

## Beaches of the Virgin Islands

Beaches are shoreline areas that are covered by sand, gravel, coralline rubble, or other debris which is deposited there by moving water. Some of these sediments come from the land (terrigenous) and most come from the sea. The terrigenous materials consist of eroded minerals and tiny gravel which has been carried from shoreline cliffs or runoff from guts. Marine sediments are fragments of coral, shell and algae carried ashore by wave action. Beaches usually consist of a mixed variety of materials. The dominant type of material determines the classification of a beach.

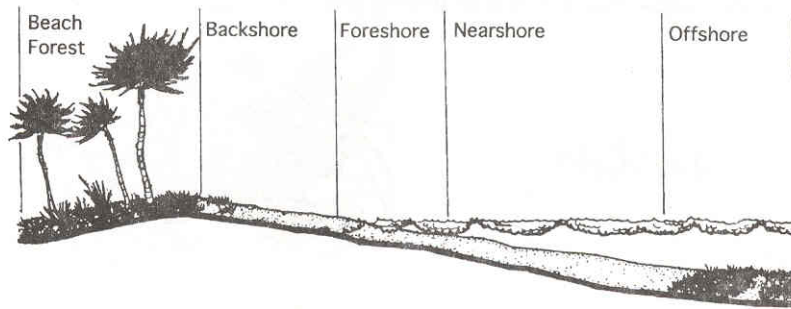
Beach sediments are moved continuously by the natural forces of wind, waves, currents and tides. As a result, beaches are always changing their shapes. These same forces also sort beach sediments. High wave action "washes away" small, light particles, like sand grains. Beaches with high wave energy are made up of large, heavier materials while sandy beaches are found in quiet, protected areas.

Gravel beaches are made up of minerals or rocks that erode from cliffs and hillside soils that have been transported to the shore by guts. The "grain" sizes of gravel beach sediments ranges from a few millimeters to inches in diameter. The rounded stones are the result of wave action gradually smoothing them.

Coralline rubble is the result of storms which cause significant coral breakage. Pieces of coral skeleton are then deposited on shore by wave action.

Sandy beaches in the V.I. consist of a mixture of several materials. The white color and fine texture of our sand is the combination of coral particles, shell and urchin fragments, and algal plates which are all made up of calcium carbonate. The various particles are broken down by natural forces such wave and current action and by biological factors like parrotfish which produce sand by grinding up dead coral to extract the algae in it.

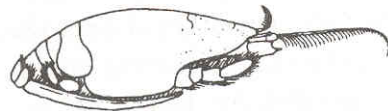
Most beaches are shaped into a sloping foreshore and a flattened backshore or berm. The foreshore lies between the low water level and the berm crest; the berm lies between the berm crest and the part of the beach beyond the reach of ordinary waves. Beaches in the VI are generally backed by coastal vegetation which forms a beach forest. This forest stabilizes the beach with its roots and prevents beach loss during storms.



Most V.I. beaches are fairly stable but quite dynamic, undergoing erosion and accretion (sand deposition) at varying rates. The rate of change is greatest on exposed windward coasts, such as St. Croix's north shore. Examples of more stable beaches can be found on St. Thomas and St. John where deeply indented bays produce protected beaches.

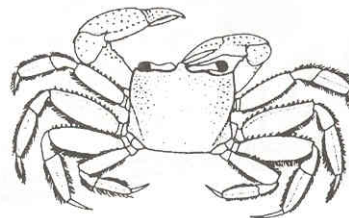
As reef-produced sand is deposited by waves onto the shore, beaches grow. This process occurs on beaches adjacent to and protected by fringing reefs. Sand should never be removed from beaches because it can upset the natural stability of a beach and result in changes in erosion /accretion patterns.

Plant life along beaches and in the beach forest consist of salt-tolerant plants that help stabilize the sand with their roots. Some examples of these plants are goatsfoot, seagrape, bay cedar, sea purslane and coconut palms. The plants and the beach itself act as filters to trap sediment from runoff and keep our ocean water clear



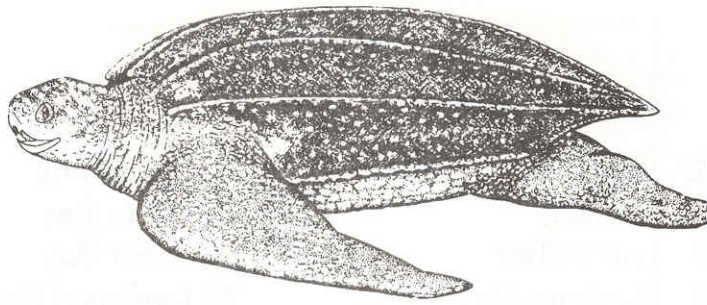
Mole Crab

Many species of animals, such as clams, worms and sand dollars live within the sand. In the surf zone the mole crab can be found searching for food items each time a wave washes in.



