Growing knowledge, skills and capabilities

While reviewing the draft of this newsletter, I was struck by the story the various articles told about the opportunities the University and our programs have provided for students and how they have taken good advantage of them. The first article describes a faculty-driven search for understanding vital to watershed management, notably at the local level, with significant involvement from her graduate students incorporated.

Next, we take a look into the classroom with a description of what several faculty see as especially important aspects of their instruction and what they are really trying to get across to students. Additionally, an exceptional student describes his route to becoming an urban forestry professional.

In the last piece, we showcase an example of student growth with the first ever Gopher Games. The idea for the games, fundraising, organization, invitations, arrangements at Cloquet, etc., were all developed and executed by the students. Despite the proliferation of electronic communications that can hinder direct socialization, these students have recognized the value of working together for problem solving, networking, and just plain fun. The event showcased the superb facilities of the Cloquet Forestry Center to the participating schools whose students were clearly envious of the setting and facilities.

Finally, it is important to recognize the assets we have, in this case at Cloquet, have not come about by accident. The retirements noted in this issue speak to the staff dedication and many contributions that have made our programs so highly effective. I hope you enjoy this issue as much as I have.

Alan Ek,
Professor & Head, Forest Resources

Sustaining Watershed at the Local Level

When it comes to managing our water resources, landowner decisions continue to have the greatest impact on water quality. Because of this, a new research project in our department is looking at local communities and their capacity for sustainable watershed management. To assess these capacities, Associate Professor Mae Davenport, project lead, designed a multimethods approach involving interviews with stakeholders as well as surveys of landowners in the watershed.

“There is a lot of biophysical and geochemical work around water and how to better protect water resources, but the social science of water resource management is really lagging behind,” Davenport says. “We haven’t done the same sorts of monitoring in watersheds on the social side.”

Professor Davenport secured funding for her proposed project but hadn’t yet identified specific watersheds to study. “Then, I was contacted by two water resource professionals, one from Scott County and one from Dakota County, who saw an article about the project and wanted me to study their watersheds,” she says. As it happened, these two watersheds, the Sand Creek and the Vermillion River, neighbor each other.

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Retirements at the Cloquet Forestry Center

RON SEVERS: In the spring of 1972, Ron Severs had just finished his forestry technician program through the University of Minnesota in Grand Rapids and was looking at three job offers. Of the three, he accepted the offer at the Cloquet Forestry Center to be an Assistant Research Plot Supervisor. “I look back, and that was the smartest move I ever made in my life,” he says. Now, nearly 40 years later and Director of Operations at the Cloquet Forestry Center, Ron Severs will be retiring from the field and the center at which he has made such a dedicated career.

Severs started work at Cloquet on June 5, 1972. “Everything I did that day is still vivid in my mind,” he says. “Probably because it was so enjoyable, and it was so much different than the factory work I had been doing early in my career.” In that first position, he worked with the research projects to establish plots, take field measurements, and conduct maintenance during the summers. In the winter, he was part of the logging crew the Cloquet Forestry Center used to have, an experience that gained him valuable working knowledge of logging operations.

The more exposure Severs had to the various activities happening at the Cloquet Forestry Center, the more he wanted to learn. Soon he decided to go back to school at the University of Minnesota to pursue a degree in forest management. Through saved up vacation time and short leaves of absence, Severs chipped away at the program. He says, “It was basically an eight-year degree, but I got through it.” After earning his bachelor’s degree, Severs became the Forest Manager at Cloquet. His schooling didn’t stop there, though. Severs continued on to receive his master’s degree in Environmental Education at the University of Minnesota, Duluth.

JOHN BLANCHARD: Another retirement happening this January will be that of John Blanchard, Forest Management and Research Plot Technician at the Cloquet Forestry Center for 29 years. During those years, Blanchard has been working on timber sales, setting up and maintaining research plots, fabricating for the different needs of the research projects, managing the forest, and doing vehicle and equipment maintenance.

Blanchard says he has enjoyed the variety that the position has given him over the years. With each new research project at Cloquet came new projects for him, as well as new people. “Each day is something different,” he says. “It’s been exciting getting to know the different grad students and faculty over the years, so many different people from all over the world.” He also notes that spending time outside and in the woods was a favorite perk of the job and that each new area of the forest offered something new and unique.

His work has also been part of the forest management plan written for Cloquet. The plan includes keeping a diversity of species and age classes that were present at the turn of the century. “When students come here they can see all those different age classes and species, and they apply their classroom knowledge in the field,” says Blanchard.

