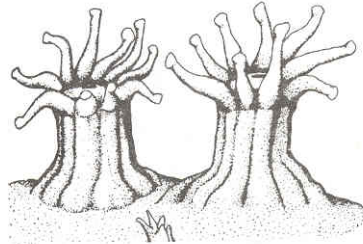


Coral Reefs of the Virgin Islands

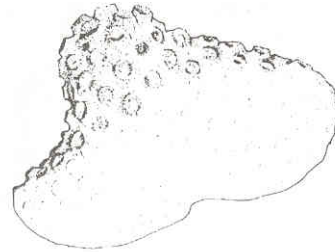
Tropical coral reefs are complex associations of thousands of species of plants and animals. Hard corals make up the basic physical structure of the reef. Corals are colonial animals, meaning they live together in a large group. The holes in a piece of coral each contain a small animal called a polyp, which resembles a sea anemone. The polyps are able to extract dissolved calcium carbonate from the surrounding sea water. They use it to build the stony skeleton which makes up the coral. This skeleton grows in many different forms, depending on the species of coral.



Coral Polyps

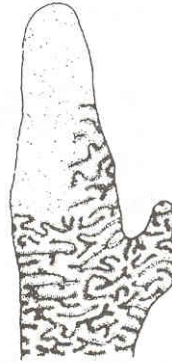
The living coral tissue that covers the skeleton contains microscopic symbiotic algae called zooxanthellae which remove carbon dioxide and other metabolites from the coral and provide it with oxygen through photosynthesis. Many of the most common hard corals, such as elkhorn, pillar, star, finger and brain corals are named for their interesting shapes. .

Large Star Coral



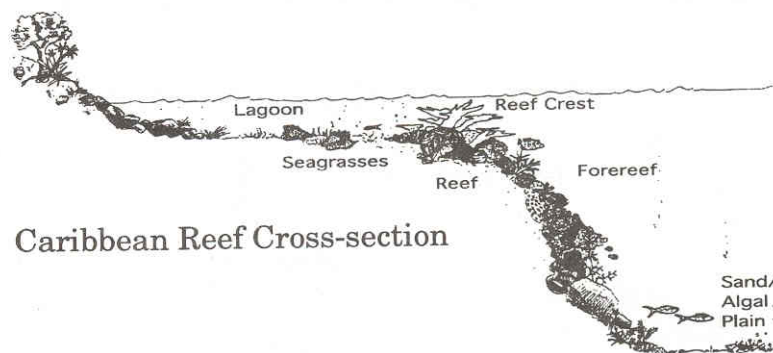
Coral reefs thrive in tropical conditions where the water temperature stays between 70° and 85° F, with clear water, bright sunlight and stable salinity. Clear water and a relatively shallow depth with plenty of sunlight allow the symbiotic algae to photosynthesize and enable the corals to grow faster. Reefs may form near shore or may be found scattered across the insular shelf many miles from land. Reefs generally form on rocky outcroppings on the sea bottom where corals find a solid surface to attach. Gentle wave action helps remove sediment which could suffocate the coral polyps, but rough seas caused by storms can cause reef damage. Sediment-free water allows the corals to feed on planktonic organisms in the water. The health of the coral reef depends upon a delicate natural balance.

Pillar Coral



Coral is very fragile, even though it may appear to be hard like rock. Handling or stepping on coral kills the coral polyps. Sediments from land that wash into the sea can smother the coral. Runoff from land muddies the water, blocking the sunlight needed for the symbiotic algae to photosynthesize. When this happens, the coral becomes unhealthy. Changes in the water's salt content caused by flooding or the discharge of hot, salty water from desalination plants can also harm coral. Chemical and waste pollution in our waters is hazardous to coral reefs and sea life. Anchoring on coral reefs can crush or break off entire coral colonies. Plastic bags discarded into the ocean can cover corals, literally smothering the life from them. Overfishing can unbalance the coral reef when too many fish of a particular species are caught.

Many reef corals are becoming affected by a variety of diseases. It is not known what causes these diseases but some may be transported from land by sediment runoff. These diseases are having a serious affect on some of our reefs. The first evidence of disease is bleaching of the coral as it expels the symbiotic algae due to stress.



