

SEAGRASSES IN MASSACHUSETTS

What is Seagrass?

Seagrass is a type of marine plant that lives in subtidal coastal waters. Seagrasses grow in beds or meadows that can span small patches or reach up to miles in size. Each plant has roots and leaves, and produces flowers, and seeds.

Globally, there are 72 different seagrass species. In Massachusetts, the most common species is called eelgrass.



Value of Seagrass

Coastal Protection



Seagrass slows down wave action and stabilizes sediment, acting as a natural buffer to protect our coasts from storm events.

Oxygen Production



Seagrass is considered to be "The Lungs of the Sea" due to its ability to produce oxygen. 1 square meter of seagrass can produce up to 10 liters of oxygen a day!

Carbon Sink



Seagrass can absorb and store twice as much carbon as tropical forests. The carbon is stored in sediments where it remains for thousands of years, helping to mitigate climate change.

Water Quality



Seagrass beds absorb nutrients that make their way into the water from land. By processing and storing these nutrients in roots and leaves, the plants improve local water quality, which helps to prevent harmful algal blooms and maintains a healthy environment for other species.

Nursery Habitat



Seagrass provides critical habitat for many of our marine species that we love and rely on such as flounder, crabs, bay scallops, and cod. Through providing protected space for new species to grow, eelgrass supports commercial fishers and marine biodiversity.

Photo: Hakai Institute

History of Eelgrass in the Region



While eelgrass habitat has long been a defining feature of Massachusetts coastal waters, it has recently experienced significant declines. Since the state started mapping eelgrass in 1995, over 50% of the areal coverage has been lost. Declines have been attributed to a number of factors including degradation of water quality and clarity due to increased nutrients and suspended sediments from urban and agricultural runoff as well as aquaculture.

How to Protect Eelgrass

Due to the wide array of services eelgrass provides, protecting our local beds is important to the health and well-being of our marine ecosystems.

Responsible Boating

Ensuring that existing eelgrass beds are protected is a big help! You can do this by installing conservation moorings and avoiding anchoring in eelgrass beds when you are out on the water.

Limit Pollution

Water quality is a major concern for eelgrass beds as plants need clear water to access sunlight for photosynthesis.

You can help reduce pollution through big actions such as regular maintenance of your septic system, and small actions like reducing lawn fertilizers and scooping up your pup's poop!

Reduce your Impact

Other everyday actions to reduce your impact can also help protect eelgrass beds! Warming ocean temperatures are causing stress to eelgrass and contributing to their decline. Consider changes to reduce your carbon footprint!

Learn more & Get Involved

If you are interested in learning more about eelgrass and conservation efforts in the region, check out:

- **Northeast Ocean Data Portal:** <https://www.northeastoceandata.org/eelgrass/>
- **Dept of Marine Fisheries Eelgrass Restoration:** <https://www.mass.gov/info-details/dmfs-eelgrass-restoration-and-monitoring>
- **iSeaGrass:** <https://www.iseagrass.com>
- **MA Seagrass Restoration Database:** <https://storymaps.arcgis.com/stories/d65a1f83ff904893801fc804aea54438>

Spotlight: Restoration in Action

Scientists and conservationists are able to take a more active approach to combat the seagrass decline. Through local restoration efforts, beds can be enhanced or restored. To do this, local healthy seagrass meadows are used as donor sites from which plants and seeds can be harvested and replanted at new locations.



Photo: Coco McCabe