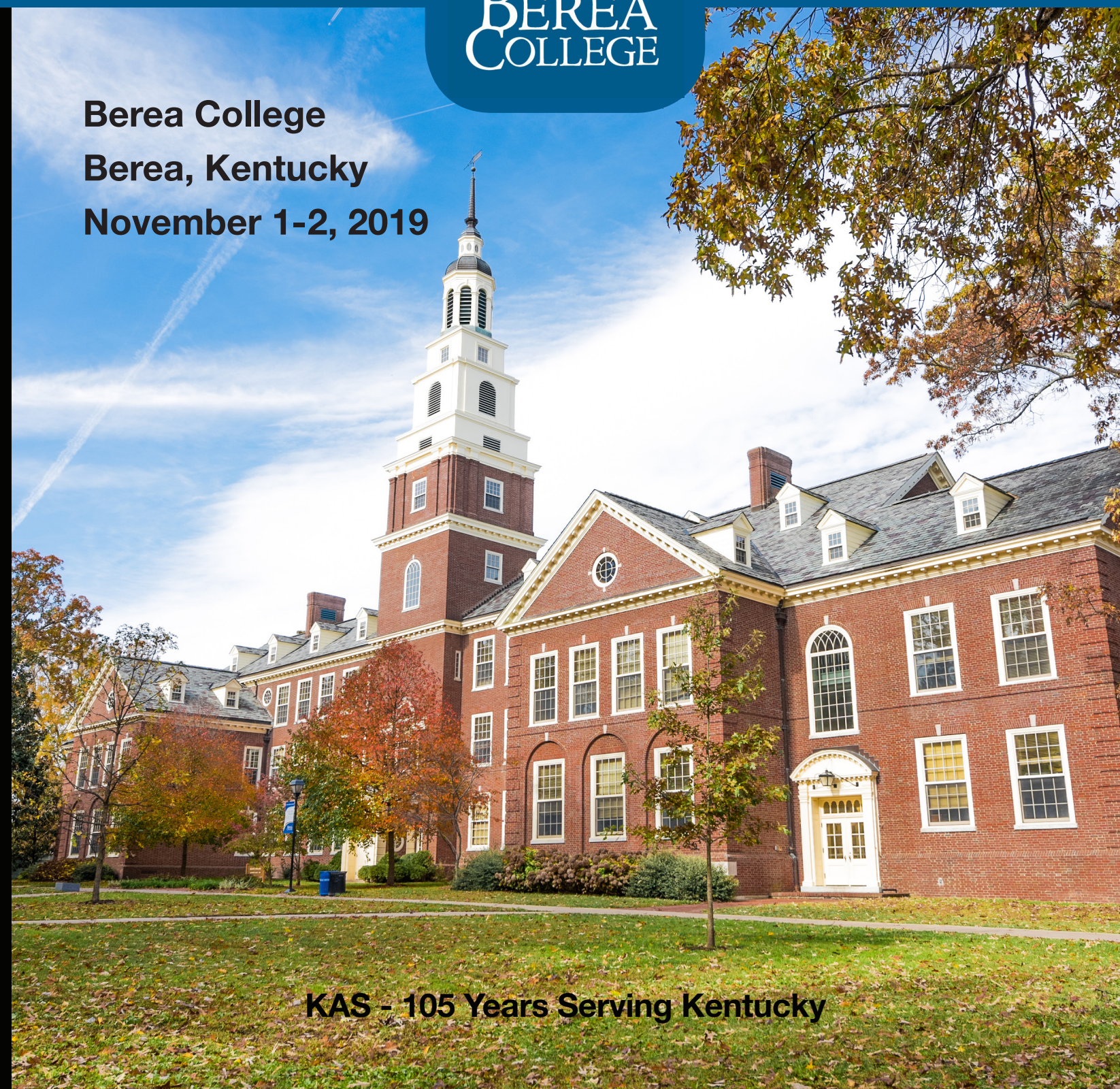




105th ANNUAL MEETING

BEREA
COLLEGE

Berea College
Berea, Kentucky
November 1-2, 2019



Sponsors

Platinum Level	ASRC Michelin Sullivan University College of Pharmacy Kentucky State University	  
Gold Level	Eastern Kentucky University College of Science	
Afternoon Break Sponsor	University of Louisville Graduate School	
Business Meeting Luncheon Sponsor	314 Action	
In Kind	Berea College Kentucky Science Center	 

Exhibitors

ASRC Michelin	WKU Chemistry Graduate Program
UK Chemistry Graduate School	UK STEM Education Department
Uof L Graduate School	Kentucky Science Center
Kentucky Heritage Land Conservation Fund	Eastern Kentucky University Graduate School
Kentucky Organization of Field Stations	Kentucky Mesonet
Kentucky Society for Natural History	Kentucky Psychological Association
Kentucky State University NSF STEM	Western Kentucky University Graduate School
Kentucky State University College of Agriculture, Communities and the Environment	Kentucky Geological Survey
University of Kentucky College of Pharmacy	KAS Student Ambassadors
	Journal of the Kentucky Academy of Science

2019 Enhanced Affiliates

Faculty, Staff, and Students at these institutions can join KAS at no cost:

Alice Lloyd College
Asbury University
Bellarmino University
Berea College
Brescia University
Campbellsville University
Centre College
Eastern Kentucky University
Georgetown College
Kentucky Community and Technical College System (KCTCS)
Kentucky Science Center
Kentucky State University
Lindsey Wilson College
Midway University
Morehead State University
Murray State University
Northern Kentucky University
Spalding University
Thomas More College
Transylvania University
University of Kentucky
University of Louisville
University of Pikeville
Western Kentucky University

2019 Regular Affiliates

Kentucky Wesleyan College
Wood Hudson Cancer Research Laboratory
Lumins Associates



**BEREA
COLLEGE**

Welcome to the 105th Kentucky Academy of Science Annual Meeting at Berea College

Esteemed Kentucky science educators of the Kentucky Academy of Science.

Welcome back to Berea College for the first time since 1957. We are delighted to host the KAS 105th annual meeting. Thank you for your sustained and faithful support of scientific discovery and understanding throughout our great state.

Let me share a bit about our school. Berea College offers a high-quality education to academically promising students with limited economic resources. Founded in 1855, Berea was the first interracial and co-educational college in the South. Today, Berea is consistently ranked as one of the leading private liberal arts colleges in the USA, garnering much national attention and appreciation for its service to talented students who might not otherwise be able afford to attend college. To all 1,650 of our students we offer a 4-year no-tuition promise and a rigorous and high-quality education. Also, we don't just admit students, we hire them. Every Berea student participates in our well-regarded Labor Program, which not only provides the College with a talented part-time work force, but also enables them to cover their other costs: room, books, and fees.

Another hallmark of Berea College is our very inclusive community, which warmly welcomes diversity in all of its forms. We are proud to be remaining faithful to our founder, abolitionist Rev. John Gregg Fee's inspiring vision, expressed through the motto he chose (from the book of Acts) for our school, "God has made of one blood all peoples of the earth."

We are also very proud of our programs and new facilities in the sciences. Our new Margaret A. Cargill Natural Sciences and Health Building, a 125,000 square foot, \$72 million dollar facility, with a tissue-culture lab, vivarium, 500 MHz NMR, scanning electron microscope, high-fidelity Nursing simulation labs, optics lab, planetarium, and off-site greenhouse and observatory, houses our Biology, Chemistry, Geology, Mathematics, and Physics programs. Berea also has regular KAS participation from faculty and students in our Agriculture and Natural Resources, Psychology, Education, and Health and Human Performance Programs.

Again, welcome to Berea College. We trust you will enjoy the meeting and your visit.

Sincerely,
Dr. Lyle Roelofs
President, Berea College
President

KENTUCKY ACADEMY OF SCIENCE

105th Annual Meeting

November 1 - 2, 2019

Berea College

GOVERNING BOARD

EXECUTIVE COMMITTEE

President Leslie North, Western Kentucky University
President-Elect Frank Ettensohn, University of Kentucky
Vice President Trent Garrison, Northern Kentucky University
Past President Jennifer Birriel, Morehead State University
Secretary Rajiv Singh, University of Louisville
Treasurer Rodney King, Western Kentucky University

EX-OFFICIO MEMBERS

Executive Director Amanda Fuller, Kentucky Academy of Science
Program Coordinator Melony Stambaugh, KCTCS
Editor, JOURNAL Kelly Watson & Wally Borowski, Eastern Kentucky University
Editor, NEWSLETTER Sarah Mardon, University of Kentucky
Director, Junior Academy of Science Melony Stambaugh, KCTCS
Co-Chair, Junior Academy of Science Bruce Griffis, Kentucky State University
Research Grants Chair Rodney King, Western Kentucky University
Historian Marilyn Akins, KCTCS
AAAS/NAAS Representative Nancy Martin, University of Louisville (emerita)

DIVISION REPRESENTATIVES AND AT-LARGE MEMBERS

Biological Sciences Maggie Whitson, Northern Kentucky University
Biological Sciences Melanie Hardin-Pierce, University of Kentucky
Physical Sciences J Scott Miller, Western Kentucky University
Physical Sciences Seyed Allameh, Northern Kentucky University
Social & Behavioral Sciences Wei Song, University of Louisville
Social & Behavioral Sciences Amy Hamilton, Bellarmine University
At - Large Dirk Grupe, Morehead State University
At - Large Tracy Hodge, Berea College

TABLE OF CONTENTS

Exhibitors and Sponsors	Inside Front Cover
Welcome.....	1
KAS Governing Board	2
Friday Activities	4 - 5
Saturday Morning Workshops.....	6
Statistics Consultations	7
Plenary at Phelps-Stokes Chapel	7
KAS Business meeting and Past Presidents Luncheon	8
Saturday Afternoon Workshops	8
Saturday Forest Outings and Field Tour	9
KAS Code of Conduct	10
Map of Berea College	10
Local Arrangements Committee	11
Social Media Photo Competition	11
Program Summary	12 - 13
Friday Oral Presentations:	
Computer and Information Science	16
Ecology	17
Geology	19
Physics & Astronomy	15
Science Education.....	20
Social Sciences: Anthropology/Sociology/Psychology.....	21
Friday Afternoon Poster Session I:.....	22 - 33
Agricultural Sciences	Geography
Biochemistry and Physiology (<i>see Physiology and Biochemistry</i>)	Health Sciences
Chemistry - Analytical/ Physical	Mathematics
Chemistry – Organic/Inorganic	Microbiology
Computer and Information Science	Physiology and Biochemistry
Environmental Science	Zoology
Saturday Morning Oral Presentations:	
Agricultural Sciences.....	34
Chemistry – Organic/Inorganic	35
Health Sciences.....	36
Mathematics.....	37
Geography.....	36
Saturday Morning Poster Session II:.....	38 - 49
Cellular and Molecular Biology	Physics and Astronomy
Ecology	Science Education
Geology	Social Sciences: Anthropology/ Sociology/Psychology
Saturday Afternoon Oral Presentations:	
Cellular and Molecular Biology.....	50
Chemistry - Analytical/ Physical	51
Environmental Sciences	52
Microbiology	52
Physiology and Biochemistry	53
Zoology.....	49
Past Presidents	54
Past Meeting Locations.....	55
KAS Affiliates	Inside Back Cover

Friday, November 1, 2019 9:00 am - 11:00 am

KAS Governing Board meeting
Room 457, MAC Science Building

Open to all KAS members

Friday, November 1, 2019 9:30 am - 11:30 am

Kentucky Organization of Field Stations (KOFS) Business Meeting
Berea Forestry Outreach Center, 2047 Big Hill Rd

All are welcome to find out more about the Kentucky Organization of Field Stations, a network of researchers, land managers, and educators.



Friday, November 1, 2019 11:30 am - 6:30 pm

Registration
2nd floor atrium, MAC Science Building

Friday, November 1, 2019 12:00 pm - 3:00 pm

Poster Session I
Alumni Building, Baird Lounge

After checking in at Registration, we ask Poster presenters to check in at the Posters table for further instructions. All posters should be setup by 2:00pm

Friday, November 1, 2019 12:30 pm - 5:00 pm

Oral Presentations and Section Meetings
MAC Science Building

Friday, November 1, 2019 5:15 pm - 7:15 pm

Friday Night of Science
MAC Science Building

Food and activities for students, planned by Berea College student hosts!

Slideshow Karaoke (aka Battle Decks)

What do random slides about magnetic moments, neural networks and muscular growth have in common? Probably a lot but can you convince us they're about planning a birthday party or running a marathon? See how well you can tie seemingly scientific slides to a random topic from the crowd.

Friday, November 1, 2019 5:15-7:15 pm

President's Reception
Boone Tavern

We invite our over 21 graduate students and faculty to a reception at Boone Tavern. We've got a space set aside for graduate students if you'd prefer to network among yourselves.

