



# STATION TO STATION

... from our home to yours

W.K. KELLOGG BIOLOGICAL STATION

SPRING & SUMMER 2010

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## Going Green

The Kellogg Farm Pasture Dairy received Leadership in Energy and Environmental Design (LEED)



Silver Certification in March. It is the first agricultural building to receive LEED certification in North America.

To achieve certification, the new barn makes efficient use of heat, light, electricity and encourages environmental stewardship.

LEED-certified newly constructed buildings must be at least 15 percent more energy efficient than current codes. The KBS dairy facility is 38 percent more energy efficient.

Many features that earned LEED certification can be adopted by dairy farmers with different management and herd size.

For more information on the pasture dairy facility, contact Mat Haan at 269-671-2360 or [pasture.dairy@kbs.msu.edu](mailto:pasture.dairy@kbs.msu.edu) or visit [www.kbs.msu.edu/research/pasture-dairy](http://www.kbs.msu.edu/research/pasture-dairy).

Dear Friends,

We are preparing for a busy spring and summer at KBS and hope the events and programs described here will encourage you to come out to KBS for a day, evening, or several times in the coming months! We continue to update our programs for 'learners of all ages and interests'.



Check out what is planned for **Wild Wednesdays** and **Summer Day Camp Adventures** at the Bird Sanctuary. Join the Sanctuary staff for a bird identification walk followed with a cup of Birds and Beans®, bird-friendly coffee. We have the coffee available for sale too.

Maple Syrup season at Kellogg Forest produced more than 130 gallons of syrup. Stop by the Forest, Bird Sanctuary or Conference Center to pick some up. It is delicious and disappears quickly.

Interested in learning more about harmful algal blooms in our local lakes? Plan to attend the **Dessert with Discussion** program in April and learn about Dr. Elena Litchman's research...and enjoy some delicious desserts! A preview of her work is included in this newsletter.

The Manor House will be open for several special events to celebrate W.K. Kellogg's 150th birthday this spring. We will again host the Cereal City Band for **Jazz in the Gardens**. Be sure to mark your calendar and come for brunch!

I look forward to seeing you at KBS this summer.

*Kay Hood*

## Dessert with Discussion 2010

Join us for informative presentations and discussions of current environmental issues led by MSU scientists. Presentations are **FREE** and includes a wonderful array of delicious desserts to enjoy. Dessert with Discussion begins at **7:30 p.m.** in the KBS Academic Center Auditorium. For more information, call 269-671-2263 or e-mail [communityrelations@kbs.msu.edu](mailto:communityrelations@kbs.msu.edu).

### Harmful Algal Blooms (HABs), Tuesday, April 27,

Dr. Elena Litchman, Department of Zoology. Co-sponsored by Gull Lake Quality Organization.

### Michigan Prairies, Tuesday, Sept. 21,

Dr. Doug Landis, Department of Entomology. Co-sponsored by Pheasants Forever, South Central Michigan Chapter.



## Harmful Algal Bloom Research

Since receiving a prestigious CAREER grant from the National Science Foundation in 2009, KBS faculty member and Assistant Professor Elena Litchman continues her studies on Harmful Algal Blooms (HABs) in local lakes.

Working with postdoctoral associate Dr. Mary Anne Evans and graduate student Jarad Mellard, they surveyed more than 30 lakes in West Michigan for harmful algae.

Toxic algae deteriorate water quality and can be harmful to various organisms, including humans.

Gull Lake and Wintergreen Lake, near KBS, are primary research sites for the Litchman lab.

Wintergreen Lake has high nutrient levels and continues to have persistent algal blooms with little annual variation. In contrast, they found *Microcystis* blooms in the much less nutrient-rich Gull Lake are highly sensitive to summer temperatures.

Litchman's lab is studying the connections between climate, nutrients and HABs to better understand aquatic ecosystems and water quality issues.

Plan to attend Dr. Litchman's presentation ***Harmful Algal Blooms*** (HABs) during **Dessert with Discussion** on Tuesday, **April 27 at 7:30 p.m.** in the KBS Academic Auditorium.



