Eelgrass (*Zostera marina)* at Point Molate

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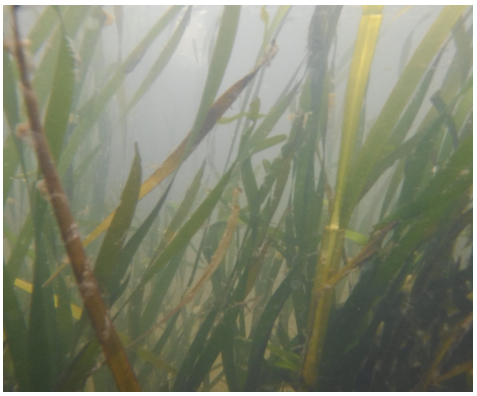

What is eelgrass?

Eelgrass is a native seagrass that grows in shallow waters in the San Francisco Bay. The eelgrass bed at Point Molate Beach Park covers more than 50 acres.[1]

Why is it important?

- **Eelgrass plants provide essential habitat** to many species of invertebrates and fish, including Taylor's sea hare, Pacific herring, juvenile Dungeness crabs, bat rays, and leopard sharks.[2]
- Eelgrass beds help **protect shorelines** and prevent erosion by slowing down wave energy and stabilizing sediment.[2]
- Eelgrass ecosystems can **combat climate change** by removing carbon from the air and water and storing it below ground, a concept known as "Blue Carbon".[3]

Juvenile Pacific rock crab

What is special about the Point Molate eelgrass bed?

- Research shows that plants at Point Molate are genetically distinct from other beds in the bay. This means they may have unique traits and adaptations.[4]
- Studies in the Boyer lab at San Francisco State University (SFSU) show that plants from Point Molate perform better than plants from other locations at some restoration sites.[5] Point Molate is an important source of donor plants for eelgrass restoration projects.
- The Point Molate bed is an important site in several long-term studies about eelgrass, including projects from researchers at SFSU, UC Berkeley, the *Zostera* Experimental Network, and the Smithsonian Institution's MarineGEO program.
- Some of the organisms that live on eelgrass are found in the highest numbers at Point Molate, including Taylor's sea hare, pictured at right.[5]

This aerial image shows the Point Molate eelgrass bed, which is visible at low tide. Image is from Google Earth in April 2014.

What are the threats to eelgrass?

- Eelgrass is **sensitive to human disturbance**, including runoff and exposure to pollutants. Long-term stress to the eelgrass bed could directly impact the health of the plants and decrease resilience to other stressors. [2]

- As a marine plant, eelgrass can be harmed by long periods of freshwater like the San Francisco Bay experienced in the winter of 2016-2017. Although many eelgrass beds in the Bay were negatively impacted by this event, **natural beds were more resilient** than restoration sites.

It is important to protect existing eelgrass beds in order to maintain the valuable habitat and the ecosystem services they provide.

National Geographic captured this photo of the Point Molate eelgrass bed when researching a story about restoration in the San Francisco Bay. The image was shared on their Instagram account in 2015.

Sources:

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