



Salix Associates

salixassociates.com

...offers services in ecologically-based natural resources planning, including botanical/biodiversity surveying, wildlife habitat inventory and analysis, restoration and management planning, and related environmental planning tasks and issues. The Salix Associates work philosophy emphasizes honesty, accuracy, creativity, thoroughness and scientific credibility with a strong interest in continuing education and advancing field and office skills. Work should be enjoyable, and I strive to make it so.

Bruce Newhouse is the owner-operator of Salix Associates. He is a field ecologist, botanist and environmental planner specializing in ecology, botany, ornithology, lepidoptery and mycology. His work includes habitat inventory, analysis, planning, restoration and management. He has a B.S. from Oregon State University in environmental science, and worked for 10 years as a county and city land use planner specializing in natural resources before becoming a private consultant in 1989. As a consultant, he has contracted with federal, state and local public and private agencies and landowners for rare and invasive plant surveys and mapping, comprehensive and integrated natural resource inventories, restoration and management planning, environmental planning and special natural resource projects such as butterfly host plant analysis. He also is an experienced science field and classroom instructor (University of Oregon, Oregon State University, Portland State University, Lane Community College, et al.) specializing in the identification of sedges, rushes, grasses, and more generally, rare, native and invasive plant species, butterflies and fungi, and is a volunteer ecological advisor to several nonprofit groups and committees in the greater Eugene area.

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Salix Associates has completed numerous projects for local, state and federal agencies, public utilities, private landowners and other consulting firms in Oregon and neighboring states. Salix works with associates in GIS, wildlife biology, lepidoptery, forestry, soils and geology, wetlands and other disciplines when needed or desired to round out a larger team. Please contact Bruce if you would like references or additional information.

Salix Associates formed in January of 1992 with a primary area of expertise in ecological consulting, and additional specialties in botany, ecological restoration and land use planning. Consulting services include:

- **integrated biodiversity surveys** including plants, birds, butterflies, bees, dragonflies, mammals, amphibians and reptiles
- **vascular plant surveys**, including rare (endangered, threatened, sensitive, rare, at-risk, etc.) and/or invasive (weeds) focus or comprehensive listing
- **habitat mapping and assessment** for vegetation and wildlife
- **natural resource inventories and assessments**
- **restoration and management planning**
- butterfly community surveys and butterfly host plant inventories and assessments
- breeding bird surveys using the avian point count methodology
- federal Environmental Impact Statements and Environmental Assessments
- native and invasive plant consultations for wetland determinations and delineations
- field studies and herbarium research
- workshops for field identification of difficult-to-identify plant species
- Statewide Planning Goal 5 (natural resources) inventories

The following are examples of completed projects:

- ecological assessment for over 2700 acres of upland habitat for the City of Eugene
- biodiversity inventory, ecological assessment and restoration recommendations for a 160 acre site for the McKenzie River Trust
- biodiversity inventory and restoration recommendations for 6 sites totaling over 3000 acres for The Nature Conservancy
- existing conditions assessment and alternatives effects analysis for 600,000+ acre lower Umpqua Basin EIS, addressing rare plants and fungi, noxious weeds, wetlands and special areas
- plant community mapping, comprehensive vascular plant listing, and bird and butterfly surveys of approximately 600 acres of upland meadow habitat for the Willamette National Forest
- comprehensive vascular plant surveys and plant community mapping for the 800-acre Green Island site (confluence of the McKenzie and Willamette rivers)
- upland plant and wildlife habitat inventory, assessment and rating methodology for Goal 5 planning process on 4500 acres for the City of Corvallis (as a subcontractor)
- botanical survey and monitoring plot installation on approximately 75 acres of upland meadows for Salem BLM
- inventory, mapping and assessment of plant communities and management recommendations for 300-acre upland oak habitats at Baskett Slough National Wildlife Refuge
- sensitive plant surveys: 20,000+ acres for the Eugene District BLM & Willamette National Forest rare plant surveys for 640-acre proposed US Army Corps of Engineers wetland restoration project in West Eugene
- inventory, assessment and restoration planning for the 500-acre Lookout Point Ranch, Willamette Valley foothills oak-prairie habitat site
- installation and monitoring of avian point count stations at 4 southern Willamette Valley project areas
- butterfly host and nectar plant report and assistance with butterfly community surveys at several West Eugene wetland and upland sites
- natural resources inventories and mapping, and rare plant surveys for 1400-acre Sandy River Delta site, Columbia River Gorge National Scenic Area
- surveys for *Lomatium bradshawii*, *Erigeron decumbens* var. *decumbens*, *Lupinus oregonus* (*L. sulphureus* ssp. *kincaidii*), *Sericocarpus rigidus*, *Eucephalus vialis*, *Cimicifuga elata*, *Horkelia congesta*, *Montia howellii* and other western Oregon rare species for 60+ public and private projects

