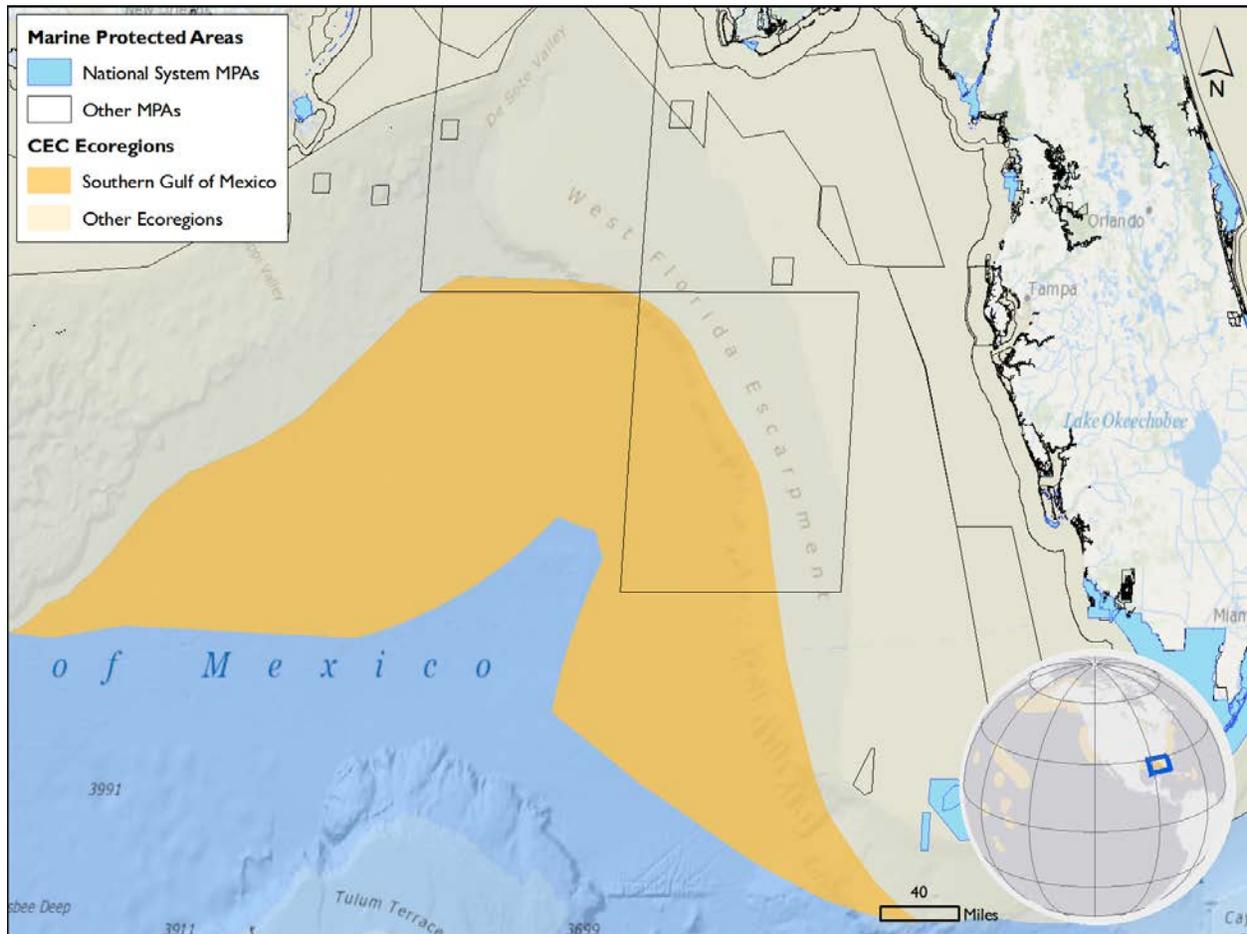


Southern Gulf of Mexico (Ecoregion 14)

