Composition Analysis in Type of Dinoflagellata as Source of Paralytic Shellfish Poisoning (PSP) Toxins in Pearl Oyster "Pinctada Maxima" in Lombok Waters –West Nusa Tenggara (NTB)

Indah Soraya*, Diana Arfiati, Asus Maizar

Faculty of Fisheries and Marine Sciences, Universitas Brawijaya, Jl. Veteran, Malang 65145, Jawa Timur Province, Indonesia

Abstract : Dinoflagellata has important meaning for fisheries since it was a natural food for fishes with economic value. Objectives of this study were to discovered phytoplankton community structure in type of dinoflagellata which consist of abundance, composition and its diversity in Lombok waters, the cause of *Paralytic Shellfish Poisoning* (PSP) toxin and to analyze composition and identify gastric content of pearl oyster and to found out toxin level of *Paralytic Shellfish Poisoning* (PSP) in pearl oyster "Pinctada maxima" also to discover the custom and feeding habit of pearl oyster. Study was conducted in July 2016 in 2 locations which are Teluk Sekotong (West Lombok) and Teluk Kodek (North Lombok) whereas each location contain 3 sites point for sampling. Result of this study showed that phytoplankton abundance which was found in Teluk Sekotong (West Lombok) or Teluk Kodek (North Lombok) consist of 8 species of Dinoflagellata and 28 types of diatoms. Phytoplankton abundance in Teluk Sekotong was 12601 cell/L and for dinoflagellata was 2107 cell/L higher than phytoplankton abundance in Teluk Kodek with 9044 cell/L and dinoflagellata abundance about 1327 cell/L. PSP content test results toward flesh of pearl oyster were 14.145 μg (Teluk Sekotong) and 13.211 μg (Teluk Kodek), with toxin concentration of pearl oyster still lower than the predetermined tolerance level which is 80 μg STXeq per 100 gram, which was arrange in SNI 3460.1:2009 concerning flesh.

Keywords : Dinoflagellata, *Pinctada maxima*, Toxin, ELISA.

*****