



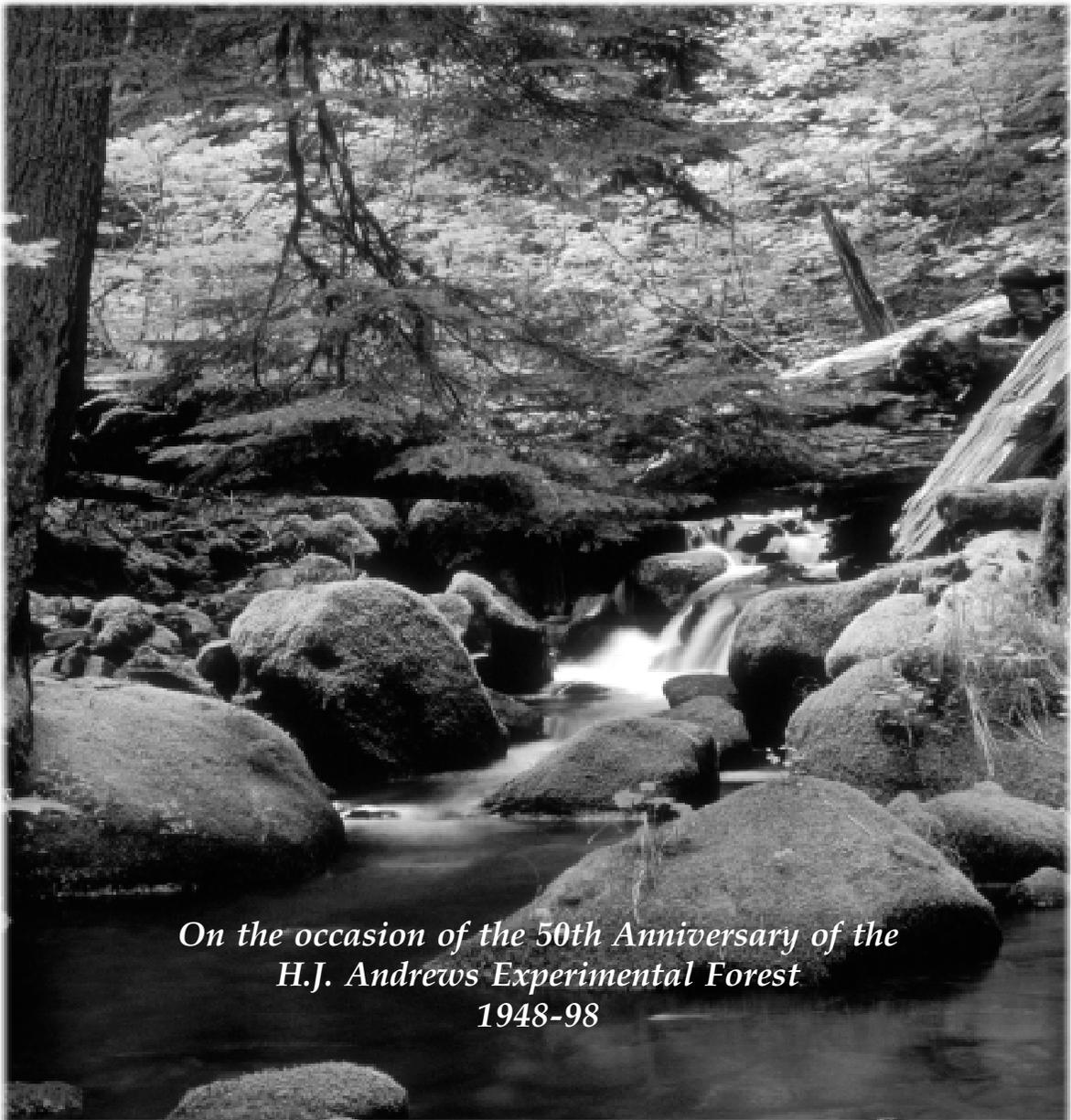
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# Research Publications of the H.J. Andrews Experimental Forest, Cascade Range, Oregon: 1998 Supplement



*On the occasion of the 50th Anniversary of the  
H.J. Andrews Experimental Forest  
1948-98*

**Compilers**

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# Research Publications of the H.J. Andrews Experimental Forest, Cascade Range, Oregon: 1998 Supplement

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## **Abstract**

**Henshaw, Donald L.; Greene, Sarah E.; Lowry, Tami, comps. 1998.** Research publications of the H.J. Andrews Experimental Forest, Cascade Range, Oregon:1998 supplement. Gen. Tech. Rep. PNW-GTR-427. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 94 p.

This bibliography updates the list of publications, abstracts, theses, and unpublished reports included in "Research Publications of the H.J. Andrews Experimental Forest, Cascade Range, Oregon, 1948 to 1986" (General Technical Report PNW-GTR-201) and "Research Publications of the H.J. Andrews Experimental Forest, Cascade Range, Oregon: 1988 Supplement" (General Technical Report PNW-GTR-223). Citations are referenced under appropriate keywords.

Keywords: Bibliography, experimental forest, research publications.

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## Introduction

This bibliography updates the 1987 (McKee and others 1987) and 1988 (Blinn and others 1988) publications that list research publications of the H.J. Andrews Experimental Forest. This supplemental bibliography is a 10-year update published in conjunction with the 50th anniversary of the establishment of the Experimental Forest.

The H.J. Andrews Experimental Forest was established in 1948. Publications listed here include those associated with the Experimental Forest through its involvement with various organizations. Since 1980, the H.J. Andrews Experimental Forest has been a National Science Foundation-funded Long-Term Ecological Research (LTER) site. In 1991, to recognize the close integration of research and management programs that have historically centered around the Andrews, the Willamette National Forest, the Pacific Northwest Research Station, and Oregon State University established the Cascade Center for Ecosystem Management, a research-management partnership committed to understanding ecosystems and the implications of that understanding for land management. In conjunction with the 1994 Northwest Forest Plan, the Central Cascades Adaptive Management Area (AMA) was created. The H.J. Andrews Experimental Forest is entirely within this 155,000-acre (63 000-ha) AMA. Research use of the H.J. Andrews Experimental Forest continues to focus on ecosystem and silvicultural studies and also involves studies on social values, community relations, and management applications. Research studies include cooperative studies with other areas such as nearby research natural areas, AMAs, other National Forests and Experimental Forests in Oregon and Washington, national parks, and LTER sites around the country.

Included in this listing are more recent (1988-97) publications, abstracts, theses, newspaper articles, documentation of models, and unpublished reports, as well as pre-1988 publications inadvertently omitted from the earlier published bibliographies. Because we expect this document to be used in various ways, we have included citations for works "submitted" and "accepted" at the time of compilation and for publications derived from work at nearby research sites and collaborative intersite works. Please bring additional publications to our attention so that the next compilation will be more complete.

The publications are arranged alphabetically by senior author, by date, and by title. Authors' names are given exactly as they appear on the publication. Thus, a publication with initials for the primary author's first name will be listed before one with the first name spelled out, even if the paper was published at a later date. Consequently, J.F. Franklin listings precede J.F. Franklin and coauthors, which precede Jerry F. Franklin and Jerry F. Franklin and coauthors, regardless of date.

An index of keywords is provided after the bibliography. The keyword index is displayed in a hierarchical format. Publications are listed alphabetically by author under appropriate keywords. Publications listed directly under a root keyword will not be listed again at sublevels of this root keyword. Each publication is cross-referenced in the index by three to five keywords.

Reprints of listed items cannot be obtained from a central location. Most published papers are available from libraries. Others may be obtained from the authors or from the Pacific Northwest Research Station in Portland, Oregon. If copies are not available from any of those sources, requests can be addressed to the H.J. Andrews Experimental Forest, Forest Science Department, Oregon State University, Corvallis, OR 97331. Because we must make photocopies from our files, we ask that this service be used as a last resort.

The complete published General Technical Report is available in PDF format using acrobat reader at [http://www.fs.fed.us/pnw/pubs/gtr\\_427.pdf](http://www.fs.fed.us/pnw/pubs/gtr_427.pdf). The entire bibliography also is available on the Andrews Experimental Forest webpage at <http://www.fsl.orst.edu/lter>, then "Pubs," then "Bibliographies."

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## Keyword Index

### **Aquatic/Riparian Habitat** (see also **Ecology**—*Ecosystems, Stream ecology, Vegetation; Resource Management*—*Riparian management; Vertebrates*—*Fish*)

Anthony and others 1987, 1996; Asquith and others 1990; Doyle 1990; Franklin 1992; Gecy 1988; Gecy and Wilson 1990; Gillham 1989; Grant 1988; Gregory 1997b; Gregory and Ashkenas 1990a, 1990b; Harmon and Franklin 1995; Henry and Lattin 1988; Jonsson 1996; Lattin 1990, 1993b, 1994b; Lattin and Moldenke 1992; McKee 1994; McKee and others 1996; Means and others 1996; Nakamura 1992c, 1995; Purnell 1994; Ryan and Grant 1991; Sedell and Dahm 1990; Sherwood 1993; Sinton 1992; Swanson 1996b, 1997c; Swanson and others 1988

