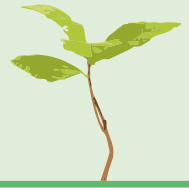




earth week 2013
volume 3 • issue 2



the
GREEN
OBSERVER

YOUR ENVIRONMENTAL PUBLICATION ON CAMPUS

INSIDE THIS ISSUE:

EARTH WEEK: PAST AND PRESENT,
CAMPAIGN BLOOMS
FROM CIGARETTE WASTE,
NATURE SPOTS IN C-U,
& MUCH MORE

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THE GREEN OBSERVER

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LETTER FROM THE EDITOR andrew nowak



Earth Week is upon us. There are plenty of things to occupy yourself with, so check out our issue and other things around campus, and make sure you are outside as much as possible! Check out the history of Earth Day, with a special focus on U of I, which is chronicled in an interesting article in this issue. There are many more interesting and informative articles in this issue, some with ways you yourself can get involved around campus. That is always one of our main goals; to inform our fellow students so they can act on these issues that matter to all of us.

The Green Observer has gone through a lot this past school year. We lost a few key players in our organization last semester and we are set to lose three more at the end of this year. Cait Gallagher has been our fantastic webmaster for a long time, and she will be missed. She has often brought you your "Green It Yourself" fix and has supplied our meetings with plenty of fun (and animals named Pietro). Anna Franco has done an amazing job as our financial chair for a long time and she will also be missed. She has even written some articles for us in the past. Our writer Abigail McEwen is also leaving us this year, even though she joined us. She has already contributed a lot of good writing in just one year, and she will be missed.

Our group has also been working hard on financial issues that have plagued our organization for a while, and now there finally seems to be a light at the end of the tunnel (the good kind, not the dying kind).

We hope you enjoy reading something from this issue and that you spread it to your friends. Everyone worked hard on this issue and we are especially excited that the campus is about ready to celebrate Earth Week. If you are reading this, it is likely online, which is another cool thing we have decided to do for Earth Week! So enjoy and thanks for stopping by.

-Andrew Nowak



The Green Observer
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TABLE OF CONTENTS

CIGARETTES: A HISTORY OF WASTE.....	4
LINC CLASS CREATES AN ELECTRIC CAR.....	6
EARTH WEEK WITH SECS.....	7
HISTORY OF EARTH DAY AT UIUC.....	8
ENVIRONMENTAL AWARENESS THROUGHOUT THE YEAR.....	10
BEYOND COAL.....	11
ENTOMOPHAGY: BUGS AS A SUSTAINABLE FOOD SOURCE.....	12
EXPERIENCE NATURE IN CHAMPAIGN-URBANA.....	16
OPINION: IS THE SSC REALLY FOR THE STUDENTS?.....	16
GIY: GREEN-IT-YOURSELF.....	17

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FASCINATING FILTERS

by Cait Gallagher

The cigarette has had quite the image change over its lifetime. From its romantic beginnings as a symbol of class and beauty, to the more recent social stigma because of its association with health problems, the cigarette has long been discussed in relation to humans. One area that is not commonly discussed is the cigarette after the consumer has tossed it out the window or onto the ground, and in particular, how this affects the environment.

Once someone has finished a cigarette, the majority of what is left over is a cellulose-acetate filter. Introduced in the 1950s, this filter was developed in order to combat the growing evidence that cigarettes were the cause of many diseases, including lung cancer¹. This filter has not changed since its inception, which has caused a growing number of problems with litter and toxic waste disposal.

Cellulose acetate is not biodegradable, meaning that it cannot be broken down by microorganisms and returned to the Earth. It is photodegradable, which means ultraviolet rays from the sun will eventually break the filter into smaller pieces under ideal environmental conditions¹. These small pieces will never be able to fully break down, however, and wind up polluting nearby water and soil.

While one cigarette does not pose much of a threat to the surrounding area, the hoards of cigarettes being consumed by people worldwide does. In 2007, 360 billion cigarettes were consumed in the United States alone².

Recently, cigarettes have been a burning topic in University of Illinois news. Beginning in November of this year, a smoking ban will be placed on the university, which prohibits smoking anywhere on campus. To combat the problem of

cigarette litter and demonstrate creative ways to evaluate the effectiveness of this upcoming smoke-free campus policy, representatives from the UI Wellness Center and Masters of Public Health (MPH) are sponsoring "Blooms, not Butts", a two-part initiative to increase awareness and support for the U of I campus going smoke-free.

The first activity during "Blooms, not Butts" will be a two-hour campus-wide cigarette litter pickup. In addition, there will be flowers passed out to passersby, with cards explaining why removing cigarette litter is one step to improving everyone's environment – one of the benefits of campus going smoke-free.

The initial pick-up does not have a goal set for exactly how much litter will be picked up, but instead the amount picked up will serve as a comparison for another litter pick-up once the smoking ban has been set in place.

The second activity uses the litter collected from the first pick-up by allowing students to build displays of at least 80% cigarette litter to compete for cash prizes and more. This idea of using cigarette litter in the display allows for members of the community to visualize the presence of litter on the campus while the displays have a theme of "Benefits of a Smoke-Free Campus". Check out go.illinois.edu/smokefree, the Smoke-Free Campus site, for more information.

Sources:

1 Novotny, T.E.; Lum, K.; Smith, E.; Wang, V.; "Barnes, R. Cigarettes Butts and the Case for an Environmental Policy on Hazardous Cigarette Waste." Int. J. Environ. Res. Public Health 2009, 6, 1691-1705.

