

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

Ecological Site Description

Site name: STONEY HILL

Site number: R-270ZY038PR

Major Land Resource Area: 270 Humid Mountains and Valleys

Interstate correlation: NONE

Physiographic features: There are three distinct elevation ranges in this area and possess the highest precipitation and lowest temperatures. Surface water from precipitation, perennial streams, and lakes are abundant. Ground water is limited to water that seeps into the soil and is stored in the dense and massive underlying volcanic rock.

Climatic features

Frost-free period: 365 DAYS

Freeze-free period: 365 DAYS

Mean annual precipitation: 60 TO 80 INCHES

Mean annual air temperature: (24°C) 77 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	2.6	77
April	1.92	5.82	78
May	2.92	8.85	80
June	3.13	9.4	81
July	2.91	8.8	82
August	4.45	13.50	82
September	5.26	15.95	81
October	5.63	17.08	81
November	3.18	9.64	79
December	1.20	3.64	77
Mean annual	32.96		

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: Ground water is limited to water seeps into the soil and is stored in the dense and massive underlying volcanic rock.

Elevation Aspect: 150 to 1300 ft.

Percent Slope: 20 to 60

Soils: Soils of this site are moderately deep, well drained, fine textured, strongly acid, formed from highly weathered serpentine rocks. They are on steep to very steep sideslopes and hilltops in serpentine hills.

Major Soil Taxonomic Unit correlated to this site included:

Rosario, RsE2, RsF2

Plant communities:

This site consists of a comparatively uniform sod with frequent open spaces. Circular thickets are scattered in this type. Three vertical layers exist which consist of an upper most tree canopy (20 ft height), an intermediate made up of woody shrubs (10-15 ft height), and a lower layer made up of forbs. Grasses constitute approximately 88% of the total vegetative composition, and forbs, shrubs and trees the remaining 12 %.

Major plant species composition

Some introduced grass species are adapted to this site. These highly palatable species include guinea grass and stargrass. They 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
BORE2	Slender grama grass	1			
CHIN4	Maxican bluegrass	1			
CYDA	Bermuda grass	1			
DAAE	Durban crowfoot grass	1			
DIHO	Jamaica fingergrass	1			
PANO3	Bahia grass	1			

PARU	Matojito	1			
SCBR4	Cerrillo dulce	1			
SEGE	Knot root bristlegrass	1			
SPIN4	Whorled dropseed	1			

FORBS

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For group
AEAM	Morivivi bobo	2			
ALVA2	False moneywort	2			
ASCU	Bastard ipecac	2			
BIPI	Sheperd's needle	2			
BOVE	Boton blanco	2			
BRVI5	Flor de conchitas	2			
BUOB	Bbreak beak	2			
CHIC	Coco plum	2			
CHPO8	Retama	2			
COPO3	Black sage	2			
CREE4	Rattleweed	2			
DIRI4	Mata de embudo	2			
EXRE	Bejuco colorado	2			
GADU2	Costanera	2			
IPTI	Aguinaldo	2			
MILA8	Camasey	2			
MIPU8	Sensitive plant	2			
MUPRP	Pica pica	2			
PARU3	Passion flower	2			
SICA17	Wireweed	2			
SMCO	Dunguey blanco	2			
TRVO	Stinging vine	2			
WAAM2	Basora prieta	2			
WERE	Manzanilla del monte	2			
WETR	Wedelia trilobata	2			

Shrubs and Trees

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For group
ACSA5	Canela	3			
BYCU	Palo de doncella	4			
CLRO	Balsam fig	4			
COAL	Spanish elm	4			
CODO	Cock's spur	3			
GUSC	Cucubano	3			
MAIN3	Mango	4			
RAAC	Chritmas tree	3			
SYJA	Rose apple	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							1	5	1	15		
Shrubs												
Grasses and grasslikes							10	60				
Forbs					5	20						
Cryptogams												
Coarse fragments												
Bare ground												
Litter												

Transition Pathways:

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

Total annual production: 850 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 redstart
Antillian crt hummingbird
Black & white warbler
Black throated blue warbler
Black whiskered vireo
Blackpoll warbler
Bridled quail dove
Cape May warbler
Gray kingbird
Green mango
Green throated caribe
Lesser antillian pewee
Loggerhead kingbird
Louisiana waterthrush
Merlin
Northern perula
Ovenbird
Pearly eyed thrasher
Plains pigeon
PR emerald hummingbird
PR flycatcher
PR vireo
Puertorican nightjar
Puertorican screech owl
Red jungle fowl
Red legged thrush
Ruddy quail dove
Scaly naped pigeon
Sharp shined hawk
White necked crow

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: 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: Cerro Las Mesas, Mayagüez, PR; Sierra Alta, Cabo Rojo, PR

Field Offices: Mayagüez, San Germán

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