### Volunteers Needed

Opportunities are available at the Bird Sanctuary, Farm Dairy Center and Manor House. New volunteer training sessions are:

#### April

Fri 9 **Farm Dairy Center, Interpreter/Tour Guide, Session 1**  
9 to 11:30 a.m.

Tue 13 **Bird Sanctuary, Interpreter/Tour Guide**  
9:30 a.m. to noon

Wed 14 **Kellogg Manor House, Docent, Session 1**  
9:30 a.m. to noon

Fri 16 **Farm Dairy Center Interpreter/Tour Guide, Session 2**  
9 to 11:30 a.m.

Wed 21 **Kellogg Manor House, Docent, Session 2**  
9:30 a.m. to noon

For more information or to register for training, call 269-671-2263 or e-mail [volunteers@kbs.msu.edu](mailto:volunteers@kbs.msu.edu).

## Graduation Day for Vets to Ag Program

The Vets to Ag Program returned to KBS in February and just completed its second session, graduating nineteen veterans on March 12.

Funded by No Worker left Behind, this program is offered through a partnership between Michigan Works, the Department of Labor and Economic Growth and the MSU Institute of Agricultural Technology.

The Vets to Ag program is designed to help homeless veterans get back on their feet by teaching them skills useful in the agricultural industry. The veterans completed six weeks at MSU's Kellogg Biological Station (KBS) taking college-level courses in pesticides, soil science and Spanish. Along with courses, veterans received help creating resumes in preparation for job applications.

"Veterans deserve so much more," said Michael Wofford, operations manager for the Department of Labor and Economic Growth. "They've given all they have to our country." Wofford a veteran himself, had an idea to train homeless veterans in Michigan's biggest industry, agriculture. "Michigan agriculture is a \$70 to \$76 billion industry per year and has likely replaced manufacturing as No. 1," Wofford said.

Veterans came from Detroit, Flint and Lansing to attend this program. Several of the graduates already have job opportunities. Many are willing to relocate and get started in new careers.



## NSF Grant Funds New GK-12 Project

A \$2.65 million, five-year grant from the National Science Foundation (NSF) allows Michigan State University (MSU) to create a new GK-12 project at the Kellogg Biological Station (KBS). The grant will fund eight graduate fellowships focusing on biofuel sustainability and the MSU Graduate School will provide funding for an additional fellowship, a total of nine fellowships each year.

The new GK-12 project Fellows (graduate students) will work with teachers and students in the established KBS K-12 Partnership led by Dr. Phil Robertson and funded by NSF for more than 10 years. The partnership includes KBS scientists, MSU College of Education faculty and science teachers and administrators from 11 rural school districts. Participating school districts include Comstock, Delton-Kellogg, Galesburg-Augusta, Gobles, Gull Lake, Harper Creek, Lawton, Martin, Olivet, Plainwell and Vicksburg.



The program offers teachers in-depth exposure to environmental science topics and training to teach inquiry-based science.

“This program allows us to train graduate students to be better scientists by becoming better communicators and teachers,” said Dr. Tom Getty, GK-12 project leader and MSU professor of Zoology at KBS. “Our graduate students are very excited about this program.”

Learn more about the GK-12 project at [news.msu.edu/story/7595/](http://news.msu.edu/story/7595/).

## Summer Day Camp Adventures at Kellogg Bird Sanctuary

June 21-25	<b>Growing and Going</b>	July 12-16	<b>Winged Wonders</b>
July 5-9	<b>Aquatic Adventure</b>	July 19-23	<b>Critter Quest</b>

**Who:** Children ages 6-12 (6-year-olds should have completed kindergarten)

**When:** Monday - Friday, 8:30 a.m. to 3 p.m. Parents may choose an early drop-off time at 8 a.m. for an additional fee.

