The Length-Weight Relationship and Condition Factors of Bullet Tuna Landed at the Tanjung Luar Fishing Port, Indonesia

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Abstract

Bullet tuna (Auxis rochei Risso 1810) or tongkol lisong (Indonesian) is important for human consumption and health as well as an income source for fishers and coastal communities. Its utilization problems are over exploitation, catch domination by immature groups, and the threatened stock security of the bullet tuna (BLT). This research aimed to determine the status of the prospective parent of bullet tuna caught in the Lesser Sunda region, particularly from the Alas Strait to the Indian Ocean, West Nusa Tenggara (WNT). Meanwhile, the data were collected from July to September 2020 (2nd transitional season) at the Tanjung Luar Fishing Port, East Lombok and a dependent survey method was adopted with sampling, interview, observation, and documentation techniques. Fork length and body weight data were used to estimate the length and weight relationship, growth pattern, condition factor, fish age group, and catch worth. The primary and secondary data were processed quantitatively using several equations. The growth pattern of bullet tuna was minor allometric (b = 2.875), worth selling (K > 1.00), and the majority was adult fish or mature group. The LWR model is BW = 0.0209FL2.875. This condition indicates the bullet tuna is worth catching (FLc/FLm >1.0 = 94.77%) and worth spawning, so that it is eligible to be a potential broodstock candidate to support a sustainable management of BLT fisheries. Furthermore, fishers have applied the code of conduct for responsible fisheries (CCRF) in supporting the sustainable development goals.

Keywords: BLT Broodstock Maturity Transitional Season