SPRING TERM 2010 | Inside:

- Students Gain Valuable Field Experience in Kenya
- U-M Community Shares Ideas for Greening Campus
- New Sustainability Studies Program for Undergrads
- Earth Day Activities at U-M
- And more . . .
University of Michigan President Mary Sue Coleman recently initiated Sustainability as a central organizing theme at U-M, and the Graham Institute is working hard to advance campus-wide collaborations that will help U-M achieve global prominence in sustainability education, research, operations, and engagement.

In this edition of our newsletter, we’re emphasizing the educational piece, and I’d like to provide thoughts on some of the new and emerging developments around innovative sustainability learning opportunities for U-M students.

At the Graham Institute, much of our early educational emphasis focused on building a strong interdisciplinary Doctoral Fellows program. That effort, now in its fourth year, involves a remarkable cohort of young sustainability researchers who engage with one another in monthly discussion forums and associated activities. Through these robust conversations, Fellows gain broad-based perspectives on sustainability challenges from a wide range of disciplines. With this program now maturing and thriving, we’re beginning to ramp up our focus on undergraduate opportunities.

As you will read about in this edition, we are embarking on an innovative learning partnership with the Mpala Wildlife Conservancy in Kenya. This effort involves an undergraduate course that is intertwined with graduate-level research and assessment projects, with the intent of creating a rich learning experience for our students, while simultaneously seeking to help Mpala address some tough sustainability challenges.

Like our past offerings in Patagonia – the Mpala course serves as a model for the place-based, multidisciplinary experiences that form a foundation for our newly launched Undergraduate Sustainability Scholars program. This is a competitive program through which 25 top performing students – from the full range of U-M’s undergraduate programs – will be accepted each year. These Scholars will engage in cohort-building activities and pursue a 10-credit series of interdisciplinary courses focused on sustainability over a two-year period. Those who complete the program successfully will graduate with a certificate from the Graham Institute and a notation on their transcript acknowledging this scholastic achievement.

To create the Leaders and Best in sustainability, we must produce graduates who fully grasp the connectivity and interdependence among the natural, social, and technological science dimensions of the problems. Fortunately, U-M is well on our way, with a wide range of sustainability-focused courses and study programs. However, we have tremendous opportunities to advance our efforts by collaborating across campus to develop holistic sustainability curricula that prepare students to drive impactful solutions on local-to-global scales.

To foster progress on the curricular front, more than 200 U-M faculty members representing a vast diversity of disciplines will be convened for a Provost’s Seminar on Teaching this summer. At this interactive workshop, we will discuss innovative methods for incorporating sustainability into the curriculum by exploring approaches for embedding sustainability principles into existing courses, creating new interdisciplinary courses, and potentially providing new concentrations, minors, or majors. Following the Provost’s Seminar, a core working group of faculty and students will be assembled to build on the ideas developed at the workshop and recommend an action plan for implementation.

At U-M, our goal is to engage students in a powerful learning journey—within and beyond the classroom—that spans disciplines and instills the knowledge and skills to cultivate future sustainability leaders. We’re extremely excited about the opportunities we have to take U-M sustainability education to the next level.

As a leading university, we are uniquely positioned to shape the next generation of sustainability leaders—and we’re ready for the challenge.
In partnership with U-M’s **STEM-Africa Initiative** to coordinate research efforts in Science, Technology, Engineering, and Math with educational institutions in Africa, the Graham Institute is launching a new **Integrative Experiential Learning and Research** project at the 48,000-acre Mpala Wildlife Conservancy and Research Center in Kenya.

The overall objective of the program is to study the region’s natural and human systems to promote sustainable conservation in the Laikipia region of Kenya, one of the most economically challenged and biologically diverse areas of the world. The initiative has multiple, complementary components.

On the undergraduate level, the Graham Institute is launching an experiential new Graham Scholars course at Mpala called “**Sustainability Challenges and Opportunities of East Africa**,” through which 15 top performing U-M students will learn first-hand both the social- and natural-science aspects of sustainability in this poverty-stricken and ecologically abundant region.

