Title: Soil descriptions and data for soil profiles in the Andrews Experimental Forest, selected reference stands, Research Natural Areas, and National Parks, 1962 & 1996

Abstract: Provides standard soil profile descriptions along with physiographic data and classifications. Physical and chemical profile data are included when available.

Keywords: Long-Term Ecological Research (LTER); Organic matter; Primary production; Soil chemistry; Soil classification; Soil descriptions; Soil physics; Soil profiles; Inorganic nutrients; Organic matter; Long-Term Ecological Research (LTER); soil chemistry; soil properties; primary production; inorganic nutrients; organic matter; soil horizons;

Date data commenced: 1962-01-01

Date data terminated: 1996-01-01

Principal Investigator: C. Ted Dyrness

List of Entities:
1. Profile Level Data (Classification, Location, etc.)
2. Horizon Level Data (description, physical and chemical Data)

| Attribute List: | PROFILE Y N numeric(3,0) range | SLOPE N Y numeric(3,0) range | ASPECT N Y char(3) enum | EL_CLASS N Y char(12) freetext | ELEVATION N Y numeric(6,0) range | PARENTMAT N Y varchar(80) freetext | DRAINAGE N Y varchar(30) freetext | VEG_TYPE N Y varchar(40) freetext | VEGETATION N Y varchar(60) freetext | SPEC_LOC N Y varchar(20) freetext | LOCATION N Y varchar(80) freetext | GEO_AREA N Y varchar(20) freetext | LOC_CODE N Y char(6) place |
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Attributes Definitions:

ASPECT
Code for cardinal directions

BASE_SAT
Percent base saturation

BOUNDARY
Distinctness and topography of the lower horizon boundary

CA
Exchangeable Ca of soil

CEC
Cation exchange capacity of soil

CHEMDATA
Presence of chemical data (Y/N)

CLAY
Percent clay

CONSDRY
Dry consistence

CONSISTENC
Codes for dry, moist, and wet soil consistence

CONSMOIST
Moist consistence

CONSWET
Wet consistence

DATE
Date of profile description (m-yy and dd-mm-yy)

DENSITY
   Bulk density of soil

DEPTH_B
   Depth at the bottom of the horizon (in inches)

DEPTH_T
   Depth at the top of the horizon (in inches)

DESCRIPTN
   Name of persons describing the profile

DRAINAGE
   Drainage classes (explicit)

DRYCOLOR
   Munsell color of the dry soil

EL_CLASS
   Elevation class in 500 ft. intervals (explicit)

ELEVATION
   Elevation at the profile

GEO_AREA
   Broader geographic area (e.g. HJA, National Parks, etc.)

GR_GROUP
   Taxonomic great group

HORIZON
   Horizon designation

K
   Exchangeable K of soil

LANDFORM
   Explicit geomorphic unit at the profile location

LOC_CODE
   FSDB location code

LOCATION
   Brief location description

MAPUNIT
   Soil series and phase as mapped in the location of the profile

MG
   Exchangeable Mg of soil

MOISTCOL1
   Dominant munsell color of the moist soil
MOISTCOL2
    Moist Munsell color of mottles or variegations
MT_FIFTEEN
    Percent moisture on a dry-weight basis at 15 atm tension
MT_FIVE
    Percent moisture on a dry-weight basis at 5 atm tension
MT_ONE
    Percent moisture on a dry-weight basis at 1 atm tension
MT_THIRD
    Percolation rate in undisturbed soil cores determined in the lab
NA
    Exchangeable Na of soil
NR_HOR
    Number of soil horizons in profile
OM
    Organic matter content of soil
OTHER
    Explicit coarse fragments, O horizon characteristics, clay skins, mottling, etc
P
    Available P content of soil
PARENTMAT
    Explicit description of soil parent material
PH
    pH of 1:1 soil-water suspension
PHYSDATA
    Presence of physical data (Y/N)
PROF_DESC
    Generated profile description, with chemical and physical data if present
PROFILE
    Profile number
ROOTS
    Explicit abundance of roots, usually by size class
SAND
    Percent sand
SCS_EQUIV
    For HJA only: SCS equivalent to the hja series
SERIES
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<td>SLOPE</td>
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<td>Percent slope at the profile location</td>
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<td>Location description (shortened for www display)</td>
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<td>Codes for soil structure</td>
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<td>Code for soil texture as determined in the field</td>
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<td>Soil taxonomic class as defined by the USDA</td>
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<td>Community type according to Dymess et al., 1974, if known, otherwise codes of dominant species</td>
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<td>WSW west-southwest</td>
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Enumerated Domain for Attribute: CHEMDATA
Y  Physical data available
N  No physical data available

Enumerated Domain for Attribute: PHYSDATA
Y  Physical data available
N  No physical data available

Enumerated Domain for Attribute: BOUNDARY
AB  abrupt broken
AI  abrupt irregular
AS  abrupt smooth
AW  abrupt wavy
CB  clear broken
CI  clear irregular
CS  clear smooth
CW  clear wavy
DB  diffuse broken
DI  diffuse irregular
DS  diffuse smooth
DW  diffuse wavy
GB  gradual broken
GI  gradual irregular
GL  gradual
GS  gradual smooth
GW  gradual wavy

