



Director's Message

John Calhoun, Director

Money makes the world go around. Or so we are led to believe. In this issue of ONRC Update, you will read about UW ONRC's successful fundraising and recent contracts granted by UW ONRC. In fact, one of the everyday functions of our organization involves securing funding and awarding contracts to expert researchers and educators.

Unfortunately, it is easy to get caught up in the money game, using monetary gains to determine success or failure, to measure progress or delays. Money is a mechanism for making things happen. But it is not the mission, not an end in and of itself.

Discovering information, acquiring knowledge, and transferring it to those that can use it to effect change and, ultimately, to improve our lives—that

is the real function of UW ONRC. Research, education, and service: this three-part mission of the University of Washington is the mission of UW ONRC as well. The special emphasis at UW ONRC is to foster and support the research and education necessary to provide sound scientific information on which to base sustainable forest and marine industries and, at the same time, to sustain the ecological values held dear by much of the public. The money is only the means.

The fact of life is with more money we can do much more: more research, education, and service. Through successful fundraising, we are slowly gaining capacity. I believe we now have a strong professional capability in forestry, information technology, and near shore ecology. We also have a strong administrative staff—the money handlers.

The next logical step for us is to strengthen our research capacity by adding research faculty positions stationed here in Forks. Later this year, we will conduct a comprehensive research program review. One of my concerns is our current research programs are not as focused as they could be. The competitive grant program we now use to fund research tends to result in a diverse rather than thematic array of projects. With full-time research faculty on site, we could gain a continuity of effort, building a much more powerful body of knowledge. This can result in a more effective research and education program.

Research, education and service—and the money. The entire staff at UW ONRC is working hard to build and apply these resources to our mission.

Forest Program Research: Fiscal Year 2004

Jason Cross, Research Coordinator
 UW Olympic Natural Resources Center

UW ONRC receives annual funding in support of Forest Program research; specifically, projects that are consistent with UW ONRC's mission and strategic priorities. These funds originate as a Congressional earmark on the Interior Appropriations Bill and are delivered through the USDA Forest Service's Pacific Northwest Research Station. Representative Norm Dicks' (D-6th) efforts are crucial to securing these funds. UW ONRC is

grateful to the Congressman for his continued support of UW ONRC.

On April 21st, Center Director John Calhoun and I met with a sub-committee of the UW ONRC Policy Advisory Board. Director Calhoun presented to the group the results of our science panel's review of the proposed projects. The science panel evaluates the proposed projects based on scientific merit, overall quality, and technical feasibility. The sub-

committee also considered the written comments submitted by Policy Advisory Board members who could not be present. Written comments were also submitted for consideration on behalf of the Quileute Tribe; UW ONRC has a Memorandum of Understanding with the Quileute Tribe to communicate on such matters.

The following table displays a list of the projects UW ONRC will be funding in Fiscal Year 2004.

TABLE 1: Projects to be Funded by UW ONRC

Project Title	Principal Investigator	Organization	Award Amount
Population Ecology of the Marbled Murrelet on the Olympic Peninsula	John Marzluff, Ph.D. Martin Raphael, Ph.D.	UW College of Forest Resources USDA Forest Service Pacific Northwest Research Station	\$36,036
Influence of Riparian Harvesting on the Chemistry of Headwater Streams	Daniel Vogt, Ph.D.	UW College of Forest Resources	\$19,157
Effect of Salmon-Derived Nutrients on Macroinvertebrate Production and Community Composition in Salmon Spawning Streams	Robert Gara, Ph.D.	UW College of Forest Resources	\$8,053
An Economic Assessment of DNR Timber Values on the Olympic Peninsula: Are We Achieving the Highest Returns Possible?	John Perez-Garcia, Ph.D.	UW College of Forest Resources	\$31,886
Templates for Forest Sustainability on the Olympic Experimental State Forest	Bruce Lippke	UW College of Forest Resources	\$52,073
Relating (Standing) Volume to Forest Floor & Canopy Decadence within the Olympic Experimental State Forest	Chad Oliver, Ph.D.	Yale University	\$31,940

TOTAL AMOUNT TO BE AWARDED

\$179,145

Intern Provides Support for GIS Projects

Teresa Zena Alcock, GIS Specialist
UW Olympic Natural Resources Center

Jimmy Harmon has been a volunteer intern in the Geographic Information Systems (GIS) Lab since November 2003. His primary internship project has been to develop an Eagle Scout proposal for the Washington State Department of Natural Resources Olympic Region. He proposed to build a hiking trail from the base to the summit of Kloochman Rock. He planned the project and wrote a professional proposal. His proposal included details such as logistics

avoid potential path obstacles. From an earlier reconnaissance mission, he found brush (thorny devil's club!) and young spruce and hemlock trees at the base of Kloochman Rock along the first fifty yards. He estimates most of the trail construction work would involve cutting through this brush and regenerating the forest. The construction crew will mainly use hand tools such as shovels, rakes, and axes, but he will ask one or two adults to use chainsaws to cut down the larger trees and woody debris. A volunteer's base camp at the landing of Kloochman Rock will be established so the crew will be able to start work early. The crew will also replace the worn safety ropes at the top of Kloochman Rock with more durable cable. Tags on the front and back of the trees every thirty feet will help hikers easily navigate the trail.



Jimmy Harmon

the lab, Jimmy displays a notable capacity to learn on the job, pays attention to details, and consistently applies himself to projects and tasks assigned to him. This diligence and budding professionalism earned him a paid summer position in the GIS Lab.

