



2026 Summer
Newsletter

Hancock Biological Station

Hancock Biological Station



On Kentucky Lake

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270-809-2272

— Michael Flinn —

Director's Overflow



HBS STAFF

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Plant blindness – a reminder to be a lifelong learner.

I have a confession, albeit a good one.

I have spent the better part of my life enjoying the outdoors—traipsing through prairies, wetlands, swamps, bogs, and forests. I've invested a massive chunk of my career learning how to tell a mayfly from a stonefly. But I will admit that until the last five years or so, I suffered from “plant blindness.”

Coined by botanists in the 1990s, the term describes a quirk in our evolutionary biology; our brains are hardwired to treat the static, monochrome sea of green we see daily as non-threatening background noise. Because plants don't move or bite, our brains filter them out to save mental energy.

However, as many of you know, we have been restoring a mixed prairie and pollinator garden at HBS, and the result has caused a profound shift in how I literally see the world. In relative terms, I now “see” the hickory in the forest and the blazing star in the prairie. My commute to HBS takes longer now because I feel compelled to slow down and admire all the amazing native plants tucked into roadside ditches and drainage areas.

My conversations with fellow enthusiasts include scouting locations for rare plants and planning seed harvests. It turns out I'm not having a mid-life crisis; I've just finally become a phytophile. Either way, I love it! So, I want to extend an immense thank you to the graduate students, staff, and faculty who have revealed this familiar and yet entirely new world to me. And, for reminding me that something new to learn may be sitting right in front of me.

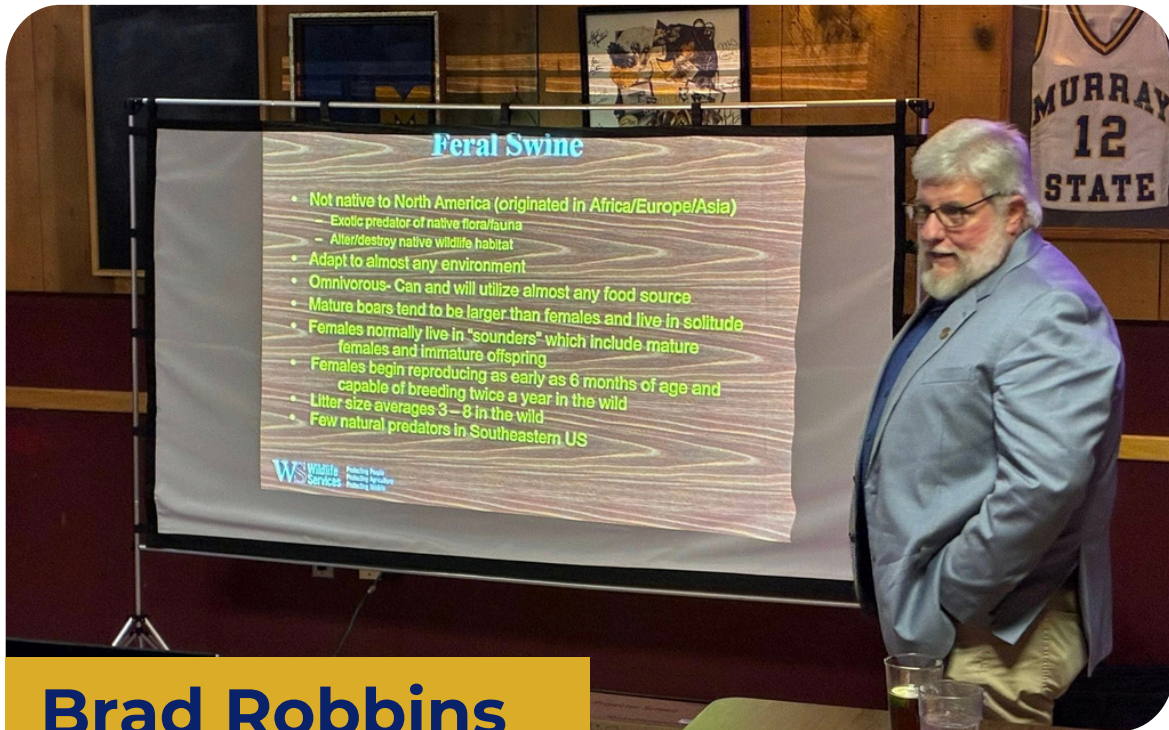
Michael B. Flinn
Michael Flinn

Spring Recap

Science Cafe

April 23rd 2026

Sponsored by WSI

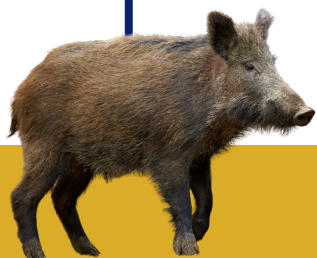


Brad Robbins

USDA APHIS Wildlife Services District
Supervisor in the Western KY and TN region



As an integral part of the Four Rivers Watershed Sustainability Festival, the science cafe unites the community to explore various science-related topics. This year, Brad Robbins was the featured speaker, sharing insights on feral hog management in the Land Between the Lakes region.