Bruce Newhouse

PERSONAL

Born 19 July 1955, Portland, Oregon.

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EXPERIENCE

1989 to present: Natural Resources Consultant (principal in Salix Associates since January 1992, sole proprietor since 2009).

- Ecological consulting, including comprehensive/integrated vegetation and wildlife habitat inventory and assessment, rare species inventories, butterfly host and nectar plant assessment, plant community mapping, noxious weed inventory and assessment, bird and butterfly surveys, habitat restoration and management planning, Statewide Planning Goal 5 inventories and ESEE analyses, Environmental Assessments and biological evaluations
- Professional field instruction in botany, wetlands identification and wildlife habitat.
- Installation of vegetation monitoring plots on two national forest RNA's, two forested Eugene urban parks, five BLM and USFWS wildlife refuge oak savanna restoration sites, and two private restoration sites.
- Wetland determinations, delineations, and functions and values assessments for numerous public agencies and private landowners.

1981 - 1989: Principal Planner. (Associate Planner & Assistant Planner 1981 - 1987.) City of Springfield (OR) Planning and Development Department, Comprehensive Planning Division.

Division Manager of comprehensive planning division (1987-89), including supervision of professional planning staff and graduate interns. Assisted in development and monitoring of Division budget.

Project Manager for Eugene-Springfield Goal 5 (natural resources) inventory, neighborhood and downtown plans, landscape plan reviews, and university intern program.

1979 - 1981: Planning Technician. Josephine County Planning Department (Grants Pass, OR).

1978 - 1979: Natural Resources Specialist. Multnomah County (OR) Outdoor School.

1975 - 1977: Office Manager and Associate. DeDeurwaerder Associates (Corvallis, OR).

INSTRUCTION EXPERIENCE

- Guest Instructor and Studio Reviewer for University of Oregon Landscape Architecture/Environmental Science plants classes and ecological design studios (1996 – present)
- Guest instructor for graminoids: UO (2000) and Lane Comm. College (2000-2004)
- Adjunct Professor, Department of Landscape Architecture, University of Oregon (ecological park planning and design; winter terms, 1999 and 2000)
- Instructor for Siskiyou Grasses, Sedges and Rushes class, Siskiyou Field Institute (1998, 2000)
- Advanced Botany instructor for Society of Wetland Scientists conference (1997)
- Field instructor for grass, sedge and rush workshops, Salem (1994 and 1995), and Bend (1996)
- Assistant for sedge, rush and grass identification workshops for USFS and BLM (1991-2003)
- Wetland botany instructor for Portland State University week-long delineation class (1997)
- Botany Instructor for Lane Community College continuing education (winter 1996)
- Environmental education seminars for grades K-8 at Oak Hill School, Eugene, OR (1994)
- Field trip leader in botany and ecology (Native Plant Society of Oregon, Willamette Resources and



Educational Network), butterfly ID and ecology (North American Butterfly Association) and mycology (Cascade Mycology Society; Mt. Pisgah Arboretum, Oregon Wild) (1993 - present)

PUBLICATIONS

Brainerd, Richard, P. Zika, B. Newhouse, B. Wilson, K. Kuykendall, M. Huso and J. Mastrogiuseppe. 1995. Biogeography of the genus *Carex* in the Columbia River Basin. Report to the Eastside Ecosystem Management Project, USDA Forest Service, Walla Walla, WA.

Newhouse, Bruce, R. Brainerd, K. Kuykendall, B. Wilson, and P. Zika. 1995. Ecology of the genus *Carex* in the Columbia River Basin. Report to the Eastside Ecosystem Management Project, USDA Forest Service, Walla Walla, WA.