**Registration:** Call 269-671-2510

**Cost:** \$110 for Sanctuary members or \$120 for non-members.

*Discounts for sibling and “early bird” registration are available (before May 15, 2010).*



### Upcoming Kellogg Bird Sanctuary Events

<b>Birds and Beans</b>	<b>Wednesdays: Apr 14, May 12, Jun 9</b>	<b>8:30 to 10 a.m.</b>
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Enjoy bird watching? Take a walk with Sanctuary staff to identify birds in the area followed by a discussion and cup of Birds and Beans® coffee

Birds and Beans® coffee is grown with bird-friendly practices and is available for purchase at the Bird Sanctuary.

Members, free; non-members, \$4/adult, \$2/senior citizen and \$1/child (general admission).

<b>Earth Day</b>	<b>Thursday, Apr 22</b>	<b>All Day</b>
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Free Admission

<b>Bird Sanctuary Tours</b>	<b>Saturdays: Apr 24, May 22, Jun 26, Jul 24 &amp; Aug 28</b>	<b>10 to 11:30 a.m.</b>
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Learn about the Sanctuary’s history and its connection to W.K. Kellogg, MSU and the Kellogg Biological Station.

Interpreters will talk about the birds found at the Sanctuary, both residential and wild birds.

Walking distance is about one mile. Come dressed appropriately for the weather.

Members, free; non-members, \$4/adult, \$2/senior citizen and \$1/child (general admission).

**For more information about Kellogg Bird Sanctuary programs, call 269-671-2510, e-mail [birdsantuary@kbs.msu.edu](mailto:birdsantuary@kbs.msu.edu) or visit [www.kbw.mwu.edu/sanctuary](http://www.kbw.mwu.edu/sanctuary).**

## Kellogg Manor House Events

### Manor House Tours

Kellogg Manor is open for tours the following Sundays.

- Apr 11\*** 1 to 5 p.m. (last tour at 4 p.m.)  
(Mr. Kellogg's 150th Birthday Celebration)
- May 2** 1 to 5 p.m. (last tour at 4 p.m.)
- Jun 6** 1 to 5 p.m. (last tour at 4 p.m.)
- Jul 25** 4:30 to 6:30 p.m. (last tour at 6 p.m.)

Cost is \$5 for adults, \$4 for senior citizens and students 6 to 18 years old. Free for children 5 years and younger.

**\*Free Admission**

### Jazz in the Gardens

The Manor House will again host Jazz in the Gardens at KBS. Join us by the lake on **Sunday, July 25**, from **3 to 5 p.m.** and enjoy the music of The Cereal City Band. **Free admission.**

Begin your day by attending Sunday Brunch at Kellogg Manor (11 a.m. or 1 p.m.) followed by the concert on the grounds then walk in Mr. Kellogg's footsteps during a guided tour of the Manor (4:30 to 6:30 p.m.).

**For additional information about Kellogg Manor Tours and Jazz in the Gardens, call 269-671-2400, e-mail [manorhouse@kbs.msu.edu](mailto:manorhouse@kbs.msu.edu) or check [www.kbs.msu.edu/manorhouse](http://www.kbs.msu.edu/manorhouse).**

### Wild Wednesdays at Kellogg Bird Sanctuary

These one-hour family programs are scheduled every other Wednesday evening from **June 23 to Aug. 18**. Programs begin at **7 p.m.** and are free with paid general admission or a Sanctuary membership.

Each program has a unique theme with hands-on activities that families with children ages 4 to 7 years will enjoy.

- Jun 23** Beak to Beak
- Jul 7** Froggy Fun
- Jul 21** A Seeds Needs
- Aug 4** Feathers and Fur
- Aug 18** Flutterby Butterfly

Pre-registration is not required for Wild Wednesdays. General admission fees are \$4 for adults, \$2 for seniors citizens (65 and older), \$1 for children (ages 2 to 12 years) and children younger than two years old are free. (Bird Sanctuary household memberships cover admission to the Sanctuary, as well as other benefits throughout the year.)

For more information, call 269-671-2510 or e-mail [birdsantuary@kbs.msu.edu](mailto:birdsantuary@kbs.msu.edu).

Check out the Bird Sanctuary's web site for a full schedule of upcoming events at [www.kbs.msu.edu/birdsanctuary](http://www.kbs.msu.edu/birdsanctuary).

