## Appendix C.

Historical Themes, Markers, and Periods, 1788-1999

Appendix C provides thematic information about Soap Creek Valley time periods in a tabular format. Historical themes (subsequent to documented 1788 accounts of smallpox and metal tools along the Oregon Coast, due west of Soap Creek Valley; see Elliott 1928) related to changing forest cover patterns were identified in the research analysis process (see Chapters II and III). Significant themes identified included patterns and histories of land ownership (Table C.1), land uses (Table C.2), local politics (Table C.3), structural (human) developments (Table C.4), transportation and communications network developments (Table C.5), and wild animal populations management (Table C.6).

Significant events or points in time ("historical markers") for Soap Creek Valley were determined for each theme by review of oral history research data (see Chapter II). Markers were then listed chronologically for the entire 17881999 timeframe in each table. Time between markers is defined as a "period" of historical time. Assigned names for each period, the total number of periods, the shortest period, the longest period, and the average length of each period is computed and listed for each table. Results of all six tables are summarized in Table 6 and generalized for all historical Soap Creek Valley themes (related to changing forest cover patterns) in Table 7.

Table C. 1 Land Ownership themes, markers, and periods

| Historical Markers | Time Period | Length |
| :--- | :--- | :---: |
| Kalapuyan Family Claims | $1788-1817$ | 30 |
| British/US Reciprocal Agreements | $1818-1845$ | 28 |
| OR Donation Land Claims | $1846-1858$ | 13 |
| Stock Ranches | $1859-1905$ | 56 |
| General Farms | $1906-1940$ | 26 |
| Camp Adair | $1941-1952$ | 12 |
| Oregon State University | $1953-1999$ | 47 |
| Number: 7 Total:212 | Minimum:12 | Average: $\mathbf{3 0}$ |

Table C. 2 Land Use themes, markers, and periods

| Historical Markers | Time Period | Length |
| :--- | :--- | :---: |
| Pyroculture | $1788-1825$ | 38 |
| Livestock Pasture | $1826-1845$ | 20 |
| Ranching | $1846-1914$ | 69 |
| Farming | $1915-1927$ | 13 |
| Logging | $1928-1940$ | 13 |
| Military Training | $1941-1952$ | 12 |
| Forestry | $1953-1972$ | 20 |
| Home Construction | $1973-1999$ | 27 |
| Number: 8 Total: 212 | Minimum:12 | Average: 26 |

Table C. 3 Local Politics themes, markers, and periods

| Historical Markers | Time Period | Length |
| :--- | :--- | :---: |
| Kalapuyan Community | $1788-1825$ | 38 |
| Hudsons Bay Company | $1826-1845$ | 20 |
| Benton County | $1846-1858$ | 13 |
| US Civil War | $1859-1870$ | 12 |
| Early Oregon | $1871-1914$ | 44 |
| World War I | $1915-1928$ | 14 |
| Great Depression | $1929-1940$ | 12 |
| World War II | $1941-1952$ | 12 |
| Oregon State University | $1953-1999$ | 47 |
| Number: 9 Total: 212 | Minimum: 12 | Average: 24 |

Table C. 3 Human Development themes, markers, and periods

| Historical Markers | Time Period | Length |
| :--- | :--- | :---: |
| Camps and Ovens | $1788-1825$ | 38 |
| Horse Trails | $1826-1845$ | 20 |
| Homes and Wagon Roads | $1846-1859$ | 14 |
| Fences, Poles and Crops | $1860-1889$ | 30 |
| Sawmills and Rock Roads | $1890-1940$ | 51 |
| Rock Quarries and Artillery Ranges | $1941-1954$ | 14 |
| Clearcuts and Forest Plantations | $1955-1982$ | 28 |
| Housing and Solid Waste Disposal | $1983-1999$ | 17 |
| Number: 8 Total: 212 | Minimum:14 | Average: 26 |

Table C. 5 Transportation themes, markers, and periods

| Historical Markers | Time Period | Length |
| :--- | :--- | :---: |
| Foot and Canoe | $1788-1825$ | 38 |
| Horse and Ship | $1826-1845$ | 20 |
| Wagon and Steamboat | $1846-1879$ | 34 |
| Railroad | $1880-1914$ | 35 |
| Automobile | $1915-1999$ | 85 |
| Number: 5 Total: 212 | Minimum: 20 | Average: 42 |

Table C. 6 Wildlife Management themes, markers, and periods

| Historical Markers | Time Period | Length |
| :--- | :--- | :---: |
| Bows and Arrows | $1788-1810$ | 23 |
| Steel Traps and Guns | $1811-1845$ | 35 |
| Livestock Predator Control | $1846-1882$ | 37 |
| Exotic Game Animals | $1883-1904$ | 22 |
| Seasons and Limits | $1905-1972$ | 68 |
| Endangered Species | Min73-1999 | 27 |
| Number: 6 Total: 212 | Minimum: 22 | Average: $\mathbf{3 5}$ |

## Appendix D. <br> Landowner Names, Locations, and Types, 1841-1990

This appendix contains four tables that list the names and locations of landowners and other key residents in Soap Creek Valley at specific points in time: 1841 (Table D.1; see Maps 5, 10, 13, 18, 20, and 21); 1853 (Table D.2: see Maps 2, 5, 11, 14, 18, 20, and 22), 1929 (Table D.3; see Maps 2, 9, 15, 16, 20, and 23), and 1990 (Table D.4; see Maps 2, 3, 5, 17, and 24). Each year is represented by a separate table, and tables are subdivided into groups, according to size, type, and/or location of Soap Creek Valley landowners and residents listed. Tables were derived from a computerized database assembled for OSU Research Forests in 1990 (Zybach et al., 1990; Trosper \& Zybach 1996).

Table D. 1 lists 18 Luckymute and 27 Chapanafa Kalapuyan individuals that were likely alive and frequenting Soap Creek Valley in 1841, at the time of the Wilkes Expedition (Wilkes 1845). Each of these individuals lived until 1860, at least (Whitlow 1988), and were probably counted among the 44 individuals counted during the May, 1851 treat negotiations (Mackey 1974; see Chapter III; Map 13) at Champoeg, Oregon. The spelling and national affiliation of each individual is taken from Grande Ronde Indian Reservation census rolls for the years 1860 (column "C1860") and 1880 (column "C1880"). An asterisk ("*") is used to identify years that the individual was counted. These rolls are the source of the estimated birthdates of individuals (column "DOB"); listing is given in descending order of age, with those individuals most likely to have survived the epidemics of the 1830s (and also, with claims to the longest periods of land ownership and strongest claims to genetic and cultural heritage) listed first.

Table D. 2 lists pioneer Soap Creek Valley landowners of 1853, as listed in public land survey records (Hathorn 1854a; 1854b), census rolls (Moore 1947), and local histories (Fagan 1885). Table D. 4 lists Depression-era farmers and landowners, as shown on contemporaneous cadastral maps (Metsker 1929a; 1929b; 1929c). Table D. 4 lists landowners, as of 1990 (Benton County, Oregon Tax Assessor's Office 1990; Zybach 1990).

Table D. 1 Native Kalapuyan landowners and residents, 1841. See Maps 10, 13, 18,20 , and 21. Page 1 of 2.

## Chapanafa Nation

| Name | DOB | C 1860 | C 1888 |
| :---: | :---: | :---: | :---: |
| Elkins, Old | 1797 |  | * |
| Barlow, William "Marysville William" | 1807 | * | * |
| Voutrant, John the Baptist | 1807 |  | * |
| Belknap, Lucy | 1809 | * |  |
| Elkins, Nancy | 1817 |  | * |
| Machell, Louisa | 1817 | * |  |
| Sangaretta, Joseph | 1823 | * | * |
| Heartless, George | 1825 | * |  |
| Heartless, Nancy | 1825 | * |  |
| Bill, Alsea | 1826 |  | * |
| Churchill, Betsy | 1826 | * |  |
| Churchill, Thomas "Muddy Tom" | 1826 | * |  |
| Sangaretta, Nancy | 1827 | * | * |
| Belknap, Rachael | 1829 | * |  |
| Menard, Elizabeth | 1835 | * | $*$ |
| Menard, Peter | 1835 | * |  |
| Stewart, Lily | 1835 | * |  |
| Barlow, Jennie | 1837 |  | * |
| Machell, Louis | 1837 | * |  |
| Machell, Susan | 1837 | * |  |
| Stewart, James "Muddy Jim" | 1837 | * | * |
| Voutrant, Mary Ann | 1837 |  | , |
| Barlow, Mary | 1839 |  | * |
| Menard, John | 1841 |  | * |
| Avery, David "Old David" |  | * |  |
| Frigginger, John |  | * |  |
| Heartless, (unknown female) |  | * |  |

## Number 27

Name As recorded by Whitlow (1988) from 1860 and 1888 Indian census data. A few individuals may be listed under more than one name.

DOB Approximate year of birth, from census, birth, and death records (Whitlow 1988). Actual date may be 1 to 10 (or more) years different.

C 1860 Listed by name, family, and tribal affiliation, on the 1860 Grand Ronde Indian Reservation census.

C 1888 Listed by name, age, family, and tribal affiliation, on the 1888 Grand Ronde Indian Reservation census.

Table D. 1 (cont.), page 2 of 2.

## Luckymute Nation

| Name | DOB | C 1860 | C 1888 |
| :---: | :---: | :---: | :---: |
| Wheeler, Samanthy | 1816 | * |  |
| Wheeler, Peter "Luckiamute Pete" | 1836 | * | * |
| Wheeler, Jenny | 1836 | * |  |
| Jack, Calipooya | 1837 |  | * |
| Wheeler, Jacob "Luckiamute Jake" | 1837 | * | * |
| Wheeler, Mary Ann | 1837 | * |  |
| Davis, David | 1839 | * | * |
| Charly, Mary | 1841 |  | * |
| Davis, Sarah Jane |  | * | * |
| Durbin, James "Luckiamute Jim" |  |  | * |
| Durbin, Sally |  | * |  |
| Holman, James |  | * |  |
| Judson, Charles |  | * |  |
| Judson, Mary (1) |  | * |  |
| Judson, Mary (2) |  | * |  |
| Judson, Sally |  | * |  |
| Wilson, Judge |  | * |  |
| Judson, Susan |  | * |  |

## Number 18

Name As recorded by Whitlow (1988) from 1860 and 1888 Indian census data. A few individuals may be listed under more than one name.

DOB Approximate year of birth, from census, birth, and death records (Whitlow 1988). Actual date may be 1 to 10 (or more) years different.

C 1860 Listed by name, family, and tribal affiliation, on the 1860 Grand Ronde Indian Reservation census.

C 1888 Listed by name, age, family, and tribal affiliation, on the 1888 Grand Ronde Indian Reservation census.

Table D. 2 Pioneer landowner names, types, and locations, 1853 (see Maps 2, 11, and 22).


## Total Number: 30

Map \# Corresponds to circled numbers on Map 2.
Name Corresponds to names on Map 11, other legal records.
DLC Refers to OR Donation Land Claim Survey No. (see Map 11)
Tsp PLS Township, South of the Willamette Meridian
Rng PLS Range, West of the Willamette Meridian
Sec PLS Section No.
Qrtr Section quadrant in which bulk of the DLC is located

Table D. 3 Depression-Era landowner names and locations, 1929 (see Maps 9 and 23). Page 1 of 2.

| Map \# | Name | Tsp | Rng | Sec |
| :---: | :---: | :---: | :---: | :---: |
| CORPORATION |  |  |  |  |
| 02 | Albany State Bank | 11 S . | 5 W. | 09 |
| 57 | Travelers Ins. Co. | 10 S . | 4 W. | 19 |
| 66 | Union Central Life Ins. Co. | 10 S . | 4 W. | 19 |
| Number: 3 |  |  |  |  |
| FAMILY |  |  |  |  |
| 01 | Agnew, S. Gert | 11 S . | 5 W. | 08 |
| 03 | Baker, Abbie | 11 S . | 5 W. | 05 |
| 04 | Beals, S. E. | 10 S . | 4 W. | 19 |
| 05 | Blake, E. A. | 10 S . | 4 W. | 30 |
| 06 | Bradley, B. A. | 10 S . | 5 W. | 24 |
| 07 | Brown, R. E. L. | 10 S . | 5 W. | 15 |
| 08 | Bruce, C. J. | 10 S . | 5 W. | 11 |
| 09 | Burkhart, J. F. | 10 S . | 4 W. | 30 |
| 10 | Cardi, Solomon | 11 S . | 5 W. | 03 |
| 11 | Carlson, Peter | 11 S . | 5 W. | 03 |
| 12 | Carter, Eston A. | 10 S . | 4 W. | 18 |
| 13 | Cook, Elmer S. | 10 S . | 5 W. | 34 |
| 14 | Darginest, Leon | 11 S . | 5 W. | 09 |
| 15 | Davenport, R. J. | 11 S . | 5 W. | 03 |
| 16 | Dodele, C. G. | 10 S . | 4 W. | 19 |
| 17 | Farrier, Elizabeth H. | 11 S . | 5 W. | 05 |
| 18 | Fowler, William | 10 S . | 5 W. | 29 |
| 19 | Garman, J. D. | 11 S . | 5 W. | 06 |
| 20 | Glender Brothers | 10 S . | 5 W. | 24 |
| 21 | Govier, Alva L. | 10 S . | 5 W. | 35 |
| 22 | Govier, Elmer E. | 10 S . | 5 W. | 26 |
| 23 | Harwood, Phillip | 11 S . | 5 W. | 02 |
| 24 | Hoffman, Henry | 10 S . | 5 W. | 25 |
| 25 | Jackson, E. D. | 11 S . | 5 W. | 08 |
| 26 | Johnson, D. E. | 10 S . | 5 W. | 28 |
| 27 | Johnson, Swanty | 11 S . | 5 W. | 05 |
| 28 | Jorgensen, Bessie, et al. | 10 S. | 5 W. | 32 |
| 30 | Lawrence, C. W. | 10 S . | 5 W. | 25 |
| 31 | Leman, V. | 10 S . | 5 W. | 22 |
| 32 | Logsdon, T. B. | 11 S . | 5 W. | 09 |
| 33 | Mackey, Ezra | 10 S . | 5 W. | 13 |
| 34 | Marcks, Helen | 10 S . | 5 W. | 23 |
| 35 | Matthews, Irving \& Frank | 10 S . | 5 W. | 32 |
| 36 | Matthews, W. H. "Junk" | 11 S . | 5 W. | 05 |
| 37 | McKenzie, J. E. | 10 S . | 4 W. | 19 |
| 38 | Olson, John et al. | 10 S . | 5 W. | 32 |
| 39 | Owens, Kate B. | 11 S . | 5 W. | 05 |
| 40 | Pearson, M. | 10 S . | 5 W. | 28 |
| 41 | Quinn, Edward | 10 S . | 5 W. | 28 |
| 42 | Rohner, Jacob | 10 S . | 4 W. | 18 |
| 43 | Ruminski, Max F. | 11 S . | 5 W. | 04 |

Table D. 3 (cont.), page 2 of 2.


## Total Number: 61

| Map \# | Corresponds to uncircled numbers on Maps 9 and 22 <br> Landowner's name (Metsker 1929a; 1929b; 1929c) |
| :--- | :--- |
| Name | Lsp <br> PLS Township, South of the Willamette Meridian |
| Rng | PLS Range, West of the Willamette Meridian |
| Sec | PLS Section No. |

Table D. 4 Modern landowner names, types, and locations, 1990. See Map 3. Page 1 of 4 .

| Map \# | Name |
| :--- | :--- |
|  | CORPORATION |
| 063 | Smith Hill Properties Inc. |
| 063 | Smith Hill Properties Inc. |
| 063 | Smith Hill Properties Inc. |
| 066 | Starker Forests Inc. |
| 066 | Starker Forests Inc. |
| 066 | Starker Forests Inc. |
| 066 | Starker Forests Inc. |
| 066 | Starker Forests Inc. |
| 066 | Starker Forests Inc. |
| 066 | Starker Forests Inc. |
| 066 | Starker Forests Inc. |
| 066 | Starker Forests, Inc. |
| 067 | Starker, Elizabeth |
| 067 | Starker, Elizabeth |
| 067 | Starker, Elizabeth |
| 067 | Starker, Elizabeth |
| 067 | Starker, Elizabeth |
| 071 | United Presbyterian Church |
| 073 | Valley Landfills Inc. |
| 073 | Valley Landfills Inc. |
| 073 | Valley Landfills Inc. |
| 073 | Valley Landfills Inc. |
| 073 | Valley Landfills Inc. |
| 073 | Valley Landfills Inc. |
| 078 | Western Timber Co. |
| 079 | Willamette Industries Inc |
| 079 | Willamette Industries Inc. |
| 124 | Starker, Elizabeth |
| Number: 6 |  |


| Tsp | Rng | Sec | Ortr | TL \# |
| :---: | :---: | :---: | :---: | :---: |
| 10 S . | 5 W. | 10 | SW | 300 |
| 10 S . | 5 W. | 14 | NW | 300 |
| 10 S . | 5 W. | 15 | NE | 200 |
| 11 S . | 5 W. | 08 | NW | 100 |
| 11 S . | 5 W. | 09 | NW | 200 |
| 10 S . | 5 W. | 28 | NE | 100 |
| 10 S . | 5 W. | 29 | SE | 200 |
| 10 S . | 5 W. | 29 | SE | 201 |
| 10 S . | 5 W. | 32 | NE | 100 |
| 10 S . | 5 W. | 32 | NE | 101 |
| 10 S . | 5 W. | 33 | NW | 100 |
| 10 S . | 5 W. | 28 | NW | 200 |
| 11 S . | 5 W. | 03 | NW | 200 |
| 11 S . | 5 W. | 04 | NW | 100 |
| 10 S . | 5 W. | 27 | SW | 200 |
| 10 S . | 5 W. | 34 | SE | 2600 |
| 10 S . | 5 W. | 34 | NW | 1100 |
| 10 S . | 5 W. | 13 | NW | 500 |
| 10 S . | 5 W. | 13 | SE | 1000 |
| 10 S . | 4 W. | 18 | NW | 801 |
| 10 S . | 4 W. | 18 | SW | 1107 |
| 10 S . | 4 W. | 18 | NW | 301 |
| 10 S . | 4 W. | 18 | SW | 1200 |
| 10 S . | 5 W. | 24 | NE | 103 |
| 10 S . | 5 W. | 32 | NW | 200 |
| 10 S . | 5 W. | 35 | NW | 200 |
| 10 S . | 5 W. | 26 | SW | 400 |
| 11 S . | 5 W. | 04 | NE | 600 |

FAMILY

| 001 | Andrews, Andor \& Genevieve | 10 S. | 5 W. | 14 | SE | 124 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 001 | Andrews, Andor \& Genevieve | 10 S. | 5 W. | 14 | NE | 190 |
| 002 | Andrews, Genevieve | 10 S. | 5 W. | 14 | SE | 100 |
| 003 | Andrews, Melvin | $10 \mathrm{S}$. | 5 W. | 14 | NE | 120 |
| 003 | Andrews, Melvin | 10 S. | 5 W. | 14 | SE | 122 |
| 004 | Andrews, Melvin \& Janet | $10 \mathrm{S}$. | 5 W. | 14 | NE | 115 |
| 004 | Andrews, Melvin \& Janet | 10 S. | 5 W. | 14 | NE | 101 |
| 005 | Bauman, Harold \& Mary | $10 \mathrm{S}$. | 5 W. | 32 | SE | 300 |
| 006 | Beatty, Faris | 10 S. | 5 W. | 13 | NW | 501 |
| 007 | Benneth, David | $10 \mathrm{S}$. | 5 W. | 13 | NE | 203 |
| 008 | Bischof, Rudy \& Sue | $10 \mathrm{S}$. | 5 W. | 25 | NW | 305 |
| 009 | Brenneman, Rod \& Audrey | 10 S. | 4 W. | 19 | SW |  |
| 010 | Briskey, William \& Terri | $10 \mathrm{S}$. | 5 W. | 13 | NE | 400 |
| 011 | Bunn, Dan E. | 10 S. | 4 W. | 18 | SW | 1100 |
| 012 | Burch, Robert \& Patricia | $10 \mathrm{S}$. | 5 W. | 13 | SW | 600 |
| 013 | Cadart Richard \& Odette | 10 S. | 5 W. | 34 | NW | 2300 |

Table D. 4 (cont.), page 2 of 4.

| Map \# | Name | Tsp | Rng | $\underline{\text { Sec }}$ | Ortr | TL \# |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FAMILY (cont.) |  |  |  |  |  |
| 014 | Carlson, Theodore \& Swanhild | 10 S . | 4 W. | 19 | SW | 400 |
| 015 | Cornelius, Grant \& Gail | 10 S . | 5 W. | 25 | NE | 100 |
| 016 | Cornelius, Timothy | 10 S . | 5 W. | 25 | NE | 103 |
| 017 | Cornell, Bryan \& Jennie | 10 S . | 5 W. | 14 | NW | 2500 |
| 018 | Croeni, Curtis \& Deborah | 10 S . | 5 W. | 34 | NW | 2400 |
| 019 | Daily, Helen | 10 S . | 5 W. | 34 | NE | 100 |
| 020 | Danton, Grace | 10 S . | 5 W. | 12 | SE | 400 |
| 021 | Larsen, David | 10 S . | 5 W. | 34 | SW | 600 |
| 022 | Deardorff, Shirley \& Donald | 10 S . | 5 W. | 34 | NW | 2700 |
| 023 | Denoma, John \& Dagnie | 10 S . | 5 W. | 13 | NE | 300 |
| 024 | Ellis, Gloria | 10 S . | 5 W. | 24 | NE | 190 |
| 025 | Fleck, Stephen \& Louise | 10 S . | 5 W. | 25 | NW | 304 |
| 026 | Gerding, Richard \& Sandra | 10 S . | 4 W. | 18 | NW | 200 |
| 027 | Hackleman, David | 10 S . | 5 W. | 13 | NE | 200 |
| 028 | Hackleman, David \& Debra | 10 S . | 5 W. | 13 | NE | 201 |
| 029 | Hancock, Astrid | 10 S . | 5 W. | 14 | SW | 900 |
| 031 | Holmes, Richard \& Charley | 10 S . | 4 W. | 19 | SW | 800 |
| 032 | Jeffers, Shirley | 10 S . | 5 W. | 24 | SE | 105 |
| 033 | Chambers, Florence | 10 S . | 5 W. | 34 | SW | 400 |
| 034 | Johnson, Bruce \& Cheryl | 11 S . | 5 W. | 03 | NW | 501 |
| 034 | Johnson, Bruce \& Cheryl | 11 S . | 5 W. | 03 | NW | 1000 |
| 034 | Johnson, Bruce \& Cheryl | 11 S . | 5 W. | 04 | NE | 100 |
| 035 | Kingsley, Richard | 10 S . | 5 W. | 13 | NE | 202 |
| 036 | Kipper, Robert \& Richard | 10 S . | 4 W. | 19 | NW | 402 |
| 037 | Lantz, Richard \& Carol | 10 S . | 5 W. | 34 | NW | 900 |
| 038 | Liday, Karen G. | 10 S . | 4 W. | 18 | NW | 300 |
| 039 | Luebbert, Edwin \& Mona | 10 S . | 5 W. | 25 | NW | 300 |
| 040 | Maine, Elmore \& Jackie | 10 S . | 5 W. | 14 | NW | 100 |
| 041 | Mankin, Buddy \& Donna | 10 S . | 5 W. | 12 | NW | 602 |
| 042 | McGee, Charles \& Gloria | 10 S . | 5 W. | 13 | SE | 800 |
| 042 | McGee, Charles \& Gloria | 10 S . | 5 W. | 24 | NE | 200 |
| 043 | Moore, Dale \& Ann | 10 S . | 5 W. | 14 | NW | 200 |
| 044 | Newman, S. \& Hawk, A. | 10 S . | 4 W. | 30 | NW | 100 |
| 045 | Nibler, W G \& Rosemary | 11 S . | 5 W. | 05 | NE | 100 |
| 046 | OBrien, Jo II, Je, Jo III, \& L | 11 S . | 5 W. | 05 | NE | 200 |
| 047 | Olson, Irvin \& Leota | 10 S . | 5 W. | 24 | NE | 104 |
| 048 | Opoien, Jeffrey \& Kathleen | 10 S . | 4 W. | 30 | NW | 602 |
| 054 | Portz, Edward \& Joann | 10 S . | 5 W. | 14 | NE | 104 |
| 055 | Reinhard, Robert \& Carol | 11 S . | 5 W. | 03 | NW | 1100 |
| 055 | Reinhard, Robert \& Carol | 10 S . | 5 W. | 34 | SW | 700 |
| 056 | Roth, Jean | 10 S . | 5 W. | 24 | SE | 600 |
| 056 | Roth, Jean | 10 S . | 5 W. | 25 | NW | 200 |
| 057 | Schaeffer, Delbert \& Sandra | 10 S . | 5 W. | 24 | NE | 106 |
| 058 | Schell, Samuel | 10 S . | 5 W. | 34 | NE | 2700 |
| 059 | Schmidt, David | 10 S . | 5 W. | 11 | SE | 100 |
| 059 | Schmidt, David | 10 S . | 5 W. | 12 | SW | 600 |
| 060 | Schwanke, Howard \& Hannah | 10 S . | 5 W. | 11 | NE | 101 |
| 061 | Shine, Kevin \& Karie | 10 S . | 4 W. | 30 | NW | 600 |

Table D. 4 (cont.), page 3 of 4.

