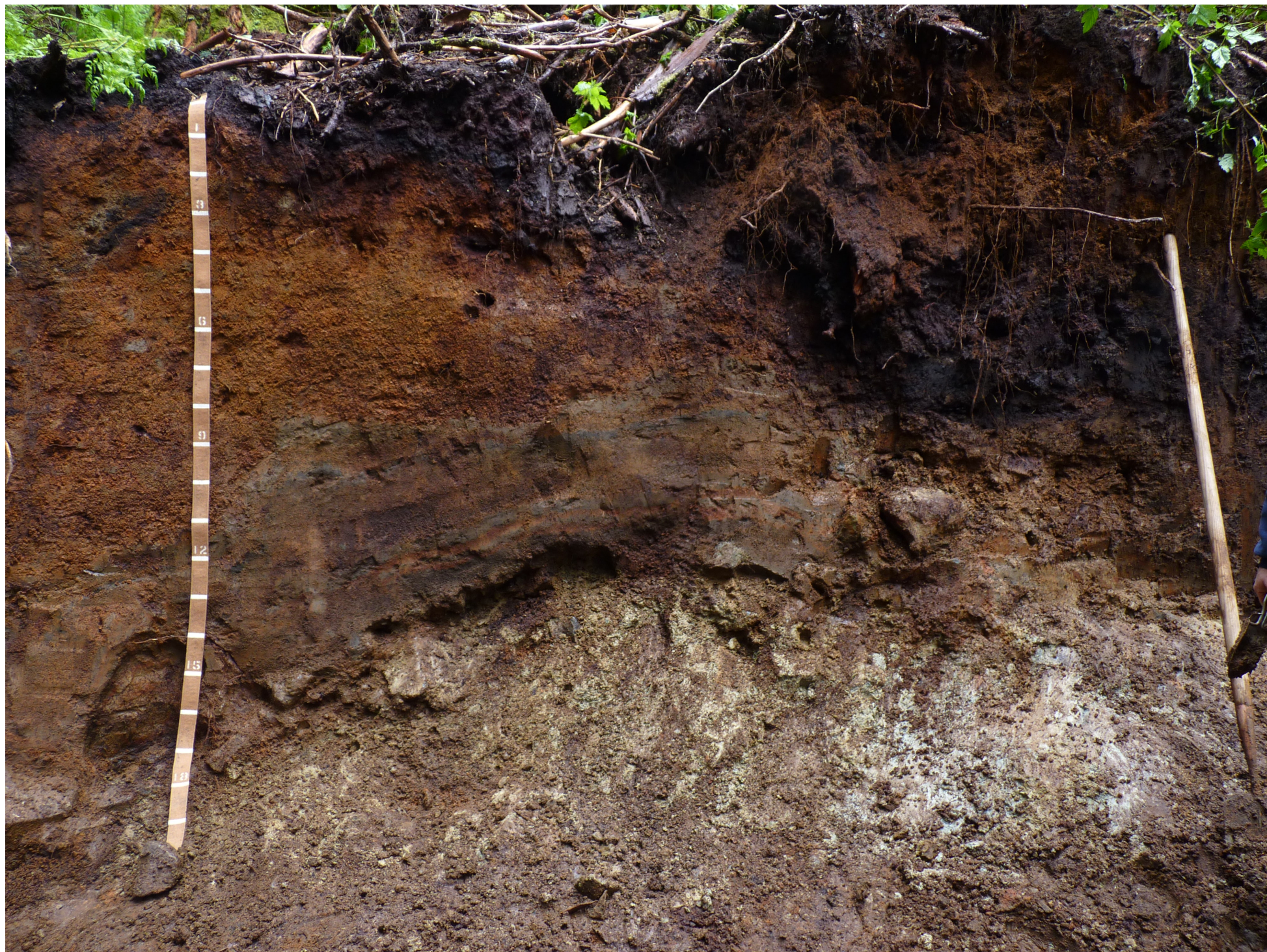




CLASSIFICATION

TAXONOMIC CLASS: Sandy, mixed Typic Humicryods

SETTING

DEPTH CLASS: Very deep, greater than 60 inches (152 cm)

DRAINAGE CLASS: moderately well drained

PERMEABILITY: Rapid

LANDFORM: Uplifted beach ridge on a glacial outwash plain

LANDSCAPE POSITION: on the beach ridges

PARENT MATERIAL: Volcanic ash over beach or fluvial sands

SLOPE RANGE: 2 to 30 percent

ELEVATION: 16 to 50 feet (5 to 15 meters)

CLIMATIC DATA (MEAN ANNUAL): Precipitation - 100 inches (254 cm), range - 60 to 220 inches (152 to 559 cm); air temperature - 45o F. (7.2o C.)

