

Archbold Biological Station - Site 4: Scrubby Flatwoods (*proposed*)

Soil Series and Map Unit Name: Satellite sand

Map Unit Symbol: 14

SITE DATA:

Elevation: About 140 feet above MSL (Sunderland Marine Terrace)

Slope: 0 to 2 percent; On site: Nearly level with less than 1% gradient

Slope shape(Up/Down-Across): Linear-linear, linear-convex, convex-linear

Geomorphic positions: Flats, rises

Parent Material: Sandy marine sediments

Drainage Class: Somewhat poorly drained

Depth to seasonal high water table: From 25 to 104 centimeters from June through November

Ecological Community: Scrubby flatwoods

Vegetation: Sand Live Oak (*Quercus Geminata*), Florida Rosemary (*Ceratiola ericodes*), Scrub Palmetto (*Sabal etonia*), Saw palmetto (*Serenoa repens*), Silk Bay (*Persea borbonia* var. *humilis*), Gopher Apple (*Licania michauxii*), Sand Pine (*Pinus clausa*), Prickly-Pear Cactus (*Opuntia humifusa*), Hog Plum (*Ximenia Americana*), Sand Spike-moss (*Selaginella arenicola*)



SATELLITE PEDON DESCRIPTON (from Highlands County):

Taxonomic Classification: Hyperthermic, uncoated Aquic Quartzipsamments

Location: Highlands County, Florida. USAF Bombing Range, about 2800 feet north and 40 feet west of SE corner of Sec. 7, T. 33 S., R. 31 E.

Describers: F. Sodek, E.W. Hopwood (IFAS) and L.J. Carter, D.L. Lewis, J. Vega (NRCS).



A horizon - 0 to 10 centimeters: Dark gray (10YR 4/1) sand; single grain; loose; very strongly acid; clear smooth boundary.

E horizon - 10 to 66 centimeters: White (10YR 8/1) fine sand; few large distinct brown (10YR 5/3 and 5/4) mottles along old root channels; single grain; loose; strongly acid; gradual wavy boundary.

E horizon (upper) - 66 to 127 centimeters: White (10YR 8/1) fine sand; single grain; loose; moderately acid; gradual wavy boundary.

E horizon (lower) - 127 to 203 centimeters: White (10YR 8/1) fine sand; single grain; loose; moderately acid.

Note: Horizon designation changed from C horizons to E horizons based on presumption of underlying diagnostic horizons below 203 centimeters and to reflect results of the lab data which are supportive of E horizon (zone of eluviation).

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RANGE IN CHARACTERISTICS: Soil reaction ranges from very strongly acid to slightly alkaline in all horizons.

The A or Ap horizon is a mixture of black (10YR 2/1) organic matter and white (10YR 8/1) sand grains. When rubbed, this horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 1 or 2; or it is neutral with value of 3 to 5. Texture is coarse sand, sand, or fine sand.

The C horizon has hue of 10YR or 2.5Y, with value of 5 to 8, and chroma of 1 or 2; or it is neutral with value of 5 to 8. Upon burning the sand does not change color. Redoximorphic features in shades of yellow, brown, or red range from none to common. Texture is coarse sand, sand, or fine sand.

LABORATORY RESULTS (from Highlands County):

TOP DEPTH	BOTTOM DEPTH	VCO SAND	COARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	TOTAL SAND	TOTAL SILT	TOTAL CLAY	TEXTURE CLASS	BULK DENSITY	AWC	PH H2O	ORGANIC CARBON	TOTAL BASES	CEC SUM	BASE SAT
0	10	0	1.7	44.4	49.4	2.5	98	1.5	0.5	S	1.49	0.05	4.6	0.45	0.32	1.93	17
10	66	0	2.5	40.1	52.8	3.4	98.8	1	0.2	FS	1.66	0.04	5.4	0.04	0.04	0.92	4
66	127	0	2.6	38.8	53.5	3.8	98.7	1.1	0.2	FS	1.66	0.03	5.6	0.02	0.06	0.46	13
127	203	0	2.9	37.2	55.7	2.9	98.7	0.9	0.4	FS	1.52	0.03	7	0.01	0.02	0.49	4