2 Legacy. "Tobacco Fact Sheet: The Impact of Tobacco on Environment." legacyforhealth.org. Aug. 2012: 1-3.

"BLOOMS NOT BUTTS" INTERVIEW

Green Observer recently contacted Paula Chmiel, who works with the Smoke-Free Campus Office, about an upcoming event called "Blooms Not Butts".

What kind of displays do you plan to make? Can students help out with these displays?

At the Environmental Expo, we will have an info table about the environmental impacts of tobacco litter. But on stage will be the live cigarette display-building

competition. Students can absolutely help out with this part - if they are selected as finalists in the contest! They can enter as individuals or teams, and we will select the best ideas to compete at the Expo. These finalists will have from 11-1:30 that day to build their displays on stage, and then they will be judged to determine who wins the big cash prize, and other prizes. Here is a link to submit ideas to: <http://goo.gl/mxkNw>.

What is the best way for students to

get involved with the organization today?

Pickup volunteers can email me at chmiel1@illinois.edu. Those that want to enter the contest can follow that link above.

Do you have a website for the activities?

More info on campus going smoke-free (including brief postings about these events) is on the Smoke-Free Campus site: go.illinois.edu/smokefree.



On Saturday, April 20 from 2-4 pm volunteers will be handing out flowers while picking up tobacco litter across campus. Reducing tobacco litter will improve the environment and beautify our campus. This is just one of many benefits of the upcoming smoke-free campus policy.

See creative cigarette litter displays be constructed live at the Environmental Expo!

Environmental Expo

Date: Tuesday, April 23

Time: 11 am-2 pm

Location: Illini Union Courtyard Café

Stop by the Expo to learn about the impact of cigarette litter on campus, and watch students compete. Or become a part of the competition for a chance to **win cash prizes and more!**

Registered students (teams or individuals) can enter by submitting display ideas that follow the theme "Benefits of a Smoke-Free Campus" at <http://goo.gl/mxkNw>, by April 16.

For questions, contact Paula Chmiel at chmiel1@illinois.edu.

UI Wellness Center
go.illinois.edu/smokefree



*Part of the Office of the Chancellor's
smoke-free campus initiative.*

LINC COURSE: IT'S ELECTRIC

by Catherine Kemp

Each semester, the College of Engineering offers a series of Learning in Community (LINC) classes in which students from all departments work with community partners to accomplish various goals. There are a few environmentally related classes this semester, including one centered on providing an electric vehicle (EV).

The students in this particular section have partnered with the Sustainable Student Farm (SSF). The SSF is currently using a 1991 GMC Vandura that averages five miles per gallon to transport produce to the dining halls, which is counter-intuitive to the organization's sustainable roots. To fix this problem, the LINC class is converting a used cargo van into an electric delivery vehicle.

Andrew Gazdziak is a senior in electrical engineering and one of the project managers for the EV class. He explained that the project began with last semester's LINC class, which "was all about applying for grants, doing calculations, seeing what was possible, creating designs." After receiving the proposal, the Student Sustainability Committee gave the class a grant of \$66,970.

This semester's class is focused on changing a 2003 Ford E-250 into a vehicle that runs solely on electricity. That process involves removing many parts from the van and installing an AC conduction motor and battery system. Jamie Zouras, a sophomore in natural resources and environmental science, described the process of breaking down the gasoline-powered van.

"We completely disassembled it. We took the engine and the transmission out, and we drained the gas."

Laura Haller, a sophomore in electrical engineering, said that removing the engine was one of the most difficult parts of the process. A 40 kWh battery pack consisting of one

hundred batteries will provide the power for the van.

To offset the energy consumption of charging the vehicle, the class will create a solar-powered charging station. The students plan to place ten solar panels on a roof near the charging station, which will allow the station to be totally off the grid, and for the whole process to be carbon neutral. The class budget for the charging station is roughly \$18,000, according to Zouras.

The students are learning a lot of valuable skills that they may not have discovered otherwise. A small group learned how to weld in order to create an apparatus to hold the batteries. A necessary skill in any sort of project is establishing partnerships and finding resources. Besides the SSF, the class is working alongside Dining Services, Facilities and Services, the Don Moyer Boys and Girls Club, and the American Advertising Federation, which is creating artwork for the van.

Education and outreach are the other key components of the project. Several students presented their work at the Engineering Open House and there are plans to share at the Environmental Expo at the Union on April 23. In addition, a group of children from the Don Moyer Boys and Girls Club visited the garage a few weeks ago to work with the students. They helped to disassemble the engine and learned a bit about electric vehicles and engineering fields. Zouras said the day was all about "encouraging them to participate and think about engineering as a future career."

The class consists of thirteen students. Most are in the college of engineering, but there are also communication, finance, natural resource and environmental science majors. Brendan McDonnell, a junior in engineering mechanics, emphasized that all of these fields of expertise have been



instrumental in the process.

A garage near the arboretum provides van storage and a workspace for the class. The project has involved a lot of outside work.

"There are two work days per week, which are at least two hours," McDonnell said. "Including class time, we spend about ten hours per week on the project."

The project has had its share of obstacles. For example, they received the van a month later than planned. The transmission in the gasoline engine isn't compatible with an electric vehicle and they'll need to find a solution to that problem. But for the most part, the project seems to be going smoothly.