After retiring, Blanchard is going to catch up on his hobbies, like fishing, and work on some of the projects that have been waiting in the queue, like woodworking. He says he will definitely miss the staff at Cloquet, though. “We’ve all been here for so long. You get to really know the people.”

Looking back, Blanchard says, “It’s been a really great experience working with the University. It’s been the best job I’ve ever had. If I had to do it all over again, I would definitely want to do it here again. I’ve done a lot of cool things in my life, but this was by far the best.”
The project began with in-depth interviews with stakeholders and decision makers in the watersheds to understand what unique opportunities and constraints were occurring in their management efforts. “We knew we wanted to understand broader water resource management challenges at the community level. We also wanted to explore landowner conservation behaviors and what drives or constrains those behaviors. As for what specific behaviors we targeted, we thought it would be important for the local managers to decide,” comments Davenport. “They are the ones with the on the ground expertise.”

The next step was formulating the landowner survey, and this task was led by Amit Pradhananga, Research Assistant and Ph.D. student. “The survey sought to understand landowner perspectives about how they value water resources in their area and their perspective on the environment in general,” explains Pradhananga. Again, the water resource professionals and stakeholders in the two watersheds had a large part in shaping the survey through input and feedback.

In each watershed, 1,000 surveys were sent to landowners within 300 feet of a stream or ditch. So far, responses are in from the Sand Creek watershed with a successful response rate of 46%, and initial analysis has been done. These first looks at the data are already pointing to some information that could help form future management decisions in the watershed. Davenport says, “We are learning that residents value the natural environment, but they also have a strong sense of community values.” She says this reflects theories of behavior change that point to opportunities to influence behavior not just in cost sharing or economic incentives but also based on these community values and the idea of being a good steward of the land. “We are encouraged that individually people do feel responsible for water quality.”

Concurring, Pradhananga adds, “Also, an important finding was that people need to feel that they do have the ability to make a difference.” This is where education about the methods and benefits of various conservation practices could be a positive influence on behaviors, especially at the local level. The natural resource managers in both Scott and Dakota County are waiting for the final results of this study, anticipating findings that will help guide their future management, education, and outreach strategies.

Professor Davenport has been in conversations to expand the study to additional watersheds, but in the end she hopes to be able to develop methods and tools for communities to self-assess their own watersheds. “We’ve got some tools and approaches refined, so I think as we continue to develop, test, and refine this methodology in a few more watersheds we will be able to develop a handbook on community assessment that decision makers, nonprofits, or local government organizations could use to learn more about the people in their watershed and how they interact with water resources.”

In the Classroom

Our department includes a wide range of students, faculty, coursework, and areas of study. In this piece, we include perspectives from three of our faculty about what they teach in their courses and how they hope to see students apply those lessons past graduation. You’ll see some of the variety that our students are exposed to as well as some key skills our professors are working to impart.

**Professor Mike Kilgore teaches "Economics and Natural Resources Management."** “The course is taught for people who want to be an environmental scientist or a natural resource manager so they can become familiar with tools and techniques for analyzing problems using economic decision criteria. We try to teach the concepts that they can apply, whether they are a forest manager or a wildlife ecologist, a fisheries biologist, an urban forester, a parks manager, so that economics is given consideration just like all the other attributes and aspects of a natural resource system.

Even if you want to manage a resource solely for its ecological values, there are costs associated with doing that, and not just dollars and cents, but real costs in terms of what else you could be doing with those resources or what other management options you could be applying. Economics is not limited to those aspects traded in the marketplace but also nonmarket goods and services and the things that a lot of people value dearly, like biodiversity and aesthetics. We can try to attach some value to these which would then allow managers to make judgments about the relative tradeoffs when you manage for a certain set of values versus managing for a different set of values. Economics should be used as one of many different criteria in making decisions to better understand the potential tradeoffs. Those tradeoffs can be expressed ecologically, physically, economically, etc., and I’d like to see economic criteria discussed along with other criteria in natural resource decision making.”

**Associate Professor Dennis Becker teaches "Environmental Sciences: Integrated Problem Solving," "Natural Resource and Environmental Policy," and "Analysis of Environmental and Natural Resource Policy."** “Fundamentally, what I’m trying to instill is the ability to understand the totality of the issue, to understand all the various pieces of the issue, how they integrate, and how we use science, research, and information to help solve those problems. They could be ecological in
Student Spotlight: Eric North

A large number of our returning students have interesting back stories, and that is certainly the case with Eric North. After various college experiences and a successful career in IT, Eric is preparing to graduate this spring from our Forest Resources program, specializing in Urban and Community Forestry.

