

## ABSTRACT

**Selli Dwi Handayani. 2017. Abundance And Bioecological Factors On Water Hyacinth (*Eichhornia crassipes* (Mart.) Solms) In Cirata Reservoir, Maniis District, Purwakarta Regency, West Java. Advisors: H. Dadi Setia Adi, M.Sc., Ph.D., and Dita Agustian, M.Pd.**

Cirata reservoir is generator or building of hydroelectric power the fourth largest on Southeast Asia. Aside from being a hydroelectric power, needs of the community such as drinking water, irrigation water, hydroelectric power, aquaculture, etc. filled by this waters. Cultivation of fisheries with floating net cage system in Cirata reservoir to cause decreasing of environmental quality make eutrophication or blooming water hyacinth that disrupting generator of hydroelectric power are supplying electricity on Java-Bali. This research describe how the value of abundance and bioecological factors uses descriptive method and design of research a line terraced by quadrant size 1 x 1 m. The research location area 250 m<sup>2</sup> consists of 5 stations with a distance of 50 m between stations and from each station is divided into 5 quadrants with a distance of 10 m between quadrants. Abundance value obtained from the calculation of Abundance type and Relative Abundance Index (IKR). The results showed that the abundance of water hyacinth has an average value of IKR of 20.1%, including in the abundance of high category and influenced by bioecological factors such as climate, edaphic, physiographic and biotic. The abundance of hyacinth is due to the fast growing nature of plants beyond other plants, and supported by the high availability of nutrients in view of the condition of bioecological factors. The headwaters of hyacinth plant are very tightly covering the water surface thus limiting the availability of sunlight to other aquatic plants. As an indicator of water pollution, the abundance of water hyacinth in Cirata Reservoir, Maniis District, Purwakarta Regency, and West Java indicates that the waters are contaminated because the water hyacinth is able to absorb metal elements.

**Keyword:** *Abundance, Bioecological Factors, Water Hyacinth (Eicchornia crassipes), Line Terraced method, Cirata Reservoir.*