Science & UNIVERSITY OF WISCONSIN-LA CROSSE COLLEGE OF SCIENCE AND HEALTH NEWSLETTER VOLUME 8, NUMBER 2



SUMMER 2013

History

EXERCISE AND SPORT SCIENCE CELEBRATING CENTENNIAL

Since 1913, the department now named Exercise and Sport Science (ESS) has offered professional education programs related to health, physical education and sport. Now is the time to celebrate that history.

In 1913, the mission was to educate teachers by first offering a certificate, then a degree in physical education. With the graduating of qualified physical educators, the number of students in the department continued to increase. In the 1970s the number of students in the UW-L Department of Physical Education reached its peak of approximately 1,500 undergraduates.

Program development in the 1970s and 1980s included adding cardiac rehabilitation, athletic training, sport management and exercise science. The programs have reached a level of national and in some cases international recognition.

in this issue



${\it 8}$ A golden, gridiron memory

Football player and former faculty member Bob Batchelder, '51, returned to the Florida site of the 1951 Cigar Bowl for a walk down memory lane.



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Science & NEWS Health NEWS

UNIVERSITY OF WISCONSIN-LA CROSSE COLLEGE OF SCIENCE AND HEALTH NEWSLETTER Summer 2013 Vol. 8, No. 2

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CLASS NOTES POLICY

Update your address and provide a class note for the Lantern at www.uwlalumni.org.

from the editor

Exercising a right to celebrate

Get ready for the Exercise and Sport Science Department centennial! Some of you will know the department by its previous name, the Physical Education (PE) Department. The cover of this issue honors the centennial and the feature article describes related activities.

I joined the department in 1968 and within two or three months it became obvious to me that UW-L physical education department students, staff and faculty were something special. The dedication of the faculty and staff was incredible. Equally amazing was the very high quality of graduating students.

From a curricular viewpoint there was always a commitment to blend the important history of physical education at La Crosse, with both current and innovative concepts accepted in the profession. Being on the cutting edge of preparing students was and always will be a priority. This commitment has continued — and will continue in the future.

Only a year or so after my arrival on campus I realized I wanted to spend my entire career at UW-L. I was very fortunate to do just that, and served from 1968 to 1998.

It's a great department, great college, great university and a great place to live!

Enjoy the issue.

Phil Wilson, Professor Emeritus Exercise and Sports Science Department

Editor, *College of Science and Health News*



Five building projects at UW-L approved

Four of the projects to be funded by student, user and program fees

The State Building Commission has approved five building projects at the University of Wisconsin-La Crosse for the 2013-15 biennium.

On March 21, the commission approved \$155.8 million in projects. They include \$82 million for a new science lab building, funded by state tax dollars, and \$8.4 million for a chilled water plant on the west side of campus, funded half by state tax dollars and half by program revenue. Three other projects would be funded by student and user fees, and campus program revenue: \$53.3 million for a new student center, \$7.6 million for an additional two levels to the parking ramp being constructed, and \$4.5 million for a gymnastics and storage facility.

"We're very excited about these five building projects that are very much needed on our campus," says Chancellor Joe Gow. "It's important to note that program revenue and students are funding nearly \$70 million of these projects, while our much-needed new science education facility and part of the water plant are being generously funded through state bonding funds."

Projects must be approved by the state legislature.

Science Labs Building

A new science facility will address lack of space and severely deteriorating infrastructure in the existing physical and life sciences facility. Following new building completion, a second phase would replace or remodel the existing Cowley Hall.

Project cost: \$82 million (Total state funding) Location: Current parking lot north of Cowley Hall Start construction: March 2015 Construction completed: Fall 2017

The Professor with

Two Hearts



Preliminary drawings of new UW-L Science Labs Building.

Volk video

Biology Professor Tom Volk was featured in a video shown to the UW Board of Regents when they held a meeting on campus in April. Volk is known as the "Professor with Two Hearts." See the video at:

www.youtube.com/watch?feature=player_embedded&v=uONRTsReox8#!

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The department employs 15 ranked faculty members, 12 instructional academic staff and one non-instructional academic staff member. Four undergraduate programs are available: athletic training, exercise science, physical education and sport management; along with three graduate programs: clinical exercise physiology, human performance and physical education.

Faculty are continually updating course work and developing pedagogical innovations. New teaching materials are developed annually for general education and professional courses.

Directed student learning is a continual and vital component of the department with involvement in both undergraduate and graduate research projects. There were approximately 35 graduate thesis and nearly 20 undergraduate research projects completed in 2011-2012. These projects resulted in 20 scholarly reports with another 15 currently under review. Department faculty members also serve on the editorial boards of four journals. Internal and external grants are proposed and funded. Continuation grants were also awarded for approximately \$150,000.

The departmental faculty members are active in state, regional, and national organizations. Committees, task forces and work groups of various national associations benefit from the expertise of faculty and staff in the department.

 by Mark Gibson, Chair, Exercise and Sport Science Department



Celebrating the Exercise and Sport Science Department's centennial in 2013-14

The Centennial Celebration will be a series of activities throughout the academic year, including as follows (tentative):

- **AUG. 28** A kick-off social hosted by the departmental faculty.
- **OCT. 5** Alumni Weekend, Wittich Hall tours.
- **NOV. 7-9** Physical Education Program with L-Bar X dance presentations.
- **DEC. 11** Adult Fitness/Cardiac Rehabilitation and Adapted Physical Education highlights, and holiday social. Speakers Phil Wilson, John Porcari, Lane Goodwin and Pat DiRocco will highlight these programs and the years 1955-75.
- **FEB. 7** Athletic Training, Sport Management and Fitness.
- **APRIL 25** Future of the Exercise and Sport Science Department. Mark Gibson will highlight the period of 1995 to now, and the future.

SEE SERIES UPDATES AT WWW.UWLAX.EDU/SAH/ESS

100 percent pass rate

Athletic training students consistently earn high scores

All 14 seniors in UW-L's athletic training program passed the Board of Certification Exam in April to be eligible to become future athletic trainers.

This is the fourth straight year that the program has had a 100 percent first-time pass rate — placing it consistently above the national pass rate. During this same time period, the national first-time pass rate for the exam was 75 percent.

"This outcome is a direct measure of the quality of the academic preparation that students receive at UW-L," says Mark Gibson, director, Athletic Training Program and chair, Department of Exercise and Sport Science. "We are thankful that our students have excellent instruction outside of our athletic training courses as well as within. The university provides an optimal learning environment for the students we select."

UW-L's athletic training program was the first accredited athletic training program in the state of Wisconsin, and offers one of the most competitive, in-depth and hands-on athletic training programs in the country.





1909 La Crosse Normal School opened under the leadership of Fassett Cotton, who advocated the school's motto Men's Corpseque, Latin for "Mind and Body," which served as the basis for the university's legacy in physical education. Cotton introduced a series of one, two and three-year courses in physical education in 1912.



A dance class practices in Graff Main Hall gymnasium in 1913.

1913 School of Physical Education begins with director Carl Sputh. The gymnasium was originally located in the Indian Room in the basement of now named Graff Main Hall. The Physical Education Club was formed, making it the longest continuous student organization on campus.

SEE MORE HISTORY AT WWW.UWLAX.EDU/SAH/ESS

1917 Walter Wittich, synonymous with UW-L physical education, assumed directorship of the school. Along with



changing the PE curriculum during his 37-year campus career, he also established the PE minor. In addition, Wittich established the groundwork for graduate studies and a recreation minor.

CONTINUED ON NEXT PAGE >>

timeline CONTINUED FROM PREVIOUS PAGE



1917 Construction began on a physical education building, later named Wittich Hall. Wittich expanded the one-year, twoyear and three-year PE programs. Hans

> Reuter arrived. During his 36-year career, he became known as "Mr. Perfection," holding demonstrations in physical education classes activities well into his 70s.



1920 Wittich Hall was completed after several shut downs of construction due to World War I and the subsequent economic recovery. For several years previous to opening, Wittich Hall was roofless.

1921 Emma Lou

Wilder arrived. During the next 35 years, she developed the women's PE

curriculum and the recreation major. She also was the placement director and adviser for PE women.