Friday, November 1, 2019 7:00-9:00 pm

Stargazing Party

Berea Forestry Outreach Center, 2047 Big Hill Rd. Berea, KY 40403

Friday, November 1, 2019 7:30 pm

Film Screening & Panel

Phelps-Stokes Chapel

We Believe In Dinosaurs

A 137 Films Production

Directed by Monica Long Ross and Clayton Brown

Produced by Amy Ellison, Monica Long Ross, and Clayton Brown (97 minutes, 2019)

A documentary film about creationism, Noah's Ark, and America's troubled relationship with science.

Amid protests and controversy, young-earth creationists build an enormous, \$120 million "life-size" Noah's Ark in rural Kentucky with the specific aim of proving that the Bible is scientifically and historically accurate.

We Believe In Dinosaurs follows the building of the Ark from blueprints to Opening Day through the eyes of three Kentuckians: Doug, a gifted artist who creates lifelike animals for the Ark; Dan, a geologist and impassioned pro-science activist who blows the whistle on the Ark's discriminatory hiring practices; and David, a young former creationist who mowed lawns to raise money for creationist causes in his youth.



Shot over the course of four years, We Believe In Dinosaurs follows the Ark from blueprints to opening to aftermath and tells the story of the troubling relationship between science and religion in the United States.

A discussion will follow the film. Panelists include:

Dan Phelps, Kentucky Paleontological Society

Director of the film Clayton Brown

Megan Hoffman, professor of Biology at Berea College

Trent Garrison, Geology Professor at Northern Kentucky University and Chair of KAS Advocacy & Education Committee.

Saturday, November 2, 2019 7:00 am - 2:30 pm

Registration
MAC Science Building, 2nd floor atrium

Saturday, November 2, 2019 8:00 am - 10:45 am

Oral Presentations and Section Meetings
MAC Science Building

Saturday, November 2, 2019 8:30 am - 10:30 am

Poster Session II
Alumni Building, Baird Lounge

If you are presenting a poster, please check in at the table in the Alumni building lobby. All posters should be up by 8:30am

Saturday, November 2, 2019 9:00 am - 3:00 pm

Exhibitors' Tables
2nd floor atrium, MAC Science Building

Saturday, November 2, 2019 9:00am - 3:30 pm

Student Competition Awards
MAC Science Building, 1st floor

Saturday, November 2, 2019 9:00 am

Saturday Workshops for teachers
Margaret A Cargill Science building

Room 230

Photovoltaics and solar power

This hands-on inquiry-oriented workshop will prepare you to teach fundamental technology and applications of solar cells. We will discuss both the photovoltaic creation of electricity and basic electrical concepts such as current, voltage, and resistance. Participants will receive a classroom photovoltaic set with enough material for 30 students. Presented by Jon Saderholm of Berea College. This workshop is generously supported by the Charles Rayburn Solar Fund at Berea College.



Room 170

Chemistry of Art

In this hands-on workshop, participants will learn and practice one of these fascinating applications of chemistry in art silk scarf dyeing, brass medallion etching, and Prussian blue pigment synthesis! Workshop participants will get to try each activity and leave with both the final product, as well as handouts and instructors notes for incorporating these artful applications in a chemistry course. Please bring a thumbdrive for an electronic version of materials. Presented by Mary Robert Garrett of Berea College.

\$5 fee covers cost of materials.



Saturday, November 2, 2019 10:00 am - 1:00pm

Statistics Consultations

MAC Science Building, 1st floor

Do you have data? Are you adding more research questions? Are you still designing your study?

UK's Applied Statistics Lab is offering KAS attendees free one-on-one Statistics consultations during the KAS Annual Meeting at Berea College. Whether you're knee-deep or just wading in, let the experts help you. The offer is good for scientists in any discipline or career level!

Saturday, November 2, 2019 11:00 am

Keynote Speaker

Phelps-Stokes Chapel

LaTrice Montgomery



Assistant Professor and licensed Clinical Psychologist, University of Cincinnati College of Medicine, Department of Psychiatry and Behavioral Neuroscience, Addiction Sciences Division

LaTrice Montgomery is an Assistant Professor and licensed Clinical Psychologist in the Addiction Sciences Division of the Department of Psychiatry and Behavioral Neuroscience at the University of Cincinnati College of Medicine. She received her B.A. degree in Psychology from Berea College and both her M.A. and Ph.D. in Clinical Psychology from the University of Cincinnati. She completed her National Institute on Drug Abuse sponsored clinical internship at the Yale University School of Medicine in the Division of Substance Abuse. Dr. Montgomery's research interests include marijuana and tobacco co-use (especially via blunts) and medical marijuana. LaTrice has presented her award-winning work at several local, regional and national conferences. In addition, LaTrice's work has been published in top-tier journals, including *Drug and Alcohol Dependence* and the *Journal of Consulting and Clinical Psychology*. She recently received a career development award (K23) from the National Institute on Drug Abuse to develop and evaluate a Twitter-based intervention for young adult blunt smokers.

Saturday, November 2, 2019 12:15 pm - 1:30 pm

**KAS Business meeting and luncheon for KAS members
honoring KAS Past Presidents
Woods-Penniman Building**

- Open to all KAS members; Reservation requested
- Governing Board Election results will be announced
- Science Education & Outreach Award winner Lenny Demoranville will share stories of taking science outside the confines of the college classroom.
- We'll discuss ideas for the digital evolution of the Journal of the Kentucky Academy of Science
- The KAS Governing Board & staff will share reports and updates

Thank you to 314 Action for sponsoring the Luncheon

Saturday, November 2, 2019 1:15 pm - 3:30 pm

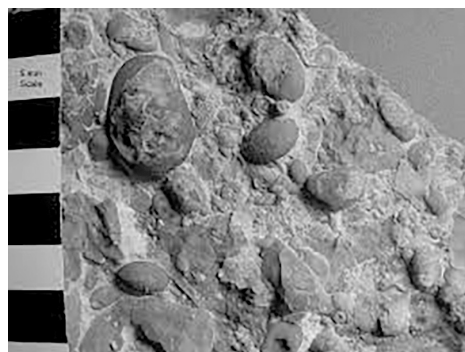
**Oral Presentations
MAC Science Building**

Saturday, November 2, 2019 1:30 pm

**1:30pm Saturday afternoon workshop
Geology Field trip with KAS Geologists to Big Hill and a fossil collecting site**

Rocks in the Berea area range in age from 360 to 320 million years old and represent environments including very deep stagnant seas, shallow subtropical seas, and wide, shallow rivers. This trip will explore Berea's geologic history by examining the rocks left behind in each environment during the 40-million-year history. You will be able to collect several different types of sedimentary rocks and fossils from each environment. This is a hands-on trip; so, come prepared in boots and with collecting bags to work in a roadside setting.

Transportation is provided. Led by Frank Ettensohn of UK Earth & Environmental Science Dept. \$10.



Saturday, November 2, 2019 1:30 pm - 3:30 pm

**KCTCS Faculty meeting
Room 206, MAC Science Building**

We welcome all KCTCS faculty to join this meeting to talk with colleagues on other KCTCS campuses

Saturday, November 2, 2019 4:00 pm

Forest Outings

Berea Forestry Outreach Center, 2047 Big Hill Rd.

After our Saturday sessions are over at 3:30, we're going to the forest to enjoy the last hours of Daylight Saving time! Sunset is 6:43pm.

Meet at the Forestry Center parking lot, 2047 Big Hill Rd. Berea, KY 40403. You can join a guided hike at the Berea College Forest with the Forestry Center staff. There are various trail options here including the famous Pinnacles trail. Dr. Ralph Thompson will also lead a hike here (There's not enough time for a hike to Anglin Falls, but hike with Ralph and ask him all about it!)



Dress for the weather, bring some water, take some photos (#TheSpiritOfKAS) and have fun!

5-8 pm on Saturday: If you have little hikers with you, there's also a family-oriented Tinkergarten Lantern Walk. Meet at the Berea Forestry Outreach Center 2047 Big Hill Rd. Berea, KY 40403

Sunday, November 3, 2019 10:00 am - 2:30 pm

Society of American Foresters' Field Tour

Berea College Forest

The Berea College Forest is one of the oldest managed private forests in the United States having begun its efforts in 1897 with the dawn of the American conservation movement. Management efforts focus on wood, water, wildlife and recreation, with an emphasis on sustainability. Offering both classes and outreach programs related to forestry, one of its great values is as a resource to demonstrate and evaluate the results of long-term forest management in the Southern Appalachian Region. Join the Forestry Department staff for an inside look at this unique endeavor, which includes a horse logging operation and prescribed burn areas.; \$25 includes box lunch



KAS Code of Conduct

The Kentucky Academy of Science Annual Meeting is an interdisciplinary professional environment that cultivates scientific discovery and understanding.

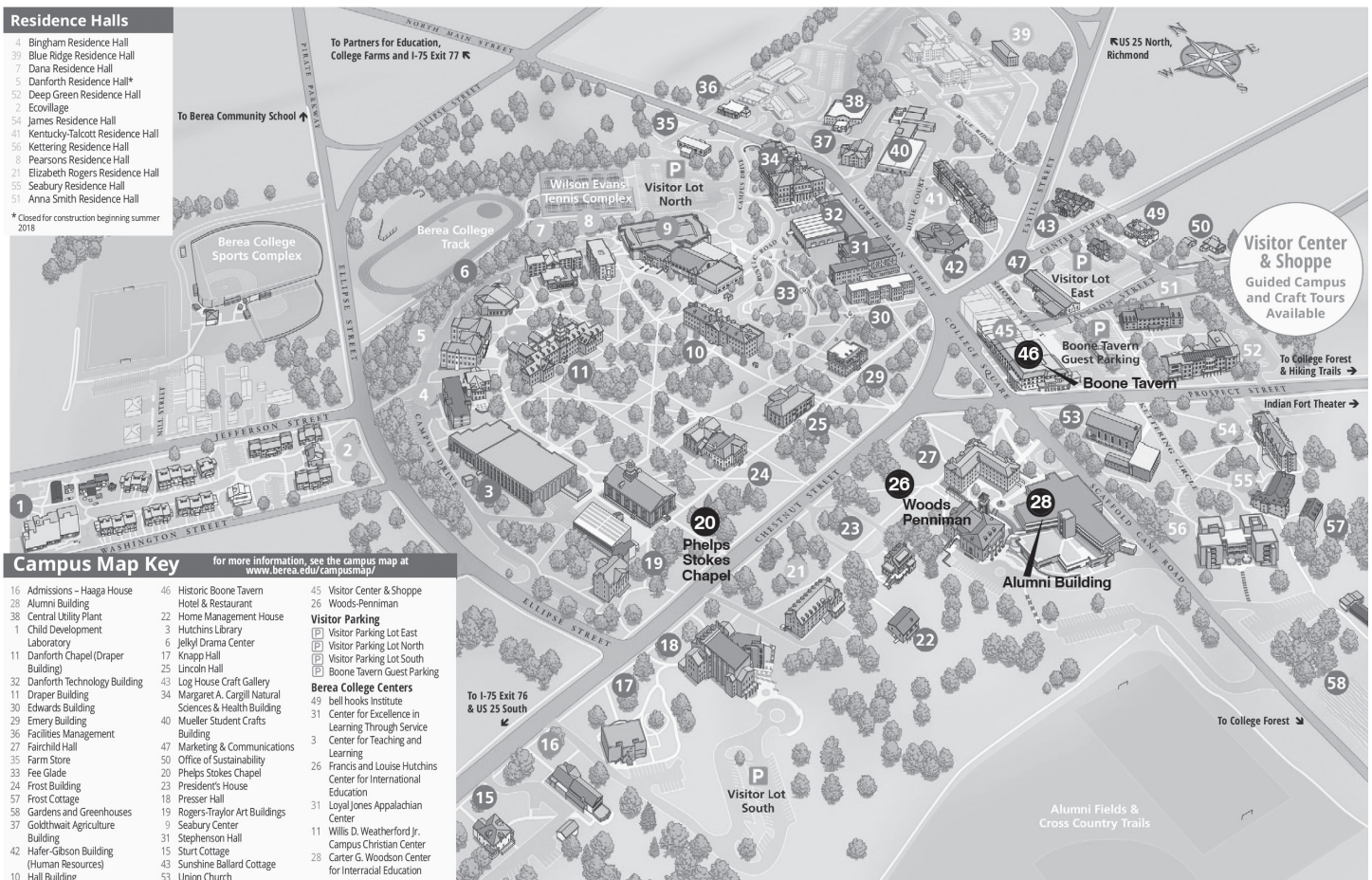
Thank you for contributing to our advancement of science by behaving professionally, respectfully and collegially at all times.

Student Competition Winners

Student Competition Winners will be announced as results come in, on the screens on the 2nd floor of the MAC Science Building

If you see your name on the screen, please stop by the photo booth at the pendulum on the lower level of the MAC Science Building to have your photo taken. Congratulations!

