Seagrasses of the Virgin Islands

Seagrasses are flowering plants that live underwater. These marine plants resemble the land species of grasses in that they have long blade-like leaves. Seagrasses grow from a long underground root called a rhizome. The leaves of the seagrass grows up from the rhizome and the root clusters grow down from it. Seagrasses are not to be confused with seaweeds. Seaweeds are colonies of algae which attach themselves to the bottom substrate by special structures called "hold fasts".

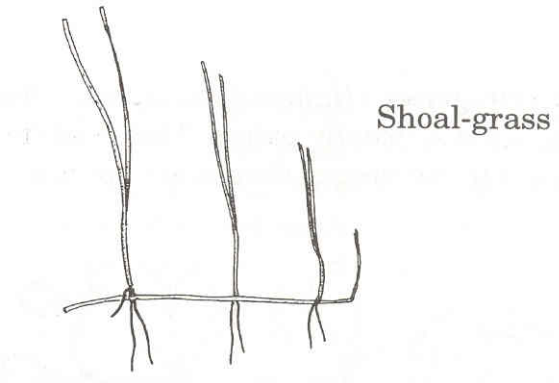
Seagrasses are found in shallow coastal environments around the world. These areas resemble pastures on land with their thick growth of seagrasses and algae. Seagrasses are unlike the majority of marine plants in that they are true flowering plants. They produce flowers and seeds annually. These plants produce a significant amount of the oxygen generated in local inshore waters.

The location of seagrass beds is controlled by a number of factors, including the character and stability of the bottom, depth, water clarity, currents and grazing by herbivores (plant-eating animals). Seagrasses require a sandy bottom in areas with calm seas to allow the seagrass roots to become firmly anchored to the sea floor bottom. Since the grasses require a lot of light, they usually do not grow below depths of 60 to 70 feet (20 to 23 meters).

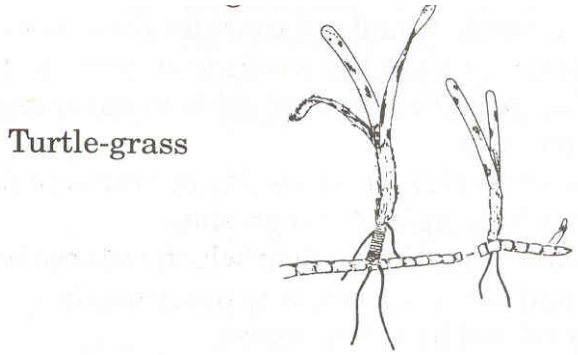
There is usually a band of bare sand found between seagrass beds and a coral reef. This is because the fish and sea urchins that live on the reef graze on the grasses on this area, creating the halo affect.

Of the 45 species of marine seagrasses which exist worldwide, four species can be found in the Virgin Islands:

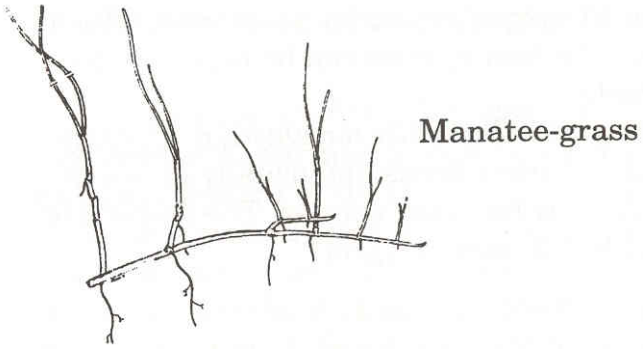
Shoal-grass (*Halodule wrightii*), is an early colonizer of disturbed areas and usually grows in water too shallow for other species. The leaves are narrow and flat in cross-section.



