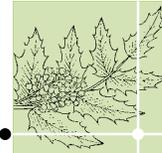
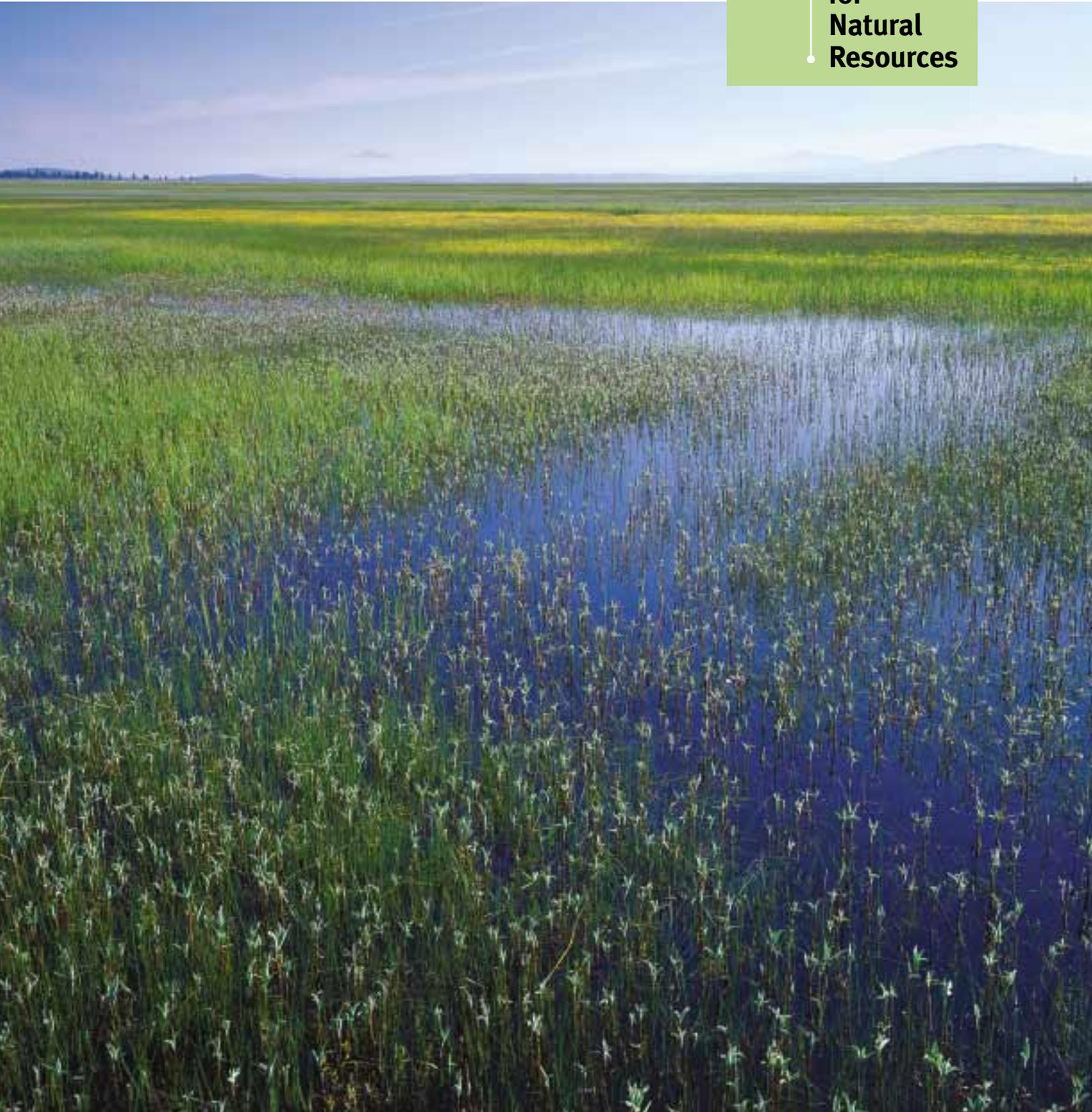


Institute for Natural Resources
2003–2004 Annual Report



**Institute
for
Natural
Resources**



The Institute for Natural Resources (INR) is moving into the 2004–2005 year with an ambitious agenda designed to fulfill our mission.

