

## Director's Message

*John Calhoun*



UW Olympic Natural Resources Center (ONRC) shares the vision of the UW College of Forest Resources to provide internationally recognized knowledge and leadership for environmental and natural resource issues.

In support of that vision, on October 22, 2002, Dr. Bruce Bare (Dean, UW College of Forest Resources), Rich Hsu (Special Research Advisor, UW ONRC), Bert Paul (Member, UW ONRC Policy Advisory Board) and yours truly traveled to Taichung, Taiwan as a guest of Dr. Shie-Tien Shu (Dean, National Chung Hsing University (NCHU) College of Agriculture and Natural Resources). We signed a Memorandum of Understanding (MOU) between UW College of Forest Resources and NCHU College of

Agriculture and Natural Resources. Dean Bare and I also participated in a seminar with faculty and students.

Our hosts treated us with extreme graciousness, an indication to us of the value they place on international relationships. This world-view of academic issues is one not shared as enthusiastically by most universities in the United States. We often view ourselves as the center of academic excellence in the world. Indeed, a majority of the faculty at NCHU College of Agriculture and Natural Resources earned their doctorate degrees from an American university. Yet, it is clear we have much to learn as well as to share with our colleagues in Taiwan.

In real terms, the MOU

means we will be facilitating exchanges of students and faculty between NCHU and UW ONRC. Plans are underway to receive a group of 20 students and a faculty advisor at UW ONRC next September. We will provide a series of educational programs and community experiences aimed at mutually sharing our experiences.

Taiwan is struggling with similar natural resource issues. Taiwan imports 99% of their wood product consumption and are under attack from neighbors countries for exploiting regional forest resources. The faculty at NCHU wants to explore possible solutions to the same issues we face - finding a balance between ecological and economic values in natural resource management.

Visit our web site  
for more  
information on what  
is happening at UW  
ONRC:

[www.onrc.washington.edu](http://www.onrc.washington.edu)



Coming in February 2003 . . .

### UW ONRC Winter GIS Conference

Information and Geographic Information Systems (GIS) needs are constantly growing on the Olympic Peninsula. To address this, UW ONRC will host the Winter 2003 GIS Conference in Forks WA. The conference will discuss current GIS topics as well as identify and address underserved GIS needs. Particularly important is the need to revisit with the contributors of the "ONRC Clearinghouse for the Olympic Peninsula." Recent and forthcoming improvements to the National Spatial Data Infrastructure (NSDI) will create a new geospatial one-stop data source, essentially turning the NSDI into the "Wal-Mart" of geospatial data. Continuing to distribute quality local information to the NSDI will assist in initiatives such as Homeland Security as well our own regional natural resource issues. On a local level, the conference will bring together the thoughts and needs of all organizations using GIS, including federal and state agencies, tribal and local governments, educators, and local businesses.

## Demonstrating Spartina GIS Model to GIS Consortium

*Teresa Zena Alcock, GIS Specialist*

ONRC GIS Analysts Teresa Alcock and Keven Bennett demonstrated the Spartina GIS model to GIS personnel from southwest Washington (Willapa Bay area) and northwest Oregon on November 6, 2002. Organized by Pacific County GIS Specialist Mark Scott, the bi-annual meeting is convened as a "data potluck," where GIS professionals from around the region can showcase their work and enhance regional communication for data and other information sharing. Representatives from the Nature Conservancy, Ecotrust, the Columbia River Estuary Study Taskforce (CREST), private consultants, and state and local government GIS were introduced to the Spartina GIS model. They were very interested in the potential application of the model to other invasive weed species management in addition to Spartina.

## Landscape Planning for DNR

*Jason Cross, Research Coordinator*

Our research efforts continue to focus on landscape planning for the Department of Natural Resources (DNR) on the Olympic Experimental State Forest. With most of the technical work completed, ONRC produced a set of management alternatives for landscape units at Reade Hill and Goodman Creek. Each alternative offers a unique combination of costs and benefits according to management objectives.

To create an "un-zoned" forest (i.e., any stand is available to achieve any objective), the planning process must define success for each management objective in measurable terms. We can apply these definitions across the landscape and see which stands succeed in achieving which objectives over time. Success must be defined prior to developing silvicultural prescriptions and employing computer simulations like the Landscape Management System (LMS) software. With success and failure defined, LMS allows (and often forces) managers to immediately acknowledge the consequences of their definitions.

ONRC is working diligently with DNR to provide meaningful research results using LMS. Historically, DNR zoned its forests so that stands were assigned to meet specific management objectives. Planning an un-zoned forest requires a fundamental shift in how to approach the process. Rather than one stand managed for a single objective, every stand is to be managed to potentially meet any objective. As the definitions for success and failure change, so too must the silvicultural prescriptions designed to achieve those targets. Thus, a change in definition results in a new matrix of management alternatives. ONRC is currently working with DNR using its an updated set of definitions to create a working model for its landscape planning effort.

## Marine Program News: ORHAB

*Miranda Wecker, Marine Program Manager*

ONRC focus on the Olympic Regional Harmful Algal Bloom (ORHAB) partnership at the recent Policy Advisory Board meeting could not have been timed better. Within weeks of that meeting, ORHAB monitors reported startling increases in the plankton, pseudo-nitzschia pagens, known to cause Domoic Acid (DA) outbreaks. Lab tests showed skyrocketing levels of DA, quickly surpassing the regulatory DA threshold for closing the shellfish harvest. The clam harvest was called off, disappointing tourists and negatively impacting tourism. With unusually favorable ocean conditions, huge numbers of large clams were available for harvest this fall.

Largely due to the ORHAB data on the plankton bloom emerging on the coast, the Washington (WA) Department of Health and the WA Department of Fish & Wildlife were on alert. However, Oregon was far less prepared. Without the forewarning of the plankton bloom, Oregon allowed digging for several days only to discover the DA had exceeded the safe level. The Oregon Department of Health recalled the clams harvested recreationally on its beaches. WA state agencies were grateful for the extensive amount of information on which to base their decision to close the season; after the fact regulation is not a comfortable practice for public health officials.

This summer and fall, ORHAB collected a vast array of environmental and biological data. During this period, DA levels attained unprecedented high levels. Comparing this data with the past two years, where no plankton bloom and DA outbreak occurred, the dynamic process including seasonal patterns emerged. It may be feasible to adjust the timing of the clam season to avoid plankton blooms.

As a result of the ORHAB presentation in August, Senator Jim Hargrove directed staff of the Senate Ways and Means Committee to contact me to explore funding mechanisms to support ORHAB's work after federal funding expires. I provided the legislative staff with background information about ORHAB and its costs.