| Map \# | Name | Tsp | Rng | Sec | Qrtr | TL \# |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FAMILY (cont.) |  |  |  |  |  |
| 062 | Shine, Robert \& Catherine | 10 S. | 4 W. | 30 | NW | 601 |
| 064 | Smith, Alvin \& Gladys | 11 S . | 5 W. | 05 | NE | 1100 |
| 065 | Denison, William \& Margaret | 11 S. | 5 W. | 04 | NW | 401 |
| 068 | Tillotson, Ruth | 10 S. | 5 W. | 12 | NW | 401 |
| 069 | Trotta, John \& Elaine | 10 S . | 5 W. | 13 | SW | 601 |
| 074 | Voss, Wesley \& Aileen | 10 S . | 4 W. | 07 | SW | 300 |
| 074 | Voss, Wesley \& Aileen | 10 S . | 5 W. | 13 | NE | 100 |
| 075 | Walker, Jon \& Imogenen | 11 S . | 5 W. | 05 | NE | 400 |
| 076 | Weaver, Gary \& Aundria | 10 S . | 5 W. | 13 | NW | 502 |
| 080 | Wold, Ronald | 10 S . | 5 W. | 34 | SW | 300 |
| 081 | Wolfson, Murray \& Betty | 10 S . | 5 W. | 34 | NW | 1400 |
| 082 | Yates, Barbara | 11 S . | 5 W. | 04 | NE | 200 |
| 084 | Morrison, Clifford \& Susan | 11 S . | 5 W. | 05 | SE | 1990 |
| 085 | Neidig, James \& Louise | 10 S . | 5 W. | 34 | SW | 500 |
| 086 | Pruden, Mary | 11 S . | 5 W. | 04 | NW | 400 |
| 102 | Hardenbrook, Glenn \& Mary | 10 S. | 4 W. | 19 | SW | 1800 |
| 102 | Hardenbrook, Glenn \& Mary | 10 S . | 4 W. | 19 | NW | 1600 |
| 105 | Powell, Byron \& Charlotte | 10 S . | 4 W. | 18 | SW | 1106 |
| 109 | Webb, Kenneth \& Cheryl | 10 S . | 4 W. | 19 | NW | 1500 |
| Number: 72 |  |  |  |  |  |  |
|  | LOTS |  |  |  |  |  |
| 900 | 7 Lots (7 acres) | 10 S. | 4 W. | 07 | SW | 0 |
| 901 | 14 Lots (4 acres) | 10 S . | 4 W. | 18 | NW | 0 |
| 902 | 15 Lots (4 acres) | 10 S . | 4 W. | 19 | NW | 0 |
| 903 | 16 Lots (3 acres) | 10 S . | 4 W. | 30 | NW | 0 |
| 904 | 4 Lots (4 acres) | 10 S . | 5 W. | 13 | NE | 0 |
| 905 | 37 Lots (4 acres) | 10 S . | 5 W. | 14 | NW | 0 |
| 906 | 3 Lots (4 acres) | 10 S . | 5 W. | 24 | NE | 0 |
| 907 | 4 Lots (3 acres) | 10 S . | 5 W. | 25 | NW | 0 |
| 908 | 18 Lots (5 acres) | 10 S . | 5 W. | 26 | NE | 0 |
| 910 | 46 Lots (4 acres) | 10 S . | 5 W. | 34 | NW | 0 |
| 911 | 9 Lots (4 acres) | 11 S . | 5 W. | 03 | NW | 0 |
| 912 | 41 Lots (4 acres) | 11 S . | 5 W. | 04 | NW | 0 |
| 913 | 12 Lots (3 acres) | 11 S . | 5 W. | 05 | NE | 0 |
| Number: 226 |  |  |  |  |  |  |
|  | OREGON |  |  |  |  |  |
| 049 | Oregon | 11 S . | 5 W. | 02 | NW | 700 |
| 049 | Oregon | 11 S . | 5 W. | 03 | NE | 100 |
| 052 | Oregon Highway Dept. | 10 S . | 4 W. | 18 | NW | 800 |
| 053 | OSU Forestry School | 11 S . | 5 W. | 05 | NW | 300 |
| 053 | OSU Forestry School | 11 S. | 5 W. | 08 | NW | 200 |
| 053 | OSU Forestry School | 11 S. | 5 W. | 08 | SW | 300 |
| 053 | OSU Forestry School | 11 S . | 5 W. | 09 | NW | 100 |
| 053 | OSU OSC | 10 S . | 5 W. | 13 | SW | 700 |
| 053 | OSU OSC | 10 S . | 5 W. | 26 | NW | 200 |
| 053 | OSU OSC | 10 S . | 5 W. | 34 | SE | 2800 |

Table D. 4 (cont.), page 4 of 4.

| Map \# | Name | Tsp | Rng | Sec | Ortr | TL \# |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | OREGON (cont.) |  |  |  |  |  |
| 053 | OSU OSC | 10 S . | 5 W. | 35 | NE | 100 |
| 053 | OSU State Board Higher Ed | 11 S . | 5 W. | 04 | SW | 100 |
| 053 | OSU State Board Higher Ed | 10 S . | 5 W. | 14 | SW | 700 |
| 053 | OSU State Board Higher Ed | 10 S . | 5 W. | 15 | SW | 100 |
| 053 | OSU State Board Higher Ed | 10 S . | 5 W. | 22 | NW | 100 |
| 053 | OSU State Board Higher Ed | 10 S . | 5 W. | 23 | NW | 100 |
| 053 | OSU State Board Higher Ed | 10 S . | 5 W. | 24 | SE | 500 |
| 053 | OSU State Board Higher Ed | 10 S . | 5 W. | 24 | NW | 300 |
| 053 | OSU State Board Higher Ed | 10 S . | 5 W. | 25 | SW | 500 |
| 053 | OSU State Board Higher Ed | 10 S . | 5 W. | 25 | NE | 400 |
| 053 | OSU State Board Higher Ed | 10 S . | 5 W. | 27 | NW | 100 |
| 053 | OSU State Board of Forestry | 11 S . | 5 W. | 06 | NW | 100 |
| 053 | OSU State Board of Higher Ed | 11 S . | 5 W. | 07 | NE | 100 |
| Number: 4 |  |  |  |  |  |  |
|  | UNITED STATES |  |  |  |  |  |
| 070 | US National Guard | 10 S . | 5 W. | 10 | SE | 100 |
| 070 | US National Guard | 10 S . | 5 W. | 11 | NW | 200 |
| 072 | USA | 10 S . | 5 W. | 29 | SW | 300 |
| Number: 2 |  |  |  |  |  |  |
|  | XLOT |  |  |  |  |  |
| 077 | 10-4-19B | 10 S . | 4 W. | 19 | NW | 1500 |
| 084 | 10-5-SE | 10 S . | 5 W. | 05 | SE |  |
| ??? | 10-4-19B | 10 S . | 4 W. | 19 | NW | 1600 |
| Number: 3 |  |  |  |  |  |  |

Total Number: 313

Map \# Corresponds to uncircled numbers on Map 3
Name Landowner's name (Benton County, Oregon, Tax Assessor's Office 1990)
Tsp
PLS Township, South of the Willamette Meridian
Rng PLS Range, West of the Willamette Meridian
Sec PLS Section No.
TL\# Current Tax Lot No. (Benton County, Oregon, Tax Assessor's Office 1990)
XLOT Subdivisions for which inadequate or contradictory information exists

## Appendix E.

Native, Extirpated, and Exotic Wildlife Species, 1500-1999

This appendix lists wild terrestrial vertebrate and vascular plant species known to exist, or believed to have existed, in Soap Creek Valley during the past 500 years (see Chapter III). The appendix is comprised of four tables: a list of native terrestrial vertebrates (Table E.1; see Fig. 14); a list of introduced and extirpated wild terrestrial vertebrates (Table E.2; see Fig. 13); a list of native vascular plants (Table E.3; see Figs. 17, 18, 20, and 21); and a list of wild vascular plants introduced since 1825 (Table E.4; see Figs. 16 and 19). These tables are summarized in the text as Tables 12 and 13. They were derived from two databases assembled for OSU Research Forests between 1990 and 1995 (Trosper \& Zybach 1996).

Table E. 1 was compiled from existing texts (Storm 1941; Nussbaum, Brodie, \& Storm 1983; Sondenaa 1991; Ingles 1992; Glender 1994; Olson 1994) and expert opinion (Sondenaa 1989: personal communication; Chambers, C. 1993: personal communication). Species are grouped by order and listed alphabetically by family and Latin name. Local names (see Chapter I) are given as they are used in the text.

Table E. 2 was compiled by the same methods, and by using the same basic sources, as Table E.1. Historical texts were also used (e.g., Wilkes 1845; Fagan 1885; Douglas 1905; Poesch 1961) to identify extirpated animals. Species are grouped as locally extinct (extirpated) and as introduced since 1805 (exotic). They are listed alphabetically by family and Latin name. Local names are given as they are used in the text.

Table E. 3 was compiled from existing texts (Haskins 1934; Hall \& Alabeck 1982; Comacho \& Otting 1993; Murphy 1995; Comacho \& Otting 1997) and expert opinion (Chambers, K. 1990: personal communication; Hays 1990: personal communication; Sondenaa 1989: personal communication). Plant species are grouped by type and listed alphabetically by local name (see Chapter I). Listing order is not standard, but makes text and oral history references to local names easier to locate.

Table E. 4 was compiled in the same manner and from the same sources as Table E.3, but with additional consultations (Compton 1990: personal communication; Gu 1990: personal communication). Plants are grouped in the same manner as Table E.3, but are listed alphabetically by family and Latin name.

Table E. 1 Native terrestrial vertebrates, 1805-1999. Page 1 of 2.

## Local Name

## AMPHIBIANS

Salamander, northwestern Salamander, long-toed Salamander, Pacific giant Frog, Pacific tree Salamander, Ensatina Frog, red-legged Newt, rough-skinned NUMBER: 7

## CARNIVORES

Coyote
Fox, gray
Cougar
Bobcat
Otter, river
Skunk, striped
Ermine
Weasel, long-tailed
Mink
Skunk, spotted
Raccoon
Bear, black
NUMBER: 12

## HOOFED

Elk, Roosevelt
Deer, blacktailed
NUMBER: 2

## INSECTIVORES

Shrew, Pacific water
Shrew, Pacific
Shrew, water
Shrew, Trowbridge's
Shrew, vagrans
Mole, shrew-mole
Mole, coast
Mole, Townsend's
NUMBER: 8

Family

Ambystomatidae Ambystomatidae Dicamptodontidae Hylidae
Plethodontidae
Ranidae
Salamandridae

Canidae
Canidae
Felidae
Felidae
Mustelidae
Mustelidae
Mustelidae
Mustelidae
Mustelidae
Mustelidae
Procyonidae
Ursidae

Cervidae
Cervidae

Soricidae
Soricidae
Soricidae
Soricidae
Soricidae
Talpidae
Talpidae
Talpidae

## RABBITS AND HARES

Rabbit, snowshoe hare
Rabbit, brush bunny
Rabbit, Nuttall cottontail
NUMBER: 3

Leporidae
Leporidae
Leporidae

## Species

Ambystoma gracilis
Ambystoma macrodactylum
Dicamptodon ensatos
Hyla regilla
Ensatina erscholtzii
Rana aurora
Taricha granulosa

Canis latrans
Urocyon cinereoargenteus
Felis concolor
Lynx rufus
Lutra canadensis
Mephitis mephitis
Mustela erminea
Mustela frenata
Mustela vison
Spilogale gracilis
Procyon lotor
Ursus americanus

Cervus elaphus
Odocoileus hemionus

Sorex bendirei
Sorex pacificus
Sorex palustris
Sorex trowbridgii
Sorex vagrans
Neurotrichus gibbsii
Scapanus orarius
Scapanus townsendii

Lepus americanus
Sylvilagus bachmani
Sylvilagus nuttallii

Table E. 1 (cont.), Page 2 of 2.

| Local Name | Family | Species |
| :---: | :---: | :---: |
| RODENTS |  |  |
| Beaver | Castoridae | Castor canadensis |
| Mouse, kangaroo | Dipodidae | Zapus trinotatus |
| Porcupine | Erithizontidae | Erethizon dorsatum |
| Gopher, camas pocket | Geomyidae | Thomomys bulbivorus |
| Gopher, western pocket | Geomyidae | Thomomys mazama |
| Vole, red-backed | Muridae | Clethrionomys californicus |
| Vole, long-tailed | Muridae | Microtus longicaudus |
| Vole, gray-tailed | Muridae | Microtus montanus |
| Vole, creeping | Muridae | Microtus oregoni |
| Vole, Townsend's | Muridae | Microtus townsendii |
| Woodrat, bushy-tailed | Muridae | Neotoma cinerea |
| Woodrat, dusky-footed | Muridae | Neotoma fuscipes |
| Muskrat | Muridae | Ondatra zibethicus |
| Mouse, deer | Muridae | Peromyscus maniculatus |
| Vole, white-footed | Muridae | Phenacomys albipes |
| Vole, red tree | Muridae | Phenacomys longicaudus |
| Squirrel, northern flying | Sciuridae | Glaucomys sabrinus |
| Squirrel, western gray | Sciuridae | Sciurus griseus |
| Squirrel, gray digger | Sciuridae | Spermophilus beecheyi |
| Chipmunk, Townsend's | Sciuridae | Tamias townsendii |
| Squirrel, Douglas' | Sciuridae | Tamiasciurus douglasii |
| NUMBER: 21 |  |  |
| REPTILES |  |  |
| Lizard, northern alligator | Anguidae | Elgaria coerulea |
| Snake, rubber boa | Boidae | Charina bottae |
| Snake, racer | Colubridae | Coluber constrictor |
| Snake, sharptail | Colubridae | Contia tenuis |
| Snake, ringneck | Colubridae | Diadophis punctatus |
| Snake, bullsnake | Colubridae | Pituophis melanoleucus |
| Snake, northwestern garter | Colubridae | Thamnophis ordinoides |
| Snake, garter | Colubridae | Thamnophis sirtalis |
| Turtle, western pond | Emydidae | Clemmys Marmorata |
| Lizard, western fence | Iguanidae | Sceloperus |
| Lizard, western skink | Scincidae | Eumeces skiltonianus |

TOTAL NUMBER: 64

Table E. 2 Exotic and exirpated terrestrial vertebrates, 1805-1999

## Local Name \#1

## EXOTIC

Fox, red
Nutria
Possum
Rabbit, eastern cottontail
Mouse, house
Rat, Norway
Frog, bullfrog
Number: 7

## EXTIRPATED

Boomer*
Wolf, timber
Deer, whitetailed
Rabbit, blacktailed hare
Fisher
Wolverine
Bear, grizzly
Rattlesnake, western
Number: 8

Family $\quad \underline{\text { Species }}$

Canidae
Capromyidae
Didelphidae
Leporidae
Muridae
Muridae
Ranidae

Aplodontidae
Canidae
Cervidae
Leporidae
Mustelidae
Mustilidae
Ursidae
Viperidae

Vulpes vulpes
Mycastor coypus
Didelphis virginiana
Sylvilagus floridanus
Mus musculus
Rattus norvegicus
Rana catasbiana

Boomer* It could not be determined if boomer, also known as "mountain beaver," had ever established colonies in Soap Creek Valley. No physical evidence of their existence in The Valley could be found, and no interviewee recalled seeing or hearing of these animals in the general vicinity. They are listed here because Soap Creek Valley is considered to be within their "natural range" (Sondenaa 1991).

Table E. 3 Native vascular plants, 1500-1999. Page 1 of 8.

## Local Name

FERN
Fern, Bladder
Fern, Bracken
Fern, Deer
Fern, Lady
Fern, Licorice-root
Fern, Maidenhair
Fern, Shield
Fern, Sword
NUMBER: 8

## GRAMINOID

Cat-tail
NUMBER: 1
GRASS
Barley, Meadow
Bentgrass
Bentgrass, Hall's
Bentgrass, Rough
Bluegrass, Loose-Flowered
Bluegrass, Weak
Brome, California
Brome, Columbia
Brome, Pacific
Fescue, Bearded
Fescue, California
Fescue, Crinkle Awn
Fescue, Idaho
Fescue, Western
Hairgrass, Annual
Hairgrass, Tufted
Junegrass, Prairie
Mannagrass, Tall
Needlegrass, Lemmon's
Oatgrass, California
Oniongrass, Alaskan
Rye, Blue Wild
Squirreltail, Big
Trisetum, Tall
Wheatgrass, Slender
Woodreed
NUMBER: 26

Family $\quad$ Latin Name

Dryopteridaceae
Dennstaedtiacea
Blechnaceae
Dryopteridaceae
Polypodiaceae
Pteridaceae
Dryopteridaceae
Dryopteridaceae

Typhaceae

Poaceae
Poaceae
Poaceae
Poaceae
Poaceae
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Poaceae
Poaceae

Cystopteris fragilis
Pteridium aquilinum
Blechnum spicant
Athyrium felix-femina
Polypodium glycyrrhiza
Adiantum aleuticum pedatum
Dryopteris arguta
Polystichum munitum

Typha latifolia

Hordeum brachyantherum
Agrostis exarata
Agrostis hallii
Agrostis scabra
Poa laxiflora
Poa marcida
Bromus carinatus
Bromus vugaris
Bromus pacificus
Festuca subulata
Festuca californica
Festuca subuliflora
Festuca ovina ingrata
Festuca occidentalis
Deschampsia danthonioides
Deschampsia cespitosa
Koeleria macrantha
Glyceria elata
Achnatherum lemmonii
Danthonia californica
Melica subulata
Lymus glaucus
Elymus multisetus
Trisetum canescens
Agropyron caninum
Cinna latifolia

Table E. 3 (cont.), page 2 of 8.

| Local Name | Family | Latin Name |
| :---: | :---: | :---: |
| HERB |  |  |
| Agoseris, Large-Flowered | Asteraceae | Agoseris grandiflora |
| Anemone, Bog | Ranunculaceae | Anemone oregana |
| Anemone, Lyall's | Ranunculaceae | Anemone lyallii |
| Anemone, Three-leaf | Ranunculaceae | Anemone deltoidea |
| Anise, Sweet | Apiaceae | Osmorhiza occidentalis |
| Arrowwood, Indian | Rosaceae | Holodiscus discolor |
| Aster, Douglas' | Asteraceae | Aster subspicatus |
| Avens, Largeleaved | Rosaceae | Geum macrophyllum |
| Balsamroot, Deltoid | Asteraceae | Balsamorhiza deltoidea |
| Baneberry, Red | Ranunculaceae | Actaea rubra |
| Bedstraw, Oregon | Rubiaceae | Galium oreganum |
| Bedstraw, Sweet-scented | Rubiaceae | Galium triflorum |
| Betony, Great | Lamiaceae | Stachys cooleyae |
| Betony, Mexican | Lamiaceae | Stachys mexicana |
| Bigroot, Oregon | Cucurbitaceae | Marah oreganus |
| Bittercress, Little Wester | Brassicaceae | Cardamine oligosperma |
| Bittercress, Pennsylvania | Brassicaceae | Cardamine pensylvanica |
| Bleeding Hearts | Fumariaceae | Dicentra formosa |
| Borage | Boraginaceae | Borago officianlis |
| Brodiaea, Elegant | Liliaceae | Brodiaea elegans |
| Brodiaea, Harvest | Liliaceae | Brodiaea coronaria |
| Broom, Chapparal | Asteraceae | Baccharis pitularis |
| Bugbane, Tall | Ranunculaceae | Cimicifuga elata |
| Bur-reed, Simplestem | Sparganiaceae | Sparganium emersum |
| Buttercup, Little | Ranunculaceae | Ranunculus uncinata |
| Buttercup, Spiny-Fruit | Ranunculaceae | Ranunculus maricatus |
| Buttercup, Straight-beaked | Ranunculaceae | Ranunculus orthohynchus |
| Buttercup, Western | Ranunculaceae | Ranunculus occidentalis |
| Butterweed, Puget | Asteraceae | Senecio macounii |
| Camas | Liliaceae | Camassia quamash |
| Camas, Death | Liliaceae | Zigadenus venenosus |
| Carrot, American | Apiaceae | Daucus pusillus |
| Cat's ear, Tolmie's | Liliaceae | Calochortus tolmiei |
| Cicely, Mountain Sweet- | Apiaceae | Osmorhiza chilensis |
| Cinquefoil, Five-Finger | Rosaceae | Potentilla gracilis |
| Cinquefoil, Sticky | Rosaceae | Potentilla glandulosa |
| Clarkia, Lindely's | Onagraceae | Clarkia amoena |
| Clarkia, Rhombic-petaled | Onagraceae | Clarkia rhomboidea |
| Clarkia, Small-Flowered | Onagraceae | Clarkia quadrivulnera |
| Clarkia, Twiggy | Onagraceae | Clarkia viminea |
| Cleavers | Rubiaceae | Galium aparine |
| Clover, Pinole | Fabaceae | Trifolium bifidum |
| Clover, Spanish | Fabaceae | Lotus purshiana |
| Clover, Thimble | Fabaceae | Trifolium microdon |
| Clover, Tomcat | Fabaceae | Trifolium tridentatum |
| Clover, Wooly | Fabaceae | Trifolium microcephalum |
| Collinsia, Bigflower | Scrophulariaceae | Collinsia grandiflora |
| Collinsia, Small-Flowered | Scrophulariaceae | Collinsia parvifolia |
| Collomia, Bigflower | Polemoniaceae | Collomia grandiflora |

Table E. 3 (cont.), page 3 of 8 .

| Local Name | Family | Latin Name |
| :---: | :---: | :---: |
| HERB (CONT.) |  |  |
| Collomia, Varied-Leaf | Polemoniaceae | Collomia heterophylla |
| Coltsfoot, Sweet | Asteraceae | Petasites frigidus |
| Columbine, Red | Ranunculaceae | Aquilegia formosa |
| Coralroot, Spotted | Orchidaceae | Corallorhiza maculata |
| Coralroot, Striped | Orchidaceae | Corallorhiza striata |
| Cress, Wood Bitter | Brassicaceae | Cardamine angulata |
| Cryptantha, Common | Boraginaceae | Cryptantha intermedia |
| Cudweed, Lowland | Asteraceae | Gnaphalium palustre |
| Daisy, Willamette | Asteraceae | Erigeron decumbens |
| Dock, Willow | Polygonaceae | Rumex salicifolius |
| Dogbane, Spreading | Apocynaceae | Apocynum androsaemifolium |
| Downingia, Douglas's | Campanulaceae | Downingia elegans |
| Duckfoot | Berberidaceae | Vancouveria hexandra |
| Duckweed, Large | Lemnaceae | Spirodela polyrhiza |
| Fairy-bell, Hooker | Liliaceae | Disporum hookeri |
| Fairy-bell, Smith | Liliaceae | Disporum smithii |
| Fireweed | Onagraceae | Epilobium angustifolium |
| Flax, Perennial | Linaceae | Linum lewisii |
| Fleabane, Showy | Asteraceae | Erigeron speciosus |
| Foamflower | Saxifragaceae | Tiarella trifoliata |
| Forget-Me-Not, Small Flower | Boraginaceae | Myosotis laxa |
| Four-O'Clock, MacFarlane's | Nyctaginaceae | Mirabilis macfarlanei |
| Fringecup | Saxifragaceae | Tellima grandiflora |
| Fringepod | Brassicaceae | Thysanocarpus curvipes |
| Geranium, Bicknell's | Geraniaceae | Geranium bicknellii |
| Geranium, Oregon | Geraniaceae | Geranium oreganum |
| Ginger, Wild | Aristolochiaceae | Asarum caudatum |
| Goldenrod, Canadian | Asteraceae | Solidago canadensis |
| Goldthread, Western | Ranunculaceae | Coptis laciniata |
| Gumweed | Asteraceae | Madia sativa |
| Gumweed, Willamette | Asteraceae | Grindelia integrifolia |
| Harebell, Scouler's | Campanulaceae | Campanula scouleri |
| Hawkweed, White-Flowered | Asteraceae | Hieracium albiflorum |
| Helibore, California False | Liliaceae | Veratum californicum |
| Helibore, Siskiyou False | Liliaceae | Veratrum insolitum |
| Heuchera, Small-flowered | Saxifragaceae | Heuchera micrantha |
| Horsetail, Field | Equisetaceae | Equisetum arvense |
| Horstail, Giant | Equisetaceae | Equisetum telmateia |
| Hound's Tongue, Pacific | Boraginaceae | Cynoglossum grande |
| Hyacinth, Brody's | Liliaceae | Brodiaea hyacintha |
| Indian Pipe | Ericaceae | Monotropa uniflora |
| Iris, Blue-eyed Grass | Iridaceae | Sisyrinchium angustifolia |
| Iris, Oregon Flag | Iridaceae | Iris tenax |
| Larkspur, Menziesies' | Ranunculaceae | Delphinium menziesii |
| Larkspur, Peacock | Ranunculaceae | Delphinium pavonaceum |
| Larkspur, Poison | Ranunculaceae | Delphinium trolliifolium |
| Lentil, Water | Lemnaceae | Lemna minor |
| Lettuce, Malheur Wire | Asteraceae | Stephanomeria malheurensis |
| Lily, Oregon | Liliaceae | Erythonium oregonum |

Table E. 3 (cont.), page 4 of 8 .