The students hope to complete the project by the end of the semester, but even if they don't, only some fine-tuning of the vehicle would remain. Gazdziak guesses that the LINC class would have a different focus if it were to be continued next semester. "We've done a lot of the major design work...so for next semester we want to do more with the education and outreach."



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SECS TALKS EARTH WEEK 2013

by Olivia Harris

Jamie Zouras, sophomore in Natural Resources and Environmental Science, is the Earth Week Coordinator with Students for Environmental Concerns. Green Observer asked Zouras a few questions about the upcoming events.

Did you have specific goals when planning Earth Day 2013?

My goal was to focus on creating fewer events throughout Earth Week that were more heavily developed and geared towards the interest of the general UIUC community. Additionally, I hope to document each event through pictures and video so that future Earth Week committees have material to reflect on, advertise with, and display to encourage participation throughout the week of festivities.

What does Earth Day mean to you? What do you think it means to the Illinois campus?

For me, Earth Day serves as a reminder that our Earth is an incredible place that humans must show appreciation towards. Earth Day provides me an opportunity to educate the community about the importance of living responsibly within our limits to preserve the Earth's natural wonders.

For the Illinois campus, Earth Day is a celebratory tradition that widens sustainable practices and environmental awareness. It offers fun and interactive activities to get involved with conservation.

What event(s) planned for this year are you most excited to attend?

I am most excited to attend our Sustainable Foods Discussion, which will take place on April 26, 4-6pm at Illini Grove. Students and community members who attend will hear from different professors on campus about perspectives on genetically modified organisms, organic food, the food industry, feeding a growing population, sustainable agriculture, etc. The Sustainable Foods Discussion advocates for food that is community based, ecologically sound, humane, and fair. Our mission is to educate students and community members on the importance of sustainable food. Also, we will have donated food from local businesses to snack on during the event!

A HISTORY OF EARTH DAY

by Olivia Harris

Picture the year 1970. Vietnam, protests, hippies, and Jimi Hendrix readily come to mind. But environmentalism? Surely not. However, it is this year that is considered to be the birth year of the environmental movement. A year earlier, a blowout on platform A of Union Oil's drilling operation in the Dos Cuadras Offshore Oil Field spilled more than 80,000 barrels of oil into the Santa Barbara Channel, a catastrophe that is today ranked as the third worst spill in history.

Enter at-the-time Wisconsin Senator Gaylord Nelson. Known as "the Conservation Governor" in his home state, Nelson had struggled to pass environmental protection legislation in Washington D.C. for nearly a decade after his election as senator. The Santa Barbara oil spill gave him the opportunity he needed to get his agenda before Capitol Hill lawmakers. The spill had grabbed national media attention, arousing public outcry. He decided to marry the outrage expressed by citizens over the Union Oil spill with the enthusiasm and power he had seen demonstrated in college campus Vietnam war protests in order to encourage positive environmental change.

Nelson campaigned across the country during the next year to create support for what he was calling "a day for old-fashioned political action." He encouraged communities to dig into the environmental issues in their area and coordinate events to raise awareness for them. Nelson desired grassroots initiative, not a stiff, impersonal national programming. His ideas worked. On April 22, 1970, 20 million people on

thousands of college campuses, elementary and high schools, neighborhoods, and civic organizations, united under the standard of environmental concern to hold demonstrations, public seminars and engage in environmental restoration activities.

The University of Illinois at Urbana-Champaign has been involved with Earth Day since its inception. However, the very first Earth Day celebration wasn't called Earth Day at all; during the week surrounding April 22, 1970, Illinois experienced "Environmental Crisis Week." Bruce Hannon, professor emeritus of the School of Earth, Society and Environment and founding member of the Students for Environmental Concerns (SECS) organization, remembers the week from the perspective of a student as "incredible." For seven days there was programming from 10 a.m. until midnight, he said. John Marlin, another original member of the SECS, recalls games, booths, and speakers on environmental topics making up the bill that year.

The Students for Environmental Concerns (SECS) organization, which now facilitates Earth Week festivities, came about because of Earth Week, not the other way around as one might imagine. Diane Wolfe-Marlin, wife of John Marlin and current member of the Urbana city council, recalls the early days of the organization.

"You were people of all different majors but we all shared common interest. That was what was exciting. We really felt we

1967

1969 

APRIL 22
1970

Union Oil spill

SECS is born

First ever "Environmental Crisis Week"

SECS and UIUC faculty fight to prevent the damming of the Sangamon River

could change the world. We were pretty idealistic. It was a lot of fun.”

With SECS in charge, Earth Week became an annual way to reach out to people with many different interests and talents. Subsequent Earth Weeks featured photography contests, canoe trips, and trips to Allerton Park, a cherished natural heritage spot located roughly 20 miles southwest of Champaign.

One of the most successful events inspired by Earth Day zeal was the SECS spring recycling drive.

“We used to park a semi out at Assembly Hall and people from town would bring their glass and we’d throw it into the back of the trailer. At the end of the day we had a semi full of broken glass,” said John Marlin. He also explained that at that time, the glass collected would be hauled to another town to be recycled. In response to the success of the YMCA’s recycling drives each spring, the community recycling center in Champaign was started to meet the obvious need in the communities.

While some Earth Day activities were seasonal occurrences, other environmental efforts were debuted at Earth Week and were worked on by the SECS year-round. The Oakley Dam on the Sangamon River is such an example. From 1967 to 1982, students in SECS partnered with faculty of the university and worked to prevent the building of a dam on the Sangamon River north of Decatur, Illinois. The damming of the river would have caused irreversible flooding of Allerton Park in order to turn it into a reservoir. This issue was fought against by SECS members and given a media boost every year during Earth Week celebrations until the dam plans were finally scrapped.

