



MATURIDADE FÍSICA E CRESCIMENTO DA POPULAÇÃO DO BOTO CINZA, *Sotalia guianensis*, DA COSTA NORTE DE SANTA CATARINA, SUL DO BRASIL

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The knowledge of age parameters is fundamental to identify population trends and propose conservation strategies. The Guiana dolphin (*Sotalia guianensis*) Southern OTU (Operational Taxonomic Unit) has the lowest genetic variability and includes populations from the Brazilian states of Rio de Janeiro, São Paulo, Paraná and Santa Catarina. Information about biological parameters is necessary to understand the conservation status of the species. The objective of this study was to analyze the growth and estimate the age of physical maturity for *S. guianensis* of the Babitonga Bay population. The collected specimens came from systematic coastal monitoring, conducted from September 2015 to March 2018, covering the total species distribution in Santa Catarina State. These surveys are part of the monitoring programs required for the environmental licensing process of the oil production and transport by Petrobras at the pre-salt province (25°05'S 42°35'W a 25°55'S 43°34'W). The carcasses were analyzed to identify the sex and to measure the total length. Age was estimated by counting the number of GLGs (Growth Layer Groups). The Gompertz model was used to describe growth and to investigate its variation with age. The model was adjusted for males, but it was not possible to do the same for females due to the low number of samples. Males (n = 9) had mean total length of 153.4 cm (82-187 cm) and age between 9 month and 12 years. Females (n = 4) had a mean total length of 150.2 cm (136-167 cm) and age estimated between 1 and 3 years. The asymptotic size that corresponds to physical maturity was estimated at 160.5 cm (CTt = $160,471 * \exp(-\exp(5,469 - (7,824 * t)))$, R² = 0.551). The age of physical maturity was estimated at 4 years. Considering only males, the asymptotic size was estimated at 163.3 cm at 3 years (CTt = $163,286 * \exp(-\exp(7,769 - (10,855 * t)))$, R² = 0.695). The length and age at physical maturity were smaller than those reported for the northern population, in Paraná State. It is necessary to improve the samples to understand if these differences are related to each population.