| Local Name | Family | Latin Name |
| :---: | :---: | :---: |
| HERB (CONT.) |  |  |
| Lily-Of-The-Valley, False | Liliaceae | Maianthemum dilatatum |
| Linanthus, Bicolor | Polemoniaceae | Linanthus bicolor |
| Lomatium, Barestem | Apiaceae | Lomatium nudicaule |
| Lomatium, Cook's | Apiaceae | Lomatium cookii |
| Lomatium, Fine-Leaf | Apiaceae | Lomatium utriculatum |
| Lomatium, Nine-leaf | Apiaceae | Lomatium triternatum |
| Lotus, Little-Flowered | Fabaceae | Lotus micranthus |
| Lotus, Meadow | Fabaceae | Lotus denticulatus |
| Lotus, Nevada | Fabaceae | Lotus nevadensis |
| Lovage | Apiaceae | Ligusticum apiifolium |
| Luina, Silvercrown | Asteraceae | Luina nardosmia |
| Lupine, Broadleaf | Fabaceae | Lupinus latifolius |
| Lupine, Kincaid's | Fabaceae | Lupinus sulphureus var. kincaidii |
| Lupine, Large | Fabaceae | Lupinus polyphyllus |
| Lupine, Small-Flowered | Fabaceae | Lupinus micranthus |
| Mallow, Meadow | Malvaceae | Sidalcea campestris |
| Mallow, Nelson's | Malvaceae | Sidalcea nelsoniana |
| Mallow, Rose Checker- | Malvaceae | Sidalcea virgata |
| Meadow-rue, Western | Ranunculaceae | Thalictrum occidentale |
| Microsteris, Pink | Polemoniaceae | Microsteris gracilis |
| Miner's Lettuce | Portulacaceae | Montia perfoliata |
| Mission Bells | Liliaceae | Fritillaria lanceolata |
| Mistletoe | Loranthaceae | Phoradendron flavescens |
| Mistmaiden, Sitka | Hydrophyllaceae | Romanzoffia sitchensis |
| Mitrewort, Star-Shaped | Saxifragaceae | Mitella caulescens |
| Monkey Flower, Slimy | Scrophulariaceae | Mimulus moschatus |
| Monkeyflower, Three-Colored | Scrophulariaceae | Mimulus tricolor |
| Monkeyflower, Tooth-leaved | Scrophulariaceae | Mimulus dentatus |
| Monkeyflower, Yellow | Scrophulariaceae | Mimulus guttatus |
| Montia, Dwarf | Portulacaceae | Monte linearis |
| Montia, Siberian | Portulacaceae | Montia siberica |
| Morning-Glory | Convolvulaceae | Convolvulus nyctagineus |
| Nemophila, Small-Flowered | Hydrophyllaceae | Nemophila parviflora |
| Nemophila, Sticky | Hydrophyllaceae | Phacelia nemoralis |
| Nettle, Slim | Urticaceae | Urtica dioica |
| Nevarretia, Needle-leaf | Polemoniaceae | Nevarretia intertexta |
| Nightshade, Enchanter's | Onagraceae | Circaea alpina |
| Onion, Congested Fool's | Liliaceae | Brodiaea congesta |
| Onion, Thin Leaf | Liliaceae | Allium amplectens |
| Onion, Wild | Liliaceae | Allium, sp. |
| Orchid, Calypso | Orchidaceae | Calypso bulbosa |
| Orchid, Elegant | Orchidaceae | Habernaria elegans |
| Orchid, Phantom | Orchidaceae | Eburophyton austiniae |
| Owl-Clover, Hairy | Scrophulariaceae | Orthocarpus hispidus |
| Paintbrush, Golden | Scrophulariaceae | Castilleja levisecta |
| Paintbrush, Harsh | Scrophulariaceae | Castilleja hispida |
| Parsley, Bradshaw's Desert | Apiaceae | Lomatium bradshawii |
| Parsley, Hedge | Apiaceae | Caucalis microcarpa |
| Parsley, Pacific Water- | Apiaceae | Oenanthe sarmentosa |

Table E. 3 (cont.), page 5 of 8.

| Local Name | Family | Latin Name |
| :---: | :---: | :---: |
| HERB (CONT.) |  |  |
| Parsnip, Cow | Apiaceae | Heracleum lanatum |
| Pathfinder | Asteraceae | Adenocaulon bicolor |
| Pea, Mountain Golden | Fabaceae | Thermopsis montana |
| Pearly-Everlasting | Asteraceae | Anaphalis margaritacea |
| Peavine, Leafy | Fabaceae | Lathyrus polyphyllus |
| Peavine, Pacific | Fabaceae | Lathyrus vestitus |
| Peavine, Purple | Fabaceae | Lathyrus nevadensis |
| Peavine, Thin-leaved | Fabaceae | Lathyrus holochlorus |
| Pennywort, Whorled Marsh | Apiaceae | Hydrocotyle verticillata |
| Phacelia, Varileaf | Hydrophyllaceae | Phacelia heterophylla |
| Piggy-A-Back Plant | Saxifragaceae | Tolmiea menziesii |
| Pineapple Weed | Asteraceae | Matricaria discoidea |
| Plantain, Rattlesnake- | Orchidaceae | Goodyera oblongifolia |
| Plectritis, Rosy | Valerianaceae | Plectritis congesta |
| Popcorn Flower, Wild | Boraginaceae | Plagiobothrys hirtus |
| Poppy, California | Papaveraceae | Eschscholzia californica |
| Prince's Pine | Ericaceae | Chimaphila menziesii |
| Pyrola, Leafless | Ericaceae | Pyrola aphylla |
| Pyrola, Whitevein | Ericaceae | Pyrola picta |
| Queen-Of-The-Forest | Rosaceae | Filipendula occidentalis |
| Rose, Baldhip | Rosaceae | Rosa gymnocarpa |
| Rose, Nootka | Rosaceae | Rosa nutkana |
| Rose, Peafruit | Rosaceae | Rosa pisocarpa |
| Rush, Dutch | Equisetaceae | Equisetum hyemale |
| Sandwort, Bigleaf | Caryophyllaceae | Arenaria macrophylla |
| Sanicle, Pacific | Apiaceae | Sanicula crassicaulis |
| Sanicle, Purple | Apiaceae | Sanicula bipinnatifida |
| Sanicle, Sierra | Apiaceae | Sanicula graveolens |
| Saxifrage, Oregon | Saxifragaceae | Saxifraga oregana |
| Saxifrage, Swamp | Saxifragaceae | Saxifraga integrifolia |
| Self-Heal, Common | Lamiaceae | Prunella vulgaris |
| Shooting Star, Henderson's | Primulaceae | Dodecatheon hendersonii |
| Silene, Hooker's | Caryophyllaceae | Silene hookeri |
| Snow Queen, Round-Leaved | Scrophulariaceae | Synthyris reniformis |
| Solomon's Seal, False | Liliaceae | Smilacina stellata |
| Solomon's Seal, Western False | Liliaceae | Smilacina racemosa |
| Speedwell, Purslane | Scrophulariaceae | Veronica peregrina |
| Starflower, Western | Primulaceae | Trientalis latifolia |
| Starwort, Crisped | Caryophyllaceae | Stellaria crispa |
| Starwort, Longstalk | Caryophyllaceae | Stellaria longipes |
| Starwort, Northern | Caryophyllaceae | Stellaria calycantha |
| Strawberry, Virginia | Rosaceae | Fragaria virginiana |
| Strawberry, Wild | Rosaceae | Fragaria vesca |
| Sunflower, Wooly | Asteraceae | Eriophyllum lanatum |
| Tarweed, Gray | Asteraceae | Madia exigua |
| Tarweed, Showy | Asteraceae | Madia elegans |
| Tarweed, Slender | Asteraceae | Madia gracilis |
| Tarweed, Woodland | Asteraceae | Madia madioides |
| Thistle, Edible | Asteraceae | Cirsium hallii |

Table E. 3 (cont.), page 6 of 8 .

| Local Name | Family | Latin Name |
| :---: | :---: | :---: |
| HERB (CONT.) |  |  |
| Thistle, Mountain | Asteraceae | Cirsium callilepis |
| Toadflax, Bastard | Santalaceae | Comandra umbellata |
| Toothwort, Slender | Brassicaceae | Cardamine pulcherrima |
| Trefoil, Birdsfoot | Fabaceae | Lotus corniculatus |
| Trillium, Giant | Liliaceae | Trillium chloropetalum |
| Trillium, Western White | Liliaceae | Trillium ovatum |
| Twayblades, Heart-leaf | Orchidaceae | Listera cordata |
| Twinflower | Caprifoliaceae | Linnaea borealis var. longifolia |
| Twisted Stalk | Liliaceae | Streptopus amplexifolius |
| Vanillaleaf | Berberidaceae | Achlys triphylla |
| Veronica, American | Scrophulariaceae | Veronica Americana |
| Vetch, American | Fabaceae | Vicia americana |
| Vetch, Applegate's Milk | Fabaceae | Astragalus applegatei |
| Violet, Baker's | Violaceae | Viola nuttallii |
| Violet, Pioneer | Violaceae | Viola glabella |
| Violet, Redwood | Violaceae | Viola sempervirens |
| Watercress | Brassicaceae | Rorippa nasturtium-aquaticum |
| Waterleaf, Fendler's | Hydrophyllaceae | Hydrophyllum fendleri |
| Waterleaf, Slender-Stalk | Hydrophyllaceae | Hydrophyllum tenuipes |
| Waterleaf, Western | Hydrophyllaceae | Hydrophyllum occidentale |
| Whitlow-grass, Spring | Brassicaceae | Draba verna |
| Willow-Herb, Autumn | Onagraceae | Epilobium paniculatum |
| Willow-Herb, Common | Onagraceae | Epilobium glandulosum |
| Willow-Herb, Small-flowered | Onagraceae | Epilobium minutum |
| Willow-Herb, Smooth | Onagraceae | Epilobium glabberimum |
| Willow-Herb, Watson's | Onagraceae | Epilobium watsonii |
| Wintercress, American | Brassicaceae | Barbarea orthoceras |
| Wooly-Heads, Tall | Asteraceae | Psilocarphus elatior |
| Yarrow | Asteraceae | Achillea millefolium |
| Yerba Buena | Lamiaceae | Satureja douglasii |
| NUMBER: 226 |  |  |
| RUSH |  |  |
| Rush, Daggerleaf | Juncaceae | Juncus ensifolius |
| Rush, Slender | Juncaceae | Juncus tenuis |
| Rush, Small-flowered Wood | Juncaceae | Luzula parviflora |
| Rush, Soft | Juncaceae | Juncus effusus |
| Rush, Toad | Juncaceae | Juncus bufonius |
| Rush, Wood | Juncaceae | Luzula campestris |
| NUMBER: 6 |  |  |

Table E. 3 (cont.), page 7 of 8 .

Local Name
SEDGE
Bullrush, American
Bullrush, Smallfruit
Sedge, Bigleaf
Sedge, Creeping
Sedge, Dense
Sedge, Dewey's
Sedge, Foothill
Sedge, Fragileleaf
Sedge, Golden
Sedge, Greensheathed
Sedge, Henderson's
Sedge, Sawbeak
Sedge, Slough
NUMBER: 13
SHRUB
Blackberry, Trailing
Blackcap
Boxwood, Oregon
Ceanothus, Redstem
Currant, Red-flowering
Currant, Stink
Dogwood, Red Osier
Elderberry, Blue
Elderberry, Red
Filbert
Gooseberry, Straggly
Huckleberry, Red
Maple, Vine[y]
Mock Orange
Ninebark, Pacific
Oregon Grape, Cascade
Oregon Grape, Tallbush
Plum, Indian
Plum, Wild
Poisonoak
Salal
Salmonberry
Serviceberry, Western
Snowberry, Common
Snowberry, Creeping
Snowbrush
Thimbleberry
Thornapple
Viburnum, Oval-leaved
Whipplevine
NUMBER: 30

Family

Cyperaceae Cyperaceae Cyperaceae
Суреraceae
Cyperaceae
Cyperaceae
Cyperaceae
Cyperaceae
Cyperaceae
Cyperaceae
Cyperaceae
Cyperaceae
Cyperaceae

Rosaceae
Rosaceae
Celastraceae
Rhamnaceae
Grossulariaceae
Grossulariaceae
Cornaceae
Caprifoliaceae
Caprifoliaceae
Betaluceae
Grossulariaceae
Ericaceae
Aceraceae
Hydrangeaceae
Rosaceae
Berberidaceae
Berberidaceae
Rosaceae
Rosaceae
Anacardiaceae
Ericaceae
Rosaceae
Rosaceae
Caprifoliaceae
Caprifoliaceae
Rhamnaceae
Rosaceae
Rosaceae
Caprifoliaceae
Hydrangeaceae

## Latin Name

Scirpus americanus
Scirpus microcarpus
Carex amplifolia
Eleocharis palustris
Carex densa
Carex deweyana
Carex tumulicola
Carex fracta
Carex aurea
Carex feta
Carex hendersonii
Carex stipata
Carex obnupta

Rubus ursinus
Rubus leucodermis
Pachistima myrsinites
Ceanothus sanguineus
Ribes sanguineum
Ribes bracteosum
Cornus stolonifera
Sambucus cerulea
Sambucus racemosa
Corylus cornuta
Ribes divarcatum
Vaccinium parvifolium
Acer circinatum
Philadelphus lewisii
Physocarpus capitatus
Berberis nervosa
Berberis aquifolium
Oemleria cerastiformis
Prunus americana
Rhus diversiloba
Gaultheria shallon
Rubus spectabilis
Amelanchier alnifolia
Symphoricarpos albus
Symphoricarpos mollis
Ceanothus velutinus
Rubus parviflorus
Crataegus monogynum
Viburnum ellipticum
Whipplea modesta

Table E. 3 (cont.), page 8 of 8 .

| Local Name | Family | Latin Name |
| :--- | :--- | :--- |
| TREE |  |  |
| Alder, Red | Betaluceae | Alnus rubra |
| Ash, Oregon | Oleaceae | Fraxinus latifolia |
| Cedar, Incense | Cupressaceae | Calocedrus decurrens |
| Cherry, Bitter | Rosaceae | Prunus emarginata |
| Cherry, Choke | Rosaceae | Prunus virginiana |
| Chittum | Rhamnaceae | Rhamnus purshiana |
| Cottonwood, Black | Salicaceae | Populus trichocarpa |
| Dogwood, Pacific | Cornaceae | Cornus nuttallii |
| Douglas-Fir | Pinaceae | Pseudotsuga menziesii |
| Fir, Grand | Pinaceae | Abies grandis |
| Hawthorne, Black | Rosaceae | Crataegus douglasii |
| Hemlock, Western | Pinaceae | Tsuga heterophylla |
| Madrone, Pacific | Ericaceae | Arbutus menzesii |
| Maple, Bigleaf | Aceraceae | Acer macrophyllum |
| Oak, Oregon White | Fagaceae | Quercus garryana |
| Redcedar, Western | Cupressaceae | Thuja plicata |
| Willow Salicaceae | Salix unknown |  |
| Willow, Scouler's | Salicaceae | Salix scouleriana |
| Yew | Taxaceae | Taxus brevifolia |
| NUMBER: 19 |  |  |
| $\quad$ VINE |  |  |
| Honeysucke, Hairy | Caprifoliaceae | Lonicera hispidula |
| Honeysuckle, Western | Caprifoliaceae | Lonicera ciliosa |
| NUMBER: 2 |  |  |

TOTAL NUMBER: 331

Table E. 4 Exotic vascular plants, 1826-1999. Page 1 of 3.

## Latin Name

## GRASS

Agrostis hendersonii
Agrostis tenuis
Aira caryophyllea
Alopecurus pratensis
Anthoxanthum odoratum
Arrhenatherum elatius
Avena fatua
Brachypodium sylvaticum
Briza minor
Bromus commutatus
Bromus japonicus
Bromus mollis
Bromus rigidus
Bromus secalinus
Bromus sterilis
Bromus tectorum
Cynosurus cristatus
Cynosurus echinatus
Dactylis glomerata
Fescue bromoides
Festuca arundinacea
Festuca myuros
Festuca pratensis
Festuca rubra
Holcus lanatus
Hordeum marinum
Lolium multiflorum
Lolium perenne
Phalaris aquatica
Phleum pratense
Poa annua
Poa compressa
Poa palustris
Poa pratensis
Taeniatherum caput-medusa
NUMBER: 35

## HERB

Daucus carota
Torilis purpurea
Anthemis cotula
Arctium minus
Bellis perennis
Centaurea cyanus
Centaurea pratensis
Chrysanthemum leucanthemum
Cirsium arvense
Cirsium vulgare
Crepis capillaris

## Family

Poaceae
Poaceae

## Poaceae

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Apiaceae
Apiaceae
Asteraceae
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Asteraceae
Asteraceae

Local Name

Henderson's Bentgrass
Colonial Bentgrass
Silver Hairgrass
Meadow Foxtail
Sweet Vernalgrass
Oatgrass
Wild Oats
False Brome
Quaking-grass
Hairy Brome
Japanese Chess
Soft Chess
Rip-gut Brome
Chess Brome
Barren Brome
Cheat Grass
Crested Dogtail
Hedgehog Dogtail
Orchard-grass
Barren Fescue
Tall Fescue
Rat-tail Fescue
Meadow Fescue
Red Fescue
Common Velvet-grass
Mediterranean Barley
Prairie Ryegrass
Perennial Ryegrass
Harding Grass
Common Timothy
Annual Bluegrass
Canadian Bluegrass
Fowl Bluegrass
Kentucky Bluegrass
Medusahead Wildrye

Queen Anne's Lace
Hedge-Parsley
Stinking Mayweed
Common Burdock
English Daisy
Bachelor Button
Meadow Knapweed
Oxeye Daisy
Canada Thistle
Bull Thistle
Smooth Hawksbeard

Table E. 4 (cont.). page 2 of 3.

| Latin Name | Family | Local Name |
| :---: | :---: | :---: |
| HERB (CONT.) |  |  |
| Crepis setosa | Asteraceae | Rough Crepis |
| Hypochaeris radicata | Asteraceae | Spotted Cats-Ear |
| Lactuca biennis | Asteraceae | Tall Blue Lettuce |
| Lactuca muralis | Asteraceae | Wall Lettuce |
| Lapsana communis | Asteraceae | Nipplewort |
| Matricaria chamomilla | Asteraceae | Wild Chamomile |
| Senecio jocabaea | Asteraceae | Tansy Ragwort |
| Senecio sylvaticus | Asteraceae | Woodland Groundsel |
| Senecio vulgaris | Asteraceae | Common Groundsel |
| Sonchus Alevaceous | Asteraceae | Common Sowthistle |
| Sonchus asper | Asteraceae | Prickly Sow-Thistle |
| Tanacetum vulgare | Asteraceae | Common Tansy |
| Taraxacum officinale | Asteraceae | Dandelion |
| Tragopogon dubius | Asteraceae | Yellow Salsify |
| Tragopogon porrifolius | Asteraceae | Purple Salsify |
| Myosotis discolor | Boraginaceae | Yellow and Blue Myosotis |
| Brassica compestris | Brassicaceae | Field Mustard |
| Conringia orientalis | Brassicaceae | Treacle Hare's Ear |
| Sisymbrium officinale | Brassicaceae | Hedge Mustard |
| Callitriche stagnalis | Callitrichaceae | Pond Water-Starwort |
| Cerastium viscosum | Caryophyllaceae | Sticky Chickweed |
| Cerastium vulgatum | Caryophyllaceae | Chickweed |
| Dianthus armeria | Caryophyllaceae | Grass Pink |
| Stellaria media | Caryophyllaceae | Chickweed |
| Convolvulus arvensis | Convolvulaceae | Field Bindweed |
| Convolvulus sepium | Convolvulaceae | Hedge Bindweed |
| Dipsacus sylvestris | Dipsacaceae | Teasel |
| Euphorbia peplus | Euphorbiaceae | Beetle Spurge |
| Lathyrus sphaericus | Fabaceae | Grass Peavine |
| Trifolium dubium | Fabaceae | Suckling Clover |
| Trifolium pratense | Fabaceae | Red Clover |
| Trifolium procumbens | Fabaceae | Hop Clover |
| Trifolium repens | Fabaceae | White Clover |
| Trifolium subterraneum | Fabaceae | Subterraneum Clover |
| Vicia cracca | Fabaceae | Tufted Vetch |
| Vicia hirsuta | Fabaceae | Hairy Vetch |
| Vicia sativa | Fabaceae | Common Vetch |
| Vicia tetrasperma | Fabaceae | Slender Vetch |
| Centaurium umbellatum | Gentianaceae | Common Centaury |
| Erodium cicutarium | Geraniaceae | Stork's-Bill |
| Geranium columbinum | Geraniaceae | Longstalked Geranium |
| Geranium dissectum | Geraniaceae | Cutleaf Geranium |
| Geranium molle | Geraniaceae | Dovefoot Geranium |
| Geranium pusillum | Geraniaceae | Small Flowered Crane's Bill |
| Geranium robertianum | Geraniaceae | Herb Robert |
| Hypericum perfoliatum | Hypericaceae | St. John's Wort |
| Lamium purpureum | Lamiaceae | Purple Deadnettle |
| Melissa officinalis | Lamiaceae | Lemon Balm |
| Mentha piperita | Lamiaceae | Peppermint |

Table E. 4 (cont.), page 3 of 3 .

| Latin Name |
| :--- |
| HERB (CONT.) |
| Allium vineale |
| Narcissus pseudonarcissus |
| Plantago lanceolata |
| Plantago major |
| Polygonum aviculare |
| Polygonum hydropiper |
| Polygonum sachalinense |
| Rumex acetosella |
| Rumex conglomeratus |
| Rumex crispus |
| Rumex obtusifolius |
| Ranunculus repens |
| Rosa eglanteria |
| Sanguisorba minor |
| Galium parisiense |
| Sherardia arvensis |
| Digitalis purpurea |
| Parentucellia viscosa |
| Verbascum blattaria |
| Veronica persica |
| Solanum dulcamara |
| Velarian locusta |
| NUMBER: 82 |

SHRUB
Ilex aquifolium
Cytisus scoparius
Rubus discolor
Rubus laciniatus
NUMBER: 4
TREE
Araucaria excelsa
Chamaecyparis lawsoniana
Robinia pseudoacacia
Castanea dentata
Aesculus hippocastanum
Juglans nigra
Juglans regia
Abies pinsapo
Pinus sylvestris
Crataegus mongyna
Prunus avium
Pyrus communis
Pyrus malus
NUMBER: 12

## Appendix F. <br> Bearing Tree Species, Locations, Sizes, and Associations, 1852-1882

This appendix lists all US Public Land Survey (PLS) bearing trees (BTs) recorded in Soap Creek Valley between 1851 and 1883 (see Maps 2, 11, and 21; Freeman 1852; Hyde 1852a; 1852b; Ives 1852; Elder 1853; Hathorn 1854a; 1854b; Mercer 1882). BTs are listed individually by species, size, and section (Table F.1; see Map 2), individually by species, size, and distance from survey point (Table F.2; see Map 21), and summarized by species, size, and average distance from survey points (Table F.3). Information is derived from a computerized database first assembled in 1990 (Zybach et al., 1990) for OSU Research Forests (Trosper \& Zybach 1996). The original database contains a significant amount of data not included in the following tables, including the location, distance, and bearing of individual trees in relation to survey corners and subdivisions, and specific page numbers of transcribed original survey notes in possession of the Benton County Surveyor's Office.

Table F. 1 lists every Soap Creek Valley BT recorded before 1883. Trees are grouped according to the legal description of the study area section in which they are found, and arranged by species and diameter (in inches). The name of the original surveyor, the date the BT was originally measured and recorded, and the number of survey chains (a chain equals 66 feet) each tree is located from a specific survey point, are also listed. Each section is summarized by the total number of BTs within the study area, their average diameter, and their average distance from survey points. These data are plotted on Map 21, but the scale is too small to be clearly visible on a map of this size. Larger plottings of the data allow for easy identification of individual tree locations, species, and diameter class.

Table F. 2 lists the same BTs listed in Table F.1, but arrangement is by species instead of location (section). Species are arranged by diameter and distance from survey point. Understory trees and associated wild plant species are also listed for each tree location whenever that information was provided by the original surveyor. Each species' group is summarized by total number of trees, average diameter, and average distance from survey points. (This table seems to
indicate a number of significant correlations between BT species, tree sizes, stand density, and associated plant species.)

Table F. 3 is a summary of BT data contained in Tables F. 1 and F.2. It shows the total number of Soap Creek Valley BTs by species, their average diameter (in inches), and their average distance from survey points (in feet). See Appendix G; Tables 15, 19, 20, and 21.

