# Note on the occurrence of phytoplankton and its relation with mass mortality in the Jakarta Bay, may and november 2004



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Abstrak

There were noted two times (May and November 2004), fish mass mortality occurred in the coast of the Jakarta Bay,
killing several species of small and big fishes, crustaceans, eels and molluscs. Phytoplankton blooms in the Jakarta Bay
is accelerated by the high input of nutrients, which caused eutropication of the Bay water. Analysis of water sample
showed in st 1 (Marina coast) showed that phytoplankton abundance was of 2.9 x 106 cells/l-1 , the common diatom
species recorded at that time were: Skeletonema costatum, Thalassiosira mala, Bacteriastrum varians, Chaetoceros
pseudocurvisetus, Nitzschia sigma, Coscinodiscus radiatus. Of the which: Skeletonema costatum 1.8 x106 cells/l-1 ; in
st. 3 Binaria lake was the most a common diatoms species found in the Jakarta Bay. This species frequently bloom,
especially after rainfall, causing no harm to marine life, the second diatoms Thalassiosira mala 2.8 x 106 cells/l-1 (st 4
Carnaval coast), during this decade in more often frequencies. The second largest group was represented by four
dinoflagellates species: Prorocentrum micans, Protoperidinium sp., Ceratium furca and Gonyaulax sp., and one species
dominated of dinoflagellate Prorocentrum micans 2.3 x 106 cells/l-1 (in the Dadap coast). P. micans is also common
species of the Jakarta Bay. Hydrological conditions in May and November 2004 are, temperature 32 – 33 oC, pH 7.76
to 7. 92, Salinity 32 ‰, Dissolved oxygen 3.88 to 4.26 mg/l, Phosphate 0.10 – 0.40 µg-at-P l-1 , Nitrate 0.01 to 0.03
µg-at-N l-1 . The result suggests that phytoplankton distributes in wider areas than expected and monitoring of its
occurrence in Indonesian waters is necessary to prevent harmful effects of such bloom.