Growth Patterns Analysis of Yellow-Finned Medaka (Oryzias profundicola) as Endemic Fish in Lake Towuti

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Abstract. Lake Towuti has the potential biological resource and a wide diversity of endemic fish with ecological and economic value. Lake Towuti is also known as a biodiversity hotspot that needs attention to conservation because of the number of threads increasing. Fisheries resources in Lake Towuti has a significant role in increasing income, expanding job opportunity, and as a nutritional source for the community. Lake Towuti is also known as rich in endemic fisheries that have economic and ecological value. One of them is known as Tominaga sanguicauda. Tominaga sanguicaudaa is a biological native resource and endemic fish in Lake Towuti, South Sulawesi. A study about this fish has never been conducted before so it needs research to analyse the growth pattern in Lake Towuti. This study aims to determine the growth pattern of Tominaga sanguicauda in Lake Towuti. The research was conducted for 3 months from June to August 2023 in Lake Towuti, South Sulawesi, Indonesia consisting of 966 males and 1583 females. The relationship between length and weight of male Tominaga sanguicauda fish in Tanjung Bakara is W = 0.0017 L1.7326 and female fish have a length-weight relationship of W = 0.02 L1.0726. In Tanjung Saone, male fish have a relationship between total length and body weight, namely W = 0.0012 L1.8159, while female fish have a relationship between length and weight, W = 0.0006 L1.9325. In Tanjung Tominanga male fish show a relationship between total length and body weight of W = 0.0006 L1.9723, while female fish have a relationship between length and weight of W = 0.0002 L2.2837. These results indicate that the growth pattern for Tominaga sanguicauda is negative allometric.

Keywords: Tominaga sanguicauda, negative allometric, endemic fish, Lake Towuti.