Mangroves in the Gulf of California

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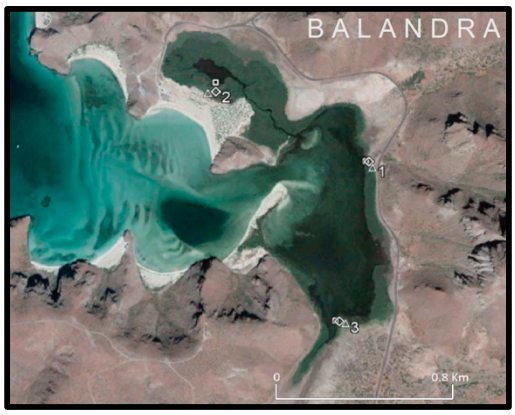

The presence of mangrove wetlands along subtropical and tropical coastlines around the world provide several benefits to society and the natural environment around them. Some of these benefits include providing wildlife habitat, carbon storage, and reduced impacts of coastal flooding and erosion. These benefits, or ecosystem services, are provided by mangrove wetlands in a diversity of climates and coastal environments; including areas where the river meets the sea like coastal lagoons, large deltas, and estuaries. However, the quality and quantity of ecosystem services from mangrove wetlands in dry regions is not well understood.

As a result of this knowledge gap, researchers focused their efforts on La Paz Bay, a dry region on the coast of the Gulf of California. Here they studied mangrove wetlands in a dry environment and their ecological and economic benefits to the surrounding area. To evaluate the benefits of these wetlands, the team focused on calculating how much carbon is stored by the mangrove wetland, as well as its total productivity.

Three sites, Balandra, Enfermeria and Zacatecas, were selected for this study to understand the functional and structural properties of this ecosystem. Some of the main findings included:

- Average carbon storage in the soil was higher than in other dry regions.
- Aboveground biomass levels in La Paz Bay was lower than other mangrove areas around the world.
- Carbon storage varied significantly depending on the dominant mangrove species within different mangrove habitats.