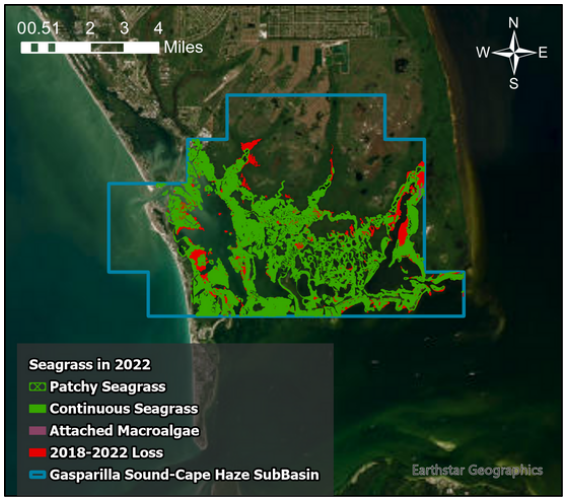
Seagrass in Gasparilla Sound/Cape Haze

Fish, Wildlife, & Habitat Protection

Summary

Gasparilla Sound/Cape Haze is a section of the larger Charlotte Harbor basin, it is close to both Boca Grande Pass and Little Gasparilla Pass and receives significant tidal flushing. The upper harbor area is large and deeper than Gasparilla Sound and is highly influenced by the Peace and Myakka Rivers. Gasparilla Sound contains some of the most dense seagrass beds in the area. For this reason, seagrass acreages and characteristics as well as targets are sub-divided out in this fact sheet.



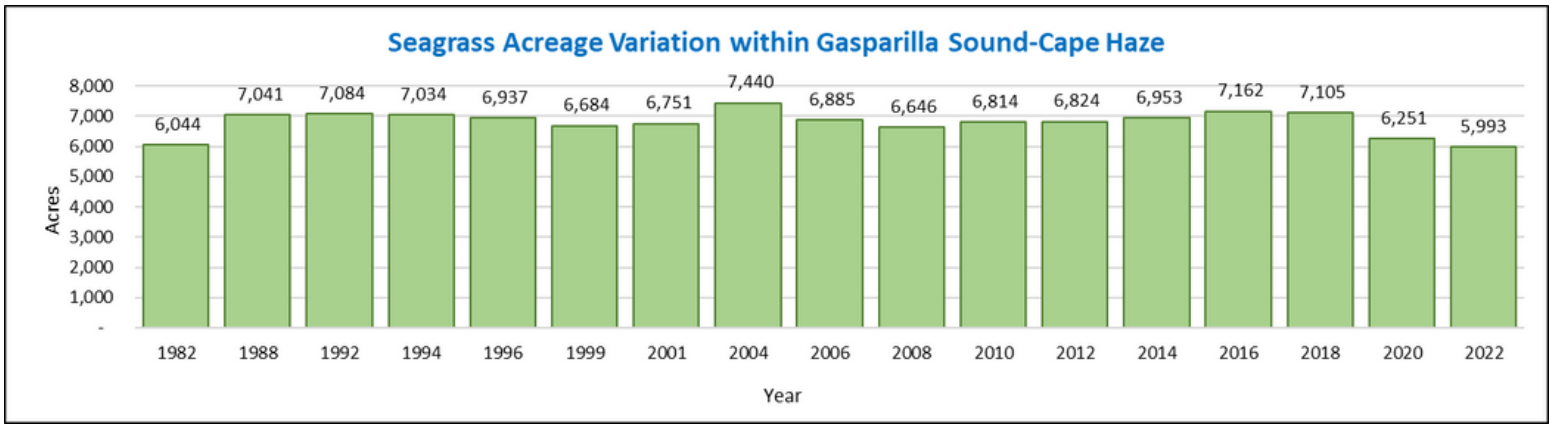
Seagrass Measures Water Quality & Improves Estuary Health

Seagrass beds provide many benefits. It is nursery habitat for fish and shellfish and it contributes to better water quality by trapping sediments, storing carbon, and filtering nutrients from stormwater runoff. Seagrass requires clean water and ample sunlight to grow, and therefore it is used by agencies and local governments as a way to measure water quality. This is documented in two ways:

- Mapping changes in seagrass acreage and location over time with aerial photography (spatial coverage). This is valuable for estimating seagrass locations, acres and broad changes over time.
- On-the-ground monitoring of changes in species composition, estimation of bottom cover in a seagrass bed (abundance), and maximum depth in which seagrass can grow due to light availability and water clarity (deep edge). This monitoring works to characterize the density, complexity, and stability of those seagrass meadows.