Table F. 1 Species, diameters, locations, and recording dates. See Maps 2, 11, and 21. Page 1 of 8 .

| BT Species | DIA | Surveyor | Date | Chains |
| :---: | :---: | :---: | :---: | :---: |
| Tsp. 10 S., Rng. 4 W., Sec. 7 |  |  |  |  |
| ASH | 12 | Hathorn | 18540712 | 5.16 |
| OAK | 10 | Freeman | 18520710 | 0.74 |
| OAK | 14 | Freeman | 18520123 | 5.12 |
| OAK | 24 | Hathorn | 18540711 | 1.25 |
| OAK | 30 | Hathorn | 18540711 | 0.28 |
| Number: 5 | Ave | 8 |  | Ave: 2 |


|  | Tsp. 10 S., Rng. $\mathbf{4}$ W., Sec. 18 |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :--- |
| OAK | 15 | Freeman | 18520710 | 1.02 |
| OAK | 20 | Freeman | 18520710 | 0.98 |
| OAK | 24 | Hathorn | 18540711 | 9.97 |
| Number: 3 | Ave: 20 |  |  | Ave: 3.99 |

Tsp. 10 S., Rng. 4 W., Sec. 19

| ASH | 20 | Hathorn | 18540710 | 5.20 |
| :--- | :--- | :--- | :--- | :--- |
| OAK | 10 | Freeman | 18520710 | 1.02 |
| OAK | 13 | UK | 18590823 | 0.31 |
| OAK | 15 | UK | 18590823 | 0.30 |
| OAK | 15 | UK | 18590823 | 0.53 |
| OAK | 15 | Hathorn | 18540711 | 8.20 |
| OAK | 20 | UK | 18590823 | 0.52 |

Number: 7
Ave: 15
Ave: 2.30

|  | Tsp. 10 | S., Rng. 4 | W., Sec. 30 |  |
| :--- | :---: | :---: | :---: | :--- |
| OAK |  |  |  |  |
| Oreeman | 18520123 | 2.20 |  |  |
| Number: 1 | Ave: 20 |  | Ave: 2.20 |  |


| Tsp. 10 |  |  |  |  |  | S., Rng. 5 W., Sec. 10 |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OAK Hathorn | 18540817 | 3.91 |  |  |  |  |  |  |
| Number: 1 | Ave: 30 |  |  | Ave: 3.91 |  |  |  |  |

Tsp. 10 S., Rng. 5 W., Sec. 11

| ASH | 10 | Hathorn | 18540819 | 41.26 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| OAK | 12 | Elder | 18530303 | 0.52 |
| OAK | 12 | Hathorn | 18540821 | 1.88 |
| OAK | 15 | Hathorn | 18540821 | 4.56 |
| OAK | 15 | Hathorn | 18540819 | 13.45 |
| OAK | 20 | Hathorn | 18540819 | 10.36 |
| OAK | 30 | Hathorn | 18540821 | 13.00 |
| OAK | 30 | Elder | 18530303 | 2.39 |
| OAK | 40 | Elder | 18530303 | 1.73 |
| OAK | A0 | Elder | 18530303 | 2.15 |
| Number: $\mathbf{1 0}$ | Ave: $\mathbf{2 1}$ |  |  | Ave: 9.13 |

Table F. 1 (cont.), page 2 of 8.

| BT Species | DIA | Surveyor | Date | Chains |
| :---: | :---: | :---: | :---: | :---: |
| Tsp. 10 S., Rng. 5 W., Sec. 12 |  |  |  |  |
| ASH | 8 | Elder | 18530229 | 0.76 |
| ASH | 10 | Hathorn | 18540712 | 2.29 |
| ASH | 14 | Elder | 18530229 | 5.20 |
| ASH | 15 | Hathorn | 18540712 | 3.54 |
| OAK | 15 | Hathorn | 18540821 | 13.80 |
| OAK | 18 | Elder | 18530229 | 3.58 |
| OAK | 18 | Freeman | 18520123 | 7.73 |
| Number: 7 | Ave |  |  | Ave: |


|  | Tsp. $\mathbf{1 0}$ S., Rng. $\mathbf{5}$ W., Sec. $\mathbf{1 3}$ |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :--- |
| ASH | 6 | Hathorn | 18540712 | 2.85 |
| ASH | 12 | Hathorn | 18540819 | 36.61 |
| ASH | 14 | Elder | 18530229 | 2.30 |
| ASH | 20 | Elder | 18530229 | 5.24 |
| OAK | 20 | Hathorn | 18540712 | 2.33 |
| Number: $\mathbf{5}$ | Ave: $\mathbf{1 4}$ |  | Ave: $\mathbf{9 . 8 7}$ |  |


|  | Tsp. $\mathbf{1 0}$ S., Rng. $\mathbf{5}$ W., Sec. $\mathbf{1 4}$ |  |  |  |  |
| :--- | ---: | ---: | :--- | :--- | :--- |
| ASH | 10 | Elder | 18530229 | 1.48 |  |
| ASH | 10 | Elder | 18530229 | 4.50 |  |
| OAK | 10 | Elder | 18530302 | 0.38 |  |
| OAK | 12 | Hathorn | 18540819 | 3.87 |  |
| OAK | 15 | Hathorn | 18540819 | 1.72 |  |
| OAK | 15 | Hathorn | 18540819 | 3.89 |  |
| OAK | 15 | Hathorn | 18540711 | 4.95 |  |
| OAK | 16 | Elder | 18530302 | 0.60 |  |
| OAK | 18 | Elder | 18530303 | 2.14 |  |
| OAK | 20 | Elder | 18530303 | 0.88 |  |
| OAK | 20 | Hathorn | 18540819 | 3.63 |  |
| OAK | 20 | Elder | 18530229 | 4.22 |  |
| OAK | Hathorn | 18540711 | 1.09 |  |  |
| OAK | 36 | Hathorn | 18540711 | 3.13 |  |
| OAK | 40 | Hathorn | 18540819 | 60.20 |  |
| Number: $\mathbf{1 5}$ | Ave: | $\mathbf{1 9}$ |  |  | Ave: 6.45 |


| OAK | 13 | Elder | 18530305 | 1.23 |
| :---: | :---: | :---: | :---: | :---: |
| OAK | 14 | Elder | 18530305 | 0.00 |
| OAK | 18 | Elder | 18530305 | 1.49 |
| OAK | 30 | Elder | 18530303 | 0.38 |
| OAK | 20 | Elder | 18530302 | 1.08 |
| Number: 5 |  |  |  | Ave |

Table F. 1 (cont.), page 3 of 8 .

| BT Species | DIA | Surveyor | Date | Chains |
| :---: | :---: | :---: | :---: | :---: |
| Tsp. 10 S., Rng. 5 W., Sec. 22 |  |  |  |  |
|  |  |  |  |  |
| DOUGLAS-FIR | 24 | Hathorn | 18540817 | 0.55 |
| OAK | 11 | Elder | 18530305 | 1.40 |
| OAK | 11 | Elder | 18530305 | 3.28 |
| OAK | 12 | Elder | 18530302 | 0.77 |
| OAK | 12 | Elder | 18530305 | 2.06 |
| OAK | 12 | Hathorn | 18540817 | 2.64 |
| OAK | 20 | Hathorn | 18540817 | 0.30 |
| OAK | 20 | Elder | 18530305 | 0.57 |
| OAK | 30 | Elder | 18530302 | 1.02 |
| WILLOW | 10 | Mercer | 18820509 | 0.50 |
| Number: 11 | Ave | 5 |  | Ave: 1.25 |
| Tsp. 10 S., Rng. 5 W., Sec. 23 |  |  |  |  |
| ASH | 14 | Elder | 18530228 | 6.37 |
| MAPLE | 24 | Elder | 18530302 | 15.07 |
| OAK | 10 | Elder | 18530302 | 1.08 |
| OAK | 10 | Elder | 18530302 | 3.22 |
| OAK | 12 | Hathorn | 18540819 | 0.25 |
| OAK | 12 | Hathorn | 18540819 | 0.32 |
| OAK | 12 | Elder | 18530302 | 0.34 |
| OAK | 12 | Hathorn | 18540817 | 3.21 |
| OAK | 12 | Hathorn | 18540817 | 3.25 |
| OAK | 15 | Hathorn | 18540817 | 6.03 |
| OAK | 18 | Hathorn | 18540817 | 0.96 |
| OAK | 18 | Hathorn | 18540817 | 1.35 |
| OAK | 18 | Hathorn | 18540713 | 2.14 |
| OAK | 18 | Hathorn | 18540713 | 42.56 |
| OAK | 20 | Elder | 18530302 | 0.31 |
| OAK | 20 | Hathorn | 18540710 | 1.90 |
| OAK | 20 | Hathorn | 18540711 | 3.18 |
| OAK | 24 | Hathorn | 18540710 | 0.68 |
| OAK | 24 | Hathorn | 18540817 | 2.58 |
| OAK | 30 | Hathorn | 18540713 | 3.67 |
| OAK | 30 | Hathorn | 18540710 | 7.83 |
| OAK | 30 | Hathorn | 18540710 | 8.80 |
| OAK | 36 | Hathorn | 18540817 | 23.65 |
| Number: 23 | Ave |  |  | Ave: 6.03 |

Table F. 1 (cont.), page 4 of 8 .

| BT Species | DIA | Surveyor | Date | Chains |
| :---: | :---: | :---: | :---: | :---: |
| Tsp. 10 S., Rng. 5 W., Sec. 24 |  |  |  |  |
| ASH | 11 | Freeman | 18520123 | 4.86 |
| ASH | 12 | Hathorn | 18540710 | 9.83 |
| OAK | 18 | Hathorn | 18540710 | 1.70 |
| ASH | 18 | Elder | 18530229 | 2.12 |
| OAK | 18 | Freeman | 18520123 | 2.13 |
| OAK | 20 | Hathorn | 18540710 | 5.65 |
| OAK | 24 | Hathorn | 18540710 | 1.03 |
| OAK | 24 | Elder | 18530228 | 1.19 |
| OAK | 30 | Hathorn | 18540710 | 11.66 |
| OAK | 40 | Freeman | 18520123 | 10.50 |
| OAK | 40 | Hathorn | 18540710 | 11.94 |
| Number: 11 | Ave |  |  | Ave: 5 |


|  | Tsp. 10 | S., Rng. | S | W., Sec. $\mathbf{2 5}$ |
| :--- | :--- | :--- | :--- | :--- |
| MAPLE | 12 | Hathorn | 18540818 |  |
| OAK | 8 | Hathorn | 18540713 | 1.81 |
| OAK | 12 | Elder | 18530228 | 0.07 |
| OAK | 12 | Hathorn | 18540818 | 3.14 |
| OAK | 15 | Hathorn | 18540818 | 0.92 |
| OAK | 15 | Hathorn | 18540713 | 1.63 |
| OAK | 18 | Hathorn | 18540818 | 0.56 |
| OAK | 18 | Elder | 18530228 | 0.88 |
| OAK | 30 | Elder | 18530228 | 2.11 |
| OAK | Elder | 18530228 | 7.83 |  |
| Number: $\mathbf{1 0}$ | Ave: $\mathbf{1 8}$ |  |  | Ave: $\mathbf{2 . 0 2}$ |

Tsp. 10 S., Rng. 5 W., Sec. 26

| ALDER | 10 | Hathorn | 18540818 | 2.03 |
| :--- | :--- | :--- | :--- | :--- |
| OAK | 8 | Elder | 18530302 | 5.80 |
| OAK | 9 | Hathorn | 18540817 | 3.38 |
| OAK | 12 | Hathorn | 18540818 | 2.98 |
| OAK | 14 | Elder | 18530302 | 1.06 |
| OAK | 15 | Elder | 18530301 | 2.04 |
| OAK | 16 | Elder | 18530228 | 0.98 |
| OAK | 18 | Hathorn | 18540818 | 3.69 |
| OAK | 20 | Hathorn | 18540818 | 0.64 |
| OAK | 20 | Hathorn | 18540817 | 3.37 |
| OAK | 22 | Elder | 18530301 | 1.17 |
| OAK | 24 | Hathorn | 18540818 | 1.08 |
| OAK | 24 | Elder | 18530228 | 1.43 |
| OAK | 24 | Hathorn | 18540818 | 2.40 |
| OAK | 30 | Hathorn | 18540817 | 2.77 |
| OAK | 36 | Hathorn | 18540817 | 3.95 |
| OAK | 36 | Elder | 18530302 | 4.36 |

Ave: 2.56

Table F. 1 (cont.), page 5 of 8.

| BT Species | DIA | Surveyor | Date | Chains |
| :---: | :---: | :---: | :---: | :---: |
| Tsp. 10 S., Rng. 5 W., Sec. 27 |  |  |  |  |
| CHERRY | 12 | Elder | 18530305 | 0.80 |
| DOUGLAS-FIR | 48 | Hathorn | 18540817 | 24.54 |
| MAPLE | 6 | Mercer | 18820509 | 0.18 |
| MAPLE | 20 | Hathorn | 18540817 | 4.18 |
| OAK | 10 | Hathorn | 18540817 | 3.37 |
| OAK | 10 | Elder | 18530302 | 4.50 |
| OAK | 12 | Hathorn | 18540817 | 2.42 |
| OAK | 12 | Hathorn | 18540817 | 3.88 |
| OAK | 12 | Hathorn | 18540815 | 4.42 |
| OAK | 12 | Elder | 18530301 | 5.86 |
| OAK | 13 | Elder | 18530305 | 1.36 |
| OAK | 14 | Elder | 18530302 | 8.97 |
| OAK | 16 | Elder | 18530305 | 7.81 |
| OAK | 18 | Hathorn | 18540817 | 2.61 |
| OAK | 18 | Hathorn | 18540817 | 3.83 |
| OAK | 20 | Hathorn | 18540817 | 1.60 |
| OAK | 20 | Hathorn | 18540817 | 1.92 |
| OAK | 20 | Hathorn | 18540817 | 2.82 |
| OAK | 20 | Hathorn | 18540815 | 3.06 |
| OAK | 20 | Hathorn | 18540815 | 3.55 |
| OAK | 24 | Elder | 18530305 | 2.01 |
| OAK | 24 | Hathorn | 18540815 | 3.04 |
| OAK | 30 | Elder | 18530305 | 0.77 |
| Number: 23 | Ave |  |  | Ave: 4.24 |
| Tsp. 10 S., Rng. 5 W., Sec. 28 |  |  |  |  |
| CHERRY | 8 | Mercer | 18820509 | 0.33 |
| DOGWOOD | 10 | Mercer | 18820509 | 0.30 |
| DOUGLAS-FIR | 8 | Mercer | 18820509 | 0.10 |
| DOUGLAS-FIR | 10 | Mercer | 18820509 | 0.06 |
| DOUGLAS-FIR | 13 | Elder | 18530305 | 0.27 |
| MAPLE | 6 | Mercer | 18820509 | 0.20 |
| OAK | 8 | Mercer | 18820510 | 2.30 |
| OAK | 12 | Elder | 18530305 | 6.02 |
| OAK | 11 | Mercer | 18820510 | 0.30 |
| OAK | 11 | Elder | 18530305 | 0.30 |
| Number: 10 | Ave |  |  | Ave: 1.02 |
| Tsp. 10 S., Rng. 5 W., Sec. 29 |  |  |  |  |
| DOUGLAS-FIR | 8 | Mercer | 18820000 | 0.22 |
| DOUGLAS-FIR | 30 | Mercer | 18820511 | 0.20 |
| MAPLE | 6 | Mercer | 18820511 | 0.18 |
| OAK | 24 | Mercer | 18820509 | 0.95 |
| Number: 4 | Ave |  |  | Ave: 0.39 |
| Tsp. 10 S., Rng. 5 W., Sec. 31 |  |  |  |  |
| DOUGLAS-FIR | 40 | Freeman | 18520300 | 0.35 |
| Number: 1 | Ave |  |  | Ave: 0.35 |

Table F. 1 (cont.), page 6 of 8.

| BT Species | DIA | Surveyor | Date | Chains |
| :---: | :---: | :---: | :---: | :---: |
| Tsp. 10 S., Rng. 5 W., Sec. 32 |  |  |  |  |
|  |  |  |  |  |
| DOUGLAS-FIR | 10 | Mercer | 18820510 | 0.27 |
| DOUGLAS-FIR | 10 | Mercer | 18820000 | 0.08 |
| DOUGLAS-FIR | 24 | Mercer | 18820511 | 0.30 |
| DOUGLAS-FIR | 50 | Mercer | 18820000 | 0.40 |
| MAPLE | 8 | Freeman | 18520300 | 0.00 |
| MAPLE | 8 | Mercer | 18820000 | 0.20 |
| MAPLE | 10 | Mercer | 18820000 | 0.55 |
| Number: 9 | Ave |  |  | Ave: 0.24 |
| Tsp. 10 S., Rng. 5 W., Sec. 33 |  |  |  |  |
|  |  |  |  |  |
| DOUGLAS-FIR | 8 | Mercer | 18820510 | 0.10 |
| DOUGLAS-FIR | 10 | Mercer | 18820509 | 0.35 |
| DOUGLAS-FIR | 48 | Mercer | 18820510 | 0.20 |
| OAK | 8 | Freeman | 18520300 | 2.70 |
| OAK | 10 | Mercer | 18820510 | 2.96 |
| OAK | 14 | Elder | 18530305 | 0.65 |
| OAK | 14 | Elder | 18530305 | 3.78 |
| OAK | 15 | Elder | 18530226 | 0.66 |
| Number: 8 | Ave | 11 |  | Ave: 1.44 |

Tsp. 10 S., Rng. 5 W., Sec. 34

| ALDER | 12 | Hathorn | 18540816 | 1.33 |
| :--- | :--- | :--- | :--- | :--- |
| OAK | 12 | Hathorn | 18540815 | 0.43 |
| OAK | 12 | EEder | 18530305 | 0.78 |
| OAK | 12 | Hathorn | 18540815 | 2.40 |
| OAK | 14 | Freeman | 18520300 | 0.65 |
| OAK | 15 | Hathorn | 18540815 | 23.30 |
| OAK | 16 | Elder | 18530226 | 1.20 |
| OAK | 16 | Elder | 18530226 | 1.42 |
| OAK | 16 | Elder | 18530301 | 1.54 |
| OAK | 18 | EEder | 18530226 | 0.57 |
| OAK | 18 | Elder | 18530226 | 0.58 |
| OAK | 20 | Elder | 18530301 | 0.38 |
| OAK | 20 | Hathorn | 18540815 | 2.00 |
| OAK | 24 | Hathorn | 18540815 | 2.15 |
| OAK | 24 | Hathorn | 18540816 | 3.62 |
| OAK | 26 | Elder | 18530305 | 2.89 |
| OAK | 30 | EEder | 18530305 | 0.87 |
| OAK | 30 | Hathorn | 18540815 | 1.72 |
| OAK | 30 | Hathorn | 18540815 | 1.85 |
| OAK | 30 | Hathorn | 18540815 | 3.55 |
| OAK | H0 | Hathorn | 18540815 | 4.00 |
| Number: 21 | Ave: | 20 |  | Ave: 2.73 |

Table F. 1 (cont.), page 7 of 8 .

| BT Species | DIA | Surveyor | Date | Chains |
| :---: | :---: | :---: | :---: | :---: |
| Tsp. 10 S., Rng. 5 W., Sec. 35 |  |  |  |  |
| DOGWOOD | 6 | Hathorn | 18540816 | 0.12 |
| DOUGLAS-FIR | 48 | Hathorn | 18540816 | 1.00 |
| OAK | 10 | Elder | 18530228 | 2.18 |
| OAK | 12 | Elder | 18530226 | 0.97 |
| OAK | 14 | Elder | 18530301 | 0.92 |
| OAK | 14 | Elder | 18530228 | 6.30 |
| OAK | 18 | Elder | 18530226 | 1.05 |
| OAK | 20 | Elder | 18530226 | 2.20 |
| OAK | 30 | Elder | 18530301 | 1.27 |
| OAK | 30 | Elder | 18530301 | 2.16 |
| Number: 10 | Ave |  |  | Ave: 1.82 |
| Tsp. 11 S., Rng. 5 W., Sec. 2 |  |  |  |  |
| OAK | 10 | Freeman | 18520300 | 0.78 |
| Number: 1 | Ave | 0 |  | Ave: 0.78 |
| Tsp. 11 S., Rng. 5 W., Sec. 3 |  |  |  |  |
| MAPLE | 6 | Freeman | 18520622 | 0.50 |
| OAK | 12 | Freeman | 18520300 | 0.36 |
| OAK | 12 | Freeman | 18520300 | 2.40 |
| OAK | 14 | Freeman | 18520622 | 0.12 |
| OAK | 14 | Freeman | 18520621 | 3.60 |
| OAK | 16 | Freeman | 18520300 | 0.85 |
| Number: 6 | Ave | 2 |  | Ave: 1.30 |
| Tsp. 11 S., Rng. 5 W., Sec. 4 |  |  |  |  |
| ALDER | 10 | Freeman | 18520300 | 1.90 |
| DOUGLAS-FIR | 60 | Freeman | 18520622 | 0.55 |
| MAPLE | 8 | Freeman | 18520625 | 0.36 |
| OAK | 8 | Freeman | 18520622 | 1.10 |
| OAK | 8 | Freeman | 18520300 | 2.25 |
| OAK | 10 | Freeman | 18520625 | 0.71 |
| OAK | 16 | Freeman | 18520300 | 4.40 |
| OAK | 16 | Freeman | 18520625 | 1.10 |
| Number: 8 | Ave |  |  | Ave: 1.55 |
| Tsp. 11 S., Rng. 5 W., Sec. 5 |  |  |  |  |
| ALDER | 14 | Freeman | 18520626 | 0.52 |
| DOUGLAS-FIR | 6 | Freeman | 18520626 | 0.61 |
| DOUGLAS-FIR | 10 | Freeman | 18520625 | 0.75 |
| DOUGLAS-FIR | 12 | Freeman | 18520626 | 0.18 |
| MAPLE | 10 | Freeman | 18520300 | 0.37 |
| OAK | 8 | Freeman | 18520300 | 1.70 |
| OAK | 14 | Freeman | 18520625 | 2.80 |
| OAK | 16 | Freeman | 18520300 | 3.32 |
| Number: 8 | Ave |  |  | Ave: 1.28 |

Table F. 1 (cont.), page 8 of 8 .

| BT Species | DIA | Surveyor | Date | Chains |
| :---: | :---: | :---: | :---: | :---: |
| Tsp. 11 S., Rng. 5 W., Sec. 6 |  |  |  |  |
| DOUGLAS-FIR | 6 | Freeman | 18520626 | 0.61 |
| DOUGLAS-FIR | 12 | Freeman | 18520300 | 0.43 |
| DOUGLAS-FIR | 40 | Freeman | 18520300 | 0.35 |
| DOUGLAS-FIR | 60 | Freeman | 18520300 | 12.11 |
| MAPLE | 8 | Freeman | 18520300 | 0.65 |
| MAPLE | 10 | Freeman | 18520300 | 0.45 |
| MAPLE | 12 | Freeman | 18520626 | 0.15 |
| OAK | 8 | Freeman | 18520300 | 1.59 |
| YEW | 12 | Freeman | 18520626 | 0.45 |
| Number: 9 | Ave |  |  | Ave: 1.87 |
| Tsp. 11 S., Rng. 5 W., Sec. 7 |  |  |  |  |
| DOGWOOD | 6 | Freeman | 18520626 | 0.29 |
| DOGWOOD | 6 | Freeman | 18520626 | 0.36 |
| Number: 2 | Ave |  |  | Ave: 0.32 |
| Tsp. 11 S., Rng. 5 W., Sec. 8 |  |  |  |  |
| DOGWOOD | 8 | Freeman | 18520626 | 0.56 |
| DOUGLAS-FIR | 14 | Freeman | 18520626 | 0.15 |
| MAPLE | 12 | Freeman | 18520625 | 1.15 |
| OAK | 8 | Freeman | 18520625 | 0.08 |
| OAK | 8 | Freeman | 18520626 | 2.09 |
| OAK | 16 | Freeman | 18520625 | 3.32 |
| Number: 6 | Ave |  |  | Ave: 1.22 |
| Tsp. 11 S., Rng. 5 W., Sec. 9 |  |  |  |  |
| DOUGLAS-FIR | 14 | Freeman | 18520625 | 0.12 |
| OAK | 16 | Freeman | 18520625 | 0.75 |
| OAK | 20 | Freeman | 18520625 | 7.75 |
| WILLOW | 3 | Freeman | 18520625 | 0.10 |
| Number: 4 | Ave |  |  | Ave: 2.18 |
| Total: 262 | Ave |  |  | Ave: 3.32 |

BT Species $\quad$ Species (see Appendix E) of individual PLS bearing trees. Total number of BTs are given for each sectional grouping.
DIA Diameter (presumably at "breast height" above ground surface) of BT in inches. Average BT diameter is given for each group.
Surveyor Name of PLS surveyor (listed in reference section) to first take and record BT measures.
Date Date (Year-Month-Day) that BT was first measured and recorded.
Chains Distance of BT from established survey point. Each chain equals 66 feet. The average distance to each BT is given for each group.
NOTE: Total number of BTs, average diameters, and average distances from survey points are given at the bottom of the table. These numbers can be compared with individual section totals to provide a relative comparison of species' size, distribution, and stocking density. Also note differences between 1852-54 and 1882 BT locations, diameters, and distances.

Table F. 2 Understory plant species' associations and locations. See Maps 2, 11, and 21. Page 1 of 7 .