1926 Bachelor of Science Degree with a major in physical education offered.

1931 Addition of a women's section to Wittich Hall allowed expanding the program. There were 10 faculty members.

1937 Long time faculty member Emma Lou Wilder became Assistant Director for the Women's Physical Education Department.

1952 Health education minor offered.

1953 Leon Miller became Interim Director of the School of Physical Education.

1954 Glen Smith became Director of Health, Physical Education and Recreation.

1956 First master's degree was awarded: Master's of Science in Physical Education-General.



1965 Mitchell Hall opens with a three basketball court gymnasium, field house and natatorium.

1970

Glen Smith became Dean of the College of Health, Physical



Smith

1970 Human Performance Laboratory opened in the basement of Mitchell Hall. With the building's addition two years later, it was relocated to the present day location.

1973 Jean Foss became chair of the Women's **Physical Education** Department.

La Crosse Adult **Fitness and Cardiac** Rehabilitation program began.



1975 Men's and women's physical education departments combined to form one department.

Kaulma

Wayne Kaufman became chair of the department.



1978 Enrollment in the Department of Physical Education peaked with nearly 1,500 majors.

1980 Athletic training minor became accredited.

> Adult Fitness and Cardiac Rehabilitation Master's Degree offered.

1983 Keith French became chair of the department.



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1985 Athletic training program became an emphasis in the department.

1986 Physical education program with additional focus on non-teaching emphases in fitness and sport management.







1988 Physical Education Department celebrated its 75th anniversary during the homecoming weekend.

1989

UW Board of Regents named Physical Education Department as a Center of Excellence.

1991 Sandra Price became department chair.

1994 College of

HPER expanded

to include all teacher education programs on campus and became the College of Health, Physical Education, Recreation and Teacher Education (HPERTE).

1995 Physical Education Department changed its name to the Department of Exercise and Sport Science.

1998

Jeffrey Steffen named interim department chair when Sandy Price is named interim dean of HPERTE.

2003 Athletic Training Program became a major in the department.

> Patrick DiRocco became department chair.



2



2004 College of HPERTE changed name to College of Education, Exercise Science, Health and Recreation (EESHR).



2005 Adult Fitness/Cardiac Rehabilitation graduate program name changed to Clinical Exercise Physiology.

> College of EESHR is eliminated and the department joins the College of Science and Allied Health. Within a few months the college name was changed to the College of Science and Health.

2012 Mark Gibson became department chair.

2013



Department celebrates 100 years as an exercise and sport science leader.

SEE MORE HISTORY AT WWW.UWLAX.EDU/SAH/ESS

A Golden, Gridiron memory Alum returns to field where bowl game was won in 1951

21 29 28 23 20 24 25 33 40 46 51

1950-51 La Crosse Teachers College football team and winners of the Cigar Bowl pose for a photo.

The Cigar Bowl was a college football game held at Phillips Field in Tampa, Fla., from 1947 to 1954.

When Bob Batchelder returned to the grassy field in Florida where the team won the Cigar Bowl game in January 1951, long gone were the bleachers, bands, yard lines and cheering fans.

In its place was a Tampa city park. But the recreation space wasn't a disappointment; it's what Batchelder, '51, expected after more than 60 years. What won't change, he said, is that moment the team savored that January day, and the life lessons they learned over four years of UW-L football.

"A lot of educational value comes through competition in sports like giving of yourself to a group of people and something bigger than you," he says.

It was a great accomplishment for the team to make it to the Cigar Bowl, a game inspired by the local cigar industry and sponsored by Shriners. Four hundred Wisconsin fans traveled to Florida to watch La Crosse Teachers College play Valparaiso University. And when La Crosse won, 47-14, Wisconsin legislators signed a resolution



congratulating the team on their undefeated 9-0 record during the 1950 season, which brought a national spotlight to intercollegiate competition in Wisconsin.

A party at the La Crosse Municipal Airport, which reached 6,000 greeted the victorious team. Several thousand more gathered as they escorted the team downtown in convertibles, according to La Crosse Tribune archives.

The team made school and city history that year, but it wasn't because of any one individual, says Batchelder.

"The dedication of the people playing was evident and we had played together for four years," he says.

Batchelder credits coaches, Clark Van Galder and Bill Vickroy for starting UW-L's football tradition.

"The coaches were in the game because they enjoyed working with young people and highly skilled athletes," notes Batchelder.

Batchelder discovered for himself how satisfying work with young people can be when he returned to campus to teach in the Physical Education Department from 1956 to 1988 and coach. He was department chair for men's PE from 1970-75. Batchelder was an assistant coach for Eagles football, coached golf and started UW-L's wresting program in 1959.

Batchelder decided to coach because he knew it was time to give back.

"When you participate, you take from. Then, there comes a time you are asked to give," he explains. "And that's the time you really enjoy."

Batchelder keeps enjoying it. Every third Friday of the month a group of former students he taught or coached get together at a restaurant in The Villages, Fla. Other former students and athletes call him to reminisce.

"I've been surprised by the number of young people I coached or taught who just call and say hello to an old coach," he says. "It makes you feel good that you gave back."

Photos courtesy of UW-L Murphy Library.



Bob Batchelder pictured, No. 21, as a freshman football player.

The La Crosse Tribune Teachers College Souvenir Cigar Bowl Send Off Edition featured student athletes competing in the Cigar Bowl. They describe Bob Batchelder, offensive guard: "Batchelder was probably the hardest hitting individual on the La Crosse squad. Bob is the down-field blocking 'demon' of the Indians. More than once this 185-pound senior laid the key block for goal-bound ball carriers."

La Crosse's cheering section at the Cigar Bowl in Tampa, Fla., totaled more than 400 local and Wisconsin fans. The Marching Chiefs are pictured in front.

ROSSE

BIOLOGY DEPARTMENT RECEIVES TOP UW SYSTEM HONOR

UW-L's Biology Department received the 2013 UW System Regents Teaching Excellence Award for academic departments and programs. The prestigious award goes to one program in the UW-System each year. Recipients are selected for their strong commitment to teaching and learning, use of effective teaching strategies to enhance student learning and significant impact on students' intellectual development. The committee was also impressed with the UW-L Biology Department's success with underrepresented students.

Representatives from UW-L's Biology Department received the award Friday, June 7, at the Board of Regents meeting in Milwaukee. Recipients receive a \$5,000 stipend to be used for professional development or program purposes.

"It's a privilege to recognize these deserving educators who are dedicated to preparing their students not only for success in the classroom and laboratory, but also for success in meeting the challenges of the world beyond their college campuses. They each set an exceptional example," said UW System President Kevin P. Reilly.

Additional winners of UW System award for 2013 include:

Christopher Coe, Professor, Psychology, UW-Madison (individual category)

Peggy James, Professor, Politics, Philosophy and Law, UW-Parkside (individual category)

"To this day, I continue to look up to their example, both as individual professors and as an exceptional department as a whole. The cohesiveness, success, and intellect of the Biology Department motivated me to pursue a career in a similar environment where students are encouraged and challenged to do their best."

 Lindsy Boateng a graduate of UW-L's biology undergraduate and graduate program who is now earning her doctoral degree at UW-Madison.



Biology students document the growth of tree seedlings as part of a forest restoration project.



Biology Professor Scott Cooper, left, reviews data on a ground squirrel study with UW-L student researchers.



Students process fish as part of a River Studies Center project that explores the effects of contaminants in national parks of the Great Lakes region.

What you should know about the Biology Department

Biology is UW-L's most popular major

UW-L has 1,100 biology majors — more than 10 percent of the university's student population. It also mentors 40-60 masters of biology graduate students. Why is the field so popular? Acting Chair Mike Abler says biology students have opportunities to conduct research alongside talented faculty, collaborate with state and federal agencies on environmental projects, and can pursue graduate school and careers in high-demand fields such as health care.

Faculty expertise is diverse

Walk through the biology department and you'll hear about studies on blood clotting, plant pathogens, invasive species, snails, mycology, marine biology and much more. The areas of study are diverse and the faculty expertise is extensive. This gives students the opportunity to dig into and explore the aspects of biology they enjoy most through both courses and scientific research. More than 300 undergraduate research students have conducted biology research over the past five years that have led to 100 regional and national presentations. In addition, graduate students gave more than 90 presentations.

Staff are student focused

Whether teaching, assessing student learning, designing course materials or advising, UW-L's

35 Biology Department faculty are committed to student success and have a student-centered approach. Biology faculty advise all students in the major.