## KBS Conference Center

### Summer Brunches

- Apr 4** Easter Brunch
- May 9** Mother's Day Brunch
- Jul 25** Sunday Brunch

Seatings offered at **11 a.m.** and **1 p.m.**; reservations required.

Prices are \$25 for adults, \$20 for seniors, and \$15 for children.

### Spring and Summer Teas

Manor House Teas are popular events. Call and make your reservation now for upcoming teas:

- Apr 7** W.K. Kellogg's 150th Birthday Tea
- May 18** Celebrate Friends Tea
- Jun 15** Bicycle Built for Two Tea
- Aug 24** Literary Tea

Teas begin at **3 p.m.** Cost is \$25 for adults and \$15 for children. Reservations required.

### Holiday Walk 2010

The Kellogg Manor will once again be decorated for the holidays and open for tours, dinners and special events in November and December.

Area boutiques, florists and interior decorators are invited to adopt a room and help decorate the Manor for the holidays.

If you, your business or organization would like to adopt a room, call KBS Community Relations at 269-671-2263 or e-mail [manorhouse@kbs.msu.edu](mailto:manorhouse@kbs.msu.edu).

Watch for details in future newsletters or visit [www.kbs.msu.edu/visit/manorhouse](http://www.kbs.msu.edu/visit/manorhouse).

**For more information about Manor House and Conference Center events or to make a reservation, call 269-671-2400 or e-mail [conference@kbs.msu.edu](mailto:conference@kbs.msu.edu).**

The KBS Conference Center offers full catering services, overnight accommodations, and conference facilities for social or business events.

Whether planning a business retreat, private family gathering or a wedding, our experienced staff will help you plan a memorable event.



## Plant Diversity and Biofuels

Ever wonder how many plant species there are in a prairie? Or why there are more bees, butterflies and birds in some grasslands than others? A KBS team is working with Great Lakes Bioenergy Research Center's (GLBRC) ecologists to answer these questions. The plant ecology team is led by Dr. Kay Gross, KBS Director, but the real work is done by research technician Carol Baker and a team of technicians and students.

In 2008 the team selected 30 sites across southern Michigan to study. These sites represent the variation in three plant community types: corn, switchgrass and restored prairie. All three types are considered possible biofuel crops. A parallel set of sites are being studied in southern Wisconsin to provide regional comparison.

Researchers identify plants and count the number of different species. They collect and weigh the plant material (biomass) within a uniform sized area to determine productivity of the plant community. The plant community data is compared to the number and diversity of other species such as birds, bees and insects that provide biological services, for example—pollination and pest control to the crops.

As expected, there are more plant species in the prairie than corn sites and many of the switchgrass sites have a lot of plant and insect diversity. However, switchgrass sites do not support as many bird species as prairies.

Biomass production and diversity are not the only factors being considered in evaluating the sustainability of different biofuels at KBS. The cost to grow and harvest crops and convert them into biofuel is also a part of the GLBRC. The research at KBS will help determine how different biofuel crops will impact other species and the surrounding environment. Learn more about biofuel sustainability at [www.kbs.msu.edu/research/biofuels-research](http://www.kbs.msu.edu/research/biofuels-research).



### Invest in the future and help continue the legacy!

- |  |   |
|--|---|
| <input type="checkbox"/> Bird Sanctuary    | <input type="checkbox"/> Conservation Legacy Fund |
| <input type="checkbox"/> Farm/Dairy Center | <input type="checkbox"/> Kellogg Manor House      |
| <input type="checkbox"/> Land & Water Unit | <input type="checkbox"/> Volunteer Program        |
| <input type="checkbox"/> Morofsky Library  |   |

### Scholarships and Fellowships

- |   |  |
|---|--|
| <input type="checkbox"/> Joe Johnson Fellowship | <input type="checkbox"/> George H. Lauff Scholarship |
| <input type="checkbox"/> Noall Scholarship      | <input type="checkbox"/> Porter Graduate Fellow Fund |
| <input type="checkbox"/> Benjamin Skulnick Fund | <input type="checkbox"/> P.A. Werner Scholarship     |

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Please accept my gift of \$\_\_\_\_\_. Make checks payable to **MSU**.