Tsp:Rng:Sec DIA Chains Trees Understory Species

| ALDER |  |  |  |
| :--- | :--- | :--- | :--- |
| $10-05-26$ | 10 | 2.03 |  |
| $11-05-04$ | 10 | 1.90 |  |
| $10-05-34$ | 12 | 1.33 |  |
| 11-05-05 | 14 | 0.52 |  |
| Number: 4 | Ave. $\mathbf{1 2}$ | Ave: $\mathbf{1 . 4 4}$ |  |


| ASH |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 10-05-13 | 6 | 2.85 | WILLOW |  |
| $10-05-12$ | 8 | 0.76 |  | CAMAS |
| $10-05-14$ | 10 | 1.48 |  | CAMAS |
| $10-05-12$ | 10 | 2.29 | WILLOW |  |
| $10-05-14$ | 10 | 4.50 |  | CAMAS |
| $10-05-11$ | 10 | 41.26 |  | GRASS |
| $10-05-24$ | 11 | 4.86 |  |  |
| $10-04-07$ | 12 | 5.16 | WILLOW |  |
| $10-05-24$ | 12 | 9.83 |  |  |
| $10-05-13$ | 12 | 36.61 |  |  |
| $10-05-13$ | 14 | 2.30 |  | CAMAS |
| $10-05-12$ | 14 | 5.20 |  |  |
| $10-05-23$ | 14 | 6.37 |  |  |
| $10-05-12$ | 15 | 3.54 | WILLOW |  |
| $10-05-24$ | 18 | 2.12 |  |  |
| $10-04-19$ | 20 | 5.20 |  |  |
| $10-05-13$ | 20 | 5.24 |  |  |

Number: 17 Ave. 13 Ave: 8.21

| CHERRY |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 10-05-32 | 8 | 0.20 |  |  |
| 10-05-28 | 8 | 0.33 |  | GRASS |
| 10-05-22 | 8 | 0.63 | WILLOW | BRIAR, FERN, HAZEL, VINE MAPLE |
| 10-05-27 | 12 | 0.80 | WILLOW | BRIAR, FERN, HAZEL, VINE MAPLE |
| Number: 4 | Ave | 9 | Ave: 0.49 |  |
| DOGWOOD |  |  |  |  |
| 10-05-35 | 6 | 0.12 |  |  |
| 11-05-07 | 6 | 0.29 | YEW | FERN, HAZEL, TASSEL, VINE MAPLE |
| 11-05-07 | 6 | 0.36 |  | HAZEL, VINE MAPLE |
| 10-05-33 | 8 | 0.30 |  | GRASS, HAZEL |
| 11-05-08 | 8 | 0.56 |  | HAZEL, VINE MAPLE |
| 10-05-28 | 10 | 0.30 |  | GRASS |
| Number: 6 | Ave |  | Ave: 0.32 |  |

Table F. 2 (cont.), page 2 of 7.

| Tsp:Rng:Sec | DIA | Chains | Trees | Understory Species |
| :---: | :---: | :---: | :---: | :---: |
| DOUGLAS-FIR |  |  |  |  |
| 11-05-05 | 6 | 0.61 |  | HAZEL, VINE MAPLE |
| 11-05-06 | 6 | 0.61 |  | HAZEL, VINE MAPLE |
| 10-05-28 | 8 | 0.10 | DOGWOOD | GRASS, HAZEL |
| 10-05-33 | 8 | 0.10 |  | GRASS, HAZEL |
| 10-05-29 | 8 | 0.22 |  | GRASS, HAZEL |
| 10-05-28 | 10 | 0.06 |  | GRASS, HAZEL |
| 10-05-32 | 10 | 0.08 |  | HAZEL |
| 10-05-32 | 10 | 0.27 |  | HAZEL |
| 10-05-33 | 10 | 0.35 |  | GRASS |
| 11-05-05 | 10 | 0.75 | CHERRY | BRIAR, FERN, HAZEL, VINE MAPLE |
| 11-05-05 | 12 | 0.18 | WILLOW | FERN, HAZEL, TASSEL, VINE MAPLE |
| 11-05-06 | 12 | 0.43 | YEW | HAZEL, VINE MAPLE |
| 10-05-28 | 13 | 0.27 | WILLOW | BRIAR, FERN, HAZEL, VINE MAPLE |
| 11-05-09 | 14 | 0.12 | CHERRY | BRIAR, FERN, HAZEL, VINE MAPLE |
| 11-05-08 | 14 | 0.15 | WILLOW | FERN, HAZEL, TASSEL, VINE MAPLE |
| 10-05-22 | 24 | 0.55 |  |  |
| 10-05-32 | 24 | 0.30 |  | HAZEL, VINE MAPLE |
| 10-05-29 | 30 | 0.20 |  | GRASS, HAZEL, VINE MAPLE |
| 10-05-31 | 40 | 0.35 |  | BRIAR, FERN, HAZEL, VINE MAPLE |
| 11-05-06 | 40 | 0.35 | YEW | BRIAR, FERN, HAZEL, VINE MAPLE |
| 10-05-27 | 48 | 24.54 |  |  |
| 10-05-32 | 48 | 0.20 |  | HAZEL |
| 10-05-35 | 48 | 1.00 |  |  |
| 10-05-32 | 50 | 0.40 |  | HAZEL |
| 11-05-04 | 60 | 0.55 |  |  |
| 11-05-06 | 60 | 12.11 |  | BRIAR, FERN, HAZEL, VINE MAPLE |
| Number: 26 | Ave. | 24 | Ave: 1.73 |  |
| OAK |  |  |  |  |
| 10-05-27 | 6 | 0.18 | DOGWOOD | HAZEL |
| 10-05-29 | 6 | 0.18 |  | GRASS, HAZEL, VINE MAPLE |
| 10-05-28 | 6 | 0.20 | DOGWOOD | GRASS, HAZEL |
| 11-05-03 | 6 | 0.50 |  |  |
| 10-05-32 | 8 | 0.00 | YEW | BRIAR, FERN, HAZEL, VINE MAPLE |
| 11-05-08 | 8 | 0.08 | CHERRY | BRIAR, FERN, HAZEL, VINE MAPLE |
| 10-05-32 | 8 | 0.20 |  | HAZEL |
| 11-05-04 | 8 | 0.36 | CHERRY | BRIAR, FERN, HAZEL, VINE MAPLE |
| 11-05-06 | 8 | 0.65 | YEW | BRIAR, VINE MAPLE |
| 10-05-25 | 8 | 1.07 |  |  |
| 11-05-04 | 8 | 1.10 |  |  |
| 11-05-06 | 8 | 1.59 | YEW | BRIAR, FERN, HAZEL, VINE MAPLE |
| 11-05-05 | 8 | 1.70 | YEW | BRIAR, FERN, HAZEL, VINE MAPLE |
| 11-05-08 | 8 | 2.09 |  | HAZEL, VINE MAPLE |
| 11-05-04 | 8 | 2.25 |  | GRASS |
| 10-05-28 | 8 | 2.30 | PINE? | GRASS, HAZEL |
| 10-05-33 | 8 | 2.70 |  | GRASS |
| 10-05-26 | 8 | 5.80 |  |  |
| 10-05-26 | 9 | 3.38 |  |  |
| 11-05-05 | 10 | 0.37 | YEW | BRIAR, FERN, HAZEL, VINE MAPLE |

Table F. 2 (cont.), page 3 of 7.

| Tsp:Rng:Sec | DIA | Chains | Trees | Understory Species |
| :---: | :---: | :---: | :---: | :---: |
| OAK (cont.) |  |  |  |  |
| 10-05-14 | 10 | 0.38 |  |  |
| 11-05-06 | 10 | 0.45 |  | BRIAR, FERN, HAZEL, VINE MAPLE |
| 10-05-32 | 10 | 0.55 |  | HAZEL |
| 11-05-04 | 10 | 0.71 |  | BRIAR, FERN, HAZEL, VINE MAPLE |
| 10-04-07 | 10 | 0.74 |  | GRASS |
| 11-05-02 | 10 | 0.78 |  |  |
| 10-04-19 | 10 | 1.02 |  | GRASS |
| 10-05-23 | 10 | 1.08 |  |  |
| 10-05-35 | 10 | 2.18 |  |  |
| 10-05-33 | 10 | 2.96 | PINE? | GRASS, HAZEL |
| 10-05-23 | 10 | 3.22 |  |  |
| 10-05-27 | 10 | 3.37 |  |  |
| 10-05-27 | 10 | 4.50 |  |  |
| 10-05-28 | 11 | 0.30 | PINE? | GRASS, HAZEL |
| 10-05-28 | 11 | 0.30 | WILLOW | BRIAR, FERN, HAZEL |
| 10-05-22 | 11 | 1.40 | WILLOW | FERN, HAZEL |
| 10-05-22 | 11 | 3.28 | WILLOW | FERN, HAZEL |
| 11-05-06 | 12 | 0.15 |  |  |
| 10-05-25 | 12 | 0.21 |  |  |
| 10-05-23 | 12 | 0.25 |  |  |
| 10-05-23 | 12 | 0.32 |  |  |
| 10-05-23 | 12 | 0.34 |  |  |
| 11-05-03 | 12 | 0.36 |  |  |
| 10-05-34 | 12 | 0.43 |  |  |
| 10-05-11 | 12 | 0.52 |  | BRIAR, HAZEL, NINEBARK |
| 10-05-22 | 12 | 0.77 |  |  |
| 10-05-34 | 12 | 0.78 | WILLOW | BRIAR, FERN, HAZEL |
| 10-05-35 | 12 | 0.97 |  | BRIAR, FERN, HAZEL |
| 11-05-08 | 12 | 1.15 | CHERRY | BRIAR, FERN, HAZEL, VINE MAPLE |
| 10-05-25 | 12 | 1.81 |  |  |
| 10-05-11 | 12 | 1.88 |  |  |
| 10-05-22 | 12 | 2.06 |  |  |
| 10-05-34 | 12 | 2.40 |  |  |
| 11-05-03 | 12 | 2.40 |  | GRASS |
| 10-05-27 | 12 | 2.42 |  |  |
| 10-05-22 | 12 | 2.64 |  |  |
| 10-05-26 | 12 | 2.98 |  |  |
| 10-05-25 | 12 | 3.14 |  |  |
| 10-05-23 | 12 | 3.21 |  |  |
| 10-05-23 | 12 | 3.25 |  |  |
| 10-05-14 | 12 | 3.87 |  |  |
| 10-05-27 | 12 | 3.88 |  |  |
| 10-05-27 | 12 | 4.42 |  |  |
| 10-05-27 | 12 | 5.86 | WILLOW | BRIAR, HAZEL |
| 10-05-28 | 12 | 6.02 | WILLOW | BRIAR, FERN, HAZEL, VINE MAPLE |
| 10-04-19 | 13 | 0.31 |  |  |
| 10-05-15 | 13 | 1.23 |  | BRIAR, HAZEL, VINE MAPLE |
| 10-05-27 | 13 | 1.36 | WILLOW | BRIAR, FERN, HAZEL |
| 10-05-15 | 14 | 0.00 | WILLOW | BRIAR, HAZEL, NINEBARK |

Table F. 2 (cont.), page 4 of 7.

| Tsp:Rng:Sec | DIA | Chains | Trees | Understory Species |
| :---: | :---: | :---: | :---: | :---: |
| OAK (cont.) |  |  |  |  |
| 11-05-03 | 14 | 0.12 |  |  |
| 10-05-33 | 14 | 0.65 | WILLOW | BRIAR, FERN, HAZEL |
| 10-05-34 | 14 | 0.65 |  |  |
| 10-05-35 | 14 | 0.92 | WILLOW | BRIAR, HAZEL |
| 10-05-26 | 14 | 1.06 |  |  |
| 11-05-05 | 14 | 2.80 |  | BRIAR, HAZEL, VINE MAPLE |
| 11-05-03 | 14 | 3.60 |  | ARROWWOOD, HAZEL |
| 10-05-33 | 14 | 3.78 | WILLOW | BRIAR, FERN, HAZEL |
| 10-04-07 | 14 | 5.12 |  | GRASS |
| 10-05-35 | 14 | 6.30 |  |  |
| 10-05-27 | 14 | 8.97 |  |  |
| 10-04-19 | 15 | 0.30 |  |  |
| 10-04-19 | 15 | 0.53 |  |  |
| 10-05-33 | 15 | 0.66 |  | BRIAR, HAZEL |
| 10-05-25 | 15 | 0.92 |  |  |
| 10-04-18 | 15 | 1.02 |  | GRASS |
| 10-05-25 | 15 | 1.63 |  |  |
| 10-05-14 | 15 | 1.72 |  |  |
| 10-05-26 | 15 | 2.04 | WILLOW | BRIAR, HAZEL |
| 10-05-26 | 15 | 2.92 |  |  |
| 10-05-14 | 15 | 3.89 |  |  |
| 10-05-11 | 15 | 4.56 |  |  |
| 10-05-14 | 15 | 4.95 |  |  |
| 10-05-23 | 15 | 6.03 |  |  |
| 10-04-19 | 15 | 8.20 |  |  |
| 10-05-11 | 15 | 13.45 |  |  |
| 10-05-12 | 15 | 13.80 |  |  |
| 10-05-34 | 15 | 23.30 |  |  |
| 10-05-14 | 16 | 0.60 |  |  |
| 11-05-09 | 16 | 0.75 |  |  |
| 11-05-03 | 16 | 0.85 |  |  |
| 10-05-26 | 16 | 0.98 |  |  |
| 11-05-04 | 16 | 1.10 |  | BRIAR, HAZEL, VINE MAPLE |
| 10-05-34 | 16 | 1.20 |  | BRIAR, FERN, HAZEL |
| 10-05-34 | 16 | 1.42 |  | BRIAR, HAZEL |
| 10-05-34 | 16 | 1.54 | WILLOW | BRIAR, HAZEL |
| 11-05-05 | 16 | 3.32 |  |  |
| 11-05-08 | 16 | 3.32 |  |  |
| 11-05-04 | 16 | 4.40 |  |  |
| 10-05-27 | 16 | 7.81 | WILLOW | BRIAR, FERN, HAZEL, VINE MAPLE |
| 10-05-25 | 18 | 0.56 |  |  |
| 10-05-34 | 18 | 0.57 |  | BRIAR, HAZEL |
| 10-05-34 | 18 | 0.58 |  | BRIAR, HAZEL |
| 10-05-25 | 18 | 0.88 |  |  |
| 10-05-23 | 18 | 0.96 |  |  |
| 10-05-35 | 18 | 1.05 |  | BRIAR, FERN, HAZEL |
| 10-05-23 | 18 | 1.35 |  |  |
| 10-05-15 | 18 | 1.49 | WILLOW | FERN, HAZEL |
| 10-05-24 | 18 | 1.70 |  |  |

Table F. 2 (cont.), page 5 of 7.

| Tsp:Rng:Sec | DIA | Chains | Trees | Understory Species |
| :---: | :---: | :---: | :---: | :---: |
| OAK (cont.) |  |  |  |  |
| 10-05-24 | 18 | 2.13 |  | GRASS |
| 10-05-14 | 18 | 2.14 | WILLOW |  |
| 10-05-23 | 18 | 2.14 |  |  |
| 10-05-27 | 18 | 2.61 |  |  |
| 10-05-12 | 18 | 3.58 | WILLOW | HAZEL |
| 10-05-26 | 18 | 3.69 |  |  |
| 10-05-27 | 18 | 3.83 |  |  |
| 10-05-12 | 18 | 7.73 |  | GRASS |
| 10-05-23 | 18 | 42.56 |  |  |
| 10-05-22 | 20 | 0.30 |  |  |
| 10-05-23 | 20 | 0.31 |  |  |
| 10-05-34 | 20 | 0.38 | WILLOW | BRIAR, HAZEL |
| 10-04-19 | 20 | 0.52 |  |  |
| 10-05-22 | 20 | 0.57 |  | BRIAR, HAZEL, VINE MAPLE |
| 10-05-26 | 20 | 0.64 |  |  |
| 10-05-14 | 20 | 0.88 | WILLOW |  |
| 10-04-18 | 20 | 0.98 |  | GRASS |
| 10-05-15 | 20 | 1.08 |  |  |
| 10-05-27 | 20 | 1.60 |  |  |
| 10-05-23 | 20 | 1.90 |  |  |
| 10-05-27 | 20 | 1.92 |  |  |
| 10-05-34 | 20 | 2.00 |  |  |
| 10-04-30 | 20 | 2.20 |  | GRASS |
| 10-05-35 | 20 | 2.20 |  | BRIAR, FERN, HAZEL |
| 10-05-13 | 20 | 2.33 | WILLOW |  |
| 10-05-27 | 20 | 2.82 |  |  |
| 10-05-27 | 20 | 3.06 |  |  |
| 10-05-23 | 20 | 3.18 |  |  |
| 10-05-26 | 20 | 3.37 |  |  |
| 10-05-27 | 20 | 3.55 |  |  |
| 10-05-14 | 20 | 3.63 |  |  |
| 10-05-27 | 20 | 4.18 |  |  |
| 10-05-14 | 20 | 4.22 |  |  |
| 10-05-24 | 20 | 5.65 |  |  |
| 11-05-09 | 20 | 7.75 |  |  |
| 10-05-11 | 20 | 10.36 |  |  |
| 10-05-11 | 20 | 13.00 |  |  |
| 10-05-26 | 22 | 1.17 |  | FERN, HAZEL |
| 10-05-23 | 24 | 0.68 |  |  |
| 10-05-29 | 24 | 0.95 |  | GRASS |
| 10-05-24 | 24 | 1.03 |  |  |
| 10-05-26 | 24 | 1.08 |  |  |
| 10-05-14 | 24 | 1.09 |  |  |
| 10-05-24 | 24 | 1.19 |  |  |
| 10-04-07 | 24 | 1.25 |  |  |
| 10-05-26 | 24 | 1.43 |  |  |
| 10-05-27 | 24 | 2.01 |  |  |
| 10-05-34 | 24 | 2.15 |  |  |
| 10-05-26 | 24 | 2.40 |  |  |

Table F. 2 (cont.), page 6 of 7.

| Tsp:Rng:Sec | DIA | Chains | Trees | Understory Species |
| :---: | :---: | :---: | :---: | :---: |
| OAK (cont.) |  |  |  |  |
| 10-05-23 | 24 | 2.58 |  |  |
| 10-05-27 | 24 | 3.04 |  |  |
| 10-05-34 | 24 | 3.62 |  |  |
| 10-04-18 | 24 | 9.97 |  |  |
| 10-05-23 | 24 | 15.07 |  |  |
| 10-05-34 | 26 | 2.89 | WILLOW | BRIAR, FERN, HAZEL |
| 10-04-07 | 30 | 0.28 |  |  |
| 10-05-15 | 30 | 0.38 | WILLOW |  |
| 10-05-27 | 30 | 0.77 |  |  |
| 10-05-34 | 30 | 0.87 |  |  |
| 10-05-22 | 30 | 1.02 |  |  |
| 10-05-35 | 30 | 1.27 |  | FERN, HAZEL |
| 10-05-34 | 30 | 1.72 |  |  |
| 10-05-34 | 30 | 1.85 |  |  |
| 10-05-25 | 30 | 2.11 |  |  |
| 10-05-35 | 30 | 2.16 | WILLOW | BRIAR, HAZEL |
| 10-05-11 | 30 | 2.39 | WILLOW |  |
| 10-05-26 | 30 | 2.77 |  |  |
| 10-05-34 | 30 | 3.55 |  |  |
| 10-05-23 | 30 | 3.67 |  |  |
| 10-05-10 | 30 | 3.91 |  |  |
| 10-05-34 | 30 | 4.00 |  |  |
| 10-05-23 | 30 | 7.83 |  |  |
| 10-05-23 | 30 | 8.80 |  |  |
| 10-05-24 | 30 | 11.66 |  |  |
| 10-05-14 | 36 | 3.13 |  |  |
| 10-05-26 | 36 | 3.95 |  |  |
| 10-05-26 | 36 | 4.36 |  |  |
| 10-05-25 | 36 | 7.83 |  |  |
| 10-05-23 | 36 | 23.65 |  |  |
| 10-05-11 | 40 | 1.73 | WILLOW |  |
| 10-05-11 | 40 | 2.15 | WILLOW |  |
| 10-05-24 | 40 | 10.50 |  | GRASS |
| 10-05-24 | 40 | 11.94 |  |  |
| 10-05-14 | 40 | 60.20 |  |  |
| Number: 186 Ave: 18 Ave: 3.49 |  |  |  |  |

Table F. 2 (cont.), page 7 of 7.

| Tsp:Rng:Sec | DIA | Chains | Trees | Understory Species |
| :---: | :---: | :---: | :---: | :---: |
| WILLOW |  |  |  |  |
| 11-05-09 | 3 | 0.10 | CHERRY | BRIAR, FERN, HAZEL, VINE MAPLE |
| 10-05-22 | 10 | 0.50 | DOGWOOD | HAZEL |
| Number: 2 | Ave: | 6 Ave: |  |  |
| YEW |  |  |  |  |
| 11-05-06 | 12 | 0.45 | YEW | FERN, HAZEL, TASSEL, VINE MAPLE |
| Number: 1 Ave: 12 Ave: 0.45 |  |  |  |  |
| Total |  |  |  |  |
| Number: 262 Ave: 17 Ave: 3.32 |  |  |  |  |

Tsp:Rng:Sec PLS survey: Township, South of the Willamette Meridian; Range, West of the Willamette Meridian, Section No. See Table F.1; Map 2.
DIA Diameter (presumably at "breast height" above ground surface) of
Chains
Trees BT in inches. Average BT diameter is given for each BT species. Distance of BT from established survey point. Each chain equals 66 feet. The average distance to each BT is given for each species.

Understory Species F.1).

Understory, non-tree plant species noted by surveyors (see Tables E. 3 and F.1). Note differences in detail for each surveyor and for 1852-54 and 1882 time periods.

NOTE: Average diameter and average distance from survey points for all Soap Creek Valley BTs are given at the bottom of the table. These numbers provide a relative measure for individual species' size and spacing density within the study area. Also note apparent correlations between BT diameters and varieties of understory species' associations.

Table F. 3 Diameter range and spacial distributions of species. See Map 21.


NOTE: A section (one-square mile) contains 640 acres. A square acre is 43,560 square feet, or slightly more than 208 feet per side. Therefore, trees spaced an average of 10 feet apart would total about 440 trees per acre; an average of 12 feet would total about 300 trees per acre; 20 feet $=100$ trees/acre; 50 feet $=16$ trees/acre; 100 feet $=4$ trees/acre, \& etc. Average distance is a function of species (see Table F.2), sample size (e.g., only 2 willow BTs compared to 186 oak BTs), and BT diameter (smaller trees are generally closer togetherand younger-than larger trees: see Tables 20, 21, and F.2). The apparent wide spacing between ash trees is caused, instead, by relatively large expanses of tree-less, floodplain prairies separating the stands of ash (see Map 21 and table 20) from oak and fir wooded hillsides.
(1) Grand fir is common in Soap Creek Valley, but is not noted by PLS surveyors between 1851 and 1883. One possibility is that grand fir trees were mistaken as Douglas-fir or pine (see Appendix G; Tables 14, 15, 21, E.3, and F.2) by early surveyors.
(2) Western hemlock is uncommon in Soap Creek Valley, but at least one 10" diameter hemlock BT was established within the study area by 1915 (see Maps 2 and 12: NE $1 / 4$ of NE $1 / 4$ of Sec. 7, Tsp. 11 S., Rng. 5 W.). It is not known who established this tree, or why the original dogwood BTs (see Table F.1) were not used.
(3) Redcedar are commonly found in only one stand in Soap Creek Valley, the SE $1 / 4$ of the NW $1 / 4$ of Sec. 6, Tsp 11 S., Rng. 5 W (see Table 21; Appendix G). No redcedar BTs have been noted in the study area.

# Appendix G <br> Merchantable Conifer Species, Locations, and Volumes, 1915 

This appendix is a tabular summary of commercial timber volumes on private timberlands in Soap Creek Valley. The volumes were derived through a timber cruise performed by J. H. Bagley in 1915 (Bagley 1915), under contract to Benton County, Oregon (Benton County Board of Commissioners 1914). Map 12 and Table 14 in Chapter III are examples of Bagley's work on Tsp. 11 S., Rng 5 W., Sec. 5 (see Map 2). Table G. 1 is a summary of Bagley's findings in Soap Creek Valley. It is derived from a computerized database assembled in 1993 (Trosper \& Zybach 1996) for OSU Research Forests. Tables 15, 19, and 21 were derived partly from Table G.1. This table is arranged and summarized by section, with conifer timber volumes listed by 40-acre subdivision, by species, size, and ageclass.

Table 14 uses a standard method of subdividing a section (a square mile equaling 640 acres on a perfectly flat surface) into 16 approximately-equal squares of 40-acres each (due to curvature of the earth, and other factors, a section is rarely an exact square mile, and resulting subdivisions are usually slightly more or less than 40 -acres). This method first divides a section into 4 square "quarter secs"; 1/2-mile squares of about 160 -acres each. Each quarter sec is referenced as a quadrant on a map: NE, NW, SE, and SW quarters. Each quarter is then subdivided into four $1 / 4$ mile squares of 40 acres each (see Map 12). The $160-$ acre NE quarter of a section, therefore, is divided into four "forties": the NE of the NE, the NW of the NE, the SE of the NE, and the SW of the NE. The NW, SE, and SW quadrants of a section are similarly divided and referenced (see Table 14). Table G. 1 uses the same method as Bagley, but numbers have been substituted for each 40-acre subdivision. The pattern can most easily be seen by comparing Table 14 with the Tsp. 11 S., Rng. 5 W., Sec 5 listing on Table G.1: Numbers 01-04 designate the four "40s" in the NE quarter sec; 05-08 equal the NW quadrant; 09-12 equal the SW quarter, and 13-16 equal the SE.

Table G. 1 lists cruised volumes for "Yellow Fir" (YF), also called old-growth Douglas-fir; for "Red Fir" (RF), large second-growth Douglas-fir; for "White Fir" (WF), old-growth and large second-growth grand fir; and for "Piling," small diam-
eter mixed conifers, mostly Douglas-fir. These four products comprised over 95\% of the total softwood volume cruised by Bagley in Soap Creek Valley-with a little redcedar is Tsp. 11 S., Rng. 5 W., Sec. 6, and perhaps some scattered hemlock mixed with the grand fir or piling figures. Each product is listed by volume (MBF, or "thousand board feet," Scribner Scale; see Chapter III) and size. For YF, RF, and WF , size is given as a ratio. The first number is average tree diameter, in inches, about $41 / 2$ feet above ground level. The second number is the average number of logs (probably 16 -foot lengths) Bagley estimated each tree contained in each forty. For example, from Table G.1, "40" number 04 in the NE quarter of Sec. 22, Tsp. 10 S., Rng. 5 W., contains 300,000 board feet of old-growth Douglas-fir, with an average diameter of 42 inches per tree, and an average of 9 sound logs (144 feet) in the main stem. In the same 40, there are 425,000 board feet of large second-growth Douglas-fir, with an average diameter of 24 inches per tree, and 6 logs ( 96 feet) of sound timber per tree, and 275,000 feet of grand fir, with an average diameter of 30 inches (might be old-growth) and an average length of greater than 7 logs per tree. Piling size is in feet instead of logs. For the same 40, there were 120,000 board feet of piling, with an average diameter of 14 inches per tree, and an average of 65 sound feet per tree. NOTE: The use of standard Douglas-fir timber cruising tables and 1930s aerial photographs, in combination with this timber cruise, makes it possible to obtain fairly exacting stem counts and stand locations for these lands, many of which were clearcut in the early 1940s (Sauerwein 1948).