#### *Aquatic ecosystems*

Allen and Foreman submitted; Allen and others 1973; Anderson 1992; Benfield 1997; Bhowmik 1987; Braudrick and others 1997; Cissel and others 1994; D'Angelo and others 1993; Dodds 1989; Dodds and Marra 1989; FEMAT 1993b; Golladay 1997; Grant 1986, 1989, 1990b, 1994b, 1997b; Grant and Mizuyama 1991; Grant and Swanson 1995a, 1995b, 1996; Grant and Wolff 1991; Grant and others 1990a, 1990b, 1992, 1996a, 1996b; Gregory 1997a; Gregory and others 1989, 1990; Heyerdahl and others 1995; Hicks and others 1991; Iverson 1997; Iverson and others 1997; Johnson and others 1997; Jones 1997; Jones and Grant 1996a, 1996b; Lambert and others 1996; Lamberti and Gregory 1989; Lamberti and Steinman 1997; Lamberti and others 1989a, 1989b, 1991, 1992; Major 1995, 1997; Major and others 1997; McDade and others 1990; McIntire and others 1996; Meyer and others 1993; Minear 1994; Mulholland 1997; Nakamura and Swanson 1994; Norris and others 1991; Perkins 1996; Post and Jakeman submitted; Post and others 1996; Reid and others 1997; Sedell and others 1989; Sinsabaugh 1997; Speaker and others 1988; Swanson and Pearce 1988; Van Sickle and Gregory 1990; Webster and Meyer 1997a, 1997b; Wilzbach 1989; Wood-Smith and Swanson 1997

#### *Riparian ecosystems*

Asquith and Lattin 1991a, 1991b; Gregory and others 1989, 1991; Jonsson 1997; Lamberti and Gregory 1989; Lamberti and others 1991; McDade and others 1990; Moore and Gregory 1989; Nakamura and Swanson 1993, 1994; Riparian Forest Research Group 1997; Sedell and others 1988, 1991; Swanson 1994b; Swanson and McKee 1992; Wissmar and Swanson 1990; Wondzell 1994; Wondzell and Swanson 1996a, 1996b

### **Biological Diversity** (see also **Conservation Biology**)

Acker and others 1996b; Allen and others 1995; Cascade Center for Ecosystem Management 1996c; Franklin 1989a, 1989b, 1992; Garman and others 1991; Hansen and Hounihan 1996; Hemstrom 1990a; Jacobson 1997; Lattin 1994b, submitted; Lattin and others 1992; Moldenke 1990; North and Franklin 1990; North and others 1996; O'Dell and others 1992; Richardson 1995; Schowalter 1989, 1994c; Smith and others 1996a; Swanson 1996a; Swanson and Berg 1991

#### *Biological control*

Halpern and Spies 1995; Halpern and others 1992a, 1992b; Hansen and others 1994; Van Pelt and others 1992

#### *Diversity measurement*

Schoonmaker and McKee 1988

Exotic species

Asquith and Lattin 1990, 1991a; Berry and others 1993; Joseph and others 1991; Kogan and Lattin 1993; LaMana and Miller 1996; Lattin 1993b, 1994a; Lattin and Asquith 1991; Lattin and Equihua-Martinez 1994; Miller and others 1991a, 1991b; Moldenke and others 1992, 1994; Parendes 1997

Genotypic diversity

McCutcheon and Carroll 1993

Species richness

Asquith and others 1990; Garman and others 1992; Halpern and Spies 1995; Jonsson 1997; Marquet and others 1993; Schoonmaker and McKee 1988; Smith 1995; Smith and others 1996c; Spies 1991c

Structural diversity

Franklin and others 1989; Jensen 1992; Spies and Cohen 1992; Spies and Franklin 1991

**Biomass**

Benfield 1997

Biomass (algae)

Lamberti and others 1992

Biomass (conifers)

Franklin and others 1990b; King 1997

Biomass (fish)

Platts and McHenry 1988

Biomass (fungi)

Luoma 1988, 1991; Smith and others 1996c

Biomass (invertebrates)

McIntire and others 1996

Biomass (lichens)

McCune 1994; Neitlich 1993

Biomass (mosses)

McCune 1994

Biomass (streams)

Golladay 1997; Jones 1997; Mulholland 1997; Webster and Meyer 1997a, 1997b

Biomass (trees)

Harcombe and others 1990; Harmon and others 1996b; Shaw and others 1991

Biomass (understory)

Halpern and others 1996

Biomass (vascular plants)

Means 1995; Means and others 1994

Biomass (woody debris)

Eubanks 1989; Franklin and Maser 1988; Harmon 1992; Harmon and Sexton 1996; Harmon and others 1994a, 1996a; Krankina and Harmon 1995; Maser and others 1988b; McDade and others 1990; Preston and others 1990; Whigham and others 1991

**Climate/Meteorology**

Air temperature

Bierlmaier and McKee 1989; Chen and others 1993a; Greenland 1993a, 1993b, 1994b, 1994c; Rosentrater 1997

Canopy temperature

Luvall and Holbo 1991

Climate change

Bierlmaier and McKee 1989; Dale and Franklin 1989; Franklin and others 1991, 1992; Greenland 1996c; Hansen and others 1990; King and Tingey 1992; Melack and others 1995; Miller and Halpern 1998; Perry and others 1990, 1991; Sea and Whitlock 1995; Swanson and others 1992a; Urban and others 1993; Waring 1988, 1989

El Niño/Southern Oscillation (ENSO)

Greenland 1994a, 1994b, 1996a; Melack and others 1995

Meteorological measurements

Bierlmaier and McKee 1989; Dyrness and others 1996; Henshaw and others accepted a

Microclimate

Chen and others 1990, 1992, 1993b, 1995; Rosentrater 1997; Shirazi and others 1996

Precipitation

Berris and Harr 1987; Bierlmaier and McKee 1989; Duan and others 1995; Greenland 1993a, 1993b, 1994b, 1994c, 1996a; Harr and Coffin 1992; Moriwaki and others 1991

Interception

Harmon and Sexton 1995; Massman 1980

Solar radiation

Canham and others 1990; Greenland 1996b, 1997

**Conservation Biology**

Asquith and Lattin 1991a; Asquith and others 1990; Bury and others 1991a, 1991b; Cissel and others accepted; FEMAT 1993b; Franklin 1990c; Franklin and Spies 1991b; Gilbert and Allwine 1991c; Gregory and Wildman 1994; Hansen and others 1991, 1992, 1993; Lattin 1993a, 1993b, 1994a, accepted b; Lattin and Moldenke 1990; Moldenke 1992;

Moldenke and Lattin 1990a, 1990b; Naiman 1992; Nakamura 1993; Perry and others 1989c; Pilz and Molina 1996; Sedell and others 1991; Urban and others 1992; Walls and others 1992; Wilzbach 1989; Wissmar and Swanson 1990

## **Data and Information Management**

### Computer networks

Stafford and others 1988, 1994

### Data archive

#### Bibliography

Blinn and others 1988

#### Climate data

Greenland 1994d; Henshaw and others accepted a, accepted b

#### Environmental data

Michener and others 1994, 1997; Stafford 1993a

### Information science

Michener and others 1994, 1997; Stafford 1993a; Stafford and others 1988, 1994, 1996

#### Data access/Data exchange

Henshaw and others accepted a, accepted b; Michener and others 1994; Porter and others 1997; Spycher and others 1996

### Metadata

Spycher and others 1996; Stafford 1993a; Stafford and others 1988

#### Metadata standards

Michener and others 1997; Porter and others 1997

### Quality assurance

Henshaw and others accepted a; Michener and others 1994, 1997; Spycher and others 1996; Stafford 1993b

## **Disturbance (see also **Ecology**–Disturbance ecology; **Ecosystem Processes**–Disturbance processes)**

Bradshaw and Garman 1994; Caine and Swanson 1983; Dale and others 1986; Franklin and others 1991, 1992; Maser and others 1988a; Perry 1988a; Perry and Amaranthus 1997; Schowalter 1995a, 1995b

### Canopy gaps

Easter and Spies 1994; Gray and Spies 1992, 1996, 1997; Heinzler-Knapp 1991; Spies and others 1990b

### Deforestation

Turner and others 1997

Erosion

Caine and Swanson 1989; Halpern 1988; Holah and others 1993; McNabb and Swanson 1990; Nakamura 1992a; Ryan and Grant 1991; Swanson and others 1987, 1989, 1991

Fire

Christensen and others 1989; Halpern and Franklin 1989; Harmon 1992; Ingersoll and Wilson 1990; McNabb and Swanson 1990; Spies and Cline 1988; Swanson 1994a, 1997b; Swanson and McKee 1990; Swanson and others 1997

Fire history

Dilworth 1995; Heyerdahl and others 1993; Morrison and Swanson 1990; Rose 1993, submitted; Rose and Muir 1997; Sheppard and others 1988; Spies and others 1988; Swanson and others 1990; Wallin and others 1996b

Floods (see also **Hydrology/Water–Hydrologic processes**)

Anderson 1992; Cascade Center for Ecosystem Management 1997c; Dyrness and others 1996; Grant 1997a; Grant and Swanson 1996; Grant and others 1996b; Gregory 1997a; Heyerdahl and others 1995; Johnson 1997; Johnson and others 1997; Swanson 1996b, 1997a; Wallenstein and Swanson 1996; Wissmar and Swanson 1990

Grazing

Miller and Halpern 1998

Hurricane (see **Disturbance–Wind**)

Mass movement

Fukuzono and others 1991; Gecy 1988; Gecy and Wilson 1990; Heyerdahl and others 1995; Morrison 1975; Ryan and Grant 1991; Swanson 1994b; Swanson and Pearce 1988; Swanson and others 1987, 1988, 1989

Pathogens

Holah and others 1993

Storms

Dyrness and others 1996; Schowalter 1994c

Timber harvesting

Busing and Spies 1995; Chamberlin and others 1991; Cissel and others 1994; Edmonds and others 1989; Grant and others 1990a; Gregory and Ashkenas 1990a; Halpern 1989; Halpern and others 1992b; Hemstrom 1990a; Kobayashi and Swanson 1987; Krankina and Harmon 1994; Nesje 1996; Ngoy 1997; Swanson and others 1992b; Turner and others 1995a, 1995b; Wallin and others 1996a

Volcanic

Franklin 1990b

Wind

Adler 1994; Whigham and others 1991

## **Ecology**

Fowells and Means 1990; Lattin and Asquith 1991; Lattin and others 1992; Meyer and others 1993; Smith 1995; Smith and others 1996b; Swanson and Franklin 1988

