Abstract:

The Demonstration of Ecosystem Management Options (DEMO) Study is a regional-scale experiment in variable-retention harvest, established at six sites in western Oregon and Washington. Initiated in 1994, DEMO was designed to assess newly established standards and guidelines for regeneration harvests in mature, coniferous forests of the Pacific Northwest. The experiment is a randomized complete block design. It includes six treatments that represent strong contrasts in the level of retention (15-100% of original basal area) and the spatial pattern in which trees are retained (uniformly dispersed vs. aggregated in 1-ha patches). The factorial nature of the design (15 and 40% retention in both an aggregated and dispersed pattern) is unique among variable-retention experiments, regionally and globally. Long-term measurements of vegetation response lie at the core of the DEMO Study. Key response variables include overstory tree growth and mortality, the dynamics of snags, regeneration of conifers (including planted seedlings and natural recruitment), and the composition, structure and diversity of the understory (including herbaceous, woody, and bryophyte species). Pre-treatment measurements were made between 1994 and 1996 (data are archived under Study Code TP104). Post-treatment measurements have occurred at ~5- to 7-year intervals between 1998 and 2016 (data are archived under Study Code TP108).

Keywords: community structure; stand structure; silviculture; forest ecology; plant ecology; community dynamics; successional dynamics; biodiversity; plant species composition; species diversity; permanent plots; tree growth; tree mortality; regeneration; forest disturbance; timber harvest; vascular plants; herbs; shrubs; trees; bryophytes;

Date data commenced: 1994-06-15
Date data terminated: 2016-08-31

Principal Investigator: Charles B. Halpern

List of Entities:
1. General Plot Characteristics (U-A1)
2. Transect Bearings, Rebar Distances, Grid Point Conditions, and Associated Notes (U-A2)
3. Bryophyte and Lichen Species' Presence/Absence and Substrate Associations in Harvested and Uncut Plots (U-B1)
4. Bryophyte and Lichen Total Cover in Harvested and Uncut Plots (U-B1)
5. Herb Layer in Harvested Plots: Presence/Absence, Number of Tree Seedlings (U-B2)
6. Herb Layer in Harvested Plots: Cover, Number of Tree Seedlings (U-B2)
7. Herb Layer in Uncut Plots: Cover, Height, Number of Tree Seedlings (U-B3)
8. Ground Surface Conditions (U-C)
9. Tall Shrub and Understory Trees: Cover (U-D1)
10. Tall Shrub and Understory Trees: Height (U-D2)
11. Coarse Woody Debris (U-E)
13. Overstory Trees (O-A, O-E, and O-G)
14. Snags (O-B, O-F, and O-F2)
15. Tree Heights, Post-harvest (O-C)
16. Percent Overstory Canopy Cover: Truck Mirrors (U-H)
17. Disturbance Assessment: Cover (U-I1)
18. Disturbance Assessment: Slash Depth (U-I2)
19. Planted Trees (U-G, U-G2)
20. Plot Photo Comments
21. Tree Mortality (O-D)
24. Natural Regeneration, 2003-2016 (U-F2)
## I. General Plot Characteristics (U-A1)

### Attribute List:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N</td>
<td>N</td>
<td>char(5)</td>
<td>enum</td>
</tr>
<tr>
<td>ENTITY</td>
<td>N</td>
<td>N</td>
<td>numeric(2,0)</td>
<td>range 1.0000 1.0000 number</td>
</tr>
<tr>
<td>YEAR</td>
<td>T</td>
<td>N</td>
<td>numeric(4,0)</td>
<td>range 1998.0000 1999.0000 YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N</td>
<td>N</td>
<td>char(4)</td>
<td>place</td>
</tr>
<tr>
<td>BLOCK</td>
<td>T</td>
<td>N</td>
<td>char(1)</td>
<td>enum 1.0000 8.0000</td>
</tr>
<tr>
<td>TRT</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum 1.0000 6.0000</td>
</tr>
<tr>
<td>PLOT</td>
<td>T</td>
<td>N</td>
<td>char(6)</td>
<td>place</td>
</tr>
<tr>
<td>TRLOC_A</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>TRLOC_B</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>TRLOC_C</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>TRLOC_D</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>PTYPE</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>N</td>
<td>N</td>
<td>varchar(30)</td>
<td>freetext</td>
</tr>
<tr>
<td>SAMPLEDATE</td>
<td>N</td>
<td>Y</td>
<td>datetime</td>
<td>YYYY-MM-DD</td>
</tr>
</tbody>
</table>

## 2. Transect Bearings, Rebar Distances, Grid Point Conditions, and Associated Notes (U-A2)

### Attribute List:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N</td>
<td>N</td>
<td>char(5)</td>
<td>enum</td>
</tr>
<tr>
<td>ENTITY</td>
<td>N</td>
<td>N</td>
<td>numeric(2,0)</td>
<td>range 2.0000 2.0000 number</td>
</tr>
<tr>
<td>UPDATE_YR</td>
<td>Y</td>
<td>N</td>
<td>numeric(4,0)</td>
<td>range 1994.0000 2016.0000 YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N</td>
<td>N</td>
<td>char(4)</td>
<td>place</td>
</tr>
<tr>
<td>BLOCK</td>
<td>T</td>
<td>N</td>
<td>char(1)</td>
<td>enum 1.0000 8.0000</td>
</tr>
<tr>
<td>PLOT</td>
<td>T</td>
<td>N</td>
<td>char(6)</td>
<td>place</td>
</tr>
<tr>
<td>TRANS</td>
<td>Y</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>BEARING</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,1)</td>
<td>range 0.0000 355.0000 deg az</td>
</tr>
<tr>
<td>REBAR4</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,2)</td>
<td>range 2.9000 9.9000 m</td>
</tr>
<tr>
<td>REBAR10</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,2)</td>
<td>range 4.0000 13.0500 m</td>
</tr>
<tr>
<td>REBARINT</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,2)</td>
<td>range 1.7000 12.8000 m</td>
</tr>
<tr>
<td>REBARINT2</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,2)</td>
<td>range 3.8000 9.7000 m</td>
</tr>
<tr>
<td>REBARINT3</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,2)</td>
<td>range 6.4000 9.3000 m</td>
</tr>
<tr>
<td>REBARINT4</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,2)</td>
<td>range 7.2000 9.1000 m</td>
</tr>
</tbody>
</table>
3. Bryophyte and Lichen Species' Presence/Absence and Substrate Associations in Harvested and Uncut Plots (U-B1)

**Attribute List:**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td></td>
<td>char(5)</td>
<td>enum</td>
</tr>
<tr>
<td>ENTITY</td>
<td></td>
<td>numeric(2,0)</td>
<td>range</td>
</tr>
<tr>
<td>YEAR</td>
<td></td>
<td>numeric(4,0)</td>
<td>range</td>
</tr>
<tr>
<td>DISTRICT</td>
<td></td>
<td>char(4)</td>
<td>place</td>
</tr>
<tr>
<td>BLOCK</td>
<td></td>
<td>char(1)</td>
<td>enum 1.0000 8.0000</td>
</tr>
<tr>
<td>TRT</td>
<td></td>
<td>char(1)</td>
<td>enum 1.0000 6.0000</td>
</tr>
<tr>
<td>PLOT</td>
<td></td>
<td>char(6)</td>
<td>place</td>
</tr>
<tr>
<td>TRANS</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>LIFFORM</td>
<td></td>
<td>char(2)</td>
<td>enum</td>
</tr>
<tr>
<td>BLSP</td>
<td></td>
<td>char(6)</td>
<td>taxa</td>
</tr>
<tr>
<td>PRESENT1</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS11</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS12</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS13</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>PRESENT2</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS21</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS22</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS23</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>PRESENT3</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS31</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS32</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS33</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>PRESENT4</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS41</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS42</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS43</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>PRESENT5</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS51</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS52</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>SUBS53</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>PRESENT6</td>
<td></td>
<td>char(1)</td>
<td>enum</td>
</tr>
</tbody>
</table>
**4. Bryophyte and Lichen Total Cover in Harvested and Uncut Plots (U-B1)**

**Attribute List:**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Required</th>
<th>Nullable</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N</td>
<td>N</td>
<td>char(5)</td>
<td>enum</td>
</tr>
<tr>
<td>ENTITY</td>
<td>N</td>
<td>N</td>
<td>numeric(2,0)</td>
<td>range 4.0000 4.0000 number</td>
</tr>
<tr>
<td>YEAR</td>
<td>T</td>
<td>N</td>
<td>numeric(4,0)</td>
<td>range 1998.0000-2009.0000 YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N</td>
<td>N</td>
<td>char(4)</td>
<td>place</td>
</tr>
<tr>
<td>BLOCK</td>
<td>T</td>
<td>N</td>
<td>char(1)</td>
<td>enum 1.0000 8.0000</td>
</tr>
<tr>
<td>TRT</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum 1.0000 6.0000</td>
</tr>
<tr>
<td>PLOT</td>
<td>T</td>
<td>N</td>
<td>char(6)</td>
<td>place</td>
</tr>
<tr>
<td>TRANS</td>
<td>T</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>LIFEFORM</td>
<td>T</td>
<td>N</td>
<td>char(2)</td>
<td>enum</td>
</tr>
<tr>
<td>COVER1</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,1)</td>
<td>range 0.0000 100.0000 %</td>
</tr>
<tr>
<td>COVER2</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,1)</td>
<td>range 0.0000 100.0000 %</td>
</tr>
<tr>
<td>COVER3</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,1)</td>
<td>range 0.0000 100.0000 %</td>
</tr>
<tr>
<td>COVER4</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,1)</td>
<td>range 0.0000 100.0000 %</td>
</tr>
<tr>
<td>COVER5</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,1)</td>
<td>range 0.0000 100.0000 %</td>
</tr>
<tr>
<td>COVER6</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,1)</td>
<td>range 0.0000 100.0000 %</td>
</tr>
<tr>
<td>PTYPE</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>N</td>
<td>N</td>
<td>varchar(30)</td>
<td>freetext</td>
</tr>
<tr>
<td>SAMPLEDATE</td>
<td>N</td>
<td>Y</td>
<td>datetime</td>
<td>range 6/1/1998-9/30/1999 YYYY-MM-DD AM AM</td>
</tr>
</tbody>
</table>

**5. Herb Layer in Harvested Plots: Presence/Absence, Number of Tree Seedlings (U-B2)**

**Attribute List:**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Required</th>
<th>Nullable</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N</td>
<td>N</td>
<td>char(5)</td>
<td>enum</td>
</tr>
<tr>
<td>ENTITY</td>
<td>N</td>
<td>N</td>
<td>numeric(2,0)</td>
<td>range 5.0000 5.0000 number</td>
</tr>
<tr>
<td>YEAR</td>
<td>T</td>
<td>N</td>
<td>numeric(4,0)</td>
<td>range 1998.0000-2009.0000 YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N</td>
<td>N</td>
<td>char(4)</td>
<td>place</td>
</tr>
<tr>
<td>BLOCK</td>
<td>T</td>
<td>N</td>
<td>char(1)</td>
<td>enum 1.0000 8.0000</td>
</tr>
<tr>
<td>Attribute</td>
<td>Type</td>
<td>Description</td>
<td>Range</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>----------------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>TRT</td>
<td>N</td>
<td>char(1) enum</td>
<td>1.0000 6.0000</td>
<td></td>
</tr>
<tr>
<td>PLOT</td>
<td>T</td>
<td>char(6) place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANS</td>
<td>T</td>
<td>char(1) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIFEFORM</td>
<td>T</td>
<td>char(2) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPECIES</td>
<td>T</td>
<td>char(6) taxa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCCURRENCE</td>
<td>T</td>
<td>numeric(2,0) range</td>
<td>1.0000 11.0000 number</td>
<td></td>
</tr>
<tr>
<td>PRESENT1</td>
<td>N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRTRSEED1</td>
<td>N</td>
<td>numeric(3,0) range</td>
<td>1.0000 10.0000 number</td>
<td></td>
</tr>
<tr>
<td>PRESENT2</td>
<td>N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRTRSEED2</td>
<td>N</td>
<td>numeric(3,0) range</td>
<td>1.0000 9.0000 number</td>
<td></td>
</tr>
<tr>
<td>PRESENT3</td>
<td>N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRTRSEED3</td>
<td>N</td>
<td>numeric(3,0) range</td>
<td>1.0000 10.0000 number</td>
<td></td>
</tr>
<tr>
<td>PRESENT4</td>
<td>N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRTRSEED4</td>
<td>N</td>
<td>numeric(3,0) range</td>
<td>1.0000 9.0000 number</td>
<td></td>
</tr>
<tr>
<td>PRESENT5</td>
<td>N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRTRSEED5</td>
<td>N</td>
<td>numeric(3,0) range</td>
<td>1.0000 12.0000 number</td>
<td></td>
</tr>
<tr>
<td>PRESENT6</td>
<td>N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRTRSEED6</td>
<td>N</td>
<td>numeric(3,0) range</td>
<td>1.0000 8.0000 number</td>
<td></td>
</tr>
<tr>
<td>PTYPE</td>
<td>N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>N</td>
<td>varchar(30) freetext</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAMPLEDATE</td>
<td>N</td>
<td>datetime range</td>
<td>6/4/1998 6.0000 12:00:00 AM 7/30/2000 12:00:00 AM  YYYY-MM-DD</td>
<td></td>
</tr>
</tbody>
</table>

