

## Proceedings of the Tennessee Academy of Science 2018

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### Tennessee Academy of Science Executive Committee Meeting 20 April 2018

President Sandy Mehlhorn called the meeting of the Tennessee Academy of Science (TAS) Executive Committee to order at 6:42 PM CST on the campus of Belmont University in the Janet Ayres Academic Center. Attendees were President-Elect and Annual Meeting Coordinator J. Allyn Smith, Treasurer Steve Murphree, Secretary Teresa Fulcher, Managing Editor Rachel Rigsby, Assistant Editor Amy Thompson, Junior Academy of Science Director Preston MacDougall, Electronic Communications Director Gilbert Pitts, Membership Committee Chairperson Karen Kendall-Fite, Necrology Chairperson Martin Stewart and Member-at-Large Gregory Vieira. Prior to the meeting, the Executive Committee enjoyed a meal in the Janet Ayers Center. Minutes from the November 2017 Executive Committee had been approved by electronic vote of the Executive Committee.

Dues and Fees	200.00
Executive Committee Meetings	409.99
<i>Journal</i>	161.55
<i>Journal</i> Printing	7,454.47
Junior Academy of Science	5,316.75
Misc. Expenses	50.00
Science Fair	805.00
TJAS Award	500.00
TJAS Research Grant	459.00
Treasurer	71.22
<b>TOTAL EXPENSES</b>	<b>21,648.99</b>
<b>OVERALL TOTAL</b>	<b>17,496.13</b>

### Reports from Officers and Directors

*Past President*—Daniel Swartling was not in attendance.

*President-Elect and 2018 Program Chairperson*—J. Allyn Smith announced that Dr. Aruna Kilaru, Associate Professor of Biological Science at East Tennessee State University, would fill his unexpired term as Member-at-Large.

*Treasurer*—Steve Murphree discussed the Treasurer's report, provided below.

#### TAS Income and Expenses (7/1/2017-4/20/2018).

Category Description	7/1/2017-4/20/2018
<b>INCOME</b>	
Annual Meeting Income- Misc.	1,667.73
Annual Meeting Lunch	1,545.00
Annual Meeting Registration	2,730.00
Gift Received	45.00
Library <i>Journal</i> Subscriptions	1,050.00
Membership Dues	11,920.00
Page Charge For <i>Journal</i>	1,880.00
Unrealized Gain	17,082.46
Unrealized Gain-Loss on Star Fund	-500.31
Vanguard Dividend Payment	1,725.24
<b>TOTAL INCOME</b>	<b>39,145.12</b>
<b>EXPENSES</b>	
Annual Meeting	6,201.41
Collegiate Division	17.60

#### TAS Balance Sheet (as of 4/20/2018).

Account	Balance
Checking	14,203.01
Star Fund	267,667.25
<b>TOTAL ASSETS</b>	<b>281,870.28</b>

Treasurer Murphree noted the loss from the Star account and reported that additional expenses were expected from the Collegiate Division. The *Journal* expenses include mailing costs and are offset by page charges (\$90 per page). Chairperson Stewart proposed an annual mailing of *The Journal* as something to consider. Secretary Fulcher made a motion to accept the Treasurer's report and the motion was seconded by Director Pitts and carried.

*Managing Editor*—Rachel Rigsby reported the successful publication of *JTAS* 92:3-4 in January 2018. A list of *JTAS* issues needed for the Managing Editor's archival set will be published in a future Editor's column and a list of missing issues will be posted on the website soon. Materials for *JTAS* 93:1-2 are being gathered and edited and should be sent to the publisher for print proofs in the next two weeks. Information on the host institution from the 2017 meeting is needed. Managing Editor Rigsby reported continued efforts regarding making *JTAS* available to the online database SCOPUS and indicated that the only outstanding requirement is a publication ethics and malpractice statement. Editor Rigsby presented a draft statement for Executive Committee review. Following discussion of the draft statement, Secretary Fulcher made a motion that the ethics and malpractice statement be adopted for use by

*JTAS*. The motion was seconded by Director Pitts and was approved. Following is the text of the ethics statement:

### Publication Ethics Statement for the *Journal* of the Tennessee Academy of Science

The *Journal* of the Tennessee Academy of Science (*JTAS*) invites submission of original work and other appropriate materials from authors who support our mission to expand the research and education related to the sciences in Tennessee. *JTAS* aims to work in compliance with the Council of Publication Ethics (COPE) Best Practice Guidelines and expects submitting authors to do the same. Expectations include but are not limited to:

- Submitted work will describe experimental procedures accurately and with adequate detail. Raw data should be available for editorial review.
- Authors must provide assurance of originality, and any additional works referenced must be properly cited (with permissions if necessary). All images, data tables and figures must be the original work of the author.
- Authors shall not publish the same research in multiple journals. All listed authors should have made significant contributions to the study. Potential conflicts of interest (i.e. source of financial support for the study) must be disclosed.
- Authors must notify the *Journal* Editor of errors in previously published work. The *Journal* and Academy staff may determine if a published retraction or clarification of work are necessary.
- The Editor and peer reviewers will assess work objectively based on the content of that work alone. Reviewers will provide prompt critiques of manuscripts, clearly supporting their recommendations. The Editor and peer reviewers will treat submitted manuscripts confidentially.