Anna Hatch, '09, an alumnus of the biology program and graduate student at Dartmouth Medical School, said in her graduate interview she was asked to define the best feature of her college education. She unabashedly responded the faculty.

"From my own observations, I believe the department defines success by getting students where they want to be — whether it is graduate school, professional school such as medicine and physical therapy or another career choice."

Grant success

The department has been successful in obtaining external funding to support research with students, including 53 different external research grants or contracts totaling more than \$7.5 million in the last five years.

Outreach to minority and underrepresented groups

The department has demonstrated a commitment to increasing the involvement of traditionally underrepresented students through their leadership roles in several externally funded programs. Biology faculty members

Roger Haro and Rob Tyser were the principle investigators on an \$865,000 McNair Scholars grant that helps launch research careers for 30 minority students and first-generation college students annually. Biology faculty led the development of many other grants and programs, which help underrepresented students. Among them: a three-year National Science Foundation Research Experiences for Undergraduates Site Program grant, local Wisconsin Alliance for Minority Participation (WiscAMP) grants, and the NSF funded First Year Research Exposure (FYRE) program.

Collaboration is strong

Faculty from different biology fields collaborate to plan, design, implement and assess courses. An example of such collaboration is Organismal Biology, a team-taught course where one faculty member's expertise may be in animal biology and the other faculty member's expertise may be plant biology. Also, the department has formed collaborations with state and federal agencies in environmental science, such as the Upper Midwest Environmental Sciences Center (USGS). Interactions allow the department to offer a broad array of research opportunities, internships and other experiences for undergraduate and graduate students that may not be available otherwise.



The story of what radiation therapy students learned from their classmate with cancer

The Radiation Therapy program at UW-L has a strong tradition of excellence by training radiation therapists to be patient centered in their daily practice. As program director and an instructor, I am passionate about our students entering the workforce as patient centered healthcare providers.

It is difficult to expose them to these types of experiences during the first year of their professional program, as they are not part of the clinical environment until their second year. In the first year, we discuss at length through patient care, pathophysiology, and professional issues courses. The most important part of what we do as radiation therapists is to be centered on the patient.

I am a firm believer that "no one cares what you know, until they know that you care." They study and bury themselves in their books to prepare to become this patient-centered provider. However, I often wonder as they begin their clinical experience, if they truly have the skills to be patient centered.

Talking about it is one thing, but experiencing it is another thing. As I began to plan for the current academic year and a new cohort of students, I started looking for ways for them to be part of service learning. It was my hope for them to gain valuable patient centered care experience prior to entering the clinical setting. My idea of engaging them in service learning took an unexpected change of course with some news that I received two weeks prior to the academic year commencing.

One my students, set to begin her first year in the program, Kim, a survivor of Ewing's sarcoma, found out that her primary tumor had recurred in her lung. This would be the third time this disease would require her time and attention.

Kim, now a senior at UW-L, has been surviving this disease since her initial diagnosis the summer prior to starting her freshman year of college. The first year of treatment required surgery, chemotherapy, and radiation therapy to the lung. Kim completed a year of education during that time. Finally, Kim was able to come to UW-L and she completed almost a full academic year. In the spring of that year, her sarcoma reared its ugly head in her wrist. Kim endured another year of surgery, chemotherapy and radiation.

After another year of completing not only courses of treatment, but also academic courses, she was back at UW-L and



KIM GRAHAM

an applicant to our program. She was admitted with ease out of a very competitive pool of applicants. I recall thinking that this was an extremely focused, motivated, and resilient young woman.

Upon hearing the news of her recurrence and hearing the fear in her voice, I immediately advised her to defer her admission to the next year and take the year to get additional treatment. Her response surprised me. She said that her goal before her first two courses of treatment was to be a radiation therapist, and now that she was admitted to the program, she did not want to wait any longer to begin reaching her goal.

Kim found out what limited treatment options she had, made arrangements to receive them while she was at school, and began the program with amazing strength and focus.

What happened in the weeks to follow was so impressive to me. The students not only made sure that Kim had her notes from the missed classes, but they would have study sessions with her. They would go to her house and essentially teach her what they had learned in class. This greatly helped her, but also allowed them greater mastery of their own learning as they were teaching it to her.



Kim Graham, right, comforts a cancer patient at Gundersen Lutheran with a warm blanket. Photo courtesy of John Kerrigan, Gundersen Lutheran publications.



UW-La Crosse Chancellor Joe Gow raises the hand of Kim Graham after awarding her an honorary diploma as her parents Dawn and Gary Graham look on. Photo courtesty of the La Crosse Tribune.

Her treatment, a clinical trial was to be received an hour away from UW-L at the Mayo Clinic in Rochester, Minn., requiring her to miss class once per week.

As I conducted orientation to this new group of students, I explained Kim's situation to her classmates and asked that they be willing to help her with missing notes or any questions that she might have as a result of missing class. They all nodded in agreement and so began the busy pace of the fall semester.

What happened in the weeks to follow was so impressive to me. The students not only made sure that Kim had her notes from the missed classes, but they would have study sessions with her. They would go to her house and essentially teach her what they had learned in class.

This greatly helped her, but also allowed them greater mastery of their own learning as they were teaching it to her. Additionally, they would bring her food after her long days of treatment, plan movie nights to go and hang out with her and keep her company. What I thought was going to be making sure notes were taken for her turned out to be so much more.

Three months into the fall semester, Kim had more scans which showed that her tumor had grown despite the clinical trial. This was devastating news to everyone, yet, I was surprised how calm she was when she shared the news with me.

Her focus was still fixed on what she needed to do next to get better. Thankfully, she had surgery and the tumor from her lung was removed the following week. Kim missed about two weeks of class and returned very weak and in a lot pain. Again these students rallied around her by picking her up for class, carrying her backpack, bringing her meals, and keeping her company since she was pretty much restricted to her place of residence. When attending classes, her colleagues would wear masks, use hand sanitizer, and clean their desks and chairs before she arrived to help ward off any threats to her weakened immune system. Slowly she regained her strength and went on to successfully finish her first semester of actually being in the Radiation Therapy Program.

At the end of the semester Kim was able to impact additional lives as she and some of the students in the Radiation Therapy club shared fleece blankets they had made for the cancer patients at Gundersen Lutheran Hospital. She was able to talk with the patients and shared that she understood what they were going through, as she had been a cancer patient as well.

It was very moving and inspirational to see her provide empathy and support to these patients. We have been inspired by her will to live.

In May, Kim received bad news: the cancer remained and doctors diagnosed it terminal. Since she won't be able to finish classes, UW-L awarded her an extraordinary degree. She will head to the Milwaukee Children's Hospital for more treatments.

Kim provided to the students in her class and me, a curriculum of service, understanding, and empathy. The impact that her journey of survival has made on all of us is something is exceptional and could have never been captured without her presence.

 by Melissa Weege, Radiation Therapy Program Director, Clinical Assistant Professor, Health Programs.



See a TV report on Graham receiving an extraordinary degree at: www.news8000.com/news/uwl-student-battling-cancer-receives-extraordinary-degree/-/326/20214142/-/5rd03fz/-/index.html

Tasty news for mushroom fans

Professors, former student discover three new species of edible mushrooms



Matthew Foltz, '11, did research leading to the discovery of three new mushroom species while earning a graduate degree in biology from UW-L. He is currently working in the Herbarium at the University of Michigan.



Cantharellus phasmatis (phasmatis means ghostly) is named for its ghostly white colored stem.

Mushroom connoisseurs' mouths should be watering.

A UW-La Crosse biology professor and his former student have discovered three new species of edible mushrooms in Hixon Forest in La Crosse.

"A lot of people have been searching the tropical rainforest for new species. While there are a lot of new species there, a lot of new species are here too," says Biology Professor Tom Volk.

Matthew Foltz, a 2011 graduate of UW-L's Biology Graduate School Program, Volk, and Assistant Biology Professor Kathryn Perez, co-authored a paper documenting the discovery. The news was published in the March-April 2013 edition of Mycologia, one of the top mycology journals in America. The article describes the three new species of mushrooms previously all masquerading under the blanket classification of Chanterelle or Cantharellus cibarius.

All three are large, orange-yellow edible mushrooms, which grow in association with hardwood trees, particularly oaks.

