

**UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE**

Ecological Site Description

Site name: SALT SWAMP
Site number: R-273ZY031VI
Major Land Resource Area: 273 Semiarid Coastal Plains
Interstate correlation: NONE

Physiographic features: Elevation of this site ranges from sea level to 400m. Most of the area is nearly level to gently slopping. Elevation increases gradually from the beaches on the Caribbean Sea to the foothills of the semiarid mountains to the north. Limestone ridges are similar to those in the Humid Coastal Plains but they lack the striking karst features. All drainage is superficial and flows in a southerly direction. Average annual precipitation is 900m, and average annual temperature 26°C.

Climatic features

Frost-free period: 365 DAYS
Freeze-free period: 365 DAYS
Mean annual precipitation: 43 INCHES
Mean annual air temperature: 77.5°F
Mean annual soil temperature:
Monthly moisture and temperature distribution:

	Mean Precipitation (inches)	Percent Precipitation (%)	Mean Temperature (°F)
January	2.16	4.98	75
February	1.59	3.66	74
March	1.85	4.26	76
April	2.55	5.88	77
May	4.07	9.39	78
June	2.93	6.76	80
July	2.75	6.34	80
August	4.29	9.89	80
September	5.54	12.78	80
October	5.73	13.22	79
November	6.03	13.91	77
December	3.85	8.88	75
Mean annual	43.34		77.5°F

Other climatic features: A rainy season prevails from July to November and a pronounced dry season occurs during the remainder of the year. Hurricanes are most likely to occur August through November, and are characterized by strong winds and torrential rains. Surface water is scarce because of limited rainfall and high evaporation rates. Low rainfall and steep topography of the adjacent semiarid mountains to the north provide little additional surface water.

Associated water features: Streams and rivers generally are intermittent. In places artesian pressure brings saline and sodic ground water to the surface.

Elevation Aspect: 0 to 10 ft.

Percent Slope: 0 to 2

Soils: Soils of this site are very deep, very poorly drained, sandy to clay in texture, frequently flooded with saline to brackish water. Mangrove shrub/trees are the dominant vegetation. The areas are located on small islands and keys along the seacoast of the semi arid coastal plains.

Major Soil Taxonomic Units correlated to this site include:

Sandy Point and Sugar Beach soils, SBA
Solitude, SoA

Plant communities:

This site’s vegetation consists of mangroves and salt tolerant species. The site exists at the mouth of rivers or at calcareous sand deposition close proximity to the sea. The site is periodically flooded by salt water.

Major plant species composition

Shrub/trees constitute nearly 94% of the total vegetative composition. Forbs and grasses occur on the very margins of the site. Grasses make up no more than 3%, and forbs the remaining 3%.

GRASSES AND GRASSLIKES

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For Group
CEPA12	Sandbur grass	1			
PAVA	Paspalum vaginatum	1			
SPPA	Saltmeadow sordgrass (Spartina)	1			

SPVI3	Beachgrass	1			
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FORBS

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For group
BAMA5	Saltwort	2			
HECU3	Heliotrope	2			
PHVE	Saltweed	2			
POQU2	Chickweed	2			
SEPO2	Sea purslane	2			

Shrubs and Trees

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For group
AVGE	Black mangrove	3			
CHAR8	Chamaesyse articulata	3			
COER2	Button Mangrove	3			
COUV	Seaside grape	3			
CRAS3	Croton astroites	3			
CRDI8	Croton discolor	3			
LAIN2	Lantana involucrata	3			
LARA2	White mangrove	3			
RHMA2	Red mangrove	3			
TAHE	Tabebuia heterophylla	3			

Ground Cover and Structure

	Height Above the Ground											
	Not applicable		6 to 12 inches		12 to 24 inches		24 to 60 inches		60 to 80 inches		180 to 240 inches	
	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover
Trees											1	5
Shrubs							2	10	10	40		
Grasses and grasslikes			2	10								
Forbs												
Cryptogams												
Coarse fragments												
Bare ground												
Litter												

Transition Pathways:

This site is very critical for wetland wildlife species. There are currently no introduced grasses. Any manipulation may result in destruction of the habitat. If the climax vegetation is disturbed, slow recovery is expected with annual salt tolerant species invading any suitable areas of the site.

Total annual production: 750 lbs/acre

Plant Growth Curves:

Growth curve number: PR001

Growth curve name: PR PLANT GROWTH CURVE

Growth curve description: Native and naturalized grasslands.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
6	5	4	7	12	10	9	10	11	10	9	7

Animal Community:

This site is important for several wildlife species. Major species using the site include:

- American bittern
- Black necked stilt
- Black tern
- Blue winged teal
- Brown pelican
- Cattle egret

Clapper rail
Common moorhen
Common tern
Donkey
Great blue heron
Great egret
Greater flamingo
Green backed heron
Hudsonian curlew
Lesser yellowleg
Little blue heron
Mangrove cuckoo
Northern harrier
Osprey
Peregrine falcon
Roseate tern
Semi palmated sandpiper
Snowy egret
Spotted sandpiper
Tricolored heron
Western sandpiper
White cheeked pintail
White crowned pigeon
Yellow crowned night heron

Associated sites:

Similar sites

Plant communities, production, and vigor of this site is not similar enough to other sites in the region to cause a problem or concern.

Site documentation

Author: M. Montes, E. Más, C. Santiago

Revise: 05/2002 E. Más, J. Lugo, S. Ríos

Supporting data for site development: Supporting data include clipping studies, and historical writing of the area. More documentation and study are needed to fully understand this site and the transitions that occur.

Sampling techniques

SCS-Range 417

Type locality: Mangrove communities in Salt River, St. Croix and Annaberg, St. John, USVI

Field Offices: St. Croix

References:

USDA, NRCS. 1997. National Range and Pasture Handbook.

USDA, NRCS. USVI Soil Survey

Climatic data: Beth Upper New Works Station, St. Croix

Site Approval:

This site has been reviewed and approved for use:

USDA NRCS Resource Conservationist

Date