Eric’s first degree came from Dunwoody College of Technology in Computer Science. Immediately after graduating, he began work for the Geek Squad which, at that point, was just a small company off Washington Avenue. He moved on to a few other computer company firms before accepting a position at Minnesota Public Radio as their network administrator. After two years there, he was started looking for a new direction. “I was getting bored with IT and decided I either had to go do more education in IT to spur my imagination again, or I had to pick something else,” he says. “I decided to pick something else.”

That something else turned out to be natural resources. Eric always had an interest in the outdoors, but he began thinking about it as a career after two trips abroad, one to Kenya and one to Costa Rica, exposed him to professionals working in natural resources and the various projects they were involved with. “After these traveling experiences of seeing other cultures and customs, meeting other people, and accidentally talking to them about natural resources, it led me to think that was a really interesting area,” he says.

After exploring environmental programs at various schools, Eric landed on the University’s urban forestry program. “We saw urban forestry at the U, which I hadn’t really ever considered or thought of before,” Eric says. “It seemed like a good way to incorporate my interest in the natural system into a usable skill set.” He also notes the University and the program’s reputation and the “force of a name behind it.”

Since starting in the program in 2009, Eric has done nothing but excel in his coursework and explore as many different work options as he can. “I’ve tried to take as many different types of positions as I can to get more experience and to see what it’s like at different levels of government,” he says.

After graduating, Eric hopes to continue his education with a graduate program in natural resource science and management with a focus on how urban communities and governments work to be able to have an effect on urban planning in regards to natural resources.

All that together encapsulates a critical view. We make management decisions today, but they have implications 5, 10, or 50 years down the road, so it’s understanding how our decisions today set us on certain pathways that in some cases predetermine what options are available to us in the future.”

Assistant Professor Tony D’Amato teaches “Ecology of Managed Systems,” “Managing Forest Ecosystems,” and the Cloquet field session’s “Field Silviculture.” “I teach silviculture, which is essentially applied forest ecology, and is a field that has been around for centuries. A lot of what we use as tools and skills have been developed many years ago for objectives related, at least historically, very narrowly to procurement of wood and fiber. What I try to teach students is that even though these tools have been around for a long time, it’s the creativity and art of silviculture that really involves taking those tools and applying them to new and changing objectives. What I hope is not just to say, “Here is a cookbook; this is how I apply these tools,” but really how do I become a creative resource manager that can take those tools and adapt them to whatever the new objective might be, whether it’s climate change adaptation, maximizing the abundance of a certain amphibian, or maximizing economic returns. I try to get students to understand the basic principles of silviculture and how to apply those principles but more importantly how to be creative and use them as a toolbox to address diverse questions.

You are a time capsule of your education when you leave here, which might work for the next ten years, but new issues and new objectives are going to arise over your career. I want students to have the tools that are fundamentals of the discipline of silviculture, but it is more important to have the creativity to apply them to diverse ecosystems and situations.”
Students Host the First Gopher Games

The University’s forestry students are expanding their activities. Not only have they introduced a new Timbersports Club for students to participate in, but this year, on October 1st, they held the first Gopher Games at the Cloquet Forestry Center. The games brought together six schools from across the Midwest to compete in various timber games.

Timber sports events are held throughout the year in the Midwest, but this was the first year the University of Minnesota had hosted games of this kind. Club members decided this was the year to host it and began planning many months in advance.

Shanelle Dube, a senior in Forest Resources, led the effort to organize these games, though she is quick to mention the others who helped; from designing t-shirts to managing the budget, she says it was a collaboration of many that made it happen.

For a first time event, Gopher Games was a success. The six participating schools all enjoyed visiting Cloquet and seeing the world-class facilities our students have access to, and the two community colleges at the event, Itasca and Vermillion, enjoyed meeting students from programs they may be interested in transferring to.

Professor Tom Burk, who attended and helped during the games, says, “Gopher Games showcased the Cloquet Forestry Center and our involved student body. This is what students from other schools will picture when they think of University of Minnesota forestry.”

In the future, University of Minnesota students are hoping to rotate the fall timber sports event between midwestern schools to help keep these traditions alive. “I really hope people continue to do Gopher Games,” says Shanelle. “I’m hoping they will continue to build off it and find things they could do better, improving it every year.”
PLANTING YOUR LEGACY AT THE U

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• Charitable gift annuities and trusts, which provide income to you for life

To receive further information on the ways of giving above, or if you’ve already included us in your estate plans, contact our University of Minnesota Foundation planned giving representative, Lynn Praska, at 612-624-4158 or lpraska@umn.edu.