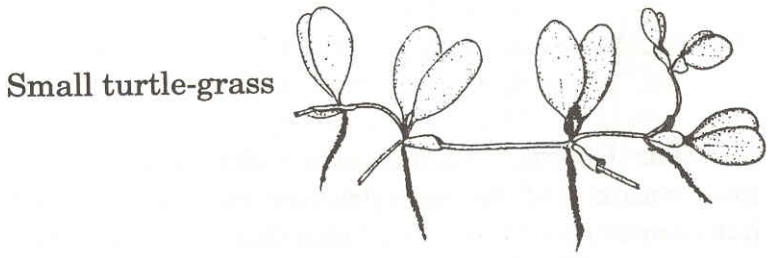
Turtle-grass (*Thallassia testudinum*), themost common of the local grasses, characteristically has deeper root structures than the other seagrasses. The leaves resemble ribbons and can grow over a foot long.



Manatee-grass (*Syringodium filliforme*), can be recognized by its round leaves when viewed in cross section.



Small turtle-grass (*Halophila decipiens*), has small, rounded leaves, usually paired. This delicate looking species is found deeper than other species.



Seagrass beds are important in many different ways, yet people would not consider them to be any more important than the weeds that grow in their yards. Sea grass beds are valuable to our coastal environment by:

. maintaining water clarity by trapping fine sediments from upland soil erosion,

. stabilizing the seafloor which reduces beach erosion and sediment stress to other marine habitats caused by storm waves.

. providing important habitat for many fishes, crustaceans and shellfish,
. being a food source for many marine animals such as sea turtles, conch and many fish, and
. serving as nursery areas and providing refuge for many species of fish and other marine life which are recreationally and commercially valuable.

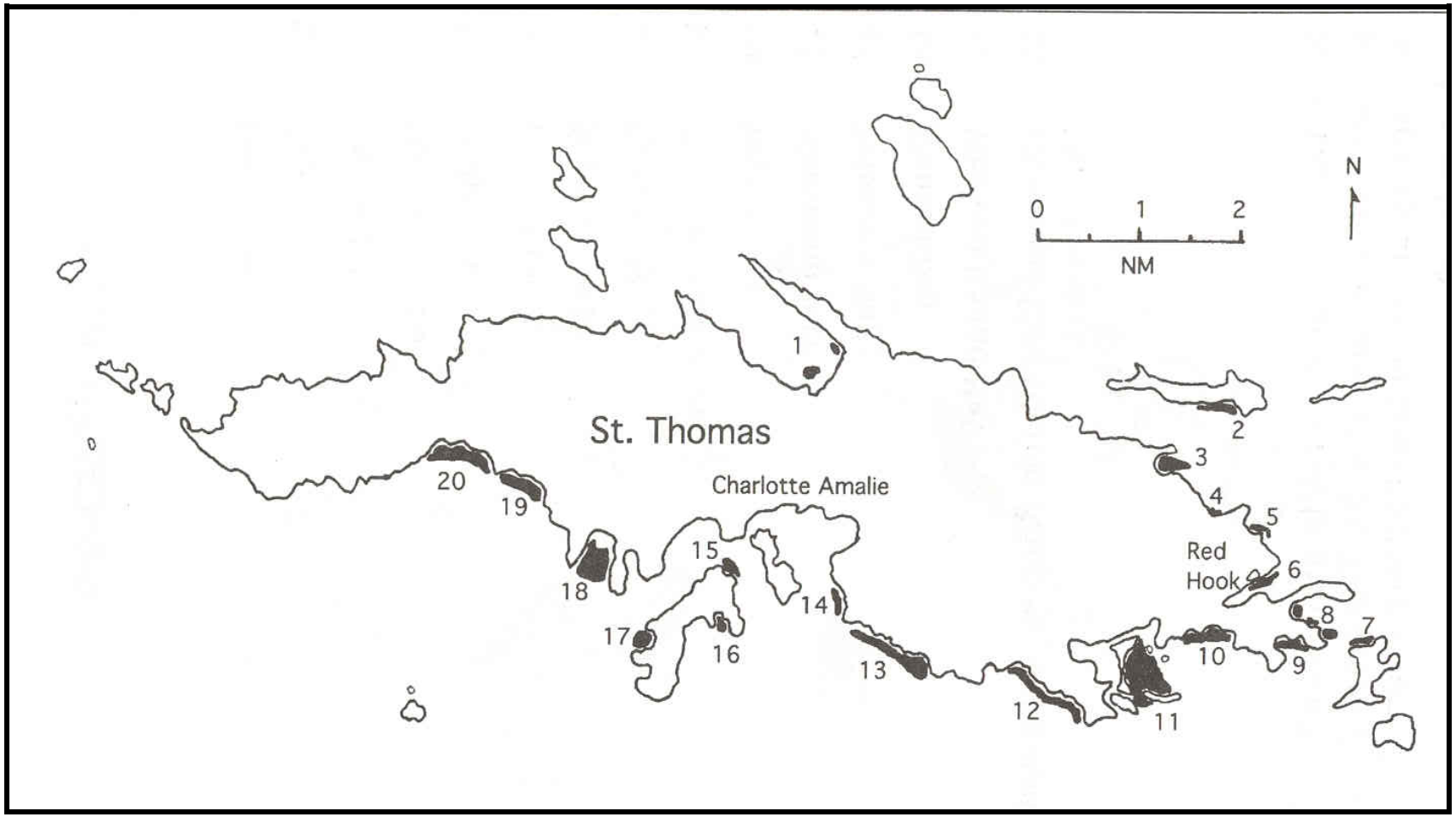
As residential and commercial development continues to reach outward to coastal areas, our seagrass beds have become affected. Dredging and filling projects, soil erosion and increased levels of water pollution are all factors threatening the health of our seagrass beds. Heated water discharges from industrial plants can inhibit seagrass growth. Elevated salinity levels caused by the discharge of saltwater from desalination plants can be harmful to seagrass beds. Poisons and other pollutants cloud the water, preventing the grasses from receiving the sunlight needed for growth. Boaters can cause significant damage by anchoring and boating in seagrass beds. Strong waves caused by storms can rip the roots from the seafloor.

