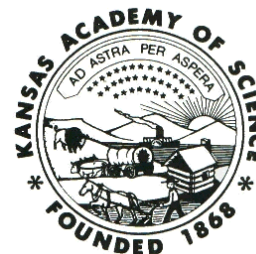


# KAS BULLETIN



## NEWSLETTER OF THE KANSAS ACADEMY OF SCIENCE

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February, 2012



## 144<sup>th</sup> ANNUAL MEETING OF THE KANSAS ACADEMY OF SCIENCE

March 30<sup>th</sup> -31<sup>st</sup>, 2012  
Wichita State University  
Wichita, Kansas



The deadline for submitting abstracts and for on-time registration is Monday, March 12<sup>th</sup>, 2012. Conference details and on-line registrations can be found at:  
<http://webs.wichita.edu/?u=conferences&p=/KAS/>

### Friday's Events:

- **1-5 PM** Field Trip: Geology of the Flint Hills and South-Central Kansas East Park – El Dorado KS (see field trip announcement)
- **4-5:15 PM** Field Trip: Ninescaw Reserve – Prairie Restoration and Birds Ninescaw Reserve (see field trip announcement for directions)
- **5-7 PM** Registration at WSU Eugene M Hughes Metropolitan Complex
- **6:30-8 PM** KAS Banquet – WSU Eugene M. Hughes Metropolitan Complex
- **8-9 PM** Watkins lecture/KAS Keynote address – Dr. Andrew Knoll – WSU Eugene M. Hughes Metropolitan Complex **“The Search for Life on Mars”**
- **9:30-11 PM** Field Trip: Lake Afton Observatory (see field trip announcement for directions)

### Saturday's Events:

- 8-8:30 AM Judges and Moderators Meetings – Hubbard Hall (on WSU campus; enter on west or north sides of building)
- 8-10 AM Posters may be put up (***must be up by 10AM***) – Hubbard Hall
- 7:30 AM-Noon On-site registration – Hubbard Hall
- 8:30-8:50 AM Welcome and Orientation – Hubbard Hall Rm 209
- 9-10:30 AM Oral presentations – Hubbard Hall
- 10:30-11 AM Refreshments – Hubbard Hall
- 11-12:30 PM Oral presentations – Hubbard Hall
- 12:30-2 PM Lunch – Rhatigan Student Center Rm 223
- 2-3:20 PM Poster session – Hubbard Hall
- 3:30-4:30 PM Watkins lecture/KAS Keynote address – Dr. Andrew Knoll – Hubbard Hall Rm 209 **“Deep Evolutionary History”**
- 4:30-5 PM KAS awards presentation – Hubbard Hall Rm 209

## ABSTRACT SUBMISSION GUIDELINES

In submitting your abstracts please follow the guidelines below. Following these guidelines will help us greatly in formatting the meeting abstract booklet.

1. The length of the abstract is limited to 250 words. This word limit does not include the title of your presentation, the names of the authors or the authors' affiliations. The word limit applies to the text of your abstract.
2. Enter your presentation title in all capital letters and end the presentation title with a period or a question mark.

For example, "EFFECTS OF INSECT HERBIVORY ON TALL THISTLE POPULATION GROWTH."

3. For author names, please enter your first initial and (if you like) middle initial in the box labeled "First" on the on-line abstract submission form and your last name in the box labeled "Last."
4. For author affiliation, please enter the name of your academic department and institution. Do not include street addresses. Please separate the department name and institution name with a comma. Do not use abbreviations in the name of your department or institution (e.g. "Kansas" not "KS")

For example, "Department of Biology, Wichita State University"

## ORAL PRESENTATIONS

**Length of presentations:** Oral presentation should be no more than 15 minutes long and will be followed by up to 5 minutes of questions from the audience.

**Presentation media:** All of the presentation rooms have PCs with Powerpoint 2010. If you use a MacIntosh then please try your presentation on a PC before the meeting to verify that your presentation displays properly on a PC. Please bring your presentation on a USB drive. Presentation rooms also have overhead projectors if you will use transparencies in your presentation.