**Attribute List:**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N</td>
<td>char(5) enum</td>
<td></td>
</tr>
<tr>
<td>ENTITY</td>
<td>N</td>
<td>numeric(2,0) range</td>
<td>6.0000 6.0000 number</td>
</tr>
<tr>
<td>YEAR</td>
<td>T</td>
<td>numeric(4,0) range</td>
<td>1998.0000 2009.0000 YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N</td>
<td>char(4) place</td>
<td></td>
</tr>
<tr>
<td>BLOCK</td>
<td>T</td>
<td>char(1) enum</td>
<td></td>
</tr>
<tr>
<td>TRT</td>
<td>N</td>
<td>char(1) enum</td>
<td>1.0000 8.0000</td>
</tr>
<tr>
<td>PLOT</td>
<td>T</td>
<td>char(6) place</td>
<td></td>
</tr>
<tr>
<td>TRANS</td>
<td>T</td>
<td>char(1) enum</td>
<td></td>
</tr>
<tr>
<td>LIFEFORM</td>
<td>T</td>
<td>char(2) enum</td>
<td></td>
</tr>
<tr>
<td>TOTCOVER1</td>
<td>N</td>
<td>numeric(5,1) range</td>
<td>0.0000 100.0000 %</td>
</tr>
<tr>
<td>NRTRSEED1</td>
<td>N</td>
<td>numeric(3,0) range</td>
<td>0.0000 12.0000 number</td>
</tr>
<tr>
<td>Attribute</td>
<td>Type</td>
<td>Description</td>
<td>Data Type</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------</td>
<td>----------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>TOTCOVER2</td>
<td>N Y</td>
<td>numeric(5,1) range</td>
<td></td>
</tr>
<tr>
<td>NRTRSEED2</td>
<td>N Y</td>
<td>numeric(3,0) range</td>
<td></td>
</tr>
<tr>
<td>TOTCOVER3</td>
<td>N Y</td>
<td>numeric(5,1) range</td>
<td></td>
</tr>
<tr>
<td>NRTRSEED3</td>
<td>N Y</td>
<td>numeric(3,0) range</td>
<td></td>
</tr>
<tr>
<td>TOTCOVER4</td>
<td>N Y</td>
<td>numeric(5,1) range</td>
<td></td>
</tr>
<tr>
<td>NRTRSEED4</td>
<td>N Y</td>
<td>numeric(3,0) range</td>
<td></td>
</tr>
<tr>
<td>TOTCOVER5</td>
<td>N Y</td>
<td>numeric(5,1) range</td>
<td></td>
</tr>
<tr>
<td>NRTRSEED5</td>
<td>N Y</td>
<td>numeric(3,0) range</td>
<td></td>
</tr>
<tr>
<td>TOTCOVER6</td>
<td>N Y</td>
<td>numeric(5,1) range</td>
<td></td>
</tr>
<tr>
<td>NRTRSEED6</td>
<td>N Y</td>
<td>numeric(3,0) range</td>
<td></td>
</tr>
<tr>
<td>PTYPE</td>
<td>N N</td>
<td>char(1) enum</td>
<td></td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>N Y</td>
<td>varchar(30) freetext</td>
<td></td>
</tr>
<tr>
<td>SAMPLEDATE</td>
<td>N Y</td>
<td>datetime range</td>
<td></td>
</tr>
</tbody>
</table>

7. Herb Layer in Uncut Plots: Cover, Height, Number of Tree Seedlings (U-B3)

### Attribute List:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
<th>Data Type</th>
<th>Range/Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N N</td>
<td>char(5) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENTITY</td>
<td>N N</td>
<td>numeric(2,0) range</td>
<td></td>
<td>7.0000 - 7.0000</td>
</tr>
<tr>
<td>YEAR</td>
<td>T N</td>
<td>numeric(4,0) range</td>
<td></td>
<td>1998.0000-2009.0000 YYYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N N</td>
<td>char(4) place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLOCK</td>
<td>T N</td>
<td>char(1) enum</td>
<td></td>
<td>1.0000 - 8.0000</td>
</tr>
<tr>
<td>TRT</td>
<td>N N</td>
<td>char(1) enum</td>
<td></td>
<td>1.0000 - 6.0000</td>
</tr>
<tr>
<td>PLOT</td>
<td>T N</td>
<td>char(6) place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANS</td>
<td>T N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIFEFORM</td>
<td>Y N</td>
<td>char(2) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPECIES</td>
<td>T Y</td>
<td>char(6) taxa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCCURRENCE</td>
<td>Y Y</td>
<td>numeric(2,0) range</td>
<td></td>
<td>1.0000 - 9.0000</td>
</tr>
<tr>
<td>HCOVER1</td>
<td>N Y</td>
<td>numeric(5,1) range</td>
<td></td>
<td>0.0000 - 100.0000 %</td>
</tr>
<tr>
<td>HEIGHT1</td>
<td>N Y</td>
<td>numeric(3,0) range</td>
<td></td>
<td>-99.0000 - 190.0000 cm</td>
</tr>
<tr>
<td>TREESeed1</td>
<td>N Y</td>
<td>numeric(3,0) range</td>
<td></td>
<td>0.0000 - 23.0000</td>
</tr>
<tr>
<td>HCOVER2</td>
<td>N Y</td>
<td>numeric(5,1) range</td>
<td></td>
<td>0.0000 - 100.0000 %</td>
</tr>
<tr>
<td>HEIGHT2</td>
<td>N Y</td>
<td>numeric(3,0) range</td>
<td></td>
<td>-99.0000 - 178.0000 cm</td>
</tr>
<tr>
<td>TREESeed2</td>
<td>N Y</td>
<td>numeric(3,0) range</td>
<td></td>
<td>0.0000 - 76.0000</td>
</tr>
<tr>
<td>HCOVER3</td>
<td>N Y</td>
<td>numeric(5,1) range</td>
<td></td>
<td>0.0000 - 100.0000 %</td>
</tr>
<tr>
<td>HEIGHT3</td>
<td>N Y</td>
<td>numeric(3,0) range</td>
<td></td>
<td>0.0000 - 155.0000 cm</td>
</tr>
</tbody>
</table>
### 8. Ground Surface Conditions (U-C)

**Attribute List:**

<table>
<thead>
<tr>
<th>Field</th>
<th>Required</th>
<th>Nullable</th>
<th>Type</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N</td>
<td>N</td>
<td>char(5)</td>
<td>enum</td>
</tr>
<tr>
<td>ENTITY</td>
<td>N</td>
<td>N</td>
<td>numeric(2,0)</td>
<td>range 8.0000 8.0000</td>
</tr>
<tr>
<td>YEAR</td>
<td>T</td>
<td>N</td>
<td>numeric(4,0)</td>
<td>range 1998.0000-2009.0000</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N</td>
<td>N</td>
<td>char(4)</td>
<td>place</td>
</tr>
<tr>
<td>BLOCK</td>
<td>T</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>TRT</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>PLOT</td>
<td>T</td>
<td>N</td>
<td>char(6)</td>
<td>place</td>
</tr>
<tr>
<td>TRANS</td>
<td>T</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>MICROPLOT</td>
<td>T</td>
<td>N</td>
<td>numeric(1,0)</td>
<td>range 1.0000 6.0000</td>
</tr>
<tr>
<td>SUBSTRATE</td>
<td>T</td>
<td>N</td>
<td>char(7)</td>
<td>enum</td>
</tr>
<tr>
<td>COVER</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,1)</td>
<td>range 0.0000 100.0000</td>
</tr>
<tr>
<td>PTYPE</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>N</td>
<td>Y</td>
<td>varchar(30)</td>
<td>freetext</td>
</tr>
</tbody>
</table>

### 9. Tall Shrub and Understory Trees: Cover (U-D1)

**Attribute List:**

<table>
<thead>
<tr>
<th>Field</th>
<th>Required</th>
<th>Nullable</th>
<th>Type</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N</td>
<td>N</td>
<td>char(5)</td>
<td>enum</td>
</tr>
<tr>
<td>ENTITY</td>
<td>N</td>
<td>N</td>
<td>numeric(2,0)</td>
<td>range 9.0000 9.0000</td>
</tr>
</tbody>
</table>
### Attribute List:

<table>
<thead>
<tr>
<th>Field</th>
<th>Type</th>
<th>Description</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YEAR</strong></td>
<td>T N</td>
<td>numeric(4,0)</td>
<td>range 1998.0000-2009.0000 YYYY</td>
</tr>
<tr>
<td><strong>DISTRICT</strong></td>
<td>N N</td>
<td>char(4)</td>
<td>place</td>
</tr>
<tr>
<td><strong>BLOCK</strong></td>
<td>T N</td>
<td>char(1)</td>
<td>enum 1.0000-8.0000</td>
</tr>
<tr>
<td><strong>TRT</strong></td>
<td>N N</td>
<td>char(1)</td>
<td>enum 1.0000-6.0000</td>
</tr>
<tr>
<td><strong>PLOT</strong></td>
<td>T N</td>
<td>char(6)</td>
<td>place</td>
</tr>
<tr>
<td><strong>TRANS</strong></td>
<td>T N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td><strong>LIFEFORM</strong></td>
<td>N N</td>
<td>char(2)</td>
<td>enum</td>
</tr>
<tr>
<td><strong>US_SPP</strong></td>
<td>T Y</td>
<td>char(6)</td>
<td>taxa</td>
</tr>
<tr>
<td><strong>LC</strong></td>
<td>T N</td>
<td>numeric(1,0)</td>
<td>range 1.0000-5.0000 number</td>
</tr>
<tr>
<td><strong>START1</strong></td>
<td>N Y</td>
<td>numeric(4,2)</td>
<td>range 0.0000-5.9900 m</td>
</tr>
<tr>
<td><strong>END1</strong></td>
<td>N Y</td>
<td>numeric(4,2)</td>
<td>range 0.0100-6.0000 m</td>
</tr>
<tr>
<td><strong>START2</strong></td>
<td>N Y</td>
<td>numeric(4,2)</td>
<td>range 0.0300-5.9900 m</td>
</tr>
<tr>
<td><strong>END2</strong></td>
<td>N Y</td>
<td>numeric(4,2)</td>
<td>range 0.0500-6.0000 m</td>
</tr>
<tr>
<td><strong>START3</strong></td>
<td>N Y</td>
<td>numeric(4,2)</td>
<td>range 0.1000-5.9900 m</td>
</tr>
<tr>
<td><strong>END3</strong></td>
<td>N Y</td>
<td>numeric(4,2)</td>
<td>range 0.1500-6.0000 m</td>
</tr>
<tr>
<td><strong>START4</strong></td>
<td>N Y</td>
<td>numeric(4,2)</td>
<td>range 0.3100-5.9900 m</td>
</tr>
<tr>
<td><strong>END4</strong></td>
<td>N Y</td>
<td>numeric(4,2)</td>
<td>range 0.3400-6.0000 m</td>
</tr>
<tr>
<td><strong>START5</strong></td>
<td>N Y</td>
<td>numeric(4,2)</td>
<td>range 0.4700-5.9900 m</td>
</tr>
<tr>
<td><strong>END5</strong></td>
<td>N Y</td>
<td>numeric(4,2)</td>
<td>range 0.5100-6.0000 m</td>
</tr>
<tr>
<td><strong>PTYPE</strong></td>
<td>N Y</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td><strong>PERSONNEL</strong></td>
<td>N N</td>
<td>varchar(30)</td>
<td>freetext</td>
</tr>
</tbody>
</table>

### [16. Tall Shrub and Understory Trees: Height (U-D2)]

<table>
<thead>
<tr>
<th>Field</th>
<th>Type</th>
<th>Description</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DATACODE</strong></td>
<td>N N</td>
<td>char(5)</td>
<td>enum</td>
</tr>
<tr>
<td><strong>ENTITY</strong></td>
<td>N N</td>
<td>numeric(2,0)</td>
<td>range 10.0000-10.0000 number</td>
</tr>
<tr>
<td><strong>YEAR</strong></td>
<td>T N</td>
<td>numeric(4,0)</td>
<td>range 1998.0000-2009.0000 YYYY</td>
</tr>
<tr>
<td><strong>DISTRICT</strong></td>
<td>N N</td>
<td>char(4)</td>
<td>place</td>
</tr>
<tr>
<td><strong>BLOCK</strong></td>
<td>T N</td>
<td>char(1)</td>
<td>enum 1.0000-8.0000</td>
</tr>
<tr>
<td><strong>TRT</strong></td>
<td>N N</td>
<td>char(1)</td>
<td>enum 1.0000-6.0000</td>
</tr>
<tr>
<td><strong>PLOT</strong></td>
<td>T N</td>
<td>char(6)</td>
<td>place</td>
</tr>
<tr>
<td><strong>TRANS</strong></td>
<td>T N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td><strong>LIFEFORM</strong></td>
<td>N N</td>
<td>char(2)</td>
<td>enum</td>
</tr>
<tr>
<td><strong>US_SPP</strong></td>
<td>T Y</td>
<td>char(6)</td>
<td>taxa</td>
</tr>
</tbody>
</table>
### 11. Coarse Woody Debris (U-E)

**Attribute List:**

<table>
<thead>
<tr>
<th>Field</th>
<th>Requirement</th>
<th>Type</th>
<th>Attributes</th>
<th>Range/Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N N</td>
<td>char(5)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>ENTITY</td>
<td>N N</td>
<td>numeric(2,0)</td>
<td>range</td>
<td>11.0000 11.0000 number</td>
</tr>
<tr>
<td>YEAR</td>
<td>Y N</td>
<td>numeric(4,0)</td>
<td>range</td>
<td>1998.0000-2009.0000 YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N N</td>
<td>char(4)</td>
<td>place</td>
<td></td>
</tr>
<tr>
<td>BLOCK</td>
<td>Y N</td>
<td>char(1)</td>
<td>enum</td>
<td>1.0000 8.0000</td>
</tr>
<tr>
<td>TRANS</td>
<td>Y N</td>
<td>char(1)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>TRT</td>
<td>N N</td>
<td>char(1)</td>
<td>enum</td>
<td>1.0000 6.0000</td>
</tr>
<tr>
<td>PLOT</td>
<td>Y N</td>
<td>char(6)</td>
<td>place</td>
<td></td>
</tr>
<tr>
<td>TREESPP</td>
<td>Y Y</td>
<td>char(6)</td>
<td>taxa</td>
<td></td>
</tr>
<tr>
<td>PIECE_NO</td>
<td>Y Y</td>
<td>numeric(2,0)</td>
<td>range</td>
<td>1.0000 11.0000 number</td>
</tr>
<tr>
<td>DIAMETER</td>
<td>N Y</td>
<td>numeric(3,0)</td>
<td>range</td>
<td>10.0000 180.0000 cm</td>
</tr>
<tr>
<td>LENGTH</td>
<td>N Y</td>
<td>char(1)</td>
<td>enum</td>
<td>1.0000 5.0000</td>
</tr>
<tr>
<td>LDECAY</td>
<td>N Y</td>
<td>char(1)</td>
<td>enum</td>
<td>1.0000 5.0000</td>
</tr>
<tr>
<td>PTYPE</td>
<td>N Y</td>
<td>char(1)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>N N</td>
<td>varchar(30)</td>
<td>freetext</td>
<td></td>
</tr>
</tbody>
</table>