Spring Recap

Nature Art Exhibition *Sponsored by WSI*



Each year, the top three entries receive recognition, along with two honorable mentions. Pictured above are the winners for this year (Landann Brown, Amanda Peiffer, Stephanie Young, Laura Sullivan-Beckers, and Dena Weinberger).



Laura Sullivan-Beckers placed third with her piece titled "Migratory Freedom".



Dena Weinberger won best overall artwork with her piece titled "Inside the Colony".



The Nature Art Exhibition is displayed throughout the month of April, giving visitors the opportunity to view all the wonderful entries.

Spring Recap

Earth Day *Sponsored by WSI*



During the Four Rivers Watershed Sustainability festival, we partnered with the Doran Arboretum to host Earth Day Celebration.



Jane Benson uses a watershed model to highlight everyday water use and pollution.



Racer one and jockey, Breece Mohon, attended the event



Visitors had the opportunity learn about native reptiles from MSU SCALE



Western KY Geology Nerds taught visitors about geology, fossils and the art of hematite hand painting.



Dr. David White Memorial



September 16, 1945 -
December 23, 2025

“Prior to retiring from a 45-year academic career in aquatic biology at the University of Michigan and Murray State University, Dr. White earned his bachelors and master’s degrees at DePauw University and his doctorate at the University of Louisville. White became director of Hancock Biological Station on Kentucky Lake in 1988 and professor of biology, retiring from Murray State in 2018. Dr. White’s many contributions to aquatic science include over 200 publications primarily on Great Lakes and Ohio River Basin ecosystems. He described several new species of aquatic beetles in North America. Dr. White secured considerable funding for research and infrastructure at the field station and mentored dozens of undergraduate and graduate students toward their degrees. He served as president of the Association of Ecosystem Research Centers, the Kentucky Academy of Science, as editor of peer-reviewed professional journals and in key positions within several scientific societies.” ~ Official Obituary

Dr. White made a lasting impression on Hancock. Visitors can enjoy a view of Kentucky Lake on this memorial swing placed in his honor.



VISITING SUMMER RESEARCHERS

WRITTEN BY KEEGAN ABESON

My name is Keegan Abeson. I am a third year PhD student from the Department of Biology at the University of Louisville (UofL). I am pursuing graduate school after getting my B.S. in Wildlife from the Department of Forestry and Natural Resources at Purdue University. I am advised by Dr. Mikus Abolins-Abols. As a lab, we primarily focus on general avian ecology, avian physiology, urban ecology, and ecotoxicology. I am personally interested in how pollutants affect our native bird species in terms of physiology and behavior. I am especially passionate about conserving these species and bridging the fields of avian physiological research with wildlife/habitat management. I was first connected to Murray State University and Hancock Biological Station through Dr. Andrea Darracq, who serves as a member of my PhD committee.



Keegan Abeson holding a Northern Cardinal

Joining me here at HBS is Molly Mantle, a senior undergraduate in the Department of Biology at UofL. Molly is interested in conservation and ecotoxicology as well. She focuses on conserving natural environments and their biodiversity, while studying the impacts of anthropogenic activities on wildlife and the ecosystems they inhabit. She has a passion for marine and freshwater ecosystems, as well as the birds she has worked with during her time in our lab. She is planning on pursuing these interests in graduate school after she finishes her degree at UofL.



A male Red-bellied woodpecker



Molly Mantle is shown alongside a captured Brown Thrasher.

We are here at HBS working on my project that investigates how industrial pollutants being released from factories in Calvert City, KY, are impacting the general health and physiology of birds. This project was originally started by UofL's Center for Integrative Environmental Health Sciences (CIEHS). Multiple UofL researchers are in the area investigating how these industrial emissions are affecting the people and environment surrounding Calvert City. Certain gases, such as ethylene dichloride, can have genotoxic and carcinogenic effects. In humans, exposure is known to have negative effects on the liver and kidney health, and it increases the risk of certain cancers. In animal models, these industrial pollutants have been shown to result in DNA damage. However, the effect of exposure on wildlife is generally unknown. Calvert City residents have reported mortality in birds near factories that release these gaseous pollutants, suggesting acute toxic effects on avian health. We will assess markers of genotoxicity, oxidative stress, and general health in songbirds near EPA- delineated high exposure areas in Calvert City, as well as control areas in nearby preserves and cities. HBS serves as one of our control sites. The purpose of this project is not only to investigate how birds are being impacted, but also to show how birds can be utilized as bioindicators to benefit human health.