Newhouse, Bruce. 1995. Key to *Juncus* of the Willamette Valley. Salix Associates. Eugene, OR.

----- 1996. Key to *Juncus* of Central Oregon. Salix Associates. Eugene, OR.

----- 2008. Native plants used by native Willamette Valley pollinators. Salix Associates. Eugene, OR.

----- 2008. Native nectar and host plants used by Willamette Valley butterflies. Salix Associates. Eugene, OR.

----- 2009. Plant of the year: dangly fen sedge (*Carex limosa* L.). Kalmiopsis. Native Plant Society of Oregon. Portland, OR.

----- 2012. Bloom timetable of native pollinator plants. Salix Associates. Eugene, OR.

----- 2013. Native plants of the southern Willamette Valley for homeowners and professionals. Salix Associates. Eugene, OR.

Simpson, Charlene and J. Koenig, J. Lippert, R. Love, B. Newhouse, S. Sundberg, D. Wagner. 2002. Vascular Plants of Lane County, Oregon: an Annotated Checklist. Native Plant Society of Oregon, Emerald Chapter. Eugene, OR.

Wilson, Barbara, P. Zika, R. Brainerd, K. Kuykendall, M. Huso, D. Lytjen, B. Newhouse, N. Otting, and S. Sundberg. 1999. Atlas of Oregon *Carex*. Occasional Paper No. 1 of the Native Plant Society of Oregon.

Wilson, Barbara L., Richard E. Brainerd, Lawrence P. Janeway, Keli Kuykendall, Danna Lytjen, Bruce Newhouse, Nick Otting, Stephen Meyers, and Peter F. Zika. 2007. Description of *Carex klamathensis* (Cyperaceae), a rare sedge of the Klamath Region of Oregon and California, U.S.A. Journal of the Botanical Research Institute of Texas.

Wilson, Barbara L., Richard E. Brainerd, Danna Lytjen, Bruce Newhouse and Nick Otting. 2008. Field Guide to Sedges of the Pacific Northwest. Oregon State University Press. Corvallis, OR.

PUBLISHED PHOTOGRAPHS and PHOTOGRAPHIC AWARDS

- *Attracting Native Pollinators* (book back cover & interior; The Xerces Society)
- *Field Guide to the Sedges of the Pacific Northwest* (book; *Carex* Working Group)
- *Butterflies of Lane County* (book and web site; Eugene-Springfield Chapter North American Butterfly Association)
- *Oregon Conservation Strategy* (planning document; Oregon Department of Fish and Wildlife)



- *Oregon Wildlife* (magazine; Oregon Department of Fish and Wildlife),
- *Identifying Priority Plants and Animals and Their Habitats*, and *Oregon Forest Report 2007* (Oregon Department of Forestry)
- *Invasive Plants, Guide to Identification and the Impacts and Control of Common North American Species, 2nd Edition* (Sylvan and Wallace Kaufman)
- *Pollinator Friendly Parks* (cover); *Enhancing Natural Areas for Pollinators* (signage; The Xerces Society)
- *Vegetation Management* (software; Northwest Habitat Institute and US Fish and Wildlife Service)
- *Wildlife Strategy State Review* publication (NatureServe)
- *Invasive plants guide & Rare butterfly brochure* (Institute for Applied Ecology)
- *Rare Plant Guide to the Medford District BLM* (book; Medford BLM)
- *Citizen Scientist Pollinator Monitoring Guide* (Pennsylvania Native Bee Survey)
- *Online plant photos* (6000+ digital images contributed to the Oregon Flora Project for the online photo gallery)
- Photo contest winner in two categories at Oregon Chapter of The Wildlife Society 2008 Annual Meeting.
- Miscellaneous (Emerald Chapter Native Plant Society of Oregon web site, Eugene Register-Guard, Eugene Weekly)

EDUCATION

B.S. with high honors in Environmental Science/Landscape Architecture, Oregon State University (1977), including extensive course work in botany, forestry, fisheries/wildlife and geography and some graduate classes. Post-bac graduate courses in Soil Morphology and Hydric Soils (OSU), and Bryology (UO). US Forest Service breeding bird point count survey workshop. Continuing education at Lane Community College in Mycology. Master Gardener certification in 2012 from OSU Extension Service.