### 12. Natural Regeneration, 1998-1999 (U-F)

**Attribute List:**

<table>
<thead>
<tr>
<th>Field</th>
<th>Requirement</th>
<th>Type</th>
<th>Attributes</th>
<th>Range/Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N N</td>
<td>char(5)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>ENTITY</td>
<td>N N</td>
<td>numeric(2,0)</td>
<td>range</td>
<td>12.0000 12.0000 number</td>
</tr>
<tr>
<td>YEAR</td>
<td>T N</td>
<td>numeric(4,0)</td>
<td>range</td>
<td>1998.0000-1999.0000 YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N N</td>
<td>char(4)</td>
<td>place</td>
<td></td>
</tr>
<tr>
<td>Attribute</td>
<td>Type</td>
<td>Description</td>
<td>Minimum</td>
<td>Maximum</td>
</tr>
<tr>
<td>-------------</td>
<td>-------</td>
<td>-------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>BLOCK</td>
<td>T N</td>
<td>char(1) enum</td>
<td>1.0000</td>
<td>8.0000</td>
</tr>
<tr>
<td>TRT</td>
<td>N N</td>
<td>char(1) enum</td>
<td>1.0000</td>
<td>6.0000</td>
</tr>
<tr>
<td>PLOT</td>
<td>T N</td>
<td>char(6) place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANS</td>
<td>T N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TREESPP</td>
<td>T Y</td>
<td>char(6) taxa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTSEED1</td>
<td>N N</td>
<td>numeric(3,0) range</td>
<td>0.0000</td>
<td>83.0000</td>
</tr>
<tr>
<td>TOTSEED2</td>
<td>N N</td>
<td>numeric(3,0) range</td>
<td>0.0000</td>
<td>34.0000</td>
</tr>
<tr>
<td>TOTSEED3</td>
<td>N N</td>
<td>numeric(3,0) range</td>
<td>0.0000</td>
<td>18.0000</td>
</tr>
<tr>
<td>TOTSEED4</td>
<td>N N</td>
<td>numeric(3,0) range</td>
<td>0.0000</td>
<td>19.0000</td>
</tr>
<tr>
<td>TOTSEED5</td>
<td>N N</td>
<td>numeric(3,0) range</td>
<td>0.0000</td>
<td>5.0000</td>
</tr>
<tr>
<td>TOTSEED6</td>
<td>N N</td>
<td>numeric(3,0) range</td>
<td>0.0000</td>
<td>6.0000</td>
</tr>
<tr>
<td>PTYPE</td>
<td>N Y</td>
<td>char(1) enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>N N</td>
<td>varchar(30) freetext</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAMPLEDATE</td>
<td>N Y</td>
<td>datetime YYYY-MM-DD</td>
<td>6/2/1998 12:00:00 AM</td>
<td>9/13/1999 12:00:00 AM</td>
</tr>
</tbody>
</table>

### Attribute List (O-A, O-E, and O-G)

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N N</td>
<td>char(5) enum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENTITY</td>
<td>N N</td>
<td>numeric(2,0) range</td>
<td>13.0000</td>
<td>13.0000</td>
<td>number</td>
</tr>
<tr>
<td>YEAR</td>
<td>Y N</td>
<td>numeric(4,0) range</td>
<td>1998.0000</td>
<td>2016.0000</td>
<td>YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N N</td>
<td>char(4) place</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLOCK</td>
<td>N N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRT</td>
<td>N N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLOT</td>
<td>N N</td>
<td>char(6) place</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QTR</td>
<td>N Y</td>
<td>numeric(1,0) range</td>
<td>1.0000</td>
<td>4.0000</td>
<td>number</td>
</tr>
<tr>
<td>TAGNO</td>
<td>N Y</td>
<td>numeric(5,0) range</td>
<td>1.0000</td>
<td>999999.0000</td>
<td>number</td>
</tr>
<tr>
<td>TREESPP</td>
<td>N Y</td>
<td>char(6) taxa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBH</td>
<td>N Y</td>
<td>numeric(5,1) range</td>
<td>1.6000</td>
<td>171.4000</td>
<td>cm</td>
</tr>
<tr>
<td>STATUS</td>
<td>N N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOPHT</td>
<td>N Y</td>
<td>numeric(5,2) range</td>
<td>1.3000</td>
<td>77.3000</td>
<td>m</td>
</tr>
<tr>
<td>CANOPY</td>
<td>N N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TREEVIGOR</td>
<td>N N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CROWN1</td>
<td>N N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CROWN2</td>
<td>N N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CROWN3</td>
<td>N N</td>
<td>char(1) enum</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Required</th>
<th>Optional</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BOLE1</strong></td>
<td>N</td>
<td>N</td>
<td>char(1) enum</td>
</tr>
<tr>
<td><strong>BOLE2</strong></td>
<td>N</td>
<td>N</td>
<td>char(1) enum</td>
</tr>
<tr>
<td><strong>BOLE3</strong></td>
<td>N</td>
<td>N</td>
<td>char(1) enum</td>
</tr>
<tr>
<td><strong>DISTURB1</strong></td>
<td>N</td>
<td>N</td>
<td>char(1) enum</td>
</tr>
<tr>
<td><strong>DISTURB2</strong></td>
<td>N</td>
<td>N</td>
<td>char(1) enum</td>
</tr>
<tr>
<td><strong>OLDTAG</strong></td>
<td>Y</td>
<td>N</td>
<td>numeric(4,0) range 1.0000 9999.0000 number</td>
</tr>
<tr>
<td><strong>PLANTED</strong></td>
<td>N</td>
<td>N</td>
<td>char(1) enum</td>
</tr>
<tr>
<td><strong>PTYPE</strong></td>
<td>N</td>
<td>N</td>
<td>char(1) enum</td>
</tr>
<tr>
<td><strong>TCOMMENT</strong></td>
<td>N</td>
<td>Y</td>
<td>varchar(254) freetext</td>
</tr>
<tr>
<td><strong>PERSONNEL</strong></td>
<td>N</td>
<td>N</td>
<td>varchar(30) freetext</td>
</tr>
<tr>
<td><strong>SAMPLEDATE</strong></td>
<td>N</td>
<td>N</td>
<td>datetime range 6/4/1998 12:00:00 AM 8/31/2016 12:00:00 AM YYYY-MM-DD</td>
</tr>
<tr>
<td><strong>TREEID</strong></td>
<td>Y</td>
<td>N</td>
<td>varchar(13) freetext</td>
</tr>
</tbody>
</table>

### Attribute List:

**DATA CODE**: N N char(5) enum

**ENTITY**: N N numeric(2,0) range 14.0000 14.0000 number

**YEAR**: Y N numeric(4,0) range 1998.00002016.0000 YYYY

**DISTRICT**: N N char(4) place

**BLOCK**: N N char(1) enum 1.0000 8.0000

**TRT**: N N char(1) enum 1.0000 6.0000

**PLOT**: N N char(6) place

**QTR**: N Y numeric(1,0) range 1.0000 4.0000 number

**TAG**: N Y numeric(5,0) range 1.0000 999999.0000 number

**OLDTAG**: N Y numeric(4,0) range 2.0000 7916.0000 number

**TREESPP**: N Y char(6) taxa

**STOPHT**: N Y numeric(5,1) range 0.0000 75.0000 m

**SDBH**: N Y numeric(3,0) range 24.0000 200.0000 cm

**SHTCLASS**: N Y char(1) enum 1.0000 4.0000

**SDECAY**: N Y char(1) enum 1.0000 5.0000

**LEAN**: N Y numeric(3,0) range 0.0000 90.0000 deg angle

**ORIGIN**: N Y char(1) enum

**SNAGSTATUS**: N Y char(1) enum

**PTYPE**: N Y char(1) enum

**COMMENTS**: N Y varchar(254) freetext

---

### 14. Snags (O-B, O-F, and O-F2)

**Attribute List:**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Required</th>
<th>Optional</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DATA CODE</strong></td>
<td>N</td>
<td>N</td>
<td>char(5) enum</td>
</tr>
<tr>
<td><strong>ENTITY</strong></td>
<td>N</td>
<td>N</td>
<td>numeric(2,0) range 14.0000 14.0000 number</td>
</tr>
<tr>
<td><strong>YEAR</strong></td>
<td>Y</td>
<td>N</td>
<td>numeric(4,0) range 1998.00002016.0000 YYYY</td>
</tr>
<tr>
<td><strong>DISTRICT</strong></td>
<td>N</td>
<td>N</td>
<td>char(4) place</td>
</tr>
<tr>
<td><strong>BLOCK</strong></td>
<td>N</td>
<td>N</td>
<td>char(1) enum 1.0000 8.0000</td>
</tr>
<tr>
<td><strong>TRT</strong></td>
<td>N</td>
<td>N</td>
<td>char(1) enum 1.0000 6.0000</td>
</tr>
<tr>
<td><strong>PLOT</strong></td>
<td>N</td>
<td>N</td>
<td>char(6) place</td>
</tr>
<tr>
<td><strong>QTR</strong></td>
<td>N</td>
<td>Y</td>
<td>numeric(1,0) range 1.0000 4.0000 number</td>
</tr>
<tr>
<td><strong>TAG</strong></td>
<td>N</td>
<td>Y</td>
<td>numeric(5,0) range 1.0000 999999.0000 number</td>
</tr>
<tr>
<td><strong>OLDTAG</strong></td>
<td>N</td>
<td>Y</td>
<td>numeric(4,0) range 2.0000 7916.0000 number</td>
</tr>
<tr>
<td><strong>TREESPP</strong></td>
<td>N</td>
<td>Y</td>
<td>char(6) taxa</td>
</tr>
<tr>
<td><strong>STOPHT</strong></td>
<td>N</td>
<td>Y</td>
<td>numeric(5,1) range 0.0000 75.0000 m</td>
</tr>
<tr>
<td><strong>SDBH</strong></td>
<td>N</td>
<td>Y</td>
<td>numeric(3,0) range 24.0000 200.0000 cm</td>
</tr>
<tr>
<td><strong>SHTCLASS</strong></td>
<td>N</td>
<td>Y</td>
<td>char(1) enum 1.0000 4.0000</td>
</tr>
<tr>
<td><strong>SDECAY</strong></td>
<td>N</td>
<td>Y</td>
<td>char(1) enum 1.0000 5.0000</td>
</tr>
<tr>
<td><strong>LEAN</strong></td>
<td>N</td>
<td>Y</td>
<td>numeric(3,0) range 0.0000 90.0000 deg angle</td>
</tr>
<tr>
<td><strong>ORIGIN</strong></td>
<td>N</td>
<td>Y</td>
<td>char(1) enum</td>
</tr>
<tr>
<td><strong>SNAGSTATUS</strong></td>
<td>N</td>
<td>Y</td>
<td>char(1) enum</td>
</tr>
<tr>
<td><strong>PTYPE</strong></td>
<td>N</td>
<td>Y</td>
<td>char(1) enum</td>
</tr>
<tr>
<td><strong>COMMENTS</strong></td>
<td>N</td>
<td>Y</td>
<td>varchar(254) freetext</td>
</tr>
</tbody>
</table>
### Attribute List: Tree Heights, Post-harvest (O-C)

<table>
<thead>
<tr>
<th>Field</th>
<th>Type</th>
<th>Description</th>
<th>N/A</th>
<th>Range/Enum</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N N</td>
<td>char(5)</td>
<td>enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENTITY</td>
<td>N N</td>
<td>numeric(2,0)</td>
<td>range</td>
<td>15.0000 15.0000</td>
<td>number</td>
</tr>
<tr>
<td>YEAR</td>
<td>Y N</td>
<td>numeric(4,0)</td>
<td>range</td>
<td>1999.0000 2016.0000</td>
<td>YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N N</td>
<td>char(4)</td>
<td>place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLOCK</td>
<td>N N</td>
<td>char(1)</td>
<td>place</td>
<td>1.0000 8.0000</td>
<td></td>
</tr>
<tr>
<td>TRT</td>
<td>N N</td>
<td>char(1)</td>
<td>place</td>
<td>1.0000 6.0000</td>
<td></td>
</tr>
<tr>
<td>PLOT</td>
<td>N N</td>
<td>char(6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QTR</td>
<td>N Y</td>
<td>numeric(1,0)</td>
<td>range</td>
<td>1.0000 4.0000</td>
<td>number</td>
</tr>
<tr>
<td>TAGNO</td>
<td>N N</td>
<td>numeric(5,0)</td>
<td>range</td>
<td>1.0000 99999.0000</td>
<td>number</td>
</tr>
<tr>
<td>TREESPP</td>
<td>N Y</td>
<td>char(6)</td>
<td>taxa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CANOPY</td>
<td>N Y</td>
<td>char(1)</td>
<td>enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBH</td>
<td>N Y</td>
<td>numeric(5,1)</td>
<td>range</td>
<td>2.1000 180.0000</td>
<td>number</td>
</tr>
<tr>
<td>TOPHT</td>
<td>N Y</td>
<td>numeric(5,2)</td>
<td>range</td>
<td>0.6000 80.0000</td>
<td>m</td>
</tr>
<tr>
<td>HTLOWBR</td>
<td>N Y</td>
<td>numeric(5,2)</td>
<td>range</td>
<td>0.0000 60.0000</td>
<td>m</td>
</tr>
<tr>
<td>PTYPE</td>
<td>N N</td>
<td>char(1)</td>
<td>enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMMENTS</td>
<td>N Y</td>
<td>varchar(254)</td>
<td>freetext</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>N Y</td>
<td>varchar(30)</td>
<td>freetext</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAMPLEDATE</td>
<td>N Y</td>
<td>datetime</td>
<td>range</td>
<td>9/9/1999 8/31/2016</td>
<td>YYYY-MM-DD</td>
</tr>
<tr>
<td>TREESID</td>
<td>Y N</td>
<td>varchar(13)</td>
<td>freetext</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Attribute List: Percent Overstory Canopy Cover: Truck Mirrors (U-H)