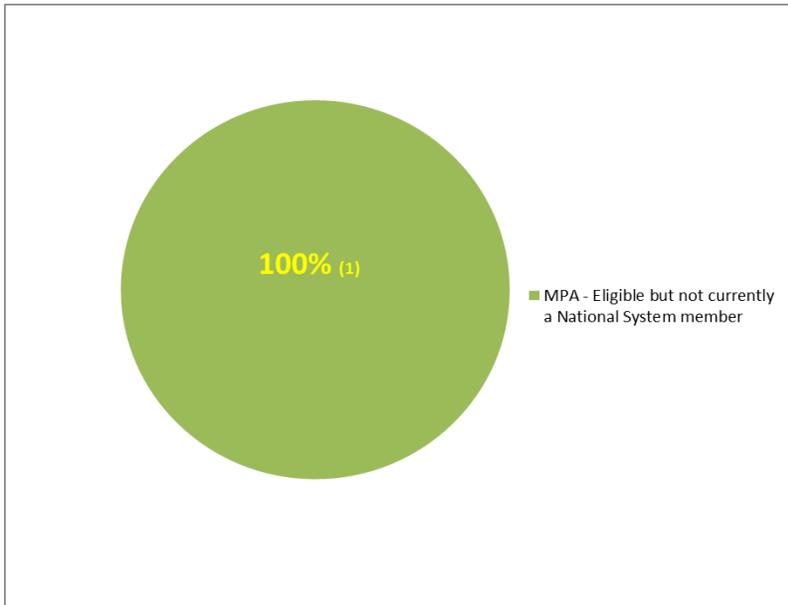
Background

The Southern Gulf of Mexico is a region of open water within the waters of the United States but contain highly productive coastal lagoons, seagrass beds and coral reefs along the Mexican coastline. These features help support a high level of biodiversity found throughout the Gulf of Mexico. The ecoregion is influenced by the freshwater discharge from the Mississippi River as well as the Loop Current. This current brings oceanic water into the Gulf and exits through the Straits of Florida. The areas shoreward of the ecoregion contain large population centers (e.g., Tampa, Mobile, New Orleans) as well as considerable infrastructure from oil and gas production (e.g., platforms, pipelines, refineries).



MPAs in the Northern Gulf Stream Transition

There is one MPA in the Southern Gulf of Mexico Ecoregion, that being the eligible to become but not currently National System member Desoto Canyon Closed Area (Figure 1). This MPA is a Federal Fishery Management Zone and has been managed by the NOAA Fisheries Service since its designation in 2000. The MPA is closed year-round to all pelagic longline gear in order to protect tunas, swordfish and other billfish and sharks. The MPA is located off the coast of Tampa and Pensacola, Florida.



The ecoregion is topographically diverse, ranging from shallow water over broad basins to deep oceanic water in the abyssal plains and this is reflected within the ecoregion. The MPA in the ecoregion contains both coldwater corals as well as submarine canyons (Figure 2). The transport of water from coastal areas and the upwelling of nutrients from these areas contribute to

Figure 1. Percent of Marine Protected Areas (MPAs) within the Southern Gulf of Mexico (Ecoregion 14) that are members of the National System of MPAs (n=1)