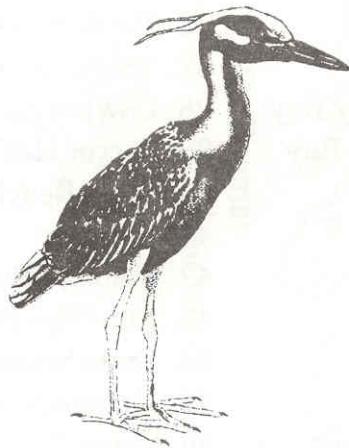
Ghost Crab

The ghost crab can be seen foraging higher on the beach at night for food that has been washed ashore. Also at night, the Yellow-Crown Night Heron can be heard croaking out its call as it



Leatherback Turtle

searches for crabs or turtle hatchlings to eat. Sandy beaches also provide nesting sites for sea turtles. The Hawksbill turtle nests in the beach forest, while Green and Leatherback turtles nest in the open beach. Development adjacent to a beach small where the beach forest has been removed can cause light pollution on the beach which may disorient the hatchlings and cause them to stray inland to their death. The sandy beach also provides nesting and foraging habitats for terns, oysters, sandpipers and other shorebirds.



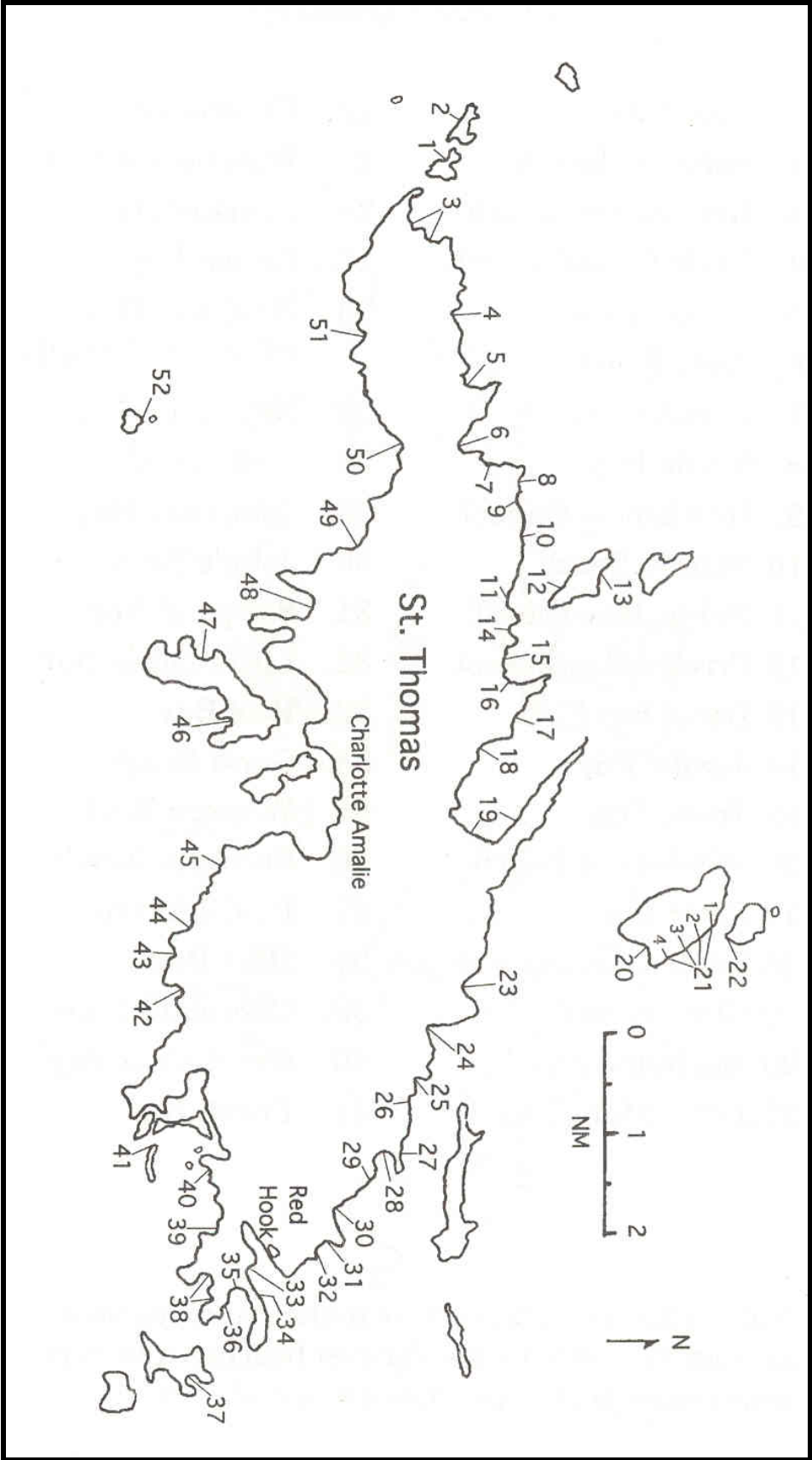
Yellow-crowned  
Night heron

Local beaches offer a number of recreational activities including swimming, snorkeling and scuba diving, sunbathing and picnicking. They are also popular as an access point to the ocean for small boats and windsurfers. Beaches are very important to our economy as an attraction for tourists and recreation for residents.

