

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

Ecological Site Description

Site name: SANDY PLAIN
Site number: R-273ZY032PR
Major Land Resource Area: 273 Semiarid Coastal Plains
Interstate correlation: NONE

Physiographic features: Elevation of this site ranges from sea level to 1200 ft. Most of the area is nearly level to gently sloping. 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.

Climatic features

Frost-free period: 365 DAYS
Freeze-free period: 365 DAYS
Mean annual precipitation: 20 TO 45 INCHES
Mean annual air temperature: (26°C) 78 to 80F
Mean annual soil temperature:
Monthly moisture and temperature distribution:

	Mean Precipitation (inches)	Percent Precipitation (%)	Mean Temperature (°F)
January	.78	2.36	76
February	.72	2.18	76
March	.86	2.60	77
April	1.92	5.81	78
May	2.92	8.84	80
June	3.13	9.48	81
July	2.91	8.81	82
August	4.45	13.48	82
September	5.26	15.93	81
October	5.63	17.06	81
November	3.18	9.63	79
December	1.20	3.63	77
Mean annual	33		

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.

Soils: Soils of this site are deep, well to excessively drained, medium to coarse textured sediments of mixed origin. They occur on nearly level alluvial fans close to riverbanks and on beaches along the coast in the southern coastal plains. The permeability is rapid and the available water capacity is low.

Major Soil Taxonomic Units correlated to this site include:

Arenales, An, Ar
 Cuyón, CyB
 Guamaní, Gm
 Jaucas, JuB, Jd
 Meros, Mr, MrB

Plant communities:

This site consists primarily of tufted perennial grasses that are tolerant to drought conditions. The site exists scattered in a belt fringing the ocean and slightly above sea level in the southern coastal plains.

Major plant species composition

Grasses constitute approximately 99% of the vegetative composition, and forbs make the remaining 1%. Some introduced grasses species are adapted to this site. These highly palatable species include guinea, and buffel grass. They may exist in varying levels of dominance due to past or existing grazing pressure.

GRASSES AND GRASSLIKES

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For Group
BRSU	Gramita	1			
CEEC4	Field sandbur	1			
CHIN4	Mexican bluegrass	1			
CYDA	Common bermuda grass	1			
CYPER	Cyperus	1			
DAAE	Egyptian grass	1			
ERCI2	Lovegrass	1			

PAAD2	Redtop millet	1			
PAGH	Matojo	1			
PAVI6	Yerba brava	1			
SPVI3	Beachgrass	1			

FORBS

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For group
BICY	Black manzanilla	2			
CRRE4	Rattleweed	2			
IPPE	Bay hoops	2			
POQU2	Chickweed	2			
RUTU	Many roots	2			
SEPO2	Sea purslane	2			
SIGA	Horseweed	2			
TELA2	Frijolillo	2			
VESE2	Lost shot	2			

Shrubs and Trees

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For group
CAPR	Giant milkweed	3			
COUV	Sea grape	4			
RADI	Christmas tree	3			
THPO3	Emajaguilla	4			

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												
Shrubs												
Grasses and grasslikes							20	90				
Forbs					1	5						
Cryptogams												
Coarse fragments												
Bare ground												

Litter												
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Transition Pathways:

The native climax grass species are generally replaced by such introduced species as hurricane and angleton grass. These grasses generally dominate the site when subjected to severe overgrazing. Guinea and buffel grass may replace native species when properly managed and provide a high level of forage production. However, if the species are severely grazed the site is again subject to invasion by hurricane and angleton grass. If abusive grazing continues angleton grass is replaced by a pure stand of hurricane grass.

Total annual production: 2600 lbs/acre

Plant Growth Curves:

Growth curve number:

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:

- Adelaide's warbler
- Anolis spp.
- American redstart
- Bananaquit
- Black rail
- Blackfaced grassquit
- Cape May warbler
- Cattle egret
- Common ground dove
- Eleutherodactylus spp.
- Grasshopper sparrow
- Grey kingbird
- Helmeted guinea fowl
- Key West quail dove
- Killdeer
- Lesser antillean pewee
- Lesser golden plover
- Mourning dove
- Northern mockingbird
- Northern parula

Pearly eyed thrasher
Prairie warbler
Puerto Rico vireo
Puertorican bullfinch
Puertorican flycatcher
Smooth billed ani
Sparrow hawk
White rumped sandpiper
Yellow faced grassquit
Yellow shouldered blackbird (Endemic)
Yellow warbler
Zenaida dove

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

Revised: 04/2002, 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: La Guancha, Ponce, PR

Field Offices: Juana Díaz, Guayama, Ponce

References:

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

USDA, SCS. Soil Survey's

Site Approval:

This site has been reviewed and approved for use:

USDA NRCS Resource Conservationist

Date