### Autecology

Berry and others 1993; Busing and others 1995; Carmean and others 1989; Dodds and Marra 1989; Franklin 1990a; Hanson and Miller 1988; Joseph and others 1991; LaMana and Miller 1996; McKee 1990; Means 1990; Miller and Hanson 1989; Miller and others 1991a, 1991b; Moldenke and others 1992, 1994; Peck and others 1995; Powers 1995

### Biogeography

Asquith 1990; Lattin submitted

### Biological legacies

Franklin 1990b; Franklin and Halpern 1989; Perry 1995a; Urban and others 1993

### Community dynamics

Chen and others 1992; Gecy 1988; Gecy and Wilson 1990; Gray and Spies 1992, 1996, 1997; King and Tingey 1992; Schowalter and Means 1990

### Community structure

Acker and others 1996a; Asquith 1990; Asquith and Lattin 1991a; Canham and others 1990; Chen and others 1992; Clark and Wilson 1994; Denslow and Spies 1990; Fiorella and Ripple 1993b; Franklin and Spies 1986, 1991a; Franklin and others 1990b; Halaj and others 1996; Halpern 1989; Halpern and Franklin 1990; Halpern and Spies 1995; Halpern and others 1991, 1992a, 1992b; Jensen and others 1993; King 1991; Kogan and Lattin 1993; Kuiper 1988; Lattin 1988b, 1991, 1994a, accepted b, submitted; Lattin and Moldenke 1992; Lattin and Ozanne 1993, 1994; Lattin and Stanton 1992, 1993a, 1993b, accepted a, accepted b; Marquet and others 1993; Moldenke 1979; Neitlich 1993; Ohmann and Cohen 1993; Perry 1995c; Purnell 1994; Riegel and others 1992; Runkle 1992; Schowalter 1992b; Schowalter and Sabin 1991; Schowalter and others 1988; Seastedt and others 1989; Spies and Franklin 1988, 1989, 1991, 1996; Stewart 1988; Traut 1994; Van Pelt and others 1992; Wilson 1991; Zhong and Schowalter 1989

### Dendroecology

Krusic 1991

### Disturbance ecology

Christensen and others 1989; Denslow and Spies 1990; Franklin and others 1988; Heinzler-Knapp 1991; Ingham and others 1991; Lamberti and others 1991, 1992; Lattin 1989, accepted b; Lattin and Equihua-Martinez 1994; Maser and others 1988b; Miller 1990; Swanson and Berg 1991; Thies and others 1991; Wissmar and Swanson 1990

### Ecosystems

FEMAT 1993a; Lattin 1990, 1994b; Schowalter 1991, 1994b; Schowalter and others 1991, 1992; Van Cleve and Martin 1991

Community metabolism

Lamberti and others 1989b

Comparative analysis

Franklin 1989g, 1989h; Franklin and others 1990a; Hemstrom and Cissel accepted; Zak and others 1994

Complexity

Huacheng 1991

Ecosystem dynamics

Lertzman and others 1997; Molina and others 1997

Ecosystem function

Binkley and others 1992b; Carpenter and others 1988; Cascade Center for Ecosystem Management 1996b; Franklin and Spies 1991a; Harmon 1991; Harmon and Chen 1991; Harmon and Sexton 1996; Harmon and others 1990a, 1990b, 1991, 1994a, 1994b; Hua and Harmon 1992; Krankina and Harmon 1996; McCune and Daly 1994; Means and others 1992, 1996; Schowalter 1992b; Silvester 1989; Sollins and others 1987; Spies and Franklin 1988

Ecosystem monitoring

Franklin 1989g, 1989h; Franklin and Van Pelt 1990; Franklin and others 1990a; Grant 1988; Greene and Franklin 1989; Harmon and others 1990a; Hibbs and Cromack 1990; Swanson and Schneiderman 1995; White and others 1990; Wiersma and others 1988

Environmental gradients

Franklin and others 1988; Halpern and others 1991; McCune 1993; Miller 1995a; Riegel and others 1992; Rosentrater 1997; Sedell and others 1989; Sillett 1995; Sillett and Neitlich 1996; Torgersen 1993

Environmental indexes and variables

Committee for a Pilot Study on Database Interfaces 1995

Forest-stream interactions (see also **Aquatic/Riparian Habitat–Riparian ecosystems**)

Gregory and Ashkenas 1990a; Gregory and others 1991; Swanson 1994b

Forest structure

Cohen 1994; Cohen and Spies 1990, 1991b, 1992; Cohen and others 1990, 1995a, 1995b; Maser and others 1988a

Functional groups

Ingham and others 1991; Jacobson 1997; Miller 1993; Moldenke 1979; Schowalter 1989, 1995a, 1995b; Schowalter and others submitted a; Thies and others 1991

Organic matter

Cascade Center for Ecosystem Management 1996b; Golladay 1997; Jones 1997; Mulholland 1997; Webster and Meyer 1997a, 1997b

Variability, natural or historic range of

Cissel and others 1994, accepted; Greene and Franklin 1989; Lambert and others 1996; Ohmann and Cohen 1993; Swanson and Sparks 1990; Swanson and others 1994, 1997; Wallin and others 1996b

Variability, spatial/temporal

Kratz and others 1995; Torgersen and others 1995

Morphology

Lattin 1988a

Plant community ecology

Franklin and Halpern 1989; Franklin and others 1988; Halpern and Franklin 1989; Halpern and others 1991, 1997; Harmon and Franklin 1995; King and Tingey 1992; Kuiper 1988; Miller 1995a; Riegel and others 1988, 1992; Sea and Whitlock 1995; Sillett 1995; Sillett and Neitlich 1996; Spies 1991b, 1991c; Spies and Franklin 1988

Habitat types

Hawkins and others 1993; Jensen and others 1993; Lattin 1994b; Stanton and Lattin 1989

Plant associations

Franklin and Dyrness 1988; Griffiths and others 1995

Vegetation type

Amaranthus and Perry 1989; Franklin and Dyrness 1988

Stream ecology (see also **Aquatic/Riparian Habitat; Ecology–Vegetation, Riparian vegetation**)

Riparian Forest Research Group 1997

Detritus

Speaker and others 1988

Fish habitat

Bisson and others 1992; Gregory and Wildman 1994; Hawkins and others 1993; Moore and Gregory 1988a, 1988b, 1989; Perry and others 1989c; Platts and McHenry 1988

Leaf retention

Lamberti and others 1989a; Speaker and others 1988

River continuum concept

Sedell and others 1989

Vegetation

Franklin and Spies 1986, 1991a; Holah and others 1993; Purnell 1994

Riparian vegetation (see also **Aquatic/Riparian Habitat; Ecology–Stream ecology**)

Franklin and others 1977; Gregory and others 1991; Minear 1994

## **Ecosystem Processes**

Acker and others accepted; Hansen and di Castri 1992; Luoma 1992; Perry 1994; Schowalter 1991, 1994a; Schowalter and others submitted a; Swanson 1996b; Swanson and Franklin 1988; Swanson and McKee 1990

### Decomposition

Caldwell and others 1991; Carpenter and others 1988; Cole and Degen 1995; Harmon 1991, 1992; Harmon and Chen 1991; Harmon and Sexton 1995, 1996; Harmon and others 1990a, 1991, 1994a; Hibbs and Cromack 1990; Hua and Harmon 1992; Krankina and Harmon 1995; Long-Term Intersite Decomposition Experiment Team 1995; Maser and others 1988a; McCune and Daly 1994; Means and others 1992; Moldenke 1993; Preston and others 1990; Schowalter 1992a; Schowalter and others 1992, submitted b; Sollins and others 1987; Spies and others 1988; White and others 1990

### Disturbance processes (see also **Disturbance; Ecology—Disturbance ecology**)

Grant and Swanson 1996; Grant and others 1996b; Iverson and LaHusen 1993; Iverson and others 1993; Major 1996

### Energy budget

Berris and Harr 1987; Chen and others 1990, 1993a, 1993b, 1995; Greenland 1993a, 1993b, 1994a, 1994c, 1994d, 1996b, 1997; Holbo and Luvall 1989

### Litterfall

Benfield 1997; Hibbs and Cromack 1990

### Nutrients

Grant and others 1990b; Gregory and others 1990; Griffiths and Caldwell 1992; Harmon 1991; Harmon and Chen 1991; Harmon and Sexton 1995; Harmon and others 1994b; Hua and Harmon 1992; Ingham and Molina 1991; Lauenroth and others 1993; Martin and Harr 1988, 1989; Perry and others 1989b; Schowalter 1992a; Schowalter and others 1991; Sollins and others 1988; Spies 1991a; Spies and others 1990b

### Carbon (see also **Ecosystem Processes—Carbon cycling**)

Krankina and Harmon 1995; Mayer 1994; Preston and others 1990; Turner and others 1997; Zak and others 1994

### Carbon cycling

Cohen and Spies 1991a; Cohen and others 1992, 1993a, 1994, 1995a, 1996a; Dale and Franklin 1989; Harmon and others 1990b, 1991, 1996a, 1996b, 1996c; Homann and others 1995; Jandl and Sollins 1997; Krankina and Harmon 1994, 1996; Perry and others 1991; Sedell and Dahm 1990; Sedell and others 1989; Sinsabaugh 1997; Sollins and others 1996; Swanson 1997a; Turner and others 1995a, 1995b, 1997; Wallin and others 1996a

### Fertilizers

Velazquez-Martinez and Perry 1997

### Nitrogen

Aguilera and others 1993; Binkley and others 1992b; Cromack and others submit-

ted; Edmonds and others 1989; Griffiths and others 1993b, 1993c; Hart and others 1994; Lamberti and Steinman 1997; Lamberti and others 1989a; Perry and others 1991; Radulovich and Sollins 1991; Silvester 1989; Strickland and others 1992; Velazquez-Martinez and Perry 1997