St. Thomas Beaches

1. West Cay	27. Coki Point
2. Salt Cay	28. Water Bay
3. Botany Bay	29. Sugar Bay
4. Bordeaux Bay	30. Lindquist Beach
5. Stumpy Bay	31. Pelican Beach
6. Santa Maria Bay	32. Sapphire Beach
7. Hendricks Bay	33. Skinny Beach
8. Sorgenfri Bay	34. Vessup Bay
9. Caret Bay	35. Bluebeards Beach
10. Penn Bay	36. Turtle Cove
11. Neltjeberg Bay	37. "Bareass" Bay
12. Inner Brass - Sandy Bay	38. Cowpet Bay
13. Inner Brass - Hard Bay	39. Secret Harbor
14. Dorothea Bay	40. Scott Beach
15. Palm Bay	41. Cas Cay
16. Hull Bay	42. Bolongo Bay
17. Tara Bay	43. Limetree Beach
18. Barrett Bay	44. Frenchman's Bay
19. Magens Bay	45. Morningstar
20. Hans Lollik - Coconut Bay	46. Sprat Bay
21. Hans Lollik - Dry Bays 1-4	47. Honeymoon
22. Little Hans Lollik	48. Lindberg Bay
23. Mandahl Bay	49. Brewer's Bay
24. Tutu Bay	50. Perseverance Bay
25. Sunsi Bay	26. Spring Bay
51. Fortuna Bay	52. Saba Island

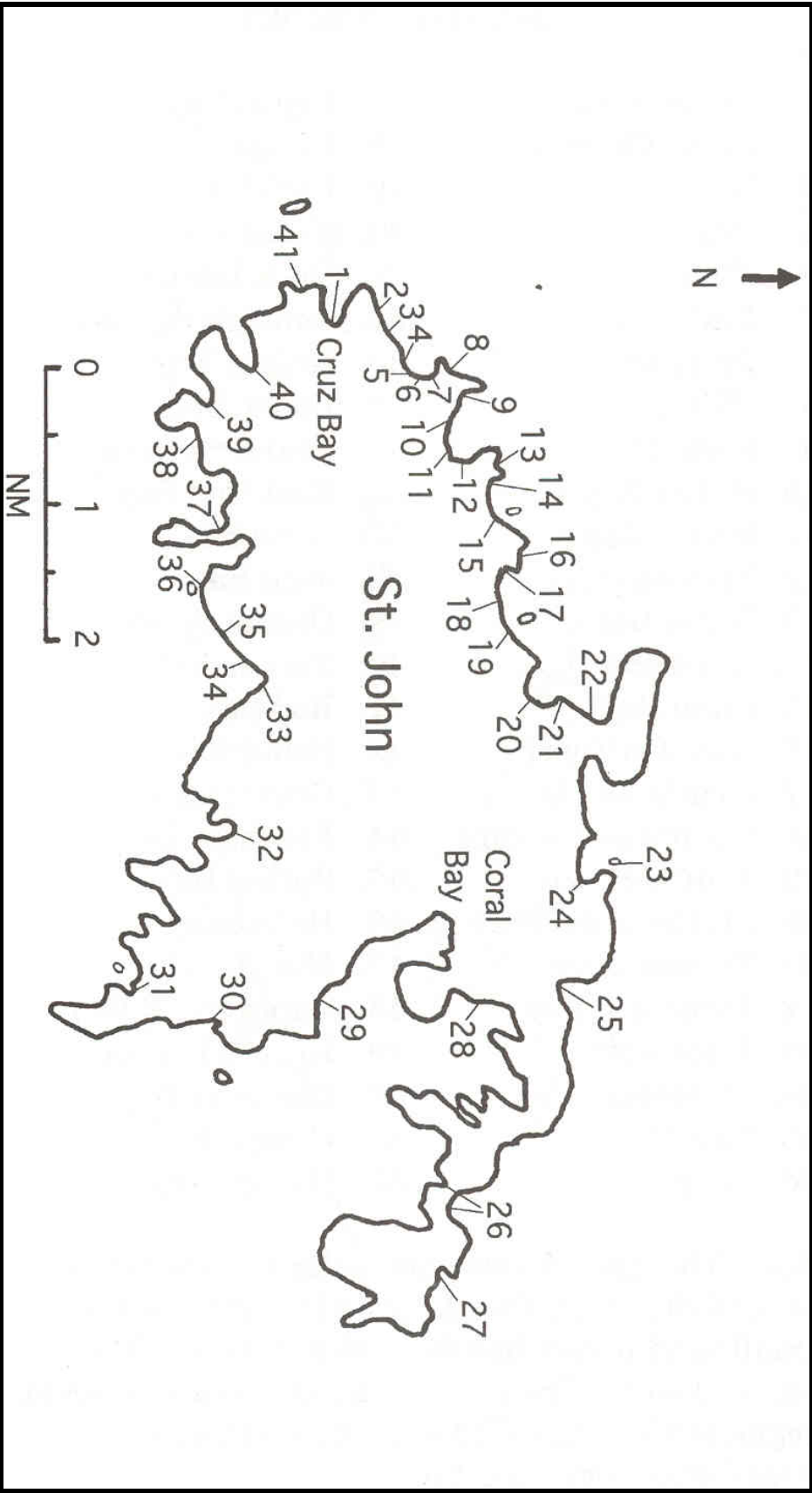
Note: This map shows only major sand beaches around St. Thomas. Cobble/gravel beaches and very small sand pocket beaches are not shown.