Please send this form with your donation to:

**Community Relations Office, W.K. Kellogg Biological Station,  
3700 E. Gull Lake Drive, Hickory Corners, MI 49060**

To make a donation with a credit card, please call 269-671-2263.

**Your generous tax deductible gift is greatly appreciated.**

## Bird Sanctuary Hires New Bird Caretaker



Terria Clay joined KBS as the Bird Sanctuary's Animal Caretaker in January 2010.

Before coming to KBS, she previously worked at Shaver's Creek Environmental Center in Pennsylvania and Fellow Mortals Wildlife Hospital in Wisconsin. Terria recently completed training at the University of Minnesota Raptor Center.

With her educational background in ecology and evolutionary biology, Terria is a valuable asset to the Bird Sanctuary team. Stop by and you may see Terria on the grounds as she cares for the Sanctuary's raptor, waterfowl and game birds.

**E-Station to Station** is a monthly one-page e-mail newsletter, that includes upcoming events and research updates.

Would you like to receive the E-Station to Station? Send your e-mail address to [communityrelations@kbs.msu.edu](mailto:communityrelations@kbs.msu.edu).

Previous newsletters are available at [www.kbs.msu.edu/community-outreach/newsletter](http://www.kbs.msu.edu/community-outreach/newsletter).

### KBS Events Calendar

#### April

- 3 Field Ornithology Course - Field Trip 2 ◆
- 4 Easter Brunch ☿
- 7 W.K. Kellogg Birthday Tea ❖
- 9 New Volunteer Training - Dairy Center ☼
- 11 Kellogg Manor House Tours ❖
- 13 New Volunteer Training - Bird Sanctuary ◆  
Interpreter/Tour Guide
- 14 Birds and Beans ◆
- 14 Field Ornithology Course - Lecture 3 ◆
- 14 New Volunteer Training - Kellogg Manor House 1 ❖
- 16 New Volunteer Training - Dairy Center ☼
- 17 Field Ornithology Course - Field Trip 3 ◆
- 21 New Volunteer Training - Kellogg Manor House 2 ❖
- 22 Earth Day ◆
- 24 Bird Sanctuary Tour ◆
- 27 Dessert with Discussion ◀
- 28 Field Ornithology Course - Lecture 4 ◆

#### May

- 1 Field Ornithology Course - Field Trip 4 ◆
- 2 Kellogg Manor House Tours ❖
- 9 Mother's Day Brunch ☿
- 12 Birds and Beans ◆
- 12 Field Ornithology Course - Lecture 5 ◆
- 15 Field Ornithology Course - Field Trip 5 ◆
- 18 Celebrate Friends Tea at Kellogg Manor House ❖
- 22 Bird Sanctuary Tour ◆

#### June

- 6 Kellogg Manor House Tours ❖
- 9 Birds and Beans ◆
- 10 Wild Wednesday ◆
- 21-25 Summer Camp ◆
- 15 Bicycle Built for Two Tea ❖
- 23 Wild Wednesday ◆
- 26 Bird Sanctuary Tour ◆

#### July

- 5-9 Summer Camp ◆
- 7 Wild Wednesday ◆
- 12-16 Summer Camp ◆
- 19-23 Summer Camp ◆
- 21 Wild Wednesday ◆
- 24 Bird Sanctuary Tour ◆
- 25 Sunday Brunch ☿
- 25 Jazz in the Gardens ☿
- 25 Kellogg Manor House Tours ☿

#### Contact Information:

- ◆ 269-671-2510
- ◀ 269-671-2263
- ☼ 269-671-2507
- 269-731-4597
- ❖ 269-671-2416
- ☿ 269-671-2400

KBS Station to Station, Spring 2010  
Your comments are welcome; call or e-mail  
the Community Relations Office at  
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[www.kbs.msu.edu](http://www.kbs.msu.edu)

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