On the graduate level, three U-M Master’s students (specializing in anthropology, ecology, and a combination of the two) will conduct theses research about habitat fragmentation, human-wildlife conflict, and cultural perceptions of land and land-use in East Africa.

To complement this effort, four other U-M Master’s students will embark on a group research project to determine how their “client,” Mpala, can operate in a more sustainable fashion. Prof. Donald Scavia, Director of the Graham Institute, and Prof. Andy Hoffman, Erb Institute, are serving as advisors for the project.

The Mpala operation is a multi-purpose, combination of cattle ranch, field-research station, and wildlife habitat for large mammals, such as elephants, giraffes, and many others. Cattle ranching began there during British Colonialism, when British expatriates and African pastoralists accommodated each other’s competing ideas about land-use. According to School of Natural Resources and Environment (SNRE) Professor Rebecca Hardin, who also teaches in Anthropology, the region has been working through strategies for managing pasture, water, and wildlife ever since. This history adds to the complexity of sustainability issues in the region.

“The students coming to Mpala are NOT just going on Safari,” says Prof. Hardin, who is co-teaching the undergraduate class with Ecology and SNRE Professor Johannes Foufopoulos. “They’re going to learn how to solve complex sustainability problems.”

One of the most unique aspects of the undergraduate field course and graduate research is that they are designed to be collaborative and synergistic in nature—with master’s students mentoring undergraduate students in their coursework and with undergrads helping to provide concrete data and support for the graduate-level research.

“The students really will be working in a two-way relationship,” Prof. Foufopoulos says. “The undergrads will benefit by ‘shadowing’ the grad students to gain exceptional field-research experience, and the master’s students will benefit from having hands-on assistance from the undergrads.”

Prof. Foufopoulos says there are several goals and objectives for the “**Sustainability Challenges and Opportunities in East Africa**” course—one of which is to teach students about the realities of the developing world.
Everything begins with an idea. Innovative ways for helping to “green” the University of Michigan campus are no exception.

With this in mind, the University of Michigan has been actively soliciting ideas from the U-M community about how to improve sustainability efforts on campus—and the U-M community is responding.

This “call for ideas” is part of the large-scale Campus Sustainability project being conducted by the Graham Sustainability Institute’s Integrated Assessment (IA) Team and the new Office of Campus Sustainability—with active input and involvement from U-M students, faculty, staff, and other stakeholders.

“The U-M community is becoming more and more engaged with this project, which was apparent in the large attendance at our Campus Sustainability Town Hall meeting on April 12,” says IA Director John Callewaert about the gathering, where participants interacted with IA Analysis Teams about different campus sustainability project areas.

“What’s more, students, professors, and staff members from all areas of the university have submitted nearly 150 ideas for how we can further green the campus,” Callewaert says. “We’re very pleased to see how people are taking on a sense of ownership and involvement with this important and historic initiative.”

The Campus Sustainability IA project is investigating seven core issues—and has been accepting comments from the U-M community about all of them through an online submission tool on the Graham Institute website. The project subject areas are as follows:

- Buildings
- Energy Sources
- Transportation
- Land & Water
- Food
- Purchasing & Recycling
- Culture

“We’ve received a relatively equal distribution of comments and ideas across all subject areas, with slightly more input related to purchasing and recycling,” Callewaert says. “People are clearly interested in seeing the university boost sustainability efforts across the board.”

According to Don Scavia, Director of the Graham Institute and Special Counsel to the U-M President on Sustainability, this project is serving as a valuable opportunity for the university to serve as a learning laboratory for sustainability—and to engage people as part of the process.

“Individuals clearly want to have a say about what they think the university should be pursuing to improve our environmental stewardship,” Scavia says. “As the university continues to enhance its position as a global leader in the field of Sustainability, I’m honored to see so many members of the campus community playing a part.”

To learn more about the Campus Sustainability IA project—and to submit your input—please visit the our website at www.graham.umich.edu. Please also watch for updates about the project throughout the year.
New Sustainability Studies Program for Undergraduate Students

The Graham Institute recently introduced the Undergraduate Sustainability Scholars Program, through which 25 top performing U-M undergraduate students are accepted each year to take a 10-credit series of sustainability-focused courses—and receive special “endorsement” for this academic accomplishment.