PEDON DESCRIPTION

Sandy soil-- on a northeast facing slope of 2 percent at 10 meters elevation under western hemlock forest.

Oa--0 to 15cm; very dark brown (7.5YR 2.5/2) muck; 10 percent rubbed; common fine and medium roots; extremely acid (pH 4); abrupt irregular boundary.

Bhs--15 to 40 cm; strong brown (7.5YR 4/6) fine sandy loam; weak fine subangular blocky structure; few fine roots; few very coarse distinct black (10YR 2/1) organic stains and few very coarse distinct dark grayish brown (10YR 4/2) masses (likely E horizon); 15 percent gravel; very strongly acid (pH 4.5); clear wavy boundary.

Bs—40 to 87 cm; reddish brown (5YR 4/4) gravelly sand; weak fine granular structure parting to single grains; common, coarse, distinct strong brown (7.5YR4/6) iron oxide masses on the sand grains and few, very coarse, distinct dark reddish brown (5YR3/3) krotavina (relict root channels); few very fine roots; 15 percent gravels; slightly acid (pH 6.5); abrupt wavy boundary.

C1--87 to 96 cm; very dark grayish brown (10YR 3/2) very fine sandy loam; weak moderate subangular blocky structure; slightly acid (pH 6.5); clear wavy boundary.

C2—96 to 102 cm; even mix of yellowish red (5YR 4/6) and very dark gray (5YR 3/1) coarse loamy sand; weak fine granular structure parting to single grains; 10 percent gravels; slightly acid (pH 6.5); abrupt wavy boundary.

C3—102 to 106 cm; black (10YR 2/1) fine sandy loam; moderate fine subangular blocky structure; slightly acid (pH 6.5); abrupt wavy boundary.

C4—106 to 118 cm; even mix of yellowish red (5YR 4/6) and black (10YR 2/1) loamy sand; single grained; 5 percent gravels; slightly acid (pH 6.5); abrupt wavy boundary.

C5—118 to 129 cm; yellowish red (5YR 5/6) gravelly coarse sand; single grained; few, fine, distinct black (10YR2/1) organic masses in soil pores; 15 percent gravels slightly acid (pH 6.5); abrupt wavy boundary.

C6—129 to 133 cm; very dark brown (10YR 2/2) fine sandy loam; single grained; slightly acid (pH 6.5); abrupt wavy boundary.

C7—133 to 134 cm; very dusky red (2.5YR 2.5/3) sand; single grained; common, coarse, distinct dusky red (2.5YR4/4) iron oxide concretions in the soil matrix; slightly acid (pH 6.5); abrupt wavy boundary.

C8—134 to 135 cm; black (7.5YR 2.5/1) fine sandy loam; single grained; slightly acid (pH 6.5); abrupt wavy boundary.

C9—135 to 136 cm; dark red (2.5YR 3/6) sand; single grained; slightly acid (pH 6.5); abrupt wavy boundary.

C10—136 to 150 cm; black (7.5YR 2.5/1) gravelly coarse sand; single grained; 15 percent gravels slightly acid (pH 6.5); abrupt wavy boundary.

2C—150 to 170 cm; light yellowish brown (2.5Y 6/3) extremely cobbly silt loam; massive; common, medium, distinct strong brown (7.5YR5/8) iron oxide masses along rock faces; 65 percent gravels slightly acid (pH 6.5); abrupt wavy boundary.

R—Sitka greywacke bedrock

PEDON LOCATION IN SURVEY AREA: Sitka Historical Park Sitka, Alaska, NW¼, NE ¼, Sec. 1, T.56S., R.63E., Copper River Meridian. 135° 19' 7.391"W 57° 2'58.962" N NAD83 datum