In many ways Earth Week at the University of Illinois has not changed much through the years from the original celebration. The value of Earth Day, in Diane Marlin’s opinion,

has always been to get students off campus and interacting with the community. Bicycle paths and lanes on streets, recycling pick-up, and reducing emissions from Abbot Power Plant on the west side of campus were the great community needs in the early years. Today, students are participating in days of service, attending benefit concerts, and uniting with Beyond Coal to advocate for the university to renounce coal-generated electricity and seek out alternative energy. Thinking beyond our campus is essential to the goal Sen. Nelson had for Earth Day: “It is to be a day for people to act locally.”

While thinking about issues with scope beyond campus, students still wished to participate in their own backyards. In 1980, students took to the quad to demonstrate “green” gadgets, including solar powered radios. More recently, in 2009, Greek organizations competed in the GreenHouse competition, gathering recyclable materials for two weeks in a race to collect the most items. In 2010, Urbana Mayor Laurel Prussing and Champaign City Councilman and Deputy Mayor Michael LaDue delivered remarks at a rally on the Main Quad, which focused on the reduction of Champaign and Urbana’s coal consumption. Last year, students armed with trash bags helped clean up the littered Boneyard Creek, which runs west to east, just behind the businesses on the north side of Green Street and through the Bardeen Quad.

Gaylord Nelson famously called Earth Day “a gamble.” If that is so, then he hit the jackpot. The first Earth Day was celebrated with gusto here at the University of Illinois, and the legacy has continued for decades. This Earth Week, join thousands of U of I students and faculty, Champaign and Urbana residents, and millions of others worldwide, to celebrate our planet and advocate for its preservation.



LOOKING BEYOND EARTH WEEK

by Abigail McEwen

Earth Week is one of the major environmental events on campus. Throughout the week, the campus community will come together to spread awareness on environmental issues, work for sustainability, and generally celebrate our planet.

But what about the other Earth advocacy days? Wikipedia lists over 50 other environmental dates that are celebrated around the world. However, these are less known and often overlooked. Below is a list that highlights the unique temporal variations of environmental awareness.

HOUR: Earth Hour: March 23, 2013 from 8:30 p.m to 9:30 p.m

Started by the World Wide Fund for Nature (WWF) in 2007, this event encourages people to take action against climate change by turning their lights off for one hour. This year, Earth Hour fell over spring break and was not observed by the campus community. Looking ahead to next year, Earth Hour will fall on March 29.

DAY: World Water Day: March 22

In 1993, the United Nations General Assembly implemented World Day for Water. Every year, UN-Water selects an event theme that promotes awareness on issues surrounding water resources. This year, the theme was international water cooperation. On this day, citizens are also encouraged to refrain from using their tap water systems.

Other environmental awareness days include: World Wetlands Day (February 2), Earth Day (April 22), and International Day of Climate Change (October 22).

WEEK: National Wildlife Week: March 18-24, 2013

The National Wildlife Federation (NWF) sponsors this event and encourages educators to teach children about various wildlife-related issues. This year the theme was "Branching Out for Wildlife", which focused on trees. The NWF provided educational materials and helped various communities plant about 75,000 trees.

Our campus celebrates two major environmental awareness weeks: Earth Week in the spring and Sustainability Week in the fall.

YEAR: International Year of Water Cooperation: 2013

This year, the UN chose to focus sustainability and environmental awareness efforts on water cooperation. Previous years have focused on "Sustainable Energy for All" (2012), "Forests" (2011), "Biodiversity" (2010), and "Natural Fibers" (2009).

DECADE: United Nations Decade on Biodiversity: 2011-2020

This 10-year effort focuses on supporting and promoting the Strategic Plan for Biodiversity, which aims to reduce the global loss of biodiversity. You can track the progress of this initiative and find out information about current events on their Facebook page: www.facebook.com/UNBiodiversity.

We are also currently celebrating the UN Water for Life Decade (2005-2015).

All of these environmental dates aim to spread awareness on key issues that affect both our local communities and global world. Some might argue that there are too many environmental awareness events or that these events promote a culture of "slactivism" in place of activism. However, these symbolic

events provide important opportunities for communities to rally around environmental issues and reflect on goals and progress for sustainability. Obviously, we cannot celebrate all of these dates with the enthusiasm that we direct towards Earth Week, but we should be careful to not entirely overlook them.

DIVESTING WITH BEYOND COAL

by Amanda Sikirica

Among the variety of environmental clubs on campus, UIUC's Beyond Coal stands out. From rallies for divestment in front of the Alma Mater podium to silhouette posters around the quad illustrating the human cost of fossil fuels, Beyond Coal is making strides in our local divestment campaign towards socially responsible investment of University money.

UIUC was one of the first universities in the country to begin a divestment campaign when in the fall of 2011, Beyond Coal began a divestment movement that has grown quite a bit with its current members, including group president Tyler Rotche. Affiliated and supported in part by the Sierra Club, and started by a Green Corp representative from the Sierra Student Coalition, the divestment campaign on campus is geared towards pulling all university investments from the "Filthy Fifteen", which is comprised of coal burning and mining companies. This would help promote a socially conscious investment portfolio.

