

Research Article

Morphometric characteristic and condition factor of Snakeskin gourami (*Trichogaster pectoralis*) from Sungai Batang Swamp, Indonesia

AHMADI

Faculty of Marine and Fisheries, Lambung Mangkurat University, Indonesia.

*Email: ahmadi@unlam.ac.id

Abstract: The Snakeskin gourami (*Trichogaster pectoralis*) from Sungai Batang swamp, Indonesia has high commercial value and high pressure on population due to fishing, while the fish growth condition is poorly studied. A total of 848 fish ranging 75-200mm (119.14±18.43mm) (TL) and 5-132g (29.76±14.76g) were sampled to estimate its length-weight relationship and condition factors. Local fishermen mostly collected them using horizontal gill-net and also electrofishing device. Based on the results, the Snakeskin gourami grow allometrically ($b=2.7748-2.8971$), indicating that fish becomes slender as the length increases. Total length and weight of female were significantly higher than those of male ($P<0.001$). More than 21% of total catch was in 105-114 mm TL, and more than 34% existed 15-24g weight classes. No difference was observed in the percentage of catch number between male and female, as well as in condition factor (K) ($P>0.05$). The mean K values for male and female were 1.64±0.24 and 1.66±0.21, respectively, indicating that fish in the swamp is in good condition.

Keywords: Allometric, Condition factor, Sungai Batang, Weight-length.

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Introduction

Trichogaster pectoralis Regan 1910, commonly known as Siamese gourami or Snakeskin gourami, is one of economically important freshwater fish species due to a great taste and flavor, high price and availability throughout the year. The fish is either sold alive or in salted form, while the Dwarf gourami, *T. lalius* is traded as ornamental fish (Awasthi et al. 2015). In Indonesia and Malaysia, it is locally called "Sepat Siam" (Fig. 1) while in Thailand it is known as "pla-salid". Paepke (2009) gives its native range as southern Viet Nam, Lao PDR, Thailand, the Malay Peninsula, and Myanmar. This species has been introduced widely to other countries e.g., Indonesia, the Philippines, Southern China (Hong Kong), Sri Lanka and elsewhere. This species can be found in marshlands, swamps and peatlands, and occasionally in running waters as well as in impounded and man-

made water bodies, but it does not tolerate polluted waters (Vidthayanon 2012). It is adapted to low oxygenated waters, being able to breathe air because of having labyrinth organ (Tate et al. 2017). It is also more tolerant to high salinities up to 23 psu (Arenas & Acero 1992). As a root grazer, it can be used to control *Eichhornia crassipes* population (Ismail et al. 2018). This species is successfully cultured in paddy field (Ali 1990; Vromant et al. 2001) in the earthen pond (Boonsom 1984), fish farm (Yoonpundh & Little 1997; Tansatit et al. 2014) and blue tank system (Ninwichian et al. 2018). At the same time, culture strategies for Snakeskin gourami are also being developed (Chesoh et al. 1995; Baishya et al. 2012; Lee et al. 2016; Jintasataporn & Chumkam 2017; Ninwichian et al. 2018), as well as conservation measures for this species (Wijeyaratne & Perera 2000; Morioka 2018). Nevertheless, the use of potassium