Without our coastal seagrass beds, local waters would remain clouded with sediment, beaches and shoreline areas would be more prone to erosion, coral reefs could become silted over by sand constantly moving along the seafloor and a vital nursery habitat for many species of marine life would be lost. Seagrasses exemplify the interdependence of elements in the marine community. In essence, the elimination of our seagrass beds could create a "Domino Effect". This means that the removal of one key member of any environment could ultimately lead to the demise of the environment as a whole.

St. Thomas Seagrasses

1. Magens Bay
2. Thatch Cay (Eva Bay)
3. Water Bay
4. Smith (Lindquist) Bay
5. Sapphire Bay
6. Red Hook Bay
7. Great St. James
8. Great Bay
9. Cowpet Bay
10. Nazareth Bay
11. Benner Bay
12. Long Point to Bolongo Bay
13. Frenchmans Bay to Morningstar
14. Pacquereau Bay
15. East Gregerie Channel
16. Sprat Bay
17. Druif Bay
18. Lindberg Bay
19. John Brewers Bay
20. Perseverance Bay

Note: This does not show the locations of all seagrass areas around St. Thomas. The areas shown are the largest and within the depth range of most snorkelers.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St. Thomas
Charlotte Amalie
Red Hook
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St. John Seagrasses

1. Frank Bay
2. Cruz Bay
3. Caneel Bay
4. Hawksnest Bay
5. Maho Bay
6. Francis Bay
7. Mary's Creek
8. Leinster Bay
9. Threadneedle Point
10. Brown Bay
11. Newfound Bay
12. Privateer Bay
13. Hansen Bay
14. Western Round Bay
15. Hurricane Hole (Borck, Princess, Water and Otter Creeks)