<table>
<thead>
<tr>
<th>Field</th>
<th>Type</th>
<th>Description</th>
<th>N/A</th>
<th>Range/Enum</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N N</td>
<td>char(5)</td>
<td>enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENTITY</td>
<td>N N</td>
<td>numeric(2,0)</td>
<td>range</td>
<td>16.0000 16.0000</td>
<td>number</td>
</tr>
<tr>
<td>YEAR</td>
<td>T N</td>
<td>numeric(4,0)</td>
<td>range</td>
<td>1998.0000 999.0000</td>
<td>YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N N</td>
<td>char(4)</td>
<td>place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLOCK</td>
<td>T N</td>
<td>char(1)</td>
<td>place</td>
<td>1.0000 8.0000</td>
<td></td>
</tr>
<tr>
<td>TRT</td>
<td>N N</td>
<td>char(1)</td>
<td>place</td>
<td>1.0000 6.0000</td>
<td></td>
</tr>
<tr>
<td>PLOT</td>
<td>T N</td>
<td>char(6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attribute</td>
<td>Description</td>
<td>Type</td>
<td>Range</td>
<td>Comments</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>------</td>
<td>-------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>LOCATION</td>
<td>T N char(1)</td>
<td>enum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MMARK</td>
<td>T Y char(1)</td>
<td>enum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NECOVER</td>
<td>N Y numeric(3,0)</td>
<td>range 0.0000 100.0000 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NWCOVER</td>
<td>N Y numeric(3,0)</td>
<td>range 0.0000 100.0000 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SECOVER</td>
<td>N Y numeric(3,0)</td>
<td>range 0.0000 100.0000 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWCOVER</td>
<td>N Y numeric(3,0)</td>
<td>range 0.0000 100.0000 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTYPE</td>
<td>N N char(1)</td>
<td>enum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMMENTS</td>
<td>N Y varchar(254)</td>
<td>freetext</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>N N varchar(30)</td>
<td>freetext</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAMPLEDATE</td>
<td>N Y datetime</td>
<td>range YYYY-MM-DD</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Attribute List:**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
<th>Type</th>
<th>Range</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N N char(5)</td>
<td>enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENTITY</td>
<td>N N numeric(2,0)</td>
<td>range 17.0000 17.0000 number</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YEAR</td>
<td>T N numeric(4,0)</td>
<td>range 1998.0000 999.0000 YYYY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N N char(4)</td>
<td>place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLOCK</td>
<td>T N char(1)</td>
<td>enum</td>
<td>1.0000 8.0000</td>
<td></td>
</tr>
<tr>
<td>TRT</td>
<td>N N char(1)</td>
<td>enum</td>
<td>1.0000 6.0000</td>
<td></td>
</tr>
<tr>
<td>PLOT</td>
<td>T N char(6)</td>
<td>place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANS</td>
<td>T N char(1)</td>
<td>enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVTYPE</td>
<td>T N char(7)</td>
<td>enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC</td>
<td>T N numeric(1,0)</td>
<td>range 1.0000 3.0000 number</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSTART1</td>
<td>N Y numeric(4,2)</td>
<td>range 0.0000 5.9800 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEND1</td>
<td>N Y numeric(4,2)</td>
<td>range 0.0200 6.0000 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSTART2</td>
<td>N Y numeric(4,2)</td>
<td>range 0.1900 5.9800 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEND2</td>
<td>N Y numeric(4,2)</td>
<td>range 0.3200 6.0000 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSTART3</td>
<td>N Y numeric(4,2)</td>
<td>range 0.4000 5.9800 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEND3</td>
<td>N Y numeric(4,2)</td>
<td>range 0.5300 6.0000 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSTART4</td>
<td>N Y numeric(4,2)</td>
<td>range 0.5800 5.9700 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEND4</td>
<td>N Y numeric(4,2)</td>
<td>range 1.2800 6.0000 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSTART5</td>
<td>N Y numeric(4,2)</td>
<td>range 1.4600 5.9800 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEND5</td>
<td>N Y numeric(4,2)</td>
<td>range 1.8000 6.0000 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTYPE</td>
<td>N Y char(1)</td>
<td>enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>N N varchar(30)</td>
<td>freetext</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 18. Disturbance Assessment: Slash Depth (U-I2)

**Attribute List:**
- **DATACODE** N N char(5) enum
- **ENTITY** N N numeric(2,0) range 18.0000 18.0000 number
- **YEAR** T N numeric(4,0) range 1998.0000 1999.0000 YYYY
- **DISTRICT** N N char(4) place
- **BLOCK** T N char(1) enum 1.0000 8.0000
- **TRT** N N char(1) enum 1.0000 6.0000
- **PLOT** T N char(6) place
- **TRANS** T N char(1) enum
- **METMARK** T N numeric(3,1) range 0.5000 6.0000 m
- **DEPTH** N Y numeric(3,0) range 0.0000 169.0000 cm
- **PTYPE** N Y char(1) enum
- **PERSONNEL** N N varchar(30) freetext
- **SAMPLEDATE** N Y datetime range 6/4/1998 12:00:00 AM 9/22/1999 12:00:00 AM YYYY-MM-DD

### 19. Planted Trees (U-G, U-G2)

**Attribute List:**
- **DATACODE** N N char(5) enum
- **ENTITY** N N numeric(2,0) range 19.0000 19.0000 number
- **YEAR** Y N numeric(4,0) range 1998.0000 2009.0000 YYYY
- **DISTRICT** N N char(4) place
- **BLOCK** N N char(1) enum 1.0000 8.0000
- **TRT** N N char(1) enum 1.0000 6.0000
- **PLOT** N N char(6) place
- **QTR** N Y numeric(1,0) range 1.0000 4.0000 number
- **TAGNO** N Y numeric(5,0) range 1.0000 99999.0000 number
- **OLDTAG** N Y numeric(4,0) range 1.0000 9999.0000 number
- **TREESPP** N Y char(6) taxa
- **HEIGHT** N Y numeric(4,0) range 2.0000 2500.0000 cm
- **HT2002** N Y numeric(4,0) range 11.0000 360.0000 cm
- **LEADGRWTH1** N Y numeric(5,1) range 0.0000 99.0000 cm
- **LEADGRWTH2** N Y numeric(5,1) range 0.1000 200.0000 cm
### 20. Plot Photo Comments

<table>
<thead>
<tr>
<th>Attribute</th>
<th>N</th>
<th>Y</th>
<th>Column Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N</td>
<td>N</td>
<td>char(5)</td>
<td>enum</td>
</tr>
<tr>
<td>ENTITY</td>
<td>N</td>
<td>N</td>
<td>numeric(2,0)</td>
<td>range 20.0000 20.0000 number</td>
</tr>
<tr>
<td>PRE_POST</td>
<td>N</td>
<td>N</td>
<td>char(4)</td>
<td>enum</td>
</tr>
<tr>
<td>PHOTO_YEAR</td>
<td>Y</td>
<td>Y</td>
<td>numeric(4,0)</td>
<td>range 1996.00002006.0000 YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N</td>
<td>N</td>
<td>char(4)</td>
<td>place</td>
</tr>
<tr>
<td>BLOCK</td>
<td>T</td>
<td>N</td>
<td>char(1)</td>
<td>enum 1.0000 8.0000</td>
</tr>
<tr>
<td>TRT</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum 1.0000 6.0000</td>
</tr>
<tr>
<td>PLOT</td>
<td>T</td>
<td>N</td>
<td>char(6)</td>
<td>place</td>
</tr>
<tr>
<td>TRANS</td>
<td>T</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>MISSING</td>
<td>N</td>
<td>Y</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>PHOTO_NR</td>
<td>T</td>
<td>Y</td>
<td>numeric(2,0)</td>
<td>range 1.0000 4.0000 number</td>
</tr>
<tr>
<td>PHOTONAME</td>
<td>Y</td>
<td>Y</td>
<td>varchar(20)</td>
<td>freetext</td>
</tr>
<tr>
<td>PCOMMENTS</td>
<td>N</td>
<td>Y</td>
<td>varchar(160)</td>
<td>freetext</td>
</tr>
</tbody>
</table>

### 21. Tree Mortality (O-D)

<table>
<thead>
<tr>
<th>Attribute</th>
<th>N</th>
<th>Y</th>
<th>Column Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N</td>
<td>N</td>
<td>char(5)</td>
<td>enum</td>
</tr>
<tr>
<td>ENTITY</td>
<td>N</td>
<td>N</td>
<td>numeric(2,0)</td>
<td>range 21.0000 21.0000 number</td>
</tr>
<tr>
<td>YEAR</td>
<td>Y</td>
<td>N</td>
<td>numeric(4,0)</td>
<td>range 1999.00002016.0000 YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N</td>
<td>N</td>
<td>char(4)</td>
<td>place</td>
</tr>
<tr>
<td>BLOCK</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>TRT</td>
<td>N</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
</tr>
<tr>
<td>PLOT</td>
<td>N</td>
<td>N</td>
<td>char(6)</td>
<td>place</td>
</tr>
<tr>
<td>QTR</td>
<td>N</td>
<td>N</td>
<td>numeric(1,0)</td>
<td>range 1.0000 4.0000 number</td>
</tr>
<tr>
<td>TAGNO</td>
<td>N</td>
<td>Y</td>
<td>numeric(5,0)</td>
<td>range 1.0000 9999.0000 number</td>
</tr>
<tr>
<td>Attribute</td>
<td>Type</td>
<td>Description</td>
<td>Data Type</td>
<td>Minimum</td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
<td>-----------------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>TREESPP</td>
<td>N</td>
<td>taxa</td>
<td>char(6)</td>
<td></td>
</tr>
<tr>
<td>DBH</td>
<td>N</td>
<td>numeric(5,1)</td>
<td>range</td>
<td>0.0000</td>
</tr>
<tr>
<td>CANOPY</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>RCROWN</td>
<td>N</td>
<td>numeric(3,0)</td>
<td>range</td>
<td>0.0000</td>
</tr>
<tr>
<td>RTREE</td>
<td>N</td>
<td>numeric(3,0)</td>
<td>range</td>
<td>0.0000</td>
</tr>
<tr>
<td>LEAN</td>
<td>N</td>
<td>numeric(3,0)</td>
<td>range</td>
<td>0.0000</td>
</tr>
<tr>
<td>POSITION</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>DIRECT</td>
<td>N</td>
<td>numeric(3,0)</td>
<td>range</td>
<td>1.0000</td>
</tr>
<tr>
<td>COND1</td>
<td>N</td>
<td>char(2)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>COND2</td>
<td>N</td>
<td>char(2)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>COND3</td>
<td>N</td>
<td>char(2)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>COND4</td>
<td>N</td>
<td>char(2)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>COND5</td>
<td>N</td>
<td>char(2)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>COND6</td>
<td>N</td>
<td>char(2)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>PTYPE</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
<td></td>
</tr>
<tr>
<td>COMMENTS</td>
<td>N</td>
<td>varchar(254)</td>
<td>freetext</td>
<td></td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>N</td>
<td>varchar(30)</td>
<td>freetext</td>
<td></td>
</tr>
<tr>
<td>SAMPLEDATE</td>
<td>N</td>
<td>datetime</td>
<td>range</td>
<td>9/10/1999</td>
</tr>
<tr>
<td>TRE Eid</td>
<td>Y</td>
<td>varchar(13)</td>
<td>freetext</td>
<td></td>
</tr>
</tbody>
</table>

**24. Natural Regeneration, 2003-2016 (U-F2)**

**Attribute List:**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Type</th>
<th>Description</th>
<th>Data Type</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATACODE</td>
<td>N</td>
<td>enum</td>
<td>char(5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENTITY</td>
<td>N</td>
<td>numeric(2,0)</td>
<td>range</td>
<td>24.0000</td>
<td>24.0000 number</td>
</tr>
<tr>
<td>YEAR</td>
<td>Y</td>
<td>numeric(4,0)</td>
<td>range</td>
<td>2003.0000</td>
<td>2016.0000 YYYY</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>N</td>
<td>char(4)</td>
<td>place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLOCK</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
<td>1.0000</td>
<td>8.0000</td>
</tr>
<tr>
<td>TRT</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
<td>1.0000</td>
<td>6.0000</td>
</tr>
<tr>
<td>PLOT</td>
<td>N</td>
<td>char(6)</td>
<td>place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANS</td>
<td>N</td>
<td>char(1)</td>
<td>enum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TREESPP</td>
<td>N</td>
<td>taxa</td>
<td>char(6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HTOT12</td>
<td>N</td>
<td>numeric(3,0)</td>
<td>range</td>
<td>0.0000</td>
<td>57.0000 number</td>
</tr>
<tr>
<td>HTOT25</td>
<td>N</td>
<td>numeric(3,0)</td>
<td>range</td>
<td>0.0000</td>
<td>75.0000 number</td>
</tr>
<tr>
<td>HTOT510</td>
<td>N</td>
<td>numeric(3,0)</td>
<td>range</td>
<td>0.0000</td>
<td>23.0000 number</td>
</tr>
<tr>
<td>HTOT1015</td>
<td>N</td>
<td>numeric(3,0)</td>
<td>range</td>
<td>0.0000</td>
<td>17.0000 number</td>
</tr>
</tbody>
</table>
**DATA CODE** | N | N | char(5) | enum
---|---|---|---|---
**ENTITY** | N | N | numeric(2,0) | range 25.0000 25.0000 number
**YEAR** | N | N | numeric(4,0) | range 2003.0000 2003.0000 YYYY
**DISTRICT** | N | N | char(4) | place
**BLOCK** | N | N | char(1) | enum 1.0000 8.0000
**TRT** | N | N | char(1) | enum 1.0000 6.0000
**PLOT** | N | N | char(6) | place
**TRANS** | N | Y | char(1) | enum
**TAGNO** | N | Y | numeric(5,0) | range 1.0000 4500.0000 number
**TREESPP** | N | Y | char(6) | taxa
**DBH** | N | Y | numeric(5,1) | range 0.3000 25.0000 cm
**HT2002** | N | N | numeric(4,0) | range 0.0000 442.0000 cm
**HTBASE** | N | Y | numeric(4,0) | range 0.0000 286.0000 cm
**CRNWDTH1** | N | Y | numeric(3,0) | range 2.0000 222.0000 cm
**CRNWDTH2** | N | Y | numeric(3,0) | range 2.0000 237.0000 cm
**GRWTH2002** | N | Y | numeric(4,1) | range 0.0000 49.0000 cm
**GRWTH2001** | N | Y | numeric(4,1) | range 0.0000 44.4000 cm
**GRWTH2000** | N | Y | numeric(4,1) | range 0.0000 30.0000 cm
**GRWTH1999** | N | Y | numeric(4,1) | range 0.0000 27.8000 cm
**GRWTH1998** | N | Y | numeric(4,1) | range 0.0000 25.8000 cm
**GRWTH1997** | N | Y | numeric(4,1) | range 0.0000 21.3000 cm
**CROWN1** | N | Y | char(1) | enum
**CROWN2** | N | Y | char(1) | enum
Attributes Definitions:

BEARING
  Compass bearing of the transect from 4m to 10m

BLOCK
  Sample block number

BLSPP
  Species code according to Garrison et al., 1976

BOLE1
  Bole Condition 1

BOLE2
  Bole Condition 2

BOLE3
  Bole Condition 3

CANOPY
  Canopy Class

CEND1
  The ending meter mark intersected by the first vertical projection of a cover type's surface

CEND2
  The ending meter mark intersected by the 2nd projection of a cover type's surface

CEND3
  The ending meter mark intersected by the 3rd projection of a cover type's surface

CEND4
  The ending meter mark intersected by the 4th projection of a cover type's surface

CEND5
  The ending meter mark intersected by the 5th projection of a cover type's surface