As a cooperative enterprise, INR acts as a catalyst, bringing together decision makers and researchers; developing partnerships with state, federal, tribal and local decision makers and the talented faculty of Oregon's higher education institutions.

We plan to bring people together around a shared commitment to environmental quality and community revitalization by helping them obtain new information and the best science.

In this report on 2003–2004 INR activities, you will find summaries of our work on policy, information and research development. And, we introduce you to the INR staff and Advisory Board, whose work is just getting underway.

Before you turn to the rest of the report, let me describe the missions of the three areas where INR resources and energy are focused.

The **Policy Program** mission is to identify or clarify issues so policy makers can improve decision making on natural resources and the environment based on independent analysis of relevant, science-based information and to develop, test and implement new policy-making methods and tools. Our challenge is setting priorities to target our efforts.

The **Information Program** mission is integrating and providing comprehensive information about Oregon's natural resources and environment to support decision-making at local, state and regional levels. Without such critical information, our state's decisions on the best approaches to resolving natural resource issues are severely hampered. Our challenge is to turn the massive amount of available data into useful information for decision makers and citizens.

In the **Research Program**, our mission is to identify the work needed to address resource policy and management challenges and facilitate responsive interdisciplinary studies. Our challenge in the coming year is to assess the research needs

and priorities for public agencies and match those needs with faculty talent and funding.

Our fundamental charge from the Oregon Legislature, which created INR in 2001, is to provide these integrated interdisciplinary policy, information and research services to decision makers and the public.

This is the direction we are taking as we begin a new fiscal year.

INR is approaching interdisciplinary research and analysis in a new, broad way. By linking the best information with researchers and policy makers, we seek to stimulate new forms of collaborative problem solving, avoid duplication of data gathering, streamline decision making and break down the traditional silos that divide academics, agencies and the public and thwart innovation.

Our foundation is the land grant mission: building bridges between theory and practice and effectively communicating knowledge to decision makers.

To meet INR's promise, we must ensure our independence and objectivity, build credibility and establish institutional integrity. Our success depends upon a clear sense of our values and principles – integrity and objectivity, partnerships, relevance, service and excellence.

And to achieve success, we must also gain your support as we call on all Oregonians with an interest in the state's abundant natural resources and our carefully protected environment.



Gail Achterman
DIRECTOR



Policy Program

The Institute of Natural Resources' Policy Program identifies and clarifies policy issues and provides relevant, science-based information so policy makers and citizens can obtain unbiased, independent expert advice.

Based on independent analysis of the best available information, INR develops, tests and implements new policy making methods and tools, responding to requests from citizens, businesses and agencies at local, state, tribal and federal levels.

All Institute projects are grounded in rigorous criteria and take advantage of expertise from throughout Oregon.

The Policy Program moves into the year with several ongoing projects, working in conjunction with federal, state and regional agencies and the Governor's Office.

Salmon Anchor Habitat Project

Managing Northwest Oregon state forests for diverse values has proved contentious. Some groups argue that timber production should be the primary purpose of these forests and that forest plans restrict timber harvesting too much. Others contend that forest plans do not adequately protect the best remaining coastal salmon habitats. Ultimately, the 2003 Oregon Legislature directed the Oregon Department of Forestry (ODF) to review its Salmon Anchor Habitat strategy for Northwest Oregon state forests, focusing on its scientific basis, effectiveness, and revenue implications.

ODF asked the Institute to convene a Work Group mandated by the Legislature to assure an unbiased approach to the review. INR staff designed a process based on the "consensus conference"

Policy Program Projects

- ▼ Salmon Anchor Habitat Project
- ▼ Oregon Fire Program Review
- ▼ Walla Walla Basin Habitat Conservation Plan
- ▼ Aggregate Mining
- ▼ Marine Science Advisory Panel

model to engage the stakeholders directly with 14 scientific experts, provided research and report writing and moderated a series of meetings, culminating with a final report to the Legislature.

Oregon Fire Program Review

The wildfire situation in Oregon is changing. Fuel buildups and climatic shifts produce larger, more frequent and severe fires and longer fire seasons. Residential development in forests, recreation growth, budget limitations and rural firefighting capacity reductions are compounding these challenges. Fire readiness and suppression costs are rising dramatically.

