## Project Update: October 2020

Due to COVID-19 contingency, we adjusted our fieldwork to assess dolphin stress level based on acoustic data, since Esch et al. (2009) study suggests that bottlenose dolphins signature whistles can be used as an indicator of stress. Tour boats and the noise produced by their engines are considered the main threat for the survival of the small and resident population of bottlenose dolphins in the Archipelago of Bocas del Toro, Panama. The lockdown in Panama due the emergency with the pandemic since March 2020, means that the tour-boats were forced to stop working on the archipelago as well as the transportation boats, considerably reducing the number of boats and therefore the associated noise in the archipelago. Therefore, we requested permission from local authorities to go and install a hydrophone in three different sites in the archipelago in July and September 2020 to evaluate the soundscape and dolphin's vocalisation in the absence or reduced ambient noise.



Left: Hydrophone deployment by Carolyn Kovacs. Right: Data download by Carolyn Kovacs.



Bottlenose dolphin. © Betzi Pérez.