COMMENTS
  Comments

COND1
Code 1 for physical condition of tree
COND2
Code 2 for physical condition of tree
COND3
Code 3 for physical condition of tree
COND4
Code 4 for physical condition of tree
COND5
Code 5 for physical condition of tree
COND6
Code 6 for physical condition of tree
COVER
Cover; proportion of ground surface
COVER1
Percent cover of lichens or bryophytes in microplot 1
COVER2
Percent cover of lichens or bryophytes in microplot 2
COVER3
Percent cover of lichens or bryophytes in microplot 3
COVER4
Percent cover of lichens or bryophytes in microplot 4
COVER5
Percent cover of lichens or bryophytes in microplot 5
COVER6
Percent cover of lichens or bryophytes in microplot 6
COVTYPE
Type of Disturbance Cover
CRNWDTH1
Crown width 1st
CRNWDTH2
Crown width 2nd
CROWN1
Crown Condition 1
CROWN2
Crown Condition 2
CROWN3
Crown Condition 3
CSTART1
The beginning meter mark intersected by the first vertical projection of a cover type's surface

CSTART2
The beginning meter mark intersected by the 2nd projection of a cover type's surface

CSTART3
The beginning meter mark intersected by the 3rd projection of a cover type's surface

CSTART4
The beginning meter mark intersected by the 4th projection of a cover type's surface

CSTART5
The beginning meter mark intersected by the 5th projection of a cover type's surface

DATACODE
FSBD Database Code

DBH
Diameter at breast height

DEPTH
Slash Depth

DIAMETER
Log diameter perpendicular to the long axis of the log where it intersects the transect line

DIRECT
Direction (azimuth) of uprooting or stem breakage

DIST1
Disturbance Code 1

DIST2
Disturbance Code 2

DISTRICT
National Forest System Code indicating location of the study block by National Forest and Ranger District

DISTURB1
Disturbance 1

DISTURB2
Disturbance 2

DTOT01
Number of saplings 0 - 1cm DBH

DTOT12
Number of saplings >1 - 2cm DBH

DTOT23
Number of saplings >2 - 3cm DBH

DTOT34
Number of saplings >3 - 4cm DBH

DTOT45

Number of saplings >4 - 5cm DBH

END1

The ending meter mark intersected by the first vertical projection of a cover

END2

The ending meter mark intersected by the 2nd projection of a species’ canopy

END3

The ending meter mark intersected by the 3rd projection of a species’ canopy

END4

The ending meter mark intersected by the 4th projection of a species’ canopy

END5

The ending meter mark intersected by the 5th projection of a species’ canopy

ENTITY

Entity Number

GRWTH1997

1997 height growth

GRWTH1998

1998 height growth

GRWTH1999

1999 height growth

GRWTH2000

2000 height growth

GRWTH2001

2001 height growth

GRWTH2002

2002 height growth

HCOVER1

Projected canopy cover for total herbs or cover of individual Herb species in microplot 1

HCOVER2

Projected canopy cover for total herbs or cover of individual Herb species in microplot 2

HCOVER3

Projected canopy cover for total herbs or cover of individual Herb species in microplot 3

HCOVER4

Projected canopy cover for total herbs or cover of individual Herb species in microplot 4

HCOVER5

Projected canopy cover for total herbs or cover of individual Herb species in microplot 5
HCOVER6
    Projected canopy cover for total herbs or cover of individual Herb species in microplot 6
HEIGHT
    Seedling Height
HEIGHT1
    Maximum Height of Herb Species in microplot 1
HEIGHT2
    Maximum Height of Herb Species in microplot 2
HEIGHT3
    Maximum Height of Herb Species in microplot 3
HEIGHT4
    Maximum Height of Herb Species in microplot 4
HEIGHT5
    Maximum Height of Herb Species in microplot 5
HEIGHT6
    Maximum Height of Herb Species in microplot 6
HT1
    Max Height of species in Interval 1 (0-1 meters)
HT2
    Max Height of species in Interval 2 (1-2 meters)
HT2002
    Height in 2002
HT3
    Max Height of species in Interval 3 (2-3 meters)
HT4
    Max Height of species in Interval 4 (3-4 meters)
HT5
    Max Height of species in Interval 5 (4-5 meters)
HT6
    Max Height of species in Interval 6 (5-6 meters)
HTBASE
    Height to lowest live branch
HTLOWBR
    Height to the lowest live branch
HTOT1015
    Number of saplings >1.0 - 1.5 m tall
HTOT12
Number of saplings 0.1 - 0.2 m tall

HTOT25

Number of saplings >0.2 - 0.5 m tall

HTOT510

Number of saplings >0.5 - 1.0 m tall

LC

The number of lines of a single record within a species, growth form class or cover type

LDECAY

A ranking which expresses the degree of decay of a log

LEADGRWTH1


LEADGRWTH2

Previous year’s leader growth (in centimeters). Applies to 2003, 2009, and any subsequent year’s sampling.

LEAN

The lean angle of a snag or dead tree in degrees from vertical

LENGTH

Length class of the log or piece of wood

LIFEFORM

A two-letter character indicating a general class of plants

LOCATION

Location of Canopy Measurement

METMARK

Meter Mark

MICROPLOT

The number of the Daubenmire plot (0.2 x 0.5 m) used to sample understory attributes

MISSING

Missing photo indicator field

MMARK

Distance along Transect

NECOVER

Percent Overstory Cover in NE Quadrant

NRTRSEED1

Total Number of Tree Seedlings in Microplot 1

NRTRSEED2

Total Number of Tree Seedlings in Microplot 2

NRTRSEED3

Total Number of Tree Seedlings in Microplot 3
NRTRSEED4
  Total Number of Tree Seedlings in Microplot 4

NRTRSEED5
  Total Number of Tree Seedlings in Microplot 5

NRTRSEED6
  Total Number of Tree Seedlings in Microplot 6

NWCOVER
  Percent Overstory Cover in NW Quadrant

OCCURRENCE
  Occurrence of a species within a plot and transect. If greater than 1, then the specific species identification is unknown, but known to be different than other species on that plot and transect

OLDTAG
  Old Tag Number

ORIGIN
  Origin of snag

PERSONNEL
  Name(s) of crew member(s) who sampled plots

PHOTO_NR
  Sequential photo number within transect

PHOTO_YEAR
  Year in which photo was taken

PHOTONAME
  Name of photo

PIECE_NO
  Unique CWD piece number by block, plot, and transect used as the primary key

PLANTED
  Indicates if tree was planted

PLOT
  Sample plot code designating block, plot, and a grid system location (e.g. 1A7: 1 = TRT, A = Row, 7 = Column)

POSITION
  Code for tree position

PRE_POST
  Indicates pre or post picture

PRESENT1
  Presence or Absence of Species in microplot 1

PRESENT2
  Presence or Absence of Species in microplot 2

PRESENT3
Presence or Absence of Species in microplot 3

PRESENT4

Presence or Absence of Species in microplot 4

PRESENT5

Presence or Absence of Species in microplot 5

PRESENT6

Presence or Absence of Species in microplot 6

PTYPE
  Code indicating uncut (0) or cut (1) Plot

QTR
  Plot Quarter

RCROWN
  Percent crown remaining

REBAR10
  Actual distance in meters of the 10m rebar from the plot center

REBAR4
  Actual distance in meters of the 4m rebar from the plot center

REBARINT
  Actual distance in meters of intermediate rebar (those between 4m and 10m) from the plot center

REBARINT2
  Actual distance in meters of intermediate rebar2 (those between 4m and 10m) from the plot center

REBARINT3
  Actual distance in meters of intermediate rebar3 (those between 4m and 10m) from the plot center

REBARINT4
  Actual distance in meters of intermediate rebar4 (those between 4m and 10m) from the plot center

REGENID
  Unique identifier for tree regeneration for database purposes; composed of 'P', block, plot, trans, treespp (otherwise blank for treespp)

RTREE
  Percent tree remaining

SAMPLEDATE
  Date on which plot was sampled

SDBH
  The snag diameter at breast height (for exceptions, see field manual)

SDECAY
  A ranking which expresses the degree of decay of a snag

SECOVER
  Percent Overstory Cover in SE Quadrant
SHTCLASS
   Snag height class

SNAGID
   Unique snag identifier assigned to each individual for database purposes; typically composed of 'P', block, plot, qtr and, if a tag is present, tagno, otherwise a unique number or character

SNAGSTATUS
   Snag status

SPECIES
   Species code

START1
   The beginning meter mark intersected by the first vertical projection of a species' canopy

START2
   The beginning meter mark intersected by the 2nd projection of a species' canopy

START3
   The beginning meter mark intersected by the 3rd projection of a species' canopy

START4
   The beginning meter mark intersected by the 4th projection of a species' canopy

START5
   The beginning meter mark intersected by the 5th projection of a species' canopy

STATUS
   Status of Tree or Seedling

STEM1
   Stem Condition 1

STEM2
   Stem Condition 2

STOPHT
   the top (or total) height of a snag (in meters)

SUBS11
   Substrate 1

SUBS12
   Substrate 2

SUBS13
   Substrate 3

SUBSTRATE
   Ground surface characteristic

SWCOVER
   Percent Overstory Cover in SW Quadrant

TAG
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snag number or unique snag ID, if tag is missing</td>
<td></td>
</tr>
<tr>
<td>TAGNO</td>
<td>Tag Number</td>
</tr>
<tr>
<td>TOPHT</td>
<td>Total Tree Height</td>
</tr>
<tr>
<td>TOTCOVER1</td>
<td>Total Cover of Herbs in Microplot 1</td>
</tr>
<tr>
<td>TOTCOVER2</td>
<td>Total Cover of Herbs in Microplot 2</td>
</tr>
<tr>
<td>TOTCOVER3</td>
<td>Total Cover of Herbs in Microplot 3</td>
</tr>
<tr>
<td>TOTCOVER4</td>
<td>Total Cover of Herbs in Microplot 4</td>
</tr>
<tr>
<td>TOTCOVER5</td>
<td>Total Cover of Herbs in Microplot 5</td>
</tr>
<tr>
<td>TOTCOVER6</td>
<td>Total Cover of Herbs in Microplot 6</td>
</tr>
<tr>
<td>TOTSEED1</td>
<td>The total number of understory trees in height class 1</td>
</tr>
<tr>
<td>TOTSEED2</td>
<td>The total number of understory trees in height class 2</td>
</tr>
<tr>
<td>TOTSEED3</td>
<td>The total number of understory trees in height class 3</td>
</tr>
<tr>
<td>TOTSEED4</td>
<td>The total number of understory trees in height class 4</td>
</tr>
<tr>
<td>TOTSEED5</td>
<td>The total number of understory trees in height class 5</td>
</tr>
<tr>
<td>TOTSEED6</td>
<td>The total number of understory trees in height class 6</td>
</tr>
<tr>
<td>TRANS</td>
<td>Letter Code designating Transect (A,B,C,D)</td>
</tr>
<tr>
<td>TREEID</td>
<td>Unique tree id assigned to each individual for database purpose; typically composed of 'P', block, plot, qtr, tagno</td>
</tr>
<tr>
<td>TREESEED1</td>
<td>Number of tree seedlings in microplot 1</td>
</tr>
<tr>
<td>TREESEED2</td>
<td>Number of tree seedlings in microplot 2</td>
</tr>
</tbody>
</table>
TREESEED3
  Number of tree seedlings in microplot 3
TREESEED4
  Number of tree seedlings in microplot 4
TREESEED5
  Number of tree seedlings in microplot 5
TREESEED6
  Number of tree seedlings in microplot 6
TREESPP
  Tree species code according to Garrison et al., 1976
TREEVIGOR
  Tree Vigor Code
TRLOC_A
  Location in treatment unit of Transect A
TRLOC_B
  Location in treatment unit of Transect B
TRLOC_C
  Location in treatment unit of Transect C
TRLOC_D
  Location in treatment unit of Transect D
TRT
  Treatment unit
UPDATE_YR
  Most recent year in which a REBAR4, REBAR10, OR REBARINT distance was changed, or in which there is a grid point/center post comment
US_SPP
  Understory species code according to Garrison et al., 1976
VIGOR
  Vigor (1-3,6,9)
YEAR
  Year in which plot was sampled

Enumerated Domains:

Enumerated Domain for Attribute: BLOCK
  8  Capital Forest, Capital Forest, Thurston Co., WA
  1  Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
  7  Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
  6  Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF,Skamania Co.,
  5  Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3 Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2 Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
4 Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: PTYPE
0 Uncut Plot
1 Cut Plot

Enumerated Domain for Attribute: TRLOC_A
C clearcut area (TMT 2, 4, or 6)
A aggregated retention patch (TMT 4 or 6)
U uncut area (TMT 1 or 2)
D dispersed retention (TMT 3 or 5)
E edge (spanning two conditions) (TMT 2, 4 or 6)

Enumerated Domain for Attribute: TRLOC_B
C clearcut area (TMT 2, 4, or 6)
A aggregated retention patch (TMT 4 or 6)
U uncut area (TMT 1 or 2)
D dispersed retention (TMT 3 or 5)
E edge (spanning two conditions) (TMT 2, 4 or 6)

Enumerated Domain for Attribute: TRLOC_C
C clearcut area (TMT 2, 4, or 6)
A aggregated retention patch (TMT 4 or 6)
U uncut area (TMT 1 or 2)
D dispersed retention (TMT 3 or 5)
E edge (spanning two conditions) (TMT 2, 4 or 6)

Enumerated Domain for Attribute: TRLOC_D
C clearcut area (TMT 2, 4, or 6)
A aggregated retention patch (TMT 4 or 6)
U uncut area (TMT 1 or 2)
D dispersed retention (TMT 3 or 5)
E edge (spanning two conditions) (TMT 2, 4 or 6)

Enumerated Domain for Attribute: TRT
1 100% retention (uncut)
5 15% retention (dispersed)
6 15% retention (aggregated)
4 40% retention (aggregated)
2  75% retention with gaps
3  40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
TP108  FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
8  Capital Forest, Capital Forest, Thurston Co., WA
1  Watson Falls, Umpqua NF, Diamond Lake Dist., Douglas Co., OR
7  Paradise Hills, Gifford Pinchot NF, Wind River Dist., Skamania Co., WA
6  Little White Salmon, Gifford Pinchot NF, Mt. Adams Dist., NF, Skamania Co.,
5  Butte, Gifford Pinchot NF, Randle Dist., Skamania Co., WA
3  Layng Creek, Umpqua NF, Cottage Grove Dist., Lane Co., OR
2  Little River, Umpqua NF, N. Umpqua Dist., Douglas Co., OR
4  Dog Prairie, Umpqua NF, Diamond Lake Dist., Douglas Co., OR

