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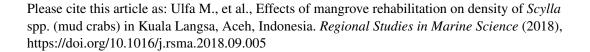
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ACCEPTED MANUSCRIPT

Effects of mangrove rehabilitation on density of *Scylla* spp. (mud crabs) in Kuala Langsa, Aceh, Indonesia

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ABSTRACT

The density of mud crabs (Scylla spp.) in 2016 is described in three mangrove habitats: one rehabilitated 2007, one in 2013, and one not subject any anabilitation (a control site). We report the effects of mangrove rehabilitation on density, and correlations between mud crab density, mangrove density, mangrove som diameter and tree height, and environmental parameters in the Kuala La 7 a mangrove rehabilitation area, Aceh, Indonesia. Rehabilitation sites had signit a. 'ly higher dissolved oxygen (DO), lower temperature, and greater mud depth that the method site. Mangrove density, stem diameter, and tree height were greater significantly in rehabilitation sites than at the control site. Mud crab density was significantly hig er in 'he two rehabilitation sites than at the control site. Based on data from 140 sampling plc.s per site, stepwise multiple regression analysis revealed mangrove density o be the best predictor of mud crab density at all sites; correlations were positive. Tree Light was the second predictor of mud crab density; correlations were positive at 12 abilitated sites. Mud depth correlated positively with mud crab density at one renabilitation site, and the control site. Multiple regression analysis for data combined for 'he th. 'a sites demonstrated mangrove density to be the best predictor of mud crab density (win positive correlation); a weak, positive correlation was also apparent for tree heigh and DC. Results support the view that mangrove rehabilitation enhances densities of mud c abs. Manipulative experimentation is required to determine the mechanis as of the ecology of mangrove ecosystems affect mud crab populations.

Keywon's mangrove; rehabilitation; mud crab; density; population.

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