Although Bagley's figures are suspect for a number of reasons (note the uniformity and limited number of tree diameters, for example), they provide a sound basis for interpreting earlier land surveys, contemporaneous photographs (Cook 1995), and subsequent aerial photographs and timber cruises Sauerwein 1948; Rowley 1996). The total volume figures-34,185,000 feet of old-growth Douglas-fir, 69,950,000 board feet of large second-growth Douglas-fir, 7,520,000 board feet of grand fir, and 11,534 board feet of piling-are reasonably accurate and provide an excellent idea as to major tree species' age, size, and location in Soap Creek Valley in the early 1900s.

Table G. 1 Timber species, products, locations, and volumes, 1915 (Bagley 1915; see Maps 2, 12, 20, 22, and 23; Tables 14, 15, 18, 19, 20, and 21). Page 1 of 5.

| "40" | YF |  | RF |  | WF |  | Piling |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | MBF | Size | MBF | Size | MBF | Size | MBF | Size |
|  | Tsp. | 10 S. | Rng. 5 | W., S |  |  |  |  |
| 09 | 0 | 0 | 320 | 22:5 | 0 | 0 | 60 | 14:50 |
| 10 | 0 | 0 | 185 | 22:5 | 0 | 0 | 135 | 14:65 |
| 11 | 0 | 0 | 290 | 22:5 | 0 | 0 | 112 | 14:50 |
| 12 | 0 | 0 | 280 | 22:5 | 0 | 0 | 90 | 14:50 |
| 13 | 0 | 0 | 125 | 22:5 | 0 | 0 | 132 | 14:65 |
| 14 | 0 | 0 | 430 | 22:5 | 0 | 0 | 90 | 14:65 |
| 15 | 0 | 0 | 425 | 22:5 | 0 | 0 | 136 | 14:65 |
| 16 | 0 | 0 | 150 | 22:5 | 0 | 0 | 140 | 14:65 |
| Total | 0 |  | 2, 2 |  |  |  | 895 |  |



| Tsp 10 S., Rng. 5 W., Sec. 23 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 05 | 0 | 0 | 75 | 22:5 | 0 | 0 | 25 | 14:65 |
| 06 | 0 | 0 | 450 | 28:6 | 225 | 28:6 | 66 | 14:65 |
| 07 | 0 | 0 | 275 | 24:6 | 0 | 0 | 45 | 14:65 |
| Total: | 0 |  | 800 |  | 225 |  | 136 |  |
| Tsp 10 S., Rng. 5 W., Sec. 28 |  |  |  |  |  |  |  |  |
| 05 | 0 | 0 | 360 | 24:6 | 0 | 0 | 12 | 14:50 |
| 06 | 0 | 0 | 140 | 24:6 | 0 | 0 | 12 | 14:50 |
| 07 | 0 | 0 | 560 | 22:5 | 0 | 0 | 73 | 14:50 |
| 08 | 0 | 0 | 475 | 24:5 | 0 | 0 | 39 | 14:50 |
| 09 | 350 | 40:8 | 275 | 22:5 | 0 | 0 | 56 | 14:50 |
| 10 | 0 | 0 | 475 | 22:5 | 0 | 0 | 70 | 14:50 |
| 11 | 0 | 0 | 85 | 22:5 | 0 | 0 | D |  |
| 12 | 0 | 0 | 160 | 22:5 | 0 | 0 | 12 | 14:50 |
| Total: | 350 |  | 2,530 |  | 0 |  | 274 |  |
| Tsp 10 S., Rng. 5 W., Sec. 29 |  |  |  |  |  |  |  |  |
| 15 | 80 | 40:8 | 325 | 20:5 | 0 | 0 | 127 | 14:50 |
| 16 | 0 | 0 | 300 | 22:5 | 0 | 0 | 41 | 14:50 |
| Total: | 80 |  | 625 |  | 0 |  | 168 |  |

Table G. 1 (cont.), page 2 of 5.

| "40" | YF |  | RF |  | WF |  | Piling |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | MBF | Size | MBF | Size | MBF | Size | MBF | Size |
|  | Tsp | S., | ng. 5 | W., Se |  |  |  |  |
| 01 | 0 | 0 | 260 | 22:6 | 0 | 0 | 120 | 14:50 |
| 02 | 125 | 40:8 | 310 | 20:6 | 0 | 0 | 85 | 14:50 |
| 03 | 150 | 40:8 | 300 | 20:5 | 40 | 30:7 | 60 | 14:50 |
| 04 | 70 | NA | 190 | 20:5 | 0 | 0 | 120 | 14:50 |
| 05 | 175 | 40:8 | 385 | 28:7 | 0 | 0 | 40 | 14:50 |
| 06 | 925 | 36:6 | 375 | 34:8 | 60 | 34:8 | 30 | 14:50 |
| 07 | 0 | 0 | 820 | 26:7 | 0 | 0 | 65 | 14:50 |
| 08 | 0 | 0 | 215 | 20:5 | 0 | 0 | 50 | 14:50 |
| 09 | 125 | 40:8 | 100 | 22:6 | 0 | 0 | 60 | 14:65 |
| 10 | 350 | 40:8 | 190 | 24:6 | 60 | 24:6 | 35 | 14:65 |
| 11 | 950 | 36:8 | 450 | 22:6 | 0 | 0 | 30 | 14:65 |
| 12 | 425 | 40:8 | 350 | 22:6 | 60 | 24:6 | 30 | 14:65 |
| 13 | 425 | 38:8 | 340 | 20:5 | 0 | 0 | 60 | 14:50 |
| 14 | 175 | 40:8 | 200 | 24:6 | 60 | 24:6 | 50 | 14:50 |
| 15 | 150 | 40:8 | 210 | 28:6 | 0 | 0 | 20 | 14:50 |
| 16 | 275 | 40:8 | 475 | 24:6 | 60 | 24:6 | 25 | 14:50 |
| Tota | 4,320 |  | 5,17 |  | 340 |  | 880 |  |


|  | Tsp | 0 S., | g. 5 | ., Se |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01 | 130 | 40:8 | 210 | 22:5 | 0 | 0 | 51 | 14:50 |
| 02 | 0 | 0 | 175 | 20:5 | 0 | 0 | 18 | 14:50 |
| 03 | 75 | 40:8 | 280 | 20:5 | 0 | 0 | 56 | 14:50 |
| 04 | 120 | 40:8 | 340 | 22:5 | 0 | 0 | 84 | 14:50 |
| 05 | 210 | 40:8 | 175 | 24:6 | 0 | 0 | 18 | 14:50 |
| 06 | 0 | 0 | 125 | 24:6 | 0 | 0 | 11 | 14:50 |
| 07 | 0 | 0 | 195 | 20:5 | 0 | 0 | 127 | 14:50 |
| 08 | 150 | 40:8 | 455 | 22:6 | 0 | 0 | 101 | 14:50 |
| 09 | 0 | 0 | 360 | 22:6 | 0 | 0 | 84 | 14:50 |
| 10 | 0 | 0 | 340 | 20:5 | 0 | 0 | 105 | 14:50 |
| 11 | 130 | 44:9 | 190 | 20:5 | 55 | 24:6 | 90 | 14:50 |
| Total | 815 |  | 2,845 |  | 55 |  | 745 |  |


|  | Tsp 10 |  |  |  |  |  |  |  |  | S., | Rng. $\mathbf{5}$ | W., Sec. $\mathbf{3 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| 01 | 0 | 0 | 425 | $20: 5$ | 0 | 0 | 25 | $14: 50$ |  |  |  |  |
| 02 | 0 | 0 | 125 | $20: 5$ | 0 | 0 | 22 | $14: 50$ |  |  |  |  |
| 03 | 200 | $40: 8$ | 300 | 2446 | 0 | 0 | 50 | $14: 50$ |  |  |  |  |
| 04 | 0 | 0 | 480 | $24: 6$ | 0 | 0 | 65 | $14: 50$ |  |  |  |  |
| 09 | 0 | 0 | 350 | $22: 5$ | 0 | 0 | 125 | $14: 50$ |  |  |  |  |
| 10 | 0 | 0 | 260 | 225 | 0 | 0 | 70 | $14: 50$ |  |  |  |  |
| 11 | 140 | $40: 8$ | 325 | $24: 6$ | 0 | 0 | 140 | $14: 50$ |  |  |  |  |
| 12 | 0 | 0 | 375 | $22: 5$ | 0 | 0 | 210 | $14: 50$ |  |  |  |  |
| 14 | 0 | 0 | 360 | $24: 5$ | 0 | 0 | 120 | $14: 50$ |  |  |  |  |
| 15 | 0 | 0 | 275 | $24: 5$ | 0 | 0 | 20 | $14: 50$ |  |  |  |  |
| Total: $\mathbf{3 4 0}$ |  | 3,275 | 0 |  | $\mathbf{8 4 7}$ |  |  |  |  |  |  |  |

Table G. 1 (cont.), page 3 of 5 .

| "40" | YF |  | RF |  | WF |  | Piling |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | MBF | Size | MBF | Size | MBF | Size | MBF | Size |
|  | Tsp. | 1 S., | ng. 5 | W., S | . 2 |  |  |  |
| 05 | 225 | 40:8 | 450 | 24:6 | 0 | 0 | 80 | 14:65 |
| 06 | 0 | 0 | 625 | 24:6 | 0 | 0 | 95 | 14:50 |
| Total | : 225 |  | 1,075 |  | 0 |  | 175 |  |


| Tsp. 11 S., Rng. 5 W., Sec. 3 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01 | 0 | 0 | 1,000 | 24:6 | 0 | 0 | 195 | 14:50 |
| 02 | 75 | 40:8 | 275 | 22:5 | 0 | 0 | 40 | 14:50 |
| 03 | 200 | 40:8 | 430 | 26:6 | 60 | 30:6 | 30 | 14:50 |
| 04 | 0 | 0 | 450 | 24:5 | 0 | 0 | 105 | 14:50 |
| 05 | 175 | 44:8 | 260 | 24:5 | 50 | 30:6 | 195 | 14:50 |
| 06 | 0 | 0 | 125 | 24:5 | 0 | 0 | 30 | 14:50 |
| 07 | 400 | 44:8 | 250 | 24:5 | 60 | 30:7 | 110 | 14:50 |
| 08 | 0 | 0 | 315 | 22:5 | 0 | 0 | 265 | 14:50 |
| 09 | 300 | 42:7 | 240 | 24:6 | 125 | 26:6 | 80 | 14:50 |
| 10 | 425 | 40:7 | 325 | 24:5 | 75 | 26:6 | 45 | 14:50 |
| 11 | 75 | 40:7 | 375 | 24:5 | 0 | 0 | 60 | 14:50 |
| 12 | 0 | 0 | 85 | 24:5 | 0 | 0 | 80 | 14:50 |
| 13 | 0 | 0 | 600 | 28:5 | 0 | 0 | 45 | 14:50 |
| 14 | 0 | 0 | 550 | 26:5 | 0 | 0 | 50 | 14:50 |
| Total | 1,650 |  | 5,280 |  | 370 |  | 1,330 |  |

Tsp. 11 S., Rng. 5 W., Sec. 4

| 01 | 0 | 0 | 75 | $26: 5$ | 0 | 0 | 10 | $14: 50$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 02 | 0 | 0 | 100 | 265 | 0 | 0 | 15 | $14: 50$ |
| 03 | 200 | $44: 8$ | 225 | $28: 6$ | 0 | 0 | 50 | $14: 65$ |
| 04 | 275 | $42: 9$ | 225 | $28: 6$ | 50 | $30: 7$ | 25 | $14: 65$ |
| 06 | 60 | $44: 8$ | 230 | $26: 6$ | 0 | 0 | 25 | $14: 65$ |
| 07 | 40 | $40: 7$ | 60 | $28: 6$ | 0 | 0 | 15 | $14: 65$ |
| 08 | 125 | $40: 8$ | 540 | $24: 6$ | 0 | 0 | 150 | $14: 65$ |
| 09 | 75 | $40: 7$ | 375 | $28: 6$ | 0 | 0 | 160 | $14: 65$ |
| 10 | 125 | $40: 7$ | 335 | 2666 | 75 | $28: 6$ | 55 | $14: 65$ |
| 11 | 0 | 0 | 285 | $28: 6$ | 225 | $30: 6$ | 85 | $14: 65$ |
| 12 | 175 | $40: 7$ | 925 | $28: 6$ | 0 | 0 | 60 | $14: 65$ |
| 13 | 0 | 0 | 690 | $28: 6$ | 80 | $30: 7$ | 65 | $14: 65$ |
| 14 | 0 | 0 | 225 | $24: 6$ | 0 | 0 | 40 | $14: 65$ |
| 15 | 0 | 0 | 830 | $34: 6$ | 0 | 0 | 110 | $14: 65$ |
| 16 | 0 | 0 | 515 | $26: 6$ | 0 | 0 | 170 |  |
| Total: $\mathbf{1 , 0 7 5}$ |  | $\mathbf{5 , 6 3 5}$ |  | $\mathbf{4 3 0}$ |  | $\mathbf{1 , 0 3 5}$ |  |  |

Table G. 1 (cont.), page 4 of 5.

|  | YF |  | RF |  | WF |  | Piling |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| "40" | MBF | $\underline{\text { Size }}$ | MBF |  | Size | MBF | Size | MBF | Size

Tsp. 11 S., Rng. 5 W., Sec. 6

| 01 | 560 | $40: 9$ | 600 | $24: 7$ | 80 | $30: 7$ | 120 | $14: 80$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 02 | 1,300 | $40: 9$ | 800 | $28: 7$ | 0 | 0 | 75 | $14: 80$ |
| 03 | 650 | $42: 9$ | 750 | $22: 6$ | 300 | $30: 7$ | 50 | $14: 80$ |
| 04 | 225 | $42: 9$ | 875 | $24: 7$ | 0 | 0 | 225 | $14: 80$ |
| 05 | 260 | $42: 9$ | 1,800 | $28: 7$ | 50 | $28: 7$ | 125 | $14: 80$ |
| 06 | 1,300 | $40: 9$ | 1,200 | $34: 8$ | 150 | $34: 7$ | 40 | $14: 80$ |
| 07 | 550 | $40: 9$ | 1,300 | $28: 7$ | 225 | $28: 8$ | 50 | $14: 80$ |
| 08 | 900 | $40: 9$ | 1,200 | $30: 8$ | 300 | $30: 8$ | 75 | $14: 80$ |
| 09 | 1,250 | $40: 9$ | 400 | $28: 8$ | 145 | $30: 7$ | 25 | $14: 65$ |
| 10 | 1,725 | $44: 9$ | 560 | $26: 8$ | 360 | $32: 7$ | 10 | $14: 65$ |
| 11 | 500 | $42: 9$ | 1,350 | $30: 7$ | 90 | $28: 7$ | 35 | $14: 65$ |
| 12 | 350 | $42: 9$ | 1,400 | $30: 7$ | 0 | 0 | 70 | $14: 65$ |
| 13 | 410 | $40: 9$ | 850 | $30: 7$ | 75 | $26: 7$ | 100 | $14: 80$ |
| 14 | 250 | $40: 9$ | 875 | 308 | 325 | $30: 8$ | 20 | $14: 80$ |
| 15 | 950 | $40: 9$ | 700 | $30: 8$ | 240 | $30: 8$ | 50 | $14: 65$ |
| 16 | 1,050 | $40: 9$ | 450 | $38: 7$ | 160 | $26: 7$ | 45 | $14: 65$ |
| Total: $12, \mathbf{1 2 0}$ | $\mathbf{1 5 , 1 1 0}$ |  |  |  |  | $\mathbf{2 , 5 0 0}$ | $\mathbf{1 , 1 1 5}$ |  |

Table G. 1 (cont.), page 5 of 5.

| "40" | YF |  | RF |  | WF |  | Piling |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | MBF | Size | MBF | Size | MBF | Size | MBF | Size |
| Tsp. 11 S., Rng. 5 W., Sec. 7 |  |  |  |  |  |  |  |  |
| 01 | 550 | 40:9 | 290 | 24:7 | 65 | 30:7 | 60 | 14:65 |
| 02 | 825 | 40:9 | 650 | 28:7 | 160 | 30:7 | 95 | 14:65 |
| 05 | 1,315 | 42:9 | 425 | 28:7 | 120 | 28:7 | 50 | 14:65 |
| Total: | 2,690 |  | 1,365 |  | 345 |  | 205 |  |
| Tsp. 11 S., Rng. 5 W., Sec. 8 |  |  |  |  |  |  |  |  |
| 01 | 570 | 42:6 | 630 | 30:7 | 160 | 30:7 | 70 | 14:65 |
| 02 | 200 | 40:7 | 465 | 28:6 | 30 | 28:6 | 150 | 14:65 |
| 03 | 0 | 0 | 1,300 | 28:6 | 75 | 28:6 | 175 | 14:65 |
| 04 | 75 | 40:8 | 1,100 | 34:8 | 145 | 30:7 | 36 | 14:65 |
| 05 | 750 | 44:8 | 160 | 26:6 | 125 | 28:7 | 36 | 14:65 |
| 06 | 660 | 42:8 | 510 | 28:7 | 275 | 28:7 | 120 | 14:65 |
| 07 | 0 | 0 | 550 | 24:5 | 0 | 0 | 75 | 12:65 |
| 08 | 0 | 0 | 325 | 20:5 | 0 | 0 | 48 | 12:65 |
| 09 | 0 | 0 | 675 | 26:6 | 0 | 0 | 100 | 14:50 |
| 10 | 80 | 40:8 | 560 | 22:5 | 70 | 30:6 | 80 | 14:50 |
| 12 | 75 | 40:7 | 310 | 20:5 | 0 | 0 | 90 | 14:50 |
| 13 | 175 | 40:8 | 1,200 | 34:8 | 75 | 30:7 | 40 | 14:65 |
| 14 | 75 | 40:8 | 225 | 34:7 | 0 | 0 | 70 | 14:65 |
| 16 | 0 | 0 | 590 | 30:6 | 50 | 30:6 | 35 | 14:50 |
| Total: | 2,660 |  | 8,600 |  | 1,00 |  | 1,12 |  |

Tsp. 11 S., Rng. 5 W., Sec. 9

| 05 | 125 | 40:7 | 465 | 28:6 | 0 | 0 | 120 | 14:65 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 06 | 0 | 0 | 715 | 28:6 | 70 | 30:6 | 95 | 14:65 |
| 07 | 0 | 0 | 1,100 | 30:7 | 140 | 30:6 | 90 | 14:80 |
| 08 | 0 | 0 | 750 | 20:6 | 125 | 30:6 | 95 | 14:65 |
| 10 | 150 | 40:7 | 990 | 26:6 | 75 | 28:6 | 85 | 14:65 |
| 11 | 0 | 0 | 375 | 28:6 | 225 | 30:7 | 55 | 14:65 |
| Total: 275 |  |  | 4,395 |  | 635 |  | 540 |  |
| Total: 34,185 |  |  | 69,95 |  | 7,520 |  | 11,5 |  |

## Appendix H Kalapuyan Oral Traditions, 1913-1933

This appendix includes excerpts from anthropological interviews with two Kalapuyan men, William Hartless (see Fig. 5) and John B. Hudson (Fig. H.1) in the early part of this century (Jacobs 1945). They are appended to this thesis for several reasons: 1) they are believed to be the only verbatim transcript recordings of people who frequented Soap Creek Valley before 1890, 2) they are the only known interviews with people whose (second hand) knowledge of Soap Creek Valley precedes pioneer settlement, 3) they provide good examples of differences between oral histories and oral traditions (see Chapter II), 4) they demonstrate the value of anthropological interviews for obtaining certain kinds of historical information (see Chapter II), and 5) they provide a basis for testing an individual informant's validity and reliability.

Fig. H.1. John B. ("Mose") Hudson, 1909. This photograph was cropped from a larger picture of Mose Hudson's blacksmith shop on the Grand Ronde Reservation in 1909 (Zenk 1990). Hudson's age was given as 35 in 1902 and 37 in 1907, according to tribal census records (Whitlow 1988). He was probably born in the late 1860 s, perhaps 1868, on the Grand Ronde reservation.


These interviews have been edited from their original print versions (Jacobs 1945) in order to accent the historical data they contain (Zybach 1999). The Hudson interview excerpts, in particular, have been arranged to systematically
consider details of prehistoric Kalapuyan life in Soap Creek Valley. Although the Hartless interview excerpt contains only a single myth, it is the same myth related by Hudson, 20 years later. Both men tell the myth in their native language (Chapanafa Kalapuyan and Santiam Kalapuyan languages are very similar), but at different times, with different interviewers, and in different locations. Therefore, the myth can be examined for whatever historical details it might contain, and can also be used to test the capabilitites of Hudson and Hartless to recall and relate detailed information obtained from earlier generations (see Figs. H. 2 and H.3). This may be judged an instance in which both informants are reliable, but the historical information they convey is not valid.

Fig. H.2. Joseph Hudson (Yelk-ma), 1851. This sketch of the Santiam Kalapuyan spokesman was made by George Gibbs during the 1851 treaty negotiations in Champoeg, Oregon (Zenk 1990). Tribal census records list Hudson as "full" Santiam (Whitlow 1988), but he is said to have had a Tualatin Kalapuya father and an Ahantchuyuk mother. His wife, Margaret, was said to be the daughter of a Mollalla "chief," but census records also list her and her children with Joseph as "full" Santiam. Hudson may have been an uncle to John B. Hudson and a source for much of the younger man's knowledge of prehistoric Kalapuyan traditions.


The first interview is with William Hartless, born and named Sawala in present-day Corvallis and raised on the Grande Ronde Indian Reservation after 1856. Hartless was interviewed by Leo Frachtenberg on December 10, 1913 at the Chemawa Indian School in Salem, Oregon. Based on local archaeological evidence and his own testimony, Hartless may have been born on either bank of the mouth of the Marys River, near the County Fairgrounds along Squaw Creek, near the camas patch on NE 9th and Walnut Blvd. (Zybach 1990 et al.), or near an encampment on NE 29th and Circle Blvd.(Weise 1990). He took his English name from a pioneer family who operated one of the first stores in Marysville, within the Dixon claim, along the Willamette River (Hathorn 1853), and shared the name William with a Hartless son born in 1854 (Mackey 1974).

Hudson was interviewed in the early 1930s at the Grand Ronde Indian Reservation by Melville Jacobs.

Fig. H.3. "A Kalapuya Lad," 1841. This boy was probably sketched by A. A. Agate, a member of the Wilkes' expedition, near the same time and location as Fig. 5 (see Chapter III). As a survivor of the plagues of the 1830s, it is possible that this young man later attended the 1851 treaty negotiations in Champoeg (Carey 1971). He would have been one of the last members of his nation to remember Benton County before it was settled by pioneers, and would also have been about the right age to have fathered William Hartless.


Part I. William Hartless, Chapanafa Nation, 1913

## COYOTE, PANTHER, WHALE, THE FLOOD, SECURING FIRE

Panther lived there (with) his brother coyote, they lived together. Panther hunted all the time. (As for) coyote, he worked, he got firewood, he picked hazelnuts and berries, he dug camas. That was his work. Now then one day panther went away to hunt. A woman came, she peeped inside. (Coyote said to her,) "Come in! Sit across from here. My brother's (panther's) place (bed) is there." So then the woman sat (there). Now then panther's bow broke (a sign of ill omen to panther.) He said, "I will go back (home) now then." And so he did go back, he got home, he looked inside, a woman was seated (in there). "Come outside!" The woman indeed came out. "Come along! Follow me!" Sure enough they went on, they got to the water. "Take off your clothes!" Indeed the woman undressed herself. "Go swim!" Sure enough the woman swam. "Dive in five times! Now come out! Dress yourself!" Indeed the woman dressed. Now then they went back (home), and they went into the house. Now then they lived together. He made her his wife. The woman was a whale being (she was whale's daughter, and she had to bathe in order to become panther-like). Again indeed panther went to work, he went to hunt.

Coyote remained. He worked at home. He got firewood, he speared (salmon). That was his work. Now then one day panther said, "Oh have you no relatives where you come from?" "Yes, they are alive (there). My father is living (there), my mother is living (there), my sisters are living (there)." "Oh. You better go to visit them then." "Well I will go then. In five days I will go." Sure enough on the fifth day she went. Whatever she took along just rolled along behind her as she went along. She got into a canoe, all the things went into the canoe (too). Then she went on (across), she arrived. Now she entered the house of her father. "Oh have you come?""Yes. I have arrived." How long will you remain?" "Five days, (then) I will go back." "That is very good indeed. (But) it is too bad you will be in such a haste to go back." Now after five days she went back, she took along salmon and eels. It was her father's food she took along. Now she went back, and then she reached her husband's house. She went in. Coyote was there. It became dark. Panther arrived, he brought deer. Again the next day he went away to hunt.

The woman worked at home, coyote cut wood. Now one day the woman said, she said to her husband, "My father said to you to come visit us." "Oh that is very fine. We will go in five days." Indeed they made ready. (When they went) in the very same way again the packs just rolled along behind them. He and his wife went together. Coyote remained at the house. Panther went along together with his wife. Now they got to there. They went in. The woman's father (whale) said, "Who are you?" "Oh it is just I." "Are you alone? "We have come together indeed. We live together." "Oh," said whale. Whale was facing to the rear. Now he arose, and ( after turning around) he sat down. He said, "Oh so have you arrived?" "Yes. I have come now." "Oh it is fine that you have visited me." So they remained. It became dark, they went to sleep. Early the next morning they arose. He (panther) just expectorated his spit, the fire blazed up, it sounded prrr. Now they then all got up, they ate, they finished their meal, panther went hunting. He brought back a deer. They remained five days before they went back. Panther said, "We will get here again indeed." Yes," said the whale. You must visit us all the time (often)." "Yes," panther said. "Let us go back now." So they went away, they went back, they got back home. Coyote was there. Now panther went hunting again indeed.