"I never thought going into this program I would walk away with three new species attached to my name," admits Foltz, who took his first mycology class from Volk in 2008. "To come this far in that amount of time, I feel like I had a great opportunity. I thank Tom for that opportunity." Volk says the discovery of a new species within a class of mushrooms folks have foraged for years is symbolic of the little work that has been done in North America to distinguish mushroom species.

"If new discoveries are being made with these large, conspicuous, edible mushrooms — you can only imagine what is happening with the more obscure species," explains Volk. "To have these three new species growing within such a small area is pretty remarkable."

Scientists are uncovering new species of plants and animals at higher rates across North America as methods to extract and sequence DNA have gotten significantly faster and less expensive in the last 20 years, says Perez. Other examples of mushroom species recently differentiated from a parent grouping include honey mushrooms, split into nine species in North America; chicken of the woods or sulfur shelf, five species; and morels, 19 species.

Cantharellus flavus (flavus means yellow) is named for its overall yellow color. Volk says this is a sign that many more mushroom discoveries are yet to be made. About 75,000 species of fungi have been described, and experts estimate nearly 1.5 million exist.

Volk and Foltz found the three species within 20 meters of one another in Hixon Forest in La Crosse. They first noticed striking physical differences among the chanterelles — primarily in coloring. Foltz continued to research these apparent differences as his graduate thesis project at UW-L. With help from Perez, Foltz extracted regions of DNA from the mushroom and compared it to closely related chanterelle mushrooms to compare similarities and differences at the molecular level.

"I was training Matt in techniques I use every day in my own work identifying different species of snails," explains Perez. "I think it is really cool that we've found new species in our own backyard where people walk every day."

The DNA sequencing and analysis gave the researchers the confidence to split the color variants into different species, Volk explained. Volk and Foltz named the new species based on their appearance. Cantharellus phasmatis (phasmatis means ghostly) is named for its ghostly white colored stem. Cantharellus flavus (flavus means yellow) is named for its overall yellow color. Cantharellus spectaculus (spectaculus means spectacular) is simply spectacular because the contrast of its orange and salmon/purple coloring," says Volk.

Documenting the new species, their locations, and physical differences including taste, will be of interest to the culinary industry, says Volk. It also has benefits for the scientific community because documenting biodiversity is a critical part of ecology and the long-term sustainability of a species. Like any good study, it also generates more questions such as where else in North America or the world these species will be identified, notes Volk. This study was an offshoot of another study that collected and documented mushrooms and other fungi from Hixon Forest, where more than 450 species have been documented so far.

Cantharellus phasmatis and Cantharellus flavus are documented so far throughout the Midwest and into the northeastern United States. Cantharellus spectaculus has only been identified in La Crosse thus far. The three species appear primarily in July and August in Wisconsin.

Volk has discovered two other species of mushroom, Armillaria nabsnona or honey mushroom No. 9 and one of the morel species, Morchella importuna. He has renamed many others.

Check out the article in Mycological Society of America's peer-reviewed journal, Mycologia: www.mycologia.org/content/105/2/447.



Cantharellus flavus (flavus means yellow) is named for its overall yellow color.



Cantharellus spectaculus (spectaculus means spectacular) is simply spectacular because the contrast of its orange and salmon/purple coloring.



PHYSICS Collaborates With Archaeology to find origins of Ancient Pottery

Assistant Professor of Physics Seth King and Connie Arzigian, associate lecturer of Sociology and Archaeology, look at a graph generated from two machines in the lab. It tells them the mineral content and temperature at which ancient pottery was originally created and fired.

Clay from the hills of La Crosse is unlocking clues about an ancient culture.

Archaeologists have long wondered whether people living in the La Crosse area up to 700 years ago worked cooperatively as a region. The pottery they made — and the elements and minerals within it — can tell researchers about their level of collaboration and the traditions they passed down.

In a Cowley Hall science lab, student and faculty researchers grind ancient pottery sherds uncovered from the region down to a fine powder. They use two high tech machines — an X-ray diffractometer and an X-ray fluorescence spectrometer — to measure the amount of minerals and elements inside such as quartz, calcite, lead, iron and chromium.

UW-L student researcher Terri Beal brings in clay dug from a hill near the La Crosse River, which she heats from 400 to 1600 degrees celsius, crushes, and then compares to the powder from the ancient pots. It tells her if cultures living in the La Crosse area between 1300 and 1625 A.D. got their clay from a single source along the river and had a standard procedure for making pottery, which was shared throughout the region and over generations. "Getting students involved in how to use new technology to answer real questions is what we're trying to do," says Connie Arzigian, associate lecturer of sociology and archaeology.

The research started several years ago when former UW-L student Lauren Roeglin asked Seth King, assistant professor of physics, about using his equipment and expertise in material science to understand the origin of clay in pottery artifacts. She had learned from previous earth science and archaeology classes that an X-ray diffraction system can be used to source where materials come from. As an archaeology major, she was interested in applying XRD to an archaeological research project, so she told Arzigian she wanted to develop a research project that would employ XRD for archaeological applications.

"This research allows me to combine my interests in the fields of archaeology and earth sciences and I am able to work between different departments and with people who come at this research from different research aspects," says Roeglin, who continues the research today as a geology major at UW-Eau Claire.

The research continues at UW-L with help from Beal. They've expanded to investigate the



Student and faculty researchers grind ancient pottery sherds uncovered from the region down to a fine powder. They use two high tech machines to measure the amount of minerals and elements inside.

temperature at which the ancient pots were fired. If temperatures were above the average campfire, the cultures would have had to establish a method and design facilities to fire pots.

So far results show that the pottery is matching local clay and appears to be coming from a common source — along the La Crosse River on La Crosse's north side. It also appears to be a consistent source over time throughout Assistant Professor of Physics Seth King uses high tech machines to study the elements and minerals inside ancient pottery. the La Crosse Terrace, which spans from south La Crosse to Holmen. In short, information was being shared across the region and passed on over time.

"Archaeologists know we need to be talking to physicists because they can help us answer some very fundamental questions," says Arzigian.

King says an additional benefit of inter-departmental collaboration is eliminating the inherent bias of researchers who are familiar with the origins of their material they are studying. Both King and Arzigian regularly collaborate with other departments when conducting research.

As the research continues, they'll look at sherds of pottery from ancient settlers who lived along the Root River in Minnesota to see if they used the same as clay as La Crosse settlers — supporting the hypothesis that the cultures migrated west to southeast Minnesota after La Crosse.

Pottery history

The first pottery in the Coulee Region dates back to 500 B.C. and was made with crushed rock or sand added to clay. At the start of the Oneota period — about 1300 A.D. — cultures started using shells as temper instead of rock or sand. It was an improvement in the technology to make thinner, larger pots.



JORDAN LUDWIGSON

BIOLOGY GRAD IS MURPHY SCHOLAR WHO HOPES TO HELP FILL PHYSICIAN SHORTAGE

About 28 percent of Wisconsinites live in rural areas, but only 11 percent of the state's physicians practice in rural communities.

Filling the need for physicians in more remote locations is an ongoing challenge statewide and nationally. But UW-La Crosse May graduate Jordan Ludwigson

says he doesn't need to be convinced to move to Wisconsin's scenic countryside. The biology major with biomedical science concentration plans to attend the Wisconsin Academy for Rural Medicine at UW-Madison next fall. Eventually he hopes to become a primary care physician or surgeon in a rural Wisconsin community.

"For me it's a lifestyle choice. I grew up on a farm. I like to hunt, fish and be outdoors. I prefer to be in a more secluded area," Ludwigson explains. "If I can fill a shortage and live a lifestyle I choose to live, that's killing two birds with one stone."

Ludwigson, of Alma, Wis., is one of UW-L's top two graduating scholars chosen by the Scholarship and Awards Committee. The achievement earned him The Murphy Award for Academic Excellence. Ludwigson graduated at UW-L's spring commencement ceremony Sunday, May 19, at the La Crosse Center.

Ludwigson, a son of a dairy farmer and veterinarian,

says he witnessed an example of why he chose premedicine when he was driving home from college two years ago for an annual family sweet corn harvest. As he drove over a steep ridge, the vehicle in front of him hit a tractor. Ludwigson called 911 and headed into the ditch where the farmer was pinned underneath the machine.

