

Student's Knowledge and Attitude about Mangrove Ecosystem in Northern Sumatra, Indonesia

¹Dian A. E. P. Sembiring, ²Ely Djulia & ³Syarifuddin

¹Senior High School Sampoerna Academy Medan, Indonesia

^{2,3}Biology Department, Faculty of Science and Mathematics, Medan State University, Indonesia

Corresponding author: djulia247@gmail.com

ABSTRACT

Purpose – This study reports on the comparison of students' knowledge about mangrove conservation and their attitude into mangrove ecosystem between students who live in mangrove ecotourism area and those who live outside of mangrove ecotourism area.

Methods - About eighty students from public junior high schools located inside mangrove ecotourism area and another eighty students living outside from mangrove area were randomly selected and surveyed in Serdangbedagai district, Northern Sumatra, Indonesia. About 18 items of open ended question about mangrove ecosystem and 20 items of attitude questionnaire were administered into the students. Data were analyzed by using *t*- test and two-way ANOVA to compare students' knowledge and attitude between those two areas.

Findings - Results showed that students who live in ecotourism mangrove area have better knowledge compared to students living outside of mangrove ecotourism area. However students' attitude towards mangrove conservation were not significantly different between students living in both areas. There is a significant effect of interaction between students' location and gender towards their mangrove ecosystem knowledge and attitude. In mangrove ecotourism area, female students' knowledge were better but with lower attitude. There were no differences in students' knowledge and attitude among gender inside and outside of mangrove ecotourism area.

Significance - This study showed significant effects of mangrove ecotourism program on student's knowledge and attitude toward mangrove ecosystem. Mangrove ecotourism program helps to construct student's knowledge about mangrove ecosystem and promotes alternative way to increase their knowledge about coastal environment by accelerating learning program in the school with ecotourism program.

Keywords: Attitude, Knowledge, Ecotourism, Conservation, Mangrove ecosystem