Nitrogen cycling

Stanton and Lattin 1989; Strickland and others 1992

Nitrogen mineralization

Binkley and others 1992a

Nutrient budgets

Sollins and others 1987; Velazquez-Martinez and others 1992

Nutrient stores

Means and others 1992

Phosphorus

Radulovich and Sollins 1991; Sollins 1991

*Plant distribution patterns*

Griffiths and others 1995

*Plant-soil interactions*

Perry and others 1990; Zak and others 1994

*Primary production*

Hansen and others 1994; Harcombe and others 1990; Lamberti and Steinman 1997; Means and others 1996; Schowalter 1994b; Whigham and others 1991

*Productivity*

Cascade Center for Ecosystem Management 1996d; Edmonds and others 1989; Franklin 1991; Greene and others 1992; Perry 1988b; Velazquez-Martinez and others 1992

*Long-term productivity*

Cascade Center for Ecosystem Management 1996b; Kimmins and Sollins 1989

*Soil productivity*

Binkley and others 1992a; Halpern and others 1997; Swanson and others 1989

*Soil processes*

Furrer and others 1989; Griffiths and others 1990, 1991a; Kobayashi and Swanson 1987; Torgersen 1993

*Solution chemistry*

Furrer and others 1989; Griffiths and others 1994; Meyer and others 1993

*Solution transport*

D'Angelo and others 1993; Gregory and others 1990; Wondzell 1994; Wondzell and Swanson 1996b

### Succession

Acevedo and others 1995; Antos and Halpern 1997; Busing and Spies 1995; Christensen and others 1989; Clark 1990; Connelly and Cundy 1992a, 1992b; Crawford and others 1990; Dale and Franklin 1989; Fiorella 1992; Fiorella and Ripple 1993a; Franklin 1990b; Franklin and Spies 1991b; Franklin and others 1977; Garman and others 1992; Gecy 1988; Gecy and Wilson 1990; Greene and others 1992; Halpern 1988, 1989; Halpern and Franklin 1989, 1990; Halpern and Spies 1995; Halpern and others 1992a, 1992b, 1997; Harcombe and others 1990; Harmon 1989a; Heinzler-Knapp 1991; Kimes and others 1996; Krusic 1991; Lindh 1994; McCune 1993; Miller 1995a; Nesje 1996; Perry 1995a; Perry and others 1989a; Schoonmaker and McKee 1988; Schowalter 1989, 1990a; Sheppard and others 1988; Spies 1991c, 1997; Spies and Cline 1988; Spies and Franklin 1988, 1991, 1996; Wilson 1991; Zenner 1995

### Gap dynamics

Runkle 1992; Spies 1991a; Spies and Franklin 1989; Spies and others 1990a; Van Pelt and others 1992

### Woody debris

#### Coarse woody debris - aquatic

McDade and others 1990; Nakamura 1995; Nakamura and Swanson 1993, 1994; Sedell and others 1988; Wood-Smith and Swanson 1997

#### Coarse woody debris - terrestrial

Braudrick and others 1997; Carpenter and others 1988; Cole and Degen 1995; Crawford and others 1990; Gray and Spies 1995; Griffiths and others 1993c; Harmon 1989a, 1991; Harmon and Franklin 1989; Harmon and Sexton 1995, 1996; Harmon and others 1994b; Hua and Harmon 1992; Kelsey and Harmon 1989; Lattin and Equihua-Martinez 1994; Lattin and Moldenke 1992; Ohmann and others 1994; Schowalter 1992b; Schowalter and others 1992, submitted b; Seastedt and others 1989; Sollins and others 1987; Spies and Cline 1988; Spies and others 1988; Van Sickle and Gregory 1990; Zhong and Schowalter 1989

## **Geology/Geomorphology**

Grant 1997b; Naiman and others 1992

### Alluvial deposits/forms

Means and others 1996; Swanson 1994b

### Step pools

Grant 1989, 1994b; Grant and Mizuyama 1991

### Debris slides/flows

DeNatale and others 1997; Donald and others 1996; Duan 1996; Grant and Wolff 1991; Grant and others 1996a; Iverson 1997; Iverson and LaHusen 1993; Iverson and others 1993, 1997; Major 1995, 1996, 1997; Major and others 1997; Swanson 1997b; Wallenstein and Swanson 1996

### Debris flow physics

Iverson 1997

### Experimental structures

#### Debris flow flume

DeNatale and others 1997; Iverson 1997, accepted; Iverson and LaHusen 1993; Iverson and others 1993, 1997; Major 1995, 1996, 1997; Major and others 1997; Reid and others 1997

#### Flume studies, wood movement

Braudrick and others 1997

### Geomorphology

Grant 1989; Gregory and Wildman 1994; Gregory and others 1989, 1991; Nakamura 1992a; Swanson 1997c; Swanson and others 1992b

#### Channel geomorphology

Grant 1988; Grant and Swanson 1995a; Grant and others 1990b, 1992; Johnson 1997; Lambert and others 1996; Lamberti and others 1989a; Minear 1994; Wood-Smith and Swanson 1997

#### Hillslope-stream interactions

Swanson and McKee 1992

### Landslide/earthflow

McKean and Buechel 1991; McKean and others 1991, 1991; Moriwaki and others 1991; Morrison 1975; Murillo and Hunter 1996; Swanson and others 1991; Wallenstein 1995; Wong 1991

#### Movement monitoring

Fukuzono and others 1991

### Sedimentation

Grant 1986, 1990b, 1994b; Grant and Mizuyama 1991; Iverson 1997; Mayer 1994; Swanson and Abromeit 1991; Swanson and Pearce 1988; Swanson and others 1987, 1988

#### Sediment budgets

Caine and Swanson 1989

#### Sediment yield

Grant and Wolff 1991

### Topography

Duan and Grant accepted

## **History**

Minear 1994

### Disturbance history (see also **Disturbance; Ecology—Disturbance ecology**)

Cissel and others 1994; Heyerdahl and others 1993; Lertzman and others 1997; Swanson and others 1994

Paleoclimate

Melack and others 1995

Paleoecology

Sea and Whitlock 1995

**Human Dimension**

Luoma 1992

Aesthetics

Cissel 1990

Attitudes/perceptions

FEMAT 1993c; Shindler and Neburka 1996

Economics

Brooks and Grant 1992b; Hansen and others 1995a; Kohm and Franklin 1997; Silen and Carow 1957; Weigand and Burditt 1992

Education

Cole and Degen 1995

Employment

Stafford 1996

Public participation

Shindler and Neburka 1996, 1997; Stankey and Shindler 1997; Steel and others 1993

Social acceptability/learning

Boyle 1992; Brooks and Grant 1992a, 1992b, 1992c; Brunson 1992, 1993; Franklin 1989d, 1989e, 1990d; Hemstrom 1990b, 1991; Molina and others 1997; Shindler and others 1996; Stankey and Shindler 1997; Steel and others 1994; Swanson and others 1991

Social assessments/surveys

Shindler and Neburka 1996; Steel and others 1993

**Hydrology/Water (see **Geology/Geomorphology**–Sedimentation)**

Cumulative watershed effects

Grant 1988, 1990a, 1990b, 1992, 1994a; Grant and others 1994; Harr and Coffin 1992; Heyerdahl and others 1995; Naiman and others 1992

Groundwater processes

Bypass flow

Radulovich and others 1992

Subsurface flow interception

Wemple and others 1996b

Hydrologic processes

Bhowmik 1987; Chamberlin and others 1991; D'Angelo and others 1993; Duan and others 1995; Grant 1986, 1997a, 1997b; Heyerdahl and others 1995; Jones and Grant 1996a; Massman 1980; Moriwaki and others 1991; Perkins 1996; Post and others 1996; Swanson 1997a; Wondzell and Swanson 1996a

Current velocity

Dodds 1989

Flood processes

Donald and others 1996; Dyrness and others 1996; Grant and others 1996a; Johnson 1997; Jones and Grant 1996b

Hydrocycle

Grant and Swanson 1995b; Lattin accepted a

Road effects

Cascade Center for Ecosystem Management 1997c; Wemple and others 1996b

Hyporheic zone

Wondzell 1994; Wondzell and Swanson 1996a, 1996b

Snow hydrology

Berris and Harr 1987; Dyrness and others 1996; Harr and Coffin 1992; Swanson and Abromeit 1991

Streamflow

Grant 1997a; Jones and Grant 1996b

Lowflows

Hicks and others 1991

Water chemistry

Gregory and others 1990; Martin and Harr 1988; Sedell and Dahm 1990; Wondzell 1994; Wondzell and Swanson 1996b

Watershed

Chamberlin and others 1991; Johnson 1997; Johnson and others 1997; Naiman 1992; Naiman and others 1992

Experimental watershed studies

Grant and Wolff 1991; Hicks and others 1991; Jones and Grant 1996a; Martin and Harr 1989; Post and others 1996; Swanson 1997a

Watershed analysis

FEMAT 1993b; Grant 1994a; Grant and Swanson 1995b; Grant and others 1994; Montgomery and others 1995; Swanson and Schneiderman 1995

**Invertebrates**

Cromack and others 1988; Halaj and others 1997; Lattin 1993a; Miller 1995b; Moldenke 1979; Moldenke and Fichter 1988; Parsons and others 1991; Richardson 1995; Schowalter 1994c, 1995b

