



## GESTATION PERIOD AND BIRTH SIZE OF FRANCISCANA DOLPHINS, *PONTOPORIA BLAINVILLEI*, IN SANTA CATARINA, BRAZIL

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There are still no studies about the reproductive biology of franciscana dolphins on the coast of Santa Catarina, located in the transition of the Franciscana Management Areas (FMA) II and III. The objective of this study was to analyze the mean size and weight of neonates and estimate the gestation period of the species in this region. Neonates found dead from October 2015 to September 2017 between 26°07'01"S/48°36'58"W and 28°28'57"S/48°46'51"W were analyzed. Beach surveys have been conducted daily as a part of the monitoring programs required for the federal environmental licensing process of the oil production and transport by Petrobras. For each animal collected, sex, total length and weight were recorded. Calves that had remnants of the umbilical cord, clear fetal folds and/or the dorsal fin laterally folded were considered as neonates. The gestation period was estimated using a method previously described in the literature, in which it is assumed that the fetal length consists of two phases: a short curvilinear growth phase ( $t_0$ ) and a later period of linear growth until birth. Regression models described the linear fetal growth in relation to the days of the year (January 1=1 to December 31=365). Seventeen neonates were analyzed. One individual was found in March, three in September, eight in October and five in November, demonstrating that the birth of the species in Santa Catarina is synchronized with the austral spring. The individuals presented mean birth size and weight of 72.8cm and 4.33kg, respectively. The nonlinear phase of gestation was estimated at 36 days and the linear phase at 292 days, with a fetal growth rate of 0.25cm/day or 7.17cm/month. Summing up the two growth phases, we obtain a gestation period of 328 days or 10.9 months. The results corroborate studies carried out in other places of the FMA II and III about the birth size (70-80cm) and the gestation period (~11 months). Only in FMA I (ES and RJ) reproductive seasonality was not observed, while in other places births are also predominant in spring and summer. These results are important to analyze the population trends supporting management measures.

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