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)

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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
- **CONSWEET**: 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
Soil series name
SILT
   Percent silt
SLOPE
   Percent slope at the profile location
SPEC_LOC
   Location description (shortened for www display)
STRUCTURE
   Codes for soil structure
TEXT_CLASS
   Textural class
TEXTURE
   Code for soil texture as determined in the field
TOT_N
   Total nitrogen content of soil
USDACLASS
   Soil taxonomic class as defined by the USDA
VEG_TYPE
   Community type (shortened version for www display)
VEGETATION
   Community type according to Dymess et al., 1974, if known, otherwise codes of dominant species

Enumerated Domains:
Enumerated Domain for Attribute: ASPECT
   E  east
   N  north
   W  west
   S  south
   ENE east-northeast
   NE northeast
   NW northwest
   SE southeast
   SSE south-southeast
   SSW south-southwest
   SW southwest
   WNW west-northwest
   WSW west-southwest
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)
Enumerated Domain for Attribute: CONSISTENCY

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Enumerated Domain for Attribute: CONSWET

lo loose (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)
vp very plastic (wet)
smeary thixotropic
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 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
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<td>very stony clay loam</td>
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<tr>
<td>VSTCL+</td>
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<td>VSTCL-</td>
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<tr>
<td>VSTL</td>
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</tr>
<tr>
<td>VSTL+</td>
<td>very stony heavy loam</td>
</tr>
<tr>
<td>VSTLS</td>
<td>very stony loamy sand</td>
</tr>
<tr>
<td>VSTSICL</td>
<td>very stony silty clay loam</td>
</tr>
<tr>
<td>VSTSL</td>
<td>very stony sandy loam</td>
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<tr>
<td>LCS</td>
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<tr>
<td>GRCS</td>
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<tr>
<td>C  clay</td>
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<td>CL clay loam</td>
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<td>COBCL cobbly clay loam</td>
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<tr>
<td>COBL cobbly loam</td>
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</tr>
<tr>
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<td>COBLS cobbly loamy sand</td>
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<tr>
<td>COBSICL cobbly silty clay loam</td>
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<tr>
<td>COBSIL cobbly silt loam</td>
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<td>COBSIL cobbly sandy loam</td>
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<td>CS coarse sand</td>
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<td>FSL finde sandy loam</td>
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<td>GR gravel</td>
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<tr>
<td>GRCL+ gravelly heavy clay loam</td>
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<td>GRCL- gravelly light clay loam</td>
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<tr>
<td>GRL  gravelly loam</td>
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<tr>
<td>GRL+ gravelly heavy loam</td>
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<tr>
<td>GRL- gravelly light loam</td>
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<tr>
<td>GRSHL gravelly shotty loam</td>
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<tr>
<td>GRSICL gravelly silty clay loam</td>
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<tr>
<td>GRSIL gravelly silt loam</td>
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<tr>
<td>GRSL gravelly sandy loam</td>
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<tr>
<td>L   loam</td>
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<tr>
<td>L+  heavy loam</td>
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<tr>
<td>L-  light loam</td>
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<td>SHCL shotty clay loam</td>
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SHL shotty loam
SHL+ shotty heavy loam
SHSIL shotty silt loam
SHSL shotty sandy loam
SHSTL shotty stony loam
SHSTL+ shotty stony heavy loam
SHSTSCIL 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
STSCIL stony sandy clay loam
STSHSCL stony shotty sandy clay loam
STacic stony silty clay
STacicl stony silty clay loam
STacicl+ stony heavy silty clay loam
STacicl- stony light silty clay loam
STsil stony silt loam
STsil+ stony heavy silt loam
STSL stony sandy loam
VCOBL very cobbly loam
VCOBSICL  very cobbly silty clay loam
VCOBSIL   very cobbly silty loam
VCOBSL    very cobbly sandy loam
VGRCL     very gravelly clay loam
VGRCS     very gravelly coarse sand
VGRIL     very gravelly loam
VGRL+     very gravelly heavy loam
VGRL-     very gravelly light loam
VGRSICL   very gravelly silty clay loam
VGRSIL    very gravelly silt loam
VGRSIL-   very gravelly light silt loam
VGRSL     very gravelly sandy loam
VGRSHL    very gravelly shotty loam
VSTCL     very stony clay loam
VSTCL+    very stony heavy clay loam
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VSTL      very stony loam
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LCS       loamy coarse sand
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