FOOD HABITS Tor (*Tor soro* Valenciennes 1842) in ASAHAN RIVER

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Abstract

Tor soro fish population in the North Sumatra region is threatened with extinction, especially in the Asahan river, this is due to the fact that fish for the people of North Sumatra are fish used in traditional ceremonies. Tor fish has cultural values so that the selling value is high, namely Rp. 250,000 -500,000 / kg. Tor fish include omnivorous fish that tend to be herbivorous with the main food being phytoplankton, followed by crustaceans, insects, rotifers, oligochaeta. Tor fish food studies carried out on the Asahan River in this study determined three stations by purposive sampling, namely distribution of locations based on river characteristics, and fish habitat in the river area.

Keywords: *Fish Tor, Food Habits, and Asahan River*

A. Introduction

Tor soro fish population in the North Sumatra region is threatened with extinction, especially in the Asahan river, this is due to the fact that fish for the people of North Sumatra are fish used in traditional ceremonies. Tor fish has cultural values so that the selling value is high, namely Rp. 250,000 -500,000 / kg. This results in high exploitation of tor fish. By the local people the fishing of tor from nature is not directly sold but stored in a pond waiting for the holding of traditional ceremonies. The introduction of new fish such as tilapia into Lake Toba is a new problem for tor fish or so-called batak fish because tilapia eats batak fish eggs (Rumondang, 2017).

Fish food is an organism, material or substance that is used by fish to support the life and development of growth organs. Food habits (habbit feeding) are behaviors when taking and looking for food. Analysis of habbit food and feeding is done through observing the contents of the fish intestine. There are types of fish that actively eat for 24 hours and those that are only at the time of course. The times when fish actively take food in 24 hours are called perlodicity feeding.

Common types of fish food found are plankton, nekton, bentos, and detritus. Rumondang., 2017 states that based on the type of food group fish are divided into 3 large groups, namely herbivore, carnivore, and omnivore. Factors that determine whether a species of fish will eat a food organism are food size, food availability, food color and fish taste for food. The amount of food needed by a type of fish depends on the type of food, eating habits, abundance of food, water temperature and general conditions of the fish in question. Digestive structures that play a role in food adaptation are the mouth, teeth, edges of gills and intestines. Competition in terms of food, culture between species and between individuals in the same species will reduce food supplies, so that what is needed by the fish becomes a barrier. This affects the growth rate, only fish that are strong in competition will grow well.

The eating habits of a fish species need to be studied if you want the fish to be used as a pet fish (cultivation), this is related to the preparation of the ransom that is appropriate for the matter. Kabiasan and

how to eat are important factors that determine the success of maintaining the existence of an organism because food provides all the nutrients needed by organisms to grow and develop. Food also plays a role in determining fish distribution and migration. aims to observe the shape of the digestive device in fish and the type of food, so that it can be determined which fish belong to which type, herbivore, omnivore, or carnivore.

B. Method

Time and Place

The study was conducted in February - March 2019 which is located on the Asahan River.

Tools and Materials

he tools and materials used in the practice of eating habits are as follows:

No.	Tool Name and Material	**Total**
1	Scalpel	2 unit
2	Plastic Rays	2 unit
3	Trays	2 unit
4	Sufficient Cleansing Wipes	sufficiently
5	Writing Books	sufficiently
6	Scales	1 unit
7	Cut	2 unit
8	Water Wsah	sufficiently
9	Tor	69

Ways of working

The way of working done in the Fisheries Biology lab is as follows:

Method amount

a. Remove the contents of the fish stomach and dry it air.
b. Separate food by type.

c. Calculate each type.
d. Calculate the percentage of each type with the formula number method

Data Analysis

The analysis of data on practicing eating habits using formulas according to the method used and in accordance with the index to be calculated. The data analysis is as follows:

Amount Method

% one type of meal I = the number of meals i / number of all foods in the stomach x 100%

Relatively Important Index

IRP = (N + V) x F

Where, IRP = relative importance index, N = percentage of one type of food, V = percentage of volume of a type of food, and F = frequency of occurrence of a type of food.

Proponderance Index

$$IP = \frac{Vi \times Oi}{\sum Vi \times Oi} \times 10$$

Where, Vi is the percentage volume of one type of food, Oi is the percentage frequency of occurrence of one type of food, is the amount of Vi x Oi of all types of food

C. Discussion

Tor fish caught during the study were 165 birds. The total length (TL) range of Tor fish is between 35 - 211 mm, and the weight range is between 20 - 245 gr. The fish is the catch of fishermen and researchers from 3 stations along the Asahan River. The caught Tor fish is always stuck on the edge of the net, or about one meter from the edge of the net. These fish are mostly caught near aquatic plants or under trees and at night these fish are rarely caught. Based on the research that has been done, Tor fish catches are based on the same type of fishing gear used, including the tools and timing and characteristics of the number of fishing

gear installation. fish caught during the study are presented in Table 1 or greatly affect the level of fish populations or their abundance.

