

Archbold Biological Station - Site 1: Sand Scrub (*proposed*)

Soil Series and Map Unit Name: St. Lucie sand

Map Unit Symbol: 2

SITE DATA:

Elevation: About 135 feet above MSL (Sunderland Marine Terrace)

Slope: 0 to 8 percent; On site: Gently sloping with 2-3% gradient

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

Geomorphic positions: Summit, shoulder, backslope

Parent Material: Sandy marine deposits

Drainage Class: Excessively drained

Depth to seasonal high water table: Greater than 203 centimeters year-round

Ecological Community: Rosemary scrub

Vegetation: Scrub Oak (*Quercus inopina*), Sand Live Oak (*Quercus Geminata*), Chapman's Oak (*Quercus chapmanii*), 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*), Sand Spike-moss (*Selaginella arenicola*)



ST. LUCIE PEDON DESCRIPTION (from this site):

Taxonomic Classification: Typic Quartzipsamments, hyperthermic, uncoated

Location: Highlands County, Florida. Archbold Biological Station; 1.3 miles north and 0.3 mile west of station headquarters; NW 1/4, SE 1/4, Sec. 6, R30E, T38S.

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



A horizon - 0 to 15 centimeters: Gray (10YR 5/1) sand; single grain; loose; many fine & medium roots; strongly acid; gradual wavy boundary.

E1 horizon - 15 to 79 centimeters: White (10YR 8/1) sand; single grain; loose; many fine & medium roots; very strongly acid; gradual wavy boundary.

E2 horizon - 79 to 142 centimeters: White (10YR 8/1) sand; single grain; loose; few fine & medium roots; moderately acid; gradual wavy boundary.

E3 horizon - 142 to 203 centimeters: White (10YR 8/1) sand; single grain; loose; moderately acid.

Note: E horizon was subdivided at 15-79cm, 79-142cm, and 142-203cm for laboratory analyses. 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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ST. LUCIE SERIES RANGE IN CHARACTERISTICS:

The sand extends to depths of more than 80 inches and lacks subsurface diagnostic horizons within 7 feet. The silt plus clay content is less than 5 percent. Soil reaction ranges from extremely acid to neutral.

The A or Ap horizon has hue of 10YR, value of 4 to 8, chroma of 1 or 2. Texture is fine sand or sand.

The C horizon has hue of 10YR or 2.5Y, value of 6 to 8, chroma of 1 or 2; or it is neutral with value of 6 to 8. Texture is fine sand or sand.

LABORATORY RESULTS (from this site):

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	15	0	16.1	73.1	9.9	0.4	99.5	0.1	0.4	sand	1.41	0.04	5.2	0.37	0.25	1.34	19
15	79	0	14	70.7	13.9	0.9	99.5	0	0.5	sand	1.52	0.03	5.5	0.11	0.03	0.22	14
79	142	0	11.8	69.4	17.2	1.1	99.5	0	0.5	sand	1.53	0.06	5.7	0.09	0.04	0.12	33
142	203	0	9.7	67.8	21.2	1	99.7	0	0.3	sand	1.55	0.03	5.9	0.1	0.03	0.26	12