



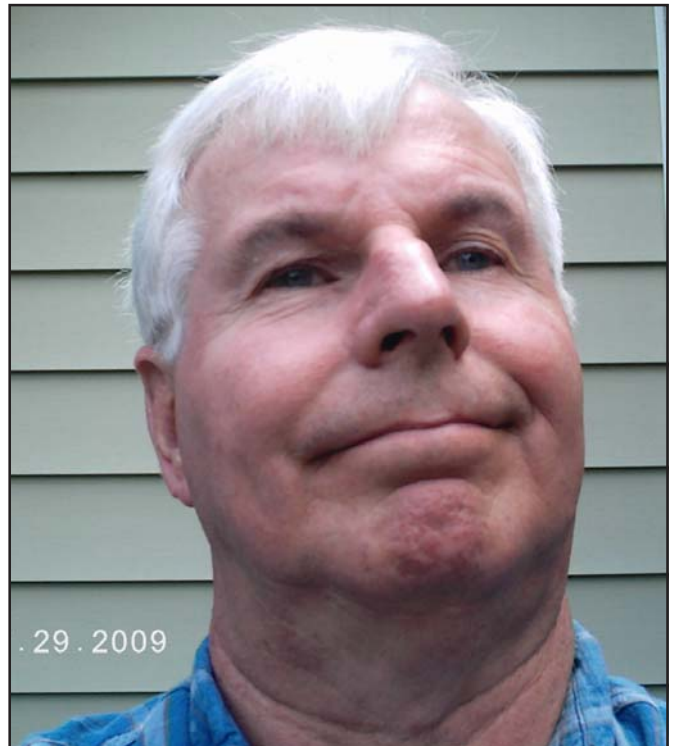
INDIANA ACADEMY OF SCIENCE NEWSLETTER

Number 141

August 2009

Indiana Academy of Science Election -- 2009

CANDIDATES FOR PRESIDENT-ELECT



Richard A. Kjonaas graduated from Valley City State College in 1971. He spent two years teaching high school science and mathematics in northwestern North Dakota before coming to Indiana and earning his Ph. D. in chemistry from Purdue University. This was followed by a one-year postdoctoral appointment at The Ohio State University. He then moved to Fort Hays State University in Kansas where he was an assistant professor of chemistry for four years. He returned to Indiana in 1983 to join the Chemistry Department at Indiana State University. His teaching skills have been rewarded with ISU's Educational Excellence Award and the Caleb Mills Distinguished Teaching Award which is ISU's highest teaching recognition. Rich has chaired the Chemistry section of the Academy three times, and served from 2000 through 2006 as the IAS Liaison to the American Association

James A. Plew graduated with a BS in Geology from Indiana State University in 1970. Upon graduation, he began employment in the Indiana State Highway Commission as a Central Materials Testing Lab geologist. He also worked in the U.S. Army, Engineering Corp's Central Materials Testing Lab. From 1972-1978, he worked for the Indiana State Highway Commission, LaPorte District Division of Materials and Tests as a geologist, and from 1978 to the present, he has worked at the Engineering Aggregates Corp as a geologist in charge of exploration, environmental compliance and materials quality. Jim has been an active member in many professional organizations, and is a past president of Indiana Geologists, a board member of Professional Geologists of Indiana, past chair of the Indiana Mineral Aggregates Technical Committee, past president of

for the Advancement of Science. He also served several years as a member of the Science Talent Search Committee of the Academy. Rich has served three terms as chair of the Wabash Valley Section of the American Chemical Society. His research interests have traditionally involved the use of organometallics in the synthesis of organic compounds. More recently he has collaborated with the ISU Biology Department in synthesizing molecules that have potential use in health care. He and his students have regularly presented papers at meetings of the Academy since 1984.

the Indiana Mineral Aggregates Association, and served as a board member of the Indiana Mineral Aggregates Association Environmental Stewardship Council for two years. Jim is a life member of the Indiana Academy of Science, has served as chair of the Geology, Geography and Atmospheric Section and is the current chair of the Earth Sciences Section.

CANDIDATE FOR SECRETARY

Heather Bruns received her Ph.D. from Indiana University School of Medicine in microbiology and immunology. She is assistant professor of immunology at Ball State University and primarily teaches Immunology, Virology, and Introduction to Molecular and Cellular Biology. Her research focus is examining how the alteration of intestinal microflora due to antibiotic treatment alters immune responses in the gut. She is an active member of the American Association of Immunologists, as well as, the Autumn Immunology Conference, where she will serve as a council member. She is an active member of the Indiana Academy of Science and has served as secretary for three years.

CANDIDATES FOR RESEARCH GRANTS COMMITTEE

See Page 6 for nominees information.

Note from the President's Corner

If you are like me, you may not want to think about the winding down of summer or the start of a new (and often intense) academic year. Since I had sabbatical during the spring, gearing up my fall classes may prove particularly onerous. At the same time, I know there will be many enjoyable events and promising students and I anticipate pursuing new ideas. And what can be more enjoyable and intellectually invigorating than the fall Indiana Academy of Science meeting!

THE ANNUAL MEETING: This year we return to the central region of Indiana and will meet at IU Kokomo. Please remember that your attendance and participation are vital to the Academy and to science in Indiana. Get that Abstract ready for a presentation or poster. Bring your students. Encourage your colleagues to be involved too.

Remember that ABSTRACTS are due by September 3.

We anticipate that this meeting may have more than the usual interest since we are lining-up a series of special speakers. **Jerry Wilhelm** (of "Plants of the Chicago Region" fame) will be the Speaker of the Year, presenting on the topic of "ecological consiliency." Jerry has deep

experience with restoration and ecological thinking through his years with the Morton Arboretum and Conservation Design Forum. In addition, in the Plant Biodiversity/Systematics Section, Jerry will provide an update on changes in the Chicago region flora during the past 15



Paul E. Rothrock, 2009 President of IAS

years and give us a preview of his exciting new work in progress. I would expect some sidebars about his dear colleague, the late **Floyd Swink**.

Here are the other extra treats you may expect at our 2009 annual meeting.

- In Botany Section **Gail Ruhl** (Senior Diagnostician, Purdue University) will share her expertise on the major and latest threats in the world of plant diseases.
- This past spring at Butler University, some of our membership heard **John Shuey** (from the Nature Conservancy) speak on the impact of climate change on conservation efforts in Indiana. He has agreed to bring an update to our fall meeting.
- Cell Biology section will host **Sidney Shaw** (IU – Bloomington) who has done fascinating work on the microtubules cytoskeleton on Arabidopsis. What makes this work of particular general interest in the new imaging technique that he is employing, called high-resolution multimode digital microscope system. Come to his afternoon session and be wowed!
- In addition to your papers, special speakers, and luncheon, look for excellent late afternoon workshops. **Eric Knox** (curator of the Deam Herbarium) has agreed to hold a session on Phylogenetics. It should be an outstanding program for the biology education minded.

It has not escaped my notice that the special events primarily appeal to the life science portion of our membership. If you have another potential guest speaker in mind that can broaden the range or a workshop that would be of interest to another segment of the membership, please contact your section chair or myself as soon as possible! It

is not too late to find another slot for your discipline.

By the time you receive read this Newsletter I expect the revamped Academy website will be on-line. Please explore it. It will have a secure, updateable membership directory, information on our outstanding Special Publications plus old issues of the Proceedings, and much more. Another critical function is the on-line Abstract submission page. We had problems with this last year but expect it to be smoothly running.

Remember that ABSTRACTS are due by September 3 and you should be able to easily and confidently submit them on-line.

While the fall meeting and Website have required most of my attention, there are a few other matters in the mix. We continue to solicit your input on the annual meeting. We have asked about when it should be held, but perhaps a better question is “are there sister scientific organizations with which we should hold a joint meeting?” If we held a joint meeting, could we be flexible in meeting at a very different time? A second question that I hope to address at the next Council meeting is whether we have too many Sections in the Academy. Currently there are 17! Each needs a Chair and Co-chair. Could we fully serve the needs of the membership with less than half as many sections? I will be conversing with your current section chairs soon and would also appreciate your direct input.

Be in touch. Best wishes.

— **Paul Rothrock**
plrothroc@taylor.edu
2009 IAS President

Senior Research Grants Program

The deadline for the Senior Research Grants Program is rapidly approaching. The grants program provides up to \$3000 for Academy members or the undergraduate or graduate students they sponsor to support the purchase of supplies, travel costs, salaries or research assistants, field costs, and limited equipment purchases. While the selection process favors applications from investigators with limited resources, start-up projects, and those with special impact on Indiana, a wide variety of projects have been funded in the past. **The application deadline for this fall is September 15.** Information on the program and directions for application are available on-line at the IAS web site. Please send inquiries and proposals to **Sandra Brake**, chair of the Research Grants Committee.

— **Sandra Brake, Chair**
IAS Research Grants Committee
sbrake@isugw.indstate.edu

Guidelines for Abstract Submission for the Fall Meeting

Deadline: Your completed abstract must be submitted through the abstract submission page on the IAS website (<http://indianaacademyofscience.org> and click on Annual Indiana Academy of Science Meeting 2009) by **Thursday, September 3**. If you have any questions regarding abstract submission, please contact **Michael Finkler** (mfinkler@iuk.edu; phone: 765.455.9244).

Abstract Preparation and Submission: Please follow the instructions for abstract submission carefully. Your electronic abstract must be limited to 300 words, not including the title, list of authors, and affiliations. Please remember to italicize any scientific names. Abstracts should be preceded by a title in bold font with title case. End title with a period. On a separate line below the title, type the name of the author(s), institution(s), department, city, and state. The name of the presenting author should be in bold font. There should be one line space between the author and institution line and the main text of the

abstract. An example of a properly formatted abstract is provided below:

Foraging Ecology of Cerulean Warblers in Southern IN.
Lila C. Prichard and Kamal Islam, Department of Biology, Ball State University, Muncie, IN

The Cerulean Warbler (*Dendroica cerulea*) is a small Neotropical migrant.

Oral versus Poster Presentations: The meeting can accommodate a limited number of poster presentations that will be allotted for the meeting will be assigned on a first-come, first-served basis, with excess submissions assigned as oral presentation. Posters should be approximately 36" high x 48" wide.

-- *Michael S. Finkler, Ph.D.*
Local Arrangement Committee Chair
<http://www.indiana.edu/~nimsmsf/>

Call for Nominations for IAS Fellow

The IAS 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 the following URL:

<http://www.indianaacademyofscience.org/htmlfiles/awards.html>

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 or **765.285.8827**.

-- *Clare L. Chatot, Chair*
IAS Awards Committee

INDIANA ACADEMY OF SCIENCE
 Registration Form
 125th FALL MEETING, OCTOBER 22-23, 2009
Indiana University Kokomo, Indiana

Advance Registration must be postmarked by October 18, 2009

Name: _____

Institution/Agency: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

CIRCLE AMOUNT PAID

	<u>Advance Registration</u>	<u>Membership 2010 Dues</u>	<u>Total</u>
Member	\$35	\$35	_____
Member, Sustaining	\$35	\$60	_____
Member, Associate	\$35	\$25	_____
Student*	\$10	\$10	_____
Emeritus Member	\$10	\$10	_____
Non-Member	\$45		_____
Luncheon	\$15		_____
		Total	_____

Total amount enclosed Check No. _____ Cash \$ _____

*College student must be a student member of the Indiana Academy of Science and must have paid the \$10 membership fee to be eligible to register at the \$10 student fee. If not already an IAS student member, the fee may be paid at this time along with the registration fee for a total of \$20. Otherwise, college students may pay the \$45 non-member fee.

Friday afternoon workshop, please check below if you plan to attend.

Tools for Phylogenetic Analysis

No refunds will be made after October 18, 2009

Make checks payable to **Indiana Academy of Science**

Mail to: Edward L. Frazier, Treasurer
 Indiana Academy of Science
 5007 West 14th Street
 Indianapolis, IN 46224-6503

Grant Reviewers Needed

This fall a subcommittee of the Grants Committee will be formed to handle the junior grants, which are awarded to high school students in grades 9-12. We are in need of reviewers from all areas of science to help review and rank the grants for receipt of funding of up to \$300.

