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Effect of Giving Dry Shrimp with Different Concentration on the Growth of Green Turtle Baby [*Chelonia mydas* (Linnaeus, 1758)] in Sukamade Coastal Areas Meru Betiri National Park, Banyuwangi Regency, East Java, Indonesia

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Abstract

Turtle's exictence has long been threatened, either by nature or human eativities. The purpose of this research is to determine the effect of giving different feed concentration on the growth of green turtle baby (*Chelonia mydas*) at the age of 4 d for 5 wk treatment period. This research uses experimental method. The material used is green turtle baby (*C. mydas*) at the age of 4 d. The research was conducted at Sukamade Beach, Banyuwangi, Indonesia. The feed given is dry shrimp 3 % and 8 % of the weight of biomass. The results of the research indicate that the green turtle baby given dry shrimp with a concentration of 3 % has a specific growth rate 1.429 ± 0.074 on average, less than the green turtle baby given dry shrimp with concentration of 8 % which has a specific growth rate 1.630 ± 0.192. The results giving different feed concentration showed no real difference to the growth of green turtle baby. Feed with 8 % concentration showed better and not significant growth than the feed with 3 % concentration.

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Keywords: Feed; green Turtle baby [*Chelonia mydas* (Linnaeus, 1758)]; growth.

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1. Introduction

Sea turtle is one of wildlife species in the spotlight due to a sharp population decline. Data from various sources indicate that the population of turtles in Indonesia dropped drastically in the last two decades. The observations of some researchers at several nesting sites indicate that the population decline could reach 80 (72 % average) compared to the total population in the previos 15 yr (Suwelo and Somantri, 1990). Continuous threats to the preservation of this endangered species can cause the extinction of this species, especially the types that the population is not much naturally (Suwelo and Somantri, 1990).

One of the problems faced is the number of green turtle baby that die after hatching. Green turtle baby receives less attention on the availability of feed and inadequate feed quality. After hatching, the green turtle baby is not given food for four days because green turtle baby still has food reserves in the form of egg yolk in his body. One of the nesting sites of green turtles is in Sukamade Beach, Meru Betiri National Park Area, Banyuwangi. According to (Sub BKSDA East Java II, 1991) the area is known to be very productive for green turtle eggs due to many female green turtle land and nest in that area.

The newly hatched green turtle baby is very vulnerable to predators and disease. The green turtle baby is also not able to swim in balanced and to dive to avoid predators such as birds. Not all green turtle baby hatches in normal condition, some of them are defective. The defective green turtle must be separated from the normal one in order to be able to grow well (BKSDA East Java II, 1991)

2. Material and methods

This research material uses 18 green turtle babies at the age of 4 d. They were divided into two treatments, three replications, and each of them consists of three green turtle babies. The babies were put in six plastic basins with 40 cm length, 30 cm width, and 10 cm height. The medium used is sea water that comes from Sukamade Beach which is usually used for breeding turtles in Meru Betiri National Park. The feed was given with 3 % and 8 % concentration of the biomass weight of the green turtle babies. The selection of 3 % and 8 % concentration refers to some researches that say that the optimal growth of green turtle baby with the concentration ranges between 5 % and 10 % (Bjorndal, 1985). The choice of 3 % feed concentration was to determine the growth of green turtle babies if the available natural feed is under normal condition and 8% concentration is selected when the available natural feed is in normal condition Feeding is done twice a day in the morning at 09.00 am and in the afternoon at 15.00 pm (Rihani, in Fajar, 2007).

The research method used is a laboratoty experimental method. Experimental observation is an observation that is under artifical conditions (artifical condition) in which the condition is created and organized by researchers. Experimental research is research done by holding the manipulation of the object of the research (Nazir, 2005). his research uses a completely randomized design, the simplest kind of experimental design. Data analysis also uses proximate analysis to determine the nutrient content in dry shrimp, the feed of green turtle babies. Proximate analysis is a method of chemical analysis to identify the content nutrients such as protein, carbohydrate, fat and fiber in food substance (Hirth, 1991).

3. Results and discussions

The weight growth of green turtle babies (*C. mydas*) occurred in the research varied in each treatment. The research shows that the growth of green turtle babies brought with 3 % feed concentration did not increase very fast. While the growth of green turtle babies brought with 8 % feed concentration was not stable at the beginning, but it increased rapidly in the last few weeks in line with the increase of maintenance time.

Heavy growth baby green turtle (*C, mydas*) that occurred in this research varied in each treatment. The research shows the growth brought baby green turtle at 3 % concentration increase which is not very fast, while the concentration of 8 % at the beginning is not stable, but in the last few weeks showed an increase in rapid growth in line with the increase in maintenance time.