USDA-NRCS						PEDON DESCRIPTION							Pedon ID # :			Basic Soils Course		May-04				
Series or Component Name: Tuxekan						Map Unit Symbol: 5234A		Photo #:		Classification: sandy, mixed Typic Humicryods								Soil Moist. Regime (Tax.): Udic				
Describer(s): Jacqueline Foss			Date: May 25 2017			Weather: RA		Temp.:		Air:			Latitude: ° ' " N			Datum:		Location: Sec. T. R.				
													Longitude: ° ' " W					Transect: ID: Stop #: Interval:				
UTM: Zone: mE: mN: 			Topo Quad.:				Site ID:		YR:		State:		County:		Pedon #:		Soil Survey Area:		MLRA / LRU:			
Landscape: Outwash Plain/ Fluviomarine Terrace		Landform: Outwash Terrace/Beach		Microfeature:		Anthro:		Elevation: 10 m		Aspect: 30		Slope (%): 2		Slope Complexity: Complex		Slope Shape: (<i>Up & Dn / Across</i>)						
Hillslope Profile Position: foot slope			Geom. Component:			Microrelief:		Physio. Division: Pacific Mountain Syst		Physio. Province: Pacific boarder Ranges			Physio. Section: Chilkat-Baranof Mountains			State Physio. Area:			Local Physio. Area:			
Drainage: Moderately Well Drained			Flooding: Very Rare, extremely brief			Ponding: None			Soil Moisture Status: Moist				Profile Saturated Hydraulic Conductivity Ksat: High				Land Cover / Use: Forest land/new building pad					
Parent Material: ash/beach deposits/glacial till/bedrock				Bedrock:		Kind:		Fract.:		Hard.:		Depth:		Lithostrat. Units: Group: Formation: Member:								
Erosion: Kind: Degree: None				Runoff: None			Surface Frag %: GR: CB: ST: BD: CN: FL:							Diagnostic Horz. / Prop.: Spodic				Kind:		Depth:		
P.S. Control Section: Ave. Clay %: Depth Range: 25-100, 5% clay, 5% rock fragments																						

[illegible][illegible]

Component Name:								Map Unit Symbol:							Date:								
Obser. Method	Depth (cm)		Horizon	Bnd	Matrix Color		Texture	Rock Frag		Structure		Sand	Silt	Clay	LEP	Mottles							
	(TOP)	(BOT)			Dry	Moist		Kind	%	Rnd	Sz	Grade	Sz	Type	%	%	%	%	Sz	Cont.	Col	Mst	Shp
1		0	15	Oa	Al		7.5YR2.5/2	Muck	0		1	M	SBK										
2		15	40	Bhs	CW		7.5YR4/6	FSL	0		1	F	SBK	60	30	10							
3		40	87	Bs	AW		5YR4/4	GRS	15% gr		1	F	GR/SG	90	5	5							
4		87	96	C1	CW		10YR3/2	VFSL	0		1	M	SBK	70	25	5							
5		96	102	C2	AW		Multi, see mottle	LCOS	10% gr		1	F	GR/SG	80	15	5							50% 5YR4/6, 50% 5YR3/1
6		102	106	C3	AW		10YR2/1	FSL	0		2	F	SBK	60	30	10							
7		106	118	C4	AW		Multi, see mottle	LS	5% gr				SG	90	10								50% 5YR4/6, 50% 10YR2/1
8		118	129	C5	AW		5YR5/6	GRCOS	15% gr				SG	90	10								
9		129	133	C6	AW		10YR2/2	FSL	0				SG	70	25	5							
10		133	134	C7	AW		2.5YR2.5/3	S	0				SG	90	10								
11		134	135	C8	AW		7.5YR2.5/1	FSL	0				SG	80	15	5							
12		135	136	C9	AW		2.5YR3/6	S	0				SG	90	10								
13		136	150	C10	AW		7.5YR2.5/1	GRCS	15% gr				SG	90	10								
14		150	170	2C	---		2.5Y6/3	GRXSIL	65% gr				MA	30	60	10							

Redoximorphic Features							Concentrations							Ped / V. Surface Features							Roots			Pores			Notes		Notes			
	Kind	%	Sz	Cont.	Col.	Mst	Shape	Kind	%	Sz	Cont.	Col	Mst	Shp	Loc	Kind	%	Con	Dst	Loc	Col	Mst	Qty	Sz	Loc	Qty	Sz	Shp	Ksat	pH	Unified	
1																													4			
2																													4.5		White masses likely old E horizon	
3	5% Iron oxide masses c3D, 7.5YR4/6, moist, along sand grains							f4D 5YR3/3, old root channel																					6.5		coarse sand with ash bits likely fluvial in nature	
4																													6.5		change in PM silty soil	
5																													6.5		sandy	
6																													6.5		silty-black	
7																													6.5		upward fining sand	
8								organic masses, f1D, 10YR2/1, along pores																					6.5		coarsest sand, clear lateral flow	
9																													6.5		silty-black	
10	40% iron oxide concretions, c3D, 2.5YR4/4 through the matrix																												6.5		red sand	
11																													6.5			
12																													6.5		red sand	
13	10% iron oxide masses, c2D, 2.5YR4/8 in the matrix																												6.5		dark red sand over till	
14	Iron Oxide Masses, c2D, 7.5YR5/8, M, along rock faces																												6.5		glacial till	