Ludwigson cranked down the throttle and shut off the engine. He sat with the farmer until emergency personnel arrived 20 minutes later.

Ludwigson says his aspirations to become a physician have blossomed while in college. At UW-L he did environmental chemistry and toxicology-based research. For the past two summers, he studied and traveled to national parks of the Great Lakes region with professors and students in collaboration with the U.S. National Park Service to collect environmental samples and analyze them for the neurotoxin methylmercury. He has also volunteered with campus blood drives, Gundersen Lutheran, Hillview Health Care Center and Relay for Life.

"I've recieved the most out of what college has to offer," he says. "I think La Crosse does a great job. At a larger university, you may not get the relationship with professors and some the research opportunities I've had. I'll be proud to be an Eagle alum."

Nicole Austin, '11, left, and Lindsey (Lohmiller) Welch, '09, are dually certified child life and therapeutic recreation specialists at St. Joseph Children's Hospital in Marshfield. Austin works in the emergency room and Welch works with oncology patients on the general pediatric unit.

THE Bald and the Beautiful'



Heidi Giese, '91, center, poses with Lindsey (Lohmiller) Welch, '09, left, and Nicole Austin, '11, before taking the first cut of their hair in the St. Baldrick's event on campus. Giese is the child life manager at St. Joseph Children's Hospital in Marshfield where she supervises four UW-L alums who are child life specialists, and mentors two interns for dual certification in Child Life and Therapeutic Recreation every spring, summer and fall semester. She also offers a summer and winter practicum often secured by UW-L therapeutic recreation majors interested in pediatrics.

Two therapeutic recreation specialists are a cut above most alumni. They returned to campus for a mini-reunion to help combat childhood cancer.

Nicole Austin, '11, wanted to return to the university's St. Baldrick's celebration in the Eagle Recreational Center March 16. Austin had her head shaved at the event when she was a senior therapeutic recreation major in March 2011 while completing a pediatric internship.

St. Baldrick's is a national childhood cancer advocacy organization that invites people to shave their head at a public event. And they raise money to fight cancer with customized fundraising pages. Austin convinced a coworker and fellow alum Lindsey (Lohmiller) Welch, '09, to also get a shave. They called themselves "The Bald and the Beautiful Child Life Specialists."

The two dually certified child life/therapeutic recreation specialists work at St. Josephs Children's Hospital in Marshfield with a supervisor who is also an alum: Child Life Manager Heidi Giese, '91. Austin works in the emergency room while Welch works in the pediatric unit with oncology patients. The stylists shaving at the event allowed Giese to make the first cut of her staffers' hair.

The St. Baldrick's event offers those going under the scissors before and after photographs, refreshments and t-shirts, along with fundraising tips. Together Austin and Welch raised \$2,500 for cancer research.

Professor Boon Murray, Recreation Management and Therapeutic Recreation Department, gave her Spring 2013 Child Life Theory and Practice class members 'involvement' credit for attending the event. They cheered on the alums and others being shaved, including young children and a group of

La Crosse first responders. It was a lesson in witnessing advocacy in action for children with cancer.



 Professor Boon Murray is in the Recreation Management and Therapeutic Recreation Department.



Yutong Bo, on the track at his high school in China, earned an undergraduate degree from Inner Mongolia Normal University in 2007 and his master's in recreational management from UW-L in May 2012. Pictured here he was set to run the Turkey Trot in spirit at the high school track at his hometown in Hohhot, Inner Mongolia, China.

SAVE THE DATE! 2013 Turkey Trot will be Saturday, Nov. 23.

TURKEY TROT SPREADS THE UW-L SPIRIT 'EVERYWHERE'

In his hometown in China, UW-L alum Yutong Bo jogged the circle of his old high school track. Decked in his UW-L Turkey Trot bib and T-shirt mailed from his alma mater in the United States, he counted the miles as he made laps. Although he graduated from UW-L in May 2012 and is now living half a world away, he was participating in the annual campus 5K run/walk in spirit.

"I will always love UW-L no matter where I am," notes Bo. "UW-L and the REC are my second home."

The Turkey Trot Coast 2 Coast was a new addition to the 18th Annual Turkey Trot. It was a great option for UW-L alums — some now living and working in other parts of the United States or world. They signed up online, were mailed a Turkey Trot bib and shirt, and then participated by running, walking or working out on Nov. 17 — the day of the campus Turkey Trot. About 2,400 people participated the 5K and Jr. Gobbler races, including about 300 UW-L alums. A total of 14 joined the Coast 2 Coast race, according to Erin Thacker, event coordinator.

For Bo, running the Turkey Trot in China was reminiscent of year's past when he volunteered at the annual run that made its course through the La Crosse River Marsh with a start and end at the Veterans Memorial Field Sports Complex. In 2010, he was Flash, the official Turkey Trot mascot. With the large eagle mascot head in place, he was a hit — slapping high fives, cheering racers to the finish and posing with runners for photos afterward.

"Especially when people were getting to the finish line, I was so excited to see them," he says. "I felt so proud of them no matter if they ran or walked."

He volunteered again for the race in 2011. When racers came to the Recreational Eagle Center to pick up their medals, he felt like a winner too.

Running on the track back in China he was connecting to those UW-L memories in spirit — letting them live on as his life takes a new course back home in Hohhot, Inner Mongolia, China.

"UW-L is always an important piece in my life. Without this piece — my life isn't complete," says Bo. "There are so many good memories there. I want these good memories to continue growing in many ways."

He hopes his participation encourages others to do the same in future years to "spread the UW-L spirit everywhere."

Proceeds from this year's race will go to three organizations:

- * A community beneficiary: Bump in the Road program, part of the Hope Lives Foundation
- * UW-L Multicultural Student Scholarship Program
- * UW-L Rec Sports for student/staff development

UW-L aims to offer another MOOC

Online course improves college readiness

In January, more than 1,900 virtual classmates began solving linear equations and adding exponents in UW-La Crosse's first massive open online course (MOOC). It was a new venture for UW-La Crosse and the University of Wisconsin System.

"We learned a great deal, we believe that a large number of students learned some or all of what we intended to teach, and we are planning to do it again," says Bob Hoar, UW-L professor of mathematics and associate vice chancellor for Academic Affairs.

The direct instruction in the seven-week MOOC ended in March, yet, students can continue to complete it at their own pace online



Bob Hoar, far right, math professor at UW-L, and Jim Jorstad, middle, director of ITS/Academic Technologies, presented a live webinar at the corporate headquarters of Sonic Foundry in Madison. Sean Brown, vice president of education at Sonic Foundry, moderated the event, with over 1,900 online viewers from across the globe participating and asking questions.

for up to five years. Its creators anticipate offering more college readiness MOOCs during spring semesters. Yet, questions still linger about how such massive courses, offered for free, will evolve and be sustainable.

A MOOC is a free course open to anyone with an Internet connection. The creation of these online courses is taking hold at colleges across the country with the potential to transform higher education. UW-L's course, the first MOOC in the UW System, was designed to prepare students for college level math and science courses so they can enter college and graduate in higher numbers, in less time and at lower costs. The development was supported, in part, by a \$50,000 grant from the Bill & Melinda Gates Foundation.

Hoar says MOOCs will be a useful item in the toolbox to support teaching and learning, along with traditional courses, small online courses, laboratories and independent study. But it is not yet clear if MOOCs will be a major tool or a specialty tool, he says. As faculty continue to study and administer MOOCs, Hoar is hopeful for more answers. "It will likely prove to be a good format for a segment of the population and for a segment of the curriculum," explains Hoar. "It is too soon to tell how large these two segments will turn out to be."

Early Learning outcomes positive

One of the primary challenges of MOOCs, says Hoar, is the cost associated with maintaining a level of support needed to offer a successful MOOC. The results of a FastTrack pilot program at UW-L in July 2012 showed that learning outcomes can be achieved in an online environment with a good level of student-to-instructor interaction. All but one of the program participants improved his or her test scores to the point where they could enter college-level math and science courses. In UW-L's MOOC, they attempted to offer similar student-to-instructor interaction, and with the large numbers, they were still able to meet the needs of students.

"Our goal with the College Readiness Math MOOC was to test a theory — to see if we could expand the impact of the FastTrack program from dozens to hundreds," says Hoar. "We are seeing that many participants are making it to the end of the course, and that some did not need all that we included in the course."