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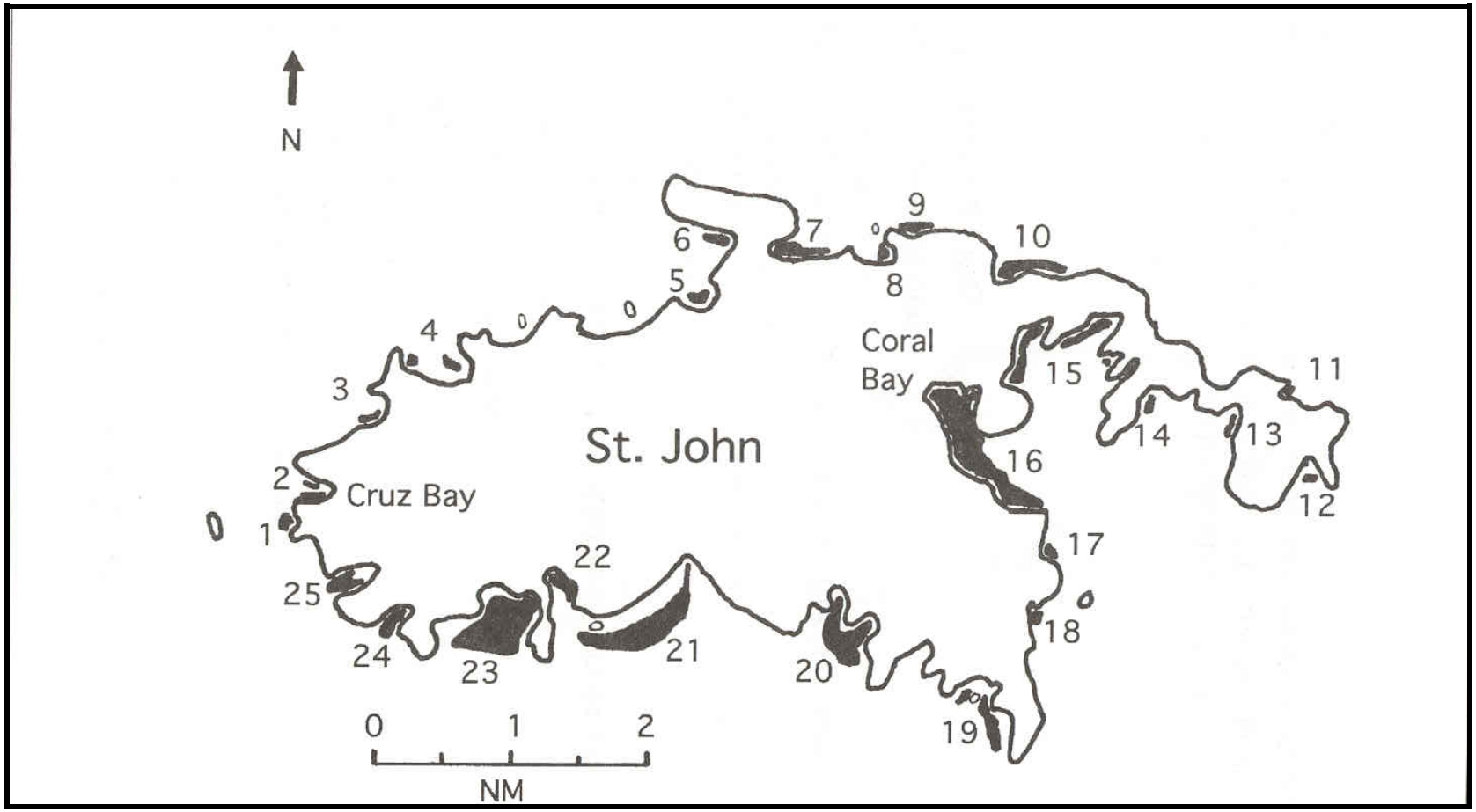
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St. John
Cruz Bay
Coral
Bay
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St. Croix Seagrasses

1. Frederiksted (North of pier)
2. Butler Bay
3. Rust-Op-Twist
4. Salt River
5. Christiansted Harbor
6. Altona Lagoon
7. White Bay to Green Cay (Behind barrier reef system)
8. Buck Island
9. Green Cay to Cottongarden Bay (Behind barrier reef system)
10. Isaac Bay to Canegarden Bay (Behind barrier reef system)
11. Krause Lagoon
12. Manning Bay