CURRENT MEMBERSHIPS and AFFILIATIONS

- Cascade Mycological Society (founding board member and Board co-president for 1 year)
- Ecological Society of America
- Native Plant Society of Oregon (including State Board President for 5 years)
- Nearby Nature Advisory Board
- Society for Ecological Restoration
- The Wildlife Society
- The Xerces Society
- Past memberships: *Carex* Working Group (co-founder and member 1992 - 2008), American Planning Association (1980 - 2001), American Institute of Certified Planners (1984 - 2001), Society of Wetland Scientists, Willamette Resources and Education Network (founding board president).

COMMITTEES

Present:

- Lands & Stewardship Committee, McKenzie River Trust
- Stewardship Technical Advisory Committee (Chair), Friends of Buford Park/Mt. Pisgah

Inactive or occasionally active committees:

- Oregon Plant Atlas Project Committee, Oregon Flora Project, Oregon State University
- Nearby Nature Advisory Committee

Former:

- Headwaters to Confluence Action Plan Advis. Committee, Middle Fork Willamette Watershed Council
- Habitat Management Plan Technical Advisory Group for the Friends of Buford Park/Mt. Pisgah
- City of Eugene East Alton Baker Park Advisory Committee
- City of Eugene Mayor's Park and Open Space Committee



- Eugene Masonic Cemetery Native Vegetation Restoration/Landscape Advisory Committee
- City of Eugene Stormwater Advisory Committee
- Metro Waterways Technical Advisory Committee
- State of Oregon Locally Significant Wetlands Committee (Goal 5)

VOLUNTEERISM

- Display volunteer and expert ID for annual Mt. Pisgah Arboretum Wildflower Show (Native Plant Society of Oregon; 1995-present).
- Display co-coordinator for annual Mt. Pisgah Arboretum Mushroom Show (Cascade Mycological Society, 1998-present).
- OSU Extension Service/Cascade Mycological Society on-call mushroom identification for general public (2004-present)
- Team Leader for annual Christmas Bird Count, West Eugene Wetlands area (National Audubon Society/Lane Audubon Society, 1992-present)
- Created data base of features and values for Southern Willamette Valley native plants www.salixassociates.com
- Coordinator of Emerald Chapter Native Plant Society of Oregon “Invasive Ornamentals” plant list available at: www.emeraldnpso.org
- Created butterfly host and nectar plants and butterfly gardening materials available at: www.naba.org/chapters/nabaes/btrfly-gdng1.html and www.salixassociates.com
- Created native bird plant list for Lane County Audubon Society, available at: www.laneaudubon.org/library-sub/native-food-plant-sp.htm and www.salixassociates.com

In addition to the above committees and specific roles: volunteer activities as an environmental education guide and materials reviewer, and/or performing natural resource inventories, and/or presenting digital slide shows for: four Native Plant Society of Oregon chapters, McKenzie River Trust, Multnomah County (OR) Parks Department, Portland Audubon Society, Lane County Audubon Society, Corvallis Audubon Society, Institute for Applied Ecology, Oregon State University departments of Botany and Forest Science, UO Department of Landscape Architecture (annual native plant and restoration intro walks), Eugene-Springfield Chapter of the North American Butterfly Association, Nearby Nature, Friends of Amazon Creek, Mt. Pisgah Arboretum, Friends of Buford Park/Mt. Pisgah, The Nature Conservancy, Eugene Friends of Trees, Berry Botanic Garden, Bob Straub Environmental Learning Center, Marion County Soil and Water Conservation District, NW Forest and Conservation Association/OSU Nursery Tech Co-op, City of Eugene, City of Springfield, AmeriCorps, Lane County Master Gardeners, Avid Gardeners, Hardy Plant Society, Recreational Equipment Incorporated, Oregon Recreation and Parks Association, Oregon State Parks Department and Willamalane Park and Recreation District.