Map of Berea College



2019 Local Arrangements Committee Berea College

Dawn Anderson and Tracy Hodge

Social Media Photo Contest



Capture YOUR experience of the KAS Annual meeting and share it using #TheSpiritOfKAS

Post your photos by 8pm Sunday Nov 3.

Contest rules are at www.kyscience.org

KAS Twitter: @Kyscientists

KAS Instagram: kentuckyscience

KAS Facebook: Kentucky Academy of Science



LAST YEAR'S WINNER



JOURNAL
OF THE
KENTUCKY
ACADEMY OF
SCIENCE

Official Publication of the Academy

KAS

Established 1914
KENTUCKY ACADEMY
OF SCIENCE

Volume 78/79
2017/2018

Digital Evolution of the Journal of the Kentucky Academy of Science

The Journal of the
Kentucky Academy
of Science
wants your ideas!

Stop by our station in the lower level of the MAC Science building to share your ideas for how the Journal can serve you! We'll be discussing this at the KAS Business meeting Saturday at 12:15 in the Woods- Penn building. Join us if you want to have your say about the future of the Journal.

PROGRAM SUMMARY

Friday November 1, 2019

9:00- 11:00 am	KAS Governing Board meeting
9:30-11:30 am	Kentucky Organization of Field Stations (KOFs) meeting
11:30 am	Registration Opens
1:00 pm- 5:00 pm	Oral Presentations
Computer and Information Science	Physics & Astronomy
Ecology	Science Education
Geology	Social Sciences: Anthropology, Psychology, and Sociology
2:00 pm- 5:00 pm	Posters Session I
Agricultural Sciences	Health Sciences
Chemistry: Analytical/Physical	Mathematics
Chemistry: Organic/Inorganic	Microbiology
Computer and Information Science	Physiology & Biochemistry
Environmental Science	Zoology
Geography	
5:15 pm - 7:30 pm	President's Reception at Boone Tavern for Graduate Student & Faculty
5:15 pm - 7:30 pm	Friday Night of Science for Undergraduates
7:00 pm - 9:00 pm	Stargazing Party at Berea Forestry Outreach Center
7:30 pm - 10:00 pm	We Believe in Dinosaurs film screening and discussion

Saturday November 2, 2019

7:00 am	Registration Opens
8:00 am - 10:45 am	Oral presentations and Section Meetings
Agricultural Sciences	Health Sciences
Chemistry: Organic/Inorganic	Mathematics
Geography	
8:30 am - 10:45 am	Posters Session II
Cellular & Molecular Biology	Physics & Astronomy
Ecology	Science Education
Geology	Social Sciences: Anthropology, Psychology, and Sociology
9:00 am- 12:00 pm	Workshops for Teachers Saturday morning <i>Photovoltaics and solar power, presented by Jon Saderholm.</i> <i>Chemistry of Art, presented by Mary Robert Garrett.</i>
9:00 am - 3:00 pm	Exhibitors
9:00 am - 3:30 pm	Student Competition Winners Photo Booth
11:00 am	Keynote Speaker Dr. LaTrice Montgomery
12:15 pm - 1:30 pm	Lunch on your own and Preordered Box Lunch Pickup, MAC Lower Level
12:15 pm -1:30 pm	KAS Business meeting and luncheon for KAS members
1:30 pm	Workshop for Teachers: Geology field trip to Big Hill

1:30 pm - 3:30 pm Oral Presentations and Section Meetings

Cellular & Molecular Biology
Chemistry: Analytical & Physical
Environmental Science

Microbiology
Physiology & Biochemistry
Zoology

4:00 pm Meet up for Forest Outings

Sunday November 3, 2019

10:00 am - 2:30 pm Society of American Foresters Field Tour at the Berea College Forest.

STAY CONNECTED WITH KAS



Wi-Fi Network: Visitors can connect to “Berea Guest” by selecting it from the list of available networks. Password is turkey11. Open your web browser and you will need to enter your email address and agree to the terms of use.



Facebook : Follow the Kentucky Academy of Science



Tweet about the 2019 annual meeting at #KAS2019



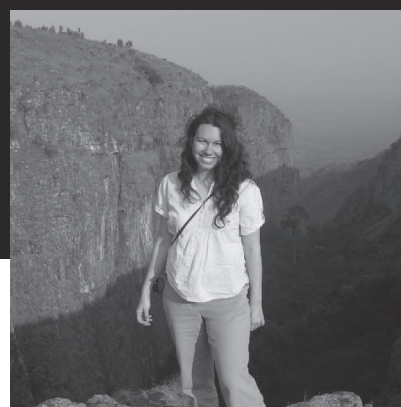
Kentucky Academy of Science

SUBMIT YOUR RESEARCH to the *Journal of the Kentucky Academy of Science*

- Perfect publication venue for locally- and regionally-based research
- Theme issues encouraged.
- Publication now in serial form, posted on KAS website.
- Articles are archived and searchable via *BioOne*.
- Co-Editors (Kelly Watson and Walter Borowski) strive for thorough review and rapid publication.

For more information, see the webpage:

https://www.kyscience.org/about_our_publications.php



Kelly Watson



Walter Borowski

Thank You!

Thank you to our Local Arrangements Team at Berea College!

Tracy Hodge
Dawn Anderson

Thank you to our Program Coordinator

Melony Stambaugh

Thank you to our 2019 Section Leaders

Agricultural Sciences

Shreya Patel, Kentucky State University, Chair
George Antonious, Kentucky State University, Secretary

Anthropology and Sociology

Benjamin Freed, Eastern Kentucky University, Chair

Cellular and Molecular Biology

Dena Weinberger, Murray State University, Chair

Chemistry: Analytical & Physical,
Jay Baltisberger, Berea College, Chair

Chemistry: Organic / Inorganic,
Yongming Deng, Western Kentucky University, Chair
Elizabeth Thomas, University of Pikeville, Secretary

Computer and Information Sciences

Jerzy Jaromeczyk, University of Kentucky, Chair

Ecology,

Richard Boyce, Northern Kentucky University, Chair
Roberta Challener, Bellarmine University, Secretary

Environmental Science

Ben Brammell, Asbury University, Chair

Geography

Christopher Day, University of Louisville, Chair
Charlie Zhang, University of Louisville, Secretary

Geology

Patricia Kambesis, Western Kentucky University, Chair
Ann Harris, KCTCS, Secretary

Health Sciences

Avinash Tope, Kentucky State University, Chair
Lingyu Huang, Kentucky State University, Secretary

Mathematics

Justin Trulen, Kentucky Wesleyan College, Chair
Kyle Besing, Kentucky Wesleyan College, Secretary

Microbiology

Rachel Pritchard, Kentucky Wesleyan College, Chair
Simran Banga, Western Kentucky University, Secretary

Physics and Astronomy

Thomas Jarvis, Eastern Kentucky University, Chair
Marilyn Akins, KCTCS, Secretary

Physiology and Biochemistry

Michael Guy, Northern Kentucky University, Chair
Tracy Livingston, Georgetown College, Chair

Psychology

Richard Osbaldiston, Eastern Kentucky University, Chair
Matthew Shake, Western Kentucky University, Secretary

Science Education

Melody Danley, University of Kentucky, Chair
Kathryn Broadbent, KCTCS, Secretary

Zoology

Laura Sullivan Beckers, Murray State University, Chair
Roy Scudder-Davis, Berea College, Secretary

Friday, November 1, 2019 12:30pm - 5:00pm

Oral Presentations and Section Meetings

MAC Science Building

Friday, November 1, 2019 12:30pm - 5:15pm

Physics & Astronomy- Oral Presentations

Section meeting follows talks at

15 min. break at 2:30

Room 406, MAC Science Building

5:00

12:30 - A Study of the Quasar PKS2135-147

First Author

Parker Poulos

Morehead State University

Co-author

Dirk Grupe

Morehead State University

12:45 - Active Galactic Nuclei with rapid high amplitude variability.

First Author

Dirk Grupe

Morehead State University

1:00 - Development of Simulations for Moon-Forming Giant Impacts

First Author

Tyler LaBree

Northern Kentucky University

1:15 - Why are the Orbits of Uranian Trojans so Unstable?

First Author

Jeremy Wood

Kentucky Community and Technical College System

1:30 - Magnetic High-Entropy Alloys

First Author

Valéria Rosa Rocha

Berea College

Co-author

Abby Nash

Berea College

Co-author

John-Paul Cesare

Berea College

Co-author

Troy Messina

Berea College

1:45 - Design of single cell superconducting radio frequency cavities

First Author

Madison Howard

Morehead State University

Co-author

Kenji Saito

Michigan State University FRIB/NSCL

Co-author

Walter Hartung

Michigan State University FRIB/NSCL

Co-author

Safwan Shanab

Michigan State University FRIB/NSCL

2:00 - Calibration of Gamma Scout Detectors for Environmental Radiation Measurements

First Author

Kevin Adkins

Morehead State University

Co-author

Ignacio Birriel

Morehead State University

Co-author

Eddie Henderson

Morehead State University

2:15 - Testing Silicon Photomultipliers for use in the nEDM experiment

First Author

Ricardo Santos

Berea College

Co-author

Vince Cianciolo

Oak Ridge National Lab

Co-author

Syed Kavish Imam

University of Tennessee

2:45 - Fitting Neural Networks to Thermal Equations of State for use in FLASH models

First Author

Eli Prater

Berea College

Co-author

Bronson Messer

Oak Ridge National Laboratory

Co-author

Hannah Carver

Clemson

3:00 - Late-time Light Curves of Type Iax Supernovae

First Author
Jessica Lair
Eastern Kentucky University

3:15 - Long Term Monitoring of Narrow-Line Seyfert 1 Galaxy PG1211+143 Using Swift

First Author
Dylan Grupe
Morehead State University

3:30 - PASCO's Coulomb Law Experiment: Effects of Humidity on Results

<i>First Author</i>	<i>Co-author</i>
Jessy Anderson	Jennifer Birriel
Morehead State	Morehead State

3:45 - Typical Misconceptions about Lunar Phases in Introductory Astronomy

<i>First Author</i>	<i>Co-author</i>
Jing Wang	Jessica Lair
Eastern Kentucky University	Eastern Kentucky University

4:00 - Quantum Coin Flipping

<i>First Author</i>	<i>Co-author</i>
Johnathan Baird	Joshua Qualls
Craft Academy	Morehead State University

4:15 - Spectroscopic and Hydrodynamic Analyses of the Northwestern Rim of the Galactic Supernova Remnant G156.2+5.7

<i>First Author</i>	<i>Co-author</i>
Thomas Pannuti	Glenn Allen
Morehead State University	Lexington High School

4:30 - The Not so Obvious Relationship Between Magnetic Energy Storage and the Solar Flares of NOAA AR11283

First Author
Alanna Cavins
Morehead State University

4:45 - Safety Engineering for Lunar IceCube

First Author
Akira King
Morehead State University

Friday, November 1, 2019 1:00pm - 3:00pm

Computer & Information Sciences -Oral Presentations

Section meeting follows talks at
2:45

Room 350, MAC Science Building

1:00 - The Swiftly Changing Landscape of CS and CS Ed Research

First Author
Janice Pearce
Berea College

1:30 - Machine Learning-Training in Style

<i>First Author</i>	<i>Co-author</i>
Andrew Tapia	Jerzy Jaromczyk
University of Kentucky	University of Kentucky

1:45 - BLAST redundancy cleaner: a bioinformatics tool that allows for easy viewing of complex genomic repeat BLAST results

<i>First Author</i> Alex Stewart University of Kentucky	<i>Co-author</i> Noah Clements University of Kentucky	<i>Co-author</i> Jerzy W. Jaromczyk University of Kentucky	<i>Co-author</i> Mostafa Rahnama University of Kentucky
<i>Co-author</i> Mark Farman University of Kentucky			

2:00 - Evaluations of Mechanical Properties of ABS Parts from Open-Source 3D Printers and Conventional Manufacturing

<i>First Author</i> Robert Harper University of Kentucky	<i>Co-author</i> Coilin Bradley University of Kentucky	<i>Co-author</i> Jordan Garcia University of Kentucky	<i>Co-author</i> John Schmidt University of Kentucky
<i>Co-author</i> Charles Lu University of Kentucky			

2:15 - Development of Software to Control a Snake Robot

<i>First Author</i> Elizabeth Isbell Murray State University	<i>Co-author</i> Destyn Pearson Murray State University	<i>Co-author</i> Ashtynn Herrington Murray State University	<i>Co-author</i> Codi Slawson Murray State University
--	---	---	---

2:30 - MoTeR Distribution Across Magnaporthe oryzae Genomes

<i>First Author</i> Katie Richard Eastern Kentucky University	<i>Co-author</i> Presley Bryant Northern Kentucky University	<i>Co-author</i> Mostafa Rahnama Department of Plant Pathology, University of Kentucky
<i>Co-author</i> Jerzy Jaromczyk Computer Science, University of Kentucky	<i>Co-author</i> Mark Farman Department of Plant Pathology, University of Kentucky	

