

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

Ecological Site Description

Site name: COASTAL DUNE  
Site number: R-272ZY015PR  
Major Land Resource Area: 272 Humid Coastal Plains  
Interstate correlation: NONE

**Physiographic features:** Elevation of this site ranges from sea level to 2100 ft rising gradually from the beaches on the Atlantic Ocean to the hilly karst area to the south. The area is divided in two distinct zones, the flat alluvial plains and terraces along the coast and the irregular features of the karst limestone inland.

**Climatic features**

Frost-free period: 365 DAYS  
Freeze-free period: 365 DAYS  
Mean annual precipitation: 55 INCHES  
Mean annual air temperature: 79°F  
Mean annual soil temperature:  
Monthly moisture and temperature distribution:

	<b>Mean Precipitation (inches)</b>	<b>Percent Precipitation (%)</b>	<b>Mean Temperature (°F)</b>
January	3.21	5.83	76
February	2.15	3.90	76
March	2.59	4.70	77
April	3.52	6.40	79
May	5.89	10.70	80
June	5.11	9.29	81
July	4.82	8.76	82
August	6.27	11.40	82
September	5.19	9.36	82
October	5.88	10.69	81
November	5.14	9.34	79
December	4.86	8.83	77
<b>Mean annual</b>	<b>55</b>		<b>79°F</b>

**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.

**Associated water features:** Surface and ground water are plentiful. Surface water consists of runoff from rainfall in the humid uplands.

Elevation Aspect: 0 to 50 ft.

Percent Slope: 0 to 2

**Soils:** Soils of this site are deep, excessively well drained very strongly acid to calcareous sands along the northern coastal plains. They occur on nearly level to sloping slopes. Permeability is rapid and the available water capacity is low.

Major Soil Taxonomic Units correlated to this site include:

Aguadilla, Ad  
Aguadilla, Ag  
Algarrobo, AgC  
Arecibo, ArC  
Carrizales, CeC  
Cataño, Cn  
Cataño, Cf, Cd  
Cataño, Ce  
Corozo, CsC  
Durados, Ud, Dr  
Espinal, Es  
Guerrero, GuB, GeC  
Jobos, JoB, JoC  
Maleza fine, MdB  
Rio Lajas, RIB, RIC

**Plant communities:**

This site occurs close to the coastal sand range and between these active dunes. This site is essentially the stabilized coastal dunes. There, however, exist several forms of plant complexes within the site. In contrast beach side forms pure stands where it grows.

Major plant species composition: Grasses constitute approximately 28% of the vegetative composition, forbs 71% and shrubs 1%.

### GRASSES AND GRASSLIKES

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For Group
CAMA14	Beach sedge	1			
CEEC	Southern sandbur	1			
CENCH	Field sandbur	1			
CYTE4	Sedge	1			
DAAE	Durban crowfoot grass	1			
DIHO	Jamaica fingergrass	1			
ERAGR	Lovegrass	1			
ERCI2	Lovegrass	1			
PACI6	Fringed leaf paspalum	1			
SPVI3	Beachgrass	1			
STSE	St. Augustine grass	1			

### FORBS

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For group
CAMA6	Seaside bean	2			
ELXY2	Coscorron	2			
IPPE	Bay hops	2			
OPBO	Tuna cactus	2			
STMA4	Lirio	2			

### Shrubs and Trees

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For group
CONU	Coconut palm	4			
COUV	Sea grape	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	
												1	10
Trees													
Shrubs													
Grasses and grasslikes					1	10							
Forbs							10	70					
Cryptogams													
Coarse fragments													
Bare ground													
Litter													

### Transition Pathways:

This site is very fragile and critical for wildlife habitat. Any disturbance to the vegetation results in loss of cover and subsequent wind erosion. Great care needs to be taken to protect this site from any grazing pressure so that the sand is stabilized by the natural process of revegetation. Introduction of any species must be done with extreme care and precaution.

**Total annual production:** 3100 to 3750 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 oysterchatcher
- Cattle egret
- Key West quail dove
- Killdeer
- Ruddy turnstone
- Sanderling
- Smooth bill ani

**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:** E. Más, M. Montes

**Revised:** 05/2002, E. Más, J. Lugo

**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:** Jobos Beach, Isabela, PR

**Field Offices:** Arecibo, Bayamón, Humacao, Loíza, Mayagüez, San Germán, San Sebastián

**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:

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USDA NRCS Resource Conservationist

Date