ABSTRACT
ARIANI HATMANTI. Molecular Detection of Bacterial Community in Oil-contaminated Seawaters of Pari Island, Jakarta Bay. Under direction of ANJA MERYANDINI and ARIS TJAHJOLEKSONO

A research on molecular detection of bacterial community was done in Pari Island Jakarta Bay from January 2010 – June 2011. This study was aimed to understand bacterial community and the succession of bacteria in oil-contaminated seawater. This research was also conducted to know the domination of exogenous bacteria in the substrates and their effect on crude oil degradation. Twenty-eight samples or substrates were analyzed using Denaturing Gradient Gel Electrophoresis (DGGE). The substrates were mixture of oil-contaminated seawater and sediment. The results of this study showed that marine bacterium SCRIPP 413, uncultured bacterium clone VH-FL6-50 and uncultured bacterium clone W1-16 were dominant in the bacterial community in Pari Island contaminated environment. This study also indicated that the exogenous bacteria were dominant in absence of indigenous bacteria.

Keywords: bacterial community, marine bacteria, DGGE, oil-contaminated seawater