

Project Update: January 2022

The activities carried out to date include:

1- Collection of muscle and liver from the dead Munk's mobulas, *Mobula munkiana*, in the location of El Pardito island (Gulf of California). Samples of muscle and liver (n= 8) of Munk's mobulas has been collected in fishing camps of Baja California Sur. The Munk's mobula is a species cataloged as vulnerable by the IUCN, and in Mexico it is protected by federal law. Despite its protection status, this species continues to be victim of bycatch. Not only this species is one of the main prey for the orcas of the Gulf of California, but it is still being consumed locally in the BCS region. Knowing the concentrations of heavy metals in the organism of these rays is not only important to determine the existence of biomagnification in their predators, but it is also important in order to assess potential risks to human health. Part of this stage of the project includes disclosure to local fishermen about the potential risk of consuming this protected species.



Fig.1 Fisherman collecting a dead specimen of Munk's mobula, *Mobula munkiana*, from a net. Photo credit: Blanca Idalia, Mobula Conservation.



Fig.2 PhD candidate Marta Palacios Diaz collecting samples from a dead specimen of Munk's mobula, *Mobula munkiana*. Photo credit: Blanca Idalia, Mobula Conservation.

2- Collection of biopsies from bottlenose dolphins, *Tursiops truncatus* in La Paz Bay. Biopsies (n = 5) has been collected from free swimming bottlenose dolphins in the bay of La Paz. Biopsies will be analyzed for trace elements.



Fig.3 biopsies dart on bottlenose dolphin, *Tursiops truncatus* in the bay of La Paz. Photo credit: Hiram Rosales Nanduca.

3- Collection of sardines from local fish market of La Paz city
Sardines, *Sardinops sagax*, (n =15) from the Bay of La Paz were acquired from local fishing markets of La Paz city. This species of sardine is commonly consumed by bottlenose dolphins, but it is also part of the diet of local people of this city. The study of heavy metals in this prey can help to assess potential risks to human and determinate the presence of bioaccumulation in the predators.