The junior grants are due on October 26 and we will have approximately one month in which to review them. Although this is a difficult time of the semester for many of us, it is important to get the funds distributed by the end of the year so that recipients can compete in science fairs, the I.A.S. Junior Academy, and other venues. Please consider working with us to encourage these young scientists who are need of research funds.

For additional information or to volunteer please contact **Alice Heikens** (aheikens@franklincollege.edu).

Indiana College Biology Teachers Association

The annual meeting of the Indiana College Biology Teachers Association will be held at Valparaiso University on October 16-17, 2009. Our topic will be environmental sciences programs and we will also be exploring some of the unique biology of northwest Indiana. Please come and join us - new people are welcome! The meeting is brief, local, inexpensive and filled with energetic and inspiring teachers. Who could ask for anything more? For more information, please contact **Pam Connerly** at (812)738-7327 or pconnerl@ius.edu.

Indiana Academy of Science Election con't

CANDIDATES FOR RESEARCH GRANTS COMMITTEE

Jarka Popovicova is an Assistant Professor at the Department of Natural Resources and Environmental Management at Ball State University in Muncie, Indiana, where she teaches Water Resources, Water Quality Management, Wastewater Treatment, and Environmental Science. She received her MS in Environmental Engineering from Prague Institute of Chemical Technology in Czech Republic and PhD in Soil, Water and Environmental Science from University of Arizona in Tucson. She has been involved in water quality research on streams and a reservoir in Delaware County, Indiana. She is also involved in various community projects in Delaware County such as green roof adaptation, collection and disposal of unwanted medication, master plan development for future planning of a local reservoir, and storm water management. Prior to her teaching career at BSU she worked for the City of San Diego water utilities, East Bay Municipal Utility District in Oakland, California; and at Water Research Foundation in Denver, Colorado. She is a member of North American Lake Management Society, Indiana Lake Management Society, Indiana Academy of Science, Association for Environmental Studies and Sciences, and Engineers without Borders.

Dale Edwards is professor of Biology at the University of Evansville. He earned a BS degree from Brandon University (Canada) and a MS and PhD from Wake Forest University. He is broadly interested in the evolutionary ecology of organisms with parasitic lifestyles. In recent years, Edwards and his students have been examining of host/parasite relationships involving freshwater mussels and aquatic (unionicolid) mites. Recent projects include the effects of parasitism on host survival, reproduction, and fluctuating asymmetry, the relationship between sex preferences and the transmission success, and phylogenetic relationships among unionicolid mussel-mites using DNA profiles and mitochondrial sequence data. Edwards has been a member of the Indiana Academy of Science since 1994. In 2008, he served as Chair of the Local Arrangements Committee for the annual fall meeting of the Academy.

FRESH OFF THE PRESS

A new IAS Special Publication authored by **Paul Rothrock** (**Sedges of Indiana and the Adjacent States: The Non-Carex Species**) is scheduled to ship from the printer in early September and will be available for purchase shortly thereafter. This beautiful 6 x 9, 277-page, full-color, hard bound book features almost 500 figures, illustrations (see examples below), maps and tables and should be welcomed by gardeners, natural area biologists and others interesting in discerning this challenging and often neglected group of grass-like plants. It will sell for \$45 retail (\$33 for IAS members), plus S&H for mailed orders. It will be available for purchase at the fall meeting in Kokomo as well as thru internet orders: contact **Bill McKnight** at iaspublications@indy.rr.com or 317-205-5440.



This image, from the cover, shows blunt spike rush (*Eleocharis obtusa*) a common species across Indiana.

This photo, one of over 200 in the volume, shows the fruits from six species [the 7th object is the fruit with its associated white bristles]. The genera depicted include *Scirpus* (bulrush), *Fimbristylis* (fimbry), *Scleria* (stone rush), 2 *Eleocharis* (spike rush), and *Eriphorum* (cotton grass).



ATTENTION IAS MEMBERS

Abstract Submission Deadline: September 3, 2009

See this newsletter for details of submission

**Fall Meeting: Indiana University Kokomo
October 22-23, 2009**

**Deadline for submission of material for the December issue of the IAS Newsletter is
November 23, 2009**

Send copy to Donald G. Ruch at druch@bsu.edu

For IAS information, go to: www.indianaacademyofscience.org