

Pedoderm and Pattern Classes (plot)

11/21/2008

Project: _____

State phase name: _____

State phase ID: _____ Plot replicate no. _____ Collector _____ Date _____

Slope (%):	Aspect:	Slope complexity: simple or complex	Slope shape:	LL LV LC VL VV VC CL CV CC
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Instructions: Rapidly traverse the entire plot. Select one class each for soil surface properties (pedoderm/crust class), resource retention and erosion pattern to represent the entire plot.

Pedoderm Class in ___ x ___ m	Select one	Dominant Biol Crust Group*	Notes
S = Soil; pedoderm is characterized by bare mineral soil and none of the classes below	<input type="checkbox"/>		
WP = Weak physical or biological crust; can be disrupted by rainfall, none to few cyanobacterial sheaths dangling from ped, no darkening from cyanobacteria	<input type="checkbox"/>		
SP = Strong physical crust, usually platy or massive (structure not disrupted by rainfall), no substantial biological component	<input type="checkbox"/>		
VC = Vesicular crust; a layer of many unconnected spherical or ovoid pores; at the soil surface	<input type="checkbox"/>		
CEM = Cemented pan exposed at surface	<input type="checkbox"/>		
SC = Salt crust of fine to extremely coarse evaporite crystals or visible whitening on the soil surface; may include biological components	<input type="checkbox"/>		
PDB = Poorly developed biological crust assemblage, many cyanobacterial sheaths, may be slightly dark, can include other functional/structural groups (algae, lichen, moss)	<input type="checkbox"/>		
SDB = Strongly developed biological crust assemblage, obvious dark cyanobacteria, rubbery algal, moss or lichen crust	<input type="checkbox"/>		
CB = Cracking or curling, rubbery algal crusts, with or without lichen	<input type="checkbox"/>		
EP = Erosion pavement; a concentration of rock fragments at the soil surface caused by erosion and removal of finer soil material; individual fragments may be displaced during runoff events	<input type="checkbox"/>		
DP = Desert pavement; a concentration of closely packed and polished rock fragments at the soil surface, embedded in a vesicular crust	<input type="checkbox"/>		
D = Duff (partially and fully decomposed plant & organic matter; above the A horizon)	<input type="checkbox"/>		
SA = Well-formed or distinct structural aggregates at the soil surface and no other class above (well aggregated, stable soils)	<input type="checkbox"/>		

* Enter 1-2 dominant biological crust functional/structural groups from this list: Cyano (Cyanobacteria), LC (Lichen Crust), M (Moss), LV (Liverwort), A (Algae).

Resource Retention Class in ___ x ___ m		cm (for one class only)	Notes:
1 Interconnected grass cover or dense bunchgrasses; and surrounding ellipsoid bare patches <30cm	<input type="checkbox"/>		
2 Grass cover interconnected and surrounding ellipsoid bare patches from 30-___ cm	<input type="checkbox"/>		
3 Grass cover fragmented by elongate bare areas to ___ cm wide but bounded in plot	<input type="checkbox"/>		
4 Grass cover fragmented by elongate bare areas to ___ cm wide that cross entire width of plot	<input type="checkbox"/>		
5 Bare ground interconnected in several directions and isolated grass patches up to ___ cm	<input type="checkbox"/>		
6 Bare ground interconnected with scattered or no grass plants	<input type="checkbox"/>		

Erosion Pattern Class in ___ x ___ m		Select one	Notes:
0 No evidence of erosion or deposition	<input type="checkbox"/>		
1 Erosion limited to small (< 50 cm) patches (may see: minimal sheet erosion, wind scouring)	<input type="checkbox"/>		
2 Erosion across large (> 50 cm) patches (may see: no to few small pedestals, terracettes, water flow patterns, wind scouring)	<input type="checkbox"/>		
3 Erosion across large areas (>50 cm) with extensive loss of A horizon (may see: prominent pedestals, water flow patterns, rills, gullies, extensive wind scouring or deflation, coppicing)	<input type="checkbox"/>		
4 Erosion across large areas with exposed subsoil (may see: scarplets, patchy remnant surface horizons, water flow patterns, rills, gullies, extensive wind scouring, deflation, large coppices, prominent pedestals, exposed roots)	<input type="checkbox"/>		
5 Deposition across large areas (may see: water flow patterns, rills, large coppices, small dunes, sand sheets)**	<input type="checkbox"/>		

** Confirm deposition by digging a hole and observing recent deposition. Recently deposited material is usually finely stratified with alternating thin layers of varying textures; lacks structure.

Notes: