Volume 4, Issue 2 Fall/Winter 2011



Ecosystem

<u>Hardwood</u>

Experiment

INDIANA SOCIETY OF AMERICAN FORESTERS VISITS THE HEE

The Indiana Society of American Foresters invited researchers from the Hardwood Ecosystem Experiment to share results with their membership at their summer meeting in Nashville, IN. The meeting, held September 29-30, 2011, focused on the first five years of the Hardwood Ecosystem Experiment.

Several indoor presentations were given on the first day of the meeting at the Brown County Inn. Scott Haulton (IDNR) and Kalb (Purdue Rebecca FNR) provided an overview of the project's history to date. Jennifer Wagner (Ball State graduate student) discussed the response of Cerulean Warblers to the harvests. She also shared several interesting video clips of Cerulean Warblers feeding



history at the Unit 6 clearcut along Gilmore Ridge Road in Yellowwood State Forest

different types of prey to their young in the nest. Dr. Joseph Duchamp (Indiana University of Pennsylvania) discussed the use of acoustic sampling to assess the impacts of the harvests on bats. Dr. Jeff Holland (Purdue Dept. of Entomology) discussed changes in the wood-boring and longhorned beetle communities.

Day two of the meeting involved a full complement of field visits around Yellowwood State Forest. The group toured both clearcut and shelterwood sites at Unit 6 (even-aged management) and discussed the different harvest



Rob Chapman (Purdue FNR) with a red-backed salamander.

methods used on the HEE. Brian MacGowan (Purdue FNR) reviewed preliminary implications of the harvests on timber rattlesnakes. Several members flipped cover boards at the shelterwood salamander grid, uncovering both red-backed and zigzag salamanders. During lunch, Dr. Bill Hoover (Purdue FNR) led a rousing debate on several economic and social issues related to the (continued on page 3...)

UPDATE

HEE

Brian MacGowan has been working with Purdue's Agricultural Communications department for several months to develop a new interpretive sign. The new sign was debuted at the HEE Researcher Meeting on September 29, 2011. It is now in the care of the staff at Morgan-Monroe State Forest and will be installed at the Unit 3 clearcut on Main Forest Road in the near future.

To allow for easier reading, the text from each of the four boxes on the sign is included below the image.



How forests work

Forest are dynamic systems with interactions between trees and wildlife that change through time. Timber harvesting, a common practice on both public and private forests, can potentially affect these interactions. Looking at the changes that occur in both harvested and unharvested areas will improve our understanding of how plants and animals respond to forest management, and how best to sustain these valuable resources.

Project overview

Nine 200- to 250-acre study units located in Morgan-Monroe and Yellowwood state forests.

- Each unit has been randomly assigned a timber management prescription: even-aged management (10-acre clear-cut and shelterwood areas); uneven-aged management (1- to 5-acre group openings and single-tree selection); or control (no harvest).
- Harvests will be maintained on a rotational basis throughout the 100-year study.
- Extensive plant and wildlife surveys were conducted prior to harvesting in 2008, and will continue to be monitored for years to come.

What is the Hardwood Ecosystem Experiment?

The Hardwood Ecosystem Experiment (HEE) is a 100-year, large-scale scientific project focused on improving our understanding of how managed forests change over time. The HEE is studying:

- Ways to maintain oak and hickory dominance in forests
- How timber harvesting and other disturbances affect plant and animal populations
- Social and economic impacts forests have on their visitors and nearby communities

What does this mean for you?

- Increase understanding of how to sustainably manage forest resources to meet short- and long-term objectives.
- Improve forest management through the development of management guides, educational programs, and more.
- Help forest landowners throughout Indiana and the Central Hardwoods Region maintain biological diversity on their property.

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Hardwood Ecosystem Experiment and forest management at Morgan-Monroe and Yellowwood State Forests. The day concluded with a thorough walking tour of Unit 8 (uneved-aged management) with stops and discussions at several patch cuts and a deer exclosure. Jennifer Wagner also gave a follow-up discussion on Cerulean Warbler territories.



Jennifer Wagner reviewing Cerulean Warbler territories inside Unit 8.

What's Next for HEE?

- Fall salamander sampling is ongoing
- Oak mast collections are ongoing
- Year-round bird surveys resume
- Barred Owl surveys begin Dec. 1
- Eastern Screech-Owl surveys begin Feb. 1





Research Committee Update

The HEE Fall Researcher Meeting was held on Thursday, September 29, 2011 in Nashville, IN. Seventeen people were in attendance, including Division of Forestry staff, faculty investigators, graduate students, and other HEE staff. Major discussion points included the renewal of the next HEE contract, long-term funding opportunities, ideas for synthesis studies, education and extension opportunities, and an update on the progress of the General Technical Report.