The national divestment campaign, which is meant to remove university and college investment nationwide from fossil fuel companies, is both a movement for solidarity and a way to fight money with money. It started in 2011 at UIUC, the University of North Carolina, and Swarthmore, and has recently been given greater exposure through Bill McKibben's 350 Tour last fall. There are now over 300 colleges and universities with a divestment campaign, and more signing up each day.

But there are challenges.

"Ok, so there's two endowments" begins Rotche, as he tries to explain exactly how money flows through the University of Illinois. "There's the University system endowment, which it's very difficult to get access to. Then there is our campus endowment [...] In terms of how money gets into it, it's a more complicated process, which helps make it smaller. When donations go to the university, it is funneled into the larger system endowment."

Rotche, a sophomore studying Political Science and Earth, Society and Environment, hasn't taken an economics course since high school, but has educated himself thoroughly in the way universities invest their money. The Responsible Endowments Coalition provides a long and detailed explanation of the processes involved and Beyond Coal members have also talked directly to people at the university who are involved in the investment process.

"When we were talking with the Deputy Comptroller, he

gave us a list and he told us that we weren't invested [...] The campus endowment is not invested in any of the Filthy Fifteen [...] we're trying to get out of. And from the News-Gazette contacting the foundation they said that they are also not invested directly" says Tyler.

Within the more accessible investment information, there are no Filthy Fifteen. However, there are several funds that are much more unknown and invested in coal.

"But the thing is that there are mutual funds and index funds which are these pools of money that can have [...]. They're managed externally and the investments are kept privately and they're shifting more frequently."

As Tyler is saying, the current investment practice of the university is structured in a way that not only is impersonal to the message and reputation of the university, but also is very difficult to track down.

"So if you can imagine this guy in NYC, we give him a set amount of money because he does a good job bringing money back to us [...] whereas index funds are more based on an algorithm based on stock price movements [that a human investor]. That's where all the money will be invested in coal, and that's why it's difficult to get out because we would have to get information on what exact fund and what person or manager we're corresponding with but also what they're doing."

This ambiguity is a big challenge to Beyond Coal's goal. The approach they've taken currently is to raise awareness on campus through social action via demonstrations, petitions, and rallies. They have also started dialogues with the Board of Trustees, with Beyond Coal members going to their meeting, as well as Tyler speaking at the meeting both this year and last about divestment.

As for their relationship with the two other original schools and the now over three hundred other schools, organizations like 350.org, the Sierra Club, and Green Corp help keep that link alive. Katie Mimnaugh is the Outreach Chair for Beyond Coal and it is her job to keep involved with the community groups, organizations, and Facebook groups for both Illinois and Mid-West divestment campaigns, where students can share their local divestment strategies and experiences.

For Earth Week, Beyond Coal will be having a rally for divestment, Friday, April 26th, 2013. More information can be found either on their website or Facebook page.

INSECTS, YOUR MOUTH, AND A SUSTAINABLE FUTURE

by Katrina Halfaker

They're everywhere, even if you don't ordinarily notice them. No, I'm not talking about bacteria. I'm talking about bugs. Insects. The creatures many of us have been conditioned to fear, or at least, avoid with a burning terror rooted in repulsion. They're an abundant food source, and yet it seems that in the Western world, consuming insects is still a taboo and terrifying phenomenon. In Thailand, vendors offer deep fried insects to passersby. In Papua New Guinea, even arachnids, such as the wood spider, are consumed. Not only are insects and arachnids a high source of protein, but also, it's been argued recently that insects are a more sustainable source of sustenance.

In a recent article written by Tracy McVeigh for The Guardian (a UK publication), she combined the preview of a London event to promote awareness of the environmental benefits of eating insects with some research on the topic. According to McVeigh's article, "a study by FoodServiceWarehouse.com suggested that swapping pork and beef for crickets and locusts could help to reduce greenhouse gas emissions by as much as 95%." Given that reducing greenhouse gas emissions has been a serious concern recently, that is a huge 'pro' for devouring the creepy crawlies.

To learn more about the environmental benefits of insect dining and the expanding culture surrounding it, I interviewed Brendan Morris, a graduate student studying Entomology here at the University of Illinois, and equally informative peer, Catherine Dana.

Q: Mr. Morris- if I remember correctly,

integrating insects into your diet is not a relatively new experience, is it?

BM: Personally and historically speaking, no! Believe it or not the consumption of insects as food, termed entomophagy, is common in many cultures around the world, though it is conspicuously absent in Western societies.

CD: One of my favorite examples of historical entomophagy is of the Kutzadika'a people in the Mono Lake region of California. Mono Lake is filled with mostly just Alkali flies, brine shrimp, and algae. It is such a productive lake that many of the animals in the area use it as a primary food source, including the Kutzadika'a people, who would collect and eat the fly pupae as a large part of their diet. In fact their name, Kutzadika'a, likely means "fly eater."

Even our biology has evidence of our eating of insects. Humans have chitinase, an enzyme also found in many other primates, which helps break down the polysaccharide found in insect cuticles.

Q: *How long have you been a master of insect delicacies within the realm of culinary arts?*

BM: I am hardly a master, but thank you! I started cooking up bug-eats about five years ago when I was an undergraduate teaching assistant for a course that explored many facets of cultural entomology, including entomophagy. My entomophagous tendencies have expanded quite a bit since then, and I've certainly developed a more discerning palate.