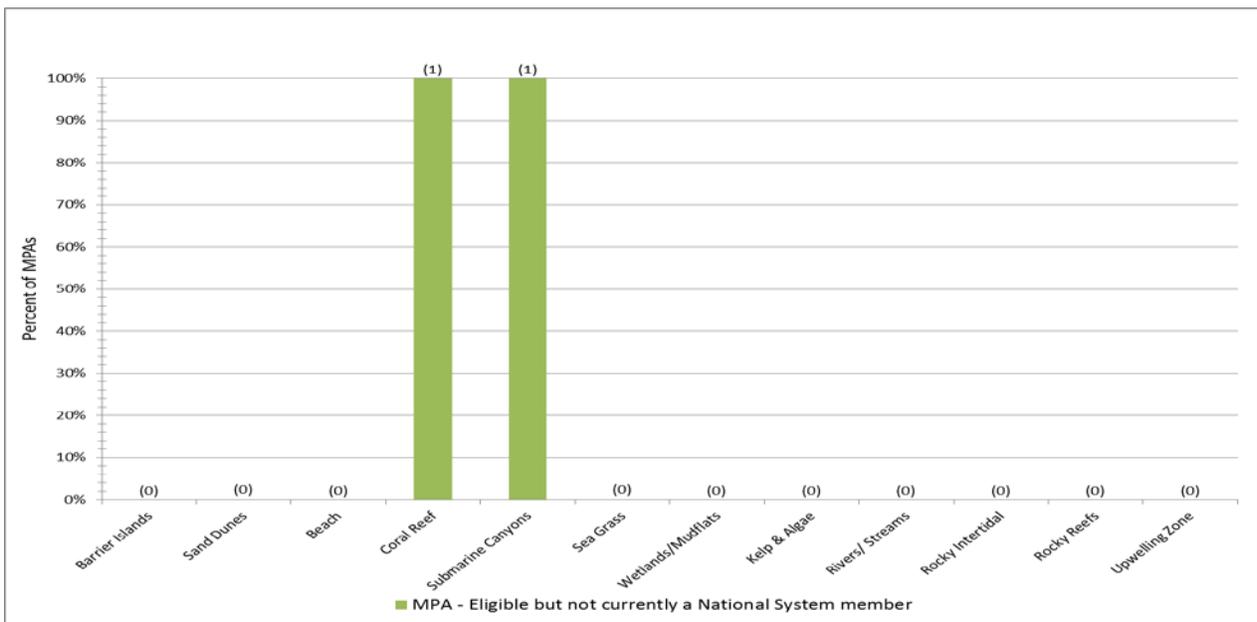


Figure 2. Percent of MPAs that contain certain habitat groups in the Southern Gulf of Mexico (Ecoregion 14)

hundreds of finfish being found throughout the Gulf of Mexico. There are several coastal pelagic species associated with nearshore wetlands that migrate out to the ecoregion and are associated with deepwater coral habitat and the open waters of the Gulf (Figure 3). Some of these fish are commercially and recreationally important and include groupers, snappers, amberjack, scad and triggerfish. Migratory species such as mackerel, tuna, and sharks are all

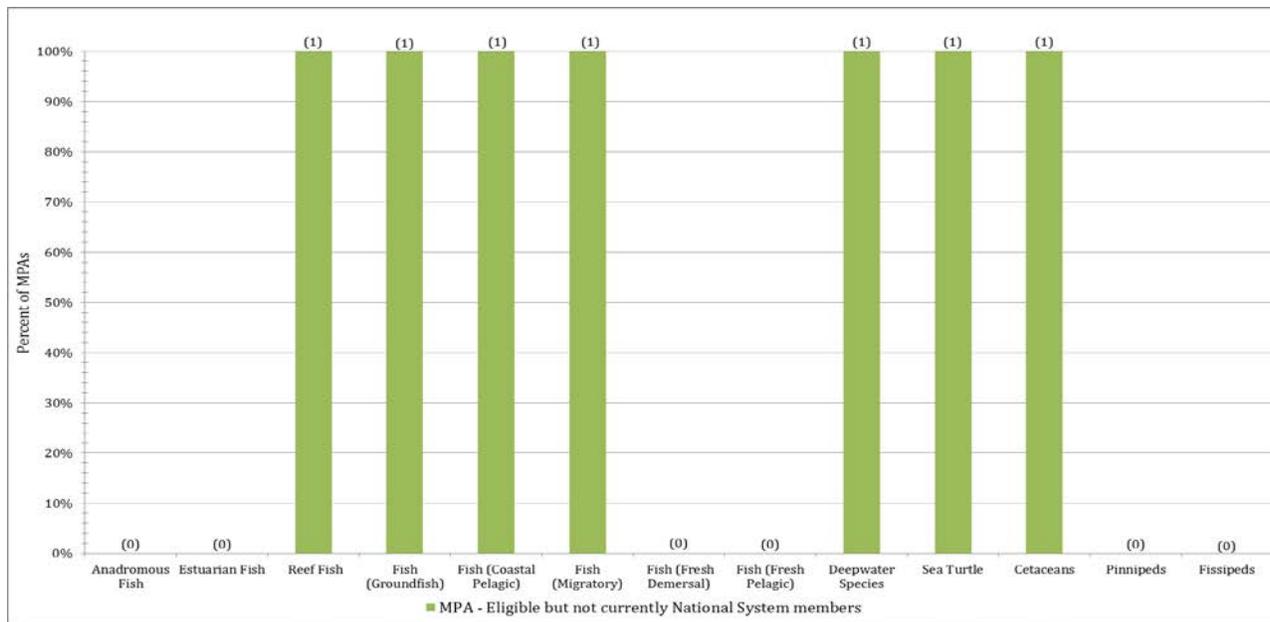


Figure 3. Percent of MPAs that contain certain fish and marine mammal groups in the Southern Gulf of Mexico (Ecoregion 14)

found within the ecoregion and are highly sought after throughout the greater Gulf by commercial fishermen. Various species of sea turtles (e.g., Kemp's ridley, loggerhead, green, hawksbill, leatherback) and cetaceans are found throughout within the ecoregion's MPA.