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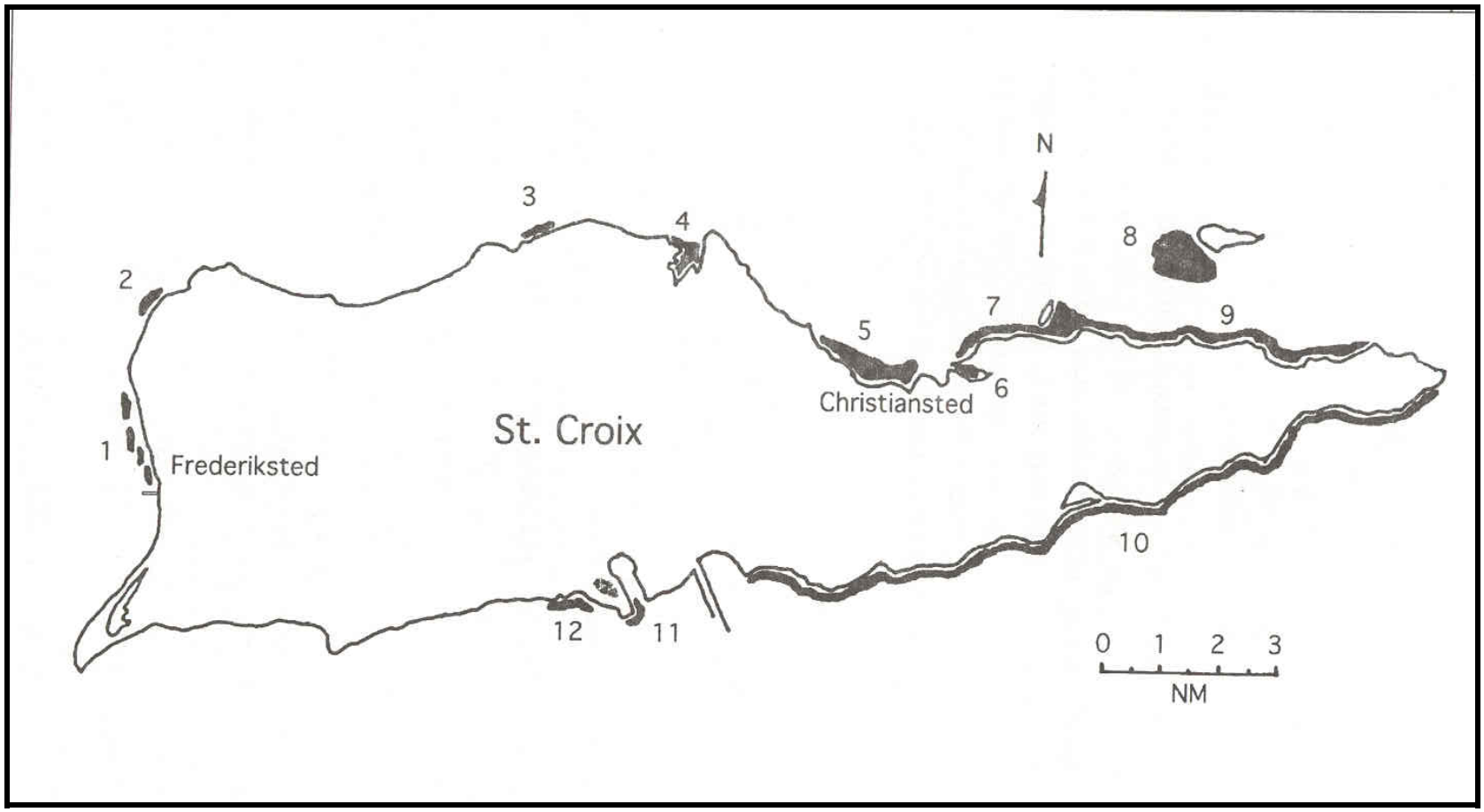
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St. Croix
Frederiksted
Christiansted
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