Timur, Segara Anakan Cilacap" Segara Anakan is geographically located at ordinate 7 ° 35'22 " - 7 ° 47'37 " LS and 108 ° 45'11 " - 109 ° 02'54 "BT. Segara Anakan is connected with Indian Ocean through two canals, one of which is the eastern canal (Plawangan Timur). Plawangan Timur as estuary of Kembang Kuning, Sapuregel and Donan. Watershed influenced by natural and anthropogenic factors. Both activities are feared to have an effect on waters in the form of excess nutrient accumulation (eutrophication). Furthermore, it affects the abundance of phytoplankton and chlorophyll-a, and it is feared to cause phytoplankton bloom (HABs). The purpose of this study was to determine the abundance, types of phytoplankton HABs, concentrations of chlorophyll-a, nitrates and phosphates, as well as the relationship of abundance of phytoplankton HABs with chlorophyll-a, nitrates and phosphates. The method used survey method with purposive random sampling technique. The results showed the most abundance of phytoplankton from *Chrysophyta* divisio. The type of phytoplankton HABs found in *Chaetosceros* sp. , *Coscinodiscus* sp. , *Pseudo-nitzschia* sp. , *Rhizosolenia* sp. , *Ceratium* sp. , *Peridinium* sp. and *Protoperidinium* sp. Chlorophyll-a concentrations are classified as oligotrophic, nitrate phosphate concentrations under optimal conditions. The abundance of phytoplankton that has the potential as HABs with chlorophyll-a, phosphate has an inversely proportional relationship, whereas with nitrate there is an inverse relationship.

Keywords ; HABs; Phytoplankton; Plawangan Timur; Segara Anakan