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2018 Grants-in-Aid of Research Final Report

VERTEBRAL ECOMORPHOLOGY IN DELPHINIDAE: PHYLOGENETIC SIGNAL OR HABITAT ADAPTATION?

The help of the Grant awarded by the SMM, made it possible for me to travel to the National Museum of Natural History (Smithsonian Institution, Washington DC) and to the American Museum of Natural History (New York), during August and September 2019. Thanks to those visits, I was able to digitize vertebrae of over 35 odontocete species. I also collected meristic data and vertebral count. Based on the data collected (three dimensional landmarks) adding to the data available in South America, I will investigate the differences in vertebral shape among odontocetes, making a comparative study of the functional anatomy in relation to the habitat of those closely related and understudied species and looking for phylogenetic signal in vertebral morphology in these highly diverse group. Currently, I am still collecting data from South American collections. The visits to the previously named museums were more than positive, not only because of the high value of the collected data, but also because I visited two of the most important collections of cetaceans in the world. Moreover, people I met while working there enriched my development as a researcher.