## St. John Beaches

1. Cruz Bay
2. Salomon Beach
3. Honeymoon Beach
4. Little Caneel Beach
5. Caneel Beach
6. Scott Beach
7. Paradise Beach
8. Turtle Bay
9. Hawksnest Caneel
10. Skinny Beach
11. Public Hawksnest
12. Private Hawksnest
13. Denis Bay
14. Jumby Bay
15. Trunk Bay
16. Windswept Beach
17. Peter Bay
18. Little Cinnamon Beach
19. Cinnamon Bay
20. Big Maho Bay
21. Little Maho Bay
22. Francis Bay
23. Waterlemon Cay
24. Leinster Bay
25. Brown Bay
26. Haulover Bay(North and South)
27. Newfound Bay
28. Zootenvaal
29. Johnson's Bay
30. John's Folly
31. Saltpond Bay
32. Little Lameshur
33. Reef Bay
34. Genti Beach
35. Western Reef
36. Cocoloba Beach
37. Dittlif Beach
38. Hart Bay
39. Chocolate Hole
40. Great Cruz Bay
41. Frank Bay

Note: This map shows only major sand beaches around St. John. Cobble/gravel beaches and very small sand pocket beaches are not shown.



St. Croix Beaches

1. Sandy Point	27. Green Cay
2. Stony Ground	28. Prune
3. Second Target	29. Coakley
4. Dorst	30. Tague Bay
5. First Target	31. Buck Island
6. LaGrange	32. Smuggler's Cove
7. Prosperity	33. Knight Bay
8. Williams	34. Boiler Bay
9. Sprat Hall	35. Cramer's Park
10. Butler Bay	36. East End Bay
11. Ham's Bay	37. Isaac Bay
12. Maroon Hole	38. Jack Bay
13. Davis Bay	39. Grapetree Bay
14. Northstar	40. Turner Hole
15. Cane Bay	41. Rod Bay
16. Rust-Op-Twist	42. Robin Bay
17. Gentle Winds	43. Great Pond
18. Columbus Landing	44. Fareham Bay
19. Judith Fancy	45. Spring Bay
20. St. Croix By The Sea	46. Halfpenny
21. Pelican Cove	47. Manchenil
22. Turquoise Bay	48. Canegarden Bay
23. Princesse	49. Krause Lagoon
24. Protestant Cay	50. Manning Bay
25. New Fort	51. Campo Rico
26. Shoy's	52. White Lady

Note: This map shows only major sand beaches around St. Croix. Cobble/gravel beaches and very small sand pocket beaches are not shown. Many beaches on St. Croix are continuous with different segments having different names, making boundaries very uncertain.