Enumerated Domain for Attribute: CONSDRY
lo  loose (dry)
so  soft (dry)
sh  slightly hard (dry)
h  hard (dry)
lo  loose (moist)
vfr  very friable (moist)
fr  friable (moist)fi  firm (moist)
vfi  very firm (moist)
brittle (moist)
nonsticky (wet)
slightly sticky (wet)
sticky (wet)
very sticky (wet)
nonplastic (wet)
slightly plastic (wet)
plastic (wet)
very plastic (wet)
thixotropic

Enumerated Domain for Attribute: CONSISTENC
lo loose (dry)
so soft (dry)
sh slightly hard (dry)
h hard (dry)
lo loose (moist)
vfr very friable (moist)
fr friable (moist)
fi firm (moist)
vfi very firm (moist)
br brittle (moist)
so nonsticky (wet)
ss slightly sticky (wet)
s sticky (wet)
vs very sticky (wet)
po nonplastic (wet)
ps slightly plastic (wet)
p plastic (wet)
vpl very plastic (wet)
smeary thixotropic

Enumerated Domain for Attribute: CONSMOIST
lo loose (dry)
so soft (dry)
sh slightly hard (dry)
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<td>fi</td>
<td>firm (moist)</td>
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vp very plastic (wet)

smeary thixotropic

Enumerated Domain for Attribute: STRUCTURE

1 weak (component of structure codes)
2 moderate (component of structure codes)
3 strong (component of structure codes)

vf very fine
f fine
m medium
c coarse
vc very coarse

Enumerated Domain for Attribute: TEXTURE

C clay
CL clay loam
CL+ heavy clay loam
CL- light
COBCL cobbly clay loam
COBL cobbly loam
COBL+ cobbly heavy loam
COBL- cobbly light loam
COBLS cobbly loamy sand
COBSICL cobbly silty clay loam
COBSIL cobbly silt loam
COBSL cobbly sandy loam
CS coarse sand
FSL fine sand loam
GR gravel
GRCL gravelly clay loam
GRCL+ gravelly heavy clay loam
GRCL- gravelly light clay loam
GRL gravelly loam
GRL+ gravelly heavy loam
GRL- gravelly light loam
GRSHL gravelly shotty loam
GRSICL  gravelly silty clay loam
GRSIL   gravelly silt loam
GRSL    gravelly sandy loam
L       loam
L+      heavy loam
L-      light loam
LFS     loamy fine sand
LS      loamy sand
ORG.L   organic loam
SCL     sandy clay loam
SHCL    shotty clay loam
SHL     shotty loam
SHL+    shotty heavy loam
SHSIL   shotty silt loam
SHSL    shotty sandy loam
SHSTL   shotty stony loam
SHSTL+  shotty stony heavy loam
SHSTSCCL shotty stony sandy clay loam
SHSTSL  shotty stony sandy loam
SIC     silty clay
SIC+    heavy silty clay
SIC-    light silty clay
SICL    silty clay loam
SICL+   heavy silty clay loam
SICL-   light silty clay loam
SIL     silt loam
SIL+    heavy silt loam
SIL-    light silt loam
SL      sandy loam
SL-     light sandy loam
STC     stony clay
STCL    stony clay loam
STCL-   stony light clay loam
STL     stony loam
STL+  heavy stony loam
STSCL  stony sandy clay loam
STSHSCL stony shotty sandy clay loam
STSCI...
Enumerated Domain for Attribute: TEXT_CLASS
C  clay
CL  clay loam
CL+ heavy clay loam
CL- light
COBCL cobbly clay loam
COBL cobbly loam
COBL+ cobbly heavy loam
COBL- cobbly light loam
COBLS cobbly loamy sand
COBSICL cobbly silty clay loam
COBSIL cobbly silt loam
COBSL cobbly sandy loam
CS coarse sand
FSL finde sandy loam
GR gravel
GRCL gravelly clay loam
GRCL+ gravelly heavy clay loam
GRCL- gravelly light clay loam
GRL gravelly loam
GRL+ gravelly heavy loam
GRL- gravelly light loam
GRSHL gravelly shotty loam
GRSICL gravelly silty clay loam
GRSIL gravelly silt loam
GRSL gravelly sandy loam
L loam
L+ heavy loam
L- light loam
LFS loamy fine sand
LS loamy sand
ORG.L organic loam
SCL sandy clay loam
SHCL shotty clay loam
SHL shotty loam
SHL+ shotty heavy loam
SHSIL shotty silt loam
SHSL shotty sandy loam
SHSTL shotty stony loam
SHSTL+ shotty stony heavy loam
SHSTSCL shotty stony sandy clay loam
SHSTSL shotty stony sandy loam
SIC silty clay
SIC+ heavy silty clay
SIC- light silty clay
SICL silty clay loam
SICL+ heavy silty clay loam
SICL- light silty clay loam
SIL silt loam
SIL+ heavy silt loam
SIL- light silt loam
SL sandy loam
SL- light sandy loam
STC stony clay
STCL stony clay loam
STCL- stony light clay loam
STL stony loam
STL+ heavy stony loam
STSCl stony sandy clay loam
STSHSCL stony shotty sandy clay loam
STSIC stony silt loam
STSICL stony silt loam
STSICL+ stony heavy silt loam
STSICL- stony light silt loam
STSIL stony silty loam
STSIL+ stony heavy silt loam
STSL stony sandy loam
VCOBL very cobbly loam
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