Friday, November 1, 2019 1:00pm - 5:15pm

Ecology - Oral Presentations

Section meeting follows talks at

15 min. break at 2:45

Room 170, MAC Science Building

5:00

1:00 - Possible Predators (Non-Hosts) of the Digenetic Trematode Cercaria, Proterometra macrostoma, at North Elkhorn Creek, KY

<i>First Author</i> Joseph Mecham Berea College	<i>Co-author</i> Bernedette Kwisera Berea College
---	---

1:15 - Assessing the Influence of Telecommunication Towers on Osprey (Pandion haliaetus) Nesting Productivity and Behaviors

<i>First Author</i> Gage Barnes Murray State University	<i>Co-author</i> John Hewlett Murray State University	<i>Co-author</i> Kate Slankard Kentucky Department of Fish and Wildlife Resources
<i>Co-author</i> Loren Taylor Kentucky Department of Fish and Wildlife Resources	<i>Co-author</i> Andrea Darracq Murray State University	

1:30 - Stage Based Matrix Modeling of Trifolium stoloniferum Restoration Populations in Madison County, Kentucky

<i>First Author</i> Theodore Brancheau Eastern Kentucky University	<i>Co-author</i> Jennifer Koslow Eastern Kentucky University
--	--

1:45 - Fire Risk Assessment on the Wildland Urban Interface (WUI) of Goleta, California pre-Holiday Fire (2018)

First Author

Corey Walker

Berea Community School

2:00 - Treehoppers follow an experimentally imposed vibrational amplitude gradient when mate searching

First Author

Jeremy Gibson

Kentucky Wesleyan College

Co-author

Reginald Cocroft

University of Missouri

2:15 - Unmanned aerial vehicles and multispectral sensors for locating invasive species

First Author

Tithe Ahmed

Western Kentucky University

Co-author

Michael Stokes

Western Kentucky University

Co-author

Paul Allin

Transfrontier Africa

Co-author

Chris Farren

Transfrontier Africa

2:30 - Immediate and Delayed Effects of Severe Winds on an Old-Growth Forest in Northern Kentucky: A Forty-Year Retrospective

First Author

Michael Held

St. Peter's University

Co-author

Susan Jones-Held

Rider University

Co-author

Joe Winstead

Southern Arkansas University

3:00 - Understanding Interspecific Competition in Two Terrestrial Salamanders (Genus: Plethodon) Through Diet Analysis

First Author

Madeline Cox

Asbury University

Co-author

David McLeod

James Madison University

3:15 - Effect of sleep loss on parental care in Arctic-breeding songbirds

First Author

Wesley Payette

Western Kentucky University

Co-author

Melanie Richter

Western Kentucky University

Co-author

Brett Hodinka

Simon Fraser University

Co-author

Keelee Pullum

University of Pennsylvania

Co-author

Noah Ashley

Western Kentucky University

3:30 - Effects of stream permanence on the stoneflies (Plecoptera) of the Mammoth Cave region

First Author

Taylor McRoberts

Western Kentucky University

Co-author

Scott Grubbs

Western Kentucky University

3:45 - Arbuscular mycorrhizal fungi benefit switchgrass growth and root architecture under extreme drought

First Author

Binod Basyal

University of Louisville

Co-author

Sarah Emery

University of Louisville

4:00 - Abundance of songbirds in Eastern Hemlock stands following chemical treatment for Hemlock Woolly Adelgid

First Author

Natalie Sweeting

Eastern Kentucky University

Co-author

David Brown

Eastern Kentucky University

4:15 - Diet diversity and prey selection in Tidarren sisypoides

First Author

Sarah Bell

Western Kentucky University

Co-author

Albert Meier

Western Kentucky University

Co-author

John Pickering

Discover Life Project

4:30 - Floral phenology influenced by soils, not urbanization

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Aaron Sexton	Sarah Benton	Sarah Emery
University of Louisville	University of Louisville	University of Louisville

4:45 - Preliminary Results of the Vascular Flora Survey of the Miller Welch-Central Kentucky Wildlife Management Area

<i>First Author</i>	<i>Co-author</i>
Nick Koenig	David Taylor
Eastern Kentucky University	US Forest Service

Friday, November 1, 2019 1:00pm - 4:00pm

Geology - Oral Presentations

Section meeting follows talks at

15 min. break at 2:30

Room 251, MAC Science Building

3:30

1:00 - Hydrogeomorphic classification of ridge-top wetlands in the Daniel Boone National Forest

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Robert Engelman	Jonathan Malzone	Kelly Watson
Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University

1:15 - Testing Soil Additives in Constructed Wetland Soil for Remediation Strategies in the Daniel Boone National Forest

<i>First Author</i>	<i>Co-author</i>
James Thompson	Jonathan Malzone
Eastern Kentucky University	Eastern Kentucky University

1:30 - Modeling Climate Driven Spatial Variation in Potential Groundwater Recharge for Ridge-Top Wetlands

<i>First Author</i>	<i>Co-author</i>
Daniel Draper	Jonathan Malzone
Eastern Kentucky University	Eastern Kentucky University

1:45 - Determining the Change in the Unsaturated Zone and Aquifer Thickness of an Isolated Ridgetop Wetland

<i>First Author</i>	<i>Co-author</i>
Selsey Stribling	Jonathan Malzone
Eastern Kentucky University	Eastern Kentucky University

2:00 - Origin and Tectonic Implications of the Lower Mississippian Sunbury Shale in east-central United States

<i>First Author</i>	<i>Co-author</i>
Jun Li	Frank Ettensohn
China University of Mining and Technology, Beijing	University of Kentucky

2:15 - High-Resolution Lithology and Stratigraphy of a Roadcut near Coldiron (Harlan County), Southeastern Kentucky

<i>First Author</i>	<i>Co-author</i>
Andrew Hensley	Walter Borowski
Eastern Kentucky University	Eastern Kentucky University

2:45 - Paleosols as a means of investigating African Humid Period paleo-Critical Zones at Gona, Ethiopia

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Marie White	Kevin Takashita-Bynum	Gary Stinchcomb
Murray State University	Murray State University	Murray State University

3:00 - Updating geologic rock core information at the Kentucky Geological Survey's Earth Analysis Research Library

<i>First Author</i>	<i>Co-author</i>
William Andrews	Elizabeth Adams
UK Kentucky Geological Survey	UK Kentucky Geological Survey

3:15 - The Detection of Radioactivity in an Outcrop of Ohio Shale

First Author

Eddie Henderson

Morehead State University

Co-author

Ignacio Birriel

Morehead State University

Co-author

James Adkins

Morehead State University

Friday, November 1, 2019 1:00pm - 5:15pm

Science Education - Oral Presentations

Section meeting follows talks at

15 min. break at 2:45

Room 230, MAC Science Building

4:45

1:00 - Bridging Optogenetics, Metabolism, and Animal Behavior for Student-Driven Inquiry at High School and College Levels

First Author

Tawny Aguayo-Williams

University of Kentucky

Co-author

Robin Cooper

Univ of KY

Co-author

Brett Criswell

West Chester University

1:15 - Can children and young adults read analog clocks? Exploring potential misconceptions

First Author

Belinda Candra

Morehead State University

Co-author

Logan Pennington

Morehead State University

Co-author

Wilson Gonzalez-Espada

Morehead State University

1:30 - Will notation for rotational directionality go the way of the 'broken record'?

First Author

Kathryn Gallenstein

Morehead State University

Co-author

Wilson Gonzalez-Espada

Morehead State University

1:45 - Factors associated with STEM degree completion: Identifying early obstacles at a military academy.

First Author

Wilson Gonzalez-Espada

Physics, Earth Science & Space Systems Engineering Dept.

Co-author

Jessica Dwyer

Department of Physics, USAF Academy, Colorado Springs, CO

Co-author

Kimberly de la Harpe

Department of Physics, USAF Academy, Colorado Springs, CO

Co-author

David Meier

Department of Physics, USAF Academy, Colorado Springs, CO

2:00 - Flipping a mathematics classroom: A budget lightboard approach

First Author

Kyle Besing

Kentucky Wesleyan College

2:15 - Gender Inequality in MSU's MPATE Rotational Physics Device

First Author

Donald Matthews

Morehead State University

Co-author

Kevin Adkins

Morehead State University

Co-author

Ignacio Birriel

Morehead State University

2:30 - Journey toward making my documents more ADA compatible

First Author

Scott Miller

Kentucky Community and Technical College System

3:00 - OoOps! What is $8/2 \times (2+2)$?

First Author
 Andy
 Kentucky State University

Author
 Martin

3:15 - Promoting an active understanding about global climate change in middle school students

First Author
 Shira Rabin
 University of Louisville

Co-author
 Mary Brydon-Miller
 University of Louisville

Co-author
 Bennet Kolb
 Jefferson County Public Schools

Co-author
 Bronwyn Williams
 University of Louisville

3:30 - Shifts in Student Attitudes and Confidence about Lab Work as a Result of General Biology Curriculum Changes

First Author
 Rachel Pritchard
 Kentucky Wesleyan College

3:45 - STEM majors' views of the teaching profession: Implications for the recruitment of secondary teachers.

First Author
 Hannah Brewer
 Morehead State University

Co-author
 Wilson Gonzalez-espada
 Morehead State University

Co-author
 Robert Boram
 Morehead State University

4:00 - The Importance of Active Learning in Mathematical Classrooms

First Author
 Austin Trammell
 Kentucky Wesleyan College

Co-author
 Kaylee Duncan
 Kentucky Wesleyan College

Co-author
 Justin Trulen
 Kentucky Wesleyan College

4:15 - Critical Thinking in the Microbiology Lab

First Author
 Bill Staddon
 Eastern Kentucky University

4:30 - Berea College Herbarium (BEREA): History, Student Research, and Status

First Author
 Ralph Thompson
 Berea College

Friday, November 1, 2019 1:00pm - 2:15pm

Social Sciences: Anthropology, Psychology, and Sociology - Oral Presentations

Room 257, MAC Science Building

Section meeting follows talks at
 1:45

1:00 - DECISION MAKING ACROSS CULTURES: A Study of Risk Aversion in the United States and Republic of Indonesia

First Author
 Jenifer Fidelia
 Berea College

1:15 - (Dis)ability Services for Student Success

First Author
 Melony Stambaugh
 Kentucky Community and Technical College System

1:30 - Flexibility in Social Organization in Crowned Lemurs and Sanford's Lemurs

First Author
 Benjamin Freed
 Eastern Kentucky University

Co-author
 Nathanael Bartosch
 Cultural Resource Analysts

Friday, November 1, 2019 2:00 pm - 5:00pm

Poster Session I

Baird Lounge, Alumni Building

Poster presenters please check in at the table in the lobby of the Alumni Building

Friday, November 1, 2019 2:00pm - 5:00pm

Agricultural Sciences - Poster Presentations

Baird Lounge, Alumni Building

1. - The impact of animal manures on turnip, Brassica rapa biofumigants composition

<i>First Author</i>	<i>Co-author</i>
George Antonious	Eric Turley
Kentucky State University	Kentucky State University

2. - Connecting small-scale farmers to researchers via decision support systems and web-based applications for drone imagery.

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Kevin Smeeks	John Blair	Jeremy Sandifer	Buddhi Gyawali
Kentucky State University	Kentucky State University	Kentucky State University	Kentucky State University

3. - Correlation of Nutritional Management and Fertility of Second Year Cows at the Berea College Farm

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Sarah Whitaker	Celine Skrivanek	Esther Olabisi-Adeniyi	Quinn Baptiste
Berea College	Berea College	Berea College	Berea College

4. - Impact of biochar and soil amendments on turnip yields.

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Rance Paxton	George Antonious	Eric Turley
Kentucky State University	Kentucky State University	Kentucky State University

5. - Impact of breed and sex on performance and fecal egg count of meat goats in a rotational grazing system

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Frederick Bebe	Kenneth Andries	Siddhartha Dasgupta	Ibukun Ogunade
Kentucky State University	Kentucky State University	Kentucky State University	Kentucky State University
<i>Co-author</i>			
Andrew McKay			
Kentucky State University			

6. - Impact of integrated crop-livestock on N and P concentration in soil water within organic grain production system

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Arjun Chhetri	Ellyn Anthony	Blake Vansanford	Kimberly Barmore
Kentucky State University	Kentucky State University	Kentucky State University	Kentucky State University
<i>Co-author</i>			
Shawn Lucas			
Kentucky State University			

7. - Yellow foxtail and nimbwill control with Prowl H2O on horse pastures

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Chi Jing Leow	William Witt	Bobby Baldrige	Ray Smith
Asbury University	University of Kentucky	Asbury university	University of Kentucky

8. - Stable isotope ratios in association with the Nosema disease in honey bees.