Following Oregon's recent devastating fire seasons, ODF asked the Institute to assist in a comprehensive review of the Department's Fire Program. The Institute has assisted in the design of the program review process and is utilizing Oregon State University (OSU) faculty in scoping the work plans. OSU faculty from the Colleges of Forestry, Business and Liberal Arts, along with University of Oregon planning faculty, are reviewing the work to assure the best available science, legal or policy analysis.



Walla Walla Basin Habitat Conservation Plan

In an approach founded on sustainability principles, the Walla Walla Watershed Alliance is developing and implementing a comprehensive strategy for restoring the Walla Walla watershed in Washington and Oregon, one of the region's richest agricultural areas and home to bull trout, salmon and steelhead.

The Alliance, which has federal and state funding to prepare a Bi-State Habitat Conservation Plan, asked the Institute for help in several areas, including evaluating methods for protecting in-stream flows and assisting in developing a vision and strategy for long-term stewardship of groundwater resources across state lines.



Aggregate Mining

Since the beginning of land use planning in Oregon, conflicts have arisen between mining of sand and gravel and protection of other resource lands, especially farmlands. The Legislature has attempted to resolve these conflicts for many years without being able to satisfy the many competing needs—prime farmland, aggregate for construction and salmon habitat in rivers and streams.



Following the 2003 Legislature, the Governor's Office called on the Oregon Consensus Program (OCP) at Portland State University to bring together the various stakeholders. OCP and the Governor's Office asked the Institute to provide the research and data needed to facilitate the dispute. Faculty from the Colleges of Engineering and Science at OSU are providing technical assistance to the OCP.

The Institute and OCP will provide a final report summarizing the findings and feasibility of stakeholder group recommendations for the 2005 Legislature.

Marine Science Advisory Panel

The U.S. Commission on Ocean Policy has undertaken the first congressionally authorized review of national ocean policies in 35 years. The Commission recently released a preliminary report and invited all Governors to comment on its recommendations.

At the request of the Development Ocean-Coastal Management Program of the Oregon Department of Land Conservation, INR organized a Marine Science Advisory Panel with eight Oregon University System scientists to prepare the comprehensive scientific report Governor Kulongoski used to inform his review. The Governor included the full scientific report in the State's formal comments to the U.S. Commission.

Information Program

The Institute's Information Program integrates and provides comprehensive information about Oregon's natural resources and environment to support effective decision-making at local, state and regional levels.

The Oregon Natural Heritage Information Center, now part of the Institute, is working in partnership with the Oregon State University (OSU) Libraries' Natural Resources Digital Library (under development), to make information – text, data, maps, photographs, video and more – easily accessible to researchers and the public through web-based portals.

Additional partners include the Oregon Department of Administrative Services' GeoSpatial Data Clearinghouse and other federal and state agencies.

Several ongoing programs highlight the Institute's Information Program.

Oregon Natural Heritage Information Center

The Institute has completed agreements with the Oregon Department of State Lands and The Nature Conservancy to assume managerial responsibility for the Oregon Natural Heritage Information Center (ORNHIC).

OWEB Acquisition Prioritization

ORNHIC completed a project for the Oregon Watershed Enhancement Board (OWEB) to develop priorities for evaluating acquisition projects. ORNHIC identified priority ecological systems, species and rare plant communities in each of 15 Oregon basins.

Information Program Projects

- ▼ Oregon Natural Heritage Information Center
- ▼ OWEB Acquisition Prioritization
- ▼ ODFW Comprehensive Wildlife Conservation Strategy
- ▼ New Publications and Updates
- ▼ SageMap
- ▼ Willamette Basin Conservation Project
- ▼ North Coast Web Portal
- ▼ Watershed Indicators
- ▼ Pacific Northwest Regional Collaboratory

ODFW Comprehensive Wildlife Conservation Strategy

The Oregon Department of Fish and Wildlife (ODFW) provided funds to ORNHIC to obtain data and provide technical assistance for the Comprehensive Wildlife Conservation Strategy. ODFW is developing this strategy to protect fish and wildlife in Oregon and be eligible to compete for federal and state wildlife grants.



New Publications and Updates

Two guides published by ORNHIC describing the riparian and wetlands vegetation in eastern and northwestern Oregon will simplify the collection of riparian vegetation information and help identify species to be used in riparian restoration.