The Graham Institute worked with multiple U-M schools and colleges to develop this innovative program—many of which have agreed to put a special notation on their students transcripts upon graduation to acknowledge this academic accomplishment.

“Students in the program will explore natural, social, economic, political, social and technological aspects of complex sustainability issues, thus challenging themselves to see issues from multiple perspectives,” says Prof. Steve Wright, Faculty Education Director for the Graham Institute.

“Participating students also have the opportunity to apply their knowledge by developing ideas for solving or addressing the sustainability issue they are studying—helping to further harness their critical thinking and problem-solving skills.”

So far, the U-M community has been very receptive to this new program. In fact, the Student Editorial Board of the Michigan Daily recently applauded the program in their publication—and said they’d like to see more of such sustainability-focused educational offerings at the university.

“The Graham Institute mission centers on fostering multi-disciplinary approaches to sustainability,” says Don Scavia, Director of the Graham Institute and Special Counsel to the U-M President on Sustainability. “The Graham Institute’s new Undergraduate Sustainability Scholars Program is yet another way we are fulfilling that mission here at the university.”

ATTENTION U-M FACULTY: We are accepting proposals for place-based sustainability courses for this new program. Please check out our RFP via the Undergraduate Scholars webpage at www.graham.umich.edu.

U-M Graduate Students Win $10K Per Team for Sustainability Ideas

Congratulations to the winners of the 2010 Dow Sustainability Innovation Student Challenge, through which graduate students with the most innovative ideas for addressing the issue of sustainability receive $10,000 from The Dow Chemical Company. Here are the award-winning ideas and students teams:

• Hippo Water International (HWI): A Simple Design Can Change the World: A new business model to distribute water rollers—a proven collection and transport technology to alleviate problems associated with lack of access to water in the developing world. Team members: Colm Fay, Cynthia Koenig, and Christopher Mueller.

• BioLumination: Brightening the Future with the Waste of Today: A plan to introduce a device called the Biolight for combusting waste to produce light, helping to improve the quality of life for rural villages in the developing world while minimizing environmental impacts. Team members: Robert Levine and Paul Davis.

• Nalu Solar Software: An idea for a software company that would encourage greater adoption of solar photovoltaic technology by lowering the cost of installed solar PV systems. Team members: Jennifer McLaughlin, Prashanth Prasad, and Imogen Taylor.
40th Anniversary of Earth Day at U-M

Since the University of Michigan played a pivotal role in establishing the first Earth Day in 1970—and continues to serve a critical role in helping to address pressing sustainability issues across the globe—it was only fitting to honor the 40th anniversary of Earth Day with gusto.

And that’s exactly what the university did by transposing Earth Day into an entire month of special events and activities.

**Don Scavia Speaks at Teach-In**

To help kick off U-M’s month-long Earth Day celebration, the Graham Institute co-sponsored an Earth Day “Teach-in” on March 25, 2010.

As part of the Teach-In, more than 100 participants broke into small “break out” sessions led by subject experts to learn about critical sustainability issues, such as: Climate and Energy; Water and the Great Lakes; Food and Health; and Transportation.

Prof. Don Scavia, Director of the Graham Institute and and Special Counsel to the U-M President on Sustainability, also spoke to the audience about how much more complex environmental sustainability issues have become since the last Earth Day in 1970.

**Lecture by Obama Science Advisor**

Another Earth Day highlight was the *Ninth Annual Peter M. Wege Lecture on Sustainability* on March 22, 2010 featuring John P. Holdren, President Obama’s Science and Technology Advisor and Director of the White House Office of Science and Technology Policy.

Dr. Holdren’s lecture title was “Science and Technology Policy Priorities and Opportunities in the Obama Administration.” More than 1,000 people attended his talk and presentation at U-M’s Rackham Auditorium.