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
KATHERINE KAMMINGA	THOMAS WEBSTER	JORDON MUNIZZI
Kentucky State University	Kentucky State University	University of Kentucky

9. - Production performance of freshwater prawn (*Macrobrachium rosenbergii*) reared at two stocking densities and fed only wet

First Author
Kalvin Rucker
Kentucky State University

Co-author
Shawn Coyle
Kentucky State University

Co-author
James Tidwell
Kentucky State University

10. - Natural enemy populations in blackberries bordered by native perennial plants or pasture in Frankfort, Kentucky

First Author
Karen Friley
Kentucky State University

Co-author
John Sedlacek
Kentucky State University

Co-author
Mamata Bashyal
Kentucky State University

Co-author
E. Kyle Slusher
Kentucky State University

Co-author
Sathya Govindasamy
Kentucky State University

Friday, November 1, 2019 2:00pm - 5:00pm

Chemistry: Analytical & Physical - Poster Presentations

Baird Lounge, Alumni Building

11. - Thermally-Activated Phase Transitions in Seven Spiro-Based Crystals

First Author
Olivia Adkins
Murray State University

12. - Synthesis, Purification, and Characterization of 13-Alpha Epimer Estrogens

First Author
Natalie Adriano
Northern Kentucky University

Co-author
Eric Chan
Northern Kentucky University

Co-author
Patrick Hare
Northern Kentucky University

13. - Summer 2019 JEOL ECZR500 NMR Research

First Author
Zackary Boothe
Berea College

Co-author
Jay Baltisberger
Berea College

Co-author
Cletus Mbalida
Berea College

14. - Strontium Concentrations in Avian Eggshells and Egg Contents

First Author
Rachel Boyette
Wittenberg University Chemistry Department

15. - Interactions of SO₂ at a Vacuum-Water Interface

First Author
Matthew Broadbent
Western Kentucky University

16. - Monitoring the Diffusion of Model Analytes Via Peak Parking Capillary Electrochromatography

First Author
Willow Davis
Northern Kentucky University

Co-author
Lauren Rigg
Northern Kentucky University

Co-author
Andrew Scarlett
Glasgow Caledonian University

Co-author
Alyssa Smith
Northern Kentucky University

Co-author
Charlisa Daniels
Northern Kentucky University

17. - High-throughput fluorescence correlation spectroscopy enables analysis of surface components of cell-derived vesicles

First Author
Xu Fu
University of Kentucky

Co-author
Yongwook Song
University of Kentucky

Co-author
Jason DeRouchey
University of Kentucky

Co-author
Chris Richards
University of Kentucky

18. - Detection and quantitation of biological polyions using chronopotentiometry with polyion-selective electrodes

First Author
Mitchell Ellis
Northern Kentucky University

19. - Potentiometry with Ionophore Based Ion-Selective Electrodes for Rapid Measurement of Potassium

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Raven McNeese	Anna Bens	Kebede Gemene
<i>Northern Kentucky University</i>	<i>Northern Kentucky University</i>	<i>Northern Kentucky University</i>

20. - Determination of Cannabinoids, Cathinones, and Synthetic Opioids Using Wastewater-based Epidemiology

<i>First Author</i>	<i>Co-author</i>
Catherine O'Rourke	Bikram Subedi
<i>Murray State University</i>	<i>Murray State University</i>

21. - Structural Investigation on the Thermal Degradation of Aqueous Amines in Post-Combustion CO₂ Capture

First Author
Jeffrey Laub
Eastern Kentucky University

22. - Investigating the Morphology of Various Polymers via Scanning Electron Microscopy

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Alyssa Smith	Corbin Arrasmith	Madisyn Hayes	Charlisa Daniels
<i>Northern Kentucky University</i>	<i>Northern Kentucky University</i>	<i>Northern Kentucky University</i>	<i>Northern Kentucky University</i>

23. - Development and validation of a novel GC-MS method for determination of some (PEDs) in saliva

<i>First Author</i>	<i>Co-author</i>
Brooke Sutton	Karim Abdelhay
<i>Eastern Kentucky University</i>	<i>Eastern Kentucky University</i>

24. - Cyclicvoltammetric Study of 10-[5'-(N-Diethylamino)pentyl]-2-chlorophenoxazine (DEAPCP) and its Applications in Redox

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
K.N. Thimmaiah	Mark Montgomery	Darrell Barnes
<i>Northwest MS Community College</i>	<i>Northwest MS Community College</i>	<i>Northwest MS Community College</i>
<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Piya Adris	Paul Grisham	Lindsay Massie
<i>Northwest MS Community College</i>	<i>Northwest MS Community College</i>	<i>Northwest MS Community College</i>
<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Sarah Holt	Padma Thimmaiah	Ashish Pagare
<i>Northwest MS Community College</i>	<i>Northwest MS Community College</i>	<i>Northwest MS Community College</i>

25. - Electrodeposition of Photosensitive Metals across Micron-gap Gold Electrodes

<i>First Author</i>	<i>Co-author</i>
Shelby Taylor	Radhika Dasari
<i>Eastern Kentucky University</i>	<i>Eastern Kentucky University</i>

26. - Using Femtosecond Transient Absorption Spectroscopy to Study Photoinduced Ultrafast Charge Transfer Processes

<i>First Author</i>	<i>Co-author</i>
Yizhou Xie	Jinjun Liu
<i>Murray State University</i>	<i>University of Louisville</i>

Friday, November 1, 2019 2:00pm - 5:00pm

Chemistry: Organic / Inorganic - Poster Presentations

Baird Lounge, Alumni Building

27. - Exploration of Heteroaryl Isocoumarin with OH or N Substituents

First Author
Krupa Hegde
Northern Kentucky
University

Co-author
Elizabeth Osifalujo
Northern Kentucky
University

Co-author
Alexander Rosen
Northern Kentucky
University

Co-author
Lili Ma
Northern Kentucky
University

28. - Design and syntheses of cadmium based metal-organic framework mimicking carbonic anhydrase enzyme

First Author
Simrat Kaur
WESTERN KENTUCKY UNIVERSITY

Co-author
Bangbo Yan
WESTERN KENTUCKY UNIVERSITY

29. - Efficient Oxidation of Organic Substrates by Ruthenium Light-Harvesting Porphyrin with Visible Light

First Author
Christian Alcantar
Western Kentucky University

Co-author
Fox Bratcher
Western Kentucky
University

Co-author
Jonathan Malone
Western Kentucky
University

Co-author
Rui Zhang
Western Kentucky
University

30. - Heterodinuclear 3d-4d metal-organic framework for photocatalytic reduction of carbon dioxide

First Author
Mary Begley
Western Kentucky University

Co-author
Bangbo Yan
Western Kentucky University

31. - Naphthalenemonoimide based fluorescent chemosensors for detection of metal ions and anions

First Author
Pedro Herrera
Berea College/ Student

Co-author
Temtsel Och Ulziiakhan
Berea College/Student

Co-author
Erendra Manandhar
Berea College

32. - Palladium-catalyzed Isocoumarin Formation from Methyl 2-iodobenzoate

First Author
Sandra Onate
Northern Kentucky University

Co-author
Brooke Bailey
Northern Kentucky University

33. - Photoredox Catalyzed Oxidative Cyclopropanation of Ene-Ynamides via Facile Generation of Vinyl Radical

First Author
Bradley Bankhead
Western Kentucky University

Co-author
Jonathan Markham
Western Kentucky university

Co-author
Steve Chen
Western Kentucky University

Co-author
Jason Zhang
Western Kentucky University

Co-author
Yongming Deng
Western Kentucky University

34. - Producing phenylethyloxacalixarenes via tert-butyldimethylsilyl protected Phenylethynylcatechols

First Author
Chaise Short
Northern Kentucky University

Co-author
Anna Vernier
NKU

Co-author
Bailey Hardy
NKU

Co-author
Luis Montes
NKU

Co-author
Stephanie Saner
NKU

Co-author
Tim Deller
NKU

Co-author
Emily Brown
NKU

Co-author
Jacolby Gardner
NKU

Co-author
Doug Johnson
NKU

Co-author
Kim Richards
NKU

35. - Synthesis and Characterization of Ionic Liquid-Functionalized Cellulose

First Author
Vanessa Smith
Murray State University

Co-author
Sarah Byron
Murray State University

Co-author
Kevin Miller
Murray State University

36. - Synthesis of Bis(imino)pyridine Ligands: Iron Catalysis for Nitrene Reactions

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Isaac Howard	Ban Wang	yongming deng
Western Kentucky University	Western Kentucky University	Western Kentucky University

Co-author
Jackson Pope
Western Kentucky University

37. - Synthesis of Fluorinated Thermoelectric Material

<i>First Author</i>	<i>Co-author</i>
Jordan Pollard	Jacob Downs
Berea College	Berea College

38. - Synthesis of Platinum Based Peptides

<i>First Author</i>	<i>Co-author</i>
Emily Paulin	Margaret Ndinguri
Eastern Kentucky University Department of Chemistry	Eastern Kentucky University Department of Chemistry

39. - Synthesis of triaryl aromatase inhibitors through a palladium-catalyzed heteroarylation

<i>First Author</i>	<i>Co-author</i>
Ayusha Bagale	Lili Ma
Northern Kentucky university	Northern Kentucky university

40. - Synthetic and Catalytic Studies of Metalloporphyrin Complexes for Biomimetic Oxidations

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Fox Bratcher	Christian Alcantar	Rui Zhang
Western Kentucky University	Western Kentucky University	Western Kentucky University

41. - The Synthesis of Thermoelectric Materials with an Electron Donating Group

First Author
Areli Medina Hernandez
Berea College

42. - Substrate Scope and Mechanism Investigation on Palladium-catalyzed Domino reactions

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Elizabeth Osifalujo	Krupa Hegde	Lili Ma
Northern Kentucky University	Northern Kentucky University	Northern Kentucky University

Friday, November 1, 2019 2:00pm - 5:00pm

Environmental Sciences - Poster Presentations

Baird Lounge, Alumni Building

96. - Movement of Stream Fishes Across Potential Migratory Barriers in East Fork Indian Creek, Menifee Co. KY.

First Author
Isaac Bentley
Eastern Kentucky University

97. - Effect of sediment deposition and toxicity on low-head dams in Indian Creek in southern Indiana

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Emily Brown	Martha Mazur	Cassie Hauswald	Jerry Sweeten
Bellarmine University	Bellarmine University	The Nature Conservancy	Manchester University

98. - The Effects of Power Plant Condensation on Winter Precipitation

First Author
Olivia Campbell
Western Kentucky University

99. - Detecting temporal variability in five water quality parameters of Kentucky Lake using time series analysis

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Kathleen Condon	Kate He	Susan Hendricks
<i>Murray State University</i>	<i>Murray State University</i>	<i>Murray State University</i>

100. - Amur honeysuckle (*Lonicera maackii* (Rupr.) Herder) removal and understory community restoration and recovery in a Kentuc

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Madeline Cox	Trent Ellsworth	Wilson Shafer	Marvin Ruffner
<i>Asbury University</i>	<i>Asbury University</i>	<i>Asbury University</i>	<i>Asbury University</i>

101. - The Atmospheric Demand for Moisture in the Great Plains

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Raquel Dominguez	Ryann Wakefield	Jordan Christian	Jeff Basara
<i>WKU</i>	<i>University of Oklahoma</i>	<i>University of Oklahoma</i>	<i>Univeristy of Oklahoma</i>

102. - Watershed Watch in Kentucky: Expanding Citizen Water Quality Outreach

<i>First Author</i>	<i>Co-author</i>
W. Blaine Early, III	Maggie Morgan
<i>Stites & Harbison, PLLC</i>	<i>Watershed Watch in Kentucky</i>

103. - Chlorophyll a and Primary Productivity Dynamics in Kentucky Lake Mainstem and Embayment Habitats

<i>First Author</i>	<i>Co-author</i>
Morgan Franklin	Susan Hendricks
<i>Murray State University</i>	<i>Murray State University</i>

104. - Waste management at Berea College Farm: Analysis of soils for available phosphorus

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Stephanie Itumba	Chipo Kambarami	Paul Smithson
<i>Berea College</i>	<i>Berea College</i>	<i>Berea College</i>

105. - Three-Dimensional Visualization Aids for Cve Study and Protection

<i>First Author</i>	<i>Co-author</i>
Nicholas Lashley	Pat Kambesis
<i>Western Kentucky University</i>	<i>Western Kentucky UNiversity</i>

106. - Genetic Diversity Analysis of Amur honeysuckle (*Lonicera maackii*) of Kentucky Areas

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Li Lu	Mahireyaa Kao	Sidney Campbell	Alexius Shorter
<i>Kentucky State University</i>	<i>Kentucky State University</i>	<i>Kentucky State University</i>	<i>Kentucky State University</i>

Co-author
Demetrius Davis
Kentucky State University

107. - The stoneflies (Plecoptera) of the Black Mountains

<i>First Author</i>	<i>Co-author</i>
Madeline Metzger	Scott Grubbs
<i>Western Kentucky University</i>	<i>Western Kentucky University</i>

108. - Carbon dioxide exchange and productivity of a pasture agroecosystem in central Kentucky

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Ian Ries	Maheteme Gebremedhin	Kenneth Andries	Jeremy Sandifer
<i>Kentucky State University</i>	<i>Kentucky State University</i>	<i>Kentucky State University</i>	<i>Kentucky State University</i>

Co-author
Martin Matisoff
Kentucky State University

109. - Temporal Changes in Dissolved Calcium in Stream and River Waters in Western Kentucky Watershed: An Update

<i>First Author</i>	<i>Co-author</i>
Kelsie Meystedt	Adam Martin
Murray State University	Murray State University

Friday, November 1, 2019 2:00pm - 5:00pm

Geography - Poster Presentations

Baird Lounge, Alumni Building

51. - Assessing Effects of Wetland Soil Moisture on Flood Progress in Kentucky Using Multi-Temporal Satellite Data

First Author
MacKenzie Nelson
Northern Kentucky University

Friday, November 1, 2019 2:00pm - 5:00pm

Health Sciences - Poster Presentations

Baird Lounge, Alumni Building

Section meeting
4:30, Alumni Bldg, lower level

52. - Effect of Refrigerated Storage on Deboned Meat Quality of Asian Carp Fish

<i>First Author</i>	<i>Co-author</i>
Lingyu Huang	Changzheng Wang
Kentucky State University	Kentucky State University

53. - Analysis of CBD Oil and Cannabinoid Products After Various Chemical Treatments

<i>First Author</i>	<i>Co-author</i>
Thomas Wilder	Bruce Branan
Asbury University	Asbury University

54. - Collagen Type IV 7S Provides Novel Insights of Lysyl Oxidase-like 2 Kinetic Parameters

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Aloyce Riziki	Roberto Vanacore	Mark Athanason
Berea College	VUMC	VUMC

55. - A Measure of Intra-rater and Inter-rater Reliability on Ankle Dorsiflexion.

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Andrea Bussell	Sarah Wood	Isabella Nelson	Deion Cochran	Vins Sutlive
Asbury University	Asbury University	Asbury University	Asbury University	Asbury University

56. - Effects of Titanium dioxide nanoparticles on the life cycle and gene expression in *Caenorhabditis elegans*

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Hannah Leibman	Nilesh Sharma	Nilesh Sharma
Western Kentucky University	Western Kentucky University	Western Kentucky University

57. - Prenatal Cigarette Smoke Exposure: Neurological and Behavioral Effects

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Meagan Kinard	Cynthia Corbitt	Rachel Neal	Kendall Stocke
University of Louisville	University of Louisville	University of Louisville	University of Louisville

58. - Searching for a Voice: An Introduction to Transgender Voice and Communication Therapy

<i>First Author</i>	<i>Co-author</i>
Nicholas Brock	Sue Mahanna-Boden, Ph.D.
Eastern Kentucky University Honors Program	Eastern Kentucky University

59. - Prenatal Cigarette Smoke Exposure Effects on Liver Function

First Author

Isaiah Burciaga

University of Louisville

Co-author

Kendall Stocke

University of Louisville

Co-author

Cynthia Corbitt

University of Louisville

Co-author

Rachel Neal

University of Louisville

Friday, November 1, 2019 2:00pm - 5:00pm

Mathematics - Poster Presentations

Baird Lounge, Alumni Building

61. - Coasters Done Quick: Reducing Walk Times

First Author

Jacob Adkins

Northern Kentucky University

Co-author

Abigail Leonhard

Northern Kentucky University

Co-author

Elise Bezold

Northern Kentucky University

Co-author

Aryan Shrestha

Northern Kentucky University

62. - Do Submarines Fly?

First Author

Christopher Leadford

Morehead State University

Co-author

Ignacio Birriel

Morehead State University

63. - Finding an Optimal Strategy: Gobblet Gobblers

First Author

Patrick O'Doherty

Northern Kentucky University

Co-author

Weston Rainer

Northern Kentucky University

Friday, November 1, 2019 2:00pm - 5:00pm

Microbiology - Poster Presentations

Baird Lounge, Alumni Building

64. - Does Lysogeny with Bacteriophage HK022 Affect Host Cell Physiology?

First Author

Elizabeth Morgan

Western Kentucky University

Co-author

Rodney King

Western Kentucky University

65. - Exploring the Antimicrobial Potential of Essential Oils

First Author

Lindsey King

Wittenberg University Chemistry Department

Co-author

Daniel Marous

Wittenberg University Chemistry Department

66. - Identification of protein-protein interactions during infection of *Silene latifolia* by *Microbotryum lychnidis-dioicae**First Author*

Ming-Chang Tsai

University of Louisville

Co-author

Venkata Kuppireddy

University of Kentucky

Co-author

Michael Perlin

University of Louisville

67. - Genomic Annotation of the F1 Sub-cluster Mycobacteriophage OfUltron

First Author

Megan Blanton

Spalding University

Co-author

Kassidy Hill

Spalding University

68. - The Effects of Organic and Nonorganic Cosmetics on Normal Facial Bacteria

First Author

Isabel Mendez

Kentucky Wesleyan College

Co-author

Rachel Pritchard

Kentucky Wesleyan College

69. - Investigation of Antibiotic Resistance Patterns and Mechanisms in Escherichia Coli

First Author

Amor Niksic
Wittenberg University

70. - On the DNA and mRNA mechanism of low glucose-induced CD8T cell's and NK cell's production of Cytokines.

First Author

Austin Applegate
Berea College

Co-author

Charlie Lutz
UK Immunology and Microbiology

Co-author

Steve Presnell
UK Immunology and Microbiology

Friday, November 1, 2019 2:00pm - 5:00pm

Physiology & Biochemistry - Poster Presentations

Baird Lounge, Alumni Building

72. - Determining Important Residues in THADA Responsible for the Methylation of Residue 32 in tRNAs

First Author

Kendal Wehrle
Northern Kentucky University

Co-author

Holly Funk
Northern Kentucky University

Co-author

Hannah Sizemore
Northern Kentucky University

Co-author

Michael Guy
Northern Kentucky University

Co-author

Adrian Guy
Northern Kentucky University

73. - Physiological and behavioral indicators to measure crustacean welfare

First Author

Rebecca Adams
Northern Kentucky University

Co-author

Catherine Stanley
University of Kentucky

Co-author

Elena Piana
Sea Farms Limited

Co-author

Robin Cooper
University of Kentucky

74. - The effects of tricaine mesylate (MS-222) on arthropods: Crayfish, crab and Drosophila.

First Author

Kelsey Campbell
University of Kentucky

Co-author

Catherine Stanley
University of Kentucky

Co-author

Rebecca Adams
NKU

Co-author

Jeremy Nadolski
Benedictine University

75. - Disruption of the R789-D708 Salt Bridge in Discoidin Domain Receptor 1 To Test Its Effect on the Kinase Activity of the

First Author

Sangyal Dorjee
Berea College

Co-author

Corina Borza
Vanderbilt University Medical Center

Co-author

Ambra Pozzi
Vanderbilt

76. - TGFÎ²R1 Germ Line Variants Alter Nuclear pSMAD Expression in Ovarian Cancer

First Author

Leah Focke
Wood Hudson Cancer Research Laboratory

Co-author

Olivia Frederick
Wood Hudson Cancer Research Laboratory

Co-author

Audrey Giesler
Wood Hudson Cancer Research Laboratory

Co-author

Kyle Damen
Wood Hudson Cancer Research Laboratory

Co-author

Diane Fritz
Wood Hudson Cancer Research Laboratory

Co-author

James Deddens
University of Cincinnati

Co-author

Larry Douglass
Wood Hudson Cancer Research Laboratory

Co-author

Julia Carter
Wood Hudson Cancer Research Laboratory

77. - Cobalt protoporphyrin stimulation induces heme oxygenase-1 expression in mouse peritoneal macrophages

First Author

Sarah Shaikh
Berea College

78. - Cathepsin L and Cell Proliferation are Inversely Correlated in Bladder Cancer Cell Lines

First Author

Louis Fritz
Wood Hudson Cancer Research
Laboratory

Co-author

Ryan Moore
Wood Hudson Cancer Research
Laboratory

Co-author

Kyle Damen
Wood Hudson Cancer Research
Laboratory

Co-author

Leah Focke
Wood Hudson Cancer Research
Laboratory

Co-author

Diane Fritz
Wood Hudson Cancer Research
Laboratory

Co-author

Bonnie Richmond
Wood Hudson Cancer Research
Laboratory

Co-author

Ronald Snyder
Wood Hudson Cancer Research
Laboratory

Co-author

Larry Douglass
Wood Hudson Cancer Research
Laboratory

Co-author

Julia Carter
Wood Hudson Cancer Research
Laboratory

79. - The Effects of a Bacterial Endotoxin on Behavior and Sensory-CNS-Motor Circuits in *Drosophila melanogaster**First Author*

Abigail Greenhalgh
University of Kentucky

80. - The combination of valsartan and sacubitril does not improve effectiveness against AngII-induced AAAs

First Author

Jenny (Ching Ling) Liang
University of Kentucky

81. - Pharmacological profiling of stretch activated channels in proprioceptive neurons

First Author

Shelby McCubbin
University of Kentucky

Co-author

Anna Jeoung
University of Kentucky

Co-author

Robin Cooper
University of Kentucky

Co-author

Eve Schneider
University of Kentucky

82. - The effects of bacterial endotoxin Lipopolysaccharides (LPS) on synaptic transmission at neuromuscular junctions

First Author

Micaiah McNabb
University of Kentucky

Co-author

Christa Saelinger
Univ of KY

Co-author

Melody Danley
Univ of KY

Co-author

Robin Cooper
Univ of KY

83. - Engineering novel TALEs for detection of antibiotic resistance genes using 2D-graphene oxide nanosheets

First Author

Narayan Neupane
Western Kentucky University

Co-author

Colleen Jackson
University of Colorado, Anschutz Medical Campus

Co-author

Moon-Soo Kim
Western Kentucky University

84. - Investigation of amyloid precursor protein and small molecules interactions in bicelles

First Author

Kamila Nurmakova
Berea College

Co-author

Manuel Castro
Vanderbilt University

Co-author

Charles Sanders
Vanderbilt University

85. - Effects of bacterial endotoxin on regulation of the heart, a sensory-CNS-motor nerve circuit and neuromuscular junctions

First Author

Christa Saelinger
University of Kentucky

Co-author

Micaiah McNabb
University of Kentucky

Co-author

Ruchael McNair
William Patterson
University

Co-author

Sonya Bierbower
William Patterson
University

Co-author

Robin Cooper
University of
Kentucky

86. - Integrating organisms and disciplines for a K-12 symbiosis-based project.

First Author

Christopher Schardl
University of Kentucky

Co-author

R. Louis Hirsch
University of Kentucky

Co-author

Patrick Calie
Eastern Kentucky
University

Co-author

Ralph Thompson
Berea College

Co-author

Jerzy Jaromczyk
University of Kentucky

87. - Detection of Antibiotic Resistance Genes via Zinc Finger Protein and Quantum Dot Complex with Graphene Oxide Nanosheet

<i>First Author</i> Kenneth Schlabach Western Kentucky University	<i>Co-author</i> Dat Thinh Ha Western Kentucky University	<i>Co-author</i> Moon-Soo Kim Western Kentucky University
---	---	---

88. - Identification of motifs important for function of TRM732 in yeast

<i>First Author</i> Michaela Vogel Northern Kentucky University	<i>Co-author</i> Hannah Sizemore Northern Kentucky University	<i>Co-author</i> Daisy Divita Northern Kentucky University
<i>Co-author</i> Holly Funk Northern Kentucky University	<i>Co-author</i> Ramey Hensley Northern Kentucky University	<i>Co-author</i> Michael Guy Northern Kentucky University

Friday, November 1, 2019 2:00pm - 5:00pm

Zoology - Poster Presentations

Baird Lounge, Alumni Building

89. - Wet Rock Crevices Impact Egg Deposition and Survival in Green Salamanders, Aneides aeneus

First Author
Paul Cupp
Eastern Kentucky University

90. - Changes in the fish community of Triplett Creek following restoration of a channelized reach.

First Author
Austin Spradlin
Morehead State University

91. - EFFECTS OF ASIAN CLAMS, CORBICULA FLUMINEA, ON ADULT FRESHWATER MUSSELS

<i>First Author</i> Kiersten Youngquist Murray State University	<i>Co-author</i> Brianna Gibbons Murray State University	<i>Co-author</i> Wendell Haag US Forest Service, Center for Bottomland Hardwoods Research	<i>Co-author</i> Andrea Darracq Murray State University
---	--	---	---

92. - Effects of nicotine on activity rhythms of zebra finches (Taeniopygia guttata)

<i>First Author</i> Darby Tassell Western Kentucky University	<i>Co-author</i> Wesley Payette Western Kentucky University	<i>Co-author</i> Noah Ashley Western Kentucky University
---	---	--

93. - Effects of temperature variation on rainbow darters' (Etheostoma caeruleum) aerobic scope

<i>First Author</i> Kaylee Simmons Northern Kentucky University	<i>Co-author</i> Sam Bauer Northern Kentucky University	<i>Co-author</i> Richard Durtsche Northern Kentucky University
---	---	--

94. - Metabolic responses of juvenile brown trout (Salmo trutta) to thermal conditions predicted under future climate change

<i>First Author</i> Richard Durtsche Northern Kentucky University	<i>Co-author</i> Bror Jonsson Norwegian Institute for Nature Research	<i>Co-author</i> Larry Greenberg Department of Environmental and Life Sciences, Biology, Karl
---	--	--

Friday, November 1, 2019 2:30pm - 4:00pm

Afternoon Coffee & Snack BreakMAC Science Building and Baird
Lounge

Friday, November 1, 2019 3:00pm - 5:00pm

Computer & Information Sciences - Poster Session

Baird Lounge, Alumni Building

43. - The Virtual Unwrapping Pipeline: Collaborating Within the Digital Humanities

<i>First Author</i> Raiffa Syamil <i>University of Kentucky</i>	<i>Co-author</i> Kyra Seevers <i>University of Kentucky</i>	<i>Co-author</i> Allison Revers <i>University of Kentucky</i>	<i>Co-author</i> W. Brent Seales <i>University of Kentucky</i>
---	---	---	--

44. - Migration of Virtual Machines and Revision of Workshop Manual

<i>First Author</i> Colten Crager <i>University of Kentucky</i>	<i>Co-author</i> Mark Farman, Ph.D. <i>University of Kentucky</i> <i>Department of Plant Pathology</i>	<i>Co-author</i> Jerzy Jaromczyk, Ph.D. <i>University of Kentucky</i> <i>Department of Computer Science</i>	<i>Co-author</i> Conor Kilgore <i>University of Kentucky</i>
<i>Co-author</i> Neil Moore, Ph.D. <i>University of Kentucky</i> <i>Department of Computer Science</i>	<i>Co-author</i> Stephen Schaninger <i>University of Kentucky</i>	<i>Co-author</i> Andrew Tapia <i>University of Kentucky</i>	<i>Co-author</i> Michaela Williams <i>University of Kentucky</i>

45. - Mechanical Properties of 3D welded Metals

<i>First Author</i> Seyed Allameh <i>Northern Kentucky University</i>	<i>Co-author</i> Roger Miller <i>Northern Kentucky University</i>
---	---

46. - Anisotropic material behavior and design optimization of 3D printed structures

<i>First Author</i> Coilin Bradley <i>University of Kentucky</i>	<i>Co-author</i> Robert Harper <i>University of Kentucky</i>	<i>Co-author</i> John Schmidt <i>University of Kentucky</i>	<i>Co-author</i> Jordan Garcia <i>University of Kentucky</i>
<i>Co-author</i> Charles Lu <i>University of Kentucky</i>			

47. - Hands-on Robotics at Bellarmine University's Robotics Lab

<i>First Author</i> Jordan Dowdy <i>Bellarmino University</i>	<i>Co-author</i> M. Saleem <i>Bellarmino University</i>	<i>Co-author</i> Akhtar Mahmood <i>Bellarmino University</i>
---	---	--

48. - The Virtual Unwrapping Pipeline: the Process and its Challenges

<i>First Author</i> Tam Nguyen <i>University of Kentucky</i>	<i>Co-author</i> Anthony Tamasi <i>University of Kentucky</i>	<i>Co-author</i> Chad Nelson <i>University of Kentucky</i>	<i>Co-author</i> W. Brent Seales <i>University of Kentucky</i>
--	---	--	--

49. - A Dynamic Interface for Understanding Neuronal Spiking Behavior

<i>First Author</i> Mike Unuakhalu <i>Kentucky State University</i>	<i>Co-author</i> Camron Abner <i>Kentucky State University</i>
---	--

Saturday, November 2, 2019 7:30am - 10:00am

Coffee & Tea

MAC Science Building and Baird Lounge

Saturday, November 2, 2019 8:00 am - 10:45am

Oral Presentations and Section Meetings

MAC Science Building

Saturday, November 2, 2019 8:00am - 10:45am

Agricultural Sciences - Oral PresentationsSection meeting follows talks at
10:15

Room 357, MAC Science Building

8:00 - Enzymes activity in tomato soil following animal waste application

First Author
George Antonious
Kentucky State University

8:15 - Improving sustainability utilizing cover crop grazing to improve soil health while increasing livestock production

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Kylie Ewing	Phillip Gunter	Annesly Netthisinghe	Hunter Galloway
Western Kentucky University	Western Kentucky University	Western Kentucky University	Hampton Meats

8:30 - Investigating the impact of soil amendments on Brassica biomass

<i>First Author</i>	<i>Co-author</i>
ERIC TURLEY	George Antonious
Kentucky State University	Kentucky State University

8:45 - Applicability of microbial phytase to increase phosphorus availability in soy-based diets for largemouth bass.

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
kala mallik meesala	Kasondra Miller	Kristy Allen	Waldemar Rossi
Kentucky State University	Kentucky State University	Kentucky State University	Kentucky State University

9:00 - Financial Assessment of Food Waste Composting

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Ian Storrs	Sara Barrens	Stephen King	Martin Stone
Western Kentucky University	Western Kentucky University	Western Kentucky University	Western Kentucky University

9:15 - Do Beginning Farmers Feel the Same about Finances as Experienced Farmers?

<i>First Author</i>	<i>Co-author</i>
Spencer Langford	Dominique Gumirakiza
Western Kentucky University	Western Kentucky University

9:30 - The Likelihood for Online Shoppers to Purchase Fresh Produce Online

First Author
Autumn Milliner
Western Kentucky University

9:45 - Characterization of Mass Reduction in an in-vessel Composter.

<i>First Author</i>	<i>Co-author</i>
Monika Decker	Martin Stone
Western Kentucky University	Western Kentucky University

10:00 - Farm Food Safety: Irrigation/Agriculture Water Testing for Produce Growers in Kentuck

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Chinmay Tope	Shreya Patel	Cindy Finneseth	Paul Dengel
Western Hills High School	College of Agriculture, Communities and the Environment	Kentucky Horticulture Council	University of Kentucky

Saturday, November 2, 2019 8:00am - 10:45am

Chemistry: Organic / Inorganic - Oral Presentations

Room 355, MAC Science Building

Section meeting follows talks at
10:158:00 - A structural and spectroscopic comparative study of a series of dichalcogenidodiphenylphosphinate complexes, $M(E_2PPH_2)_3$

First Author
Jessie Brown
Transylvania University

8:15 - A new series of bis(imino)pyridine iron complexes for catalytic carbene reactions

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Ban Wang	Isaac Howard	Jackson Pope	Yongming Deng
Western Kentucky University	Western Kentucky University	Western Kentucky University	Western Kentucky University

8:30 - Development of N-benzyl-2-(bis(2-aminoethyl)amino)acetamide

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Sara Reitz	Carrie Black	Lindsay Calderon	Margaret Ndinguri
Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University

8:45 - Examination of intramolecular hydrogen bonds using NMR and quantum chemistry

First Author
Robert Rosenberg
Transylvania University

9:00 - Molecular mechanics analysis of a platinum triamine complex and its possible products with biologically relevant targets

First Author
Nitin Katare
Western Kentucky University

9:15 - Proposing a Mechanism for Fischer-Tropsch Synthesis on the Basis of Carbon-Carbon Bond Formation complex

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Zach Callihan	Brad Shoopman	Christian White	Buchang Shi
Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University

9:30 - Visible light generation and kinetic studies of a chromium(V)-oxosalen complex

<i>First Author</i>	<i>Co-author</i>
Seth Klaine	Rui Zhang
Western Kentucky University	Western Kentucky University

9:45 - Synthetic Approaches to Phenylethynylloxalixarenes and Annulene-Oxalixarene Hybrids

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Anna Vernier	Bailey Hardy	Stephanie Saner	Chaise Short	Tim Deller	Luis Montez
Northern Kentucky University	NKU	NKU	NKU	NKU	NKU
<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>		
Emily Brown	Jacolby Garner	Doug Johnson	Kim Richards		
NKU	NKU	NKU	NKU		

10:00 - Photoexcited State Behavior of Indium-Based Colloidal Semiconductor Nanocrystals

First Author
Kyle Schnitzenbaumer
Transylvania University

10:15 - Computer Modeling Study on Heteroaryl Isocoumarin Aromatase Inhibitors

First Author
Ayanav Roy
Northern Kentucky
University

Co-author
Quynh Nguyen
Northern Kentucky
University

Co-author
William Renzenbrink
Northern Kentucky
University

Co-author
Lili Ma
Northern Kentucky
University

Saturday, November 2, 2019 9:00 am - 10:30am

Geography - Oral Presentations

Section meeting follows talks at
10:15

Room 251, MAC Science Building

9:00 - Impacts of precipitation and seasonal land cover change on fluvial sediment loads of the Upper Floyds Fork watershed, KY

First Author
Christopher Day
University of Louisville

9:15 - Determining Atmospheric Boundary Layer Behavior over Mountainous Terrain Using 2009-2018 NASA SARP Vertical Profiles

First Author
Dallas McKinney
Western Kentucky University

9:30 - Quantification of tree canopy gaps in a central Kentucky wildlife management area forest using UAS and R

First Author
Jeremy Sandifer
Kentucky State
University

Co-author
William Lyons
Kentucky State
University

Co-author
Buddhi Gyawali
Kentucky State
University

Co-author
Richie Cristan
Kentucky State
University

Co-author
Will Rogers
Kentucky State
University

9:45 - Investigating the impact of rurality on cancer outcomes in Kentucky

First Author
Charlie Zhang
University of Louisville

Co-author
Michael Egger
University of Louisville

10:00 - Food Insecurity in Historically Disenfranchised Parts of Jefferson County, KY

First Author
Kaitlyn Smith
University of Louisville

Saturday, Nov 2, 2019 8:00am - 11:45am

Health Sciences - Oral Presentations

Room 257, MAC Science Building

8:00 - Sympathetic nervous system regulation of pro-inflammatory cytokines in sleep fragmented mice.

First Author
Nicholas Wheeler
Western Kentucky University

Co-author
David Ensminger
Western Kentucky University

Co-author
Noah Ashley
Western Kentucky University

8:15 - Comparison of the effects of low intensity cardiovascular exercise after fasted, fed, and high fat meals in adults

First Author
Logan Taylor
Berea College

Co-author
A.J. Mortara
Berea College

8:30 - Early Detection of HPV-driven OPC using E6 Sero-marker

First Author
Yeongha Oh
Berea College

Co-author
Krystle Kuhs
Vanderbilt University Medical Center

Co-author
Brionna Tolbert
Fisk University

Co-author
Lindsey Dalton
Vanderbilt University Medical Center

8:45 - Effects on Fat Metabolism during Aerobic Exercise in High Carbohydrate Diet, Fasted, and Mixed Meal Conditions

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Stefany Reyes	Logan Taylor	Anthony Mortara	Louisa Summers
Berea College	Berea College	Berea College	Berea College

9:00 - One-Carbon Metabolism Biomarkers and Risk of Barrett's Esophagus and Esophageal Adenocarcinoma

First Author
Maria Alejandra Hernandez Diaz
Berea College

9:15 - Assessing Total Viable Bacterial Count in Commercially Available Probiotic Dietary Supplements

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Tavin Marshall	SHREYA PATEL	Avinash Tope
Kentucky State University	Kentucky State University	Kentucky State University

9:30 - Identification of risk factors and their association with neck and lumber fracture

First Author
Victoria Pham
Berea College

9:45 - The Effect of Fatigue on Muscle Recruitment within Healthy Young Males and Females

<i>First Author</i>	<i>Co-author</i>
Jose Gonzalez	AJ Mortara
Berea College	Berea College

10:00 - Novel Vaccine Platform for Immunizing Against Viral Pathogens

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Samuel Adams	Tre Powers	Ryan Fitzpatrick	Ashley Wentworth	Joseph Mester
NKU	NKU	NKU	NKU	NKU Biological Sciences

10:15 - Top Causes of Cervical and Lumbar Fractures Using Python Data Visualization

First Author
Victoria Pham
Berea College

10:30 - Physical Activity and Early Childhood Vocabulary Skills.

