

32nd Southeastern Association for Science Teacher Education (SASTE) 2017 Annual Meeting

UWF | College of Education
and Professional Studies

SASTE 
Southeastern Association for Science Teacher Education

October 13-14, 2017 | Pensacola Beach, FL

Citizen Science, Policy and Public Scholarship

Welcome

PRESIDENT'S GREETINGS



October 2017

On behalf of the SASTE Executive Committee, I extend a warm welcome to all conference attendees. Thank you for coming to Pensacola, Florida for the 32nd annual meeting/conference of the Southeastern Association for Science Teacher Education. The SASTE Conference is a supportive environment where colleagues are eager to learn about emerging research ideas in science teacher education as well as scholarship of teaching works in science education. The organization is committed to offering a safe and inviting space for doctoral and master degree seeking students to present their research. We also encourage undergraduate majors to present their work with mentor teachers and faculty.

This year's Conference theme of Citizen Science, Policy and Public Scholarship is to encourage reflection and discussion of important impacts of our partnerships involving the public, teachers, and students in the process of scientific endeavors, science, and science education policy. SASTE members seek to foster leadership development and support for those involved in the professional development of teachers of science in schools and informal settings in the Southeastern United States.

We welcome as our featured keynote address the president and CEO of the Great Smokey Mountains Institute at Tremont, Jennifer Jones. Dr. Jones earned her B.S. here in the southeast at the University of Florida and her M.S. and Ph.D. in Environment and Society from the University of Pretoria, South Africa. She is an educator, practitioner, and academic with international experience teaching and researching in areas of conservation, global sustainability, and environmental governance.

Congratulations to the Rod Nave Award recipient, Matthew Schwartz, for his work in engaging K-12 schoolteachers and students in citizen-science projects and support for developing the UWF-Teach secondary STEM degree programs. For her paper titled *Activist and academician: Promoting equity in science education through community-based scholarship*, the outstanding faculty position paper is awarded to Natalie King. This year, we honor Mary Atwater with the prestigious John Shrum Award for her lifelong commitment to science education.

I am honored to have served as your president this past year. My hope is that the presentations, conversations, and interactions during the conference will inspire you to make the world of science teaching an engaging place for all America's diverse students.

Enjoy the conference.

John L. Pecore, Ph.D.
SASTE President 2017

32nd Annual Meeting/Conference at a Glance

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Friday, October 13, 2017

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Saturday, October 14, 2017

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Springhill Suites by Marriott Pensacola Beach Map



Photo/Image Release
 By attending this conference, you consent to your image being captured by official SASTE photographers and videographers. The resulting materials, including still photographs, video and audio recordings may be used by SASTE, without restriction, in news materials, promotional materials, on the SASTE website.

CURRENT SASTE LEADERSHIP 2016-2017**President**

John Pecore, Associate Professor, University of West Florida

President Elect

Ryan Walker, Assistant Professor, Mississippi State University

Past President

Brendan Callahan, Associate Professor, Kennesaw State University

Secretary-Treasurer

Sumitra Himangshu, Associate Professor, Middle Georgia State University

ASTE Regional Representative

Michael Dentzou, Assistant Professor, Columbus State University

Friday 10/13 • SASTE Social • 5:00 -**SASTE Welcome Reception****All are invited to attend from:****5:00 - 8:00 p.m.***** Cash Bar *****Tiki Bar****Springhill Suites by Marriott Pensacola Beach**

Please join us

Saturday 10/14 • Registration • 7:30 a.m.

Enjoy Complimentary Coffee with SASTE Attendees

* Complementary Breakfast for Hotel Guests
served in the **Breakfast Area** *

Saturday 10/14 • Welcome Ceremony • 8:15 – 8:25**Saturday 10/14 • Keynote Presentation • 8:25 – 8:55****Keynote Speaker: Jennifer Jones, Ph.D.**

Dr. Jennifer Jones is an educator, practitioner, and academic who focuses on the relationships between people and nature, including conservation, global food sustainability, and environmental governance. She currently serves as the President & CEO of Great Smoky Mountains Institute at Tremont. Previously, she was a Program Director for the International Honors Program, part of World Learning, where she managed comparative college-level study abroad program on five continents and she has also served as a Visiting Professor at Williams College. She spent five years in South Africa studying the relationship between protected areas and neighboring communities and has taught, researched, and traveled in more than 30 countries. Additionally, Dr. Jones served in the United States Army Military Police Corp for five years. She received a Ph.D. and an M.S. in Environment and Society from the University of Pretoria, South Africa, and a B.S. from the University of Florida. She currently holds positions as an Adjunct Professor at Virginia Tech and the University of Tennessee at Knoxville.



Please join us in
La Playa I & II

Saturday 10/14 • Morning Sessions 1 • 9:00 – 10:10

Paper Session	Saturday 9:00 – 10:10	La Playa I
	<p>The Value of "Time" in an Informal Learning Context Michael Dentzau, Columbus State University <i>This qualitative study examines the long-term impacts of an informal environmental education program provided to students in 4th and again 7th grades.</i></p> <p>Discourse, politics and teaching the theory of evolution in our science classrooms Kitchka Petrova, Florida State University <i>This paper discusses the discourse between different professional groups and their involvement in the debate about teaching evolution.</i></p> <p>Science and the Public: Engaging Communities through Science Café Experiences Gina Childers, University of North Georgia; Donna Governor; University of North Georgia; Stacey Britton, University of West Georgia <i>Science Café's connect scientists and the public. Gaining knowledge and social interactions motivates attendees.</i></p>	
Paper Session	Saturday 9:00 – 10:10	La Playa II

Reflecting on Renewal: Science Teacher Educators as K-12 Teachers

Michael Dias, Kennesaw State University; Laurie Brantley-Dias, Kennesaw State University
This multiple case study explores the professional purposes and benefits realized when science teacher educators assume the role as a K-12 teachers.

Experiences of Teachers Who Give Up Their Summer Vacation to Promote STEM Education!

Natalie King, Georgia State University; Sonia Howard, Georgia State University
Our presentation highlights the experiences of eight teachers who created STEM curricula, and their contributions to informal science education.

STE[A]M On! Community Partnerships Designed to Enhance Pre-Service Teacher Preparation

Sumitra Himangshu-Pennybacker, Middle Georgia State University; Cameron Pennybacker, Diversity Assets, LLC
This presentation will focus on the design of a collaborative partnership using community spaces to enhance STE[A]M training and learning.

Saturday 10/14 • BREAK • 10:10 – 10:30

Saturday 10/14 • Morning Sessions 2 • 10:30 – 11:40

Paper Session	Saturday 10:30 – 11:15	La Playa I
<p>Career Explorations in the STEM Classroom: Guiding Students toward STEM Pathways Shana Lee, Mississippi State University; Ryan Walker, Mississippi State University <i>Providing teachers with tools to embed career explorations into the STEM classroom may help increase retention rates in STEM degree programs.</i></p>		
<p>Observations of Finnish and Czech schools Michael Svec, Furman University <i>Presentation will share observations of Finnish and Czech classrooms by preservice teachers with implications for American science classrooms.</i></p>		

Special Session	Saturday 11:20 – 11:40	La Playa I
<p>Grant Collaboration Conversation</p>		

Paper Session	Saturday 10:30 – 11:40	La Playa II
<p>Pass/Fail: Performance on elementary science teacher certification exam of online compared to face-to-face students Benjamin Waller, University of West Florida; John Pecore, University of West Florida; Jennifer Mesa, University of West Florida <i>A comparison of state exam pass rates revealed that an online science method course can provide equitable access for non-traditional education majors.</i></p>		
<p>Experiences of the Neophyte Science Teacher David Thornton, University of South Florida <i>This was a multiple case study examining the experiences and perspectives of four first-year science teachers.</i></p>		
<p>Examining Rates of Retention between Traditional and Alternate Route Certified Teachers Gabriel Posadaas, Mississippi State University; Katie Huston, Mississippi State University; Ryan Walker, Mississippi State University; Shana Lee, Mississippi State University <i>Examining the magnitude of teacher attrition among novice teachers by assessing traditional route and alternate route licensure pathways.</i></p>		

Saturday 10/14 • Poster Session • 11:45 – 12:00

Poster Session	Saturday 11:45 – 12:00	La Playa I
<p>An Educative Curriculum for Science Citizenry Erin Mistry, University of Florida <i>The data from the U-FUTuRES program reflects the growing need to entrench our teachers and students in scientific thinking and practices.</i></p>		
<p>Using Actor-Network Theory to Explore the Performance of Gender and Race in a High School Biology Classroom Sophia (Sun Kyung) Jeong, University of Georgia; Deborah J. Tippins, University of Georgia <i>In this presentation, the researcher aims to explore how gender and race are performed in, by, and through the relations formed in a science class.</i></p>		

Saturday 10/14 • Luncheon • 12:00 – 1:15 p.m.

SASTE Business Luncheon

Business Meeting Agenda

Welcome

Approval of 2017 Regional Meeting Minutes

Secretary-Treasurer's Report

Old Business

ASTE Regional Report

Awards

Rod Nave Award

Outstanding Faculty Position Paper

John Shrum Award

Past President Service/Leadership

New Business

Nominations/Elections

Adjourn

SPRINGHILL SUITES[®]
Marriott



Please join us in
La Playa I & II

MENU

HAUTE AFFAIRS
Nancy's
CATERING & EVENTS

555 Scenic Highway | Pensacola,
Florida 32503 | 850-434-0112

Garden Salad

*Crisp romaine with cucumbers,
tomatoes and your choice of
homemade dressings*

Glazed Grilled Chicken Breast (Gluten Free)

*Chicken breast brushed with our
own brown sugar glaze and grilled*

Eggplant Parmesan (Vegetarian Option)

