

Annual summary report to Small Grants in Aid of Research 2020

Allometric aspects of directional cranial asymmetry in Odontocetes

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Directional cranial asymmetry in odontocetes is a persistent condition throughout the ontogenetic development, although not widely known. Therefore, this study aims to investigate the postnatal ontogenetic allometry of the asymmetry of cranial structures – through the shape variation and the magnitude of asymmetry, in odontocetes from the Brazilian coast, applying geometric morphometrics using three-dimensional landmarks. The skull samples that have been analyzed consist of *Pontoporia blainvillei*, *Sotalia guianensis*, *Tursiops truncatus*, *Delphinus delphis* and *Stenella frontalis*, held in four collections: Museu Nacional/Universidade Federal do Rio de Janeiro (MN), Fundação Oswaldo Cruz (Fiocruz) Grupo de Mamíferos da Região dos Lagos (GEMM-Lagos) and Grupo de Mamíferos do Rio Grande do Sul (GEMARS). This notable cranial asymmetry in odontocetes has been analyzed including information on physical maturity, age and sex. In the scope of this grant, it was possible to visit the collections located in different cities/regions and institutes that had particularities in their access protocols due to the COVID-19 pandemic, requiring numerous readjustments in the timeline of this project with some stages still in progress, and which will be fulfilled as defined in the submitted project. I am grateful for the financial support provided by the Society for Marine Mammalogy to visit some institutes.