MOOCs pose other concerns besides cost. For instance, it's typical that only a small percentage of those who enroll in a MOOC complete it. Such trends are evidence that the format does not, for many, eliminate the need for the more structured traditional classroom setting, says Hoar.

"That is not to imply; however, that MOOCs do not help many others. Those who have passed are not the only ones who gain knowledge," says Hoar. "Many who do not pass may still gain from the experience."

Now nearly 300 people have indicated interest in a future MOOC offering, says Hoar. This summer, UW-L faculty and staff aim to open the MOOC again along with the FastTrack program. UW-L is also working with UW System to align UW-L's MOOC with the Wisconsin Math Placement Test with the hope of offering it every spring and marketing it to students planning to study on a UW campus.

Sharing the power of MOOCs

As UW-L faculty and staff learn about the MOOC experience, they've been eager to share it with others. Members of the UW System Board of Regents watched a video presentation of UW-L's MOOC during a visit to campus in early April and faculty and staff fielded questions on their progress. Jim Jorstad, director of Information Technology Services/Academic Technologies, is web streaming a number of programs worldwide to help explain what a MOOC is, how it can be used, and how it could transform education.

Hoar and Jorstad presented a live webinar focusing on core MOOC concepts at the corporate headquarters of Sonic Foundry in Madison later in the month. More than 1,200 on-line viewers from across the globe participated and posed questions, one of the largest on-line web streaming international audiences Sonic Foundry has ever sponsored.

"The key for any institution is to promote the MOOC concept, but also to determine if it can be scalable, sustainable, and if it can profitable," stressed Jorstad. A team of dedicated faculty, staff, and students was key to UW-L's successful MOOC, says Hoar.

"The technology that drives a MOOC is important, but without the right team to select the content, develop the learning tools, set up the learning environment, provide instruction, and support student learning, success is unlikely," he says.



From left, Jim Jorstad, director of ITS/Academic Technologies; Jeff Kerkman, Academic Technologies; Robert Hoar, professor of mathematics and associate vice chancellor for Academic Affairs; Jennifer Kosiak, associate professor of mathematics; and Maggie McHugh, associate lecturer in mathematics and director of UW-L's Murphy Learning Center. All have worked to make UW-L's MOOC a success.

The core team that created of UW-L's first MOOC:

- **Robert Allen**, associate professor of mathematics, Outstanding Professor of the Year, Residence Life 2012, developed and maintained the online math homework system used in the course.
- **Robert Hoar**, professor of mathematics and associate vice chancellor for Academic Affairs and director of the UW System Institute for Innovation in Undergraduate Research and Learning (IIURL).
- Jennifer Kosiak, associate professor of mathematics and recipient of the Student Wisconsin Education Association Teacher Educator of the Year Award and 2012 Regents Teaching Excellence Award.
- **Cari Mathwig Ramseier**, member of Academic Technology Services, supports the campuswide learning management system and developed (and supported) the MOOC course site.
- **Maggie McHugh**, associate lecturer in the Mathematics Department and director of UW-L's Murphy Learning Center. McHugh was the primary MOOC instructor.
- Jim Sobota, professor emeritus of mathematics, served as the project's quality control supervisor.

PLANT ECOLOGIST TURNED 'HUNTER'

Sabbatical gives Meredith Thomsen another view of research

EDITOR'S NOTE: Assistant Professor of Biology Meredith Thomsen, who specializes in plant biology and ecology, spent the 2012-13 academic year on sabbatical in California working on a puma research project.

"So, you thought you'd study something that runs away from you for a change?"

That question, posed to me on a frosty morning this January, is one way to summarize my sabbatical year experience with the Santa Cruz Puma Project led by Associate Professor of Environmental Studies at the University of California, Santa Cruz Christopher Wilmers.

I am a plant ecologist in the UW-L Biology Department where my research focuses on the factors influencing the success of reforestation efforts in the Mississippi River floodplain. While it is true that the young trees I study don't do much running, the interconnections typical of ecological systems guarantees they are influenced by creatures that do.

THE ELUSIVE PUMA

Pumas (also known as cougars, mountain lions, panthers and catamounts) are one of the most widespread large predators in the U.S. You would never know it, though, based on how frequently they are spotted.



A puma is treed by hunting dogs. This animal has a distinctively turned-down right ear, making him easily recognized in the trail cameras set up around the Santa Cruz Mountains by the Puma Project. Photo by Hannah Mello.

Active after dark and wary of humans, pumas remain mysterious even to those who study them. The biologists working on the Puma Project almost never see a puma unless they are trying to capture it. But GPS data downloaded each month from collared cats shows the predators using state park trails, moving through the outskirts of developed areas and, occasionally, entering the city proper.

The Santa Cruz Mountains are a rich mosaic of developed and undeveloped areas, stretching from Santa Cruz on the California coast to the outskirts of San Jose and Palo Alto to the east, giving the UCSC project a unique opportunity to evaluate the effects of habitat fragmentation on a large and mobile predator.

Despite the fact that pumas are frequently using developed areas and trail systems, no humans have been harmed by pumas in the Santa Cruz Mountains in recent memory. Unfortunately, the reverse is not true. The UCSC project has documented lion mortalities as a result of vehicle collisions and of shootings (both legal, with a permit from the game warden, and illegal) by the owners of puma-killed livestock. Pumas also constrain their activities near human development, focusing their hunting, denning and reproductive behaviors in remote areas.

THE PLANT ECOLOGIST PUMA RESEARCHER

You might be wondering what role a plant ecologist from Wisconsin can play in a California puma research project. I like to

View the first publication out of the UCSC Puma Project at: www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060590

think of it in terms of cross-pollination: bringing together scientists from different perspectives to think about a single problem is inherently productive. As part of the research group, I have contributed a new angle on paper discussions and the outlining of grant proposals.

This winter, I helped a graduate student design and set up an experiment to test the idea that pumas drive a "trophic cascade." The location of puma kills follow a spatial pattern, suggesting that deer would benefit from staying in areas with a lower risk of predation. That effect could "cascade" down to the base of the food chain, as young trees in lower-risk areas are subjected to more deer browsing.

I have also been helping out with other types of fieldwork: visiting clusters (GPS coordinates with repeated lion visits over several days, indicating a likely kill site), investigating possible den sites (locations for female lions with a distinctively repeating "out and back" movement record), and capture efforts.

So what is it like, studying things that run away from me? Capture days start early, meeting up with the houndsman in a grocery store parking lot offering convenient access to coffee and pastries. We then head off in various directions to drive remote roads to look for fresh puma tracks or scrapes, listen for the radio signal of animals due for re-collaring, and check the field cameras set at baits over the past few days.

Working in a highly developed landscape makes these capture efforts particularly complex, since any given lion might be on a

property the researchers do not have permission to enter, or where the hunting dogs are not allowed, or sometimes where the terrain is simply too treacherous to navigate.

At 9 a.m., everybody drives somewhere with cellphone coverage and compares notes, deciding what seems like the best prospect.

TRACKING THE CATS

Pumas can be cage-trapped once or twice before they learn to avoid the cage, a behavior familiar to any cat owner. This means that the majority of captures involve hunting dogs. The dogs appear to regard the lead field biologist on the Puma Project, Paul Houghtaling, as a superior sort of hunter, since there is almost always a puma nearby when they see him.

On our most recent capture, he and houndsman Dan Tichenor located a male puma in a deep canyon off a timber road. Paul, Dan, and UW-L undergraduate Hannah Mello – volunteering with the project for a single day during her spring break trip to California – started down the hill on a game trail with two of Dan's Plott hounds. I stayed at the truck with two other dogs to release after the more experienced animals got the trail started. It wasn't long before the dogs "opened," barking in the distinctive braying way that means they have a fresh trail, and Paul radioed to let the dogs out.

Pumas in North America co-existed with wolves prior to wolf extirpation, and it is thought that they respond to hounds the way they responded to wolves: after running a short distance they climb a tree.

Continued on next page.



Left, Meredith Thomsen prepares to plant at one of the "high-risk" sites in University of California, Santa Cruz graduate student Veronica Yovovich's trophic cascade project. Right, an image from the field camera set up at another research site. "We just hoped to get deer abundance data from those cameras, but we ended up getting another visitor here — see eye shine just to the right of center," says Thomsen.

