



INDIANA ACADEMY OF SCIENCE NEWSLETTER

Number 152

January 2013

The New Science Experts Database – We Need Your Help!

The Academy has established a means for residents of the state to contact science experts within the Academy. The Science Experts Database was developed by the Biodiversity and Natural Areas Committee with the invaluable assistance of Mike Foos, IAS Webmaster, and the Bitwise Solutions. The database is initially divided into three links, i.e., (1) Biological Associated Sciences Experts, (2) Physical Science Experts, and (3) Biological Taxonomic Experts. If you click on **Biological Associated Sciences Experts**, you can search for scientists in the following areas: agronomy, animal science general, anthropology, archaeology, cell biology/molecular biology/immunology, dendrology, ecology [general and environmental], ethology, evolutionary biology, genetics, horticulture, immunology, informatics, mycology, physiology-human, physiology-animal, physiology-plant, plant science general, psychology, science education, and wildlife general. If you click on **Physical Science Experts**, you can search for scientists in the following areas: chemistry, engineering, geology, mathematics, meteorology, and physics. Lastly, if you click on **Biological Taxonomic Experts**, you will find a large number of choices. It is divided into three content areas, i.e., (1) Taxonomic Group with 14 separate choices, (2) Habitat Types with eight choices, and (3) Section of the State with four choices. You can search the taxonomic experts' database for just one selection or you can search as many of the 26 choices simultaneously as you would like.

Academy members are encouraged to view the "Find a Scientist" link and to sign up to participate in the initiative. The tab "**Scientists**" is located on the right side of the bar at the top of the Academy's homepage. Click on that tab and you will see the general instructions about how to contact a scientist who is an expert in a particular field. If you hold the cursor on the "Scientists" tab, a drop down menu will appear and you will find an opportunity to

participate in this project. Click on the "Scientist Sign-Up" link and you will find an application form. If you are a member of the Academy and logged on, you will find that most of the blanks of the application form are already filled. Complete the remainder of the form, mostly marking "x" in check boxes, with a summary of your expertise and interest in volunteering your service. A code box is at the end of the form as a security precaution, complete it and press "Submit". In doing this you will have volunteered to participate in this initiative.

The "Scientist Account" link permits you to update or change your information at any time.

Anyone seeking scientific information or looking for help from a science expert can fill in a questionnaire and scientists whose information is in the database that matches the request will be contacted for assistance. If you are selected as an expert in a field where help is being sought, the person will be presented with a form in which they can email you a specific statement about the help they are seeking. The name and email of the recipient will be on the subject line of the email you receive. You will then be able to contact the individual making the request in order to make arrangements to provide help.

In order for the database to be useful for Indiana residents, WE NEED INFORMATION ABOUT SCIENCE EXPERTS IN THE DATABASE. We are asking you to volunteer as a science expert and add your information into the database. If you have any questions, please contact **Don Ruch** [druch@bsu.edu] or **Mike Foos** [foos@iue.edu].

Please volunteer to serve as a science expert of Indiana.

-- Don Ruch
druch@bsu.edu
765-285-8829

From the President's Corner

Hello Everyone!

I had the great fortune of attending the 2nd annual Celebrate Science Indiana event on Oct 6th with my two younger children. I was delighted to see so many different groups, including government agencies, colleges and universities, nonprofits, and media groups together to create a fabulous educational experience. The Academy is very proud to be both a financial supporter of and a participant in this event.

In addition, I was privileged to attend the Academy's Junior Talent Search competition on the IU Kokomo campus on Oct 20th. The quality of projects performed by these students was truly remarkable. On behalf of the Academy I express my deepest thanks to Talent Search Director and Council Member **Marcia Gillette** for once again organizing a truly superb Academy-sponsored event.

The Council met on November 10th. Some highlights from the meeting: we are looking into expanding the office space we hold in the State Museum and into the possibility of expanding Academy-themed merchandise available for purchase (e.g., t-shirts and coffee mugs in addition to the pins and lanyards currently available). We are also looking into an extensive promotion of Gene Kritsky's *Periodical Cicadas* as we approach the next major brood event.

On behalf of the Academy I wish to express my deepest appreciation to Executive Director **Delores Brown** for her fundraising efforts on our behalf. Notably, she has secured support for the Annual Meeting in March to the sum of \$30,000 combined from the W.K. Kellogg Foundation, Subaru of America, and the Eli Lilly Foundation. In addition, she has secured sponsorship from the White River State Park to greatly reduce parking fees for our attendees.

I encourage the membership to submit manuscripts to the *Proceedings*. We believe we have successfully addressed the challenges we have had in the last couple of years, and with your contributions we will enliven this venerable and highly respected journal.

As many of you are aware the Academy now has a Facebook page (<http://www.facebook.com/pages/Indiana-Academy-of-Science/114022878682562>). I ask you to visit the page and provide us with comments and suggestions on how we can make this a more useful and dynamic tool for our membership (especially for the younger members).



Mike Finkler, 2012-2013 IAS President

As a follow-up to Jim Bandoli's excellent contribution to the last newsletter (http://www.indianaacademyofscience.org/Documents/Publications/Newsletters/151_November_2012.pdf), I believe it is important for the membership to be aware that there is new legislation on the horizon that seeks to undermine the teaching of evolution in Indiana public schools (see <http://ncse.com/news/2012/12/indiana-newspapers-decry-antievolution-bill-0014656>). The Academy passed a resolution on the teaching of evolution in 2006 (<http://www.indianaacademyofscience.org/The-Academy/Policies-and-Resolutions.aspx>). However, the membership should be proactive in making our legislators aware of the implications of such actions.

Now for the most exciting bit of news – the forthcoming annual meeting...

The 128th Annual Academy Meeting will be held on March 9th, 2013 at the JW Marriott in downtown Indianapolis. This is a superb conference venue, and I am confident this will be one of the best meetings we have ever held. Details can be found on the Academy Website (<http://www.indianaacademyofscience.org/Documents/Annual-Meetings/IAS-2013/128th-Annual-Academy-Meeting.aspx>). The abstract deadline is February 1, and all abstract submissions are conducted online through the Academy website.

I encourage every last one of our members to attend the meeting if they are able to do so and, if possible,

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From the Desk of the Executive Director...

The Academy is busily preparing for the 128th Annual Academy Meeting, to take place at the J.W. Marriott Hotel, in downtown Indianapolis Indiana, March 9, 2013. Oral and Poster presenters have already begun uploading their abstracts to the Academy Website (beginning December 2, 2012), hot topics have begun coming in, and workshops are being offered in 'Scholarly Writing' by the executive editors of *Science*, *Scientific American*, and the *Proceedings*; the 'Academy's Senior Research Grants Program', the 'Academy's Youth Programs', the 'Academy's Website', and more. The Academy is happy to welcome Dr. **Michael Desmond**, Chief Scientist, BP Chemicals, USA; and Dr. **Bilal Bomani**, Lead Scientist for NASA's biofuels research program, as primary guest speakers.

Academy members: There is still time to present at the 128th Annual Academy Meeting. **The deadline date for uploading your abstract is February 1, 2013.** See the Website instructions at <http://www.indianaacademyofscience.org>, or consult your Section Chair (contact information listed on the Website) if you have questions.

We are very happy to have received the commitment of several Corporate Partners for the 128th Annual Academy Meeting. Following is the list of those who have committed thus far:



The W.K. Kellogg Foundation supports the 128th Annual Academy Meeting.

The W.K. Kellogg Foundation has made it possible for Indiana high school student 2012 winners and finalists in the *Academy's Talent Search Program, Jr. Research Grants Program* and the *Junior Academy*, to attend the 128th Annual Academy Meeting. These young aspiring scientists will observe first-hand the research and presentations of some of Indiana's finest scientists.

The W.K. Kellogg Foundation's generous donation of \$15,000.00 to the Academy marks the second year of support they have given the Academy; having funded the Youth Activities Program in 2011 at the level of \$20,000.00.

White River State Park

has offered Academy Members attending the 128th Annual Academy Meeting in-kind support equivalent to a minimum of \$15,000. White River State Park has made available a flat rate parking fee of \$5 for the White River State Park under-ground garage located in the Indiana State Museum parking garage (directly across the street from the J.W. Marriott Hotel) on March 8 and March 9, 2013; a savings of \$15.00 per vehicle per day. The Academy is very pleased to begin this relationship with the White River State Park.



Eli Lilly Foundation and Company, Inc. partners with the Indiana Academy of Science.

The Eli Lilly Foundation and Company, Inc. has again come on board as a corporate sponsor of the Academy's Annual Meeting: the 128th Annual Academy Meeting.

The generous donation of \$10,000.00 to the Academy represents a second year of support to the Academy's Annual Meeting. The Academy is very happy with the relationship it has built with Eli Lilly Foundation and Company. The Eli Lilly Foundation and Company has consistently demonstrated a steadfast commitment to science in the state of Indiana.



Subaru of America has partnered with the Indiana Academy of Science for the 2nd year, and has also committed to a 3rd year in support of the 129th Annual Academy Meeting.

Through the SUBARU LOVES SCIENCE Program, the Indiana Academy of Science was able to donate 200 science books to Murdock Elementary School in Lafayette Indiana last year. Subaru will have a vehicle on site at the 128th Annual Academy Meeting for Meeting attendees to view. The donation of \$5000.00 for each of the two years is very much appreciated.

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NOTE:

Membership dues INVOICES have been mailed to all Academy members who have still to renew for 2013. These INVOICES simply serve as reminder to submit your membership dues before the end of the 2012, so that your membership in the Academy will remain active. The Academy appreciates your membership. Your membership, your active involvement, your volunteerism, and your additional donations, make it possible for all that we are accomplishing through our Senior Research Grants Program, our Junior Research Grants Program, our Youth Activities Program, the Academy Newsletter, special science Books, and the Academy journal (the *Proceedings*), and our ability to collaborate with other outreach initiatives

in Indiana, to make Indiana science a priority.

The Academy has also mailed information on how you might **Give an end-of- the- year GIFT** to support the work of the Academy and to help us to further grow. Your generosity remains appreciated.

2012 was a good year for the Indiana Academy of Science. We're looking forward to an even better year in 2013. Wishing you a wonderful New Year!

Delores

Delores Brown, M.S., M.Ed.
Executive Director

**The 2013 Annual Meeting of the Academy will be held at the
JW Marriott in downtown Indianapolis
March 8-9**

**Register now for the 128th Annual Academy Meeting and receive
discounted pre-registration rates. Get detailed information and register on-line at
<http://www.indianaacademyofscience.org>**

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present their scholarship. This is *the* seminal event of our organization every year, and arguably the most overt expression of why this Academy was founded nearly 130 years ago: to promote research and diffuse scientific information, to encourage communication and cooperation among scientists, and to improve science education. Like many of you I also attend larger, more focused meetings in my field every year, but I can say with all honesty that I take away just as much from this meeting as I do any other I attend in terms of new colleagues, new ideas, and new opportunities for scientific discovery.

As I write this I am sitting in Chicago's O'Hare Airport waiting for my final flight home from a biology meeting in San Francisco. While there I approached a number of students from Indiana institutions (IU, ISU, and Purdue) and encouraged them to attend the meeting and present their research (none that I had spoken with had

even known about the meeting). I ask that you do the same – please encourage your students and colleagues to participate in our annual meeting. The registration cost for students is very low compared to most professional organizations (~\$35, which includes lunch and a sharp-looking t-shirt). We offer an extraordinarily student-friendly atmosphere where students can hone their presentation skills and rub elbows with other students, scholars, and professionals from all over the state.

In closing, I thank you for serving as ambassadors for the Academy with your colleagues, your students, your clients, and with the community. I ask you to continue such efforts not only to bolster the Academy but to enhance the sciences in Indiana.

See you in Indy on March 9th!

-- *Michael S. Finkler*
2012-2013 IAS President

Proceedings of the IAS Update

The Indiana Academy of Science journal, the *Proceedings*, will be discussed at the 128th Annual Academy Meeting, as part of the Scientific Writing Workshop. Other journals discussed at the Workshop will be *Science*, and *Scientific American*. The Academy is very happy to have each of the journal editors on hand to talk about their journal. What is appropriate to submit, what is the review

process, what information do I need to facilitate the review process, as well as many other questions will be answered by the editors. Plan now to join us for the Scientific Writing Workshop at the 128th Annual Academy Meeting, Saturday, March 9, 2013.

--Uwe Hansen
PIAS Editor

Indiana Academy of Science Senior Grants, Fall 2012

<p>James Olsen Ball State University \$2,760 Determining the Role of the TAL-1 Oncoprotein in NF-kb-Mediated Apoptosis</p> <p>Sundeep Rayat Ball State University \$2,800 Design and Search of Potent Epidermal Growth Factor Receptor Inhibitors</p> <p>James R. Justice Ball State University \$1,309 Effects of benthic organic matter and pH on the toxicity of silver nanoparticles</p> <p>Kevin Wyatt Ball State University \$2,554 Effect of Nutrients and Light on the Release and Utilization of Dissolved Organic Carbon from Benthic Algae in Lake Michigan</p> <p>Dustin Owen Ball State University \$2,200 Physiological Impact of Roads on Copperheads (<i>Agkistrodon contortrix</i>)</p> <p>Amy Bauer Purdue University \$2,840 Prevalence and Geographic Distribution of <i>Coxiella burnetii</i> in Bulk Tank Milk Samples from Indiana Dairies: A zoonotic pathogen of human and animal health importance</p>	<p>Casey Day Purdue University \$2,999 Genetic status of the reintroduced river otter (<i>Lontra canadensis</i>) in Indiana</p> <p>Meden F. Isaac-Lam Purdue University North Central \$2,873 In Vitro NMR and IR Spectroscopy of Photosensitized Human Prostate Cells</p> <p>Michael Zimmer Purdue University Calumet \$2,402 Characterization of the Lipid-Binding Functions of the Antimicrobial Peptide Granulysin</p> <p>Patrick Cain Indiana State University \$1,012 Lizard display elements and detection by a snake predator: motion, color and chemical</p> <p>Jeffrey Kinne Indiana State University \$3,000 Computational Complexity Meets the Real World</p> <p>Daniel R. Jones Indiana Wesleyan University \$2,936 Investigation of Reveromycin A-Induced Cell Death Effects in Chondrocytes</p>
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2012 Indiana Academy of Science High School Grants

<p>Pen High School, Mishawaka, Indiana Sponsor: Kimbell Reitz</p> <p>Daniel Alber \$297.66 Antibiotic Properties of Bacterial Isolate C4</p> <p>John Adams High School, South Bend, Indiana Sponsor: Nevin Longenecker</p> <p>Isabel Bradley \$155.00 Improving the Efficiency of the Oxidation of Low</p>	<p>Concentration Carbon Tetrachloride Contaminated Groundwater Through Nutrient</p> <p>Kalina Misiolek \$216.00 Effects of Different Circuitry and Electrode Configurations on the Efficiency of a Membrane-less Enzymatic Biofuel Cell Operating under Physiological Conditions</p> <p>Claire Rice \$56.04 Possible Effects of Graphene Oxide Ingestion on Hatchability and Elongation of Brine Shrimp, <i>Artemia salina</i></p>
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HS Grants continued next page

Lauren Strzelecki	\$190.00	Juan Cerezo	\$32.60
An Evaluation of the Antioxidant Potential and Efficacy of Supplemental Antioxidants Related to Cognitive Processes		The Engineering of a more Precise X-ray Fluorescence	
Marian High School , Mishawaka, Indiana		Alexandra Frank	\$300.00
Sponsor: Ken Andrzejewski		Visualizing and Improving the Operation of and Inhaled Medication Chamber Tube	
Becker Benedict	\$300.00	Matthew Garatoni	\$68.35
Selective Determination of Transgenic Modifications in Genetically Modified Grains		Efficient Beam Column Connection Details for Balsa Wood Building Subjected to Earthquake Loading	
Sarah Bueter	\$35.57	Nick Gerstbauer	\$206.40
Cyst Hatchability and Buoyancy		Radiolysis of PVC for Waste Management	
Alan Bowman	\$300.00	Rachel Hoffman	\$300.00
Design of Antibacterial Nanosurfaces		Measuring the Optical Band Gap of Thin Layer Molybdenum Disulfide	
Chandler Calderone	\$130.00	Edward Hunckler	\$300.00
Generating a Transgenic Fish to Study Retinal Regeneration		Bipedal Robotic System Utilizing Dynamic Balance and Adaptive Walking Gaits	

HS Grants continued on page 13

The 2012 Indiana Academy of Science Talent Search

The 2012 Indiana Academy of Science (IAS) Talent Search Honors Weekend was held on October 19 and 20, 2012 at Indiana University Kokomo. Twelve students representing four high schools from around the state were selected from a field of applicants to compete in this year's round of interviews and research presentations. The weekend also included a Friday evening presentation about the Mars rover Curiosity by IU Kokomo astrophysicist Dr. **Patrick Motl**.

On hand at the awards luncheon to congratulate students, teachers, and parents were IAS President Dr. **Michael Finkler**, Ms. **Delores Brown**, Executive Director of the IAS, the Talent Search judges, and IU Kokomo faculty. The luncheon speaker, Dr. **Gongjun Yan**, Assistant Professor of Informatics at IU Kokomo, gave a presentation on his research titled "The Next Paradigm Shift: From Vehicles to Vehicle Networks".

As director of the Talent Search I owe a special debt of gratitude to our judges this year as their task was more complicated than usual. Dr. **Kari L. Clase** of the Department of Industrial Technology at Purdue University, Dr. **Mark Davis** of the Department of Biology at the University of Evansville, Dr. **Howard L. McLean** an independent chemistry/geology consultant currently working at Auburn, University, Dr. **Jennifer A. Metzler** of the Department of Biology at Ball State University, and Dr. **Maarij Syed** of the Department of Physics and Applied Optics at Rose

Hulman Institute of Technology spent a good part of the summer reading and ranking the research paper submissions. For various reasons, Mark Davis, Jennifer Metzler, and Maarij Syed were not able to be in Kokomo for the October competition but Dr. **Jeremy Fein** from the Department of Civil and Environmental Engineering and Earth Sciences at the University of Notre Dame volunteered to step in and serve as a judge, which was greatly appreciated.

The judges' decisions were as follows: Six students were declared **2012 IAS Talent Search Finalists**. Each of these students received a certificate, a medal, and fifty dollars to help defray the cost of their research. The names of these students in alphabetical order, the titles of their research papers, their high schools, and the names of their sponsoring teachers follow.

GALEN I. L. BROWN

Use of Alpha and Beta Crystallin in Error Prone Mutagenesis Testing
John Adams High School, South Bend
Sponsoring Teacher: Nevin Longenecker

EMILY L. HARSHMAN

Effects of Cranberry Products on *Escherichia Coli* and *Serratia Marcescens*: A Two Year Study
Northwestern High School, Kokomo
Sponsoring Teacher: Patty Zeck

continued next page

KRISTEN M. PIMLEY

Examining the Effect of Ethanol on Mitosis
Noblesville High School, Noblesville
Sponsor: Charles Emmert

JORDAN A. THURMAN

Temperature’s Effect on Magnetic Field Strength
Noblesville High School, Noblesville
Sponsor: Charles Emmert

LAUREN M. WARD

EMF: A Non-Chemical Control of Fruit Flies
Northwestern High School, Kokomo
Sponsoring Teacher: Patty Zeck

BRANDON C. WYSONG

Interspecific Competition and Intraspecific Competition
in Plants: A Study on Darwinian Principles
Northwestern High School, Kokomo
Sponsoring Teacher: Patty Zeck

Six students were declared **2012 IAS Talent Search Winners**. The names of these students in alphabetical order, the titles of their research papers, their high schools, and the names of their sponsoring teachers follow.

RYAN K. CHUNG

OrniLogic: A Study of Auto-Identification and Linguistic
Patterns of Songbirds Using Signal Processing and
Neural Networks
Terre Haute South Vigo High School, Terre Haute
Sponsoring Teacher: Melanie Huber

RAYMOND W. HAN

The Effects of Hydrophobicity and Microporous
Layers in the Membrane Electrode Assembly of a
Direct Methanol Fuel Cell to Enable Efficient Opera-
tion Using High Concentration Fuel
John Adams High School, South Bend
Sponsoring Teacher: Nevin Longenecker

KALINAA. MISIOLEK

The Effects of Different Mediators and Electrode
Configurations on the Efficiency and Longevity of a
Membrane-less, Enzymatic Biofuel Cell Operating
Under Physiological Conditions
John Adams High School, South Bend
Sponsoring Teacher: Nevin Longenecker

CLAIRE S. M. SOISSON

Impact of Rusty Crayfish (*Orconectes rusticus*)
Invasion and Sediment Depth on Seed Bank Germina-
tion from Lake Sediments

John Adams High School, South Bend
Sponsoring Teacher: Nevin Longenecker

EMMA E. SPERRY

Investigation of Variation in Serotonin 1e Receptor
Genes in a Polymorphic Species (*Zonotrichia
albicollis*)
Terre Haute South Vigo High School, Terre Haute
Sponsoring Teacher: Melanie Huber

LAUREN R. STRZELECKI

A Study of the Possible Role of Long Term Ingestion
of Supplemental Antioxidants on Cognitive Process
John Adams High School, South Bend
Sponsoring Teacher: Nevin Longenecker

Each Talent Search Winner received a certificate, a medal, and fifty dollars to help defray the cost of their research. In addition; **CLAIRE SOISSON** received a \$300 scholarship to an Indiana college or university, and **RYAN CHUNG** received a \$600 scholarship to an Indiana college or university. **RAYMOND HAN** and **EMMA SPERRY** and their teachers, **MELANIE HUBER** and **NEVIN LONGENECKER**, respectively, were recipients of paid trips to the American Junior Academy of Science (AJAS) meeting that is being held in conjunction with the American Association for the Advancement of Science (AAAS) and the National Association of Academies of Science (NAAS) meetings in Boston, MA in February, 2013. **RAYMOND HAN** and **EMMA SPERRY** also received one-year, honorary memberships in the AJAS.

To receive information about the 2013 Indiana Academy of Science Talent Search or application materials, contact Dr. **Marcia L. Gillette** at mgillett@iuk.edu or 765-455-9369. **The application deadline is May 31, 2013 and the Honors Weekend is scheduled for October 18 and 19, 2013 at Indiana University Kokomo.**

Anyone interested in the research abstracts of the six IAS 2012 Talent Search Winners should contact Dr. Marcia Gillette.

-- Marcia L. Gillette
Talent Search Director
Indiana University Kokomo, Kokomo, IN

See Page 12 for a group photograph of the 2012 Science Talent Search participants.

2012 Celebrate Science Indiana



Staffing the Indiana Academy of Science booth at the 2012 Celebrate Science Indiana event is (left to right) Delores Brown, Executive Director, Marcia Gillette, Council member, Linda Buff, Academy Administrative Assistant. In the background is Academy Member and Academy Past President Uwe Hansen helping students with an experiment.

The second annual Celebrate Science Indiana was an event for the whole family to help explain how science is important in everyone's life. The celebration was attended by over 3,000 children and families.

All photographs submitted by Mike Finkler, IAS President.

New Book about Indiana Coal Mine Reclamation Compiles Years of Research

The Indiana Geological Survey has published a large collection of research papers about the reclamation of abandoned Indiana coal mine lands and the effects it has on ground and surface water. This volume—*Effects of Abandoned Mine Land Reclamation on Ground and Surface Water Quality: Research and Case Histories from Indiana*, edited by John Comer—gathers together the information learned by researchers in several disciplines

who have studied the environmental impacts of mining and reclamation. Thirteen papers, contributed by 20 authors from federal and state agencies, private industry, and university research institutes and academic departments, address these issues. The book (351 p., 186 figs., \$50.00) is available from the IGS Bookstore at igs.indiana.edu/Bookstore or by calling 812.855.7636.

-- Nelson Shaffer

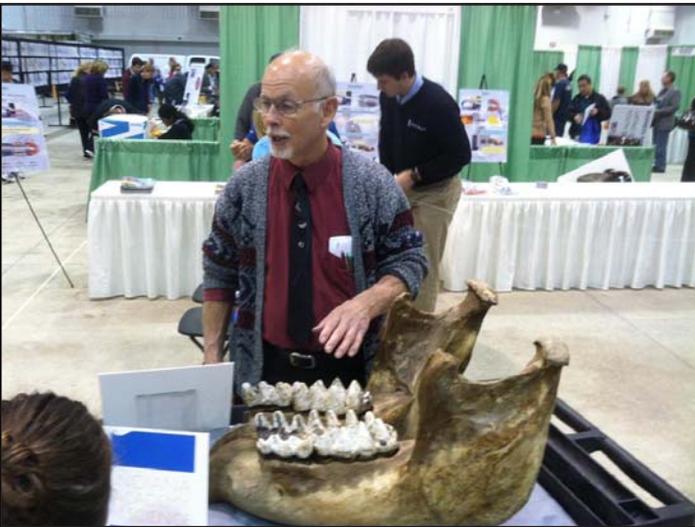
2012 Celebrate Science Indiana con't



Academy high school future scientists Austin Wheeler and Lacy Imel of Greenwood High School, engage elementary school students assisting Academy Administrative Assistant Linda Buff at the Academy exhibit table.



(Above) Scenes from some of the other exhibits available to young people and adults alike; a marvelous learning opportunity for all.



(Left) Academy Council Member and Chief Curator Science and Technology, Indiana State Museum, wowed CSI participants with both his talk to those in the auditorium area, as well as the hands-on experience he provided while walking up and down the aisles.

The Call for Papers is open until February 1st. Paper and poster abstract information (including 'hot topic' abstracts) and uploading instructions can be found at the Academy website at

<http://www.indianaacademyofscience.org>

Please feel free to consult your Section chair if you have questions about your submission.

Obituaries

Henry Hosek

Academy Member Henry Hosek, Former Chair of the National Science Fair and Purdue University Math Professor, Dies at 80.

March 2, 1932 - Aug. 12, 2012

Henry Hosek Jr., 80, of Crown Point, passed away on Sunday, Aug. 12, 2012. He was born March 2, 1932, in Anderson, and was raised in Anderson. He was a member of The First Baptist Church in Denham, Ind. He was a math professor at Purdue University Calumet for over 42 years and was the second longest employee in the math department. Henry was in charge of The National Science Fair for many years. He was a Korean War Army veteran and loved his family.

Henry is survived by his wife, Lynda; son, Bill (Terrie) Hosek; daughter, Kim Hosek; grandsons, Chad (Katherine) Hosek and Sean Hosek; great-grandchildren, Cameron, Kellan and Morgan Hosek; and sister, Barbara Dillon. He was preceded in death by his first wife, Virginia; and parents, Henry and Mary Hosek.

Memorial donations may be given to The First Baptist Church in Denham.

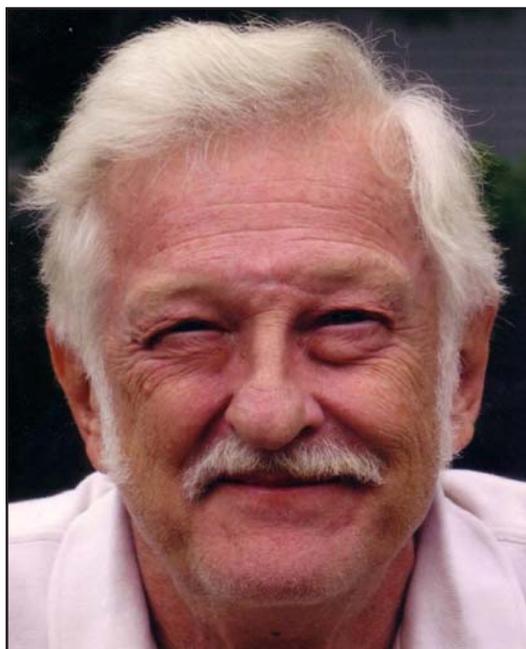


The Indiana Academy of Science is deeply sorry to learn about the passing of Dr. Hosek. His commitment to science and to the Academy, will always be appreciated. Our warmest thoughts go out to Mrs. Hosek and the Hosek family.

Byron Torke

Byron Torke, 72, passed away on Saturday, November 3, 2012 at Bethel Pointe Health and Rehabilitation following a lengthy illness.

Byron dedicated his life to the understanding of man and nature in harmony or conflict. For twenty-eight years he was a professor of biology, teaching a course load as varied as the diversity found in the biological world at Ball State University. He was a walking encyclopedia for systematic and taxonomic nomenclature of living forms. He served as an integral part of the Aquatic Biology and Fisheries Center at Ball State University in Muncie IN. For several years he served as the Clean Lakes Coordinator of the Indiana State Board of Health and the U.S. Environmental Protection Agency, and was directly involved with conducting diagnostic feasibility studies of Lake of the Woods, Lake Waubee and Skinner Lake in northern Indiana while overseeing studies on several other Indiana lakes. His teaching centered on biological principles courses and specialty courses of aquatic botany, aquatic entomology, marine biology and invertebrate



zoology. His personal research on the ecology of micro crustaceans in the Great Lakes region culminated in international publication and presentation in Brazil.

Byron maintained involvement with nature societies including ACRES Land Trust, Indiana Native Plant and Wildflower Society, Nature Conservancy, Red-tail Conservancy and Robert Cooper Audubon Society. In retirement, he visited many of Indiana's conservation sites and documented the diverse flora that exists within them. He presented numerous lectures and lead nature walks for the interested public. He enjoyed international eco-travel and in retirement with his wife Sally, traveled to a number of far-flung localities, including Costa Rica, Bolivia, the Brazilian Pantanal and Amazon, and the Cape Horn region of South America and maintained a strong interest in sea shells from around the world. His love of life, encyclopedic knowledge of and enthusiasm for the natural world will be sorely missed.

Survivors include his wife, Sally; three children, Veronica Weddle (husband, Lance), Byron Joseph Torke (wife, Heather) and Benjamin Torke (wife, Lupita); his step-daughter, Melanie Koch (husband, Matthew); six grandchildren, Alex and Max Torke, Michael and Lindsey Weddle, and Ariana and Bianca Torke; three step-grandchildren, Michael, Meadow and Madeline Koch; and one brother, Kenneth Torke.

He was preceded in death by his parents; his first wife, Diana Torke; a son-in-law, Martin Fehrenbach; and his step-son, Conrad Mc Nutt.

Condolences can be directed to the family at <http://www.meeksmortuary.com>.

Division of Nature Preserves is hosting a Spring Wildflowers and Old Growth Forest Field Days

When: **Saturday, April 20, 2013** (Earth Day) and **Saturday, May 11, 2013** (Mother's Day Weekend) at 10 AM local time.

Where: The following Indiana State Dedicated Nature Preserves: Calli, Eagle's Crest (within Eagle Creek State Park), Donaldson's Woods (Within Spring Mill State Park), Dunes (within Indiana Dunes State Park), Olin Lake, Shrader-Weaver, Rocky Hollow-Falls Canyon (within Turkey Run State Park), and Warbler Woods (within Fort Harrison State Park). Visiting these unique

and beautiful nature preserves would be a great way to celebrate Earth Day and Mother's Day weekend!

What: Hikes led by Division of Nature Preserves staff.

Registration will begin mid-January. **Registration ends Saturday, April 6, 2013.** Space is limited so register early for this free event!

For more information and to register online:
www.naturepreserves.dnr.IN.gov

Contact: **Roger Hedge**, (317) 232-8062

**Manuscripts are presently being accepted for publication consideration for
Volume 122, #1 of the *Proceedings of the Indiana Academy of Science.***

Volume 122 #1 is scheduled for publication in the spring of 2013.

**Email your manuscript to Dr. Uwe Hansen at uwe.hansen@indstate.edu
for Editorial Board review and consideration.**

Feel free to contact Dr. Hansen with any questions pertaining to your manuscript.

uwe.hansen@indstate.edu

812.234.0229

Participants of the 2012 Indiana Academy of Science Talent Search



Photograph by Mike Finkler, IAS President

Winona Welch Award for Botanical Biodiversity Research Call for Proposals

Proposal deadline extended to February 15, 2013

**For details, go the to IAS Home Page (indianaacademyofscience.org)
and click on Research Grants**

Submit six copies of the each proposal to:
-- Donald G. Ruch, Chair
Biodiversity and Natural Areas Committee
Department of Biology, Ball State University
Munice, Indiana 43706
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