2017-18 ANNUAL REPORT



W.K. Kellogg Biological Station MICHIGAN STATE UNIVERSITY

A FOND FAREWELL

from KBS Director Dr. Katherine Gross



DEAR FRIENDS AND NEIGHBORS,

After 14 years as KBS Director (including one as Interim), I retired from that role on August 15, and am now back to being a 'regular' KBS faculty member. I have several goals to finish up over the next two years and then I will fully retire from MSU.

I look back with pride on all that has been accomplished during my time as KBS Director over the past 14 years. Those achievements happened as a result of a shared commitment to make KBS not only a 'jewel in the crown' of MSU, but also a place where students and scholars from around the world and the local community feel welcome.

A while ago, a colleague sent me a blog post entitled "Thoughts on Leadership" that summarized important traits of a University Department Chair. I had been KBS Director for about 12 years then, so I thought I would see how I scored. It was a long list, and it was humbling to see that I still needed to work on some things. The last item on the list stuck with me: **Step down when you've accomplished your goals. Pass the torch on.**

I have and I am!

Thank you for all you've done to help KBS in these 14 years, and to Jeff Conner for agreeing to pick up the torch as Interim Director until the next permanent KBS Director joins us.

> With thanks, Dr. Katherine Gross University Distinguished Professor

THANK YOU FOR YOUR GENEROSITY TO KBS IN 2017-18!

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Each year, contributions to KBS are made in memory or in honor of people whose lives have made lasting impacts. These gifts have been recognized in this list.

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SEAN GRIFFIN, JESS WEBB & ALLY BROWN LOOK FOR POLLINATORS

Nick Haddad joined the KBS faculty in August 2017 as a senior terrestrial ecologist. This summer, he and his team had their first field season here, full of camaraderie and growth.

The Haddad Lab's research focuses on the conservation of biodiversity, from individual rare animals to all species living within a community, using ecological lenses like adaptation and behavior. What that looks like in practice is different from person to person in the lab.

Most of the lab members are interested in arthropods, like ants, bees, spiders and butterflies, and all of them are motivated by the potential environmental benefits of their research.

"When I look around and see all of the environmental change we're imposing on the Earth, I want to bring science into making that better," said Haddad.



Caring for natural systems is the goal, but Haddad is committed to integrating human concerns into his research interests.

NICK HADDAD

"I am by nature an optimist," said Haddad. "Tak-

ing that view helps me look at the world by reconciling the needs of nature with the needs of people."

Haddad's optimism and conservation mindset have greatly benefited graduate student Sean Griffin. He studies the effects of habitat fragmentation on bees, and conducted an experiment on bee colonization at KBS this year.

Last year, he and Haddad created an experiment across seven landscapes in South Carolina - a massive size for a colonization study, especially by a graduate student. Ths type of study on bees at such a large scale was unprecedented, so the study was a risky one. Although challenging, the season rewarded him with valuable data and direction for his research.

"I'm really appreciative of Nick because I'm a serious pessimist, and Nick is the most optimistic person I've ever met," he said. "He was pushing me the whole time to just do it, even though it's a crazy project and no one knows if this kind of thing works on these scales, and it worked!"

Haddad, Griffin and the rest of the lab are excited to tackle ecological problems, like population declines of pollinators, using big experiments to answer big questions. We look forward to seeing how their research and group culture positively affect KBS and the environment. To learn more, watch a video about mentoring in the Haddad lab on the KBS Youtube channel.

SCHOOL PARTNERSHIP



TEACHERS ENGAGE IN AN INVERTEBRATE DATA COLLECTION ACTIVITY AT THE GLCS OUTDOOR CLASSROOM

Michigan's ecology is best learned outside! Over the summer, 19 teachers from Gull Lake Community Schools and Comstock Public Schools participated in the new KBS Teaching Science Outdoors: Best Practices Workshop. A generous gift from Gull Lake Community Schools Foundation allowed these K-12 teachers to engage in new teaching methods and align lessons to the new Michigan Science Standards.

BUS SCHOLARSHIP



INTERN EMMA HOLLOWELL SHARES EDUCATIONAL MATERIALS WITH A SCHOOL GROUP AT THE BIRD SANCTUARY

Transportation costs can prohibit local students from the unique outdoor learning experience of tours at the W.K. Kellogg Bird Sanctuary.

Through a gift from West Michigan Honda Dealers, the Sanctuary awarded bus scholarships, giving 268 students and 35 adults from 4 schools the opportunity to visit the Bird Sanctuary this spring for tours that complemented their classroom learning.