We are focusing on passerines and near-passerine species. After capture we band each bird, take various morphological measurements, and collect multiple blood samples for later analysis. We target the most abundant species at our sites, which include the Northern Cardinal, Brown-headed Cowbird, Tufted Titmouse, and Carolina Wren. We have also been fortunate enough to capture and sample a number of other interesting and beautiful species such as the Red-bellied Woodpecker, Brown Thrasher, Northern Mockingbird, Eastern Bluebird, Summer Tanager, White-breasted Nuthatch, American Robin, and more!



A JOURNEY WORTH TAKING

BY KIM ODOM (Current MSU student)



Sometimes you go through life enjoying the surroundings without knowing where the road is actually taking you. I want to share my journey with you.

I am an undergraduate student at Murray State University and a student worker at Hancock Biological Station this summer. I have more going on than meets the eye. I'm a wife and a mom of six. At my core, I'm a nature lover. I grew up watching FernGully and Steve Irwin. I didn't like reading as a kid (and honestly, I still don't!), but you could always find me with a National Geographic Kids magazine, reading fun facts about wildlife for hours.

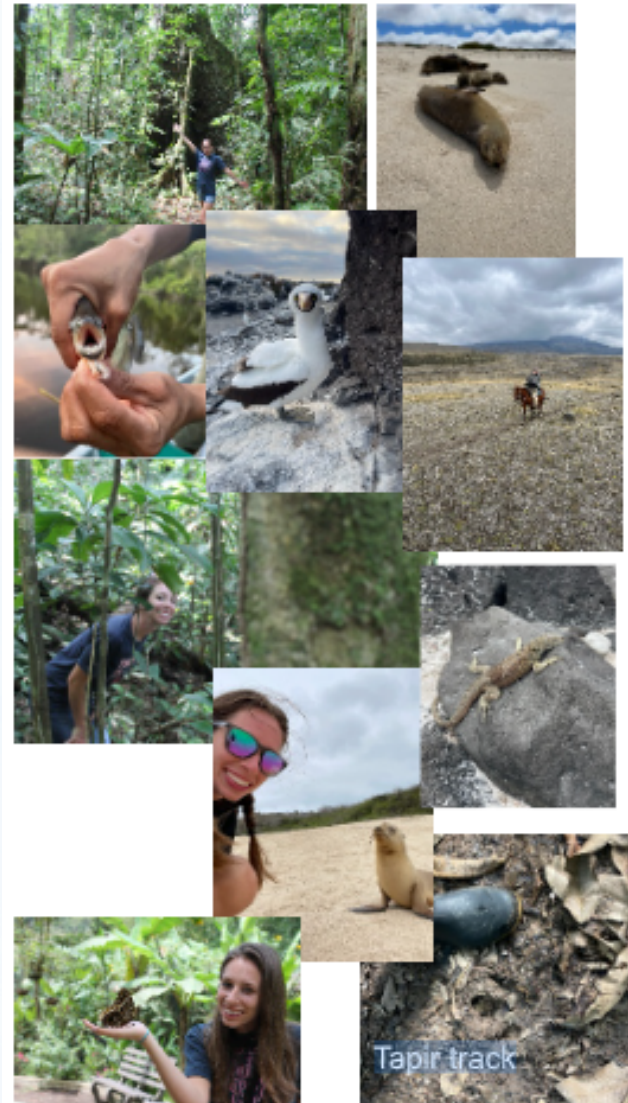
Where am I going with this? What does it have to do with these awesome photos? Hang on! I promise there's a connection.

I never expected to be a student in my late 30s, rekindling a career I dreamed about as a kid. Yet here I am, pursuing my first degree as a first-generation college student. Balancing family, work, and school isn't easy, but I appreciate education far more now than I did when I was 18.

A side note for the younger students: you've got this. To the students with kids, you've got this too. One step in front of the other will get you where you want to go.

I never expected a honeymoon trip to Ecuador to reignite my dream of working with wildlife. I went there to cross a few bucket-list items off and simply experience nature. I didn't realize it would change the direction of my life.

I missed out on things when I dropped out of college the first time. Some days I joke that I'm the same age as my professors. I'm not in the exact place I imagined I'd be, but I'm in a place far beyond anything I could have dreamed of. Looking back, it was all a journey worth taking.