The woman stayed there (and) she worked. Coyote cut wood. Now one day coyote brought wood, (only) he brought one willow twig, and then he built a fire. The woman was in the other side, she was working. Now the (burning) willow crackled and popped, it (a spark) dropped on her foot, The woman lifted her foot, and he thought he saw something or other indeed (he thought he saw her privates.) "Wonder what I should do?" said coyote (to himself). Then coyote went outside, indeed he again went for his wood (cutting of firewood), and now he brought back a lot of willows. Then he burned only that (kind of firewood). Now it was crackling and popping it (one ember) dropped on the woman's leg.

Now the woman said, "tu'tu'tu'." She lifted actually both her legs, and then he saw what he was wanting to see.

Now coyote went out, and he went to swim. Now he got to the water, and he defecated. Then coyote dived in, and he came out, and he said to them (to his feces), "How do I look?" His feces said, "You have not become different yet. You are still a coyote." Coyote became angry, he stepped on and wiped away his feces. Once again he defecated indeed, coyote dived in. He said to his feces, "How have I become?" "You are still a coyote." Coyote became angry again, he mashed his feces. He did like that five times. The fourth time he dived, he said to his feces, "How have I become?" "You have become a little changed now." Coyote said, "Stay right there!" He defecated again, he dived in again, coyote addressed himself to his excrements, "How have I become now?" "You have indeed become just like your brother (like panther) now!" "Oh that is fine."

So he went back, he went a long distance (in a circle) around the house, and then he went inside. The woman was (seated) there. "Oh," said coyote, "Let us go visiting." The woman said, "All right." Now he pushed her over on her back, and then he copulated with her. (After that,) coyote said, "We will get ourselves in readiness tomorrow (to go)." Then coyote went out. It became dark. Panther arrived, panther thought nothing (had gone wrong). "But where is coyote?" said panther. "He may have gone somewhere or other." "It is his own heart that way (it is up to him), wherever he may have gone." Then when the next day came, panther indeed went away to hunt. Now coyote got back, he said, "Now let us go." And the woman said, "It is well indeed that we go." So then he pushed he over on her back, coyote copulated with her (again). Now coyote had copulated with her twice. Then he fixed himself up.

So now they went away, they got to there (to her father's house), and they went in. There they stayed. In the morning they got up. The woman said, "Wake up." Now coyote expectorated (he threw his spit) into the fire, it made just a little sound - luf, and then it went out. Coyote expectorated (threw his spit) again, again it burned only just a little, it just sounded tcis. So coyote got angry. He arose, and he said, "What is the matter with this (fire)? It does not want to blaze." So then he fixed the fire, before the fire would burn. Then they got up, and he went away to hunt. All day long he sought frogs. At last he got one, he transformed it into his deer and then he went back. Coyote reached home, he brought back his deer. Now wanted to take it inside. Then he said, "Hold on! Hold on! (wait!)" He had forgotten (to make) its tail. So he got a fir cone, he made its tail of it, and then he took in his deer. Now they went to sleep. And in the early morning they awakened. Again coyote expectorated (he threw his spit) into the fire. The same way again it merely foamed and spit (like wet wood in a fire). Again coyote was angry, so he got up, he fixed the fire, he went away indeed to hunt.

Now the panther's bowstring broke (a bad sign), and so panther went back home (to investigate). Then the woman's sister said, "What did you so that you brought coyote? Where on the other hand is your husband?" The woman did not say anything to her, panther's wife (did not say anything). Again she said to her indeed, "What did you do to bring him? Do you not know it is coyote you have brought?" Panther's wife said nothing. Now panther got to his house. No one was there. Panther stayed alone overnight. Early the next morning he got up, he went to swim, and then he followed along after his wife. He got opposite there. He took his knife. Then he hallooed, "Oh! Coyote's wife come get me across." Panther said, "Not you! I want coyote's wife to take me across." So that woman went back, she went inside, she struck her sister with a paddle. "Go fetch your husband he says." There was nothing else for that woman (of his) to do. She was pregnant. Panther hallooed again, "Coyote's wife! Get me across." Indeed another of her sisters put down her canoe and she went, she went across. "Oh not you!" said panther, "I want coyote's wife to take me across." So she went back too, she got to the house. Indeed she also hit her sister with the paddle. "Go fetch your husband he says." Now then they put down her canoe, and they placed her in the canoe. Now that woman went, panther's wife. She had almost gotten across when in leaped panther. He tore open his wife's abdomen, panther took out her (panther) baby. Her five coyote babies he left there (in her womb). Now he jumped back ashore, he ran on.

Now then coyote dammed up the water below stream, in order to get his own coyote children. [Then the water became angry, the water rose, all the land went under water, everything drowned, except at Alsea Mountain (probably Mary's Peak near Corvallis, Oregon).] It stood out a little, it stuck out (above the flood waters). The deer was standing in the water, that is why its tail is white. After five days the water went down. All the people had died, indeed all those things (people) were all like that now (were all dead).

Now there was no fire. Humming bird was sent first. He came (only) to here (he did not go far). Then copperhead snake was sent, and he went, he actually went on to here where the sun rises, he went to steal it, indeed he went. Now he got the there, he stole the fire. Now then he was pursued, he went into a hole in the ground, he went out of sight in the brush, finally he won (over them) everywhere. Now then when copperhead snake came along, he got to the ocean coast. "Wonder what I should do with this fire?" So he took it in his teeth, and he swam (across). It burned his mouth. He went across at last. He brought the fire to where panther was. Again indeed they had fire.

Go swim! Always keep what I have given you.

## Part II. John B. Hudson, Santiam Nation, 1933

## 1. THE GOOD OLD DAYS

This countryside is not good now. Long, long ago it was good country (had better hunting and food gathering). They were all Indians who lived in this countryside. Everything was good. No one labored (at hard labor for wages). Only a man went hunting, he hunted all the time. Women always used to dig camas, and they gathered tarweed seeds. Such things were all we ate. They gathered acorns, they picked hazelnuts, they picked berries, they dried blackberries.

## People Spoke to the New Moon

Long ago when the people saw the (new) moon then they spoke to the moon. They said to it, "We are still (alive) here yet. We see you now that you have come out again, (and) we are still (alive) here yet."

## Personal Names

Long ago the people, all the people, had names. Now when he (one of the people) died, no one would ever utter his name. If any other person pronounced his name, the name of the person who had died, then if the relatives of that person who had died should hear that name being pronounced, they would maintain that that was a very bad (insulting) thing, (and) sometimes they would fight about it. They used to say that no one who was a different (unrelated) person could utter that name, when they were dead. It was indeed only his own relatives (who could). Then (after quite a while) they would call (some child of theirs) by that name. That is how they always did, that is the way they always did it is said. This is what they used to say. That name was always there (it remained within the family). Whoever those people (relatives) were who had a child, and who were relatives of those who had died, they would name a child with that (deceased's) name. That is how they always did. Other people (non-relatives) could never just simply call it (a person or a child) by a name.

## 2. MAKING BOWS AND ARROWS

Long long ago when the people made their bows they made them of yew wood. They made their bows of that. They split it, they scraped it with mussel shells, and with
this sharp rock. That is the way they did it when they made their bows. They were good bows. Then when there were finished (scraping) they would warm it, and then they would rub on it grease which they had heated. Now when it became dry the bow would always be stout (strong) they say. That is the way they did it. It was a good bow which they made. But as for these children's bows, they did not grease them. They just made them (without greasing them). When they finished (making a bow) in the same way they would make their arrows. When they were finished (making them) they would heat them, and then they would straighten them (still warm, using hands and teeth). They say that that is the way they used to do it when they made their arrows. That is how those old people spoke of it.

Blind People Made Arrow Points
The people used to say long ago that the blind persons made the arrow points. A blind person could do nothing, he could only make arrow points. He would do that all the time. That is what they used to say.

## Ropes and Snares

The Indians made their rope long ago of small round hazel (sticks). They got it, they twisted it (with their hands). When they were through their twisting, then they made rope of $i t$.

And another kind of rope they made, they made of willow bark, that is the bark that is white, (and) it is underneath (inside). Long ago they made their rope of it. They placed that kind of rope, they hung it on a deer trail, where deer went by, there he would put his head through it. They had it tied to a small stick (a sapling), it was not a very large stick. Then he would choke himself. That is the way they used to kill deer long ago. They did it that way sometimes.

## Elk Pitfalls

And also long ago when they killed elk, the people would dig a hole in the ground there on their (the elks') trail. They would dig a very deep hole in the ground. And then they would place small sticks on top of it, and they would put leaves (as camouflage) on top of the small sticks, there on the elk's trail. And then the people would go away. Sometimes they would dig perhaps two holes. Then when they would go along, no then they scared the elks, and they (the elks) would go along on their trail. Now then some of the people would run along behind (the elks), and the elks would go (fall) into where that hole (pitfall) was in the ground. Now then they would kill the elks (in) there (by clubbing). That is the way they did long ago it is said. When they killed them, then they took them out. And now there was a lot of meat for them. They took it back to their homes.

## Hunting Grizzly Bear

A long time ago when the people when to fight (hunt and kill) grizzlies, they say that a great many people went to where the grizzly lived. It is said that one man took a long pole, and he would go on ahead. Then when they reached the grizzly's abode, now some of the people got themselves in readiness. They fixed their bows and their arrows. Some of them stood here, some also stood here (there). And the one who bore the pole stood in the center. Then he poked at the grizzly's door (of his den as) he held on to the pole. Now the grizzly became angry, and he came out. Then the man who held the pole stabbed the pole into his breast (heart). Now the grizzly stood up, he seized the pole too, and he bit and chewed at that pole. Then some of the people who stood at the sides, now they were shooting at the grizzly, while the man still held on to the pole. They say that is how they would do when they killed a grizzly. Some however of these people who would hold the pole would not be strong (enough) when the grizzly approached. And then that man who held the pole, when he wanted to poke it into his breast, then the grizzly would simply raise up that pole, while he went right by it, and then he would seize that person (and) he would bite and chew him up. Then they could not kill the grizzly when the
grizzly seized the person who held the pole. But when he did know how to hold the pole, then the grizzly would (only) bit at the pole. That is how they always did it when they killed a grizzly they say. The one who knew how to hold the pole always kept it poked into his breast. The grizzly was unable to raise the pole away from him, (and) he would (just) be fighting at that pole. Then those people would be shooting at that grizzly, and then they would indeed kill him there. That is what those people used to relate a long time ago so they say. I myself heard that when they used to tell about it.

Long ago those old people would say (to some one person), "You are not strong. You could not wield a pole, and be poking at the grizzly to make that grizzly angry. You would be getting quickly out of the way when the grizzly came out towards you. Your heart (your courage and your guardian-dream-power) is not strong. You just talk (about your prowess). You are not strong (hearted). On the other hand that one (who) -he is very strong at heart, when he pokes at a grizzly when it gets angry at him, (and) when it comes out towards him. He (a person of so strong a heart) does not get out of the way, when he pokes the pole into its breast." That sort of man we say is a stout (brave, strong) man, and his heart is stout too. He does not just talk. It is indeed just whatever he says it is (he is honest about his claims).

Sometimes when he sees a person the grizzly gets angry, (and) goes, (and) kills that person. And then he eats him so they say. But on the other hand sometimes he does not get mad. Rather he does nothing to that person. That is what they say. It was principally the female grizzly who had young ones, she was very harsh of voice (mean, irritable) when she had the little young ones. The people feared her very much (then). They would say, "Go far away from her!"

They did not like to eat its flesh. They said, "Its flesh is bad. That grizzly eats persons they say." So they did not want to eat grizzly meat.

## Trout Fishing

Long ago when people fished, they made it of a person's (head) hair (a tuft of hair on the end of a rolled white inner bark of willow fishline). They fished trout with it. When it bit the hair it got hung on to it by its teeth, and then they pulled it out (of the stream). That is how they did it when they fished, so it is said.

## 3. SHARING MEAT

When a man went hunting, (and) when he killed a deer, then when he brought it back, (and) he had gotten back home, then he shared small pieces of the meat around among the people. They always did like that so they say.

## Boiling of Foods

Long, long ago, when they (woman) boiled their food (meat, etc.), they took their (bark) bucket, and they put water into it. Then they cut up their food when they wanted to boil it. And then they built a fire, they heated many stones. Now when those stones had become hot, then they put them into the (water in the bark) bucket. And then they put their food into the bucket and (they put in) water too. Now the hot stones were put into the bucket (of water). Then the water would boil. And when a stone got cold they took out that stone, and they put in another hot stone again. Then their food would boil, and so whatever they ate became cooked. And the water, they call it soup, they would drink it too. When they ate they would also drink the soup. That is the way the people used to do long, long ago. They boiled salmon, they boiled eels, they boiled deer meat. That is what they did to their food. They also boiled acorns. The thing that they fixed their fire with, when they built a fire, and with which they held the hot stones, I do not know (what) its name (was that they called it.

Camas and Some Other Foods

Long ago the people after they had dug a hole (for acorns), then they would build a fire right there (in the hole). Now they would put a lot of stones (on top of the fire). Then when the rocks got hot, then they would say to a shaman, "Look at the rocks now! Is it all right for us to put our camas on them?" Now then the shaman would step (barefooted) on the hot rocks, he would cross over on them, he would look at his feet, and he would say, "Oh pretty soon the camas will be good (well cooked)". That is how they used to do once in a while. So then they placed all their camas (in it) there. They always put (in) large quantities of (wide) maple and ash leaves, they put them in first (on top of the hot rocks). Now then they put (in) the camas. And then they placed leaves on top of the camas. Now then they covered it over with earth. Now they built a fire on top of rocks (placed over the oven), hot rocks were under it. That is how they did when they prepared cooked camas. And they were (in) there for three days, (though) once in a while for (only) two days. Then the cooked camas became done. When they covered their raw camas (in the ground oven), one woman put in her raw camas first, and she put some few leaves (on them). Then another woman, now she put in her own raw camas, and she put on them a few leaves. Now then another woman put in her raw camas. That is the way they always did. Now then they all knew where they had placed their (own) raw camas. Once in a while they would examine (the oven) where they had placed their raw camas. They dug a hole in, they pulled out one of the uncooked camas, and they looked it over. It would not be quite done yet, so they would put it in again. Now then they built a large fire again (on top). When they at length (again) took out another camas, they would look at it, and now it was done. Then they would say, "This cooked camas is ready (done) now." And they would wait till it became cold, and then they uncovered it, and they gathered up their cooked camas. That is the way they always did. Now that it had become cooked camas, they dried some of it in the sun. And they took care of it (turned it over) all the time (it lay drying). And when it was dried, then they put it away. They ate it in the wintertime, when there was a lot of snow on the ground. Then they ate the dried cooked camas. That is what they always did.

That is the way they did with everything. They always put it away. They dried Chinook salmon for the wintertime, and then they ate it. They dried meat, and in the wintertime they also ate hazelnuts, and acorns, and tarweed seeds, and dried berries. They dried all sorts of things, (and) in wintertime they ate them at the time when there was a lot of snow. They dried eels which they ate in wintertime. In summertime they picked tarweed seeds, and they dried them on the fire, and when they were done, then they put them away. Now long ago the people had a large rock which had a hole (concavity) in its center (i.e., a mortar), and they mashed their tarweed seeds in it. Sometimes they (also) mashed their cooked camas (in the mortar) where they mashed the tarweed seeds. And when they were through, then the people ate what was mashed which they had pulverized. They mixed hazelnuts, and cooked camas, and tarweed seeds, (and then) they ate their cooked camas and their tarweed seeds and their hazelnuts.

## Acorns

When acorns ripened on oaks, and when the acorns fell down, then the women would gather those acorns (that had fallen). They would pick up quantities, they would put them into their soft-bags, and they would take them back to their houses. Now then they would roast them in hot (coals in the) ground (till they cracked). And then they would take them out, and now the acorns would be (seen to be) cracked. Then they put away its (their) flesh (meaty part). They dried the acorns' flesh (meat-they were laid in the sun either on the ground or on tightly woven rush mats). Now when they wished to eat (some) they placed it (basket and acorns in it) in water (to soak) maybe one day and one night (to remove the bitter taste). And then they took the acorns out (of the water), and they boiled it (them). When cooked they ate it. That is the way they did.

## Drying Berries

Long ago when the people (women) used to dry their berries, they would put some of them on paper over a (flat hewn) log, while they would place others on gunnysacks.

Now they poured their berries over them (on the log or sack), (and) there their berries would become dry. And they would place others on longs, these logs they (the women's husbands) had chopped on top to make the log flat. Now there is where they (the women) always poured (spread out) their berries (to dry). The person who (the wife of the man who) had fixed (hewn) that log (flat on the top) was the one whose log it was, (because) he had fixed it. There they (the women) dried their berries. That is the way they always did it, when they went to the mountains for their berries. That is how they always did. The men would go hunting, and the women would go to pick berries.

## Eating Grasshoppers and Caterpillars

When it was summertime they burned over the land, when they wanted to eat grasshoppers. When they burned the land, then they burned the grasshoppers (too). And then they (women) gathered up the grasshoppers, and they ate those grasshoppers it is said. I do not know what they did to them, when they wanted to eat them. Maybe they cooked them, and on the other hand perhaps they did not cook them. I never saw them eat them. Those people long ago only spoke of it.

And another thing too that they ate, they called it caterpillar-that was its name. When it was summertime they (women, perhaps men too) gathered that caterpillar, at the time when there were quantities of caterpillars. Those caterpillars ate the leaves of ash trees. Now then they (the people) made ground holes, small holes (six or seven inches deep, round, two feet wide, away from the trunk of an infested ash tree), and then those caterpillars would fill up the holes in the ground. Then they would gather up the caterpillars (which were thick in those holes). That is the way they did. And they took them back to their homes and they boiled them. And so when boiled, then they would eat the caterpillars. The whites call this caterpillar 'caterpillar.'

## Eels, Bark Buckets

Long ago the people (the men) used to get eels in small streams (creeks), the eels that had gone into the small streams that had left the big-river (the Willamette). It always has a great quantity (too much) of water. Eels could not ever be gotten by them there. (But) in the small streams, there where there are small waterfalls, at such a place there were always quantities of eels it is said. They (eels) would be going upstream. Always at that time when it was getting near to summertime, they would catch eels. But on the other had at the falls (at the great Oregon City falls) there would always be quantities of eels in the summertime. They would be fastened on the rocks there at the falls. Quantities of eels are always there. They would catch them just with their hands. And when they had caught them they would break their necks. That is the way they used to do at the (Oregon City) falls, when the people caught eels. All the people got their eels at the falls. When the eels were at the falls the people would say, "The eels are quite fat." When they wanted to eat eels they always roasted them, when they had cooked the eels, then they ate the eels. And when they were through eating they put away their roasting spits. They put them away. They always took good care of their roasting spits. That is what they did.

Long ago they used to get eels in the night time. When they got them at night they obtained pitchwood, they lit the pitchwood (brands), and they held them. Then they went back into the stream. And when they saw an eel they seized it close to its neck there, where it has little holes. They say it is a little soft there. Then they broke its neck when they seized it. And they also held onto the lit pitchwood, so that they could see the eels. That is the way they used to do in the night time to catch eels. They split the pitchwood. And they tied the (split) pitchwood) in several places. They took it at night when they went. They lit that pitchwood. That is how they used to do long ago it is said.

Sometimes too in the daytime they would get eels. They would just go to the stream, there where they saw eels they would catch them, all of them that they saw. They would always seize the one that stayed to the rear. They would never catch the one that was ahead. If they seized the one that stayed in front, the others that were behind would all get away. But if they did seize the one to the rear, they would catch all those eels.

When the people (the men) had caught eels, and when they had come back to their homes with them, then the women split them (lengthwise). The eels they did not want to eat at once, those eels they dried. When they split them they put them up above (on drying frames made of four upright forked poles, with many cross poles). And there underneath they built a fire. It was not very hot. They smoked them with the smoke (of the fire beneath). That is the way they did when they wanted to dry them. However when some got dried they placed them (in storage). That is what they did for their winter food. That is what they always did with their food. They said that they put others into soft-bags, and they hung them up above from a tree. There they put their food to be eaten in the winter. That is the way they did it is said.

They put their food into buckets, they were of ash bark. They peeled off the ash bark, they made buckets (of it). They sewed the bark together (using string made from willow bark). Long, long ago they called that their bucket it is said. And they (also) made their buckets of maple bark. Some made their buckets (also) of this cedar bark, they made their buckets of its bark. That is the way they always used to do long ago. Now that is all I know of that.

## 4. BASKETS

The soft-bag (a pack-sack basket) that they had was always for their packing (carrying things on their backs). Whatever they picked (e.g., acorns, hazelnuts, camas, tarweed seeds, pussy ears) they put into their soft-bag. When they dug camas they put them into their soft-bag. When they gathered acorns they put them into their soft-bag too. For everything that they did they always carried along with them their soft-bag. The softbag was the women's thing for packing (for general carrying). That is the way they always did so it is said. And another one (basket) in addition they named their storage-basket (of hard splints). Still another one (was made) like the storage-basket indeed (i.e., hard, shaped like a shallow pan, tightly knit; Eustace Howard said it is more like the soft-bag in the technique of weaving), (with) it they prepared tarweed seeds. I do not quite well know what its name (was). I do not know how they did it (wove it) when they manufactured them. But I myself saw (some old ones used) when they prepared tarweed seeds (with them). They had them (they were made) rather like storage-baskets indeed (like the softbags, according to Howard).

## Skin Blankets, Grey Squirrel Meat Cooked

A long time ago when the people killed gray squirrel, then they kept the skin. And when they killed gopher they kept its skin too. They made their blankets of everything that had a skin. They sewed them (the skins) together (probably with deer sinew), and then they made it large (a large blanket), and then they wore it. That is how the people did long ago it is said.

They roasted some (grey squirrels) in hot ashes. They say that is what they did. On the other hand they roasted others (other grey squirrel meat) in hot coals. They say that is what they did to their food (meats of various sorts). Long ago when they boiled their meat, they put it in a bucket, and then they put water in too, and then when they had put in their meat, then they put in hot rocks, and then their meat was boiled. Now then it got cooked. Then they ate their meat, and they also drank the meat's juice (broth).

## Moccasins

Long ago the Indians made their moccasins of deer hide they say. They cut the hide, and then they made moccasins of it. They sewed them with (deer) sinew. The sinew was their thread. They put on their moccasins when there was snow. But when there was no snow they would go along without moccasins. Only in wintertime did some of them put on their moccasins. They made their moccasins of deer hide. That is how they always did they say.

Leggings
They wrapped leggings around their legs. Wherever they went the women wrapped (leggings) around their legs. The men also wrapped their legs the same way. It extended from the knee and down to the foot (ankle).

## Hats

Whatever it was they called a hat long ago, the people's (Indians') hats, I never did see what kind of hat theirs was. I only heard when they were storytelling that they mentioned hats. And they said that old women wore hats. I do not know just where the people were who used to always make hats. I only heard about it.

## 5. NAKEDNESS

Long ago the people had no garments (for everyday wear). They had nothing on. Men wore no clothes. The women likewise had only something here on their front. They covered their pubic region.

## Tattooing and Other Skin Markings

Long ago some of the people used to mark (tattoo) their faces it is said, while some others marked (burned spots on) their hands and arms. And the young fellows and girls would say to one another too, "Let us try our hearts (our fortitude against pain)." They would put fire on (their hands), and then they would burn (spots on) their hands.

But some others would mark (tattoo) their hands and arms. They fixed up a (sinew) and a needle. They greased that thread (and rubbed on) charcoal on the thread. Then they stuck it in (the skin of) their hands and arms, they stuck through (their flesh) the needle which had the (grease and charcoal) thread. And then they pulled it where they had stuck it through their flesh. This marked (painted) thread was marked (painted) with charcoal. That is the way they did when they marked (tattooed) their hands and arms.

But indeed when they burned (spots on) their hands and arms, the young fellows and girls competed at who was stronger in his heart (who was braver against pain), when they burned their hands and arms. Long ago some of the people indeed whenever they had a hurt in their body they burned it (a spot on the skin there) they say. And there where it hurt they put fire on it. That is for what the whites call rheumatism now.

## 6. MEDICINES

Some of the Indians long ago knew what was good when a person became somewhat ill (not seriously ill from a poison-power). They would prepare medicine (some herb). If he did not go outside, if he did not defecate (if he was slightly ill from constipation), they would peel Chittum bark, and they would boil it. Then when its water became cool, they would give it to that person. That person would drink it, and sure enough his belly would hurt, and that person would go have diarrhea.

Or if he would not be feeling good in his heart (if he felt slightly indisposed), they might give him bitter-camas. They might give him two bitter-camas. And then that person would eat the bitter-camas, and in just a very little while he would vomit, and he would vomit for quite a while. He would vomit a lot of that slimy-bilious-yellow-stuff. That is what they used to do it is said.

When persons got a cold they would not give them anything. They would say he would get well pretty soon. It was just nothing but a common cold, so they would say.

## 7. SMOKING

Long ago when the people smoked their tobacco, they mixed in it (kinnickinnick) leaves. They picked those leaves by the ocean-coast they say. That leaf was very fine when they mixed that leaf in, when they mixed it with their tobacco. Then they put it into their pipe. And they lit it, and they smoked. And they swallowed the smoke, they expelled (exhaled) the smoke from their nose. They expelled it many times from their nose, and then they became dizzy. That is how they used to do when they smoked. They did not just puff and puff and puff. They always swallowed their smoke. That is how they did when they smoked.

Their pipe was of stone. And there where they bit it, they put in a small round stick (stem). When they finished their smoke, they pulled out the little round stick (the pipe stem), which when they smoked they held between the teeth in their mouth. They lay it by (beside) their pipe, when they took out the round stick. It was not very long. And the stick had a hole through its center. And they fitted part of the stick into their pipe. They held it in their teeth when smoking. Other pipes, however, that were long (one piece stone pipes) were pipes that were held in the teeth (they had no wooden stem and so the stone was held in the teeth), when they smoked such long pipes. On the contrary (in) the short pipes, they fitted short round sticks into them, the stick having a hole through the middle. That is the way they always did.

## Killing Aches with Burning

Long long ago the people, they say that when a knee ached (with rheumatism), they put fire on it, they applied fire to it. They got cedar bark, they got it (and) dried it. And when it had become dry, they took it, they put it in their mouth, they chewed it with their teeth. When it had become very finely chewed up, then they took it out of their mouth, and they took it in hand, and they made it into round balls (triangular pellets the size of very large pills). Then they dried them, and when they were dry, then they put (one of) them on a person's knee where it ached. If a person's hand ached, they applied that dried round thing there likewise, (or) they put it on that person's knee if it hurt. Then as it rested there on (on the painful place), then they set that bark (pellet) on fire, and the bark burned (very slowly), and all of it burned. When it all burned down it popped off. When it popped they would say, "Oh that will get well now!" (because the fire has killed the cause of the pain.) But if it did not pop, they would on another (pellet) close to it where it ached. That is the way they did. Whoever had a knee that ached, they would say (to him), "Well, do you not put the fire where it hurts? If you put a fire on it you might get well."

## Carrying Fire on a Journey

Long ago when some of the people went to the mountains to hunt, they carried fire with them. They put a (hardwood) burning coal in, they put it inside some little rotten wood, and they put the fire in mussel shells, in between the mussel shells. They took two mussel shells, they put it (the burning coal) between the mussel shells, they closed the shells together. And then they wrapped it (all) in fire ashes. That is how they did when they carried fire along when they went hunting. That was when they lacked matches. That is how they did so they say.

## 8. OWL CALLS AND SLAVE RAIDS

A long time ago the people used to relate that different (foreign, usually nonKalapuya) people, when they went away, they would go to fight in order to steal (people from bands) where they obtained their slaves. There they always fought in the early morning. When it was dark the people (the slave raiders) would come close to those (village) houses. Some of these people (raiders) would make themselves (as if) owls, they would make sounds just like owls. When they made their voices like that there, the other people (their fellow raiders) would understand what was said (sounded). The people who lived in the houses (of the doomed village) would not know anything (would not interpret
the hooting as other than real owls). When it was early morning then they would enter the houses, and then they would kill the people. And those whom they did not want to kill they would keep for their slaves. When they went back home they would take them (the captives) along. But some of those (enslaved) people would go flee, they would not get killed.

They would always be watchful there when they knew (heard) an owl was making noises in the nighttime. Or if a screech owl was talking in the darkness they would say, "Wonder why it is doing like that? Maybe (foreign, non-Kalapuya) people are going (scouting) around." They were always fearful when they heard an owl in the nighttime. They would say, "Maybe it is a Molale who has made himself (like) an owl.

## The Hoop and Arrow Game

The people called it the hoop. They all played with it when the people assembled. Then indeed they played with the hoop. Now then they threw it, they made it roll along, and then persons would shoot at it. Now once in a while one of them would hit it when he shot at it. The others would miss it. That is how they did it all the time so they say. I myself did not see them play it. That is the way the people used to talk about it. I myself only heard about it. When they played it some of them stood here, and others stood yonder. Then those who stood here threw and rolled, and those others shot at it when it passed, when it passed there where it was marked, now then they shot at it. Now those other people took it, and they threw it too. They made it roll along, and then these others stood here and shot at it. That is the way they always did so they say, when they played. That is what they said. I myself did not see it.

## Playing the Hand Game

Long ago the people (men) when they played (gambled at) the hand game they always took good care of their hearts (prepared themselves, watched their gambling dream-powers). They always sweated (in the sweat house, before gambling), they swam (after sweating) in the early morning. Those who had wives did not copulate with their wives. If he were impure-from-copulation he would never win anything. A man smelled all over when he had copulated. Long ago when you copulated it would be five days again before your body became good (odorless) again. Those men (who gambled at the hand game) were always swimming (to cleanse themselves), and those others who swam (were unmarried). They (hand game players) sat at both ends (of the long row of players). And the one who counted the sticks (the point counts), he too was always swimming. The one who was in the center, he also always shot at (guessed at) the gambling-bones. And when he had hit (guessed) the gambling-bone, then he sang, and now the rest of the people (the row on his side) all sang (too). Now (after winning the gambling-bones from the row of opponents) that (center) man would take all four of the gambling-bones, he would shake (make various passes and deceptive motions with) his hands, he would throw the gambling-bones up in the air, he would yip (short high pitched falsetto cries), and then when he caught the gambling-bones he threw two gambling-bones to the end (man on his own row), (and) the two (others) he threw that way (in the other direction) likewise. Then they all sang (while the opposite side in its turn guessed where the bones were).

Firs Dance
Long ago the people would say, "Now the wind is blowing hard. Now those firs are dancing." And then when one fell, it fell for all time, it would never get up again. (But a person) always went (merely) into a (temporary) trance in his (spirit-power) dance (and got up again later).

## 9. SUMMER WINDBREAK SHELTERS

Long ago (in early reservation days at Grand Ronde) when the people made their houses in the summertime they put up a tent. Then they cut wood, fir limbs. Then they
stood them up (leaned them against a frame) outside as large (about eight or ten feet in diameter) as their house (as their roofless windbreak was to be; the boughs made a fence wall four or five feet high). They fixed their house (this windbreak, under) where a fir tree stood. Others (placed it) where an oak stood, they constructed their house (summer windbreak) close to (under) the oak. They always built their house (windbreak) where a tree stood, preferably underneath) a large tree. That is the way they did in summertime with their houses. I do not know how they made their houses for wintertime.

## Winter Houses and Sweat Houses

Long ago the people had a (type of) house, a winter house. They had a large house. They dug down in the ground a short distance. And they placed fir bark on the top of it. And some threw dirt over their house. There in the center (of the roof) was a small hole, the smoke went out there. And they had one door for it. They lived in it there when it was wintertime. In the summertime they made their house of fir limbs. That was the sort of house they made in the summertime.

Now the people always had their sweathouse. Some of the boys and girls slept in the sweathouse.

Sometimes with the people, when one of their relatives died in their winter house, they would all go outside, they would go to another house. And then they would build (a fire) in the house where that person had died, they would build a fire of white fir limbs (keeping it burning) during five nights. Then they would come back to the house. It is said that that is the way they always did.

Long long ago when people made a sweathouse, they would fetch small round sticks, they obtained (soft green) hazel sticks. And they set them in here and there with both ends in the ground. And they pulled them all over the top of it, and they tied them (giving a frame of semicircular shape). Then they put white fir boughs on top, they put on many white fir boughs. Now when they threw over it they threw dirt all over it. But they had only one little door for it. They dug a hole in the ground at one side of the door (inside). There they put the hot rocks. That is how they did when they sweated. When any of them entered it there, then they would shut the door. They took (and) brought water inside. When a stone got a little cold, they would pour a little water on it, and then the stone would become hot again (i.e., steam would come from the rock). That is how they always did when they sweated.

Now when they came out of the sweathouse they would go to the water. And there they swam in the water. Now then when they finished their swimming, they would come out of the water. Sometimes they (then) quit their sweating, but on the other hand they sometimes went inside again for (more of) their sweating.

## Bad Months of Late Winter

That moon (during that month), the people said, that moon some of the people ate their moccasins. It is an extremely bad moon (month). When that moon went by, and the next moon was indeed approaching now, then grouse sang. Now then they addressed the (new) moon. They said, "We are indeed still (alive) here. Indeed now we have been dying in body (we have been starving)." Old people (thus) addressed the (new) moon. And then when these grouse sang, (if) that was the time then when snow fell hard, now the people would say, "Oh this is just a mere nothing. It is (only caused by) grouse's spirit-powersong) that there is snow." That is the way the people would speak. "It is because of the spirit-power-song of grouse that it is like this."

## 10. MYTHS SHOULD BE TOLD IN WINTERTIME

The people used to say, "It is not good to tell myths in the summertime. Perhaps a rattlesnake might bite a person, or a yellowjacket might sting a person, should one tell
myths in the summertime." But they do tell stories during wintertime. It is good to tell myths in the wintertime. There are long nights in wintertime.

## Seated During Storytelling

Always long long ago when people told stories (myths), all the children would sit on the ground. No one would be standing. The ones who told the stories would say, "If you stand (during a myth narration) you will become humpbacked."

## Panther, Coyote, Whale's Daughter, the Flood, Obtaining the Fire

Panther's house stood there. His brother coyote stayed with him. Now panther was always hunting. Coyote himself prepared wood (firewood), they built the fire with it. Then one day whale's daughter came, and coyote was present when the girl arrived. Now Coyote said, "Do you want my brother, panther?" And the girl said, "Yes." Then Coyote said, "Be seated there. It is his bed. He has not come back yet. He went hunting." Sure enough panther got back. When he got back she was seated on his bed. Now she prepared food for them, and they ate. Then when it became dark, they went to bed. The next day panther arose early in the morning, he went to swim (in order to be clean and odorless for hunting). Coyote himself built a fire in the early morning, and the woman prepared their food. And when they finished eating, panther went to hunt. Now then the woman smokedried meat. And when it neared evening, he returned from hunting. Then when it had become dark, they again went to bed. The next day early in the morning the panther himself went swimming, while coyote himself always gathered firewood. Now the man (panther) went hunting again, and then he got back again. Now when it was dark they were seated there, and the panther told his brother coyote, "We will be leaving you tomorrow. We will go to where her father is.. You remain, take care of this house. There is a lot of food. Eat what you will. Then we will come back." Then coyote said, "Do that! You go! I will take care of this house. I will be gathering firewood all the time." Now in the early morning that man (panther) went swimming. Then when he got back, and they were through eating, now he prepared his packs of smoke-dried meat. He took them along, he had five such packs. Then they said to coyote, "Now I leave you."

Then the panther and his wife went away. The woman went on ahead. Now the panther told his packs, "Follow me. Now we will be going on." And then his packs rolled along behind after him. Now they were going along. The woman went on ahead. Their packs came along in the rear. When it was almost darkness, they reached the river. Then the woman said to her husband, "You halloo across! Just open your mouth (without making the actual sound), they will hear you directly." And to be sure they did hear. And now right there was a canoe, a canoe came in full view. And it got to there, close (but still) off a bit, and then the woman jumped (into it), and the man (panther) jumped (into it) too. And then those packs of his all came and jumped (into it). Now when they went back (to the other shore), mudfish was (the one who was) handling that canoe. Now they got across, and the woman jumped (ashore), and then the man (panther) leaped too. Now those packs of his also jumped (ashore) behind (them). And so they went to whale's house.

They got to there, and then they entered the house. Now that man (panther) threw his spit into the fire, and his spit burned, it smelled, and the whale said, "a....what I smell is good." Then the woman, whales' daughter, said, "I have a husband." When he (panther) cast his spit in the fire, "Oh," said whale, "I did kind of smell meat." Then when it became dark, they went to bed. The next say the panther went swimming in the early morning. And so he hunted, and he killed a deer, a big fat deer. Now when he got back with it, then he threw down his pack outside. When his pack fell, it said (sounded), lim! (boom!) Now the old man (asked), "What made a thud outside?" Then the woman told her father, "I have a husband there. He has gone back now from hunting." Then the old man (said), "Oh" (in a bass voice). And the old man said (in basso) to mudfish, "Bring inside the meat that he has brought back." So mudfish went outside to get the meat, and he could not bring it in. He said, "Oh it is extremely (too) heavy." Then the man (panther) went, he himself brought it in. Now they cut the meat into pieces, and they prepared a meal, and
they all ate, when it had become dark. The next day the man said to his wife, "It is well now that we go back (home)." And the woman said, "It is well now for us to go back." Then the woman said to her father, "We are going to leave you now. We are going back. He himself (panther) has his brother at the place where we came from. He has been taking care of the house." So then the old man said, "Oh you will come to visit me some time again." And then the man (panther) said, "Yes. We will come again some time sure." Then when they went out, and they went away, and now the old man told mudfish, "Take them across." So mudfish himself went too, they got to the canoe there, and the woman got into it, and the man got into it too. Now mudfish got in it last. Then they went, and they went across. Then the woman leaped to the ground, and the man jumped too. And mudfish himself went back.

Now the man and woman went on, they went along, and then they got to their house. Now then coyote was there, he was gathering firewood, and now coyote came in. "Oh have you arrived now?" Then the man said, "We have gotten here now." Then it became dark. They ate. Now when they were through eating, then the coyote said, "Is the trail good to where you went?" And the man said, "Yes. It is a good trail." Now then they went to bed. Early the next day they arose. The man (panther) went swimming again. And when they were finished eating, he went to hunt. Coyote himself gathered firewood. Now then the man returned when it was nearly dark, he had his pack of deer meat. Now the woman prepared their meal, and when it was dark they ate. Then they finished eating, and they went to bed. When it was early the next morning, the man went for his swim. And when they were through eating early in the morning, he went hunting again. Then when it was nearly dark, he got back, he brought his pack of deer meat that he had with him. Then when it had become dark, he told coyote, "You take her along tomorrow. She wants to go visit her father." So coyote said, "Done! I will take her tomorrow. You said to me, The trail is good." To be sure, the next day they made the preparations, and the man fixed five packs, and he told his brother coyote, "These packs will follow directly behind you. You are not to turn and look at them. Keep going all the time. You will reach the river there, and then you are to halloo across."

Now coyote and the woman went. Then the woman went on ahead, and coyote kept going along in the rear. Now they were going along, they kept steadily going. Then they rested, and the woman sat down, and coyote sat over here (opposite her). Now then the woman lifted her legs, and coyote saw something indeed. Then he said in his heart, "It would be good if this were my own wife. Now I will become (as if) ill." So then he said to the woman, "Oh I am quite ill. I am unable to go on. I am awfully sick. I will go back now. You wait for him here. I will tell him, Your wife will be waiting here for you." So then coyote went back. He went along to the other side of the mountain, and then he saw water, a small pond. Then he said, "I will turn into a panther here now." Now a log was there in the water, and he got on top of it, and he defecated five times on top of the log. Then he dived into the water, and he came out, and he said to his feces, "Have I become a panther now?" They said, "No! You are only a coyote!" Then he threw them (all five) into the water. He defecated (five times) again, and he dived into the water, and when he emerged (he asked this fifth set of five), "Now have I become like a panther?" Then those (last five) feces of his (said), "Yes. You are a panther now." "Oh that is fine." Now then he went back to where he had come from, and he had pretty nearly gotten there. Now the woman said in her heart, "It is not panther that is coming. It is coyote." Now then the coyote got to where the woman was. And so when he arrived (he said), "What is the matter with him that he was ill when he got back? He said, I am ill." Now he took hold of the woman, and he lay her on her back, and he copulated with her. Then when he arose, "Let us be going along now." So then the woman went along, and coyote went on in the rear. Then their packs would not come rolling along behind. And the coyote said, "What is the trouble with those packs of ours? They do not want to come along behind." Now then the woman said nothing. In her heart she said, "It is coyote here who did that to me." Now they went along, coyote went on in the rear. They got to the water, and the woman said to him, "Halloo across!" So coyote cried out, "Oh take us across! We want a canoe!" He cried out again. Then the woman (merely) opened her mouth, and to be sure now a canoe was coming and mudfish was bringing the canoe. Then it got close (to shore), and the woman jumped. Then the coyote said, "Oh, oh (in fear) come close!" So then of course they came
close, and coyote got into it. He said, "Watch out! I might fall." Then they went, they crossed over, and they went along, they got to whale's house.

Now the woman went inside, behind her coyote entered. He (coyote) cast his spit into the fire, and it merely sizzled. It did not smell at all. Now when it became dark, they went to sleep. Early the next day, coyote now went to hunt. He was hunting, he killed nothing. Now it had nearly become dark, and he found a large frog, a bull frog, and he killed that frog. He pulled its ears, he pulled its nose, and he pulled its (hind) legs, he pulled its (fore) legs. "Now turn into a deer!" And sure enough it lay there, it was just like a deer. Then he made his pack (of "deer"-that is frog meat), and he threw it up on his back, and he took it back to the house. Now he got there, he threw it on the ground outside, it sounded just plop when it fell (the sound of a slippery wet object). Then he said, "Mudfish! Help me! Let us take the deer meat inside." So then mudfish came, and they took hold of the meat, and mudfish held its ears. Then when they took it in, coyote pushed mudfish pushed. Now coyote noticed the deer lacked a tail. So coyote said, "Wait a while! wait a while!" Then he searched around anywhere on the ground, and he found a cone, a fir cone. Then he placed that at the deer's (the frog's) anus, and he said, "Here now is your tail!" Then they took it inside, and the women there sliced up the deer, they prepared food. Now when it became dark they ate, and then they went to bed.

Now then when it was dark that panther himself dreamed badly in his dream (i.e. he had a dream which told him of things). They told him (in the dream), "Coyote now, he has taken your wife permanently now." Now early in the morning when he arose, his heart was not good (he felt bad about what he had learned in his dream). He said in his heart (to himself), "Oh it is well that (it will be better if) I assemble these people who are here." Then (he said to them), "Let us go. My heart is not very grieved. (But) I do want very much to get my child." So then when he had gotten together all of those people, now they all arrived, they went on, they all got to the water, and then they built a fire there. Now he ordered off small chicken hawk, and big chicken hawk. He told them, "Later when I get my child, you are to take her up above." And they said, "Done" (all right!). Now all the people were at the water. Then panther sang, he said, "Coyote's wife! Take me across!" He said (again), "Coyote’s wife! Take me across!" So now they sent mudfish. "Go! Fetch him! that one who wants to come across." So mudfish came to there. Now panther said, "I do not want you to take me across. I want coyote's wife to get me across." And now he began to sing again, he said, "Coyote's wife! get me across!" Now then coyote's wife was just about to give birth. So they brought the woman, and they put her into the boat, and the woman came. Now whale said to the mudfish, "Fetch a long pole." So mudfish went, he got a long pole, and he brought the pole inside. Now the old man (whale) said (to mudfish), "Burn the pole." So they burned the pole (to harden it). Now then the old man (whale) told coyote, "Climb up on top of the house. Fix (the place) where the (smoke ridge) hole of the house is." So coyote climbed up, and he fixed it where the house (smoke) hole was. Now he (whale) said to mudfish, "Kill that coyote. Stick it through him with the burning (hard pointed) pole." And indeed then mudfish pierced the coyote. The old man said, "It is well that we have killed him now. My child will be killed - coyote himself here is the cause of this." Now then she came close, and panther leaped into the boat. The woman was sort of leaning back (resting) as she sat there. Now that man (panther) split open her belly, and he took (out) his (panther) child, and he gave it to large chicken hawk, who took it up above. And he cut the (two braids of the) woman's hair, and he gave it to small chicken hawk. Now coyote's child (which he removed from her womb) he threw into the stream. Now the man leaped ashore. Then all the people went away.

Now the water (flood) came up (rose). And some of the people, the large birds carried them (up) on their backs. They took them to a big mountain (Pike's Peak or Marys Peak, west of Corvallis). All those people went to that big mountain there. Now the water was coming up higher. All the country was filled with water. Then skunk took an oak puff ball (i.e. an oak gall), and he made a hole in the oak puff ball, he got inside that. And to be sure that oak puff ball floated on top of the water. Now all the people were running along, they climbed up the big mountain. Now it was on that one very loftiest mountain, when all those people got (up) to there. And copperhead snake was carrying the fire as he swam. Now the water had pretty nearly got to the top of the mountain. Then those people said to
panther, "What have you taken? This water does not want to go back (to recede)." And so he said, "I took nothing, I took only my child, and I took that woman's hair." "Oh," the people said, "Throw away that hair of hers. Maybe it is that which is pursuing." So panther told him, "Throw that hair into the water." Sure enough small chicken hawk threw the hair into the water, and to be sure the water went down then, it went back (receded).

Now then the people said, "What shall we do now? There is no fire." Then copperhead snake said, "I have put the fire here. That is what burned my mouth when I carried the fire." Now the panther said, "I will buy that fire. I will give you one blanket. You may wear it all the time." Copperhead snake said, "Let me see it." So panther took a deer hide, it was extremely good, it was soft (pliant). Then copperhead snake said, "Oh I want it a little somewhat more stiff-dry." So the man (panther) said, "Yes. I have one like that. Now I will fetch it." And he went, he got it, and he brought it. Now that hide was somewhat dry. Then copperhead snake put it on. And now when he went along on the ground, to be sure it said (sounded) xa'xaxaxxx... (the noise made by a snake going along) as he went. "Oh," said copperhead snake, "This covering of mine is extremely good. Take the fire. I give it to you." Now when panther took the fire, then he built a fire, and he made a big blaze. And all those good (upper-class) people were warming themselves at the fire there. The people who were not very good (were not upper-class), they did not warm up. Now coyote was going there also (with those poorer people). And they were saying to one another, "What shall we do now? We cannot warm up. Let us look for pitchwood." So they went, they looked for pitchwood, they found pitchwood, they took a lot of pitchwood, and they split it up. Now they said to one another, "We will use this pitchwood as our (dance) feathers (to be held in the hand), and then we will go, and we will stand up to our dance (we will dance). And then those people will watch us when we stand to our dance (we will dance). Now then when we all pass before the fire, we will poke at the earth with this pitchwood of ours, and when this pitchwood catches on fire, we will all run. Some of it will burn, we will build a fire there. And when we do run like that, then we will have a lot of fire." Now sure enough they stood to their dance (they danced), they kept up the dance. And the good (upper-class) people watched on at them as they stood at their dance (as they danced). And those that had the pitchwood passed by (up and down the dance floor) in front (of the fire), and now then they poked at the fire with the pitchwood ("feathers" or dance wands). And the pitchwood caught on fire, and then when they (the lower-class people) ran, the (upper-class) people wanted to catch them to take the fire away from them. Some of them went by here (in this one direction), they ran on in every direction. When they saw a dried stump, they built a fire in it there, and it burned to be sure (because it retains fire a long time). Now those poor (lower-class) people had their fire.

Now I have told you about the copperhead snake who took the fire. It was that that burned his mouth, long long ago when he had the fire, when it burned his mouth. That is how people used to relate it long ago in that myth of theirs.

## Appendix I. Tampico Song

This song is said to have been written by a Tampico school teacher, Frank McDonough, in 1858. It was sung, nearly verbatim, in Soap Creek Valley at the time of Oregon statehood, immediately preceding the Civil War. McDonough, an Irish immigrant, was the second teacher at Tampico School, following Lycurgus Vineyard; namesake of Vineyard Mountain (see Map 2; Table 2) and first Superintendent of Schools for Benton County (McDonald 1983). McDonough was found cremated in his cabin on a nearby land claim - thought to have been murdered by several local residents-and this incident is believed to have had a bearing on Green Berry Smith's closure of the town in 1860. It is not known whether the song was used after the dissolution of Tampico, but it has existed in written form since that time (Phinney 1936; Davis \& Davis 1978; Jackson 1980; Zybach \& Meranda 1989). One interesting note is that the number of verses, and specific words in those verses, vary from source to source, making it seem likely that current versions were written from people's memories, probably between the 1880s and 1930s. For example, some versions have "Citadel of Tampico" in verse four, while others have "city dell of Tampico," instead. There doesn't seem to be a description or sheet music for the tune, but its form fits nicely with much of the Irish (and American) folk music of McDonough's era; a time when group singing and dancing was popular. A local blacksmith and pioneer landowner, Jacob Modie (see Map 11; Table D.2), is said to have taught singing (see verse nine) and held debates at the schoolhouse when school was not in session.

It was noted during the course of this research that older individuals (pre WW II residents) often pronounced local names differently than current residents. Very few interviewees and local consultants over 50 years of age said "creek" for the names of local streams, for example, they generally said "crick," instead. Similarly, Writsmans Hill is pronounced "RITES-mun" by people that knew the Writsman family in the early 1900s (Rohner 1993), but it is usually pronounced "RITZ-mun," by local residents today; and Tampico ("tam-PUH-ko") has come to be pronounced "TAM-peek-ko" by the same process (Zybach \& Meranda 1989). In other words, Tampico really does rhyme with "calico," as in the Tampico Song, so long as the words are pronounced in the same manner as early residents. This
song can be compared with other oral traditions (see Chapter II; Appendix H) for its various historical values.

## Chorus:

Hurrah, hurrah for Tampico, Three cheers for our town Tampico.
Corvallis ne'er can take the shine;
To it we never will resign.
Oregon is a pleasant place
for dancing, fun and frolic-oh
But if you search it o'er and o'er you'll find no place like Tampico
(Chorus)
You wonder how it got its name, it happened about two years ago;
A rambling scamp from Arkansaw [sic], for mischief called it Tampico.
(Chorus)
And now the name sticks to the place;
perhaps 'twill long continue so.
Later, perhaps some degenerate race, will drop the name of Tampico.
(Chorus)
Our town is not extensive yet, being but two houses in a row;
And opposite on the other street is the Citadel of Tampico
(Chorus)
Crouch's goods are there for sale, silk, pantaloons, and calico;
And there just twice a week the mail deposits freight in Tampico.

## (Chorus)

Saturday night the boys all meet and all the bands are sure to go;
To make amendments for the week with a social spree in Tampico.
(Chorus)

Egg-nog first circulates around, and then the fiddle and the bow;
Off go the coats to the merry sound, and a hoe-down starts in Tampico.
(Chorus)
Now they shake the toe and heel, and nimbly they go to and fro;
All care's resting until they dance and shout hurrah for Tampico.
(Chorus)
But singing school is now the rage, there all the boys are sure to go;
From North to South and all around, the neighborhood of Tampico.
(Chorus)
One man swore he was a whale, and all believed that it was so;
Then all the small craft took in sail, and scampered in to Tampico.
(Chorus)