**Loading presentations:** Please arrive at your assigned presentation room 15 minutes before the beginning of your session to load your presentation. For the 9-10:30 presentation session, please arrive at your assigned room by 8:55AM (presentations will begin at 9:10). For the 11-12:30 presentation sessions, please arrive at your assigned room by 10:45 AM (presentations will begin 11AM).

**Presentation schedule:** You will be sent an e-mail with your presentation time and location during the week before the meeting, once the schedule for the oral sessions is set.

### Poster presentations

**Size of posters:** Posters may be up to 48 inches long X 36 inches tall.

**Schedule for poster presentations:** Posters must be up and available for viewing by meeting participants by 10AM. The actual poster presentation session is 2-3:20PM. During this presentation session, you are expected to be by your poster to interact with meeting participants. All posters must be taken down by 5PM.

**Push pins, tacks etc.:** The means to attach your posters will be provided. You do not need bring anything for attaching your poster.

# Kansas Academy of Science Bylaws

Editor's Note: Please review the revised KAS bylaws as presented below and vote "yea" or "nay". See back of the newsletter.

## Article I. Members

Section 1. Membership shall be open to all persons who shall make formal application to the Secretary and pay the prescribed dues. The Secretary in agreement with the President has the authority to negotiate special cases on an individual basis.

a. *Regular Membership* -- Regular membership shall be open to all persons, who shall make formal application to the Secretary and pay the prescribed dues. Regular membership dues will be set annually by the Council before the First of August for the following year. In the case of no action, the dues will remain the same as the current year.

b. *Sustaining Membership* -- Sustaining memberships shall be those who pay the prescribed regular membership dues and a donation to the Academy Endowment and/or the Dehner Award Fund that equals or exceeds one-half of the regular membership dues.

c. *Family Membership* -- Family membership shall be open to individuals in a family who wish to become members of the Academy jointly and pay the dues of one and one-half times the regular membership dues.

d. *Student Membership* -- Student membership shall be open to all college students of at least half-time status, who shall make formal application to the Secretary and pay the dues equal to one-half of the regular membership dues.

e. *Life Membership* -- Life membership shall be open to all persons, who wish to remain as members of the Academy for the duration of their lives and pay a one-time fee. The cost for life membership shall be three-fourths the current annual rate of dues times the number of years difference between the applicant's age and age 65, not to exceed 20 years nor to be less than five years. Applicants of age 65 or above shall remit the minimum amount of dues for life membership (five times three-fourths current dues).

f. *Emeritus Membership* -- Emeritus memberships shall be those who have been active members of KAS or an affiliate academy of the National Association of the Academies of Science (NAAS) for 20 or more years and have retired from active professional employment. Emeritus members will receive all regular mailings and publications of the Academy for an annual maintenance fee equal to one-half of the regular membership dues.

Section 2. The Executive Council shall have the right to refuse any new member or to terminate the membership of an existing member for cause and without prior notice. However, a person whose membership has been terminated or refused may appeal to the general meeting of the Academy.

## Article II. The Officers

Section 1. The officers of the Academy shall be of two kinds, elective and appointive.

a. The elected officers shall be President, President-elect, Vice President, Immediate Past President, Secretary, Treasurer, and six Council Members-at-Large.

b. The appointed officers shall include an Editor of the Transactions of the Kansas Academy of Science, an Editor of the Academy Newsletter, an Historian, and Director of the Kansas Junior Academy of Science (KJAS).

Section 2. No one individual may hold two or more elective offices concurrently.

Section 3. The terms of office for the President, President-Elect, Vice President, Immediate Past President, Secretary, and Treasurer shall be one year, and for the Director of the KJAS, three years; those for the Council Members-at-Large shall be for three years (with election to provide for staggered terms so that no more than two council members shall be elected in any one (year); and those for the Historian shall be three years.

Section 4. The duties of the elective officers shall be as follows:

a. The President shall preside at meetings of the Academy and its Executive Council; shall be the nominal head of the Academy; shall rule on questions of procedure that may arise; and shall appoint standing and ad hoc committees as needed.

b. The President-elect shall fulfill the duties of the President when the latter is absent; shall succeed the President at the termination of the latter's term; and shall assume the Presidency should that office become vacant during a term.