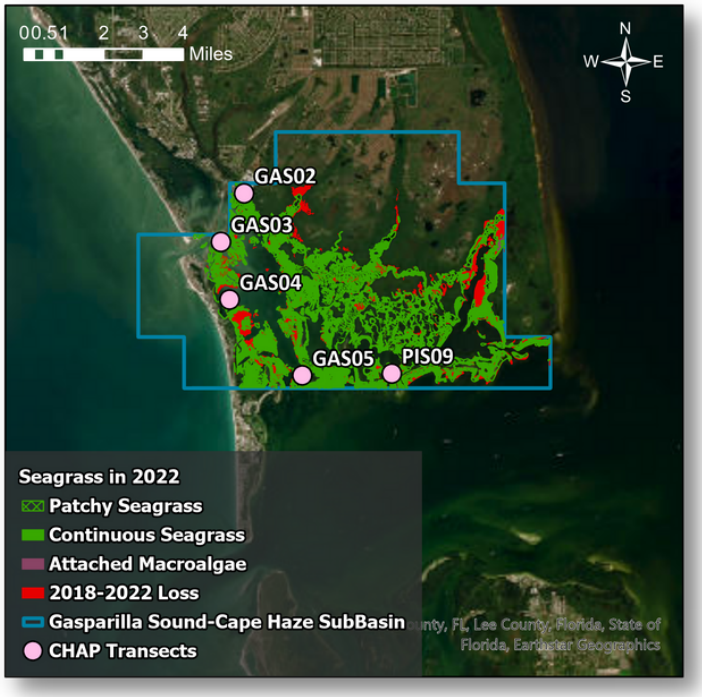
Seagrass Acreage

The graph below depicts results from seagrass mapping, done once every two years, in Gasparilla Sound/Cape Haze from 1982-2022. Seagrass in this area has remained relatively stable over time since monitoring began. However, acreage declined significantly between 2018 and 2022; 1,112 acres of seagrass were lost representing a 16% loss in acreage overall. The reason for this decline is complex and likely involves several factors. This includes impacts from recent storm events such as Hurricane Irma, increased temperatures and rainfall, additional nutrient runoff from land, as well as prolonged red tide and algae blooms in the region. The CHNEP continues to work with our partners to better understand causes and investigate solutions. Learn more about what the Partnership is doing protect and improve water quality in Gasparilla Sound/Cape Haze (CHNEP.org).