CD: Personally I'm brand new to the

active world of entomophagy, but I've been eating insects all my life, we all have! There are many products that purposely use insects and many that have either pest species found on or in them (like aphids, thrips or mites on broccoli). The FDA actually allows insect "defects" and regulates the amount with a "Defect Action Level" below which the amounts are acceptable and not noticeable by the consumer!

You can find what the current FDA defect action levels for foods are here:

<http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocuments/RegulatoryInformation/SanitationTransportation/ucm056174.htm>

Q: *How are insects a more sustainable source of protein? Given that large mammals do require more time to mature, more feed and space to graze, and more care, how do insects compare? What might the cost differences be?*

BM: Depending on the insect, there are considerable ecological advantages to farming insects for human consumption. While the majority of insect species consumed by humans are collected en masse from the wild, large-scale farming operations are becoming more common. The production of conventional livestock accounts for nearly one-fifth of the anthropogenic global greenhouse gas emissions, and there is a positive correlation between body mass and CO₂ production – a recent review suggests that we could expect much lower GHG emissions from large-scale insect farms (van Huis

2013). Of course not all insects are equal, but some of the more commonly consumed species probably share a similar carbon footprint. There is still a lot of progress to be made in transitioning towards the commercialization of insect production for human consumption.

CD: The study group at Wageningen University in the Netherlands found that insects emit smaller amounts of greenhouse gasses and have higher growth rates per kilogram than pigs or cattle (Oonincx et al. 2010).

Q: *What sort of insects do you cook and serve? Do you have any recipe suggestions? Which have the highest amount of protein, based on your knowledge, and what are your recommendations?*

BM: Most of the dishes which include insects that I can purchase or collect in large quantities include: crickets, beetle grubs, waxworm caterpillars, ants, and termites. For those interested in trying insects for the first time, I recommend anything roasted or fried. Oven roasted mealworms tossed in a mixture of olive oil, salt, and parmesan cheese make an easy and satisfying snack. There are numerous insect cookbooks available -- from desserts, main courses, to hor'dourves, the culinary possibilities are truly endless. My current favorite is David Gordon's revised edition of "The Eat-A-Bug Cookbook."

Still cringing? Can't get over the squeamishness? Can't bring yourself to eat a well-cooked insect all by its delicious lonesome? Here are some things to consider:

1. Eating insects is a good way to avoid being exposed to the growth hormones and steroid products which are pumped into many animals such as chickens, cows, and pigs in the US. The growth hormones pumped into cows not only force them to mature faster, but also make it so that they will lactate longer. Not only does this seem inhumane, but also, it's been linked to increasing rates of puberty and other health risks. Growth hormones are in your meats, poultry, and dairy products. Insects aren't. Insects- 1. Conventional food sources- 0.

2. It's for the environment! What better selling point? Using insects as a food source means you're using less land space and less resources overall to survive. It's the green thing to do.

3. You don't have to eat insects as they are. If it really freaks you out so much that you can see the insect that you're eating, prepare the food differently. If you're feeling fancy, you can always puree them into a smoothie, bake them into cookies, or grind them into a veggie patty. Or a meat patty. Whatever

you prefer. Although, mixing insects with a beef patty in some ways defeats the purpose. Regardless, it's how you approach preparing the meal which will determine whether or not you'll really enjoy it.

So, the next time you take a bite out of that chocolate bar, or the next time you nibble a Dorito, remember: they've been in you and they'll find their way back again, whether you like to admit it or not. Why not embrace eating insects? They're animals like anything else. If you can stomach eating baby lambs because they're 'tender,' you can handle a cricket or two.

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GET OUT: A GUIDE TO C-U NATURE

article and photos by Rob Kanter

image by Allie Mendelson

Does the life of a student leave you feeling alienated from the natural world? You're not alone. Many people think of campus as nothing more than a collection of buildings connected by streets and sidewalks and parking lots.

But when you allow yourself to slow down and really look—sans the interference of earbuds, shades and smart phone—you might be surprised at the nature you can observe here. Better still, you might find the psychic lift animates people who maintain connections with the natural world. How can you do this?

KISS A FROG



Okay, you may not be able to get close enough to kiss one, but now that the weather is warming you can probably find one. Just head for the Boneyard Creek, which runs through campus from First Street to Lincoln Avenue, just half a block north of Green Street.

Your best bet is finding bullfrogs, which sometimes bask on the rock walls that border the stream behind Engineering Hall. (If you happen to get out to Japan House, you might also find bullfrogs there, along with another similar species, green frogs. Find them by walking around the edge of the pond and watching them jump in.)

HUNT A DRAGON



While you're near the Boneyard Creek, make time to notice the plethora of other life associated with the stream, despite the way people disrespect it. As summer approaches you will see a variety of damselflies and dragonflies, including the widow skimmer pictured here. These bug-eating insects feast on the many smaller bugs that the creek supports.

When the water of the Boneyard is running clear, a patient observer can even begin to identify the fish that live there, which include largemouth bass, green sunfish, creek chubs and striped shiners. Would you believe the Boneyard supports more than 20 species of fish?

FIND A FALCON



In recent years, a peregrine falcon has staked a claim to some of the tall buildings near Fourth Street, including the Whopper, Sherman Hall and Illini Tower. It typically arrives on campus at about the same time students do in late August, and then leaves for the breeding season sometime early in April. (Where it goes is really anyone's guess, but the likely possibilities include the Arctic tundra.)

The easiest way to find the campus peregrine is to scan the ledges toward the tops of the tall buildings near Fourth Street as you pass by during the day. It's slightly smaller than a red-tailed hawk—the birds of prey you see perched along the interstate—and its back and wings are a bluish-gray color.

