

**Oregon Planning Institute 2007**  
**Natural Resources Conservation Planning: Beyond Goal 5**  
**(Integrating Conservation Biology)**  
Friday, September 14, 2007

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**Books and Articles**

Campbell, Bruce H. (2004), Restoring Rare Native Habitats in the Willamette Valley: A Landowner's Guide for Restoring Oak Woodlands, Wetlands, Prairies, and Bottomland Hardwood and Riparian Forests, Biodiversity Partnership.

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Duerksen, Christopher, Donald Elliot, N. Hobbs, Erin Johnson, James Miller (1997), Habitat Protection Planning, Where the Wild Things Are, APA Planning Advisory Service, 1997.

Environmental Law Institute (2007), Lasting Landscapes: Reflections on the Role of Conservation Science in Land Use Planning.

Groves, Craig (2003), Drafting a Conservation Blueprint, Island Press.

Honachefsky, William B. (1999), Ecologically Based Municipal Land Use Planning, CRC Publishing.

McElfish, James M. (2004), Nature-Friendly Ordinances, Environmental Law Institute.

Oregon Department of Fish and Wildlife (2006), Oregon Conservation Strategy, Oregon Department of Fish and Wildlife.

Perlman, Dan L., and Jeffrey C. Milder (2005), Practical Ecology for Planners, Developers, and Citizens, Island Press.

Primack, Richard B. (2003), A Primer of Conservation Biology, Third Edition, Sinauer Associates.

Theobald, David and N.T. Hobbs (2002), A Framework for Evaluating Land Use Planning Alternatives: Protecting Biodiversity on Private Land, Ecology and Society, Volume 6, No. 1.

Turner, Monica G. (editor) and Robert H. Gardner (editor) (1992), Quantitative Methods in Landscape Ecology: The Analysis and Interpretation of Landscape Heterogeneity, Springer Press.

Wenche Dramstad, James D. Olson, and Richard T.T. Forman (1996), Landscape Ecology Principles in Landscape Architecture and Land-Use, Island Press.

Wiley, Pam (2001), No Place For Nature, The Limits of Oregon's Land Use Program in Protecting Fish and Wildlife Habitat in the Willamette Valley, Defenders of Wildlife.

### **General Biodiversity and Conservation Planning Web Resources**

Biodiversity Partnership

(Website sponsored by Defenders of Wildlife that summarizes national and regional biodiversity conservation efforts.)

<http://www.biodiversitypartners.org>

Conservation Biology Institute

<http://www.consbio.org>

Conservation by Design

(Repository for conservation planning support materials developed and used by The Nature Conservancy.)

<http://conserveonline.org/workspaces/cbdgateway>

NatureServe

(Storehouse of information on biodiversity and at-risk species)

<http://www.natureserve.org/index.jsp>

Oregon Natural Heritage Information Center

(Repository for information about rare, threatened, endangered and at-risk species in Oregon.)

<http://oregonstate.edu/ornhic/>

Society for Conservation Biology

(International organization promoting conservation biology.)

<http://www.conbio.org>

South Ridgeline Habitat Study (City of Eugene)

<http://www.EugeneNR.org>

### **Landscape Ecology Analysis Models and Applications on the Web**

ArcHydro Model

(GIS tool that links hydrologic data to water resources modeling and decision-making methods in GIS environment)

<http://support.esri.com/index.cfm?fa=downloads.dataModels.filteredGateway&dmid=15>

Environmental Systems Research Institute, Inc.

(Geographic Information Systems, for digital map creation and geospatial analysis)

<http://www.esri.com/>

Ecosystem Management Decision Support (EMDS) tool

(an application framework for knowledge-based decision support of ecological assessments at any geographic scale.)

<http://www.institute.redlands.edu/emds/index.htm>

### NetWeaver

(companion software application to EMDS, used to create logic models for EMDS)

<http://www.rules-of-thumb.com/>

### FRAGSTATS

(software that analyzes landscape pattern metrics, applying landscape ecology principles)

<http://www.umass.edu/landeco/research/fragstats/fragstats.html>

### Landis-II

(software that simulates forest succession, disturbance (including fire, wind, harvesting, insects, climate change), and seed dispersal across large (> 10,000 ha) landscapes)

<http://www.landis-ii.org/>

### MARXAN

(software that delivers decision support for reserve system design. MARXAN finds reasonably efficient solutions to the problem of selecting a system of spatially cohesive sites that meet a suite of biodiversity targets.)

<http://www.ecology.uq.edu.au/index.html?page=27710>

### Natureserve VISTA

(software that evaluates series of land use or management scenarios to facilitate achieving conservation goals)

<http://www.natureserve.org/prodServices/vista/overview.jsp>

### PANDA

(a stand-alone application that was developed to provide a user friendly framework for systematic protected areas network design for ArcGIS users.)

<http://www.ecology.uq.edu.au/index.html?page=36767&pid=27710>

### PATCH

(a spatially explicit, individual-based, life history simulator designed to project populations of territorial terrestrial vertebrate species through time)

<http://www.epa.gov/wed/pages/models/patch/patchmain.htm>

### RAMAS

(software that allows you to link your GIS to an ecological model, use landscape data in your population viability analysis, incorporate changes in habitat into a metapopulation model, combine geographic and demographic data for risk assessment)

<http://www.ramas.com/ramas.htm>

### SITES

(a customized ArcView project that facilitates designing and analyzing alternative conservation portfolios.)

<http://www.biogeog.ucsb.edu/projects/tnc/toolbox.html>

### WWF-Canada Assessment of Representation (AoR) Gap Analysis Tool

(software that helps determine how well ecological diversity is represented in protected areas and candidate protected areas)

<http://www.wwf.ca/AboutWWF/WhatWeDo/ConservationPrograms/ForestsAndTrade/AoR/Default.asp>