

Abundance and diversity of phytoplankton in Kudats's coastal water

ABSTRACT

This study was conducted to investigate the phytoplankton community in coastal water of Kudat. Every month phytoplankton samples were collected from five selected stations for the period of May 2019 to February 2020. The abundance (cells/L), diversity index and evenness distribution of phytoplankton were monitored from the collected samples. The highest density of phytoplankton was obtained at Station 3 ($619.81 \pm 121.10 \text{ cell} \times 10^4/\text{L}$), while the lowest cell density was recorded in Station 1 ($264.07 \pm 85.63 \text{ cell} \times 10^4/\text{L}$). The better diversity index of 2.56 ± 0.85 and poor diversity index of 1.90 ± 0.91 were determined from station 4 and 3 respectively. On the other hand, the even distribution of phytoplanktonic species were observed in Station 4 and the distribution of species in Station 3 were recorded very poor, indicated the dominance of certain types of species. The abundance, diversity and evenness distribution of phytoplanktonic species were depends on sampling locations, as stations were selected based on the human induced activities.