

# Arkansas Academy of Science

## AAS Newsletter 2018

Editor: R. Panneer Selvam

January 2018

### *Of Special Interest...*

#### CALL FOR PAPERS

- 102nd Annual Meeting of the Academy
- AAS Student Research Grants
- Members Corner
- Editorial Note & Liaison Officers



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\*\*\*You are encouraged to duplicate all or part of this document for dissemination amongst your colleagues. Encourage them to become members and to attend the annual meeting including the business meeting.

## 102<sup>nd</sup> Annual Meeting of the Academy at ASU

The 102<sup>nd</sup> annual meeting of the Arkansas Academy of Science will be held on **April 6-7, 2018**, hosted by the Arkansas State University, Jonesboro, AR.

Oral presentations will begin on Friday afternoon. Friday evening events will be held at A-State's Centennial Stadium, in the Woodard McAlister Family Club Level of the Johnny Allison Tower. It will feature an informal mixer, dinner, and keynote speaker. Oral presentations will continue on Saturday morning, and the poster session, to include all posters, will also be on Saturday morning. **The keynote speaker is Dr. Travis Marsico;** Dr. Marsico is an Associate Professor of Botany and Associate Chair in the Department of Biological Sciences at Arkansas State University.

Participants will have the option of making an oral or poster presentation. Completed registration form, abstract(s), registration fee and membership dues must be received by March 11th. The details of payment by web or mail are included on the registration form. Registration and abstract submission forms are online at:

<http://www.astate.edu/a/ortt/aas/>



For further information you can contact Dr. Rajesh Sharma, Tel: 870-972-2270 email: [rsharma@astate.edu](mailto:rsharma@astate.edu).

Journal manuscripts are due to Managing Editor or Editor-In-Chief at the meeting for inclusion in the JAAS Volume 72. Editorial staff will have a table near registration. **PLEASE read instructions for prospective authors** found at the Academy website.

<http://arkansasacademyofscience.org>

## AAS Business Meeting for Everyone

The annual business meeting for ALL members of the Academy will take place **Saturday April 7th at noon** in the Auditorium in the Reng Student Union after the final session.

Please make travel plans that will allow you to stay and attend the business meeting. The meeting is for you, and your attendance, contributions, expertise and

insights make the Academy of the highest quality and service to its membership.

Academy Officers on the AAS Executive committee will convene on Friday, **April 6th at 10:00 am** in the 1909 Room of the Reng Student Union before the start of the AAS meeting sessions.

# Information For Presenters

## Information for Presenters

Presenters should clearly communicate any special equipment needs at the time of their registration. Computer projection systems for PowerPoint will be available.

All PowerPoint presentations must be on USB flash drive and must be loaded onto the computer available in the session room prior to the start of the session. Therefore, if you plan to use PowerPoint, you must be at the session at least 30 minutes prior to the start of the session (i.e., if your talk is at 10:15, then you are in a morning session that begins at 9:00 a.m. You must be there at 8:30 AM to load your talk onto the computer).

Abstract submission will be open for the 2018 AAS meeting soon. Abstracts must be submitted for both oral and poster presentations. Oral presentations are limited to 15 minutes (12 minute talk, 3 minutes for questions).

For optimal display, posters should be limited to 42 inches in both width and height. Vertical display boards will be available for poster displays. Poster sessions for all disciplines will be on Saturday morning.

Abstract submission and registration are online. Abstracts will be posted online within one week after they are received. Abstracts must be received

the end of the day on **March 11<sup>th</sup>** for both oral presentations and posters. Be sure to submit your registration form as well.

The website should be ready for submissions by January 22.

## **JAAS Publication**

Manuscripts for publication in the Journal, based on a presentation given at the meeting, are due at the time of the presentation. See page 5 for brief information about publishing in the Journal.