We look forward to a summer full of GIS and GPS activities with Jimmy. He led the talks at our Nature Mapping station during the recent Nature Days. He will also be working on other GIS projects, including mapping the historic cemetery in Forks.



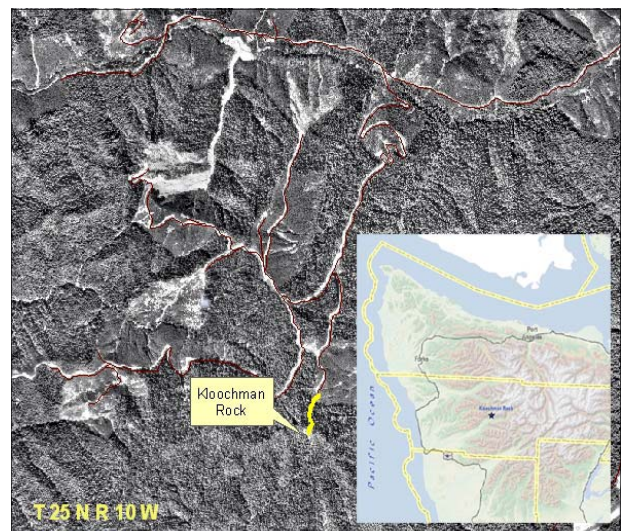
Jimmy Leading Talks on Nature Trail Walk

for transportation and crews, equipment and other resource allocations and their costs, permits, scheduling, and coordination of volunteers. He is doing all this along with using GIS to map his project.

Enlisting the help of volunteers (Boy Scout Troops 1465 and 1467), Jimmy and his core of volunteers will complete the ¼-mile trail in one weekend. He is using Global Positioning System (GPS) coordinates to flag the path of the new trail to

In addition to this project, Jimmy is creating new ONRC Trail web pages, featuring animals hikers might see along the trail. In the coming weeks, look for Jimmy's ONRC TrailWeb link on the UW ONRC website. Jimmy also is our teacher's aid in our GPS classes and helps maintain the computers in the GIS Lab.

Following in the footsteps of prior interns in



Kloochman Rock Trail

Math Institute to be Held this Summer in Forks for Regional Teachers

**Ellen Matheny, Director of Education & Outreach
UW Olympic Natural Resources Center**

The UW College of Forest Resources recently received grant funding from the Washington State Higher Education Coordinating Board to conduct two summer institutes in mathematics education. The initial institute will be held at UW ONRC in Forks the first two weeks of August, with participants staying on campus during instruction.

The grant funding of \$366,137 provides for high-quality instruction delivered by UW faculty for 40 certified teachers in our regional area. The goal of the grant is to bring quality professional development to teachers in the very rural and economically-depressed areas of Washington State. Our outreach will encompass teachers from the following counties: Clallam, Grays Harbor, Jefferson, Lewis, Mason, and Pacific. Teachers are coming from some of the school districts that have been hardest hit by the decline in timber harvesting. Teachers from the following school districts will attend: Adna, Bremerton, Cape Flattery (Clallam Bay and Neah Bay), Elma, Mary M Knight (Shelton), Montesano, North River (Cosmopolis), Oakville, Ocosta (Westport), Pe Ell, Queets-Clearwater, Quillayute Valley (Forks), Raymond, South Bend, and Southside (Shelton). We accepted 41 teachers into the program, adding a space for an additional teacher from Forks.

The instruction will revolve around mathematics instruction throughout the grade levels. To affect change in the way a student approaches mathematical concepts, the changes need to begin in elementary school and progress throughout the student's school years. With this in mind, we recruited teachers from various grade

levels within the same school district.

Our first objective is to build a learning community within each school district, starting with the core teachers participating with us. The school district teams will return home in the fall to share new information with others who are teaching mathematics within their school district and will facilitate further exchange and sharing of information. Our belief is each person has strengths in their mathematics teaching ability; together we will develop a methodology for periodically sharing those strengths with one another.



Regional Teachers Explore Measurement of Volume

The institute will review the essential mathematics concepts for each grade level and help the individual teachers determine areas of strength and weakness within their grades' curriculum content. Modeling the inquiry-based method of instruction, the teachers will refresh their skills in mathematics, giving them a greater comfort level with the material.

Throughout the instruction, the inquiry-approach to learning will be used and explained. Cognitive studies of learning show that new concepts are gained more quickly and

retained longer when they are linked with something the person is already familiar with.

You might be thinking, "As important as a robust understanding of mathematics is to our children, what does math education have to do with UW ONRC's mission?" Good question. The course content will include many applications of mathematics in forestry and fishery science. The participants will take field trips in our surrounding forests and rivers to discover math concepts through the study of nature. For instance, the participants will determine the volume of a tree by applying logic and already learned math skills to a live tree in the nearby forest. We hope, in connecting math concepts to the world around us, the teachers will help math come alive for students, especially for those that see little purpose in understanding its principles.

The institute will be ably led by faculty from UW. Dr. Bob Lee, Professor, UW College of Forest Resources will lead the forestry and fisheries field studies. Dr. Lee is also the Principal Investigator on this grant. Dr. Ginger Warfield, Senior Lecturer, Department of Mathematics, who has a passion for and ability in mathematics education, will lead the mathematics instruction. Dr. Lani Horn, Associate Professor, UW College of Education Math Education, will co-instruct the mathematics work. Two graduate students—one from mathematics and one from cognitive studies within education—will assist in the institute and visit the participants' classrooms during the school year. I will handle the administration of the project and serve as project manager, which began with the recruitment of teachers.