### Arthropods

Anderson 1992; Asquith 1990; Asquith and Lattin 1991a, 1991b, 1993; Asquith and others 1990; Eger and Lattin 1997; Henry and Lattin 1988; Jacobson 1997; Jensen and others 1993; Kogan and Lattin 1993; Lattin 1988b, 1990, 1991, 1993b, 1994a, 1994b; Lattin and Equihua-Martinez 1994; Lattin and Moldenke 1990, 1992; Lattin and Ozanne 1993, 1994; Lattin and Stanton 1992, 1993a, 1993b; Lattin and others 1992; Miller 1993; Schowalter 1989, 1990a, 1990b, 1992b, 1994b, 1995a; Schowalter and Filip 1993; Schowalter and Sabin 1991; Schowalter and others 1988, 1991, 1997, submitted a; Schwartz and others 1989; Seastedt and others 1989; Stanton and Lattin 1989; Torgersen and others 1995

### Arachnids

Halaj and others 1996; McIver and others 1990, 1992; Moldenke and others 1987

### Insects [pests]

Joseph and others 1991; Miller 1990, 1995b; Miller and Hanson 1989; Miller and others 1991a, 1991b; Schowalter 1988, 1991, 1994a; Schowalter and Means 1988, 1990

### Soil invertebrates

Ingham and others 1991; Moldenke 1990, 1992, 1993, 1994; Moldenke and Lattin 1990a, 1990b; Moldenke and others 1991a, 1991b; Thies and others 1991

## **Landscape Ecology**

Hansen and di Castri 1992; Li and Franklin 1988; Luvall and Holbo 1991; Nakamura 1993; Perry 1994; Sedell and others 1991; Spies 1994; Swanson and others 1994; Wemple 1994; Wemple and others 1996a

### GIS

McGarigal and Marks 1995; Wallin 1996

### Landscape analysis

Garman and Bradshaw 1993; Li 1989

### Landscape diversity

Li and Reynolds 1993

### Landscape dynamics

Dilworth 1995; Duan 1996; Johnson and others 1997; Morrison and Swanson 1990; Nakamura 1992a; Perry 1995c; Wallin and others 1996b

### Road networks

Freid 1994; Wemple 1994; Wemple and others 1996a, 1996b

### Stream channel networks

Grant and Swanson 1995a; Lambert and others 1996; Nakamura 1993; Wemple 1994; Wemple and others 1996a

### Landscape management

Bradshaw and others 1996; Brooks and Grant 1992c; Cissel and others accepted; Franklin 1989d, 1989e, 1990d, 1991, 1992; Grant 1990a; Hansen and others 1992;

Hemstrom 1990b, 1991; Kohm and Franklin 1997; Nakamura 1995; Perry and Amaranthus 1997; Swanson and others 1990, 1992b, 1997; Wallin and others 1996b

Landscape pattern

Bradshaw 1991; Bradshaw and Garman 1994; Bradshaw and Spies 1992; Bradshaw and others 1996; Caine and Swanson 1983; Cissel and others 1994; Deutschman and others 1993; Dilworth 1995; García-Moliner and others 1993; Garman 1997; Garman and Bradshaw 1993; Hemstrom 1990a; Johnson 1992; Morrison and Swanson 1990; Nakamura and Swanson 1993, 1994; Ngoy 1997; Parendes 1997; Perry 1988a; Perry and Amaranthus 1997; Purnell 1994; Rasmussen 1996; Ripple and others 1991a; Schowalter 1996; Schowalter and Means 1988; Spies and others 1994; Swanson and McKee 1990; Swanson and Sparks 1990; Swanson and others 1992a; Zheng and others 1997

Contagion index

Li and Reynolds 1993

Ecotones

Chen and others 1990, 1993b, 1995; Hansen and di Castri 1992; Miller 1995a

Edges

Chen and others 1993a; Wallin 1996; Wallin and others 1994

Fragmentation

Cissel 1990; Hemstrom and Cissel accepted; Li and others 1993; Perry and Borchers 1990; Wallin 1996; Wallin and others 1994

Patches

Li and others 1993; McGarigal and Marks 1995; Wallin 1996; Wallin and others 1994

Landscape scales

Kratz and others 1995

Landscape structure

FRAGSTATS

McGarigal and Marks 1995

**Marine Habitat**

García-Moliner and others 1993; Marquet and others 1993

**Methods**

Acetylene reduction

Silvester 1989

Allometric equations

Halpern and others 1996

BIOPAK

Means 1995

Dendrochronology

Means 1989

Hemispherical photography

Easter and Spies 1994

Isotopes

Waring 1988

Permanent plots

Wiersma and others 1988

Radio telemetry

Henshaw and others accepted a

Reference stands

Franklin and Van Pelt 1990; Harmon 1989b; Harmon and Chen 1991; Kuiper 1988; Riegel and others 1988

Reflectometry

Gray and Spies 1995

Resin bags

Binkley and others 1992a

Sampling methodology

Bradshaw 1991; Bradshaw and Spies 1992; Bury and Corn 1988; Carey and Spies 1991; Cascade Center for Ecosystem Management 1996d; Fiorella and Ripple 1993b; García-Moliner and others 1993; Jensen 1992; Li and Franklin 1988; Long-Term Intersite Decomposition Experiment Team 1995; McComb and others 1991; Moldenke 1994; Spies and Cohen 1992

Statistics

Probability analysis

Duan and Grant accepted

Spatial statistics

Stafford and others 1994

Wavelet analysis

Bradshaw 1991; Bradshaw and Spies 1992

**Microbiota**

Hart and others 1994; Jandl and Sollins 1997; Perry and Amaranthus 1990; Zak and others 1994

Algae

Dodds and Marra 1989

Bacteria

Dodds 1989; Rojas and others 1992

Fungi

Allen and others 1995; Carpenter and others 1988; Crawford and others 1990; Fogel 1981; Harmon and others 1994b; Molina and others 1993, 1996; O'Dell and others 1992; Perry and others 1990; Pilz and Molina 1996; Rojas and others 1992; Smith and others 1996a, 1996c

Mushrooms/sporocarps

Luoma 1988, 1991

Truffles

Smith 1995

Mycorrhizae

Allen and others 1995; Amaranthus and Perry 1989; Caldwell and others 1991; Cromack and others 1988; Griffiths and Caldwell 1992; Griffiths and others 1990, 1991a, 1991b, 1992, 1995, 1996; Ingham and Molina 1991; Larsen and others 1997; Luoma 1988, 1991; O'Dell and others 1992; Perry and others 1989a; Smith and others 1996a, 1996b

**Modeling**

Climate modeling

Greenland 1994d

Ecosystem modeling

Adler 1994; Bradshaw and others 1996; Braudrick and others 1997; Garman and others 1991, 1992; Hansen and others 1990, 1995a; Harmon and others 1990b, 1996a, 1996b; Kimmins and Sollins 1989; Krankina and Harmon 1994; Lauenroth and others 1993; Li 1989; McGarigal and Marks 1995; Murillo and Hunter 1996; Powers 1995; Turner and others 1995a, 1995b; Urban and others 1992, 1993; Wallin and others 1996a

Hydrologic modeling

Duan 1996; Grant and others 1990a, 1992; Post and Jakeman submitted

Hydrology–vegetation model

Duan and Grant 1996; Massman 1980

Landscape modeling

Deutschman and others 1993; Garman 1997; Krankina and Harmon 1996

Population modeling

Busing and Spies 1995; Deutschman and others 1993; Marquet and others 1993

Precipitation modeling

Lattin accepted a

Vegetation modeling

Dale and others 1986; Means and others 1994

**Physiological Processes**

FEMAT 1993a; Fowells and Means 1990; Shirazi and others 1996

Germination

Clark and Wilson 1994

Growth

Garman and others 1995; Gartner accepted; King 1991, 1997; Minore and others 1988; Rojas and others 1992; Zenner 1995

Tree height

Jensen 1992; Spies and Cohen 1992

Photosynthesis

Dodds 1989; Easter and Spies 1994

Respiration

Sinsabaugh 1997

Soil respiration

Griffiths and others 1993a; Jandl and Sollins 1997

Vision

Allen and Foreman submitted; Allen and others 1973

**Plants**

Halpern and others 1996; Perry and Amaranthus 1990

Bark

Lattin and Stanton 1993b

Bryophytes

Jonsson 1997; Traut 1994

Conifers

Dale and others 1986; Griffiths and others 1993c; Harmon and Sexton 1996; Lattin and Asquith 1991; Sherwood 1993; Spies and Franklin 1989; Wilson 1990

Epiphytes

McCune 1993, 1994; McCutcheon and Carroll 1993

Ferns

Jensen and others 1993

Foliage

Lattin and Asquith 1991

Lichens

Baker and others 1987; McCune and Daly 1994; Neitlich 1993; Shirazi and others 1996; Sillett 1995; Sillett and Neitlich 1996

Liverworts

Jonsson 1996

Mosses

Baker and others 1987; Jonsson 1996; Lattin and Moldenke 1990; Peck and others 1995

Needles

Baker and others 1987; Harmon 1989b; White and others 1990

Periphyton

Lamberti and Steinman 1997; McIntire and others 1996; Sinsabaugh 1997

Roots

Antos and Halpern 1997; Ingham and Molina 1991

Seeds

Clark 1990; Clark and Wilson 1994; Connelly and Cundy 1992a, 1992b; Gray and Spies 1992, 1996, 1997; Harmon 1989b; Harmon and Franklin 1989, 1995; Ingersoll and Wilson 1990, 1990; King 1997; Rojas and others 1992; Spies and others 1990a

Shrubs

Minore and others 1988

Trees

Fowells and Means 1990; Franklin 1990a; Garman and others 1995; Gartner accepted; Kelsey and Harmon 1989; Maser and others 1988b; McKee 1990; Means 1989, 1990; Miller and Halpern 1998; Riegel and others 1988; Spies and Franklin 1996; Waring 1988

Vascular plants

King 1991; Schoonmaker and McKee 1988

**Pollution**

Air pollution

Baker and others 1987; Martin and Harr 1988; Melack and others 1995; Richey and others submitted