Enumerated Domain for Attribute: TRANS
C  Transect C
D  Transect D
B  Transect B
A  Transect A
0  plot center (grid point)

Enumerated Domain for Attribute: DATACODE
TP108  FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
8  Capital Forest, Capital Forest, Thurston Co., WA
1  Watson Falls, Umpqua NF, Diamond Lake Dist., Douglas Co., OR
7  Paradise Hills, Gifford Pinchot NF, Wind River Dist., Skamania Co., WA
6  Little White Salmon, Gifford Pinchot NF, Mt. Adams Dist., NF, Skamania Co.,
5  Butte, Gifford Pinchot NF, Randle Dist., Skamania Co., WA
3  Layng Creek, Umpqua NF, Cottage Grove Dist., Lane Co., OR
2  Little River, Umpqua NF, N. Umpqua Dist., Douglas Co., OR
4  Dog Prairie, Umpqua NF, Diamond Lake Dist., Douglas Co., OR

Enumerated Domain for Attribute: LIFEFORM
T  Trees
TS  Tall Shrubs
L  Lichens
CT  Conifer Trees
HT Hardwood Trees
H Herbs
B Bryophytes
N Not measured

Enumerated Domain for Attribute: PRESENT1
1 present
0 absent

Enumerated Domain for Attribute: PRESENT2
1 present
0 absent

Enumerated Domain for Attribute: PRESENT3
1 present
0 absent

Enumerated Domain for Attribute: PRESENT4
1 present
0 absent

Enumerated Domain for Attribute: PRESENT5
1 present
0 absent

Enumerated Domain for Attribute: PRESENT6
1 present
0 absent

Enumerated Domain for Attribute: PTYPE
0 Uncut Plot
1 Cut Plot

Enumerated Domain for Attribute: SUBS11
M Mineral Soil
L Litter
F Fresh log or snag (class I or II)
O Other
D Decayed log or snag (class III - V)
T Tree Base/Snag Base
S Shrub (base/stem)
R Rock /Stone
P Stump
## Enumerated Domain for Attribute: SUBS12

<table>
<thead>
<tr>
<th>M</th>
<th>Mineral Soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Litter</td>
</tr>
<tr>
<td>F</td>
<td>Fresh log or snag (class I or II)</td>
</tr>
<tr>
<td>O</td>
<td>Other</td>
</tr>
<tr>
<td>D</td>
<td>Decayed log or snag (class III - V)</td>
</tr>
<tr>
<td>T</td>
<td>Tree Base/Snag Base</td>
</tr>
<tr>
<td>S</td>
<td>Shrub (base/stem)</td>
</tr>
<tr>
<td>R</td>
<td>Rock /Stone</td>
</tr>
<tr>
<td>P</td>
<td>Stump</td>
</tr>
</tbody>
</table>

## Enumerated Domain for Attribute: SUBS13

<table>
<thead>
<tr>
<th>M</th>
<th>Mineral Soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Litter</td>
</tr>
<tr>
<td>F</td>
<td>Fresh log or snag (class I or II)</td>
</tr>
<tr>
<td>O</td>
<td>Other</td>
</tr>
<tr>
<td>D</td>
<td>Decayed log or snag (class III - V)</td>
</tr>
<tr>
<td>T</td>
<td>Tree Base/Snag Base</td>
</tr>
<tr>
<td>S</td>
<td>Shrub (base/stem)</td>
</tr>
<tr>
<td>R</td>
<td>Rock /Stone</td>
</tr>
<tr>
<td>P</td>
<td>Stump</td>
</tr>
</tbody>
</table>

## Enumerated Domain for Attribute: SUBS21

<table>
<thead>
<tr>
<th>M</th>
<th>Mineral Soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Litter</td>
</tr>
<tr>
<td>F</td>
<td>Fresh log or snag (class I or II)</td>
</tr>
<tr>
<td>O</td>
<td>Other</td>
</tr>
<tr>
<td>D</td>
<td>Decayed log or snag (class III - V)</td>
</tr>
<tr>
<td>T</td>
<td>Tree Base/Snag Base</td>
</tr>
<tr>
<td>S</td>
<td>Shrub (base/stem)</td>
</tr>
<tr>
<td>R</td>
<td>Rock /Stone</td>
</tr>
<tr>
<td>P</td>
<td>Stump</td>
</tr>
</tbody>
</table>

## Enumerated Domain for Attribute: SUBS22

<table>
<thead>
<tr>
<th>M</th>
<th>Mineral Soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Litter</td>
</tr>
<tr>
<td>F</td>
<td>Fresh log or snag (class I or II)</td>
</tr>
<tr>
<td>O</td>
<td>Other</td>
</tr>
</tbody>
</table>
O  Other
D  Decayed log or snag (class III - V)
T  Tree Base/Snag Base
S  Shrub (base/stem)
R  Rock /Stone
P  Stump

Enumerated Domain for Attribute: SUBS23
M  Mineral Soil
L  Litter
F  Fresh log or snag (class I or II)
O  Other
D  Decayed log or snag (class III - V)
T  Tree Base/Snag Base
S  Shrub (base/stem)
R  Rock /Stone
P  Stump

Enumerated Domain for Attribute: SUBS31
M  Mineral Soil
L  Litter
F  Fresh log or snag (class I or II)
O  Other
D  Decayed log or snag (class III - V)
T  Tree Base/Snag Base
S  Shrub (base/stem)
R  Rock /Stone
P  Stump

Enumerated Domain for Attribute: SUBS32
M  Mineral Soil
L  Litter
F  Fresh log or snag (class I or II)
O  Other
D  Decayed log or snag (class III - V)
T  Tree Base/Snag Base
S  Shrub (base/stem)
R    Rock /Stone
P    Stump

Enumerated Domain for Attribute: SUBS33
M    Mineral Soil
L    Litter
F    Fresh log or snag (class I or II)
O    Other
D    Decayed log or snag (class III - V)
T    Tree Base/Snag Base
S    Shrub (base/stem)
R    Rock /Stone
P    Stump

Enumerated Domain for Attribute: SUBS41
M    Mineral Soil
L    Litter
F    Fresh log or snag (class I or II)
O    Other
D    Decayed log or snag (class III - V)
T    Tree Base/Snag Base
S    Shrub (base/stem)
R    Rock /Stone
P    Stump

Enumerated Domain for Attribute: SUBS42
M    Mineral Soil
L    Litter
F    Fresh log or snag (class I or II)
O    Other
D    Decayed log or snag (class III - V)
T    Tree Base/Snag Base
S    Shrub (base/stem)
R    Rock /Stone
P    Stump

Enumerated Domain for Attribute: SUBS43
M    Mineral Soil
| L  | Litter             |
| F  | Fresh log or snag (class I or II) |
| O  | Other              |
| D  | Decayed log or snag (class III - V) |
| T  | Tree Base/Snag Base |
| S  | Shrub (base/stem)  |
| R  | Rock /Stone        |
| P  | Stump              |

Enumerated Domain for Attribute: SUBS51
- M Mineral Soil
- L Litter
- F Fresh log or snag (class I or II)
- O Other
- D Decayed log or snag (class III - V)
- T Tree Base/Snag Base
- S Shrub (base/stem)
- R Rock /Stone
- P Stump

Enumerated Domain for Attribute: SUBS52
- M Mineral Soil
- L Litter
- F Fresh log or snag (class I or II)
- O Other
- D Decayed log or snag (class III - V)
- T Tree Base/Snag Base
- S Shrub (base/stem)
- R Rock /Stone
- P Stump

Enumerated Domain for Attribute: SUBS53
- M Mineral Soil
- L Litter
- F Fresh log or snag (class I or II)
- O Other
- D Decayed log or snag (class III - V)
| T   | Tree Base/Snag Base                                  |
| S   | Shrub (base/stem)                                   |
| R   | Rock /Stone                                         |
| P   | Stump                                               |

Enumerated Domain for Attribute: SUBS61

- **M** Mineral Soil
- **L** Litter
- **F** Fresh log or snag (class I or II)
- **O** Other
- **D** Decayed log or snag (class III - V)
- **T** Tree Base/Snag Base
- **S** Shrub (base/stem)
- **R** Rock /Stone
- **P** Stump

Enumerated Domain for Attribute: SUBS62

- **M** Mineral Soil
- **L** Litter
- **F** Fresh log or snag (class I or II)
- **O** Other
- **D** Decayed log or snag (class III - V)
- **T** Tree Base/Snag Base
- **S** Shrub (base/stem)
- **R** Rock /Stone
- **P** Stump

Enumerated Domain for Attribute: SUBS63

- **M** Mineral Soil
- **L** Litter
- **F** Fresh log or snag (class I or II)
- **O** Other
- **D** Decayed log or snag (class III - V)
- **T** Tree Base/Snag Base
- **S** Shrub (base/stem)
- **R** Rock /Stone
- **P** Stump
Enumerated Domain for Attribute: TRANS
C  Transect C
D  Transect D
B  Transect B
A  Transect A
0  plot center (grid point)

Enumerated Domain for Attribute: TRT
1  100% retention (uncut)
5  15% retention (dispersed)
6  15% retention (aggregated)
4  40% retention (aggregated)
2  75% retention with gaps
3  40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
TP108  FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
8  Capital Forest, Capital Forest, Thurston Co., WA
1  Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
7  Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
6  Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co.,
5  Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3  Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2  Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
4  Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: LIFEFORM
T  Trees
TS  Tall Shrubs
L  Lichens
CT  Conifer Trees
HT  Hardwood Trees
H  Herbs
B  Bryophytes
N  Not measured

Enumerated Domain for Attribute: PTYPE
0  Uncut Plot
1  Cut Plot

Enumerated Domain for Attribute: TRANS
  C  Transect C
  D  Transect D
  B  Transect B
  A  Transect A
  0  plot center (grid point)

Enumerated Domain for Attribute: TRT
  1  100% retention (uncut)
  5  15% retention (dispersed)
  6  15% retention (aggregated)
  4  40% retention (aggregated)
  2  75% retention with gaps
  3  40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
  TP108  FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
  8  Capital Forest, Capital Forest, Thurston Co., WA
  1  Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
  7  Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
  6  Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF,Skamania Co.,
  5  Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
  3  Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
  2  Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
  4  Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: LIFEFORM
  T  Trees
  TS  Tall Shrubs
  L  Lichens
  CT  Conifer Trees
  HT  Hardwood Trees
  H  Herbs
  B  Bryophytes
  N  Not measured
### Enumerated Domain for Attribute: PRESENT1
- **1**: present
- **0**: absent

### Enumerated Domain for Attribute: PRESENT2
- **1**: present
- **0**: absent

### Enumerated Domain for Attribute: PRESENT3
- **1**: present
- **0**: absent

### Enumerated Domain for Attribute: PRESENT4
- **1**: present
- **0**: absent

### Enumerated Domain for Attribute: PRESENT5
- **1**: present
- **0**: absent

### Enumerated Domain for Attribute: PRESENT6
- **1**: present
- **0**: absent

### Enumerated Domain for Attribute: PTYPE
- **0**: Uncut Plot
- **1**: Cut Plot

### Enumerated Domain for Attribute: TRANS
- **C**: Transect C
- **D**: Transect D
- **B**: Transect B
- **A**: Transect A
- **0**: plot center (grid point)

### Enumerated Domain for Attribute: TRT
- **1**: 100% retention (uncut)
- **5**: 15% retention (dispersed)
- **6**: 15% retention (aggregated)
- **4**: 40% retention (aggregated)
- **2**: 75% retention with gaps
- **3**: 40% retention (dispersed)
### Enumerated Domain for Attribute: DATACODE
- **TP108**: FSDB database code for Terrestrial Productivity, TP108

### Enumerated Domain for Attribute: BLOCK
- 8 Capital Forest, Capital Forest, Thurston Co., WA
- 1 Watson Falls, Umpqua NF, Diamond Lake Dist., Douglas Co., OR
- 7 Paradise Hills, Gifford Pinchot NF, Wind River Dist., Skamania Co., WA
- 6 Little White Salmon, Gifford Pinchot NF, Mt. Adams Dist., NF, Skamania Co., WA
- 5 Butte, Gifford Pinchot NF, Randle Dist., Skamania Co., WA
- 3 Layng Creek, Umpqua NF, Cottage Grove Dist., Lane Co., OR
- 2 Little River, Umpqua NF, N. Umpqua Dist., Douglas Co., OR
- 4 Dog Prairie, Umpqua NF, Diamond Lake Dist., Douglas Co., OR

### Enumerated Domain for Attribute: LIFEFORM
- **T**: Trees
- **TS**: Tall Shrubs
- **L**: Lichens
- **CT**: Conifer Trees
- **HT**: Hardwood Trees
- **H**: Herbs
- **B**: Bryophytes
- **N**: Not measured

### Enumerated Domain for Attribute: PTYPE
- **0**: Uncut Plot
- **1**: Cut Plot

### Enumerated Domain for Attribute: TRANS
- **C**: Transect C
- **D**: Transect D
- **B**: Transect B
- **A**: Transect A
- **0**: Plot center (grid point)

### Enumerated Domain for Attribute: TRT
- **1**: 100% retention (uncut)
- **5**: 15% retention (dispersed)
- **6**: 15% retention (aggregated)
- **4**: 40% retention (aggregated)
- **2**: 75% retention with gaps
<table>
<thead>
<tr>
<th></th>
<th>40% retention (dispersed)</th>
</tr>
</thead>
</table>

**Enumerated Domain for Attribute: DATACODE**
- **TP108**
  - FSD database code for Terrestrial Productivity, TP108

**Enumerated Domain for Attribute: BLOCK**
- **8**
  - Capital Forest, Capital Forest, Thurston Co., WA
- **1**
  - Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
- **7**
  - Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
- **6**
  - Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co., WA
- **5**
  - Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
- **3**
  - Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
- **2**
  - Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
- **4**
  - Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

**Enumerated Domain for Attribute: LIFEFORM**
- **T**
  - Trees
- **TS**
  - Tall Shrubs
- **L**
  - Lichens
- **CT**
  - Conifer Trees
- **HT**
  - Hardwood Trees
- **H**
  - Herbs
- **B**
  - Bryophytes
- **N**
  - Not measured

**Enumerated Domain for Attribute: PTYPE**
- **0**
  - Uncut Plot
- **1**
  - Cut Plot

**Enumerated Domain for Attribute: TRANS**
- **C**
  - Transect C
- **D**
  - Transect D
- **B**
  - Transect B
- **A**
  - Transect A
- **0**
  - Plot center (grid point)

