Database Code: DF007

**Title:** Dendrochronology study of fire history, Andrews Experimental Forest and central western Cascades, Oregon, 1482-1952

**Abstract:**

Fire history is documented for an 11,000 hectare (27,110 acre) area in the western Oregon Cascades, including H. J. Andrews Experimental Forest. Fire scar and tree origin data were collected mainly from stumps at 359 sites. Thirty-five fire events are mapped from 1482 to 1952. Mean fire return intervals are derived from data at individual sites, about 5 hectares in size, rather than from the corrected master fire chronology.

**Keywords:** Dendrochronology; Disturbance; Fire; Fire history; Fire regimes; Long-Term Ecological Research (LTER); Disturbance; Long-Term Ecological Research (LTER); history; dendrochronology; fires; disturbance; fire history;

**Date data commenced:** 1984-01-10

**Date data terminated:** 1987-08-31

**Principal Investigator:** Frederick J. Swanson

**List of Entities:**

1. Fire history and fire regimes
2. Corrected master fire chronology

### 1: Fire history and fire regimes

**Attribute List:**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBCODE</td>
<td>N</td>
<td>N char(5) enum</td>
</tr>
<tr>
<td>ENTITY</td>
<td>N</td>
<td>N numeric(1,0) range 1.0000 1.0000 number</td>
</tr>
<tr>
<td>SITECODE</td>
<td>Y</td>
<td>N char(10) place</td>
</tr>
<tr>
<td>SITE_NUMBER</td>
<td>N</td>
<td>N numeric(3,0) range 1.0000 575.0000 number</td>
</tr>
<tr>
<td>ELEVATION</td>
<td>N</td>
<td>N numeric(4,0) range 1550.0000-5050.0000 ft</td>
</tr>
<tr>
<td>ASPECT</td>
<td>N</td>
<td>N char(2) enum</td>
</tr>
<tr>
<td>FIRE_COUNT</td>
<td>N</td>
<td>N numeric(2,0) range 1.0000 15.0000 number</td>
</tr>
<tr>
<td>AGE_CLASS_COUNT</td>
<td>N</td>
<td>N numeric(1,0) range 1.0000 8.0000 number</td>
</tr>
<tr>
<td>UNDERBURN_COUNT</td>
<td>N</td>
<td>N numeric(2,0) range 0.0000 11.0000 number</td>
</tr>
<tr>
<td>RETURN_INT_COMP</td>
<td>N</td>
<td>N numeric(3,0) range 9.0000 428.0000 years</td>
</tr>
<tr>
<td>RETURN_INT_STAND</td>
<td>N</td>
<td>N numeric(3,0) range 9.0000 428.0000 years</td>
</tr>
<tr>
<td>LENGTH_REC</td>
<td>N</td>
<td>N numeric(3,0) range 9.0000 475.0000 years</td>
</tr>
<tr>
<td>HABITAT_TYPE</td>
<td>N</td>
<td>N char(2) enum</td>
</tr>
</tbody>
</table>

### 2: Corrected master fire chronology

**Attribute List:**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBCODE</td>
<td>N</td>
<td>N char(5) enum</td>
</tr>
<tr>
<td>ENTITY</td>
<td>N</td>
<td>N numeric(1,0) range 2.0000 2.0000 number</td>
</tr>
<tr>
<td>SITECODE</td>
<td>Y</td>
<td>N char(10) place</td>
</tr>
<tr>
<td>SITE_NUMBER</td>
<td>N</td>
<td>N numeric(3,0) range 1.0000 575.0000 number</td>
</tr>
</tbody>
</table>
YEAR   Y   N   numeric(4,0)   range   1435.0000-1935.0000   YYYY
FIRE_HISTORY   N   N   char(1)   enum

Attributes Definitions:
AGE_CLASS_COUNT
    Number of age-classes
ASPECT
    General aspect
DBCODE
    FSDB database code
ELEVATION
    Elevation
ENTITY
    Entity number
FIRE_COUNT
    Number of fires recorded
FIRE_HISTORY
    Description of presence of fire, fire scars or origin dates
HABITAT_TYPE
    Habitat type, following syntax of Dyrness, Franklin, and Moir (1974)
LENGTH_REC
    Length of fire record
RETURN_INT_COMP
    Composite mean fire return interval
RETURN_INT_STAND
    Stand (or partial stand) replacement mean fire return interval
SITE_NUMBER
    Site number
SITECODE
    Teensma site codes
UNDERBURN_COUNT
    Number of recorded underburns
YEAR
    Year of fire history notation from tree ring date

Enumerated Domains:
Enumerated Domain for Attribute: ASPECT
    B   Valley bottom
    E   East
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>PSME/HODI douglas-fir zone</td>
</tr>
<tr>
<td>02</td>
<td>PSME-TSHE/COCOCA transition zone</td>
</tr>
<tr>
<td>03</td>
<td>TSHE/CACH western hemlock zone</td>
</tr>
<tr>
<td>04</td>
<td>TSHE/RHMA-GASH western hemlock zone</td>
</tr>
<tr>
<td>05</td>
<td>TSHE/RHMA-BENE western hemlock zone</td>
</tr>
<tr>
<td>06</td>
<td>TSHE/ACCI western hemlock zone</td>
</tr>
<tr>
<td>07</td>
<td>TSHE/POMU western hemlock zone</td>
</tr>
<tr>
<td>08</td>
<td>TSHE/POMU-OXOR western hemlock zone</td>
</tr>
<tr>
<td>09</td>
<td>TSHE-ABAM/RHMA-BENE transition zone</td>
</tr>
<tr>
<td>10</td>
<td>TSHE-ABAM/ACCI-BENE transition zone</td>
</tr>
<tr>
<td>11</td>
<td>TSHE-ABAM/LIBO transition zone</td>
</tr>
<tr>
<td>12</td>
<td>ABAM/TSME-XETE silver fir zone</td>
</tr>
<tr>
<td>13</td>
<td>ABAM/VAMA-XETE silver fir zone</td>
</tr>
<tr>
<td>14</td>
<td>ABAM/RHMA-XETE silver fir zone</td>
</tr>
<tr>
<td>15</td>
<td>ABAM/VAAL-COCA silver fir zone</td>
</tr>
<tr>
<td>16</td>
<td>ABAM/ACTR silver fir zone</td>
</tr>
<tr>
<td>17</td>
<td>ABAM/TIUN silver fir zone</td>
</tr>
<tr>
<td>99</td>
<td>Undetermined/unmapped; not within H.J. Andrews Experimental Forest.</td>
</tr>
<tr>
<td>18</td>
<td>Habitat 18 is undefined</td>
</tr>
</tbody>
</table>

Enumerated Domain for Attribute: FIRE_HISTORY

0 No data, i.e., no trees present at this site in 1985 are old enough to have been present at the time of this fire
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fire scar(s) present for this fire episode</td>
</tr>
<tr>
<td>2</td>
<td>Regeneration (origin dates) recorded for this fire episode</td>
</tr>
<tr>
<td>3</td>
<td>Both fire scars and origin dates recorded for this fire episode</td>
</tr>
<tr>
<td>4</td>
<td>No record of fire, but trees present at this site in 1985 are old enough to have been present at the time of this fire</td>
</tr>
</tbody>
</table>