Photos by Veronica Yovovich.

PLANT ECOLOGIST TURNED 'HUNTER'

Continued from previous page.

Assuming they reach a good branch, pumas then relax to the extent that they sometimes fall asleep with the dogs still barking at the foot of the tree.

The drop under the branch this animal chose could have made for a dangerous descent after it was darted, so Dan and Paul pulled the dogs back, encouraging the puma to jump out. Once it did, they released the dogs again and the puma went up a better tree. Paul then trudged back up to the truck so he and I could pack up the capture gear and air rifle before heading toward the sound of braying hounds.

Hannah's eyes were big when I reached her and Dan – she had, after all, gotten an extended look at an animal most people never see. "Best spring break ... EVER!!!" was her comment.

Paul mixed the tranquillizing medication, filled the dart, and worked his way around to a spot with a clear shot. Dan tied up all but one of the dogs, positioning them in a way that would encourage the puma to run across the slope of the hill, rather than down toward the creek at the bottom of the canyon.

Dan leashed the last dog, ready to follow the puma after it was darted. The cat got out of the tree safely and ran the direction we hoped it would. Dan followed with the leashed dog, I handed Paul the telemetry equipment, and Hannah and I followed with the capture gear.

Predictably, we found the tranquillized puma in a big patch of poison oak, the major downside of doing fieldwork in California. Hannah got some great pictures of Dan and Paul fitting the new collar, collecting a blood sample, and taking body measurements, while I handled the paperwork and timing for vital signs checks. When the puma started lifting its head we packed up and watched from a distance to make sure the cat stayed in a safe place, leaving once it was able to move on its own.

After the long climb out of the canyon, I brought Hannah back to her car and she drove to San Francisco, flying back to La Crosse the same evening. Quite the spring break indeed.

BRINGING THE SABBATICAL BACK TO CLASS

I think a lot about how I can use what I'm learning when I return to UW-L. I already make an annual research trip to California with UW-L students (to sample an unrelated long-term experiment on climate change), so I will add a visit to the trophic cascade field sites to remeasure our planted trees, and give students a crash course in the Santa Cruz Puma Project.

I am learning to use trail cameras to collect information on animal behavior and abundance, a method I will add to my Wisconsin research projects. I also plan to design a lab class exercise in which students analyze the images. I will add one of the Puma Project research articles to my ecology class, and contextualize the findings with personal insights and photos.



"Because I am a short-term volunteer with the Puma Project, I have not received the training or vaccinations needed to handle the captured animals, " explains UW-L's Meredith Thomsen. "Instead, I record data and watch the timer for the vital sign measurements the researchers take every 10 minutes while the animal is sedated." Photo by Hannah Mello.

Finally, I have a new appreciation for landscape ecology, and how Geographic Information Systems (GIS) can be used to understand how animals use and respond to their environment. I think of the sabbatical as a chance to broaden my area of ecological knowledge, in a way that will directly benefit the students in my classes and research group.

Over the course of the year, I have concluded that ecologists fall into two basic camps: farmers and hunters. I am a proud farmer, happy that my usual fieldwork does not involve adrenaline rushes, concerns about crossing property boundaries, or days (and days) of fruitless effort.

My experiments are usually planted walking distance from a reliable parking spot, and I can make plans about what I am going to do on any given field day. Those who work with pumas are hunters, and none of the reliabilities of my research apply to what they do.

When everything comes together, even this farmer can get pulled into the thrill of the hunt. But, when all is said and done, I'll be happy to get back to my stationary plants.

Assistant Professor Meredith Thomsen has taught in UW-L's Biology
Department since 2006. Her instructional areas include plant biology and
ecology.

Supporting the academic journey Poehling's giving nature continues with annual gift

UW-La Crosse Alumnus Ryan Poehling is carrying on in death what he did in life: a philosophy of giving.

"'Me' and 'l' were not part of his vocabulary," says his father Hank Poehling. "That is the basis for why we set up a scholarship — to continue his philosophy of helping other people."

Though Ryan died at age 27 of a rare form of cancer, he continues to give to others and support a passion for geography through a scholarship with the UW-L Foundation. Each year a UW-L junior or senior geography major is awarded a \$2,000 scholarship with Ryan's name attached to it.

The Ryan M. Poehling Memorial Scholarship is one of many scholarships awarded to students through the UW-L Foundation. About 400 scholarships totaling about \$450,000 was awarded to UW-L students during the Student Scholarship and Award program on April 29.

Ryan's giving nature was evident even at age seven when his parents asked him what he wanted for Christmas. The boy gave a somewhat atypical answer for his age.

"He said, 'Ya know, mom and dad, I know we don't have a lot of money. So why don't you just skip me this year so you can buy each of my brothers a nicer present," recalls Hank.



CODY MERTENS is the 2012 Ryan M. Poehling Memorial Scholarship recipient.

Ryan went on to earn a bachelor of science degree in geography at UW-L in 1995 and a master's degree from the University of Florida. Within two weeks of completing all the work for a doctoral degree in economic geography, he died Dec. 17, 2000.

"I know Ryan would be thrilled with what he is still accomplishing in death," says Hank. "We are thrilled that we are helping students possibly achieve the goals that cancer cheated Ryan from achieving."

UW-L's 2012 scholarship recipient Cody Mertens is an active member of the geography department, working with two professors on soil contamination studies in the La Crosse River Marsh. He recently presented his findings, including a 3D map of locations where the contamination is the highest, at the American Association of Geographers conference in April in Los Angeles.

"I like to think I've done a lot, but when I read about what Ryan has done, it's pretty amazing," says Mertens.

The \$2,000 helped pay for Mertens' schooling spring semester. It was a time when he was busy in the classroom and in the field collecting data on the river marsh. Then he worked with professors to prepare the river marsh data for computer analysis. "We were working on problems they (my professors) don't already know the answer to," explains Mertens.

The scholarship shows Mertens that just as he supports the geography department and community by collaborating on research and understanding, the people in this community also support him.

Mertens would like to continue his education and earn a graduate degree in modeling and human and wildlife interactions or fluvial geomorphology. One day he would like to become a hydrologist or physical scientist.

Hank says each year he has the pleasure of meeting the recipients.

"I've been impressed with their enthusiasm, dedication and long-range goals," says Hank. "They all seem very goal oriented — just like Ryan was."

THE SCOOP ON SCHOLARSHIPS:

UW-L launched a \$15 million scholarship campaign in January to support student scholarships. A total of \$1 million was raised in the first few months of the campaign. To contribute to the campaign contact Greg Reichert, assistant chancellor for university advancement, at 608.785.8672 or greichert@ uwlax.edu.

Scholarships through the UW-L Foundation range from \$200 to \$8,000; however, the majority are awards of about \$1,000. Scholarships are offered to students with a variety of academic majors, colleges and backgrounds.

Ryan Poehling

Ryan Michael Poehling was born March 21, 1973, to Henry (Hank) and Sandra (Sandy) Poehling of La Crosse. In 1995, Ryan earned a bachelor's in geography, graduating with honors,



from UW-L. He earned a master's degree from the University of Florida 1997. In December 1999 he completed all the work for his doctoral degree in economic geography.

Ryan was first diagnosed with Epithelial Sarcoma, a rare form of cancer, at age 16. He recovered, but the cancer returned just after completing his doctoral studies. He died Dec. 17, 2000. In May 2001 he was awarded a doctoral degree posthumously from the University of Florida.

Today the Ryan Michael Poehling Charitable Foundation Inc. generously provides UW-L geography students the chance to further enhance their education with the Ryan M. Poehling Memorial Scholarship and the Ryan M. Poehling Memorial Fellowship to University of Florida graduate students.

THREE SAH GRADS TAKE HONORS

Three from the College of Science and Health earned top recognition for graduating seniors. The awards and graduates:

The Murphy Awards for Academic Excellence... recognize the university's top two graduating scholars, as chosen by the Scholarship and Awards Committee. A grant from the Murphy Foundation created the awards in 1980. Marjorie P. Murphy, foundation president, cited a desire to recognize outstanding and exceptional scholastic ability. Recipients receive \$1,500 and \$1,000, respectively.

