

ABSTRAK

Rut Moni Sitorus, NIM 4173520033 (2021). Studi Morfometrik dan Meristik Ikan Nila (*Oreochromis niloticus*) Di Danau Toba Sumatera Utara.

Penelitian ini bertujuan untuk membandingkan karakteristik morfometrik dan meristik jantan dan betina, struktur sisik, serta parameter fisika-kimia habitat ikan Nila (*Oreochromis niloticus*) di Keramba Jaring Apung (KJA) Danau Toba, Desa Marom, Kecamatan Uluan, Kabupaten Toba, Sumatera Utara dan di persawahan, Desa Sibaruang, Kecamatan Lumbanjulu, Kabupaten Toba, Sumatera Utara. Penelitian dilaksanakan pada bulan Januari-April 2021. Sebanyak 60 ekor sampel digunakan untuk pengukuran morfometrik dan perhitungan meristik, serta dianalisis menggunakan Uji T dan analisis Regresi Linear ganda (metode Stepwise). Pengamatan parameter fisika-kimia perairan dilakukan langsung di lapangan. Analisis struktur sisik diamati dengan mikroskop Streo (Zeis, Stemi 2000-C). Hasil Uji-T menunjukkan perbedaan signifikan antara ikan jantan dan betina Nila KJA maupun Nila sawah yaitu 23 karakter dan 6 karakter dari 25 karakter morfometrik yang diamati. Sedangkan hasil Regresi Linear ganda menunjukkan 4 karakter (jantan) dan 1 karakter (betina) yang berkontribusi terhadap panjang total Nila KJA. Sementara 3 karakter (jantan) dan 2 karakter (betina) pada Nila sawah. Ikan Nila KJA dan ikan Nila sawah mempunyai karakteristik meristik relatif sama. Struktur sisik ikan Nila yang diperoleh sama dengan tipe sisik ctenoid pada umumnya. Dari hasil pengamatan parameter fisika-kimia habitat ikan Nila, diperoleh bahwa kualitas air KJA memiliki kondisi lebih baik, sementara pada persawahan memiliki kadar oksigen terlarut yang tidak mencapai batas baku mutu kualitas air.

Kata kunci: Ikan Nila (*Oreochromis niloticus*), morfometrik, meristik, struktur sisik, Danau Toba.



ABSTRACT

Rut Moni Sitorus, NIM 4173520033 (2021). Morphometric and Meristic Study of Tilapia (*Oreochromis niloticus*) in Lake Toba, North Sumatera.

This study aims to compare the morphometric and meristic characteristics of males and females, scale structure, and physico-chemical parameters of *Oreochromis niloticus* habitat in the Keramba Jaring Apung (KJA) of Lake Toba, Marom Village, Uluan District, Toba Regency, North Sumatera and in the rice fields of Sibaruang Village, Lumbanjulu District, Toba Regency, North Sumatera. The study was conducted in January-April 2021. Total 60 samples were used for morphometric measurements and meristic calculations, which were analyzed using the T test and multiple linear regression analysis (Stepwise method). Physical-chemical analysis was carried out directly at the research location. The scale structure analysis was observed under a Stereo microscope (Zeis, Stemi 2000-C). The T-test results showed that a significant difference between male and female of *O. niloticus* in the KJA and also in the rice field, 23 characters and 6 characters from the 25 morphometric characters observed respectively. The results of multiple Linear Regression showed that 4 characters (male) and 1 character (female) that contributed to the total length of *O. niloticus* in the KJA. Meanwhile, 3 characters (males) and 2 characters (females) found in the rice fields. The meristic characteristics of *O. niloticus* in the KJA and in the rice field were not different. The scale structure of *O. niloticus* was the same with the type of ctenoid scales in generally. From the observation of the physical-chemical parameters, it found that the water quality in the KJA better compared to the rice fields condition, due to dissolved oxygen levels in the rice fields did not reach the water quality standard.

Keywords: *Oreochromis niloticus*, morphometric, meristic, scale structure, Toba lake.