SAMPLE PROJECTS

Natural Resource Inventory/Assessment and Interdisciplinary Projects:

- Biodiversity inventory, habitat assessment and restoration recommendations for the 160-acre Coyote-Spencer Wetlands site for the McKenzie River Trust (2012)
- Site inventories and outlines of habitat enhancement plans for 11 privately-owned sites for the Middle Fork Watershed Council (2012)
- Biodiversity inventories and assessments for The Nature Conservancy (2010-2014)
- Site inventory and assessment for two large reservoirs for the US Army Corps of Engineers (2010-12)
- Restoration assessment for 18 privately-owned sites and coordination of data base creation for Long Tom Watershed Council (2010)
- Biodiversity inventory for 200-acre open space site for the City of Eugene (E. Ridgeline Extension; 2009)
- Native plant procurement projects for The Nature Conservancy (2008-09)



- Oak-prairie habitat assessments for a large private landowner for The Nature Conservancy (2008-09)
- Inventory and assessment for 2700-acre South Ridgeline Habitat Study (City of Eugene, 2006-07)
- Analysis of vegetation and wetlands issues for Draft EIS for proposed BLM-private land trade (600,000+ acre Umpqua Basin study area, 2001-04)
- Vegetation inventory, mapping and assessment, and restoration and management recommendations for two 500-acre oak-prairie habitat restoration projects (USFWS and private owner) and one 1000-acre riparian project (McKenzie River Trust) (2003-2005)
- Vegetation inventory, mapping and assessment, and restoration and management recommendations for two 500-acre oak-prairie habitat restoration projects, Eugene District BLM (project manager, 2001)
- Vegetation inventory and mapping, coordination of wildlife, soils and butterfly surveys and assessments, preparation of overall ecological assessment for 213-acre Herbert Open Space Property for the City of Corvallis
- Vegetation inventory, monitoring study design, and restoration planning for 20-acre oak habitat restoration project, Eugene District BLM (project manager, 2001 - 2004)
- Biological assessment, rare plant surveys and plant community mapping for 112 acre Mt. Pisgah Arboretum (project manager 1999).
- Statewide Planning Goal 5 inventory and analysis for three City of Eugene proposed low-income housing sites and park sites (1996 - 2001)
- Statewide Planning Goal 5 analyses of natural resources issues for 66-acre site, City of Springfield (project manager, 1992), and 3-acre site for Eugene Water and Electric Board (project manager, 1995).
- Statewide Planning Goal 5 natural resources field inventories and breeding bird surveys for Metro Greenspaces Project, City of Hillsboro, City of Portland, Multnomah County (subcontractor/field team member, 1990 - 1995).
- Natural resources (Statewide Planning Goal 5) inventory and analysis for 120+ wetland, stream, and tree grove sites for City of Lake Oswego (project manager, 1994-95).
- Mapping and field checking of 42 Goal 5 natural resource sites for City of Eugene (project manager, 1992-93).
- Wetland delineations and rare plant habitat surveys for 300-mile long fiber optic cable project (project manager 1998-2000).
- Environmental assessments (50+) for federally-funded projects, City of Eugene and Lane County (project manager, 1991 - 2008).
- Biological evaluations of sensitive habitats and species on four affordable housing sites for the City of Eugene (project manager, 1994-2005).
- Fungi surveys for S & M species for 450 acres, Eugene District BLM (project manager, 1999)
- Natural resources inventories and mapping, and rare plant surveys for 1400-acre Sandy River Delta site, USFS, Columbia River Gorge National Scenic Area (project manager, 1992).
- Field inventories, plant community mapping and establishment reports for five Research Natural Areas, Willamette National Forest (project manager, 1991 - 1992).

Local Scale Habitat Assessment and Management Planning:

- Analysis of host and nectar plant use by butterflies in the West Eugene Wetlands study area (2004)
- Habitat assessment for the Upper Amazon Creek Study Area, City of Eugene (project manager, 2000)
- Habitat assessment for the Lower Tugman Creek Project Area, City of Eugene (project manager, 2000)
- Natural resource inventory and Habitat Management Plan for Hendricks Park, City of Eugene (project manager, 1999)
- Habitat management plan for Spring Creek Turtle Preserve, City of Eugene (project manager, 1997).