Environmental pollutants

Norris and others 1991; Swanson and Pearce 1988

Soil pollution

Trifluoroacetate

Richey and others submitted

## **Population Dynamics**

Filip and Schowalter 1993; Foster and others 1992; Molina and others 1996; Peck and others 1995; Schowalter 1988; Schowalter and Filip 1993; Schowalter and others 1988; Sherwood 1993; Stanton and Lattin 1989; Torgersen and others 1995; Wilzbach 1989

### Animal populations

Asquith 1990; Asquith and Lattin 1993; Bisson and others 1992; Bury and others 1991a, 1991b; Cascade Center for Ecosystem Management 1997d; Corn and others 1988; Gilbert and Allwine 1991c; Greenland 1996c; Lattin 1990, 1993b; Meslow and others 1992; Miller 1993; Moore and Gregory 1988a, 1988b, 1989; Platts and McHenry 1988; Powers 1995; Rosenberg 1990; Rosenberg and Anthony 1992, 1993a; Schwartz and others 1989

### Fish populations

Greenland 1994b

### Competition (see Ecology–*Community dynamics*)

Antos and Halpern 1997; Halaj and others 1997; Halpern and Franklin 1990; Halpern and others 1992a, 1997; Harmon 1989a; Harmon and Franklin 1989; Lindh 1994; Perry 1995a; Perry and others 1989b; Runkle 1992; Spies 1991a

### Demography

#### Age structure

Franklin and others 1977

#### Mortality

Acker and others 1996a; Franklin and DeBell 1988; Greene and others 1992; Spies and others 1990a; Wilson 1990

### Establishment

Franklin and DeBell 1988; Harmon and Franklin 1989

### Fungi populations

Molina and others 1993

### Microbial populations

Crawford and others 1990

### Plant populations

Acevedo and others 1995; Adams and others 1991; Busing and others 1995; Canham and others 1990; Denslow and Spies 1990; Franklin and DeBell 1988; Franklin and Van Pelt 1990; Franklin and others 1990b; Halpern 1988, 1989; Halpern and Franklin 1990; Harmon 1989a, 1989b; Harmon and Franklin 1995; Spies 1997; Spies and Franklin 1989; Wilson 1990, 1991

### Population structure

Carmean and others 1989; Stewart 1988

Resistance and resilience

Franklin and DeBell 1988; Halpern and Franklin 1989; Perry and Maghembe 1989; Perry and others 1989a

Vagility

Lattin and Moldenke 1990

**Program Administration**

Harrington 1996

Administration

Burditt and others 1992; Shaw and others 1993

Cascade Center for Ecosystem Management (CCEM)

Buckman 1993; Cascade Center for Ecosystem Management 1996a, 1996b, 1996c, 1996d, 1997a, 1997b, 1997c, 1997d; Grant 1992

Environmental research

Intersite studies

Benfield 1997; Bhowmik 1987; Buckman 1993; Caine and Swanson 1983, 1989; Cascade Center for Ecosystem Management 1997c; Committee for a Pilot Study on Database Interfaces 1995; Franklin and others 1990a; Golladay 1997; Grant 1986; Henshaw and others accepted b; Jones 1997; Long-Term Intersite Decomposition Experiment Team 1995; Mulholland 1997; Perkins 1996; Porter and others 1997; Post and Jakeman submitted; Post and others 1996; Schowalter and others submitted b; Webster and Meyer 1997a, 1997b

Long-term studies

Cascade Center for Ecosystem Management 1997b; Franklin 1989h; Van Cleve and Martin 1991

Synthesis studies

Stafford and others 1996; Swanson 1996b

International

Krankina and Harmon 1994, 1995, 1996; Swanson and Abromeit 1991

Land use designation

Adaptive Management Areas (AMAs)

Cascade Center for Ecosystem Management 1997a; Shindler and Neburka 1996, 1997; Shindler and others 1996; Stankey and Shindler 1997; Steel and others 1994

Biosphere reserves

Franklin 1989g; Swanson and Franklin 1988; Zheng and others 1997

Experimental Forests

Buckman 1993; Harrington 1996; McKee and Druliner accepted

Research Natural Areas (RNAs)

Harrington 1996

Wilderness areas

Greene and Franklin 1989; Halpern and others 1991

Long-Term Ecological Research (LTER)

Benfield 1997; Bhowmik 1987; Blinn and others 1988; Caine and Swanson 1983, 1989; Cascade Center for Ecosystem Management 1997c; Committee for a Pilot Study on Database Interfaces 1995; Franklin and others 1990a; Golladay 1997; Jones 1997; Kratz and others 1995; Long-Term Intersite Decomposition Experiment Team 1995; Mulholland 1997; Perkins 1996; Porter and others 1997; Post and others 1996; Schowalter and others submitted b; Webster and Meyer 1997a, 1997b

National Science Foundation (NSF)

Stafford 1996

Organization

Forest Science Data Bank (FSDB)

Committee for a Pilot Study on Database Interfaces 1995; Stafford 1993a; Stafford and others 1988

Partnership

Burditt and others 1992; Cascade Center for Ecosystem Management 1996a

Research framework

Brooks and Grant 1992b

Interdisciplinary

Brooks and Grant 1992c; Cascade Center for Ecosystem Management 1996a

Technology transfer

Cole and Degen 1995; Hunter 1995

Brochures

Cascade Center for Ecosystem Management 1996a, 1996b, 1996c, 1996d, 1997a, 1997d; McKee and Druliner accepted

Computer software

Means 1995; Means and others 1994; Moldenke and others 1991a

Educational software

Moldenke and others 1991b

Guidelines for management

Eubanks 1989

Nature talks

Cascade Center for Ecosystem Management 1997b

Newsletters

Cascade Center for Ecosystem Management 1997b, 1997c

Research publications

Blinn and others 1988

User guide

Means and others 1994

Workshops

Stafford 1993b

**Remote Sensing**

Bradshaw and Garman 1994; Cohen and Spies 1991a; Cohen and others 1992, 1993a, 1993b, 1994, 1996a, 1996b; Kimes and others 1996; Purnell 1994; Spies 1994

Airborne imagery

Benkelman and others 1992a, 1992b; Cohen and others 1990; Franklin and others 1995; Ripple and others 1991a

Calibration

Kennedy and others 1997

Change detection

Cohen and Fiorella submitted; Cohen and others 1998; Franklin and others 1995

Classification

Cohen and others 1995b

Land cover

Cohen and others 1995a; Duan and others 1995; Zheng and others 1997

Satellite data

Greenland 1994d

AVHRR

Lindh 1994; Ripple 1994

AVIRIS

Kennedy and others 1997

Landsat MSS

Ripple 1994; Spies and others 1994

Landsat TM

Cohen and Fiorella submitted; Cohen and others 1998; Fiorella 1992; Fiorella and Ripple 1993a; Franklin and others 1995; Kushla 1996; Nesje 1996

Spatial properties

Cohen and Spies 1991b, 1992; Cohen and others 1990

Spectral properties

Cohen and Spies 1991b, 1992; Fiorella 1992

Thermal properties

Fiorella and Ripple 1993b; Holbo 1988; Luvall and Holbo 1989

Surface temperature

Holbo and Luvall 1989

Thermal energy

Luvall and Holbo 1991

**Resource Management**

Acker and others 1996b; Franklin and Spies 1991b; Grant and Swanson 1991; Perry 1994; Pilz and Molina 1996; Swanson 1994a; Swanson and others 1991

New forestry/New perspectives

Boyle 1992; Brooks and Grant 1992a, 1992c; Brunson 1992, 1993; Franklin 1989a, 1989b, 1989c, 1989d, 1989e, 1989f, 1990c, 1990d, 1991, 1992; Gillis 1990; Grant 1990a; Hemstrom 1990b, 1991; Huacheng 1991; McKee 1994; Orians 1990; Perry 1995b; Puleo 1990; Schowalter 1990b; Schowalter and others 1997; Swanson and Berg 1991

Adaptive management

FEMAT 1993c; Shindler and others 1996; Swanson 1996a

Ecosystem management

Acker and others accepted; Brunson 1992, 1993; Eubanks 1989; Franklin 1989f, 1990c; Franklin and others 1988, 1989; Garman 1997; Garman and Bradshaw 1993; Gillis 1990; Grant and others 1994; Hansen and others 1991; Hunter 1993a, 1995; Kohm and Franklin 1997; Lertzman and others 1997; Molina and others 1993, 1996, 1997; Montgomery and others 1995; Nakamura 1992b; North and Franklin 1990; Perry 1995b; Perry and Maghembe 1989; Puleo 1990; Schowalter 1994a; Sillett 1995; Spies 1997; Spies and Cline 1988; Spies and others 1991; Swanson 1997c; Swanson and Franklin 1992; Swanson and Schneiderman 1995; Swanson and others 1994, 1997; Weigand and Burditt 1992

Erosion control

Nakamura 1992b, 1992c; Swanson and Abromeit 1991

Flood control

Grant and Swanson 1996; Grant and others 1996b

Forest planning

Grant 1994a; Shindler and Neburka 1997; Sinton 1992

Forest policy

Gillis 1990; Greene and Franklin 1989; Gregory 1997b; Kohm and Franklin 1997; McKee 1994; Orians 1990; Perry 1995b; Steel and others 1994

### Forest products

#### Special forest products

Molina and others 1997

### Habitat management

Franklin 1989a; Franklin and Spies 1986; Hunter 1993a; North and Franklin 1990; Spies 1991b

### Inventory

Ohmann and Cohen 1993

### Land use

Bury and others 1991a; Clark 1990; Connelly and Cundy 1992a, 1992b; Franklin and Maser 1988; Freid 1994; Grant and others 1990a; McIver and others 1990, 1992; Moldenke and Lattin 1990b; Morrison 1975; Ngoy 1997; Sedell and Dahm 1990; Swanson and others 1987, 1988, 1989; Wallenstein and Swanson 1996; Wood-Smith and Swanson 1997