Station Highlights

Barb Like retired in April. Barb worked for MSU since 2016 and HBS since 2021. She will be missed! Michelle Weaver was hired as the new administrative assistant.



Three HBS boats received new motors thanks to the Cherry Foundation. Legacy Marine in Calvert City performed all the engine work and the quick turnaround and attention to detail were outstanding!



On June 3rd, Dr. Flinn taught the KY Watershed Watch Habitat Training at HBS, where participants learned hands on how to collect and identify aquatic macroinvertebrate to help further understand stream health. Participants completed the online module at KYwater.org before attending. If interested in the next offering please email Mflinn@murraystate.edu.



Above: Cruising in the shocking boat, testing out the new engine.

Below: Dr. Flinn leading the KYWW Habitat Training, going through samples collected during the session.



Highlights Continued..



A student holding a ring-necked snake

On June 8th we hosted Outdoor 101. We guided new MSU students on a pontoon ride and hike around HBS. A few brave souls faced their fears and held a snake or rode in a boat for the first time. Outdoor 101 is a unique experience for incoming first year students and we were so happy they stopped for a visit.



Students investigating our artificial wetland

On June 10th, Our research coordinator, Gerry attended the annual Riverlands Alliance meeting.



Gerry participating in a breakout group.



Above: Clay docking after a pontoon ride with the outdoor 101 students.

Below: The Outdoors 101's students returning from a nice cruise .



Highlights Continued...



Clay showing students aquatic macroinverts.

On June 10th, we hosted the Bears Den from Butler County. 31 students aged 5-11 learned about a variety of flora and fauna at HBS. They completed a scavenger hunt while visiting three stations that focused on our pond, meadow, and native prairie. After visiting each station, they crafted a scavenger hunt passport using stamps of the things they observed during their visit.



Above: Jason teaching the students about our native prairie.

Below: Cord showing the students our mesocausms.

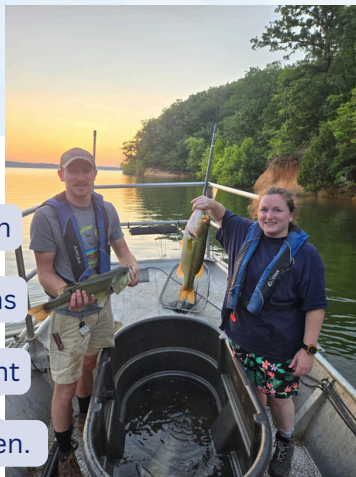


The students completing their scavenger hunt passports!



Highlights Continued...

Pictured: Clay and Michelle assisted Dr. Spier in collecting fish to educate students about the process of aging fish using otoliths or "ear bones". Here, they are shown with some bass they caught while electrofishing, which were released after this photo was taken.



On June 12th, HBS hosted Fish Camp. This is the 8th annual fish camp sponsored by Major Fishing League and presented by Tackle Warehouse, where high school aged anglers gain insider knowledge about fishing and compete in a tournament. This year its hosting a 136 students from 20 different states! Discussions included fish management, electrofishing, and techniques to determine fish population estimates and health, and the long-term sampling program conducted at HBS. Overall this was one of the largest groups HBS has hosted in a while and it was a blast! More Photos on the next page.

To learn more about the camp visit : www.majorleaguefishing.com/camp/



Dr. Spier discussing fish population estimates, aging, and fish health.

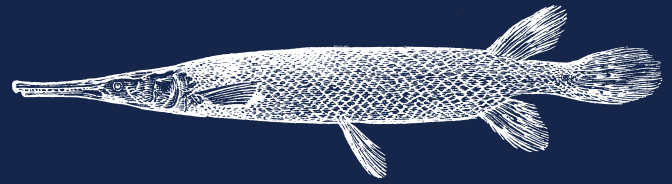


Above: KDWFR Fisheries Biologist, Adam Martin and crew discuss management practices and electrofishing

Below: Clay and Angie lectures about zooplankton and KMLP research done on KY lake



Fish Camp Photos



Adam Martin and team pictured with their electrofishing boat. They use this boat to survey fish populations by emitting a small electrical current that temporarily stuns the fish for sampling. These methods allow biologists to estimate population dynamics and health metrics before releasing them back unharmed.



Once the students removed the otolith they were able to examine it under a microscope and estimate the age of the fish. Pictured here is an otolith removed by a student. Just like tree trunks, the rings within the otolith can give a good estimate on fish age.



Dr. Spier assisting a student with otolith removal. Otoliths are hard calcium carbonate structures found within the inner ear of most bony fish that can be used to estimate the age.



