

International Conference on

# Coastal Zones

May 16-18, 2016 Osaka, Japan

## Exploration of bacteria symbionts mangrove waste for the production of decomposter

Delianis Pringgenies, Izzuddin Azmi, Ali Ridho and Riyanda Idris  
Diponegoro University, Indonesia

Waste of mangrove is a collection of mangrove waste consisting of leaves, twigs, and branches fallen to the ground and eventually turned into decomposition. The research objective was to determine the types of bacterial symbionts of waste mangrove potential as an anti-bacterial, subsequently used as bio-activator for the production of compost that contains nutrients. The research includes isolation of bacterial symbionts, screening bacterial symbionts that have potential as an anti-bacterial, DNA extraction using the High Pure PCR Template Preparation Kit (Roche), DNA amplification by PCR of 16S rDNA, and DNA sequencing. 16S r-DNA sequences were analyzed and edited using Genetix program and sequence analysis of 16S rDNA. Bacteria that have potential as an antibacterial are used in bio-activator production and the production of bio-activator tested nutrient content of compost seaweed *Sargasum*. The results were compared with the activator products found on the market. The identification results are found. There are 4 types of bacterial symbionts that have potential as an anti-bacterial: *Pseudomonas* sp., *Flavobacterium* sp., *Acinetobacter* sp., and *Bacillus subtilis*. Production of bio-activator bacterial symbionts waste mangrove have better quality than the quality of bio-activator that exist in the market and liquid organic fertilizer without a bio-activator. The conclusion is that the production of bio-activator from bacterial symbionts mangrove waste has potential as probiotics production environment.

### Biography

Delianis Pringgenies is working as a Professor in Marine Natural Product, Marine Science Department, Faculty of Fisheries and Marine Science, Diponegoro University.

[pringgenies@yahoo.com](mailto:pringgenies@yahoo.com)

### Notes: