



# INDIANA ACADEMY OF SCIENCE NEWSLETTER

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## BioBlitz at the Fall IAS Meeting

In 2005, the Rivers Institute at Hanover College and the Biodiversity and Natural Areas Committee of the Indiana Academy of Science partnered to produce the Wabash River Symposium in conjunction with the 2005 annual meeting of IAS (see *Proceedings of the Indiana Academy of Sciences*, 2006:115(2)). As part of the Symposium we conducted a BioBlitz (rapid assessment of the species found in a particular area over a short period of time) in and adjacent to Otter Creek, a tributary of the Wabash River. We recorded 370 species during one morning and afternoon period (Karns et al., 2006). Members of the IAS, students, and friends conducted another BioBlitz on the Hanover College campus in May of 2007 and recorded 547 species (see December 2007 IAS Newsletter). BioBlitz events include professional biologists, students, and citizen-scientists; they provide valuable scientific information and increase public appreciation of local biodiversity and awareness of conservation issues.

Another BioBlitz is planned for the fall IAS meeting in Evansville. The Rivers Institute and the Biodiversity and Natural Areas Committee are collaborating with the University of Evansville (**Dale Edwards**, Biology Department, Chair of the Evansville IAS organizing committee) and Wesselman Woods Nature Preserve in Evansville (**Alice Rademacher**, Director; **Scott Kramer**, Program Manager; and **Lisa Hoffman**, Teaching Naturalist) to conduct a BioBlitz at Wessleman Woods.

Wesselman Woods Nature Preserve is an Indiana State Nature Preserve and National Natural Landmark featuring nearly 200 acres of virgin bottomland hardwood forest. The nature preserve is conveniently located only a few minutes from the University of Evansville campus. The Wessleman Woods website (<http://www.wesslemannature.society.org/woods/index.php>) provides the following information on the site. Wesselman Woods is an old-growth lowland forest of exceptionally high quality. The mean



*Wesselman Woods in spring 2008. IAS members visited Wesselman Woods after the spring IAS meeting in Evansville. They met with the nature preserve staff to discuss plans for the fall BioBlitz.*

density of trees is high (125 trees per acre) and the canopy starts far above the forest floor. There are many trees reaching 100 feet tall, and some are estimated to be nearly 300 years old. The basal area of 187 square feet per acre is the highest known for any woods in Indiana. A wide



*Wesselman Woods in spring 2008.*

diversity of tree, shrub, and wildflower species can be found at Wesselman Woods. The degree to which sweet gum and tulip trees dominate the canopy and the large number of other trees in the canopy, combined with southern biogeographic influences, set Wesselman Woods apart from other woods in Indiana. Wesselman Woods also provides crucial habitat for a wide variety of animal species, including many invertebrates, mammals, reptiles, amphibians and birds. No other city in the United States with a population exceeding 100,000 has, within its corporate limits, a nature preserve of such acreage and quality. Wesselman Woods is managed by the Wesselman Nature Society, a 501c(3) not-for-profit, environmental organization founded in 1973.

The details of the plan for the fall BioBlitz are still in development, but the general plan, as in previous BioBlitz events, is to have a number of taxonomic teams, depending on available taxonomic expertise, led by an expert(s) on a particular group (e.g., plant team, herp team, bird team, etc.). The group leaders will assemble their teams from IAS members, students, and local naturalists. The tentative schedule is as follows: On Friday, October 24, from 2 to 6 pm, survey teams will observe



and record. There will be a dinner break from 6 to 8 pm, followed by a night hike opportunity. On Saturday, October 25, survey teams will be out again throughout the morning; there will also be a bird banding demonstration by Scott Kramer. The nature preserve will be open to the public during the BioBlitz and nature preserve visitors will have the opportunity to see and interact with the taxonomic teams. From 11 to noon, there will be a closing Biodiversity Festival (also open to the public) in the Wesselman Woods education center where

taxonomic teams will report their species list and display interesting finds. We plan to verify the lists, post the final species list on the BioBlitz page of the IAS website, and publish a short note in the IAS Proceedings. We are in the process of securing the necessary permission to work in the nature preserve. Teams will rely primarily on field identification, although some collecting of plants, mushrooms, and invertebrates will be necessary. IAS members will have an opportunity to sign up for participation in the BioBlitz in the next newsletter. We hope to locate cheap accommodations for those who wish to stay overnight for the Saturday morning portion of the BioBlitz. **Put this event on your calendars now!** If you have questions or know you definitely plan to participate, please e-mail both **Daryl R. Karns** (Hanover College and Rivers Institute; [karns@hanover.edu](mailto:karns@hanover.edu)) and **Don Ruch** (Ball State and Chair of the IAS Biodiversity and Natural Areas Committee, [druch@bsu.edu](mailto:druch@bsu.edu)).

-- **Daryl R. Karns**  
Rivers Institute  
Hanover College

## Indiana Academy of Science Grants for the Spring 2008

**Sarah Shannon**, Indiana University, Bloomington, \$2,056. Effects of *Microstegium vimineum* (Japanese Stiltgrass) on soil bacteria and native plants.

**Pauline Manhes**, Indiana University, Bloomington, \$2,437. Study of the effect of cotransmission in the outcome of co-evolution between cooperative and cheating bacteria.

**Joseph Pettit**, Indiana State University, \$686. The effectiveness of a lethal pitfall-trap pollination system:

jack-in-the-pulpit (*Arisaema triphyllum*) versus fungus gnats.

**Allan Albig**, Indiana State University, \$3,000. Characterization of molecular mechanisms by which MAGP-2 promotes angiogenesis.

**Jerry Sweeten**, Manchester College, \$3,000. Reproduction habitat preference and year class strength of smallmouth bass (*Micropterus dolomieu*) in the Eel River near North Manchester, Indiana.

**Gregory W. Clark**, Manchester College, \$3,000. Scanning probe microscopy studies of poly-3 hexylthiophene and HOPG, mica and SiO<sub>2</sub>.

**Luke Snyder**, Taylor University, \$710. Effects of gap size on interseeding success for forb enhancement in tallgrass prairies.

**Daniel King**, Taylor University, \$3,000. A study of plant defense proteins by mass spectrometry.

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## Upcoming Invasive Plant Meeting in Indianapolis

The annual meeting and symposium of the Midwest Invasive Plant Network (MIPN) will take place December 10-11, 2008 at the downtown Indianapolis Hyatt Regency in conjunction with the North Central Weed Science Society (NCWSS) meeting. This meeting will have a wide variety of talks, workshops and panels on invasive plant impacts, control, prevention and more. Registration will be available later this summer on the NCWSS website at <http://www.ncwss.org/>.

-- Ellen Jacquart  
The Nature Conservancy

*IAS Spring Grant Awards continued*

**Michael K. Watters**, Valparaiso University, \$2,483. Control of hyphal branching in *Neurospora crassa*.

**Ryan Sensenig**, Goshen College \$2,950. The influence of white-tailed deer on the establishment and long-term composition of plant communities in tallgrass prairie restorations.

**Jacqueline Doyle**, Purdue University, \$1,018. Effects of sperm competition intensify and cost on allocation in *Ambystoma maculatum*.

**Randall Bernot**, Ball State University, \$2,700. The role of disease in ecosystems: indirect effects of trematodes on benthic communities.

**Aubrey Ruth Bunch**, Ball State University, \$2,977. Stream ecosystem effects on nonprescription pharmaceuticals.

**Paul V. Hickner**, Ball State University, \$750. Analysis of genetic variation within and among three urban populations of *Culex pipiens* in IN.

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### High-Altitude Balloon Workshop

*"New Heights in Science Education"*  
Presented by  
Taylor University & StratoStarSystems LLC  
May 21-22 or Aug. 4-5 2008

**Higher Education Faculty:**  
An Innovative Tool to Engage Students in Your Classes  
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**Workshop offered Twice:**  
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**Workshop Activities:**

- Receive training on all aspects of high-altitude ballooning
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**Workshop Benefits:**

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**Location:**  
• Taylor University - Upland, IN (One hour North of Indianapolis)

**No cost to attend & receive \$200**  
(One stipend per institution)



**TAYLOR UNIVERSITY** **More Information** [www.taylor.edu/cri/balloon](http://www.taylor.edu/cri/balloon) **STRATOSTAR SYSTEMS**  
[www.StratoStar.net](http://www.StratoStar.net)

## The Awards Committee is Requesting Nominations for IAS Fellow

Our Bylaws describe a Fellow as "A member with recognized standing as a scientist, who has contributed to the objectives of the Academy, been recognized by two-thirds of the Committee on Awards, and been approved by a majority of the members voting at the annual meeting. The title is awarded as an honor and is independent of the class of membership."

Special consideration should be given to: length of membership in the Academy (minimum 3 years); the nature of service to the Academy and to the advancement of science in Indiana; service to education in science; and achievements in scientific research. The nature of service to the Academy means: attending IAS meetings,

presenting papers/publishing in the Proceedings, serving as an officer, as a committee chair, as a committee member, playing a role in organizing Academy functions, etc.

Nominations should include a cover letter that describes the qualifications of the nominee for this award as well as a signature page signed by 2 fellows of the Academy and if possible, a brief vita for the nominee. The nomination form as well as information on IAS Awards and a list of current fellows can be found at <http://www.indianaacademyofscience.org/htmlfiles/awards.html>.

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*Spring 2008 Grant Awards continued*

**Elizabeth Zinn**, Ball State University, \$1,718. Efficiency of constructed wetlands to remove antimicrobial agent Triclosan from waste water.

**Bruce N. Storhoff**, Ball State University, \$2,832. The synthesis of new catalysts for carbon-carbon bond formation reactions and the study of these catalysts in aqueous and mixed aqueous organic solvent mixtures.

**Donald Ruch**, Ball State University, \$500. Examination of the flora and floral communities of the Meramec Preserve, Delaware County, IN.

*Nominations for IAS Fellows continued*

Nominations should be sent to Dr. **Clare L. Chatot**, Chair, IAS Awards Committee, Dept. of Biology, Ball State University, Muncie, IN 47306 by **September 5, 2008** for consideration for this year. Questions can be directed to the Awards Committee Chair at [cchatot@bsu.edu](mailto:cchatot@bsu.edu) or 765-285-8827.

*-- Clare Chatot, Chair  
IAS Awards Committee*

**Deadline for submission of material for the August issue of the IAS Newsletter is July 20, 2007.**

**Send copy to Donald G. Ruch at [druch@bsu.edu](mailto:druch@bsu.edu)**

**For IAS information, go to:  
[www.indianaacademyofscience.org](http://www.indianaacademyofscience.org)**

## **2008 IAS Fall Meeting**

**Meeting Site: University of Evansville**

**Dates: - - - - - October 23-25**

**Abstract Submission: Sept. 1<sup>st</sup>, 2008**

**For additional information and submission forms, please visit the Indiana Academy of Science website later this summer at [indianaacademyofscience.org](http://indianaacademyofscience.org)**