For more in-depth guidelines, see:

<https://www.elsevier.com/editors/perk>

<http://publicationethics.org/resources/guidelines>

Managing editor Rigsby will investigate COPE membership and *JTAS* inclusion in the Biodiversity Heritage Library (BHL) prior to the November meeting.

*Collegiate Division Director*—Fred Matthews was not in attendance but submitted documentation of the location of 2018 Collegiate Division meetings. Mississippi State hosted the Eastern Division meeting on 20 April 2018. Belmont is hosting the 2018 Middle Division on 21 April but ability to continue hosting is in question. No Western Division meeting was scheduled but was held in 2017 at Christian Brothers University in Memphis. A discussion of the future of the Collegiate Division meeting included the trend among large research universities to host their own “scholars” week for undergraduate student presentations. While the Council for Undergraduate Research (CUR) encourages undergraduates to present at the state academies, some universities send their undergraduate students to the Annual meeting as poster presenters. Potential changes such as discontinuing the Collegiate Division, consolidating into one meeting that rotates around the state, or continuing with current model and increased publicity were discussed. The importance of embracing social media outlets was emphasized. Discussion was tabled with agreement to revisit at the November Executive Committee meeting.

*Electronic Communications Director*—Gilbert Pitts reported on updates to the website including the Executive Committee page and the Collegiate division pages as requested. To gather statistics regarding usage of the website, an application was installed which conflicted with files, directories and subdirectories. Midphase was able to restore files. The Academy Facebook page has 123 “likes” with 123 people following and 71 posts. Assistant Editor Thompson suggested spotlighting faculty or students on the page to increase engagement. Significant accomplishments include continued migration of print journals to pdf for electronic ability. Currently available are *Journal* issues from 1950–2010, 1932–1938, 1926 and 1913–1917 with isolated issues missing. *Transactions of the Tennessee Academy of Science* and the *Report of the Reelfoot Lake Biological Station–1937* are now available. A discrepancy in the listing of standing committees was discussed and Director Pitts suggested that the Electronic Communications committee and the Ad Hoc planning committee were not currently active (though are referenced on the website). Assistant Editor Amy Thompson, Membership Committee Chairperson Karen Kendall-Fite, and Member-at-Large Greg Vieira agreed to serve on the Electronic Communications committee. Director Pitts commented that the Necrology page had not been updated since 2013. Committee Chairperson Stewart and Secretary Fulcher agreed to forward necrology reports to Director Pitts. Director Pitts concluded with ongoing goals including updating the Fellow’s page as well as continued updates to content.

*Junior Academy of Science Director*—Preston MacDougall reported that the Junior Academy meeting had been held earlier in the day at Belmont University with 23 student presentations representing ten different schools. Winners were Cliff Syner from Clarksville Christian School in Clarksville, TN for “Arduino Eye”, and Julia An and Jack Allen from the School for Science and Math at Vanderbilt in Nashville, TN for “Determining Variation Periodicity of Planar Scintillation Utilizing Dynamic Spectra”. There were six “runners up” and they are listed on the Junior Academy Facebook page. Winners will be invited to attend the American Junior Academy of Science (AJAS) meeting in 2019.

*Visiting Scientist Director*—Tony Johnston not in attendance but the electronic approval of table clothes with the Academy logo for use at meetings was noted.

*Annual Meeting Coordinator*—J. Allyn Smith reported that Austin Peay State University has agreed to host the Annual meeting again in 2018. Russ Longhurst will chair the local arrangements committee. Students from Tri-beta and the Chi Epsilon Mu (XMU) will provide local assistance. The meeting will be held on Saturday 17 November. Dr. L. Dwayne Estes, Botany Professor and Herbarium Curator from Austin Peay, will deliver the plenary lecture. Future meeting locations under discussion are 2019- Columbia State, 2020-East Tennessee State University, and 2021- Tennessee Tech University. Coordinator Smith is revising the list of section chairs and section chair duties.

### Reports from Representatives

*State Department of Education Liaison*—Brian Caine was not in attendance but has been contacted and has agreed to serve a representative from the Tennessee Department of Education.

*AAAS Section Y Representative*—Preston MacDougall reported that the 2018 meeting was held in Austin, Texas in February. He reported that the State Academies of Science are

looking at adopting a webhosting package which could handle websites, registrations and databases. The package would include online payment via PayPal and fillable forms. NAAS is urging state academies to use this program.

## Reports from Committees

*Local Arrangements Committee Chairperson*—Russ Longhurst. See report from Annual Meeting coordinator.

*Long Ranging and Strategic Planning Chairperson*—Daniel Swartling was not in attendance. President-Elect J. Allyn Smith suggested that we investigate the possibility of video conferencing via providers such as Zoom to facilitate communication of Past Presidents that serve on this committee.

*Auditing and Financial Oversight Committee*—Treasurer Murphree reported that the informal audit will occur prior to the November 2018 meeting.

*Education Committee Chairperson*—Kim Sadler was not in attendance but reported that the Science Standards for Tennessee will be initiated Fall 2018 into all classrooms. This requires adoption of new science textbooks for the state. Professional development opportunities for teachers will be offered at the state and local level. Should you be asked to assist by your community, it would be a great contribution to science education in Tennessee.

*Publicity Committee Chairperson*—Mandy Carter-Lowe was not in attendance.

*Membership Committee Chairperson*—Karen Kendall-Fite suggested that the Electronic Communications and Membership Committees should be working together and suggested an Instagram account with a weekly or monthly post. Chairperson Kendall-Fite proposed that Facebook and Instagram could be used for contacting new members and to communicate with section chairs. Chairperson Kendall-Fite also provided a list of science organizations with contact information and website addresses. Managing Editor Rigsby made a motion to authorize Chairperson Kendall-Fite to establish an Instagram account for the Tennessee Academy of Science to be linked with the Academy Facebook account. Martin Stewart seconded the motion and the motion carried.

*Resolutions Committee Chairperson*—Preston MacDougall asked for suggestions for resolutions. Chairperson Martin suggested that the Academy endorse a statement on climate change. President Mehlhorn will forward to the Executive Committee the statement from the National Academy of Science on climate change for review. Chairperson MacDougall reported that the STEAM festival from 2017 was a success and the 2108 festival will occur from October 12-21 with events held throughout the State. Secretary Fulcher made a motion to support the STEAM festival with a \$250.00 contribution and Assistant Editor Amy Thompson seconded the motion. The motion carried.

*Fellows Committee*—Secretary Fulcher reported that no nominations have been received or forward to the committee chaired by Dr. Charles McGhee.

*Necrology Committee Chairperson*—Martin Stewart noted the passing of Dr. James Brown, chemistry professor from MTSU and Dr. James Patrick Doyle, biology professor from MTSU. These individuals will be remembered at the November Annual meeting.

## Old Business

President Mehlhorn distributed pre-orders of shirts with the Academy logo and opened the floor for discussion of making shirts available for members of the Academy at the November meeting. After discussion regarding potential interest and cost to the Academy, Director Pitts made a motion to increase the pre-registration fee by \$5 and offer a complimentary T-Shirt (while supplies last) to members that pre-register at least two weeks prior to the meeting. Onsite registration would be \$25.00 with T-shirts for sale for \$10.00 on the day of the meeting. Assistant Editor Amy Thompson seconded the motion and the motion carried with one opposed.

President Mehlhorn asked for reviewers for the Reelfoot Lake Ecosystem Guide.

## New Business

President Mehlhorn asked for suggestions regarding revisions to Academy judging forms for student oral presentations and posters. Secretary Fulcher noted that the current judging form emphasizes presentation ability and additional points should be included to evaluate the quality of the research.

After discussion of an online journal format, it was suggested that survey be administered to the membership to gather information. President Sandy Mehlhorn, Managing Editor Rachel Rigsby, Assistant Editor Amy Thompson and Necrology Chair Martin Stewart agreed to assist with the survey. President-Elect Smith suggested using email or video conferencing to communicate regarding survey questions.

It was noted that HB2114(Complete to Compete) requiring students to complete 30 hours per academic year to maintain their Tennessee Promise or Hope Scholarship failed to pass the House. HB0738 requiring higher education "efficiency audits" failed in committee. The Executive Committee agreed that it is likely that versions of these bills would be reintroduced in the 2019 legislative session and it would be important for the Academy to voice concerns and ask for relevant data.

Chairperson Martin Stewart noted that he has a student working on Academy history as well at MTSU history and requested that his student be allowed to attend the next Executive committee meeting as a guest. President-Elect Smith encouraged members of the Executive committee to be on the look out for National Science Foundation (NSF) sponsored "Science on Tap" events around the state. A motion to adjourn the meeting was made by Director Preston MacDougall and seconded by President-Elect Smith. President Sandy Mehlhorn adjourned the meeting at 9:58 CST.