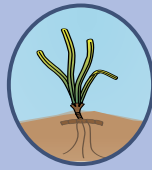


Seagrass habitats

Marine and Estuarine Goal Setting for South Florida



IN A NUTSHELL

- Seagrasses provide **habitat** for fish and invertebrates and **maintain water quality**.
- People **value** seagrasses as an essential component of a functioning marine ecosystem, for stabilizing sediments, as a natural filter, and as critical habitat for endangered species.
- Seagrass beds in the Florida Keys are **vulnerable** to eutrophication and the result of damage to the sea floor caused by recreational boating and commercial activities.
- **Coastal management** protects seagrasses by reducing the inflow of nutrients to coastal waters, restricting activities in vulnerable areas, and restoring seagrass beds when damage occurs.

WHAT'S AT STAKE?



The seagrass bed that carpets 80% of the Florida Keys National Marine Sanctuary is part of the largest documented contiguous seagrass bed on Earth, covering approximately 17,620km².




Fisheries landings in the Florida Keys total over 12x10⁶kg annually of mostly seagrass-associated organisms.



Over half of all employment in the Florida Keys is dependent on outdoor recreation related to a healthy ecosystem supported in part by healthy seagrass beds.

Dry Tortugas Key West

 Seagrasses



A. V. Ullrich

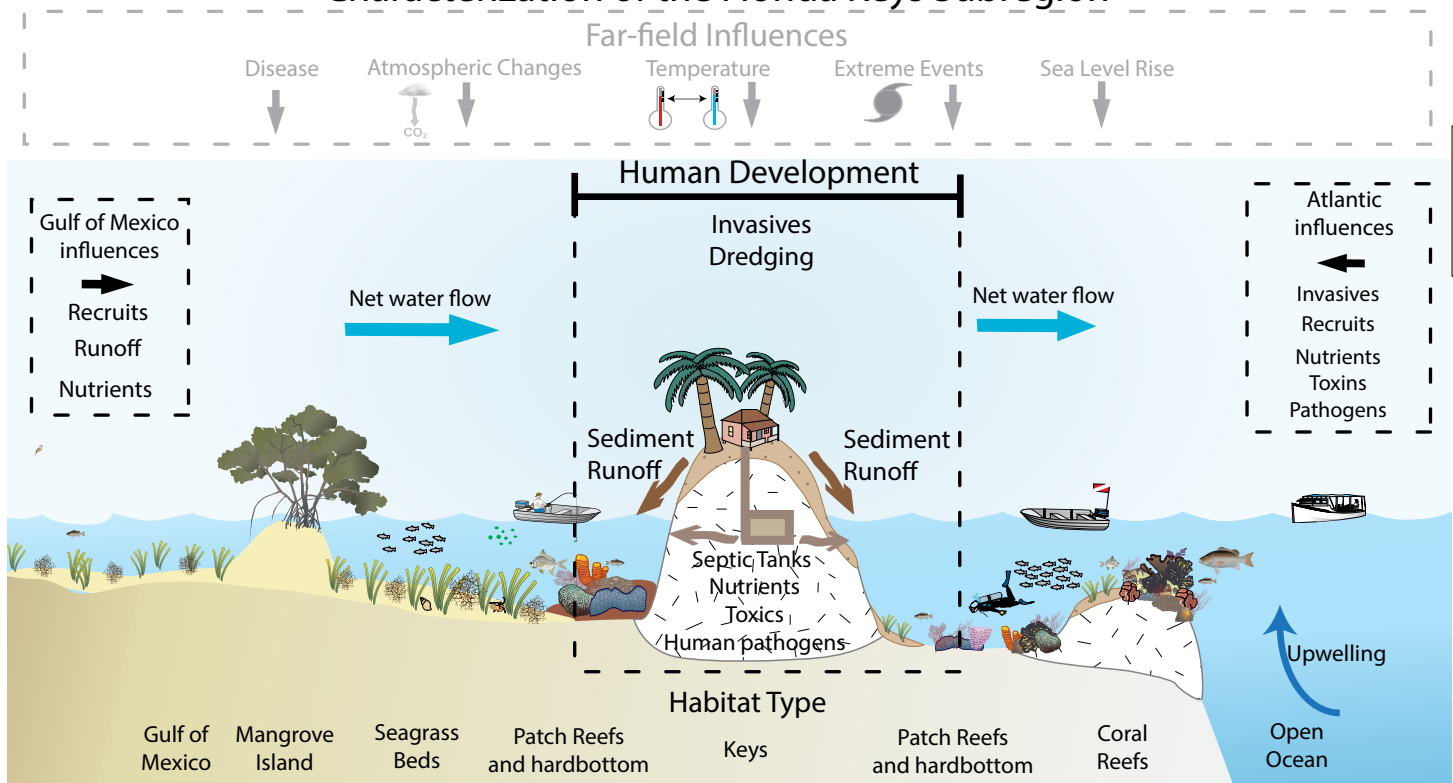
SEAGRASS HABITATS IN THE FLORIDA KEYS

Seagrasses are one component of the marine environment in the Florida Keys shown in the diagram below. They are vulnerable to local, regional, and global impacts such as physical damage from boat propellers (seagrass scarring) and an excess of nutrients in the water column can cause a die-off of these marine plants. Seagrasses support various life stages of many marine organisms and play a vital role in marine food webs, cycling nutrients, and providing habitat. The extensive meadows are necessary to maintain the ecological health of the Sanctuary and the marine ecosystems of South Florida.

PAST CONDITIONS CAN IMPACT CURRENT CONDITIONS

A die-off of dense stands of turtle grass occurred in a small area of Florida Bay beginning in 1987. Turbidity in the water column and algal blooms followed the loss of seagrasses, leading to a die-off of sponges and a general decline in seagrass beds surrounding the area of die-off. Impacts to the marine ecosystem persisted for more than a decade following the initial loss of seagrasses.

Marine and Estuarine Goal Setting for South Florida Characterization of the Florida Keys Subregion



Seagrass scarring caused by motorboat propellers impacts the integrity of seagrass beds. "Pole and troll zones" can be created to reduce additional propeller scarring to seagrass communities in South Florida.

MANAGEMENT ACTIONS

Management actions are activities to promote use and that protect and conserve natural resources. They consist of gathering information, decision-making, and program implementation that are carried out by agencies responsible for making policies and implementing management actions that affect seagrass habitats.

"Pole and troll" zones are one example of management actions to protect and promote the use of seagrass beds. Seagrass monitoring is used to develop appropriate "pole and troll" zones, or areas that prohibit the use of motors if an area shows the continued loss of seagrasses from motorboat propellers that cause seagrass scarring.