GARDEN & NEW SIGNS



A BUTTERFLY LANDS ON A CONEFLOWER IN THE BIRD SANCTUARY'S NATIVE POLLINATOR GARDEN The Sanctuary's Native Pollinator Garden expanded this year, reducing juniper bushes in favor of more native plants. **Over 80 native species** create more habitat for pollinators.

New additions also included interpretive signs, funded by the Kalamazoo River Community Recreational Foundation, highlighting alternative turf grass, and the bee spiral constructed as habitat for ground-nesting bees.

STUDENT CONFERENCE



A GRADUATE STUDENT SHARES HER RESEARCH WITH HER PEERS AT MEEC IN THE KBS SEMINAR ROOM

In April KBS hosted 200+ students for the Midwest Ecology and Evolution Conference (MEEC). Undergraduate and graduate students shared their research with peers, creating camaraderie and improving their science in a professional setting. Each year MEEC is organized entirely by graduate students. Thanks to KBS students Tayler Chicoine, Heather Kittredge, Robert Logan, Ravi Ranjan and Meredith Zettlemoyer

for all their hard work.

NEW FUND TO SUPPORT THE SANCTUARY

FOR OVER 40 YEARS DAVID DVORAK HAS LIVED WITHIN A FEW BLOCKS OF KBS'S BIRD SANCTUARY. WALKING THE LAKE LOOP TRAIL AROUND WINTERGREEN LAKE, SPOTTING ORIOLES SINGING IN THE TREETOPS, AND WATCHING THE SWANS ON THE WATER HAVE BEEN FAVORITE PASTIMES FOR YEARS.

That fondness for the Sanctuary led David and Karol Peterson (pictured at left) to make a \$1 million future gift establishing The KBS Bird Sanctuary Enrichment Fund. This fund will support students and staff, as well as programming, supplies, and facility needs.

Thank you to Karol and David for creating this fund for the future of the Bird Sanctuary!

ORIAL

PATIO CREATED

Beloved KBS LTER Data Manager Suzanne Sippel died in June 2016 in a tragic bicycle crash in Kalamazoo and has been sorely missed ever since.

The KBS community came together to create the Suzanne Sippel Memorial Patio on the deck of McCrary Dining Hall, where Suzanne could often be found having great conversations over lunch.

Donated funds were used to purchase new tables, umbrellas, and planter boxes.

Suzanne will always be remembered here at KBS in a tangible way, thanks to the generosity of those who love and miss her.



SUZANNE SIPPEL



NEW SIGNS CELEBRATE HISTORY OF THE KELLOGG ESTATE

Former intern Jackson Kennedy collaborated with KBS staff to create three new historical signs at Windmill Island, the Caretaker's Cottage, and the Carriage House and Lakeside Cottage.

Kennedy's internship and the signs were funded by gifts made to the W.K. Kellogg Manor House and Estate Endowment, which supports the ongoing preservation of the Estate.

"THESE SIGNS PROVIDE OUR VISITORS A GLIMPSE OF THE PAST AND A CURRENT PERSPECTIVE ON HOW KBS IS KEEPING W.K.'S LEGACY ALIVE. THEY CAPTURE MOMENTS IN TIME WHICH WILL LAST FOR YEARS TO COME."

- Nicole Kokx SALES AND EVENTS COORDINATOR CONFERENCE CENTER & MANOR HOUSE

CONNER S

IN AS INTE

KBS DIRECT

While we continue our search for a new director, KBS professor Dr. Jeff Conner has accepted the position of Interim Director.

As a Plant Biology faculty member, Conner's research investigates plants' mechanisms of adaptation to changing environments. He and his students seek to integrate evolution, genetics, genomics, and ecology in novel ways.

"THE THING THAT IS GREAT ABOUT KBS RIGHT NOW IS THAT OUR STAFF IS FAR BEYOND ANYTHING WE'VE HAD BEFORE, IN BOTH QUANTITY AND QUALITY," SAID CON-NER. "THIS HAS MADE IT RELATIVELY EASY FOR ME TO STEP INTO AN INTERIM ROLE AND BUILD ON ALL OF THE GREAT WORK THAT WE ARE DOING."

- Jeff Conner



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ANNUAL REPORT DESIGN, WRITING AND PHOTOGRAPHY BLAIRE BOHLEN EDITING JENNY CLARK, SARAH CARROLL, JEFF CONNER, KAY GROSS COVER PHOTO & DVORAK & PETERSON PHOTO ANNTANINNA BIONDO

KBS IS MORE THAN YOU'VE SEEN BEFORE.

Look closer and you'll make amazing new discoveries. This year, we look forward to sharing even more of our outstanding research, community events, and education with you.

kbs.msu.edu