### Landscape planning (see also **Landscape Ecology**–Landscape management)

Cascade Center for Ecosystem Management 1997a; Cissel and others accepted; Hansen and others 1993; Hemstrom and Cissel accepted; Montgomery and others 1995; Perry and others 1989c

### Monitoring

FEMAT 1993c; Grant and others 1992; Hunter 1993b; Ohmann and Cohen 1993; Ryan and Grant 1991; Shaw and others 1993

#### Monitoring programs

Stafford 1993b; Wiersma and others 1988

### Pest management

Filip and Schowalter 1993; Perry 1988a; Schowalter 1988, 1996; Schowalter and Filip 1993; Schowalter and Means 1988

### Pesticides

Berry and others 1993; Miller 1990; Moldenke and others 1992, 1994; Norris and others 1991

### Public assessments

Steel and others 1993

### Regional assessments

FEMAT 1993b; Swanson and others 1997

### Restoration

#### Soil restoration

Griffiths and others 1993b; Perry and Amaranthus 1990

#### Stream restoration

Gregory and Ashkenas 1990b; Gregory and Wildman 1994; McKee and others 1996

Watershed restoration

Cascade Center for Ecosystem Management 1997a; Swanson 1997c

Riparian management (see also **Aquatic/Riparian Habitat**)

Burditt and others 1992; Gregory 1997b; Gregory and Ashkenas 1990a, 1990b; Lamberti and Gregory 1989; McKee and others 1996; Nakamura 1992c, 1995; Perry and others 1989c; Riparian Forest Research Group 1997; Sherwood 1993; Sinton 1992; Swanson and Franklin 1992; Swanson and McKee 1992; Swanson and others 1990; Van Sickle and Gregory 1990

Road management

Donald and others 1996; Grant and others 1996a; Jones and Grant 1996a, 1996b; Parendes 1997; Wallenstein and Swanson 1996; Wemple 1994; Wemple and others 1996b

Sustainability

Boyle 1992; Franklin 1989a; Franklin and others 1989; Perry 1988b; Perry and Amaranthus 1997; Perry and Maghembe 1989

Timber management (see also **Silviculture**)

Kimmins and Sollins 1989; Martin and Harr 1989

Growth and yield

Cascade Center for Ecosystem Management 1996d; McComb and others 1993b; North and others 1996; Rose 1993, submitted; Rose and Muir 1997

Watershed management (see also **Landscape Ecology–Landscape management**)

Grant 1990b; Gregory and Ashkenas 1990b; McKee and others 1996; Naiman 1992; Swanson 1997b; Swanson and others 1992a

Wildlife management

Corn and others 1988; Hansen and Hounihan 1996; Hansen and others 1995b; McComb and others 1993a; McCullough 1960

Wildlife trees

Eubanks 1989

Young stands

Hunter 1993b

**Silviculture** (see also **Resource Management–Timber management**)

Franklin 1990c; Harmon and others 1996c; Kohm and Franklin 1997; Puleo 1990; Schowalter 1990b, 1996; Schowalter and others 1997; Swanson and Franklin 1992

Green tree retention

Acker and others 1996b; Adler 1994; Franklin 1989b, 1989f; Garman and others 1991; Hansen and others 1995a; Hunter 1995; North and others 1996; Orians 1990; Rose 1993, submitted; Rose and Muir 1997; Shaw and others 1993; Traut 1994; Vega 1993; Weigand and Burditt 1992; Zenner 1995

Harvest methods

Franklin 1989c; Huacheng 1991; Jones and Grant 1996b

Staggered setting

Cissel 1990; Silen and Carow 1957

Harvest pattern

Li 1989

Mensuration

Garman and others 1995; Minore and others 1988; Ohmann and Cohen 1993

Regeneration

Gray and Spies 1992, 1996, 1997

Silvicultural systems

McComb and others 1993b; Spies and others 1990b, 1991; Velazquez-Martinez and others 1992

Slash/broadcast burning

Franklin and Halpern 1989

Thinning

Cascade Center for Ecosystem Management 1996c, 1996d; Hunter 1993a; Velazquez-Martinez and Perry 1997

**Soil**

Franklin and Dyrness 1988; Griffiths and others 1993a; Moldenke and others 1991a

Infiltration capacity

McNabb and Swanson 1990; Miller and others 1996; Radulovich and others 1992

Soil biology

Moldenke 1990, 1992, 1993, 1994; Moldenke and others 1991b

Soil chemistry

Aguilera and others 1993; Cromack and others submitted; Gillham 1989; Griffiths and others 1994; Homann and others 1995; Sollins and others 1988; Strickland and others 1992

Soil dynamics

Hart and others 1994; Mayer 1994

Soil moisture

Adams and others 1991; Furrer and others 1989; Gray and Spies 1995; Lauenroth and others 1993

Soil organic matter

Sollins and others 1996

Soil physics

Gillham 1989; Sollins 1991

Soil retention

Richey and others submitted

Soil structure

Spycher and others 1986

Soil temperature

Shaw and others 1991

**Taxonomy/Systematics**

Taxonomy

Asquith 1990; Asquith and Lattin 1991b, 1993; Asquith and others 1990; Eger and Lattin 1997; Griffiths and others 1991b; Jensen and others 1993; Larsen and others 1997; Lattin 1988b, 1989; Lattin and Asquith 1991; Lattin and Stanton 1992, 1993a, 1993b, accepted a, accepted b; Miller 1995b; Schwartz and others 1989; Smith and others 1996b

Species identification

Miller 1995b

Species list

Jonsson 1996; Lattin and Ozanne 1994; McIver and others 1992; Meyer and others 1993; Moldenke and others 1987; Seastedt and others 1989; Swanson and others 1992a

Taxonomic checklist

Anderson 1992; Henry and Lattin 1988; Moldenke and Fichter 1988; Parsons and others 1991

**Terrestrial/Upland Habitat**

Acker and others 1996a; Allen and others 1995; Asquith and Lattin 1990; Eger and Lattin 1997; Fowells and Means 1990; Fukuzono and others 1991; Garman and others 1995; Halaj and others 1996; Halpern and others 1991; Holah and others 1993; Ingham and others 1991; Lattin 1988b, 1989, 1994a; Lattin and others 1992; Lauenroth and others 1993; Means 1995; Miller 1995a; Minore and others 1988; Moldenke 1979, 1990, 1992, 1993, 1994; Moldenke and Lattin 1990a; Moldenke and others 1991a, 1991b; Ohmann and Cohen 1993; Perry and others 1991; Schowalter 1994b; Swanson and others 1990; Thies and others 1991; Turner and others 1997; Zheng and others 1997

Agricultural systems

Kogan and Lattin 1993

Forest ecosystems

Acevedo and others 1995; Acker and others 1996b; Adler 1994; Aguilera and others 1993; Amaranthus and Perry 1989; Asquith and Lattin 1993; Berris and Harr 1987; Berry and others 1993; Boyle 1992; Bradshaw 1991; Bradshaw and Garman 1994; Bradshaw and Spies 1992; Bradshaw and others 1996; Brooks and Grant 1992a,

1992b; Burditt and others 1992; Bury and others 1991a, 1991b; Busing and Spies 1995; Busing and others 1995; Caldwell and others 1991; Canham and others 1990; Carmean and others 1989; Cascade Center for Ecosystem Management 1996b, 1997a, 1997d; Chen and others 1990, 1993b, 1995; Cissel and others 1994; Cohen and others 1995a, 1995b; Corn and others 1988; Cromack and others 1988; Cutler and Hays 1991; Dale and Franklin 1989; Dale and others 1986; Denslow and Spies 1990; Dilworth 1995; Doyle 1990; Duan and Grant accepted; Easter and Spies 1994; Edmonds and others 1989; Eubanks 1989; FEMAT 1993a; Filip and Schowalter 1993; Fiorella and Ripple 1993b; Fogel 1981; Foster and others 1992; Franklin 1989a, 1989b, 1989c, 1989d, 1989e, 1989f, 1990a, 1990b; Franklin and Maser 1988; Franklin and others 1988, 1989, 1991, 1992; Garman 1997; Garman and Bradshaw 1993; Garman and others 1991, 1992; Gartner accepted; Gilbert and Allwine 1991a, 1991b, 1991c; Gillis 1990; Gray and Spies 1992, 1995, 1996, 1997; Greene and others 1992; Griffiths and Caldwell 1992; Griffiths and others 1990, 1991b, 1992, 1993a, 1993b, 1994, 1995, 1996; Halpern and Spies 1995; Halpern and others 1996; Hansen and Hounihan 1996; Hansen and others 1990, 1991, 1992, 1993, 1994, 1995a, 1995b; Hanson and Miller 1988; Harcombe and others 1990; Harmon and others 1990b, 1991, 1994a, 1996a, 1996c; Hemstrom 1990a; Heyerdahl and others 1993; Holbo and Luvall 1989; Homann and others 1995; Huacheng 1991; Huff and Raley 1991; Hunter 1993a, 1993b, 1995; Jacobson 1997; Johnson 1992; Joseph and others 1991; Kimes and others 1996; Kimmins and Sollins 1989; King 1997; King and Tingey 1992; Kobayashi and Swanson 1987; Krankina and Harmon 1994, 1996; Krusic 1991; Kuiper 1988; LaMana and Miller 1996; Lattin 1993a, accepted b; Lattin and Moldenke 1990; Lattin and Ozanne 1993; Li 1989; Li and Franklin 1988; Li and others 1993; Long-Term Intersite Decomposition Experiment Team 1995; Luoma 1991; Luvall and Holbo 1991; Marquet and others 1993; Martin and Harr 1989; Maser and others 1988a, 1988b; Massman 1980; McComb and others 1991, 1993a, 1993b; McCune 1993; McCutcheon and Carroll 1993; McKee 1990; McNabb and Swanson 1990; Means 1989, 1990; Meslow and others 1992; Miller 1990, 1995b; Miller and Hanson 1989; Miller and others 1991a, 1991b, 1996; Moldenke and Fichter 1988; Moldenke and others 1992, 1994; Molina and others 1993, 1996; Morrison and Swanson 1990; Murillo and Hunter 1996; Neitlich 1993; Nesje 1996; Ngoy 1997; North and others 1996; O'Dell and others 1992; Ohmann and others 1994; Ormsbee 1996; Parendes 1997; Peck and others 1995; Perry 1988a, 1988b, 1994, 1995a; Perry and Amaranthus 1997; Perry and Borchers 1990; Perry and Maghembe 1989; Perry and others 1989a, 1989b, 1990; Pilz and Molina 1996; Powers 1995; Puleo 1990; Richardson 1995; Riegel and others 1992; Ripple and others 1991b; Rojas and others 1992; Rose 1993, submitted; Rose and Muir 1997; Rosenberg 1990; Rosenberg and Anthony 1992, 1993a, 1993b; Rosenberg and others 1994a, 1994b; Runkle 1992; Schoonmaker and McKee 1988; Schowalter 1988, 1990b, 1991, 1992a, 1994a, 1996; Schowalter and Filip 1993; Schowalter and Means 1988, 1990; Schowalter and others 1997, submitted a; Sea and Whitlock 1995; Shaw and others 1991; Sheppard and others 1988; Silvester 1989; Smith and others 1996a, 1996c; Sollins and others 1988, 1996; Spies 1991a, 1991c, 1997; Spies and Franklin 1989, 1991; Spies and others 1990a, 1990b, 1991; Spycher and others 1986; Stewart 1988; Strickland and others 1992; Swanson 1994a; Swanson and Berg 1991; Torgersen 1993; Turner and others 1995a, 1995b; Urban and others 1993; Van Pelt and others 1992; Vega 1993; Wallin 1996; Waring 1988; Weigand and Burditt 1992; Whigham and others 1991; White and others 1990; Wilson 1990, 1991; Zenner 1995