Birds are classified as waterfowl, estuarine or seabirds, signifying where their principle feeding areas occur (e.g., seabirds, waterfowl, estuarine), and are found within the ecoregion's MPA. As one might expect, estuarine birds from the coastal wetlands and seabirds all take advantage of the area's plentiful fisheries and are found within the ecoregion (Figure 4).

As the ecoregion is found offshore in a biologically productive area, one would expect to find various species of subtidal invertebrates present within the ecoregion and such is the case (Figure 5). Economically important species of shrimp (brown, white, pink) are found throughout the Gulf.

Ecologically important areas that support where species breed/nest/spawn/rest can be found within the ecoregion's MPA. Fish spawning areas are found within the ecoregion, with migratory species likely aggregating around the ecoregion's diverse geological features (corals, canyon walls (Figure 6)

Conclusions

The MPA in this ecoregion contains ecologically important habitat (corals and submarine canyon), species groups (fish, cetaceans, sea turtles, seabirds) and ecologically important areas (where fish spawning occurs). As this ecoregion contains only one MPA, there is no replication of ecological features (species, habitats and ecological processes) -- one of the criteria identified by the Convention on Biological Diversity (CBD) in designing effective MPA networks.

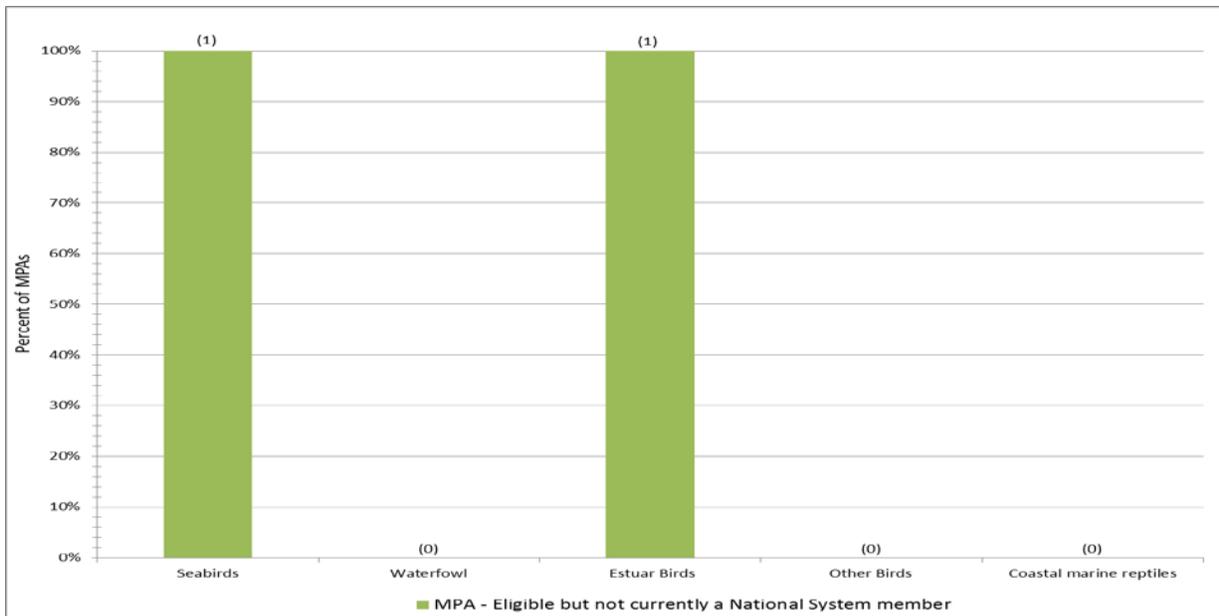


Figure 4. Percent of MPAs that contain marine birds and reptiles in the Southern Gulf of Mexico (Ecoregion 14)