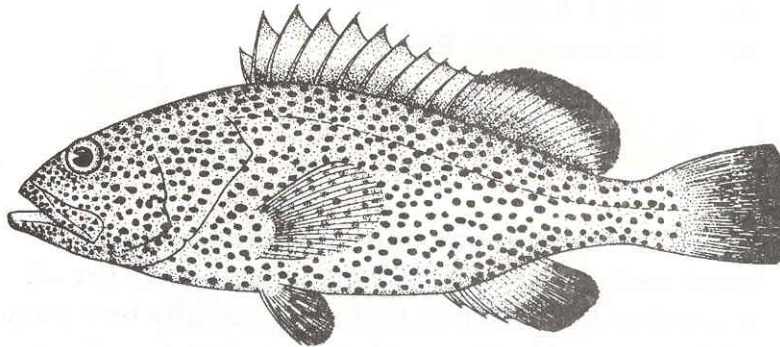
Coral reefs are the underwater equivalent of rainforests in their diversity of species. They provide food, habitat and shelter for a variety of marine animals. Many of the fish we eat live on the reef or spend part of their lives there. Fishermen depend on the reefs for their livelihood. Reefs can also act as a barrier,

slowing down waves before they reach the shore. This helps reduce shoreline erosion, and may create an area of calm water where seagrass beds and mangroves can grow. As coral reefs naturally degrade from wave action and such things as parrot fish scraping the dead corals for algae, sand is formed which produces and maintains our beaches. Our tourism depends in large part on the health of our reefs and waters as an attractant for visitors.

The physical and chemical damage our reefs are being subjected to by human activities is causing the loss of this valuable resource. Without them, our shorelines will begin to erode from wave action. Our beaches will lose more sand than will be produced, causing a net loss of beaches. Our fishermen and associated businesses will lose their source of income. Tourism will decline as people travel elsewhere to enjoy and experience clean, healthy marine ecosystems.

Therefore, when visiting our coral reefs, do not damage them. Anchor in sand. Return your garbage to shore. Take only the fish you can eat. Don't touch the corals. When on land, dispose of waste oil properly. Keep sediment out of the water by using sediment control measures on your land.