Janya Larsen

Tanya Larsen graduated in December with a bachelor's in microbiology with a biomedical concentration. She was a member of Volunteering Within, Pre-Physician Assistant Club, and Golden Key Honor Society, and participated in intramurals. Also, she was a teacher's assistant in anatomy, physiology lab and fundamental microbiology lab, and worked in the Microbiology Prep Room. In January 2012, Larsen traveled to Nepal and India on a medical service trip with others from campus to bring health education to Buddhist monks and nuns. Larsen works as a CNA at Hillview Health Care Center. In May she will join the UW-L-Gundersen-Mayo Physician Assistant program in hopes of providing health care to an array of people. She is the daughter of Paul and Ann Larsen, Viroqua.

Jordan Ludwigson

Jordan Ludwigson graduates with a bachelor's in biomedical science. He has been treasurer and president of the UW-L Pre-Medicine Club, a blood drive coordinator for the Blood Center of Wisconsin, a member of both pre-AMSA and pre-SOMA, a team leader for Relay-for-Life, and an intramurals participant. For three years, Ludwigson has been a researcher for an EPA-funded research grant on "Trophic Transfer of Methylmercury in the Lower Food Webs of Six National Parks in the Upper Midwest." In fall, he plans to begin courses at the UW School of Medicine and Public Health to pursue a doctor of medicine. He hopes to practice medicine in underserved rural, western Wisconsin. He is the son of Randy and Joan Ludwigson, Alma.

The Strzelczyk Award in Science and Health... recognizes an outstanding senior in the College of Science and Health for academic achievement and service to the campus and community. Robert, a 1954 graduate, and Judy Strzelczyk endowed the award in 1996. Also, they have provided funding for physical therapy research projects, research equipment, student loans, and four full-time tuition scholarships. Recipients receive \$1,000.

Ben Sturomski

Ben Sturomski graduates with a bachelor's in physics and mathematics education. Sturomski has been on the football team where he received conference and university scholar athlete honors. In the physics/engineering dual degree for three years, he transitioned into the School of Education Secondary Teacher Education Program. While completing final studies in physics education, Sturomski maintained a cumulative 4.0 GPA while transitioning from a football player, to a football assistant coach. He completed a semester of student teaching at La Crosse Central High School and West Salem Middle School. Sturomski plans to attend Northern Illinois University to earn a master's in sport management, along with serving as a graduate assistant for NIU athletics. He hopes to become an athletic academic adviser at a Division I university. He is the son of Ron and Kathy Sturomski, Marshfield.



TANYA LARSEN



JORDAN LUDWIGSON



BEN STUROMSKI

Winning attitude

Spring PE Grad fights cancer to get back on the field

Brock McMullen approached his cancer diagnosis with the same determination he learned in UW-L athletics. He expected to win.

"Whatever team I'm on, I don't expect to lose," says the UW-L football and basketball player. "I don't care what the score is."

So when doctors told McMullen he had a 65 percent chance of beating Stage II non-Hodgkin lymphoma in December 2010, the young man never doubted he would. In fact, one of his first questions, as he sat in the hospital room with his parents, was if he could still play UW-L football in the fall. The doctor didn't see a reason why not. So getting better in time for football season became his motivation.

"Sports to me have never been about the sport itself. Sports are about the people," says McMullen. "My goal was to get back with my friends — show them no matter what you deal with in life, you can overcome it if you put your mind to it and work toward it."

Doctors started McMullen on five months of chemotherapy two days after Christmas 2011. McMullen said it was helpful for his family to know he was upbeat and focused on fighting the cancer. McMullen said he "stayed sane through the process" by helping coach high school varsity baseball and basketball while at home undergoing chemotherapy.

He lost about 30 pounds and all of his hair during treatment. Taking it one day at a time, after five months, McMullen was healthy again. He thinks his attitude played a role.

"I always believed in myself and what the doctors and everyone was doing around me. I knew they had to do it and I trusted what they were doing," he says. "It helped me and others around me see the positive side."

His recovery meant he could start getting ready for football. When McMullen was back on the field that fall he was named starting tight end. He remembers the coach giving the pre-game speech for his first game in the locker room.

"I broke down in tears. I was so happy to be there," says McMullen. "I worked the last nine months to get to that day and I was so gratified to be there and get out on the field."

McMullen was the starting tight end both his junior and senior years. He also played basketball his senior year. He's been on the dean's list every semester except his first and has earned numerous scholarships through the UW-L Foundation.

Today his hair reaches down to his shoulders. He's let it grow for two years and plans to eventually donate it to an organization that makes wigs for patients.



Brock McMullen went home after feeling sick during finals week in fall semester 2010. What doctors first thought was kidney stones was actually six cancerous tumors in his abdomen. Despite the diagnosis, McMullen beat the cancer after five months of intensive chemotherapy. His main motivation was getting back to play football in the fall.

McMullen graduated at UW-L's spring commencement ceremony Sunday, May 19, at the La Crosse Center, with a degree in physical education with an adapted PE minor. He received a full scholarship for a master's degree program in specially designed physical education — working with students with disabilities — at the University of Utah.

His future is looking bright. The cancer, he says, ultimately made him a more positive person.

"It improved my general outlook on life," he says. "I'm not stressing about things much at all. You realize if you work your tail off, you'll get what you want. If you do everything in your power to get it done."



Brock McMullen has let his hair grow for two years since his cancer treatment. He plans to eventually donate it to an organization that makes wigs for patients.

PRO PR PLANNER Brian Lammi, '96, earns Rada Award

Professional athletes can hold their own in the game. But for marketing, they pass to a professional. One of those PR pros is Brian Lammi — who received the Rada Distinguished Alumnus Award in May.

The founder and president of Lammi Sports Management represents Packer greats Donald Driver, Clay Matthews and Jermichael Finley, along with others. Lammi knows how to help pros off the field, like when he steered Driver to be Goodwill's spokesperson.

"Brian not only cares about the athletes he represents, but demonstrates genuine commitment for the organization he services," says Pat Boelter, vice present for marketing at Goodwill in Milwaukee.

Lammi also helped the Donald Driver Foundation find success — raising more than \$1 million for underprivileged children and families.



Jhe Brian Lammi file

- Founder and president of Lammi Sports Management, a firm that focuses on athlete appearances and endorsements.
- Representative for Green Bay Packers greats such as Donald Driver, Clay Matthews, Jermichael Finley and James Jones.
- Producer and syndicator of regional TV shows focusing on the Green Bay Packers, Denver Broncos, Minnesota Vikings and Chicago Bears.
- Recognized in "30 Under 30" and "40 Under 40" Milwaukee Business Journal. Volunteer for various non-profits, such as Special Olympics, Big Brothers Big Sisters, MACC Fund, Santana Dotson Foundation.
- Earned a bachelor's in sports management in 1996.

The Rada Distinguished Alumnus Award ... recognizes alumni in the early to mid stages of their careers and making exceptional contributions to their professions and communities. The concept for the award, established in 2002, came after Ron Rada and his wife, Jane, attended the university's alumni award ceremonies for many years. "It was inspiring for us to see graduating students recognized for excellence and to see alumni honored for long, outstanding careers and service to their professions and communities," said Rada, emeritus professor and SAH administrator from 1975-2006.

BAD NEWS

A 2011 study at the University of Wisconsin-La Crosse found correlations between students' perceived stress levels and energy drink consumption in 136 students

According to a 2011 report by the U.S. Substance Abuse and Mental Health Services Administration, the annual number of ER visits in the U.S. linked to energy drinks increased tenfold from 2005 to 2009

PROF'S RESEARCH ON ENERGY DRINKS NOTED ON WEBSITE

A survey on energy drinks by UW-L Assistant Professor Michele Pettit has been included in an informational graphic created by AlliedHealthWorld.com, an online resource for health care information.

Pettit, Health Education and Health Promotion, was co-author of "Perceived Stress, Energy Drink Consumption and Academic Performance Among College Students" with University of Illinois Springfield researcher Kathy DeBarr. The article was published in the Journal of American College Health in November 2011.

Their research, conducted on students from Oklahoma, was included in an informative online infographic about "Legal Performance Enhancers," detailing potential effects energy drinks can have on students. The research is highlighted under "Bad News" about drinks — noting correlations between students' perceived stress levels and energy drink consumption.

Find the complete informative graphic at: "Legal Performance Enhancers: Students, Energy Drinks, and Education."