

October 2007

TO: Prospective Graduate Students Interested in MS in Natural Resource Education

FROM: Ed Jensen, Professor of Natural Resources Education, Oregon State University

SUBJECT: M.S. in Natural Resource Education and Extension

This note is intended to supplement what's already written about the M.S. in Natural Resource Education and Extension in the Forest Ecosystems and Society (FES) departmental brochure (which may be enclosed with this letter), or on the FES departmental web site (see my web page at <http://www.forestry.oregonstate.edu/cof/fs/people/faculty/Jensen.php>). By itself, this note is not intended to provide a complete overview of the program.

This program is relatively new and small. It was created in 1991 and there are typically only several students (1-3) enrolled at one time. I'm the primary faculty advisor, but others serve in that role on a limited basis.

Courses are divided into 3 categories: natural resources, education and communication, and electives (which may fall into either category). OSU offers a great array of courses in the various fields of natural resources, so students in this program have ample opportunity to increase both depth and breadth of their knowledge of natural resources. Courses in education and communication are typically offered "across campus" rather than in forestry, although there are a few exceptions. Offerings are more limited and less predictable. As a result, it's common for graduates of this program to have taken widely different courses in education and communication.

Most students finish the degree in about 2 years (some a bit sooner and some a bit later); the amount of time often depends on the complexity of project/thesis, and how many "field" seasons are required, rather than on course requirements.

The "final project" is a critical learning experience for students, causing them to integrate their knowledge of natural resources and educational processes. It can take the form of either a thesis, in which the student attempts to test a theory or discover new knowledge, or an applied project, in which the student attempts to address a real-world education problem (identify an audience with an educational need and develop a program or product that fills that need). Most students choose the project route.

Here's a sample of projects completed by students in the program:

- A video-based education program on the **reproductive ecology of PNW broadleaved trees and shrubs**. Primary audience: natural resource specialists and managers; university students. Components: 60-minute video, 7 peer-reviewed publications. Funded by USDA Forest Service, National Biological Service, and Forestry Research Lab.
- A comprehensive curriculum guide to **wildflowers of the Columbia Gorge**. Primary audience: elementary and secondary school groups; other group-based visitors to the Gorge. Components: set of site descriptions and field-based activities; set of classroom lessons to use before and after field trips; set of learning resources for use in classrooms; 8-hour workshop attended by 40 teachers and resource specialists. Funded by the USDA Forest Service Columbia Gorge National Scenic Area.
- A feasibility study for the development of a university-based **information center on forestry and wildlife**. Primary audiences: almost everyone. Components: a written report that recommends key audiences, key messages, potential delivery systems, and cost estimates. Funded by OSU's Forestry Research Lab.
- A CD-ROM on **conifers of the Pacific Northwest**. Primary audience: 5th grade and above. Components: CD-ROM guide to identification and natural history of PNW conifers. Funded internally.
- An educational video on the **cultural significance and management of huckleberries in PNW forests**. Primary audience: elementary/middle school students of the Warm Springs Indian

Reservation. Components: half-hour video, instructors guide, and viewers summary. Funded internally.

- An assessment of the educational effectiveness of a **web-based forest field tour focused on sustainable forestry (thesis)**. Primary audience: professional foresters and small woodland managers. Components: developing and conducting parallel web and field tours and assessing the educational effectiveness of each. Fully funded by OSU's Sustainable Forestry Partnership and the Society of American Foresters.
- A web-based course on **tree identification for K-12 teachers**. Primary audience: K-12 teachers. Primary components: web-based learning activities that compliment existing books and multi-media resources. Funding: Forestry Media Center and Oregon Forestry Education Program.

Funding for students in this program is difficult to find and often difficult to predict very far in advance. None-the-less, most students in the program have received funding sufficient to get a tuition waiver and small stipend (0.15-0.50 FTE) for most of their time here. Some have served as research assistants, others as teaching assistants; several have been funded to work on their projects; none have had to fund their projects from their own pockets. The more lead time we have, and the more flexibility you exhibit, the more likely it is that funding can be arranged. Knowing what academic areas you're well versed in, any special talents that you have, and any thoughts you have about the kinds of projects that you'd be interested in, can all help secure funding. Flexibility is often a key.

To date, the program has attracted students from a wide geographic area (e.g. Oregon, California, Vermont, Colorado, Minnesota, Ohio) and from several academic disciplines (e.g. forestry, wildlife biology, history, recreation). Students with limited backgrounds in science or natural resources are typically recommended to complete at least a year of post-bac work before entering the MS program.

One advantage that OSU offers to students in this program is a tremendous variety of education programs with which they might interact. In addition to traditional graduate and undergraduate programs, we have a large and active extended education program (Outreach and Extension), the Forestry Media Center that develops and distributes an array of innovative audio-visual and electronic media, and the Oregon Forestry Education Program which conducts natural resource education for elementary and secondary teachers. As a result, we have plenty of opportunities to identify and address real-world education problems.

Students considering this program raise many questions about employment opportunities. That's good, but often difficult to address simply. I think the need for natural resource educators is always great, and is currently growing—but employment opportunities don't always follow need. Stepwise career ladders are difficult to find, and geographic constraints also limit choices, so flexibility is important. Students who complete this program have typically found rewarding work, but not always as educators—some have "fallen back" on the natural resources skills they developed in their undergraduate program. Many of those continue to contribute to natural resources education through their work and volunteer activities. Some examples of jobs held by graduates from this program (note the wide array of positions that depend on a wide array of skills and abilities):

- Forest planner for a federal agency
- Education specialist for a large metropolitan zoo
- Educational media specialist for a university (2 students)
- Technology transfer specialist for a university research cooperative
- Peace Corps volunteer (2 students)
- Forest plant specialist for a federal agency inventory program
- Forester for a state agency
- Freelance education specialist
- Tribal forester and education manager
- Education specialist for a federal agency
- Interpretive specialist for a state park agency

I hope this helps you understand a bit more about our program. Don't hesitate to contact me if you have additional questions.

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