**Enumerated Domain for Attribute: TRT**
- **1**
  - 100% retention (uncut)
- **5**
  - 15% retention (dispersed)
- **6**
  - 15% retention (aggregated)
- **4**
  - 40% retention (aggregated)
2 75% retention with gaps
3 40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
TP108 FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
8 Capital Forest, Capital Forest, Thurston Co., WA
1 Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
7 Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
6 Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co.,
5 Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3 Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2 Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
4 Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: PTYPE
0 Uncut Plot
1 Cut Plot

Enumerated Domain for Attribute: SUBSTRATE
MINSOIL Mineral Soil
LTREEBR Live Tree Base, Root, Branches
STONE Stone
FLITTER Fine Litter Substrate
STUMP Stump, Stump Root
CLITTER Coarse Litter Substrate
SCAT Animal Scat
MTRAP Metal Trap
WINDTH Windthrown Tree
SHSTEM Shrub Stem, Shrub Base, Shrub Root
APRINT Animal Print
BONE Animal Bone
PITFALL Pit Fall Trap
MUD Mud
FTPATH Footpath
ABURR Animal Burrow
WATER Standing Water
SKDRD  Skid Road
SNAG    Snag
TUMOUND Tip-up mound
DECALOG Decayed Log Chunks, CWDEB, Tree Bark
SUSPLOG Suspended Log
TREEBOL Live Tree Bole
ASH     Ashes
CHARCOL Charcoal
STREAM  Stream bed/channel with water
ROOTWAD Rootwad, holds mineral soil
OTHER   Other substrate; not listed or not defined

Enumerated Domain for Attribute: TRANS
C     Transect C
D     Transect D
B     Transect B
A     Transect A
0     plot center (grid point)

Enumerated Domain for Attribute: TRT
1     100% retention (uncut)
5     15% retention (dispersed)
6     15% retention (aggregated)
4     40% retention (aggregated)
2     75% retention with gaps
3     40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
TP108  FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
8     Capital Forest, Capital Forest, Thurston Co., WA
1     Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
7     Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
6     Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co.,
5     Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3     Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2     Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
Enumerated Domain for Attribute: LIFEFORM
  T  Trees
  TS Tall Shrubs
  L  Lichens
  CT Conifer Trees
  HT Hardwood Trees
  H  Herbs
  B  Bryophytes
  N  Not measured

Enumerated Domain for Attribute: PTYPE
  0 Uncut Plot
  1 Cut Plot

Enumerated Domain for Attribute: TRANS
  C  Transect C
  D  Transect D
  B  Transect B
  A  Transect A
  0 plot center (grid point)

Enumerated Domain for Attribute: TRT
  1 100% retention (uncut)
  5 15% retention (dispersed)
  6 15% retention (aggregated)
  4 40% retention (aggregated)
  2 75% retention with gaps
  3 40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
  TP108 FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
  8 Capital Forest, Capital Forest, Thurston Co., WA
  1 Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
  7 Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
  6 Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co., WA
  5 Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
  3 Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR</td>
</tr>
<tr>
<td>4</td>
<td>Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR</td>
</tr>
</tbody>
</table>

Enumerated Domain for Attribute: **LIFEFORM**
- **T** Trees
- **TS** Tall Shrubs
- **L** Lichens
- **CT** Conifer Trees
- **HT** Hardwood Trees
- **H** Herbs
- **B** Bryophytes
- **N** Not measured

Enumerated Domain for Attribute: **PTYPE**
- 0 Uncut Plot
- 1 Cut Plot

Enumerated Domain for Attribute: **TRANS**
- **C** Transect C
- **D** Transect D
- **B** Transect B
- **A** Transect A
- 0 plot center (grid point)

Enumerated Domain for Attribute: **TRT**
- 1 100% retention (uncut)
- 5 15% retention (dispersed)
- 6 15% retention (aggregated)
- 4 40% retention (aggregated)
- 2 75% retention with gaps
- 3 40% retention (dispersed)

Enumerated Domain for Attribute: **DATACODE**
- **TP108** FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: **BLOCK**
- 8 Capital Forest, Capital Forest, Thurston Co., WA
- 1 Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
- 7 Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
- 6 Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., N.F., Skamania Co.,
- 5 Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3 Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2 Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
4 Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: LDECAY
M Missing L decay
4 Bark absent; twigs <3 cm in diam absent; texture--wood chunks small, soft, blocky; cross-section round to oval; color light to brown-yellow; log on ground
5 Bark and twigs <3 cm in diam absent; texture--wood soft and powdery; cross-section oval; wood color light yellow or gray; all of log on ground
2 Bark intact; twigs <3 cm in diam absent; texture--wood intact to partly-soft; cross-section round; wood original color; log elevated but sagging slightly
1 Bark intact; twigs <3 cm in diam present; texture-- wood intact; log cross-section round; wood original color; log elevated on support points
3 Bark loose/missing in places; <3 cm in diam absent; wood hard but in large pieces; cross-section round; wood original color/faded; log sagging near ground

Enumerated Domain for Attribute: LENGTH
1 <= 0.5 m
4 > 5.0 - 10.0 m
5 > 10.0 m
3 > 1.0 - 5.0 m
M Missing Length
2 > 0.5 - 1.0 m

Enumerated Domain for Attribute: PTYPE
0 Uncut Plot
1 Cut Plot

Enumerated Domain for Attribute: TRANS
C Transect C
D Transect D
B Transect B
A Transect A
0 plot center (grid point)

Enumerated Domain for Attribute: TRT
1 100% retention (uncut)
5 15% retention (dispersed)
6 15% retention (aggregated)
4 40% retention (aggregated)
2 75% retention with gaps
3 40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
TP108 FSDB database code for Terrestrial Productivity, TP108
Enumerated Domain for Attribute: BLOCK
8 Capital Forest, Capital Forest, Thurston Co., WA
1 Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
7 Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
6 Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co.,
5 Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3 Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2 Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
4 Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: PTYPE
0 Uncut Plot
1 Cut Plot

Enumerated Domain for Attribute: TRANS
C Transect C
D Transect D
B Transect B
A Transect A
0 plot center (grid point)

Enumerated Domain for Attribute: TRT
1 100% retention (uncut)
5 15% retention (dispersed)
6 15% retention (aggregated)
4 40% retention (aggregated)
2 75% retention with gaps
3 40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
TP108 FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
8 Capital Forest, Capital Forest, Thurston Co., WA
1 Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
7 Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
6 Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co.,
5 Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3 Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2 Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
Enumerated Domain for Attribute: BOLE1
8  Crook(s) in bole
U  Not recorded
9  Conk(s) present
7  Sweeping
3  Butt swell (if abnormal for species)
6  Grouse ladder
5  Leaning
1  Straight bole
2  Pistol butt
4  Forked or multiple boles

Enumerated Domain for Attribute: BOLE2
8  Crook(s) in bole
U  Not recorded
9  Conk(s) present
7  Sweeping
3  Butt swell (if abnormal for species)
6  Grouse ladder
5  Leaning
1  Straight bole
2  Pistol butt
4  Forked or multiple boles

Enumerated Domain for Attribute: BOLE3
8  Crook(s) in bole
U  Not recorded
9  Conk(s) present
7  Sweeping
3  Butt swell (if abnormal for species)
6  Grouse ladder
5  Leaning
1  Straight bole
2  Pistol butt
4  Forked or multiple boles
## Enumerated Domain for Attribute: CANOPY

<table>
<thead>
<tr>
<th>Domain</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Intermediate</td>
</tr>
<tr>
<td>S</td>
<td>Suppressed</td>
</tr>
<tr>
<td>D</td>
<td>Dominant</td>
</tr>
<tr>
<td>C</td>
<td>Co-dominant</td>
</tr>
<tr>
<td>9</td>
<td>Not recorded</td>
</tr>
</tbody>
</table>

## Enumerated Domain for Attribute: CROWN1

<table>
<thead>
<tr>
<th>Domain</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Crook in crown</td>
</tr>
<tr>
<td>6</td>
<td>Half-crowned</td>
</tr>
<tr>
<td>9</td>
<td>Flat top</td>
</tr>
<tr>
<td>8</td>
<td>Witch's broom</td>
</tr>
<tr>
<td>5</td>
<td>Unknown tops</td>
</tr>
<tr>
<td>4</td>
<td>Dead top</td>
</tr>
<tr>
<td>1</td>
<td>Good condition</td>
</tr>
<tr>
<td>3</td>
<td>Multiple tops/leaders</td>
</tr>
<tr>
<td>2</td>
<td>Broken top</td>
</tr>
<tr>
<td>U</td>
<td>Not recorded</td>
</tr>
</tbody>
</table>

## Enumerated Domain for Attribute: CROWN2

<table>
<thead>
<tr>
<th>Domain</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Crook in crown</td>
</tr>
<tr>
<td>6</td>
<td>Half-crowned</td>
</tr>
<tr>
<td>9</td>
<td>Flat top</td>
</tr>
<tr>
<td>8</td>
<td>Witch's broom</td>
</tr>
<tr>
<td>5</td>
<td>Unknown tops</td>
</tr>
<tr>
<td>4</td>
<td>Dead top</td>
</tr>
<tr>
<td>1</td>
<td>Good condition</td>
</tr>
<tr>
<td>3</td>
<td>Multiple tops/leaders</td>
</tr>
<tr>
<td>2</td>
<td>Broken top</td>
</tr>
<tr>
<td>U</td>
<td>Not recorded</td>
</tr>
</tbody>
</table>

## Enumerated Domain for Attribute: CROWN3

<table>
<thead>
<tr>
<th>Domain</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Crook in crown</td>
</tr>
<tr>
<td>6</td>
<td>Half-crowned</td>
</tr>
<tr>
<td>9</td>
<td>Flat top</td>
</tr>
<tr>
<td>8</td>
<td>Witch's broom</td>
</tr>
<tr>
<td>5</td>
<td>Unknown tops</td>
</tr>
</tbody>
</table>
4  Dead top
1  Good condition
3  Multiple tops/leaders
2  Broken top
U  Not recorded

Enumerated Domain for Attribute: DISTURB1
3  Old Scar(s)
1  No scar(s)
2  Fresh scar(s) (logging scar)
U  Not recorded

Enumerated Domain for Attribute: DISTURB2
3  Old Scar(s)
1  No scar(s)
2  Fresh scar(s) (logging scar)
U  Not recorded

Enumerated Domain for Attribute: PTYPE
0  Uncut Plot
1  Cut Plot

Enumerated Domain for Attribute: STATUS
9  Tree missing
0  Tree measured at plot establishment
1  Tree remeasured
6  Tree died
2  Ingrowth
8  No trees present in this year
U  Unknown/not recorded

Enumerated Domain for Attribute: TREEVIGOR
9  missing
3  Poor
6  Dead
1  Good
2  Fair
U  unknown

Enumerated Domain for Attribute: TRT
1  100% retention (uncut)
5 15% retention (dispersed)
6 15% retention (aggregated)
4 40% retention (aggregated)
2 75% retention with gaps
3 40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
TP108 FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: PLANTED
U Not recorded (if TreeID was ever status 2 in the past, i.e., originating as ingrowth, then "Planted" is undetermined)
P Tree was planted
N Tree was not planted
X No trees present on plot

Enumerated Domain for Attribute: BLOCK
8 Capital Forest, Capital Forest, Thurston Co., WA
1 Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
7 Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
6 Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co.,
5 Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3 Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2 Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
4 Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: ORIGIN
W Created wildlife snag
N Natural Snag
9 no snag present in plot

Enumerated Domain for Attribute: PTYPE
0 Uncut Plot
1 Cut Plot

Enumerated Domain for Attribute: SDECAY
3 Needles, twigs absent; bark absent
4 Needles, twigs absent; top broken out
5 Needles, twigs absent; bark absent; top broken out; decomposition obvious
2 Needles, twigs present; bark loose
9 Class missing due to snag missing, not present in plot, or not recorded
1 Needles, twigs present; bark tight
<table>
<thead>
<tr>
<th>Enumerated Domain for Attribute: SHTCLASS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>&gt;1.5 - 5.0 m</td>
</tr>
<tr>
<td>4</td>
<td>&gt;15.0 m</td>
</tr>
<tr>
<td>3</td>
<td>&gt;5.0 - 15.0 m</td>
</tr>
<tr>
<td>1</td>
<td>0.5 - 1.5 m</td>
</tr>
<tr>
<td>9</td>
<td>Class missing due to snag missing, not present in plot, or not recorded</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enumerated Domain for Attribute: SNAGSTATUS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>establishment year</td>
</tr>
<tr>
<td>1</td>
<td>present at remeasurement</td>
</tr>
<tr>
<td>9</td>
<td>missing; snag cannot be located</td>
</tr>
<tr>
<td>2</td>
<td>new snag in current year</td>
</tr>
<tr>
<td>6</td>
<td>snag has fallen, no longer in current population</td>
</tr>
<tr>
<td>8</td>
<td>no snag present in plot</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enumerated Domain for Attribute: TRT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100% retention (uncut)</td>
</tr>
<tr>
<td>5</td>
<td>15% retention (dispersed)</td>
</tr>
<tr>
<td>6</td>
<td>15% retention (aggregated)</td>
</tr>
<tr>
<td>4</td>
<td>40% retention (aggregated)</td>
</tr>
<tr>
<td>2</td>
<td>75% retention with gaps</td>
</tr>
<tr>
<td>3</td>
<td>40% retention (dispersed)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enumerated Domain for Attribute: DATACODE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TP108</td>
<td>FSDB database code for Terrestrial Productivity, TP108</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enumerated Domain for Attribute: BLOCK</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Capital Forest, Capital Forest, Thurston Co., WA</td>
</tr>
<tr>
<td>1</td>
<td>Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR</td>
</tr>
<tr>
<td>7</td>
<td>Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA</td>
</tr>
<tr>
<td>6</td>
<td>Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF,Skamania Co.,</td>
</tr>
<tr>
<td>5</td>
<td>Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA</td>
</tr>
<tr>
<td>3</td>
<td>Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR</td>
</tr>
<tr>
<td>2</td>
<td>Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR</td>
</tr>
<tr>
<td>4</td>
<td>Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enumerated Domain for Attribute: CANOPY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Intermediate</td>
</tr>
<tr>
<td>S</td>
<td>Suppressed</td>
</tr>
<tr>
<td>D</td>
<td>Dominant</td>
</tr>
</tbody>
</table>
C Co-dominant
9 Not recorded

Enumerated Domain for Attribute: PTYPE
0 Uncut Plot
1 Cut Plot

Enumerated Domain for Attribute: TRT
1 100% retention (uncut)
5 15% retention (dispersed)
6 15% retention (aggregated)
4 40% retention (aggregated)
2 75% retention with gaps
3 40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
TP108 FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
8 Capital Forest, Capital Forest, Thurston Co., WA
1 Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
7 Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
6 Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co.,
5 Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3 Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2 Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
4 Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: LOCATION
C Transect C
A Transect A
B Transect B
D Transect D
X Plot Center

