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CHARACTERISTICS OF NUTRITION CONTENT OF NIKE FISH (*Awaous melanocephalus*) AND MANGGABAI FISH (*Glossogobius giuris*) AS LOCAL RAW MATERIAL FOR FOOD FLAVORING PRODUCT Faiza A. Dali \*, Rita M. Harmain Teknologi Hasil Perikanan, Fakultas Perikanan dan Ilmu Kelautan, Universitas Negeri Gorontalo \*Email: dali.faiza@yahoo.co.id ABSTRACT Food flavoring product that delicious and nutritious need raw material is good.

The study focused on Nike fish (*Awaous melanocephalus*) and Manggabai fish (*Glossogobius giuris*) as a raw material for flavoring aims to analyze the characteristics of nutritional content, especially with regard to water content, protein, ash, fat and carbohydrate. Raw materials used in this study is the Nike fish and Manggabai fish as samples.

Based on the research object, the method used in laboratory experiments to explain the characteristics of the nutrients in Nike fish and Manggabai fish. Data analysis using quantitative descriptive analysis. The results showed that the use of raw materials of Nike fish and Manggabai fish are chemically, nutrient content gets a percentage of the amount varies.

Nike fish has a water content (81.25% vs 77.94%) and fat (1.81% vs 1.10%) more than Manggabai fish, on the other hand Manggabai fish have high levels of protein (14.95% vs 14.13%), Abu (3.39% vs. 2.18%) and carbohydrates (2.63% vs 0.64) more than Nike fish.

Keywords: Flavoring, Nike and Manggabai fish, Nutrient content of fish PRELIMINARY

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Indonesia with abundant fishery resources concerning capture fisheries and cultivation greatly contribute to the fulfillment of nutrition of Indonesian society. Gorontalo as part of Indonesian territory with the water area of 50.500 km<sup>2</sup> has fishery potential that has not all been utilized.

Among the fishery resources living in the waters of Gorontalo are Nike Fish (*Awaous melanocephalus*) and Manggabai Fish (*Glossogobius giuris*). Nike fish and manggabai fish are local fish that have been consumed in the form of sauce, fried or baked. Both types of fish is potentially used as a raw material for making a safe flavor and nutritious.

Tappers of taste will have nutrients that can meet the nutritional needs of the community when using good raw materials. Fish as one of the fishery products have nutritional content with good chemical composition and beneficial, that is in addition to vitamins and minerals, fish contains many proteins, water, fat, ash and carbohydrates.

Research on the use of nike fish and fresh manggabai fish originating from Gorontalo waters as a flavoring raw material has not been reported. This study aims to analyze the characteristics of nutritional content (nike fish and fresh manggabai fish), especially concerning water content, protein, ash, fat and carbohydrate.

**MATERIALS AND METHODS** Materials The fish species used in this study consisted of Nike fish (*Awaous melanocephalus*) obtained from fish auction in Gorontalo City and Manggabai fish (*Glossogobius giuris*) obtained from Limboto lake, Gorontalo regency, and tools or chemicals. Research Methods Purchased fish are included in the coolbox and immediately taken to the laboratory for analysis.

Chemical analysis of water content, ash, fat and protein refers to AOAC (2012). **RESULTS AND DISCUSSION** Fish raw materials used for flavoring are classified as fresh based on visual observations (Figure 1). Nike fish obtained from fishermen who are in fish auction in Gorontalo City, while manggabai fish obtained from fishermen who are in Limboto lake.

Nike fish measuring  $\pm 3$ cm and manggabai fish measuring  $\pm 16$ cm. / / \_ \_ Nike Fish \_ Manggabai Fish \_ Figure 1. Nike and Manggabai fish raw materials Characteristics of

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fresh Nike and Manggabai fish have nutrient content as shown in Table 1. Table 1. Nutritional Content of Nike Fish and Manggabai Fish Samples of fish \_Moisture \_Protein \_Ash \_Fat \_Carbohydrate \_ \_ \_ \_ % \_ \_ \_ Nike fish \_81.25 \_14.13 \_2.18 \_1.81 \_0.64 \_ \_Manggabai fish \_77.94 \_14.95 \_3.39 \_1.10 \_2.63 \_ \_ The use of raw materials Nike and Manggabai fish chemically, especially the nutrient content gets a percentage of the amount varies.

Nike fish have more moisture and fat content (81.25%) than Manggabai fish (77.94%), on the other side Manggabai fish have Protein, Ash and Carbohydrate more than Nike fish. Graphically the variation of nutrient content differences on Nike and Manggabai raw materials (fish) to be used for flavoring products is shown in Figure 2.

/ Figure 2. Nutrition Variation in Nike and Manggabai Fresh Raw Materials (Fish) The moisture content of Nike and Manggabai fishes is the most common among other chemical compositions with a range of 77.94% -81.25%. Bogard et al. (2015), stated that as many as 55 fish samples had moisture content ranging from 60.2 to 85.4

g / 100 g, while Njinkoue et al. (2016) reported, water content in fish results of research between 70% and 80% of the total fish weight. Protein in Nike fish and Manggabai fish ranged from 14.13 to 14.95%. Both types of fish can be used as a source of high protein foods. Njinkoue et al. (2016), explained that the edible portion of fish protein content was 13.4% and 16.17%. Bogard et al.

(2015) reported, the protein content in 55 fish samples ranged from 11.9-20.6 g / 100 g. The ash content of Nike fish and fresh Manggabai fish was 2.18-3.39%. The ash content in this study sample is similar to that of Bogard et al. (2015) ranges from 0.7-5.3 g / 100 g. Fat content contained in Nike fish 1.81% and Manggabai fish 1.1%, while carbohydrates in Nike fish 0.64% and fish Manggabai 2.63%. Carbohydrate content in both types of fish is low compared with other nutrients.

This value exceeds that reported by Njinkoue et al. (2016) of 0.83-0.9%. **CONCLUSION** Nike fish have moisture content (81.25% vs 77.94%) and fat (1.81% vs. 1.10%) more than Manggabai fish, on the other hand Manggabai fish have Protein content (14.95% vs 14.13%), Ash (3.39% vs. 2.18%) and Carbohydrates (2.63% vs 0.645) more than Nike fish.

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Author(S)	Faiza A. Dali Rita M. Harmain
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