The 2003 update to the *Oregon Natural Heritage Plan* outlines the operation of the state's Natural Areas Program, including the adoption of new ecoregional boundaries and major revisions of the geology and species sections.

The 2004 update of *Rare, Threatened, and Endangered Species of Oregon* describes the status of all species in Oregon. Published every three years, the information is the basis of the BLM and USFS Sensitive Species program.

SageMap

The decision to list the western sage grouse as a threatened species is pending. ORNHIC received funding to expand the agreement with the U.S. Geological Survey's Boise Lab to map sage grouse habitat in the Pacific Northwest, which will be essential for evaluating the grouse's status.



Willamette Basin Conservation Project

Findings from the Pacific Northwest Ecosystem Research Consortium have great potential for providing residents and community leaders in the Willamette Basin with better understanding of the ecological consequences of policy decisions. Designed to take science to the people, the Willamette Basin Conservation Project is fulfilling that potential. The Meyer Memorial Trust funded this project with matching funds from OWEB and others. INR is working in cooperation with scientists from Oregon State University (OSU) and the University of Oregon, the OSU Libraries, the Willamette Restoration Initiative and Defenders of Wildlife.

The project organizes research findings so people making decisions have easy access to a Natural Resources Digital Library – a vast and growing collection of information about the basin. The project also helps local groups apply conservation and restoration strategies and increases access to incentives to encourage conservation on private land.

North Coast Web Portal

Information about the status and trends of natural resources is invaluable to decision-makers, but often difficult to access because it is collected in diverse formats and housed in disparate locations. Recognizing the need to make information available to inform decision-making about the Oregon Plan for Salmon and Watersheds, OWEB asked INR to develop a basin-level web portal for the North Coast region.



Watershed Indicators

A major problem faced in watershed restoration is determining the results achieved by various projects across a basin. OWEB turned to INR to develop standardized watershed indicators for Oregon.

INR organized several workshops with experts on monitoring and the development of indicators and completed a comprehensive literature review in the process of developing a recommended set of indicators.

Pacific Northwest Regional Collaboratory

OSU through INR is a member of the Pacific Northwest Regional Collaboratory, a regional group of universities and national laboratories dedicated to facilitating integration of geospatial technologies and data to serve the needs of resource managers and decision makers across the Pacific Northwest. Gail Achterman of INR serves on the Executive Committee.

Dr. John Bolte of OSU's Department of Bioengineering leads a key Collaboratory project, development of a Sustainability Atlas for the Northwest. The Atlas, comprised of remotely sensed and other data, will provide a basis for truly regional collaboration and decision-making on long term issues critical to regional sustainability.

The objective of the web portal is to provide people with easy access through the Internet to natural resources data, tools and expertise. In the coming year, partners from INR, OSU Libraries and the Infographics Lab at the University of Oregon will launch this web portal to demonstrate its utility for providing information about species such as coho and Chinook salmon and their habitats. Together with the Willamette Basin Conservation Project, this portal will provide a foundation to inform development of a statewide web portal for natural resource information needed by policy makers and citizens.



Research Program

The Research Program identifies research necessary to address resource policy and management challenges and facilitates responsive interdisciplinary studies.

The Institute's program complements research conducted through universities, public agencies and private business. INR research produces studies that describe and quantify status and trends of Oregon's environment and natural resources and studies on key environmental and management questions requested by local, state, tribal, federal or private organizations.

The Institute adds value through its network of scientists on environmental monitoring, research evaluation and prioritization, environmental indicator development and biodiversity assessments.

The Institute's Research Program collects and evaluates data not being gathered by other agencies or that will serve many agencies. It also brings scientists together to participate in interdisciplinary research on the environment and natural resources of Oregon.

Coastal Community Water Supply

Economic development and diversification on the Oregon Coast frequently are constrained by municipal and industrial water supply limitations. Without comprehensive information, economic development officials find it difficult to match prospects with specific communities. At the same time, cities and other water suppliers are required by the Oregon Water Resources Department to prepare Water Management and Conservation Plans. Yet, coastal communities are hard pressed to prepare these plans because many lack even basic information about their systems, their customers and the environmental concerns they will face as they attempt to meet their future water needs.

Working with Sea Grant funding, the Institute is gathering information about water suppliers, rights and availability and research and analysis needed to help coastal communities address future water supply needs. This project begins to fill information gaps and lays the foundation for a comprehensive assessment.

