

Iowa Academy of Science

The New Bulletin

Volume 1 Number 2 Summer 2005



The Iowa Academy of Science is established to further scientific research and its dissemination, education in the sciences, public understanding of science, and recognition of excellence in these endeavors.

Message from the Executive Director

The lazy, hazy, crazy days of summer are here and so is the summer edition of the IAS Bulletin. I hope each of you is enjoying your summer schedule. This summer is a busy one at the IAS office. In this bulletin you will read about a number of initiatives that the Academy is undertaking. We are formulating plans to increase the visibility of the Academy across the state with new partnerships and with a public relations campaign about our events, partnerships, and achievements of our members. Efforts in this area have already begun.

We want to congratulate Marcy Seavey for being honored at the Environmental Protection Agency's Regional Headquarters in Kansas City, Kansas. Marcy received the EPA Educators Award for Environmental Excellence for Region 7 and was named Iowa's Environmental Educator of the Year for 2005. As the Program Director for IAS, Marcy is responsible for coordinating Iowa's GLOBE and Project WET programs among many other duties. This award reflects positively on Marcy, the Academy, and education in Iowa.

This has been an eventful year. Most recently we held a very successful Annual Meeting at Cornell College in Mt. Vernon. From all indications the 325 attendees enjoyed the general sessions, symposia, section meetings, and the camaraderie. For the first time the Regional Tri Beta Biology Honor Society held their meeting in conjunction with ours. We hope to make that a bi-annual event. We are already looking forward to next year's meeting which will be held at Buena Vista University in Storm Lake.

In August, you can look forward to an update to our website. As mentioned in our last bulletin we plan to give the site new capability. It will include a membership only section and will provide more opportunities to get our message out to the public and prospective new members. Watch for the changes at www.iacad.org.

Finally, no one makes a better ambassador for the Academy than its members. As we continue to enhance our role in Iowa please take advantage of our new member program. New members join the Academy for \$50 and you will receive \$10 off your dues next year for each new member joining the Academy after your referral.

Have a great summer!

Craig Johnson, Executive Director

Program Director Named Iowa's Outstanding Environmental Educator for 2005



Marcy Seavey was recently honored as the Environmental Protection Agency's Region 7 2005 Educators award for Environmental Excellence. The award was presented at a ceremony in Kansas City, Kansas by Regional Administrator James Gulliford. Marcy joined the Academy in 1999 as the state coordinator for GLOBE and Project WET. Under her direction, over 5000 teachers have been trained through Iowa's Project WET and GLOBE Partnership. Both programs have reached thousands of students across Iowa.



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Reflections of the Iowa Teacher of the Year

This has been a unique year serving as Iowa Department of Education's Ambassador for Education. As Iowa's Teacher of the Year for 2004-2005, my year-long sabbatical has been full of surprises and lots of travels and I have spent this valuable time networking with educators, administrators, students, and community members across this great state of Iowa as well as our nation.

My travels have taken me to Dallas, TX; Portland, OR; Seattle, WA; Huntsville, AL; Denver, CO; Phoenix, AZ; 6 trips to Washington, D.C.; and a major trip to Beijing, China. Plus, I traveled about 26,000 miles to work with schools across Iowa. That's a lot of travel in one year! But what an experience this has been serving educators across America by observing and networking with peers.

One of the highlights has been spending time with teachers and visiting their schools and classrooms. I believe that I have spent enough time in so many school districts in Iowa and the rest of the nation, that I can tell you with confidence that our teachers are dedicated to their students and truly work hard. We should be so proud of their dedication and for a job well done working with our youth; the future of our nation.

Some of the activities that I have been engaged in this year have included presenting workshops for school districts across Iowa and the nation; giving seminars to science educators, both in China and in U.S. districts; presenting school assemblies to schools across the Midwest; providing science education support and suggestions to science teachers wherever my travels have taken me; and presenting numerous inquiry-based science labs to over 30,000 students in their classrooms.

I have also been the guest of President Bush and First Lady Laura Bush in the Oval Office at the White House. It was a truly exciting and rewarding experience meeting and talking with these two esteemed individuals.

The State of Iowa has set up and maintained my web site at the following web address:
<http://www.state.ia.us/educate/ecese/ppl/toy2004/index.html>

I want to thank the citizens of Iowa and the Iowa Department of Education for giving me this opportunity to serve as Iowa's Teacher of the Year. What a humbling experience! What a truly rewarding opportunity!

-Ernest Schiller, 2004-2005 Iowa Teacher of the Year
ernestschiller@hotmail.com

Teachers – Get Recognized!

ESTA

Nominate yourself or a colleague for an Excellence in Science Teaching Award (ESTA). Awards are made annually in Physical Science, Life Science, Earth/Space Science/Environmental Science, General/Multiple Science, Middle School/Junior High Science and Elementary Science. A committee of IAS members selects winners. Awardees receive a plaque and a \$200 award and are honored at a luncheon during the Iowa Academy of Science Annual Meeting.

See the award brochure for more information:
<http://www.iacad.org/download/esta2004.pdf>

Iowa Teacher of the Year

Do you motivate, challenge, and inspire excellence? Are you a creative, caring individual who takes teaching beyond textbooks and blackboards? Apply to be Iowa's next Teacher of the Year!

More information and nomination forms available at:
<http://www.state.ia.us/educate/ecese/ppl/toy/index.html>

Presidential Science Awards

The Presidential Awards for Mathematics and Science Teaching recognize outstanding mathematics and science teachers from across the United States for their contributions in the classroom and to their profession.

More information and nomination forms available at:
<http://www.paemst.org/>



**Teacher of the Year
Ernie Schiller with President and Mrs. Bush**



Focus on an Institutional Member

The Putnam Museum of History and Natural Science

Founded in 1867 as the Davenport Academy of Natural Sciences, the Putnam Museum of History and Natural Science first opened its doors to the public in 1874. Throughout its 130-plus years of existence, the Museum has served as the primary repository for the cultural and natural heritage of the Quad Cities region. Even today a large portion of the Museum's natural science holdings can be traced back to the early work of the Academy. The Museum houses the W. D. Barnes and G. W. Clinton herbaria, an extensive freshwater mollusk collection, collections in entomology and marine invertebrates, vertebrate and invertebrate paleontology, and vertebrate zoology, as well as archaeology, ethnology, and history. The Putnam's collections provide the foundation for the Museum's educational programming, exhibitions, and research. The recent addition of a 3-D IMAX® theatre continues the Museum's tradition of enriching the learning experiences of Quad Cities residents.

Relatively few organizations today address the issues facing science research and education. The Academy's mission "to further scientific research, science education, public understanding of science and recognition of excellence in these endeavors" seems a natural fit to that of the Putnam's mission "to collect and preserve objects and natural science specimens and to provide educational and enriching experiences through interpretive exhibits and museum programming." Collections like those maintained by the Putnam Museum are now, more than ever, proving a valuable resource to the scientific community, and the Museum is committed to the preservation of these collections and to ensuring their access for future generations.

For more information contact:

Christine Chandler
Curator of Natural Science
chandler@putnam.org
563-324-1054 x.226

Putnam Museum of History and Natural Science
1717 W. 12th St.
Davenport, IA 52804

PUTNAM!

MUSEUM AND IMAX® THEATRE Schedule of films and exhibits coming this summer to the Putnam Museum and IMAX® Theatre:

Films -

Through 6/30/2005
Through 9/15/2005
Through 11/17/2005
7/1/2005 - 11/10/2005
8/25/2005 - 9/5/2005

Aliens of the Deep
Forces of Nature
Fighter Pilot
Adrenaline Rush
NASCAR

Changing Exhibits -
Through 7/24/2005
Coming 8/19/2005

A World of Music
Elephants!