**Multiple Campus Activities**

In addition to large-scale events like the Wege Lecture, U-M’s Earth Day celebration was marked by a plethora of more grassroots initiatives on campus—with numerous schools and units taking part.

For instance, both the School of Natural Resources and the Ross School of Business celebrated Earth Day by giving tours of their LEED-certified buildings. The tours were given by trained U-M docents to highlight different sustainability features associated with green buildings.

Even U-M’s residential halls took part by dedicating one day in March to serve organic and locally-sourced lunch selections at University Housing dining halls, including the Hill Dining Center, the University Unions University Club, and the Commons Cafe. Local vendors also participated by offering free food samples in the Unions’ self-operated cafes and U-go’s.

Other events on and around campus included: a *Sustainable Fashion Show*, featuring stylish clothing made of organic and fair-trade fabrics; a special *Diag Day*, where student groups, U-M departments, and community non-profit organizations gathered to help generate awareness about campus and community sustainability initiatives and how to get involved; *Eco-Restoration Days* at the Nichols Arboretum and Matthaei Botanical Gardens; and several others.

“I am very glad that Earth day has become a tradition,” says SNRE Professor David Allan, who helped organize the first Earth Day when he was a graduate student at U-M in 1970. “Earth day reminds us that a sustainable society requires sound stewardship of the environment. There is no end to this journey.”

To learn more about how U-M honored the 40th Anniversary of Earth day, and to see some captivating new and historical videos about the event, visit www.umich.edu/earthday.
“We can talk about conservation and sustainability in developed areas and urban settings, where people have money and are, for the most part, removed from the landscape,” Foufopoulos says. “But the people in this region live out in the bush, exist on about $1 a day, and literally live off the land. If the land suffers, they suffer.”

Although people in the Laikipia region have lived off the land for hundreds of years through farming, animal husbandry, and hunting, the majority of that land is not government-protected; it is sustained by communal and private landowners. Mpala is one such example, where about 200 local villagers live and work on the premises with their families and where their children attend school (see cover photo).

“Mpala is an interesting hybrid operation,” Prof. Foufopoulos says. “Although it started as a traditional cattle ranch, where British expatriates, nomads, and locals ran cattle, it has now has established itself as a valuable research center that is thinking about sustainability and operating on a whole new trajectory.”

“The University is a world-class center for excellence and knowledge—with amazing capacity to generate ideas and solutions,” Foufopoulos says. “But what good are ideas if they’re not applied? This overall initiative in Mpala is a valuable way to apply the university’s ‘know-how’ to a very critical and important region of the world.”

Prof. Hardin agrees and notes how sustainability research and experiments at Mpala can, hopefully, benefit areas beyond the boundaries of Mpala, where both the wildlife and cattle-based economies are adapting to climate change and increasingly severe droughts.

“Water is THE issue in the region,” Prof. Hardin says. “Cattle are dying, it’s bad. But, in conjunction with people from the Kenyan National University and others in East Africa, we have very educated, experienced people researching and addressing these and other environmental management problems on a major scale.”

In partnership with STEM-Africa, and with support from Donald Graham, who serves on the Mpala Board, the Graham Institute aims to have this Integrative Experiential Learning and Research project evolve into a long-term initiative in East Africa, with ongoing partnerships in the region.

“Our long-term vision is that U-M can contribute something very valuable to Mpala and to the region, and that, through education and research, our students can play a meaningful role in this effort,” Prof. Hardin says. “We want to make a difference.”

To learn more about Mpala, please visit their website at www.mpala.org.

The U-M project aims to help Mpala expand as a model for sustainability—with one of the first steps being to understand how cattle herders and wildlife use habitat and can co-exist on the landscape. According to Prof. Foufopoulos, once researchers figure out opportunities for improvement in that vein, they hope to help map out long-term sustainability initiatives in the region to help address issues such as food security, water, health, and energy.
The Graham Institute Has Moved!

New Address: 625 E. Liberty St., Ann Arbor, MI 48104

Please make a note of it, and feel free to visit us at our new location (shown below).

Enter under the green Starbucks canopy on Liberty Street.