Climate Change Science Conference

Now, and in the future, climate change may have important ramifications for Oregon's environment, economy and the health of Oregonians. As part of his initiative on global warming, Governor Kulongoski has appointed an Advisory

Research Program Projects

- ▼ Coastal Community Water Supply
- ▼ Climate Change Science Conference

Group to lead development of the next phase of Oregon's global warming strategy.

To inform deliberations by the Governor's Advisory Group, INR was asked to help organize a daylong meeting of top scientists to address the impacts of climate change on the Pacific Northwest. The meeting provided an opportunity to discuss regional research findings about climate-change impacts in the Pacific Northwest and identify areas of scientific consensus and uncertainty.



Institute for Natural Resources Staff

Gail L. Achterman, Director

Gail Achterman is a leading state and national natural resource and environmental expert with policy-making experience at the state, local and federal level. Gail also serves on the Oregon Transportation Commission and is a member of the boards of the Oregon Garden and Northwest Environment Watch. Before joining the Institute for Natural Resources, Gail served as Executive Director of the Deschutes Resources Conservancy, a non-profit organization dedicated to watershed restoration. She practiced law for 18 years with Stoel Rives LLP and served as Governor Neil Goldschmidt's Assistant for Natural Resources.



M.S. Natural Resources Policy and Management, University of Michigan, 1975; J.D. cum laude, University of Michigan, 1974; A.B. Economics with honors, Stanford University, 1971.

Denise Lach, Associate Director

Denise Lach is an Associate Professor in the Department of Sociology at Oregon State University (OSU) and is also Co-Director of the Center for Water and Environmental Sustainability (CWEST). Her research interests focus on issues raised by individuals and organizations dealing with environmental problems including the use of scientific information in decision-making, stakeholder and citizen involvement and program evaluation.



Ph.D Sociology, University of Oregon 1992; M.S. Sociology, University of Oregon, 1988; B.S. English/Education, University of Minnesota, 1976.

Jeff Behan, Faculty Research Assistant

Jeff Behan's research interests include wildland recreation policy, public lands policy and environmental policy. Before joining INR, Jeff worked at the Grand Canyon Monitoring and Research Center and as a land management policy consultant. Jeff teaches classes in the Forest Resources Department, OSU College of Forestry.



M.S. Forestry 1997 (Wildland Recreation Emphasis); B.S. Forestry 1984, Northern Arizona University.

Renee Davis-Born, Faculty Research Assistant

Renee Davis-Born's background and interests include watershed assessment and planning, scientific writing, the application of science to inform decision-making and terrestrial ecology. Before joining the INR, Renee was Policy and Outreach Coordinator with the Partnership for Interdisciplinary Studies of Coastal Oceans, a university-based research consortium focused on coastal-ocean research and policy-relevant outreach.



M.S. Wildlife Science, Oregon State University, 1997; B.S. Environmental Science, Allegheny College, 1993.

Jimmy Kagan, Information Program Director

Since 1986, Jimmy Kagan has been the Director of the Oregon Natural Heritage Program where he oversees botanical and ecologic inventories for Oregon. Jimmy also worked for The Nature Conservancy for several years as the staff ecologist and botanist. His research interests include biodiversity planning and management.



M.S. Botany and Plant Ecology, University of Oregon, 1980; B.S. Biology with teaching certificate, Portland State University, 1976; B.A. Environmental Science and Botany, The Evergreen State College, 1973.

Susan Dobbie, Administrative Assistant

Susan is the Administrative Assistant to Gail Achterman and Denise Lach and manages the business office for INR. Her interests include research and business administration, traveling and bird watching. She is a student in Business Administration at Linn-Benton Community College.



Institute for Natural Resources Advisory Board

Find us on the web at:

Institute for Natural Resources
inr.oregonstate.edu.

Oregon Natural Heritage Information Center
oregonstate.edu/ornhic/

For downloadable pdfs of ORNHIC publications:

Rare, Threatened and Endangered Species of Oregon
oregonstate.edu/ornhic/2004_t&e_book.pdf

Roiparian and Wetland Vegetation of Central and Eastern Oregon
oregonstate.edu/ornhic/crowe2004.pdf

Native Freshwater Plant Associations of Northwestern Oregon
oregonstate.edu/ornhic/christy2004.pdf

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