Permanent Exhibits -

Black Earth/Big River, Hall of Mammals, Iowa's Wild Places, River, Prairie and People, Asian/Egyptian Gallery



ALCOA Presents:
Inventing Flight: A Workshop for Science Teachers (5 – 9)
Saturday, October 8th - 8:30 am to 3:30 pm
Putnam Museum of History and Natural Science

About Inventing Flight:

In just five years, from 1899 to 1903, the Wright brothers were able to discover the secret of flight, overcoming obstacles that proved too difficult for other prominent inventors and scientists preceding them. Participants will investigate *Inventing Flight*, a multi-media curriculum package specifically designed to introduce upper elementary, middle and high school students to the invention/inquiry process. Teachers will engage in a number of “hands-on” student activities meeting state and national standards in science. Connections will also be made to math, language arts, social studies and technology education.

Attendees will have an opportunity to review some of the videos designed specifically for the project, as well as preview activities featured on VHS and DVD, to assist teachers in conducting successful classroom experiments.

Participants will learn how to choose the best flying site and flying conditions for student activities, as well as explore opportunities to build flying machines to illustrate the invention process of the Wrights. In addition, attendees will be provided with this exciting curriculum package as well as student materials for each class. Participants will learn about on-line teacher training and the potential for support from local Academy of Model Aeronautics flying clubs.

Teachers must agree to at least one follow-up on-site visit to help evaluate the program, as well as help facilitate on-line student evaluations of the activities. Teachers may join an e-mail list in order to improve communication and support among participants.

Additional Program Highlights:

- No Registration Fee; participants will receive a curriculum kit and all classroom materials for each student
- After the site visit, each participant receives a stipend of **\$100**.
- 30 participant limit; **priority given to teams of teachers from the same school**
- Continental breakfast and lunch is provided
- Registration Deadline: September 9th, 2005

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This Professional Development Opportunity is generously supported by ALCOA, the Academy of Model Aeronautics, the Iowa Academy of Science, and the Putnam Museum of History and Natural Science.

This workshop is based on *Inventing Flight*, a multi-media curriculum package, specifically designed to introduce middle school teachers and students to the invention process used by Orville and Wilbur Wright in creating the first flying machine. During the one-day session, teachers will participate in four hands-on activities, designed to illustrate how the Wrights succeeded where others failed and how, in the process, they created the discipline of aeronautical engineering. The program is designed to meet national standards in science and address concepts, soon to be part of the federal “No Child Left Behind” (NCLB) national testing program.

The Alcoa Foundation is sponsoring this workshop because of its commitment to increase “hands-on, minds-on” learning in science for middle schools students. A major goal of this project is to establish “best practices,” in easy-to-use activities that are fun for students, and teach about flight in a manner directly linked to state standards in science. To this end, participating teachers are asked to help gather data about lesson effectiveness.

The activities for each lesson will take approximately eight to ten class hours to complete, and participants may have to re-arrange some plans in order to accomplish this task prior to the site visit. As a “thank you” for making these adjustments, a stipend of \$100 is offered. Stipends will be paid once each teacher has completed an exit interview with Margaret Sagehpour-Kramer or Marcy Seavey from the Iowa Academy of Science. Workshop participants are provided with over \$500 of curriculum and classroom materials, as well as on-line support while doing the projects, including student assessment. All activities must be completed by the end of December, 2005.

If you have questions concerning these expectations or to register, please contact:

Marcy Seavey, Program Director
Iowa Academy of Science
175 Baker Hall – UNI, Cedar Falls, Iowa 50614-0508
Phone: 319-273-7486
Fax: 319-273-2807
Email: iowawet@sunny.uni.edu

IAS Honors New Fellows

AARON SPURR

Aaron Spurr is an Instructor of Teaching and Science Education at Price Laboratory School, University of Northern Iowa, and an active member of the Iowa Academy of Science. He teaches high school science and also a UNI technology methods course.

