ANNUAL SUMMARY REPORT

Trace elements in teeth of small cetaceans from subantarctic waters, Tierra del Fuego, Argentina

Iris Cáceres-Saez, Argentina
Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"
Museo Acatushún de Aves y Mamíferos Australes.

Nowadays it is increasingly common to monitor the marine environment and establish geographic trends of environmental contamination by measuring contaminant levels in animals from higher trophic levels. Odontocetes, as apex predators, can reflect the health of near shore marine ecosystems, and coastal threats that pose risk to human health, such as pollutants. Teeth are hard tissue that presents the advantage to be long term preserved material, and to provide a good chemical record of life-history events of the individual. Indeed, heavy metals are incorporated with other trace elements into the structure of tooth. Over time, various ingested elements can build up in the body due to environmental exposure, diet, and/or disease. Principal goal of this project was to determine the concentration of trace elements in teeth of odontocetes from Subantarctic waters of South America. Museum specimens collected during several stranding and/or bycaught events in Tierra del Fuego provides a unique opportunity to assess trace elements in teeth of the species. Graphite Furnace Atomic Absorption Spectrometry (GFAAS-) was used to assess essential (Cr) and non-essential (Ni, Cd and Pb) trace elements concentrations in teeth of specimens. The grant awarded by the Society for Marine Mammalogy was used to travel to Ushuaia city in order to collect teeth specimens at Museum Acatushún, Estancia Harberton, Tierra del Fuego, Argentina, and also helped to acquire lab supplies to chemical analysis. Preliminar outcomes were presented at the *16 Reunión de Expertos en Mamíferos Acuáticos de América del sur (RT) / X Congreso de la Sociedad Latinoamericana de Especialistas en Mamíferos Acuáticos (SOLAMAC)* at *4th Congreso Colombiano de Zoología* in Cartagena de las Indias, Colombia, 1 - 5 December, 2014. At this time we are analyzing new specimens in order to increase the sample size, and working in an upcoming article to be submitted to an international journal. I like to thank the Society for Marine Mammalogy for believe in our project and their financial support. This work is dedicated to the memory of Dr. R. Natalie P. Goodall, for her valuable contribution to this study and our lives.