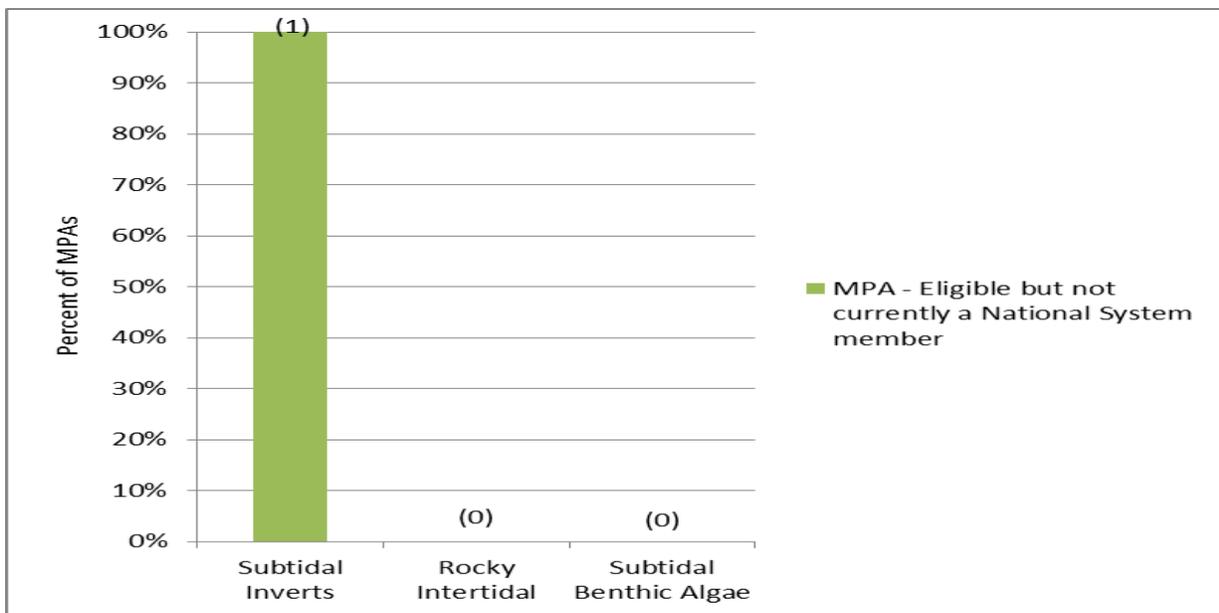


Figure 5- Percent of MPAs that contain Invertebrates and Algae in the Southern Gulf of Mexico (Ecoregion 14)

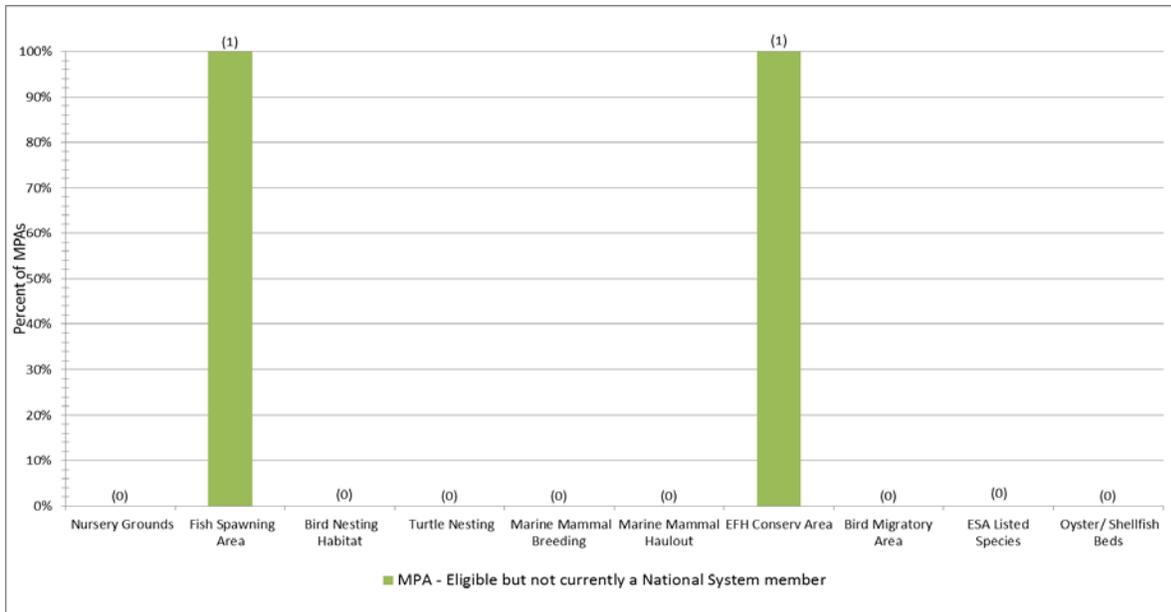


Figure 6. Percent of MPAs with ecologically important areas in the Southern Gulf of Mexico (Ecoregion 14)

Suggested Reading

Valentine, C., J.R. Uzzmann and R.A. Cooper. 1980. Geology and biology of Oceanographer Submarine Canyon. *Marine Geology* 38:(4):283-312