Peregrine falcons were once endangered in the contiguous U.S., largely as a result of exposure to DDT, but their numbers have increased dramatically in recent decades, thanks to the regulation of pesticides and widespread breeding programs.

When the peregrine is away you might need to satisfy your desire to see a falcon by looking up at the pair of American kestrels that nests on the side of Temple Hoyne Buell Hall.

Kestrels are North America's smallest falcons, and to some tastes, the prettiest, especially the males. They sport a vibrant blue back and orange chest, with speckles of black for character.

Look for the THB kestrels atop the post next to the door that opens onto the little fourth floor balcony, on the west side of the building. You'll know you've found the right spot by the copious "whitewash" that marks the brick walls there.

While we're on the subject of birds of prey, there's a pair of Cooper's hawks that have nested on the main Quad near Noyes Lab the past couple of years. Look for them as they gather sticks to build up their nest in the large Ginkgo tree right in front of the building.

STOP AND SMELL THE NATIVE FLOWERS

Between the English Building and Lincoln Hall, the "Lincoln Woodland" has been planted with flowers native to the wooded groves that once dotted the prairies of east central Illinois. These flowers peak in beauty in April and May, then die back as the trees shade them out in summer.

If you have access to a wildflower guide you can identify: Virginia bluebells, wild geranium, prairie trillium, Jack-in-the-pulpit and many more. Otherwise, you may just want to relax and enjoy seeing and being there.



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OPINION: FOLLOW THE MONEY

by Eric Green

"Nothing but a newspaper can drop the same thought into a thousand minds at the same moment. A newspaper is an adviser that does not require to be sought, but that comes of its own accord and talks to you briefly every day of the common weal, without distracting you from your private affairs."

Newspapers therefore become more necessary in proportion as men become more equal and individualism more to be feared. To suppose that they only serve to protect freedom would be to diminish their importance: they maintain civilization."

– Alexis de Tocqueville, *Democracy in America Book II*

Earlier this semester, the Green Observer (the very paper you are reading now) was granted funding by the Student Sustainability Committee (SSC). The funding request was modest, less than \$3000 of the \$1.1 million raised by student fees annually, and insignificant when compared to the typical Facility and Services (F&S) requests. The funding was granted as part of the SSC's efforts towards "education and campus engagement". A newspaper, and especially an environmentally oriented student-run paper as the Green Observer, was deemed an appropriate use of the student fund. Not only are most articles informative, but they also have a local focus (highlighting local environmental problems, activities of environmental groups, or efforts at the University).

A little over a month later, the leadership of the Green Observer learned there was a problem involving transfer of funds to the RSO and was told the SSC would no longer be able to offer funding to the newspaper. So why was the Green Observer denied funding? It was not because the SSC decided the Green Observer did not qualify for funding or that the newspaper did not meet its goals. Rather, it came down to a legal decision. That decision is such (not verbatim): Registered Student Organizations (RSOs) are not officially a part of the University of Illinois and as such are not capable of receiving funding from the SSC. Further, even if an RSO partners with a department, faculty member, or other entity of the University, it still may not receive funding if the funded project does not remain on campus. Thus, because newspapers are not buried in the ground, fixed to buildings, or tied to bike racks, they are capable of leaving the University of Illinois campus and therefore are not eligible to receive student funds.

But while the physical newspaper could theoretically (though improbably) be taken off campus, the information in the articles and the debates inspired by an informed student population would remain. And in this way, the public discourse inspired by the newspaper would remain a part of the University of Illinois.

One of the lead organizers of the original green fee campaign told me in an email, "It definitely was our intention to fund student run projects, and in fact, I think that the Illini Union audit of 2006 was mostly student run, even though

SEDAC managed it." Those students took it upon themselves to create a fee to make this campus more sustainable and not just through capital improvements. They knew that a committee of students should govern it, as it was student money that would go to the projects. And somewhere, the idea of student led projects being funded, got lost. Now funding is primarily allocated to F&S projects. Of the projects listed on the SSC's page (<http://ssctest.union.illinois.edu/projects.shtml>), 85% of the funding went to F&S projects.

While those projects are good (they'll help reduce costs, reduce waste and greenhouse gas emissions), the University's own contribution to sustainability projects has declined. The final contribution the University was willing to make to the wind turbine was 2.56 million dollars. After the cancellation of the project, the University only offered 1.5 million dollars to support other projects that might be deemed as replacements for the wind turbine. It is hard to imagine the students who first passed the campus sustainability fee envisioned the student fees would replace University expenditures on energy conservation, especially as tuition increased significantly. If we now have a University F&S slush fund, shouldn't costs of operation be decreasing, not increasing? Meanwhile, projects with overwhelming student support like the wind turbine get culled by the University through large overhead, delays in planning, and inability to bring stakeholders together. So not only are students footing the bill, we are also marginalized in the decision making process.