- c. The Vice President shall record minutes of proceedings at all Council meetings and at the annual business meeting of the Academy.
- d. The Secretary shall maintain the records of the Academy and its Executive Council; shall notify the membership of the Academy of pertinent business; shall be responsible for all general correspondence of the Academy; shall maintain the membership roster; and shall be the liaison with the coordinator of the annual meeting.
- e. The Treasurer shall keep financial records and accounts of the Academy including all monies received and disbursed; shall receive the dues; and shall be responsible for all financial reports required by the business of the Academy. The Treasurer shall be responsible for posting a security bond.
- f. The Council Members-at-Large shall serve as members of the Executive Council.
- g. The Immediate Past President shall form and chair a nominations committee as described in Article IV Section 1, which shall select a slate of nominees for elective office, to be presented at the annual business meeting.

Section 5. All records and implements of office shall be turned over by any officer to his successor immediately subsequent to the latter's assumption of the office.

Section 6. The duties of the appointive officers shall be as follows:

- a. The Editor of the Transactions of the Kansas Academy of Science shall be responsible for all phases of publication and may appoint staff members to assist. In general, the Editor will be obligated to implement the stated objectives of the Academy insofar as the publication of a learned journal contributes to those objectives. The Editor is responsible for reporting annually to the Executive Council.
- b. The Editor of the Academy Newsletter shall be responsible for all phases of its publication. Inasmuch as the newsletter is the principle mechanism for written communication to the membership, the Editor is obligated to publish all communications of the Academy and its Executive Council on first priority and to include, as space permits, other items consonant with the stated objectives of the Academy. The Editor is responsible for reporting annually to the Executive Council.
- c. Historian shall collect and archive the records of the Society so as to record the history of the Society, and shall publish summaries of such and as directed by the Executive Council.
- d. The Director of the Kansas Junior Academy of Science shall coordinate scientific activities of the Junior Academy, appoint a District Director for each of the KJAS districts in Kansas, and work with these directors in organizing regional and state meetings of the KJAS. The Director shall maintain membership rolls, be responsible for all finances and correspondence of the Junior Academy, keep records of Junior Academy business and accomplishments, and make an annual report on these activities to the Executive Council.

### Article III. Executive Council

Section 1. The Executive Council shall consist of the President, President-Elect, Vice President, Secretary, Treasurer, Director of the Kansas Junior Academy of Science, six Council Members-at-Large, and the Immediate Past President.

Section 2. The Executive Council shall be empowered to manage the affairs of the Academy and to designate all appointive officers for terms of one year.

Section 3. The Executive Council may declare an office vacant when the occupant resigns or fails to attend three consecutive meetings of the Council. The Executive Council shall fill any vacancy occurring among the officers, except that of President, by an appointment for the unexpired term.

Section 4. The Executive Council shall be specifically responsible for the publications of the Academy and shall set such policy as is needed to coordinate the contents of the various media so as to further the stated objectives of the Academy and to insure the availability and distribution of the publications.

### Article IV. Elections of Officers and Council Members-at-Large

Section 1. The Immediate Past President shall appoint three members of the Academy to serve as a nominating committee, except that not more than one member of the Executive Council may be appointed to the committee in any one year.

Section 2. The Nominating Committee shall present a slate of at least two candidates for each office to be filled, except that at its discretion, the committee may offer only one candidate for the position of President-Elect, one for the Director of the Kansas Junior Academy of

Science, one for the position of Secretary, and one for the position of Treasurer. The slate must be presented at the annual meeting, at which time nominations may be made by the membership. in the fall newsletter.

Section 3. The Nominating Committee, or a member of the Academy proposing a nominee, shall obtain the written consent of the candidate to serve if elected.

Section 4. The President shall appoint an Elector from among the membership who will to count the vote.

Section 5. Officers shall be elected by plurality mail vote of the membership.

Section 6. Newly elected persons will take office on the first of January of the year following the fall election.

## Article V. Meetings

Section 1. The Academy shall hold an annual meeting at a time and place set by the Executive Council, except when this is contrary to the national interest or public safety. Not more than 25 months shall elapse between meetings.

Section 2. The membership shall be informed in writing or e-mail of the time and place of the annual meeting not later than one month prior to the meeting.