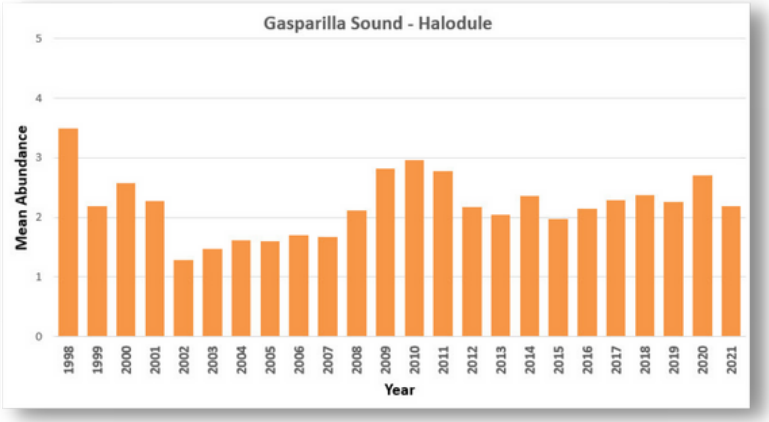
Monitoring Sites

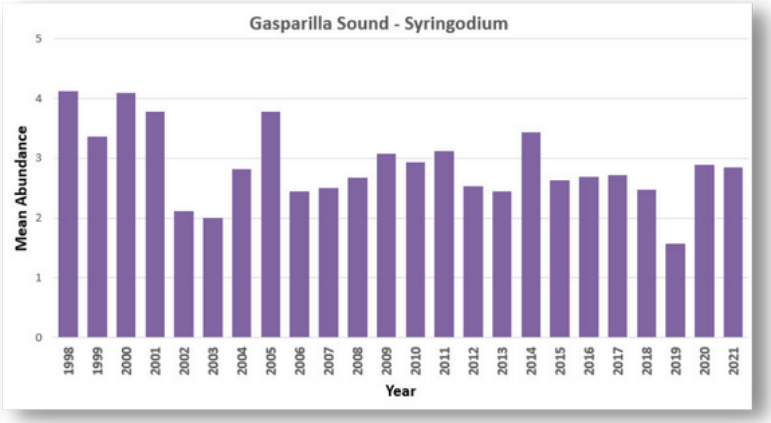
The map to the right shows locations of monitoring sites (highlighted in pink) in selected meadows in Gasparilla Sound/Cape Haze by the Florida Department of Environmental Protection Aquatic Preserve staff. Annual seagrass monitoring in the Harbor examines species types, density, distribution and how deep the grass will grow (this is dependent on light availability).

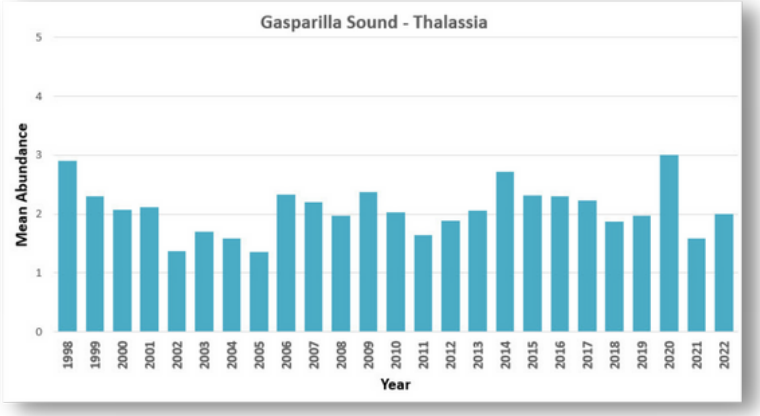


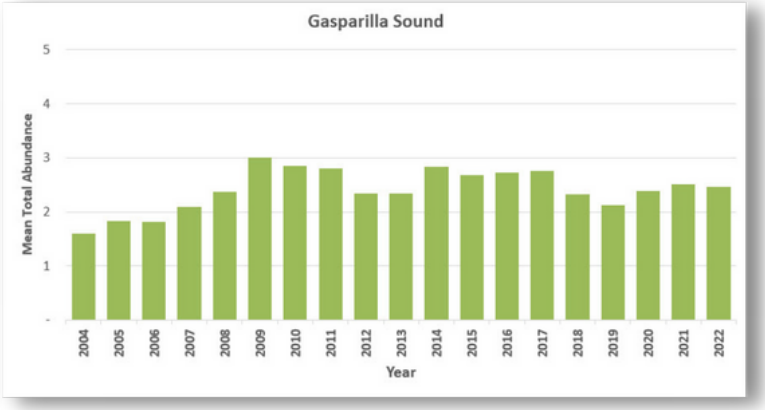
Seagrass Diversity and Health

The bar graphs here depict the changes in presence of different species of seagrass found at monitored locations in the region. In Gasparilla Sound this includes Shoal grass (*Halodule wrightii*), Turtle grass (*Thalassia testudinum*), and Manatee grass (*Syringodium filiforme*) for the years 1998–2021. Seagrass species abundances fluctuate from year to year which also demonstrates that there are shifts in species composition occurring as well, due to different environmental and natural factors.









For more information, please visit the CHNEP Water Atlas at chnep.wateratlas.usf.edu.