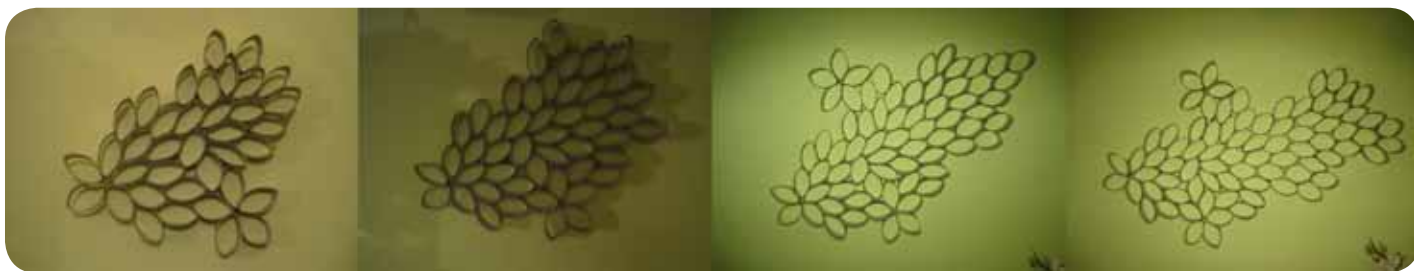
It's hard for me not to begin to think that the University conspires to abuse students' trust (especially when a senior engineer in capital planning and space management told me that a wind turbine would only be built "over [his] dead body"). They take the students' money under the auspice that their green projects help the University become more sustainable. Then when a student led newspaper applies for a pittance of the fund (less than .3% of the SSC's annual revenue), they are denied funding under the guise that legally RSOs cannot receive University funding, even though SORF, I-PENG, and several other funding sources manage this feat with great success and regularity.

That is cowardice on multiple levels. It mistrusts the student committee to appropriate funding to credible sources. It believes that RSOs are inherently self-serving, ingrained with a mentality to cheat the system. And it believes capital improvements are the only changes necessary for sustainability, failing to recognize that real change only comes with changes in institutions. The University must abandon the belief that students are incapable of making important decisions, financial or otherwise, for themselves.

I believe institutional change can happen, but only in a true democracy where equality exists and power is held by all. I also believe, along with de Tocqueville, that newspapers are a vital part of any democracy. Whether conservative or liberal, environmentally or economically oriented, global or local, the newspaper is our collective understanding of the world. If the University of Illinois strives, as it claims, to be a leader in sustainability, it must embrace the idea that education and information play a necessary role, both in and outside the classroom. Otherwise, we may find that our democratic nation may not be sustained by the participation of us, the uninformed future.

GIY: CARDBOARD ROLL DECOR

by Cait Gallagher



Between toilet paper and paper towels, my house here on campus is constantly under the siege of cylindrical cardboard rolls. “Why Cait, do you have a suggestion of what we should do with all of these rolls?” Why yes I do, astute Green Observer reader. Why throw away (recycle) these cardboard tubes when you could make something with them instead? All you need is some glue, clothespins, a plethora of cardboard rolls (whether toilet paper or paper towel), and a little creativity to guide you along the way.

STEP 1. Cut up your rolls into 1-inch sections, creating mini cardboard circles.

STEP 2. Collapse these circles a little, making nice almond shaped pieces of cardboard.

STEP 3. Here is where the creativity comes in: use the glue to connect the almond-shaped cardboard in different ways.

STEP 4. Use the clothespins to hold the connections in place.

STEP 5. Continue to build the connections until the desired size is achieved.

STEP 6. Let the connections completely dry before removing the clothespins.

Sa magnifique! A simplistic decoration that can be hung anywhere to add an earthy, recycled vibe. Looking for something with a little more pop and pizzaz? Before gluing the cardboard pieces together, paint the inside and outside of the rolls in different colors to make the creation have a bolder edge.

The best part about this project is that it has the possibility to be ongoing. Just simply add cardboard pieces as you accumulate more. Or use the additional cardboard rolls to make more small versions and spread the eco-friendly and recycled craft love. The possibilities are endless.

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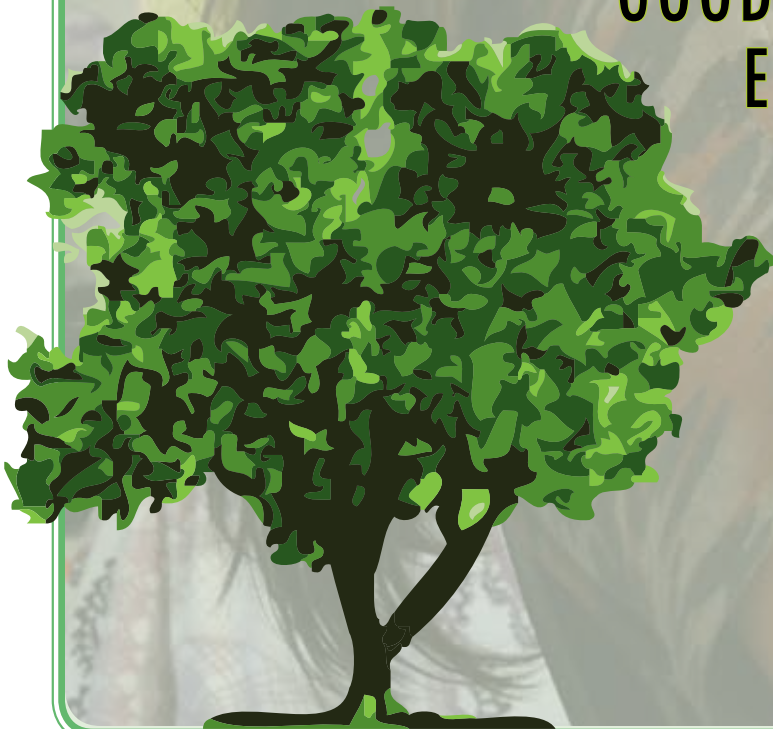
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