Botany:

- Two weeks of field inventory and monitoring of wetland plants on the Malheur National Wildlife

- Refuge for Institute for Natural Resources (Portland State University; 2012)
- Partner in 15 Challenge Cost Share grant projects focusing on sedges and willows (*Carex* and *Salix*) for Arcata, Burns, Coos Bay, Eagle Lake, Eugene, Lakeview, Medford, Roseburg, Prineville and Vale BLM districts, and Shasta-Trinity and Willamette national forests (with *Carex* Working Group; 1997 - 2008)
 - Surveys for *Lomatium bradshawii*, *Lupinus oreganus* (*L. sulphureus* var. *kincaidii*) and other wetland and upland prairie species for private landowners and watershed councils in Eugene, Springfield and Veneta, the City of Eugene, and Lane Council of Governments (1991 - ongoing).
 - Surveys for *Eucephalus vialis*, *Cimicifuga elata*, and other upland species for private landowners, watershed councils and City of Eugene Parks and Open Space Division (1993 - ongoing).
 - Comprehensive botanical and sensitive plant surveys for the Fremont, Mt. Hood, Ochoco, Siuslaw, Umatilla and Willamette national forests and the Oregon Biodiversity Information Center (project manager, 1992 -present). 7,000 ac. for the Willamette National Forest (project manager, 1997-8)
 - Plant community mapping and comprehensive vascular plant inventory for eight subalpine meadows in the Three Sisters Wilderness (1997) a marsh (1998), 8 mid-montane meadows (1994), six wet meadows (2005), and six wet meadows and two upland meadows (2006) for the Willamette National Forest.
 - Project coordinator for statistical sampling to estimate size of *Lomatium bradshawii* population in Amazon Park, for City of Eugene (1995).
 - Sensitive plant survey of part of 14,000 acres for the Eugene District BLM (team member, 1993, 1995 and 1996).
 - T&E and comprehensive botanical inventories of five Special Interest Areas (1800 ac.) in the Blue River Ranger District for the Willamette National Forest (project manager, 1992-1993).
 - T&E plant surveys for a natural gas pipeline project in the Willamette Valley, Oregon. Survey of 30 miles of pipeline corridor for federally listed species. Client: Northwest Pipeline Corporation (subcontractor to PIC Technologies, Inc., 1993 - 1995).
 - Surveys for *Monardella purpurea*, *Carex livida*, *Hastingsia bracteosa* and other serpentine associates in the Lemmingsworth Gulch Research Natural Area (Siskiyou National Forest 1993) and Woodcock Mountain (Medford District BLM 1995).
 - Methodology development and field inventory team member for roadside vegetation inventory of 800 county roads, Lane County Department of Public Works et al. (1989).
 - Collection, treatment, and packaging of 150+ lots of native shrub, forb, and grass seed for Willamette National Forest and Eugene District BLM (project manager, 1993 - 2000).

Butterfly Surveys and Habitat Assessments

- Inventory and assessment of roadside vegetation resources for Fender's Blue Butterfly (Cardno ENTRIX; 2011)
- Butterfly community surveys for 9 Eugene District BLM/City of Eugene sites (2003-08)
- Preparation of local butterfly documented and suspected host plant matrix for the southern Willamette Valley
- Vegetation inventory and habitat assessment for a Fender's blue butterfly population; 400 acre site in Polk County for US Fish and Wildlife Service (2007)
- Butterfly community surveys for 8 Willamette National Forest upland meadows (2004-05)

Breeding Bird Surveys

- Avian point count surveys for six sites at Fern Ridge Reservoir, U.S. Army Corps of Engineers (2001 & 2006)
- Avian point count surveys for Skinner Butte Park, City of Eugene (project manager, 2002)
- Avian point count surveys for Ft. Hoskins County Park, Benton County (project manager, 2000)
- Avian point count surveys for Hendricks Park, City of Eugene (project manager, 1999)

Wetlands:

- Wetland determinations and delineations (150+) for local governmental agencies (road projects, park lands, mitigation sites, etc.) and private landowners (development sites, utility rights-of-way, etc.). Eugene, Springfield, Florence, Grants Pass, Lake Oswego, Salem, Warrenton, etc. (1989 - 2004).
- Wetland functions and values assessment for 112-acre site in Veneta, OR for UO Landscape Architecture Department and City of Veneta (1996).