



## HEE Fall Outreach

This Fall the Hardwood Ecosystem Experiment was the host to educational programs. The Indiana Wildlife Federation (IWF) and the Central States Forest Soils Workshop had the unique opportunity to learn about the wide variety of research projects while taking in the beautiful Fall foliage of southern Indiana.

Several HEE researchers and field technicians, including Patrick Ruhl, Tim Divoll, Jeff Riegel, Mike Saunders, Jeff Holland, and Mike Jenkins, volunteered time to work with these two groups, giving informal talks on their projects and, in some instances, live demonstrations of small mammal trapping, and bird mist netting.

If you are interested in learning more about The Indiana Wildlife Federation, please visit their website <http://www.indianawildlife.org/>. If you are interested in learning more about HEE educational programming and scheduling a tour for your group, please contact Charlotte Freeman at 765-494-1472, or [freemac@purdue.edu](mailto:freemac@purdue.edu)



*Patrick Ruhl demonstrates mistnetting protocols to the IWF.*



*Central States Forest Soils Workshop participants examine a HEE soil pit.*

## FALL BURNS: UNIT 9

On November 4th, Division of Forestry Fire Management personnel spent the morning clearing fire breaks in HEE units 9-09 and 9-11 in Yellowwood State Forest. At noon, the fire crew had a final safety briefing and began operations. Starting on the northern anchor-point, two teams of two worked south along the western and eastern fire breaks, setting a low intensity fire to increase the width of the break. Ahead of the edge crews, a crew of two ignited strips of fuel across the center of the burn areas. Smoke ventilation was minimal, despite the crews' attempts to create 'fire winds'-- upward drafts directly above the fire created by fire's ability to warm the air. Additionally, the northernmost area of unit 9-09, did not burn due to excessive fuel moisture. Overall, duff consumption was minimal, with little to no mineral soil exposed. While the initial goal for this Fall was to implement fires in Units 9, 3, and 6, weather patterns only provided the opportunity to complete two burns in 9.



*Photo credit: Skye Greeneler*

# HEE Employment Opportunities

We are currently searching for a field assistant and several field technicians for the upcoming summer data collection. The field assistant will be conducting woodland salamander surveys (March-May), breeding bird surveys (May-June), and small mammal trapping (March, July-August). This position will also have additional responsibility for assisting with data collection for prescribed fire treatments, moth sampling, and other duties as assigned. This individual will serve as a crew supervisor and housing facility manager during the field season. Compensation is \$12.00 per hour plus housing.

There are also field technician positions available. Primary duties will be to conduct aural bird surveys and small mammal trapping. Bird surveys may also be conducted on sites in the Hoosier National Forest (located between Bloomington and Tell City, IN). Additional duties may include nighttime owl surveys, insect sampling, and vegetation surveys, and other duties as assigned. Compensation is \$10.00 per hour plus housing.

Visit: <https://ag.purdue.edu/hee/Pages/Jobs.aspx> for more information and to apply.



## HEE Researcher Extension Winter Workshop



**Date:** February 2, 2016

**Location:** Wrighty Forestry Center, Purdue University

**Who can attend:** HEE Researchers, graduate students

This February, the Hardwood Ecosystem Experiment will be hosting a Researcher Workshop at Purdue University. Geared towards HEE researchers, the workshop will focus on producing extension deliverables. The development of extension deliverables and educational programs is one of the Hardwood Ecosystem Experiment's primary objectives. During this workshop, HEE researchers will learn the fundamentals of developing educational programs and materials as well as discuss the future direction in which the new educational video series will take.

If you would like to attend, contact Charlotte Freeman at [freemac@purdue.edu](mailto:freemac@purdue.edu).



## Snapshots from the Fall

Photo captions (clockwise from top left):



A Division of Forestry, Fire technician (foreground) sets a back-fire ahead to increase width of the existing firebreak. Meanwhile, another technician sets strips within the unit (midground).

The front of a fire strip burns down the slope of burn area 9-11. Photo Credit: Skye Greenler

Timothy Divoll (left), a Ph.D student from Indiana State University presents to the Central States Forest Soils Workshop on the importance of managing forests for bats, as well the effects of prescribed fire on forest wildlife.

Professor Jeffrey Holland (center) from Purdue University exhibits specimens of beetles found in the HEE to the Indiana Wildlife Federation. Dr. Holland also demonstrated how his trapping arrays are used.

A cache of red and black oak acorns collected by Dana Nelson (M.S. student). For future prescribed fires, Dana will be placing these acorn caches to determine granivore predation immediately following fire. Photo Credit: Dana Nelson.

Leaf litter consumption was minimal during the prescribed fire. This was attributed to sub-optimal fuel moisture and relative humidity. Photo Credit: Skye Greenler.



Do you have any pictures from any HEE related event or activity? If so, you can submit them to Charlotte Freeman (freemac@purdue.edu) for archiving.



## New HEE Graduate Students

### Shannon Stanis

Shannon is a Chicago native working on her M.S. degree at Purdue with Dr. Mike Saunders. She is studying the effects of prescribed fire on residual overstory tree quality. She is particularly interested in the effects of fire on veneer quality oaks. She is eager to work with landowners to help create the best management practices for their land from our hard work at the HEE!



### Skye Greenler

Skye is a M.S. student at Purdue University studying how prescribed fire affects oak regeneration with Dr. Michael Saunders. She is investigating how prescribed fire alters granivore predation and dispersal of acorns; the effects of granivore caching/hoarding behavior on acorn survival during a burn; and quantifying oak seedling growth and regeneration after fire.



## Congratulations Ken!

This November, Ken Kellner, a HEE researcher and doctoral candidate, successfully defended his Ph.D dissertation titled, “Interactive Effects of Insects, Animals, and Timber Harvest on the Early Life History of Oak.”

Ken Kellner first started working on the HEE in 2009 as a M.S. student, studying the short-term responses of the silvicultural treatments on oak mast and small mammals.

The now Doctor Kellner will continue working at Purdue as a post-doctoral researcher. Among the wide variety of research and teaching responsibilities in this position, Ken will continue to contribute to HEE research by analyzing the long-term bird data. Congrats, Ken!

## New Interim Project Coordinator

Charlotte Freeman is serving as the Interim Project Coordinator for the HEE. She recently received her M.S. in Forestry and Natural Resources from Purdue University and is excited to be joining the talented team of researchers and staff involved with the HEE.

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## Hardwood Ecosystem Experiment

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