Section 3. One-tenth of the membership shall constitute a quorum of the Academy at ~~any~~ annual meeting.

Section 4. Special meeting may be called by vote of a majority of the Executive Council, or on petition of a quorum of the membership. The time and place of such special meetings must be announced to the membership in writing or e-mail prior to the meeting.

Section 5. All meetings shall be conducted under Robert's Rules of Order (Revised).

## Article VI. Meetings of the Executive Council

Section 1. The Executive Council shall meet at least once a year.

Section 2. Any meeting of the Executive Council shall be open to attendance by interested members of the Academy unless the Executive Council moves for Executive Session.

Section 3. A simple majority of the Executive Council shall constitute a quorum.

Section 4. A majority of those present and voting shall be necessary to pass any motion.

Section 5. The meeting shall be conducted according to Robert's Rules of Order (Revised).

Section 6. Special meetings of the Executive Council may be called by the President or by a majority of the Executive Council.

## Article VII. Dues

Section 1. The Executive Council shall be authorized to establish such dues as are compatible with the financial status of the Academy.

Section 2. A member in arrears for payment of dues for a period of 6 months shall be dropped from the membership roll.

## Article VIII. Fiscal Year

Section 1. The fiscal year of the Academy shall embrace the period from 1 January of any year through 31 December of the same year.

## Article IX. The Kansas Junior Academy of Science

Section 1. The Kansas Junior Academy of Science shall be established as an arm of the Academy to promote precollege student-initiated scientific activities in the state of Kansas.

## Article X. Amendment of Bylaws

Section 1. Amendments may be proposed by the Executive Council or by petition to the Secretary by ten or more members of the Academy.

Section 2. Proposed amendments must be submitted in writing or e-mail to the Secretary one month before the meeting at which they are to be discussed.

Section 3. Such amendments shall be submitted in writing or e-mail by the Secretary to the general membership at least two weeks prior to the meeting at which they are to be discussed.

Section 4. To be approved, an amendment must receive a positive vote by two-thirds of those voting at the meeting.

Section 5. Any adopted amendment shall become an integral part of the Bylaws and the Secretary shall be instructed to add them to copies of the Bylaws and to distribute the amended Bylaws to the members of the Executive Council and to other interested members of the Academy.

## **Fall Field Trip to Cross Timbers State Park A Great Success**

On 22 October, about a dozen KAS members gathered at Cross Timbers State Park near Toronto Lake in Woodson County, Kansas to explore the unique Chautauqua Hills environment. Kansas Wildlife and Parks personnel gave us a brief history of the park, the available facilities, and explained how early explorers must have had quite a struggle traversing these wooded hills which contained some of the oldest trees east of the Mississippi River. Washington Irving, famous author of the “Legend of Sleepy Hollow” and “Rip Van Winkle,” travelled through parts of Kansas and Oklahoma in 1832, and gave his impression of the Cross Timbers region in a delightful essay entitled, “A Tour of the Prairies.”

Geologist and KAS board member, Don Whittemore, told us that the sandstone and shale underlying the surrounding forest was first deposited as sand and mud at the northern edge of a Pennsylvanian sea about 300 million years ago. Ripple marks still evident in the ancient sandstone preserve information about direction of current flow and the aquatic environment at the time they were formed.



After the discussion, we proceeded to the Ancient Oaks Trail – a one-mile loop through post oak and blackjack oak woodlands. The Parks personnel pointed out some of the oldest trees on the trail, several of which were alive before the Revolutionary War. Although they are not large, a tree ring study has uncovered their great age. Along the trail, a red-sided garter snake was observed. The mud nests of organ-pipe mud-dauber wasps were seen under a rock overhang. A few examples of the invasive plant, *Sericea lespediza* (check spelling), were examined as we proceeded through the open woodland.

The area was very dry and, as a consequence, the lake level had dropped considerably.

Luckily, the excellent weather helped make this field trip a very enjoyable one. Several of us decided to have dinner at a local restaurant/gas station/ bait shop near Toronto named, “Lizard Lips.” I am looking forward to returning to the Chautauqua Hills.

