Kelimpahan dan distribusi fitoplankton serta hubungannya dengan kelimpahan dan distribusi zooplankton bulan Januari-Maret 1009 di teluk Hurun Lampung Selatan

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Abstrak

Hurun Gulf waters including Fisheries Management Area (WPP) and the Java Sea in the area of Lampung Bay waters. Hurun Bay around many ponds, sights, and karamba Floating Net, so the activities carried out at sea and on land can have a negative effect on this region, especially the quality of aquatic environment. Therefore, to study the depth of the plankton community structure that can be used as the basis of information in monitoring the condition of the waters.

This research was conducted during two weeks in January, February, and March. Defined 15 stations taking measurements and water and plankton samples, with two replications, from each station. Determination of the station based on the condition of the area.

Sampling for phytoplankton taken with a Kitahara net cone with diameter 31 cm, length 100 cm and eye net size for surface and vertical net 80 m. Zooplankton sampling with a NORPAC net with diameter 45 cm, 180 cm length and eye net size for surface and vertical net 300 m. These samples were preserved with formalin 4 then analyzed in the laboratory using the method of sub-samples. Plankton was observed and analyzed using a microscope binoculars. The instrument used for measuring chemical and physical parameters are thermometer, refraktometer, Secchi disc, and bathymetrimeter. Vehicle used was 40 HP fishing boat. Phytoplankton species identification results of the surface are 50 genera, including in the class 3 or Diatoms Bacillariophyceae (36 genera), Cyanophyceae (3 genera) and Dinophyceae (11 genera) and the vertical is 56 genera which are 36 genera composition classes Bacillariophyceae, 4 genus 16 genus of Cyanophyceae and Dinophyceae. The dominant genus of the class is Bacillariophyceae Chaetoceros, Thalassiosira, Thalassionema and Biddulphia and three genera of the class Dinophyceae is Ceratium, Noctiluca and Protoperidinium. Diversity index values range in the surface 1.50 (Station 15) - 0.59 (Station 10), while the vertical 1.79 (Station 9) - 0.78 (Station 15). The range of values of surface uniformity index 0.47 (Station 15) - 0.17 (Station 10), whereas the vertical range of values uniformity index 0.64 (Station 9) - 0.16 (Station 15). Dominance is the highest index of 0.83 indicates that dominance is. Total abundance of phytoplankton ranged from the lowest 750 cells / l until the highest 192750 cells / l.

The dominant zooplankton obtained from the class Crustacea, which is taking 24 genera in the genus 19 surface and vertically, Protozoa class (on the surface of genus 17 and 18 are vertical), Annelida (on the surface of genus 7 and 6 are vertical), Protochordata (there are two genus on the surface or vertical), molluscs (two genera), and Rotifera Echinodermata one genus. Diversity index values range in the Surface, 2.27 (Station 4) - 0.64 (Station 3) and the Vertical 2.33 (Station 1) -0.82 (Station 15). The range of surface uniformity index value, 0.99 (Station 2) -0.42 (Stasiun12), whereas the vertical range of values uniformity index 0.95 (Station 4) -0.54 (Station 14). Dominance is the highest index of 0.66, indicating that dominance was.

The lowest surface abundance of 6750 ind / l (Station 14), the highest 144000 ind / l (Station 3). Phytoplankton relationships with environmental factors, phytoplankton abundance parameters are

influenced by phosphate and brightness, but the most affecting is phosphate, when viewed between phytoplankton abundance parameters week has a close affinity with salinity, DO, depth and pH. Zooplankton relationships with environmental factors seen in between stations have a close connection with the phosphate and brightness, and when viewed from the inter-week zooplankton abundance parameter has a close affinity with salinity, DO, phosphate and pH. Relationships of phytoplankton-zooplankton abundance correlated positively linear in time corresponding to the regression equation $Y = 0,502X - 8226$. The results showed that herbivorous zooplankton feed speed is proportional to the speed increase phytoplankton populations.