Enumerated Domain for Attribute: MMARK
6 End of Transect
0 Start of Transect

Enumerated Domain for Attribute: PTYPE
0 Uncut Plot
1 Cut Plot

Enumerated Domain for Attribute: TRT
1 100% retention (uncut)
5 15% retention (dispersed)
6 15% retention (aggregated)
4 40% retention (aggregated)
2 75% retention with gaps
3 40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
TP108 FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
8 Capital Forest, Capital Forest, Thurston Co., WA
1 Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
7 Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
6 Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co., WA
5 Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3 Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2 Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
4 Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: COVTYPE
CLITTER Coarse litter (< 10 cm diam.), not of harvest origin
STONE Stone, Rock (> 7 cm)
STUMP Stump, old or newly created
SLASH Slash (<10 cm diam.), derived from harvest activity
DSOIL Disturbed mineral soil
SKID Skid trail
FLOOR Intact forest floor
LOG Log (>=10 cm diam.); includes bark
LTREEBR Live tree base, bole, or root
HOLE Hole in the ground, burrow
TRAIL human-created trail
ROAD logging road or road edge
BURNP slash pile that has been burned
STREAMB Stream bed/channel with water
SHSTEM  Shrub stem, root, or base
RTWAD  Rootwad, holds mineral soil
SNAG  Snag, includes base and root
CLUMBER  cut lumber (for amphibian study)

Enumerated Domain for Attribute: PTYPE
0  Uncut Plot
1  Cut Plot

Enumerated Domain for Attribute: TRANS
C  Transect C
D  Transect D
B  Transect B
A  Transect A
0  plot center (grid point)

Enumerated Domain for Attribute: TRT
1  100% retention (uncut)
5  15% retention (dispersed)
6  15% retention (aggregated)
4  40% retention (aggregated)
2  75% retention with gaps
3  40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
TP108  FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
8  Capital Forest, Capital Forest, Thurston Co., WA
1  Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
7  Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
6  Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF,Skamania Co.,
5  Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3  Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2  Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
4  Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: PTYPE
0  Uncut Plot
1  Cut Plot
### Enumerated Domain for Attribute: TRANS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Transect C</td>
</tr>
<tr>
<td>D</td>
<td>Transect D</td>
</tr>
<tr>
<td>B</td>
<td>Transect B</td>
</tr>
<tr>
<td>A</td>
<td>Transect A</td>
</tr>
<tr>
<td>0</td>
<td>plot center (grid point)</td>
</tr>
</tbody>
</table>

### Enumerated Domain for Attribute: TRT

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100% retention (uncut)</td>
</tr>
<tr>
<td>5</td>
<td>15% retention (dispersed)</td>
</tr>
<tr>
<td>6</td>
<td>15% retention (aggregated)</td>
</tr>
<tr>
<td>4</td>
<td>40% retention (aggregated)</td>
</tr>
<tr>
<td>2</td>
<td>75% retention with gaps</td>
</tr>
<tr>
<td>3</td>
<td>40% retention (dispersed)</td>
</tr>
</tbody>
</table>

### Enumerated Domain for Attribute: DATACODE

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP108</td>
<td>FSDB database code for Terrestrial Productivity, TP108</td>
</tr>
</tbody>
</table>

### Enumerated Domain for Attribute: BLOCK

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Capital Forest, Capital Forest, Thurston Co., WA</td>
</tr>
<tr>
<td>1</td>
<td>Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR</td>
</tr>
<tr>
<td>7</td>
<td>Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA</td>
</tr>
<tr>
<td>6</td>
<td>Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co.,</td>
</tr>
<tr>
<td>5</td>
<td>Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA</td>
</tr>
<tr>
<td>3</td>
<td>Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR</td>
</tr>
<tr>
<td>2</td>
<td>Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR</td>
</tr>
<tr>
<td>4</td>
<td>Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR</td>
</tr>
</tbody>
</table>

### Enumerated Domain for Attribute: PTYPE

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Uncut Plot</td>
</tr>
<tr>
<td>1</td>
<td>Cut Plot</td>
</tr>
</tbody>
</table>

### Enumerated Domain for Attribute: STATUS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Tree missing</td>
</tr>
<tr>
<td>0</td>
<td>Tree measured at plot establishment</td>
</tr>
<tr>
<td>1</td>
<td>Tree remeasured</td>
</tr>
<tr>
<td>6</td>
<td>Tree died</td>
</tr>
<tr>
<td>2</td>
<td>Ingrowth</td>
</tr>
<tr>
<td>8</td>
<td>No trees present in this year</td>
</tr>
<tr>
<td>U</td>
<td>Unknown/not recorded</td>
</tr>
</tbody>
</table>
Enumerated Domain for Attribute: TRT
1  100% retention (uncut)
5  15% retention (dispersed)
6  15% retention (aggregated)
4  40% retention (aggregated)
2  75% retention with gaps
3  40% retention (dispersed)

Enumerated Domain for Attribute: VIGOR
1  Good (no apparent sign of distress)
9  Missing
3  Poor (extreme distress apparent, death imminent)
6  Dead
2  Fair (some signs of distress)
8  No trees present in plot (qtr=0 and tag=0)
U  Unknown/not recorded

Enumerated Domain for Attribute: DATACODE
TP108  FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
8  Capital Forest, Capital Forest, Thurston Co., WA
1  Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
7  Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
6  Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co.,
5  Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3  Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2  Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
4  Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: MISSING
Y  Photo missing

Enumerated Domain for Attribute: PRE_POST
post  Photo taken after application of treatment
pre  Photo taken before application of treatment

Enumerated Domain for Attribute: TRANS
C  Transect C
D  Transect D
B  Transect B
A Transect A
0 plot center (grid point)

Enumerated Domain for Attribute: TRT
1 100% retention (uncut)
5 15% retention (dispersed)
6 15% retention (aggregated)
4 40% retention (aggregated)
2 75% retention with gaps
3 40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
TP108 FSDB database code for Terrestrial Productivity, TP108

Enumerated Domain for Attribute: BLOCK
8 Capital Forest, Capital Forest, Thurston Co., WA
1 Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
7 Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
6 Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF,Skamania Co.,
5 Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3 Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2 Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
4 Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: CANOPY
I Intermediate
S Suppressed
D Dominant
C Co-dominant
9 Not recorded

Enumerated Domain for Attribute: COND1
41 pitch tubes on bole
21 rot at break
42 beetle galleries
99 no condition code
52 rot (note type and position)
1 green needles/leaves present
4 dead several years
11  crown flat-topped
 3  bark sloughing
53  tree hollow
 2  dead needles/leaves present
55  oozing wounds
54  pitch sheets
72  girdling (comment)
73  woodpecker/sapsucker activity
14  crown stripped by falling tree or snag
71  scarring of bole (comment)
60  witch's broom
56  mistletoe
12  evidence of earlier loss of part of crown
13  spike top/top dieback

Enumerated Domain for Attribute: COND2
 41  pitch tubes on bole
 21  rot at break
 42  beetle galleries
 99  no condition code
 52  rot (note type and position)
  1  green needles/leaves present
  4  dead several years
11  crown flat-topped
  3  bark sloughing
53  tree hollow
  2  dead needles/leaves present
55  oozing wounds
54  pitch sheets
72  girdling (comment)
73  woodpecker/sapsucker activity
14  crown stripped by falling tree or snag
71  scarring of bole (comment)
 60  witch's broom
 56  mistletoe
12 evidence of earlier loss of part of crown
13 spike top/top dieback

Enumerated Domain for Attribute: COND3
41 pitch tubes on bole
21 rot at break
42 beetle galleries
99 no condition code
52 rot (note type and position)
1 green needles/leaves present
4 dead several years
11 crown flat-topped
3 bark sloughing
53 tree hollow
2 dead needles/leaves present
55 oozing wounds
54 pitch sheets
72 girdling (comment)
73 woodpecker/sapsucker activity
14 crown stripped by falling tree or snag
71 scarring of bole (comment)
60 witch's broom
56 mistletoe
12 evidence of earlier loss of part of crown
13 spike top/top dieback

Enumerated Domain for Attribute: COND4
41 pitch tubes on bole
21 rot at break
42 beetle galleries
99 no condition code
52 rot (note type and position)
1 green needles/leaves present
4 dead several years
11 crown flat-topped
3 bark sloughing
- 53: tree hollow
- 2: dead needles/leaves present
- 55: oozing wounds
- 54: pitch sheets
- 72: girdling (comment)
- 73: woodpecker/sapsucker activity
- 14: crown stripped by falling tree or snag
- 71: scarring of bole (comment)
- 60: witch's broom
- 56: mistletoe
- 12: evidence of earlier loss of part of crown
- 13: spike top/top dieback

Enumerated Domain for Attribute: COND5
- 41: pitch tubes on bole
- 21: rot at break
- 42: beetle galleries
- 99: no condition code
- 52: rot (note type and position)
- 1: green needles/leaves present
- 4: dead several years
- 11: crown flat-topped
- 3: bark sloughing
- 53: tree hollow
- 2: dead needles/leaves present
- 55: oozing wounds
- 54: pitch sheets
- 72: girdling (comment)
- 73: woodpecker/sapsucker activity
- 14: crown stripped by falling tree or snag
- 71: scarring of bole (comment)
- 60: witch's broom
- 56: mistletoe
- 12: evidence of earlier loss of part of crown
- 13: spike top/top dieback
Enumerated Domain for Attribute: COND6

41 pitch tubes on bole
21 rot at break
42 beetle galleries
99 no condition code
52 rot (note type and position)
1 green needles/leaves present
4 dead several years
11 crown flat-topped
3 bark sloughing
53 tree hollow
2 dead needles/leaves present
55 oozing wounds
54 pitch sheets
72 girdling (comment)
73 woodpecker/sapsucker activity
14 crown stripped by falling tree or snag
71 scarring of bole (comment)
60 witch's broom
56 mistletoe
12 evidence of earlier loss of part of crown
13 spike top/top dieback

Enumerated Domain for Attribute: POSITION

3 crushed but rooted
4 uprooted
2 main stem broken
1 Standing w/ crown
9 position is unknown; tree is missing

Enumerated Domain for Attribute: PTYPE

0 Uncut Plot
1 Cut Plot

Enumerated Domain for Attribute: TRT

1 100% retention (uncut)
5 15% retention (dispersed)
<table>
<thead>
<tr>
<th></th>
<th>Retention Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>15% retention (aggregated)</td>
</tr>
<tr>
<td>4</td>
<td>40% retention (aggregated)</td>
</tr>
<tr>
<td>2</td>
<td>75% retention with gaps</td>
</tr>
<tr>
<td>3</td>
<td>40% retention (dispersed)</td>
</tr>
</tbody>
</table>

**Enumerated Domain for Attribute: DATACODE**

- **TP108** FSDB database code for Terrestrial Productivity, TP108

**Enumerated Domain for Attribute: BLOCK**

- **8** Capital Forest, Capital Forest, Thurston Co., WA
- **1** Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
- **7** Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
- **6** Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co.,
- **5** Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
- **3** Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
- **2** Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
- **4** Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

**Enumerated Domain for Attribute: PTYPE**

- **0** Uncut Plot
- **1** Cut Plot

**Enumerated Domain for Attribute: TRANS**

- **C** Transect C
- **D** Transect D
- **B** Transect B
- **A** Transect A
- **0** plot center (grid point)

**Enumerated Domain for Attribute: TRT**

- **1** 100% retention (uncut)
- **5** 15% retention (dispersed)
- **6** 15% retention (aggregated)
- **4** 40% retention (aggregated)
- **2** 75% retention with gaps
- **3** 40% retention (dispersed)

**Enumerated Domain for Attribute: DATACODE**

- **TP108** FSDB database code for Terrestrial Productivity, TP108

**Enumerated Domain for Attribute: BLOCK**

- **8** Capital Forest, Capital Forest, Thurston Co., WA
1  Watson Falls, Umpqua NF, Diamond Lake Distr., Douglas Co., OR
7  Paradise Hills, Gifford Pinchot NF, Wind River Distr., Skamania Co., WA
6  Little White Salmon, Gifford Pinchot NF, Mt. Adams Distr., NF, Skamania Co.,
5  Butte, Gifford Pinchot NF, Randle Distr., Skamania Co., WA
3  Layng Creek, Umpqua NF, Cottage Grove Distr., Lane Co., OR
2  Little River, Umpqua NF, N. Umpqua Distr., Douglas Co., OR
4  Dog Prairie, Umpqua NF, Diamond Lake Distr., Douglas Co., OR

Enumerated Domain for Attribute: CROWN1
7  Crook in crown
6  Half-crowned
9  Flat top
8  Witch's broom
5  Unknown tops
4  Dead top
1  Good condition
3  Multiple tops/leaders
2  Broken top
U  Not recorded

Enumerated Domain for Attribute: CROWN2
7  Crook in crown
6  Half-crowned
9  Flat top
8  Witch's broom
5  Unknown tops
4  Dead top
1  Good condition
3  Multiple tops/leaders
2  Broken top
U  Not recorded

Enumerated Domain for Attribute: DIST1
3  Old Scar(s)
1  No scar(s)
2  Fresh scar(s) (logging scar)
U  Not recorded
Enumerated Domain for Attribute: DIST2
3 Old Scar(s)
1 No scar(s)
2 Fresh scar(s) (logging scar)
U Not recorded

Enumerated Domain for Attribute: PTYPE
0 Uncut Plot
1 Cut Plot

Enumerated Domain for Attribute: STEM1
1 Straight stem
3 Butt swell (if abnormal for species)
6 lost dominance in terminal leader
5 Leaning
2 Pistol butt
4 Forked or multiple stems
9 foliage discoloration
7 Sweep
8 Crook(s) in stem

Enumerated Domain for Attribute: STEM2
1 Straight stem
3 Butt swell (if abnormal for species)
6 lost dominance in terminal leader
5 Leaning
2 Pistol butt
4 Forked or multiple stems
9 foliage discoloration
7 Sweep
8 Crook(s) in stem

Enumerated Domain for Attribute: TRANS
C Transect C
D Transect D
B Transect B
A Transect A
0 plot center (grid point)

Enumerated Domain for Attribute: TRT
1  100% retention (uncut)
5  15% retention (dispersed)
6  15% retention (aggregated)
4  40% retention (aggregated)
2  75% retention with gaps
3  40% retention (dispersed)

Enumerated Domain for Attribute: DATACODE
TP108 FSDB database code for Terrestrial Productivity, TP108