# 144<sup>th</sup> Annual Meeting of the Kansas Academy of Science

## Registration Form, March 30-31, 2012, Wichita State University

*Please type or print clearly.*

Name \_\_\_\_\_ Title: \_\_\_\_\_  
 Institution \_\_\_\_\_  
 Address: \_\_\_\_\_ City: \_\_\_\_\_, KS Zip \_\_\_\_\_  
 Business Phone: \_\_\_\_\_ E-mail address: \_\_\_\_\_

**Volunteer Opportunities:**

- I am willing to judge Talks & Posters       I am willing to moderate a Presentation Session

**Please check all that apply:**

___ KAS Member	\$50 (\$70 after 3/12)	\$ _____
___ Non-Member	\$60 (\$70 after 3/12)	\$ _____
___ KAS Student	\$20 (\$40 after 3/12)	\$ _____
___ Student Non Member	\$30 (\$40 after 3/12)	\$ _____

**Presentation** – *If you are not registering on-line please email your abstract to [jennifer.harry@wichita.edu](mailto:jennifer.harry@wichita.edu)*

\_\_\_ Talk (15 minutes)      \_\_\_ Poster (48" x 36")

**T-Shirt** (*t-shirt may not be purchased after (3/12)*)

\_\_\_ Small    \_\_\_ Medium    \_\_\_ Large    \_\_\_ Extra large      \$8 per t-shirt      \$ \_\_\_\_\_

**Meals** – Please indicate which meals you wish to purchase. *Registration must be received by March 27 to guarantee availability.*

\_\_\_ Friday Evening Banquet      \$18      \$ \_\_\_\_\_  
 \_\_\_ Saturday Luncheon      \$14      \$ \_\_\_\_\_

I require *vegetarian meals*.

**2012 KAS - Membership** – Dues include a subscription to the *Transactions*.

KAS Membership:    \_\_\_ Student \$15    \_\_\_ Regular \$25      \$ \_\_\_\_\_

**Optional Tours** (*Free but must pre-register*)

\_\_\_ 1 p.m. Geology of the Flint Hills & South Central Kansas  
 \_\_\_ 4:00 p.m. Ninnescah Reserve –Wichita State’s Biological Field Station  
 \_\_\_ 9:30-11 p.m. Lake Afton Public Observatory

**TOTAL AMOUNT ENCLOSED OR NOTED ON PURCHASE ORDER**      \$ \_\_\_\_\_

**Method of Payment (Please make checks and purchase orders payable to “WSU – Conference Office”):**

- Check     Purchase Order     Visa     MasterCard     American Express     Discover

*Please attach checks/purchase orders to this form. For credit card payments, please give the following information:*

Check/PO/Credit Card Number: \_\_\_\_\_

Name as Printed on Card: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Security Code: \_\_\_\_\_

(3 digit code on back of card or 4 digit code on front of American Express)

**Please return this form to:**

Office of University Conferences, Wichita State University, 1845 Fairmount, Campus Box 136, Wichita, Kansas 67260-0136 Phone: (316) 978-6724 Fax: (316) 978-3064 E-mail: [Jennifer.harry@wichita.edu](mailto:Jennifer.harry@wichita.edu)

**Special Accommodations:** Wichita State University is committed to making programs available to people with disabilities. If you wish to volunteer information regarding any special assistance you may need, please contact the Office of University Conferences at (316) 978-6493.

**Notice of Nondiscrimination:** Wichita State University does not discriminate in its programs and activities on the basis of race, religion, color, national origin, gender, age, sexual orientation, marital status, political affiliation, status as a veteran, genetic information or disability. The following person has been designated to handle inquiries regarding nondiscrimination policies: Director, Office of Equal Employment Opportunity, Wichita State University, 1845 Fairmount, Wichita KS 67260-0205; telephone (316)978-6791.



KANSAS ACADEMY OF SCIENCE

Sam H. Leung, Ph.D.

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Topeka, KS 66621

Please vote on the KAS By-Laws in the newsletter:

I adopt the KAS By-Laws as published in this newsletter

I do not adopt the KAS By-Laws as published in this newsletter:

This copy can be sent to Sam Leung at the Address Above, or  
Send your email to Sam at [sam.leung@washburn.edu](mailto:sam.leung@washburn.edu)