#### Canopy communities

Halaj and others 1997; Jensen 1992; Lattin and Ozanne 1994; Lattin and Stanton 1992, 1993a, 1993b, accepted a, accepted b; McCune 1994; Moldenke and others 1987; Schowalter 1989, 1990a, 1992b, 1994c, 1995a, 1995b; Schowalter and others 1991; Shirazi and others 1996; Sillett 1995; Sillett and Neitlich 1996; Spies and Cohen 1992

#### Clearcuts (see also **Terrestrial/Upland Habitat–Plantations; Silviculture**)

Adams and others 1991; Bury and Corn 1988; Clark 1990; Clark and Wilson 1994; Connelly and Cundy 1992a, 1992b; Cromack and others submitted; Halpern 1988, 1989; Halpern and Franklin 1989, 1990; Halpern and others 1992a, 1992b, 1997; McCullough 1960; McIver and others 1990, 1992; Moldenke and Lattin 1990b; Schowalter and Sabin 1991; Schowalter and others 1988; Schwartz and others 1989; Wallin and others 1994

#### Forest floor

Binkley and others 1992a; McCune and Daly 1994

#### Managed forests (see also **Terrestrial/Upland Habitat–Plantations; Silviculture**)

Krankina and Harmon 1995

#### Mature forests

McIver and others 1990

#### Natural forests (see also **Terrestrial/Upland Habitat–Old-growth forests**)

Bury and Corn 1988; Franklin 1991; Hemstrom 1990b, 1991

#### Old-growth forests (see also **Terrestrial/Upland Habitat–Natural forests**)

Acker and others accepted; Carey and Spies 1991; Chen and others 1992, 1993a; Cissel 1990; Franklin 1990d; Franklin and DeBell 1988; Franklin and Spies 1986, 1991a, 1991b; Franklin and Van Pelt 1990; Franklin and others 1990b; Harmon and others 1990a; Hart and others 1994; Heinzler-Knapp 1991; Hibbs and Cromack 1990; Ingersoll and Wilson 1990; Jonsson 1997; King 1991; Lattin 1993b, 1994b; McIver and others 1992; Means and others 1992; Moldenke and Lattin 1990b; North and Franklin 1990; Orians 1990; Preston and others 1990; Riegel and others 1988; Shindler and Neburka 1997; Silen and Carow 1957; Spies 1991b; Spies and Franklin 1988, 1996; Swanson and McKee 1990; Walls and others 1992

#### Plantations (see also **Terrestrial/Upland Habitat–Clearcuts; Silviculture**)

Cascade Center for Ecosystem Management 1996c, 1996d; Halaj and others 1997; Velazquez-Martinez and Perry 1997; Velazquez-Martinez and others 1992

#### Tropical forests

Radulovich and Sollins 1991; Radulovich and others 1992; Sollins 1991

#### Young forests

Antos and Halpern 1997; Franklin and Halpern 1989; Lindh 1994; Traut 1994

#### Meadows

Miller and Halpern 1998

Roads

Freid 1994; Lattin and Asquith 1991; Parendes 1997; Wemple 1994; Wemple and others 1996a

Shrub/grassland communities

Henry and Lattin 1988; Lattin submitted

Soil/subsoil (see Soil)

Furrer and others 1989; Ingham and Molina 1991; Jandl and Sollins 1997; Larsen and others 1997; Mayer 1994; Perry and Amaranthus 1990; Richey and others submitted; Smith 1995; Smith and others 1996b; Stanton and Lattin 1989; Torgersen and others 1995; Wallenstein 1995; Wong 1991

Tropical soils

Radulovich and Sollins 1991; Radulovich and others 1992; Sollins 1991

**Trophic Relations**

Asquith and Lattin 1991a; Filip and Schowalter 1993; Lattin 1990; Lattin and Equihua-Martinez 1994; Lattin and Stanton 1992, 1993a, 1993b, accepted b; Schowalter 1990a, 1994a; Schowalter and Filip 1993; Schowalter and Means 1988; Schowalter and others 1997, submitted a

Detritus processing

Schowalter and Sabin 1991; Speaker and others 1988; Zhong and Schowalter 1989

Food chains/webs

Anderson 1992; Carmean and others 1989; Cutler and Hays 1991; Jacobson 1997; Kogan and Lattin 1993; Lamberti and others 1991; Lattin and Moldenke 1992; Miller 1993; Parsons and others 1991; Perry 1995c; Schowalter 1989, 1992b, 1995a, 1995b; Schowalter and Means 1990

Parasitism

Lattin and Ozanne 1993; Lattin and Stanton accepted a

Herbivory

Asquith and Lattin 1993; Asquith and others 1990; Berry and others 1993; Dodds and Marra 1989; Hanson and Miller 1988; Joseph and others 1991; Kelsey and Harmon 1989; Lamberti and others 1989b, 1992; Lattin and others 1992; McIntire and others 1996; Miller and Hanson 1989; Miller and others 1991a, 1991b; Moldenke and others 1992, 1994; Schowalter 1990b, 1994b, 1994c; Schowalter and Sabin 1991; Schwartz and others 1989

Predation

Asquith and Lattin 1991b; Asquith and others 1990; Halaj and others 1996; Kogan and Lattin 1993; Lattin 1989; Stanton and Lattin 1989

**Vertebrates**

Corn and others 1988; North and Franklin 1990; Spies 1991b

Birds

Anthony and others 1996; Cascade Center for Ecosystem Management 1997b;

Cutler and Hays 1991; Foster and others 1992; Gilbert and Allwine 1991b; Hansen and Hounihan 1996; Hansen and others 1992, 1994, 1995b; Huff and Raley 1991; Johnson 1992; Meslow and others 1992; Miller and others 1996; Ripple and others 1991b; Urban and others 1992; Vega 1993

Fish (see also **Aquatic/Riparian Habitat–Stream/river**)

Chamberlin and others 1991; Greenland 1996c; Platts and McHenry 1988; Sedell and others 1988; Wilzbach 1989

Coho salmon

Greenland 1996a

Trout

Allen and Foreman submitted; Allen and others 1973; Bisson and others 1992; Moore and Gregory 1988a, 1988b, 1989

Herpefauna

Bury and Corn 1988

Amphibians

Bury and others 1991a, 1991b; Gilbert and Allwine 1991c; Gregory 1997a; McComb and others 1991; Walls and others 1992

Mammals

Anthony and others 1987; Cascade Center for Ecosystem Management 1997d; Doyle 1990; Gilbert and Allwine 1991a; McCullough 1960; Rosenberg 1990; Rosenberg and Anthony 1992, 1993a, 1993b; Rosenberg and others 1994a, 1994b

Bats

Ormsbee 1996; Perlmeter and Greenlee 1993

Wildlife

Cascade Center for Ecosystem Management 1996c; Hansen and others 1990, 1995b; Hunter 1993b; Johnson 1992; McComb and others 1993a, 1993b; McCullough 1960; Vega 1993

**Henshaw, Donald L.; Greene, Sarah E.; Lowry, Tami, comps. 1998.**

Research publications of the H.J. Andrews Experimental Forest, Cascade Range, Oregon:1998 supplement. Gen. Tech. Rep. PNW-GTR-427. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 94 p.

This bibliography updates the list of publications, abstracts, theses, and unpublished reports included in "Research Publications of the H.J. Andrews Experimental Forest, Cascade Range, Oregon, 1948 to 1986" (General Technical Report PNW-GTR-201) and "Research Publications of the H.J. Andrews Experimental Forest, Cascade Range, Oregon: 1988 Supplement" (General Technical Report PNW-GTR-223). Citations are referenced under appropriate keywords.

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