**PLEASE read instructions for prospective authors** found on the Academy website <http://www.ArkansasAcademyofScience.org> (Journal tab)

Any questions can be directed to the Managing Editor of the Journal (Dr. Ivan Still, [istill@atu.edu](mailto:istill@atu.edu)).

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## **Membership and Registration Fee Payments & Other Details**

Please complete the membership and registration forms at <http://www.astate.edu/a/ortt/aas/index.dot>

You can also make online payments for membership and registration at the same website. If you are paying by check, you can send the detailed information of the individuals along with check to Emily Devereux, P.O. Box 2760, State University, AR 72467

**<http://www.ArkansasAcademyofScience.org> (Meetings tab)**

# Keynote Speaker

Our Keynote speaker is Dr. Travis Marsico, an Associate Professor of Botany in the Department of Biological Sciences at Arkansas State University.



Dr. Marsico's research focuses on biogeography, biodiversity conservation, natural history, and species invasions. He currently researches risk associated with hitchhiking plant propagules at US shipping ports, invasion of herbivorous insect pests, plant diversity patterns in fragmented landscapes of the Upper Mississippi River Alluvial Plain, and

plant diversity patterns along elevation gradients in the Neotropics. His work emphasizes making and utilizing natural history collections in research. He also studies biology education and improvements to university-level education utilizing specimen-based projects in coursework. Dr. Marsico has been a faculty member at Arkansas State University for 8 years, where he teaches Curation of Collections, Dendrology, Global Change Biology, Mechanisms of Speciation, Natural History Collections Research Design, and Plant Systematics. At A-State, Dr. Marsico curates the herbarium and manages the Laboratory Sciences Greenhouse.

## **“Natural History Collections and their Role in Arkansas Science and Education”**

For the plenary session on Friday evening, Dr. Marsico will discuss the important role that natural history collections have played in shaping scientific knowledge in Arkansas. In his talk, he will also address current biodiversity research being conducted by students and faculty members associated with the newly formed Arkansas Center for Biodiversity Collections (ACBC) at Arkansas State University. He will highlight expanded opportunities for educating students in basic and applied biodiversity science through the ACBC. Finally, Dr. Marsico will share his vision for how research utilizing natural history collections is as relevant as it has ever been on a planet with natural ecosystems threatened by anthropogenic pressures.

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**Editor's Corner:** I have been contacting different Universities for a Liaison Officer to AAS. I have names from ATU, HSU, HC, OBU, PSC, SAU, UARK, UO and ASU. So if you are interested to serve the AAS, please feel free to contact me: R. Panner Selvam, UARK, email: [rps@uark.edu](mailto:rps@uark.edu), ph: (479)575-5356

Please feel free to give your feedback to improve the news items.

## Tentative Schedule of Events

<b>Time</b>	<b>Event</b>	<b>Location</b>
<b>Friday April 6th</b>		
10:00	Executive Committee Meeting	1909 RSU
11:00-5:00	Registration and Payments	AL-RSU
12:00-12:30	Judges and Session Chairs	RSU
1:00-2:30	Oral Sessions 1	RSU
2:30-3:00	Break -Refreshments	
3:00-4:30	Oral Sessions 2	RSU
5:00-6:00	Mixer	CBSS
6:00-8:00	Banquet and Keynote Address	CBSS
<b>Saturday April 7th</b>		
8:00-9:00	Continental Breakfast	RSU
8:00-10:00	Registration and Payment	AL-RSU
8:30-10:30	Oral Sessions 3	RSU
8:30-11:00	Posters	CH-RSU
	(Judging ends at 10:30)	
10.30-12.00	Tour ACBC	Lab Science East
10:30-11:30	Meeting of Judges	RSU
12:00-1:00	Awarding of Prizes	Auditorium, RSU
	AAS Business Meeting	

AL-Alumni Lounge

CH-Centennial Hall

RSU-Reng Student Union

CBSS-Centennial Bank Stadium Suite

**\*\*All members of the Academy are invited and strongly encouraged to participate in the AAS business meeting.\*\***

A copy of this Newsletter as well as previous editions are available ONLINE in the AAS members web pages accessed through the public portal at URL:

**<http://www.ArkansasAcademyofScience.org>**

### Summary of Schedule

Mar 1 – Undergraduate Research Award proposals  
Mar 11 – Registration, abstracts, payment of registration and dues

April 4 – JAAS manuscript (if submitting for review)

Apr 6 – 11 AM – Registration opens in front of Centennial Hall in the Reng Student Union

## 2017 AAS Executive Officers

### **Dr. R. Panneer Selvam President**

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### **Dr. Edmond Wilson Past President (2016-2017)**

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### **Dr. Mostafa Hemmati Treasurer**

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ph: (479) 968-0340, email: mhemmati@atu.edu

**Please mail membership dues to the above address!!!.**

### **Dr. Mostafa Hemmati Editor-in-Chief, AAS Journal**

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**Aren't you the right person to step up to a leadership role?**

## Journal of the Arkansas Academy of Science (JAAS):

Manuscripts for publication in the *JOURNAL*, based on a presentation given at the meeting, are due two days prior to the annual meeting. One of the authors must be an AAS member to publish in the *JOURNAL* website: <http://scholarworks.uark.edu/jaas/>. Should you have any problems, please contact the Managing Editor (istill@atu.edu).

### **Comments for Prospective Authors**

Authors are required to use the instructions found on the AAS website in preparing manuscripts submitted for publication in the Journal of the Arkansas Academy of Science. Authors are directly responsible for the major formatting of their article and, thus, manuscripts must be properly formatted PRIOR to submission. Figures and tables must be inserted into their appropriate locations in the manuscript. A caption should be written under each figure and above each table. The editor and printer do no significant retyping or editing and only act to assemble the Journal. The electronic copy of the manuscript (word document, not pdf) should be a single file. To view and/or download new instructions visit the Academy website. Please note that after successful review **the final product submitted by the authors will be the published document in the Journal.**

For 2018, Volume 72 manuscripts must be submitted electronically via the *JOURNAL* website: <http://scholarworks.uark.edu/jaas/> with the entire review and publication procedure being handled via the server. Please allow time to get use to the new system. E-mailed manuscripts will no longer be accepted.

**To avoid rejection at Editorial review, PLEASE read the instructions for prospective authors** found on the Academy website: <http://www.arkansasacademyofscience.org/aasjournal.html> (Journal tab). The instructions and policies can also be accessed by following the

links from the Journal web site.

### **Reviewers and Associate Editors Solicited**

Persons interested in acting as Reviewers in their field of expertise of manuscripts submitted for publication in the AAS Journal are requested. In addition, we are asking for members who wish to become more involved with the production of the *JOURNAL* to consider becoming Associate Editors, with the future possibility of becoming the Managing Editor when Dr. Still retires after Volume 75 in 2021.

Please contact Mostafa Hemmati ([mhemmati@atu.edu](mailto:mhemmati@atu.edu)) or Ivan Still ([istill@atu.edu](mailto:istill@atu.edu)) by e-mail and provide your contact information and area(s) of expertise. Please be specific about the individual subjects you wish to review. (e.g. not just Botany, but herbaceous plants, or woody plants, or aquatic plants; and not just vertebrates, but reptiles, particularly snakes.)

### **Awards competition for student presentations at the AAS Meeting**

Students commonly present results of their research at the annual meetings of the Arkansas Academy of Science. Our award competition seeks to recognize outstanding presentations made by these students. Categories for oral presentation awards include Life Science and Physical Science, at both the undergraduate and graduate levels of competition. Certificates and cash awards may be given for first place (\$100), second place (\$50), and third place (\$50). Awards for the best overall undergraduate and graduate poster presentations will also be made.

Student presenters interested in any of these competitions should indicate their desire to compete on their submitted abstract. Presentations and posters not specifically entered into the competition will not be judged, nor will they be eligible for an award.

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## **Arkansas Academy of Science PERMANENT ONLINE HOME:**

**AAS Web Pages:** The official website of the Academy now has a permanent public portal whose web address will never change although internal links for member pages might whenever the host migrates. Always access the online Academy pages from the permanent public portal...

**<http://www.ArkansasAcademyofScience.org>**



## **Accommodations in Jonesboro (Around ASU)**

Fairfield Inn & Suites by Marriott Jonesboro will honor the A-State negotiated rate for all the conference attendees. You need to mention Arkansas Academy of Science annual meeting while making reservations for the discounted rate. The negotiated rate for either a King and Double Queen standard rooms is \$110/night and this includes Wifi, parking and breakfast

Besides this, Jonesboro has many other hotels and motels; most of them are close to Interstate 555 and are not too far from campus. These hotels include Best Western, Comfort Inn and Suites, Day's Inn, Hampton Inn, Hilton Garden Inn, Holiday Inn Express as well as many others that are members of smaller chains. Costs and other information about these hotels can be found by contacting them directly.

## **Parking**

Closest parking to conference venue will be in the North Parking deck of the Reng Student Union. Conference participants should collect the event parking permit at the registration desk and display it on their vehicles. Visitors may park in designated visitor parking zones or non-reserved spaces / unrestricted commuter parking with an event parking permit. If required, additional parking spaces are available at the Health Science parking lot across the north parking deck. Parking is not permitted in any of the reserved spaces. Parking Services does not allow A-State students, faculty or staff to use event parking permits.

There will be plenty of parking spaces in front of the stadium (venue for banquet), and no permits will be required for the evening event.

A Map of the campus can be found at:

<http://www.astate.edu/dotAsset/448bb049-7d01-4c6e-82c3-50cf9ac4ed89>

## **Organizing Committee:**

Rajesh Sharma, Chairman, [rsharma@astate.edu](mailto:rsharma@astate.edu)

Andrew Sustich, Associate Vice Chancellor for Research, [sustich@astate.edu](mailto:sustich@astate.edu)

Emily Devereux, Executive Director of Research Development, [edevereux@astate.edu](mailto:edevereux@astate.edu)

Ross Carroll (Physics), [bcarrroll@astate.edu](mailto:bcarrroll@astate.edu)

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Zahid Hossain, (Civil Engineering), [mhossain@astate.edu](mailto:mhossain@astate.edu)

John Hershberger (Chemistry), [jhershberger@astate.edu](mailto:jhershberger@astate.edu)

Brook Fluker (Biological Sciences), [bfluker@astate.edu](mailto:bfluker@astate.edu)

Tanja McKay (Biology) [tmckay@astate.edu](mailto:tmckay@astate.edu)

# **Arkansas Academy of Science**

## **Undergraduate Research Awards** **(up to \$1000)**

**Applications available at**  
**<http://www.arkansasacademyofscience.org/>**

**Applications are due:        March 1, 2018**

**To send applications or for more information**  
**contact:**

**Dr. Jess Kelly    kellyj@obu.edu**  
**(870) 245-4187**



## 2017 AAS PRESENTATION AWARD WINNERS

(awardees are underlined)

### UNDERGRADUATE ORAL PRESENTATION

AWARDS: Biology

*1<sup>st</sup> Place*

**Collagen Increases Tumorigenicity of Papillary Thyroid Cancer Cells Harboring BRAFV600E Mutations** by Anna Sharabura; Mackenzie Gearin; Laura MacDonald. Hendrix College

### UNDERGRADUATE POSTER PRESENTATION

AWARDS: Biology

*1<sup>st</sup> Place*

**Influence of Common Salt Concentrations on Detritivore Respiration** by Billy Huggins; Ashton Brass; Matthew Gifford; Sally Entrekin. University of Central Arkansas

*2<sup>nd</sup> Place*

**Evaluating the Effects of Bird Feeders on Songbird Plumage Coloration** by Stetson R. Collard; Douglas G. Barron. Arkansas Tech University

### GRADUATE POSTER PRESENTATION AWARDS:

Biology

*1<sup>st</sup> Place*

**A Habitat Suitability Analysis of the Red Wolf across its Historic Range** by Lauren Toivonen; Matthew Gompper; Hong He. University of Missouri, Columbia

### GRADUATE ORAL PRESENTATION AWARDS: Ecology

*1<sup>st</sup> Place*

**The Use of Color as a Status Signal in the Prairie Lizard, *Sceloporus consobrinus*** by Christopher Robinson; Matthew Gifford. University of Central Arkansas

*2<sup>nd</sup> Place*

**Components of Urbanization and Urban Proximity Identify Threats to Stream Water Quality** by Stephanie Stoughton; Sally Entrekin. University of Central Arkansas

*2<sup>nd</sup> Place*

**Migration Dynamics of Ohio Shrimp, *Macrobrachium ohione*, in Arkansas** by Geoffrey Spooner; Reid Adams; Lindsey Lewis. University of Central Arkansas

### UNDERGRADUATE ORAL PRESENTATION

AWARDS: Ecology

*1<sup>st</sup> Place*

**A Fracking Racket: Do Birds Change the Way They Sing When Experiencing Chronic Noise from Shale Gas Extraction?** by Claire Turkal; Anna Claire Atkins; Charlotte Marchioni; Evan Mitchell; Maureen McClung. Hendrix College

*2<sup>nd</sup> Place*

**Seed Dispersal in Osage Orange (*Maclura pomifera*) By Squirrels (*Sciurus spp.*)** by Sophie Katz; Jessica Bonumwezi; Matthew D. Moran; Jennifer L. Penner. Hendrix College

### UNDERGRADUATE ORAL PRESENTATION

AWARDS: Chemistry

*1<sup>st</sup> Place*

**Photocatalytic Sterilization of Aqueous Solutions** by David Williams; Justin Barrett. Arkansas Tech University

### UNDERGRADUATE POSTER PRESENTATION

AWARDS: Chemistry

*1<sup>st</sup> Place*

**Identifying the Structure of Fat-Mobilizing Substance (FMS-1) Associated with Cogenital Lipodystrophy** by Mallory Bryant. Harding University

### UNDERGRADUATE ORAL PRESENTATION

AWARDS: Physics

*1<sup>st</sup> Place*

**Suppression of Radiation-Induced Chromosome Damage by GT3 and the Role of Microgravity** by Calla Bassett; Abdel Bachri; Rupak Pathak. Southern Arkansas University

### UNDERGRADUATE POSTER PRESENTATION

AWARDS: Physics

*1<sup>st</sup> Place*

**Potential Differences in Problem Solving Approaches When Using Different Textbooks** by Charles Bertram; Andrew Mason. University of Central Arkansas

*2<sup>nd</sup> Place*

**The Langrangian and Hamiltonian formulation of the Linear Oscillator Chain** by Garrott Granholm. University of Central Arkansas

### GRADUATE POSTER PRESENTATION AWARDS:

Computing Science

*1<sup>st</sup> Place*

**A Gentleness Simulator for Surgical Dexterity Evaluation of Surgeons with Haptic Interfaces** by Recep Erol; Doga Demirel; Alex Yu; Tansel Halic; Sinan Kockara, Kevin Sexton. University of Central Arkansas



**UNDERGRADUATE ORAL PRESENTATION****AWARDS: Geoscience***1<sup>st</sup> Place*

**Lithologic Character, Sequence and Diagenetic History of Lower Mississippian Tripolitic Chert, Northern Arkansas and Southern Missouri** by Sydney McKim; Jonathan Chick; Julie Cains; Forrest McFarlin; Adriana Potra. University of Arkansas, Fayetteville

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