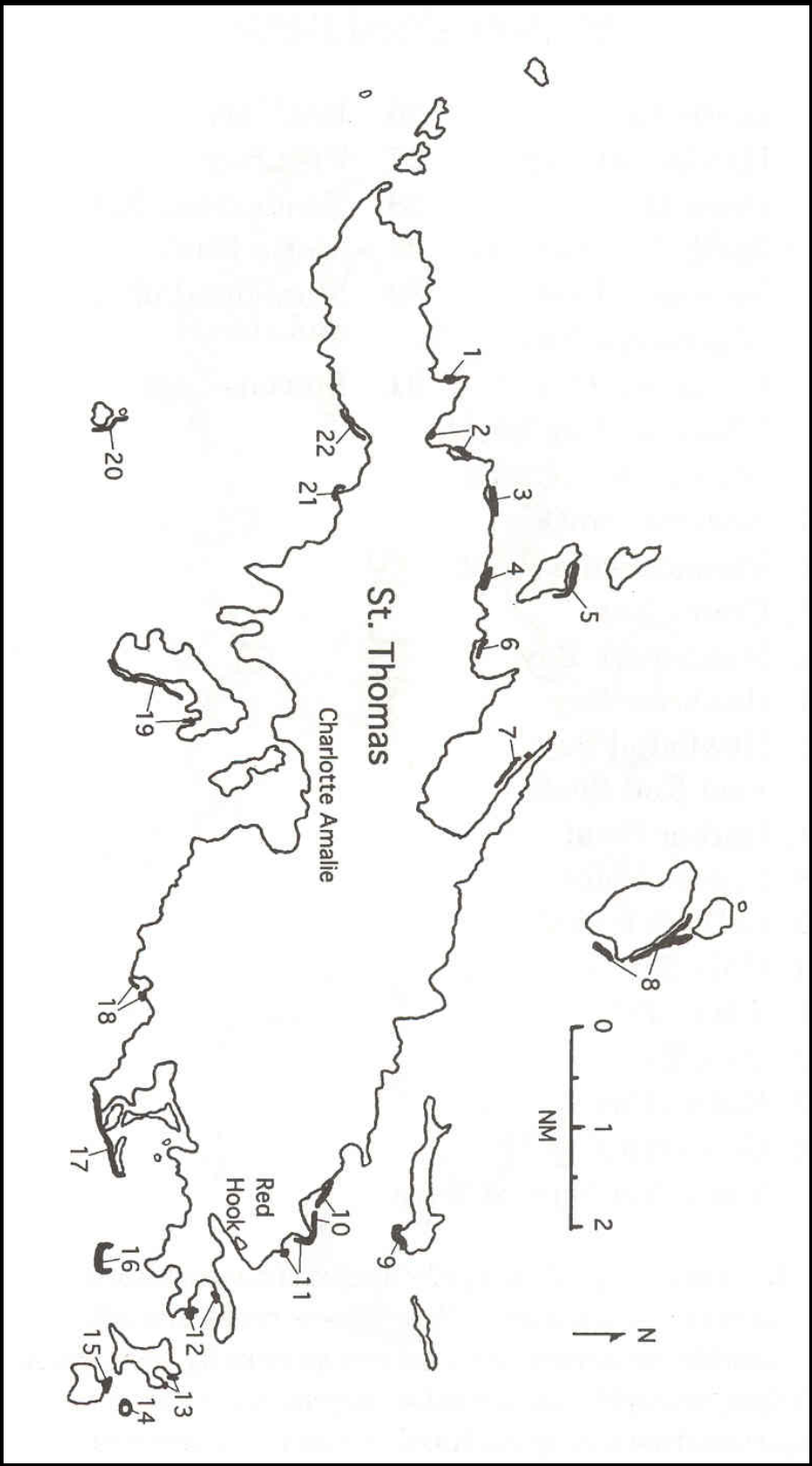
Red Hind



St. Thomas Coral Reefs

1. Stumpy Bay
2. Santa Maria/Hendricks Bay
3. Caret Bay
4. Neltjeberg Bay
5. Inner Brass Island
6. Hull Bay
7. Magens Bay
8. Hans Lollik Island
9. Thatch Cay
10. Lindquist Bay
11. Pelican Beach/Prettyklip Point
12. Great Bay
13. Great St. James - "Bareass" Bay
14. Whelk Rocks
15. Little St. James
16. Cow and Calf Rocks
17. Cas Cay to Long Point
18. Bolongo Bay
19. Water Island
20. Saba Island
21. Black Point
22. Perseverance Bay