*Breaded sliced layers of eggplant
with fresh basil and homemade
marinara*

Shrimp and Crawfish

With pasta in a Bayou Alfredo sauce

Grilled Vegetables

*Fresh vegetables sliced, seasoned,
and grilled*

Bread

Banana Pudding

Sweet Tea and Unsweet Tea

Saturday 10/14 • Luncheon Keynote • 1:15 – 1:30

Keynote Speaker

Outstanding Faculty Position Paper Award Recipient: **Natalie King**

*Activist and academician: Promoting equity in science education through
community-based scholarship*

Saturday 10/14 • Afternoon Sessions • 1:30 – 3:20

Paper Session	Saturday 1:30 – 3:20	La Playa I
Beginnings of a meta-analysis: What do middle grade science teachers learn in online professional development?		
Rose Pringle, University of Florida; Joanne LaFramenta, University of Florida		
<i>In this mixed method study, we examine the impact of a formal online course on inservice teachers' learning of reform-based science teaching.</i>		
The Case of One Elementary Preservice Teacher as she Improves her Science Self Efficacy		
Melanie Kinskey, University of South Florida		
<i>This presentation explores the use of action research during field experiences to improve elementary preservice teachers' science self-efficacy.</i>		
Literacy instruction for English learners in U.S. secondary science classrooms		
Shim Lew, University of West Florida		
<i>This study explores how science educators interpret and incorporate literacy components into their classrooms with an emphasis on English learners.</i>		
Induction for science educators		
Brendan Callahan, Kennesaw State University		
<i>This talk is designed as a discussion of what we have started as an induction program for new science teachers, as well as potential future steps.</i>		

Paper Session	Saturday 1:30 – 3:20	La Playa II
Adapting Coping Strategies for Teaching in Virtual Environment		
Tugce Gul, University of West Florida; Eric Greska, University of West Florida; John Pecore, University of West Florida		
<i>The purpose of this study is to examine the coping strategies and professional identity development of pre-service teachers as teaching to avatars.</i>		
Understanding the Planned, Delivered, and Received Curricula Using SLDS Research: Finding Gaps in the Data		
Ryan Walker, Mississippi State University; Aressa Coley, Mississippi State University; Gabriel Posadas, Mississippi State University; Katie Huston, Mississippi State University; Shana Lee, Mississippi State University		
<i>An overview of research using large data and reverse curricular mapping to illustrate gaps in the ability to link the education system to workforce.</i>		
Using assemblage theory to understand a writing intervention in a college general chemistry course		
Logan Leslie, University of West Georgia		
<i>A writing intervention is examined as it transforms when done in one classroom in contrast to a larger department and university wide implementation.</i>		

2017 Participants' Index

A

Atwater, Mary; University of Georgia

B

Brantley-Dias, Laurie; Kennesaw State University
 Britton, Stacey; University of West Georgia
 Brkck, Katie; Georgia Southern University

C

Caesar, Christine; Middle Georgia State University
 Callahan, Brendan; Kennesaw State University
 Childers, Gina; University of North Georgia
 Coley, Aressa; Mississippi State University

D

Demetrikopolous, Melissa; Institute for Biomedical
 Philosophy
 Dentzau, Michael; Columbus State University
 Dias, Michael; Kennesaw State University

G

Garrett, Beth
 Governor, Donna; University of North Georgia
 Greska, Eric; University of West Florida
 Gul, Tugce; University of West Florida

H

Hill, Joshua; Columbus State University
 Himangshu-Pennybacker, Sumitra;
 Middle Georgia State University
 Holt, Daniel; Columbus State University
 Howard, Sonia; Georgia State University
 Huston, Katie; Mississippi State University

J

Jeong, Sophia (Sun Kyung); University of Georgia

K

King, Natalie; Georgia State University
 Kinskey, Melanie; University of South Florida

L

LaFramenta, Joanne; University of Florida
 Lee, Shana; Mississippi State University
 Leslie, Logan; University of West Georgia
 Lew, Shim; University of West Florida

M

Mesa, Jennifer; University of West Florida
 Mistry, Erin; University of Florida

P

Pecore, John; University of West Florida
 Pennybacker, Cameron; Diversity Assets, LLC
 Petrova, Kitchka; Florida State University
 Posadaas, Gabriel; Mississippi State University
 Pringle, Rose; University of Florida

S

Schoene, Melissa; Georgia State University
 Schwartz, Matthew; University of West Florida
 Svec, Michael; Furman University

T

Thornton, David; University of South Florida
 Tippins, Deborah; University of Georgia

W

Walker, Ryan; Mississippi State University
 Waller, Benjamin; University of West Florida

Saturday 10/14 • SASTE Social • 3:20 -

SASTE Afternoon Social

All are invited to continue your conversations

*** Cash Bar ***

Tiki Bar

Springhill Suites by Marriott Pensacola Beach



Please join us

Thank you for attending SASTE 2017

We wish you a safe trip back home and a great academic year!

We look forward to seeing you in the coming year for SASTE 2018