"I've enjoyed being an active member of the Iowa Science Teachers Section and providing whatever services I can." Aaron operates the ISTS web site and maintains the server. He also oversees all IAS online membership payments and the online registrations for the Annual Meeting and the ISTS Fall Conference where he has also served as the registration coordinator for the past 7 years.



WILLIAM J. DESMARAIS

Bill Desmarais has been a secondary science educator for Cedar Rapids Community Schools since 1974 and a member of the Iowa Academy of Science since 1978. Bill has received two Excellence in Science Teaching Awards from the Academy: One for Earth Science Teaching in 1985 and a second for Environmental Science in 1995. It is only fitting that he become a fellow in 2005. Most recently, he completed a 3 year term on the IAS board of directors. Bill is an active leader in science education in Iowa. He has also been awarded the 2000 Aldo Leopold Award for lifetime achievement: Environmental Education Excellence and Leadership and the 2000 Governor Tom Vilsack's, Iowa Environmental Excellence Award: Individual Leadership.



SHERMAN LUNDY

Sherman Lundy, Geologist and Farm Manager for Basic Materials Corp., Waterloo, taught geology and chemistry at the secondary and college level for 35 years. As an active IAS member Sherm has served as the Finance Committee Chair with section membership in Geology, Chemistry, Chem. Ed, Earth Science, and ISTS. He has been involved with IOWATER, Iowa Limestone Producers Association's sponsorship of Geology of Iowa for Iowa Teachers, GLOBE, and has been active in scouting. Sherm is also a Research Volunteer with Two Medicine Dinosaur Center in Montana, serves as Black hawk County Soil and Water District Commissioner, past president of Geoscience Teachers Central Section, and past chair of NCGSA Education Committee.



Look for features on more new fellows in the next IAS Bulletin. For information on how to nominate a fellow visit the IAS website.

2005 ISTS Fall Conference Update

The ISTS Leadership Team is hard at work planning for what looks to be a banner year for our Section. We gather once again at the Polk County Convention Center next October 19 and 20 for our annual conference. The theme this year is "Standing on the Shoulders of Giants" in tribute to the many pioneers who built Iowa's national reputation in science education. Fittingly, Dr. Robert Yager will be our Keynote luncheon speaker, reflecting on and prognosticating over 40 years of advancement in our field. Several Iowa legislators from the House and Senate Education Committee have accepted our invitation to attend and witness first hand the vibrancy of an ISTS Fall Conference. Add to this the re-inauguration of our Science Teachers journal, spearheaded by ISTS President Michael Clough, and 2005 looks to be our best yet.

Anyone interested in proposing a presentation for this year's conference should contact Jeff Weld, Conference Coordinator. Otherwise, we wish to extend an invitation to all--join us in Des Moines in October. Keep checking the ISTS website (<http://ists.pls.uni.edu/>) for updates and details.

-Jeff Weld, ISTS Fall Conference Coordinator and Past-President



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Cedar Falls, Iowa 50614-0508

Address Correction Requested

The New Bulletin is a publication of the Iowa Academy of Science and is distributed to current IAS members 3-4 times per year.

Volume 1 Number 2 Summer 2005
also available online at: <http://www.iacad.org>
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Article Submission: The deadline for submission of articles for Vol. 1 #3 is September 1, 2005. Articles must be pre-approved. For more information contact Craig Johnson, IAS Executive Director, at ias@uni.edu

Advertising Rates: Full page, single issue \$160; Half page, single issue \$60, two consecutive issues \$100; Business Card (3.5"x 2.0"), single issue \$30, two consecutive issues \$50. For more information or to submit an advertisement, contact iascience@uni.edu

Iowa Academy of Science Institutional Members

University of Northern Iowa, Cedar Falls
The Nature Conservancy, IA
Buena Vista University, Storm Lake
Cornell College, Mt. Vernon
Graceland University, Lamoni
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