Observation of digestive organs in tor fish

No	Fish organ analysis	Station 1	Station 2	Station 3
1	Fish length	20 cm	23 cm	32 cm
2	Fish weight	300 gram	400 gr	350 gr
3	Large Big Mouth Opening	Besar	Besar	Besar
4	Size width of mouth openin	3 cm	5,5 cm	3 cm
5	Jagged Jagged Teeth	Bergerigi	Bergerigi	Bergerigi
6	Rough Gills	Kasar, jarang	Kasar, jarang	Kasar, jarang
7	Lip length	6 cm	8 cm	6 cm
8	Gastric length	9,5 cm	10,5 cm	12 cm
9	Hull weight	4,30	9,80	6,65
10	The length of the intestine	8 cm	14 cm	15 cm
11	Intestine weight	3,50	4,65	1,50

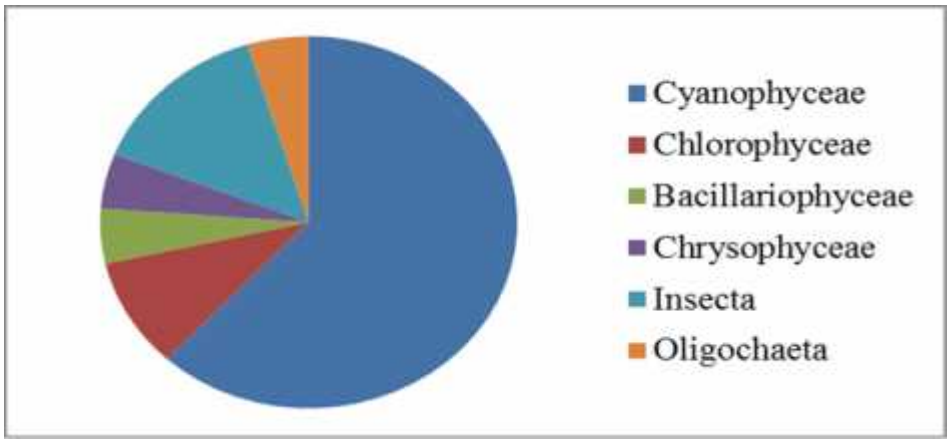

Figure 1. Indeks Proponderance Station 1

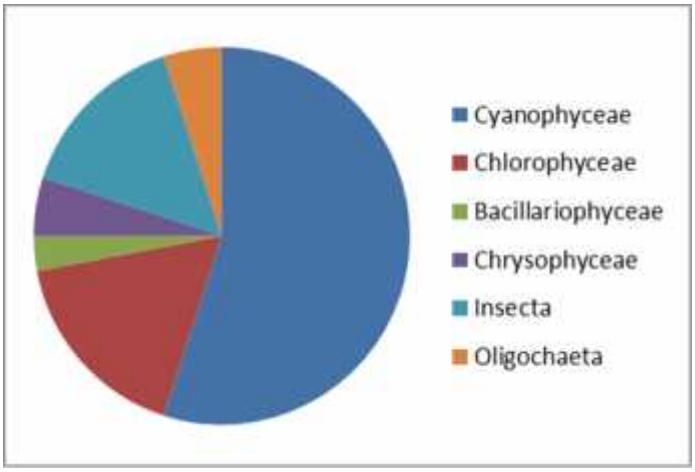

Figure 2. Indeks Proponderance Station 2

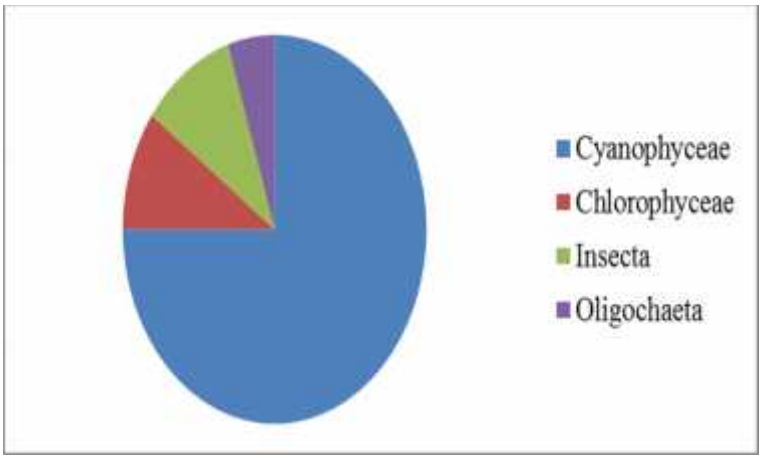

Figure 3. Indeks Proponderance Station 1

Habits and ways of eating are important factors that determine the success of maintaining the existence of an organism because food provides all the nutrients needed by organisms to grow and develop. Food also plays a role in determining the distribution and migration of fish.

The length of the intestine is relatively faster than the length of its body, this is due to providing a wider intestinal surface for absorption of food when the size of food is greater. Omnivorous fish have intestinal

length throughout their bodies or 80% of their body length. Digestive devices in herbivorous fish 3 times longer than the body (intestinal0. Tor fish is one type of fish that has a tapered shaped mouth, a jagged ceiling, a D^1 position and a distant D^2 and the teeth of a tor fish that is not jagged indicate fish it is plant eater, filtering gills of tight tor fish with a smooth gill arch shape.

In the calculation of the amount method in tor fish stomach found Cyanophyceae 53.80%, Chlorophyceae 53.80%, mucus amount 7.69%. From these calculations water insects are the most abundant food in the stomach of the fish tor. The calculation of the frequency method obtained by Cyanophyceae is 100%, Chlorophycea is 733%, mucus is 3.30%. From these calculations Chlorophycea is the most dominant type of food found in fish stomach. In calculating the method of metric volume of fish samples 1 Chlorophycea has 57.14% of the proportion of food, Cyanophyceae 29%, mucus 14%.

The preponderance index is a combination of two methods, namely the frequency method and the volume metric method. The prponderance index value is also often compared with IP. The IP value for Cyanophyceae is 6.3, the IP value for Chlorophycea is 92.6, mucus 1.05.
If there are a number of types of food found in a waters, it can also be concluded that there are also many types of fish or fish populations. Because food factors are the main thing that is very important.

D. Conclusion

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