

COMPARATIVE STUDY OF EYE STRUCTURE IN REMAINERS AND SKIPPERS FROM GUNUNG KIDUL'S INTERTIDAL ZONE

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ABSTRACT

Intertidal zone is one area with high faunal diversity. One type of morphological adaptation needed to overcome extreme environmental condition is related to species' visual ability as it is vital to sense the changes in their environment. Skippers and remainers differ in terms of its behavioural habit of moving toward land. Skippers are known to be found in land whether remainers tend to stay in water eventhough environmental factors are changed dramatically during low tides. Most fish recognize changes in their environment through their visual sense. This research aims to study whether there are differences in the eye structure between remainers and skippers. Two species of fishes representing remainers group (*Bathygobius fuscus*) and Skippers (*Blenniella cyanostigma*) were caught from Siung Beach, Gunung Kidul, Yogyakarta. Eyes of both species were removed and fixed in 10 % Formalin then processed through Parrafin Method and stained with Hematoxylin -Eosin. The results show that there are differences in the eyes microanatomical structure particularly in the corneal pigmentation, the density of rods and cones cells also the development of choroid gland. *Blenniella cyanostigma* has developed choroid gland, high density of cones cell and there are pigmentation on the cornea while *B. fuscus* eyes have high density of rods cells but lack in corneal pigmentation and undeveloped choroid glands.

Kata Kunci: *Eyes, intertidal zone, microanatomical structure, remainers, skippers.*