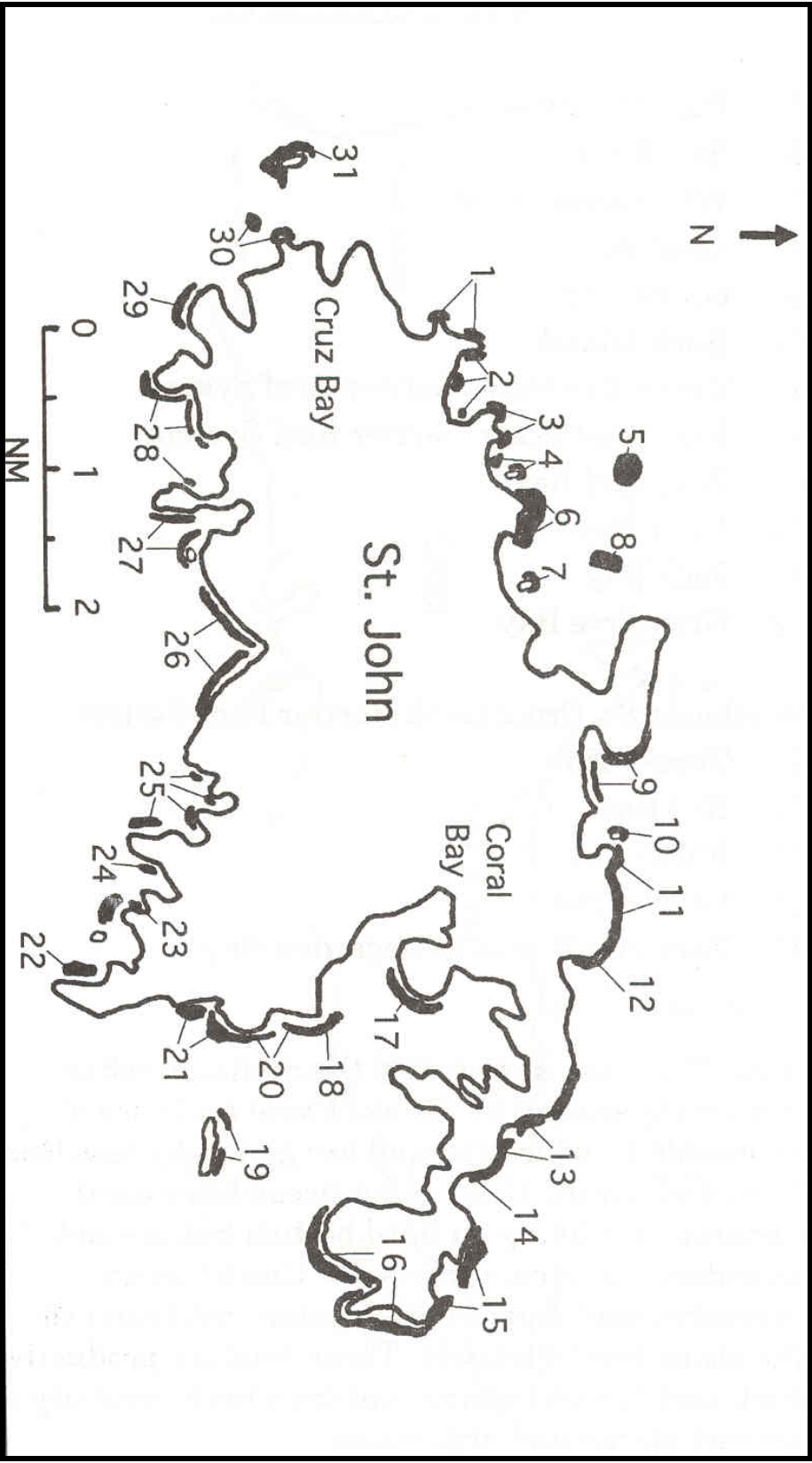
Note: This map shows only the main nearshore coral reefs around St. Thomas. These reefs are all accessible by snorkling and are generally less than 30 feet in depth. Many other areas have coral communities living on hard bottom but are not considered true coral reefs.



St. John Coral Reefs

1. Turtle Bay
2. Hawksnest Bay
3. Denis Bay
4. Jumby/Trunk Bays
5. Johnson's Reef
6. Windswept Point
7. Cinnamon Cay
8. Whistling Cay Shoals
9. Mary's Point/Creek
10. Waterlemon Cay
11. Threadneedle Point
12. Brown Bay
13. Mennebeck Bay
14. Haulover Bay
15. Newfound Bay
16. East End Reefs
17. Harbor Point
18. Lagoon Point
19. LeDuck Island
20. Friis Bay
21. John's Folly
22. Ram Head
23. Kiddel Bay
24. Grootpan Bay
25. Lameshur/Europa Bays
26. Reef Bay
27. Fish Bay
28. Rendezvous Bay
29. Maria Bluff
30. Moravian Point and shoals
31. Stevens Cay

Note: This map shows only the main nearshore coral reefs around St. John. These reefs are all accessible by snorkling and are generally less than 30 feet in depth. Many other areas have coral communities living on hard bottom but are not considered true coral reefs.



St. Croix Coral Reefs

1. Rust-Op-Twist
2. Salt River
3. White Horse Reef
4. Long Reef
5. Green Cay
6. Buck Island
7. Tague Bay Bank Barrier Reef System
8. Northeast Bank Barrier Reef System
9. East End Bay
10. Isaac Bay
11. Jack Bay
12. Grapetree Bay

Southeast St. Croix Bank Barrier Reef System:

13. Turner Hole
14. Rod Bay
15. Robin Bay
16. Great Pond
17. Fareham Bay to Canegarden Bay

Note: This map shows only the main nearshore coral reefs around St. Croix. These reefs are all accessible by snorkling and are generally less than 30 feet in depth. Many other areas have coral communities living on hard bottom but are not considered true coral reefs. St. Croix has an extensive bank barrier reef system not found in the other Virgin Islands. These produce productive back reef lagoons which contain a high diversity of marine plants and organisms.