Students had the opportunity to look at zooplankton samples collected from KY lake.



A image of zooplankton under the microscope. Zooplankton are important indicator species as they react rapidly to changes in water conditions. Zooplankton are also an important food source at the bottom of the food chain for growing fish.

Upcoming Events

August

25th – Craft night

Craft to be announced closer to the date, updates will be on Facebook

September

TBA – Science by the Lake

Dr. Flinn will be giving the first talk! The topic is to be determined.

TBA – River Cleanup

A week night river cleanup with food,

October

Oct 2nd – NSF Learning Hub Field Day

The Learning Hub Scholars program will be visiting HBS as part of their field trip program. This provides experiential learning for students in earth and atmospheric sciences and engineering as they pursue advanced degrees across the bluegrass.

Oct 17th – Homecoming

MSU Homecoming with 5k race – more details to come

TBA – Craft Night

November

6–7th Kentucky Academy of Science

Registration is open Sept 1st, and abstracts are due by Oct 1st. This is Kentucky's biggest science event of the year and is hosted by Murray State this year! This is a free event for K-12 and teachers.

MURRAY STATE UNIVERSITY
BIOLOGICAL STATION

Ongoing research

Andrew Brown Research Update

Andrew will be defending his thesis in the near future and moving on to pursue his Ph. D, continuing his research on salamanders.

Cord Lemons Research Update

Cord is currently finishing up analyzing his raccoon behavior videos to prepare for statistical analysis. He will be defending his thesis in the fall.

Armadillo Research

Sadie Smith is set to begin research quantifying armadillo burrow usage.

In the Works

Hancock Biological Station Friends Group

Some interest has been shown in creating a friends group for HBS, see page 14 for more info.

Craft nights

We are starting a crafting night at HBS, where nature and art will collide. We are hoping to make it a quarterly event open to all. If you are interested in hosting a nature themed craft night at HBS please reach out to Mweaver8@murraystate.edu.

Science by the Lake Seminars/Webinars

This seminar series will focus on a variety of topics, with different guest speakers hosted at HBS.

K-12 Collaboration

HBS is looking to work with more K-12 schools in our region. We would like to start crafting materials that match the curriculum already in place. If you are interested in collaborating please email us at Gharris@murraystate.edu.

Friends of Hancock Biological Station

We are looking to gauge interest in creating a friends group for the station.



What is a friends group?

A group of citizens with a shared common interest in the stewardship of an organization, park, or in this case HBS. Their activities can range from volunteering, fundraising, hosting events, and operational support. A member can be as active as they choose within the group.

What will the mission be?

Supporting Hancock Biological Station's mission of providing scientists with a wide variety of field research and presenting students with opportunities for field-oriented classes, individualized instruction, and independent research. These efforts will support students, teachers, the public, and local agencies through acts of volunteering, fundraising, and events.

What is the first step?

Fill out the form below if you are interested or want to learn more. This is a work in progress but the first meeting will be in early 2027.



<https://forms.gle/Lb2U7FYJaKk4TSAX9>

Organism spotlight

Eastern Fence Lizard (*Sceloporus undulatus*)

The eastern fence lizard is native to Kentucky. It is often found in woodlands, grasslands, and shrublands. They spend most of their time basking but forage for food typically twice a day. They eat a variety of invertebrates, including moths, grasshoppers, beetles, and spiders. They mate from April to August and the females typically lay one clutch of eggs per year. www.nwf.org

An Eastern Fence Lizard
basking by the dock

CONSIDER GIVING

Ways to Give

1. Write a CHECK payable to Murray State University with Hancock Biological Station in the memo line, and mail it to us at Hancock Biological Station

2. Contact the Murray State University Foundation at <http://www.murraystate.edu/foundation>, Phone: 270-809-6911.

Each gift will be acknowledged promptly

Your contributions support:

- *Monitoring Kentucky Lake
- *Community outreach and education
- *Student cabin upgrades
- *Equipment upgrades
- *Native prairie restoration
- *Invasive plant management
- *Student research
- *General upkeep

DONATIONS HELP US IN MANY WAYS! YOUR SUPPORT PROVIDES OPPORTUNITIES FOR STUDENTS IN THE FORM OF SCHOLARSHIPS AND RESEARCH SUPPLIES. YOUR DONATIONS HELP FUND PROJECTS THAT IMPROVE OUR INFRASTRUCTURE: UPDATING LABS, RENOVATING STUDENT AND GUEST HOUSING, AND PROVIDING FUNDS FOR ITEMS NOT COVERED BY GRANTS.

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Photos Courtesy of

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