<i>First Author</i>	<i>Co-author</i>
Juan Chavez Casiano	Michelle Thornton
Berea College	Berea College

Saturday, November 2, 2019 8:00am - 10:45am

Mathematics - Oral Presentations

Section meeting follows talks at
10:45

Room 206, MAC Science Building

8:00 - P-adic Numbers and Quadratic Equations

<i>First Author</i>	<i>Co-author</i>
William Boultinghouse	Justin Trulen
Kentucky Wesleyan College	Kentucky Wesleyan College

8:15 - Evaluating NBA Players Using Wins Produced

First Author
Troy True
Morehead State University

8:30 - Graph Theory of Metabolic Pathways

<i>First Author</i>	<i>Co-author</i>
Emma Rose	Robin Blankenship
Morehead State University	Morehead State University

8:45 - Valuable Basketball: Using Adjusted +/- To Evaluate The Morehead State Basketball Team

First Author
Will Pitts
Morehead State University

9:00 - How can linear algebra be used to improve middle and high school students mathematical concept.

First Author
Caleb Robinson
Morehead State University

9:15 - How Different Mindsets affect Student's Mathematical Performance and Attitudes

<i>First Author</i>	<i>Co-author</i>
Madeline Morgan	Robin Blankenship
Morehead State University	Morehead State University

9:30 - Predicting Success in College Math Classes: GPA Versus ACT

First Author
Megan Pauley
Morehead State University

9:45 - Tic-Tac-Toe: A Mathematical Nostalgia

First Author
Axel Brandt
Northern Kentucky University

10:00 - Who? - American Mispronunciations of Great Mathematicians' Names

First Author
Andy Martin
Kentucky State University

10:15 - Newton vs Leibniz; The Great Calculus Feud

First Author
Dwight Smith
Kentucky Community and Technical College System

10:30 - 2-adic Valuations for Certain Sequences

First Author
Justin Trulen
Kentucky Wesleyan College

Saturday, November 2, 2019 8:30am - 10:45am

Poster Session II

Alumni Building, Baird Lounge

Poster presenters please check in at the table in the lobby of the Alumni building

Saturday, November 2, 2019 8:30am - 11:00am

Cellular & Molecular Biology- Poster Presentations

Baird Lounge, Alumni Center

1. - Computational Identification of Prenylated Proteins in *Physcomitrella patens*.

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Ephraim Otieno	Mikayla Demetrakis	Dr. Mark Running
University of Louisville	University of Louisville	University of Louisville

2. - Are telomeres required? Genetically engineering a eukaryote with circular chromosomes

<i>First Author</i>	<i>Co-author</i>
Nadia Richardson	Dr. Melissa Mefford
Morehead State University	Morehead State University

3. - Inclusion of Alkyl-amino Side-chains Improves Potency of Poly(beta-amino ester) Nanoparticle Delivery of Nucleic Acids

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Marranne Conge	David Wilson	Jordan Green
Berea College	Johns Hopkins University School of Medicine	Johns Hopkins University School of Medicine

4. - Genetic interactions of tRNA anticodon loop modification genes TRM732 and TRM734 in yeast

<i>First Author</i>	<i>Co-author</i>
Evan Groneman	Michael Guy
Northern Kentucky University	Northern Kentucky University

5. - Identifying JAK-Regulated Genes that Mediate Spermatid Individualization in Drosophila melanogaster

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Michael Frost	Michael Frost	Douglas Harrison	Sepideh Dadkhah
Thomas More University	Centre College	University of Kentucky	University of Kentucky

6. - Investigating the role of a V-ATPase in the Development of the Air Sac Primordia

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Usman Salim	Hasan Salim	Anas Gondal	Ajay Srivastava
Gatton Academy of Mathematics and Science	Gatton Academy of Mathematics and Science	Gatton Academy of Mathematics and Science	Western Kentucky University Department of Biology

7. - Role of Apontic in ASP Development in Drosophila melanogaster

<i>First Author</i>	<i>Co-author</i>
Camila Lozano	Ajay Srivastava
Western Kentucky University	Western Kentucky University

8. - A Protein Trap Screen for Genes Involved in ASP Development

<i>First Author</i>	<i>Co-author</i>
Elisha VanZant	Ajay Srivastava
The Carol Martin Gatton Academy of Mathematics and Science	Western Kentucky University

9. - Bioinformatic Analysis of an Apoptotic Gene, DAXX - An Insight Into its Molecular Evolution

<i>First Author</i>	<i>Co-author</i>
Arivumani Srivastava	Chandrakanth Emani
Western Kentucky University	Western Kentucky University

10. - Cellular Targeting of Metastatic Ovarian Cancer

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Emily McCord	Hunter Hazelwood	Margaret Ndinguri	Lindsay Calderon
Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University

11. - PD-1 Expression in Late Stage Breast Cancers and Their Metastases*First Author*

JT Reagor
Wood Hudson Cancer Research
Laboratory

Co-author

Natalie Cooper
Wood Hudson Cancer Research
Laboratory

Co-author

Leah Focke
Wood Hudson Cancer Research
Laboratory

Co-author

Kyle Damen
Wood Hudson Cancer Research
Laboratory

Co-author

Julia Carter
Wood Hudson Cancer Research
Laboratory

Co-author

Larry Douglass
Wood Hudson Cancer Research
Laboratory

12. - Transient Expression in Nicotiana benthamiana and Anticancer Activity of Mistletoe Lectin II*First Author*

Kiahra Burns
KBRIN

Co-author

Dakotah Cathey
University of Louisville

Co-author

J. Calvin Kouokam
University of Louisville

Co-author

Milena Mazalovska
University of Louisville

13. - Computational Identification of Prenylated Proteins in Physcomitrella patens.*First Author*

Mikayla Demetrakis
University of Louisville

Co-author

Ephraim Otieno
University of Louisville

Co-author

Dr. Mark Running
University of Louisville

14. - Determination of pam-1-dependent neurodegeneration in C. elegans.*First Author*

Claire Umstead
Murray State University Department of Biology

Co-author

Chris Trzepacz
Murray State University Department of Biology

15. - Genetic mapping of a suppressor of infertility in Caenorhabditis elegans*First Author*

Amber Miller
Murray State University

Co-author

Chris Trzepacz
Murray State University

16. - The Role of sox4b in Zebrafish Pancreatic Development.*First Author*

Haley Todd
Bellarmine University

17. - Characterization of insulin regulation in zebrafish*First Author*

Gabrielle Kennedy
Murray State University

Co-author

Gary Zeruth
Murray State University

18. - Spatiotemporal Expression of GLIS3 in Developing Zebrafish*First Author*

Tasha Swenney
Murray State University

Co-author

Gary ZeRuth
Murray State University

Saturday, November 2, 2019 8:30am - 11:00am

Ecology - Poster Presentations

Baird Lounge, Alumni Building

20. - Moss Diversity Between Mesic and Xeric Cliff Talus*First Author*

Luke Adkison
University of Pikeville

Co-author

Byron Meade
University of Pikeville

21. - Assessing the Influence of Greening in Urban Residential Neighborhoods on Biodiversity and Human Health

<i>First Author</i> Clay Bliznick <i>Murray State University</i>	<i>Co-author</i> Andrea Darracq <i>Murray State University</i>	<i>Co-author</i> Howard Whiteman <i>Murray State University</i>	<i>Co-author</i> Ted Smith <i>University of Louisville</i>	<i>Co-author</i> Aruni Bhatnagar <i>University of Louisville</i>
--	--	---	--	--

22. - Use of eDNA in detection of northern dusky (*Desmognathus fuscus*) and southern two lined salamanders (*Eurycea cirrigera*)

<i>First Author</i> Florene Bell <i>Asbury University</i>	<i>Co-author</i> Angie Flores <i>Asbury University</i>	<i>Co-author</i> Kenton Sena <i>University of KY</i>	<i>Co-author</i> Thomas Maigret <i>University of KY</i>	<i>Co-author</i> Chi Jing Leow <i>Asbury University</i>
<i>Co-author</i> David Peyton <i>Morehead State University</i>	<i>Co-author</i> Ben Brammell <i>Asbury University</i>			

23. - ORIGINAL AND DAUGHTER PLANT ARBUSCULAR MYCORRHIZAL FUNGI COLONIZATION IN TRIFOLIUM STOLONIFERUM

<i>First Author</i> Kaitlyn Brewer <i>Georgetown College</i>	<i>Co-author</i> Jennifer Koslow <i>Eastern Kentucky University</i>
--	---

24. - Analysis of social interactions in groups of zebra fish (*Danio rerio*).

<i>First Author</i> Miriam Obley <i>Asbury University</i>	<i>Co-author</i> Victoria Braithwaite <i>Pennsylvania State University</i>
---	--

25. - Fish-host identification of Louisiana Fatmucket, *Lampsilis hydiana*

<i>First Author</i> Jonathan Frommeyer <i>Thomas More University</i>	<i>Co-author</i> Chris Lorentz <i>Thomas More University</i>
--	--

26. - Marine Animal Husbandry

First Author
Rachael Foster
Thomas More University

27. - Twenty Years of Change (1997-2017) in an Old-growth Forest Community at Boone Cliffs Nature Preserve (Burlington, KY)

First Author
Shannon Galbraith-Kent
Thomas More University

28. - A Natural History of Plants in Uplands of the Blood River Watershed, KY

First Author
Talon Gower
Murray State University

29. - Honeysuckle leaf blight effects on growth of *Lonicera maackii* (Rupr.) Herder (Caprifoliaceae) at the NKU REFS

<i>First Author</i> Jessica Nienaber <i>Northern Kentucky University</i>	<i>Co-author</i> Amber Pragar <i>Northern Kentucky University</i>	<i>Co-author</i> Richard Boyce <i>Northern Kentucky University</i>
--	---	--

30. - Honeysuckle leaf blight effects on growth of *Lonicera maackii* at the NKU REFS

<i>First Author</i> Amber Pragar <i>Northern Kentucky University</i>	<i>Co-author</i> Jessica Nienaber <i>Northern Kentucky University</i>	<i>Co-author</i> Richard Boyce <i>Northern Kentucky University</i>
--	---	--

31. - Canopy Assessment and Niche Modeling of *Microstegium vimineum* (Trin.) A. Camus in Lilley Cornett Woods

<i>First Author</i>	<i>Co-author</i>
Nick Koenig	Jennifer Koslow
<i>Eastern Kentucky University</i>	<i>Eastern Kentucky University</i>

32. - Macroinvertebrate diversity in urban vs rural streams after storm events

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Jessi Urlichich	Abby Hutcheson	Olivia Blasdel	Chris Lorentz
<i>Thomas More University</i>	<i>Thomas More University</i>	<i>University of Evansville</i>	<i>Thomas More University</i>

33. - Summer Insect Emergence from Beaver Ponds of a Restored Headwater Valley in the Daniel Boone National Forest

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Dakota Mullannix	Amy Braccia	Jesse Robinson
<i>Eastern Kentucky University</i>	<i>Eastern Kentucky University</i>	<i>The Stream Institute, University of Louisville</i>

<i>Co-author</i>	<i>Co-author</i>
Michael Croasdaile	Arthur Parola
<i>The Stream Institute, University of Louisville</i>	<i>The Stream Institute, University of Louisville</i>

34. - Assessing the Influence of Stress and Behavior on Susceptibility to and Recovery from Snake Fungal Disease in the Timber

<i>First Author</i>	<i>Co-author</i>
John Hewlett	Andrea Darracq
<i>Murray State University</i>	<i>Murray State University</i>

35. - Use of eDNA in the detection of northern water (Nerodia sipedon) and queen snakes (Regina septemvittata).

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Elle Beery	Marvin Ruffner	Ben Brammell
<i>Asbury University</i>	<i>Asbury University</i>	<i>Asbury University</i>

36. - Do amphibian populations at geographic range margins exhibit reduced capacities for phenotypic plasticity?

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Abigail Odegard	Marina DiBiase	Maris Weihe	Cy Mott
<i>Eastern Kentucky University</i>	<i>Eastern Kentucky University</i>	<i>Eastern Kentucky University</i>	<i>Eastern Kentucky University</i>

37. - State Conservation of North American Amphibians: Effects of Range Fraction and Biodiversity Hotspots

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Evan Moser	Kelly Watson	Cy Mott
<i>Eastern Kentucky University</i>	<i>Eastern Kentucky University</i>	<i>Eastern Kentucky University</i>

38. - Lightning damage facilitates beetle colonization of tropical trees

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Brady Parlato	Evan Gora	Stephen Yanoviak
<i>Georgetown College</i>	<i>University of Louisville</i>	<i>University of Louisville</i>

39. - Bat species richness and activity in wetland and riparian habitats in Appalachia.

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Elizabeth Pottinger	Victoria Long	Philip Allagas	Richard Carter
<i>Asbury University</i>	<i>East Tennessee State University</i>	<i>East Tennessee State University</i>	<i>East Tennessee State University</i>

40. - Bee Abundance in Three Managed Grassland Types on the WKU Green River Preserve

<i>First Author</i>	<i>Co-author</i>
Emily Russ	Albert Meier
<i>Western Kentucky University</i>	<i>Western Kentucky University</i>

41. - Estimating bird productivity and survivorship following native grassland restoration

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Natalie Sweeting	David Brown	Kate Slankard
<i>Eastern Kentucky University</i>	<i>Eastern Kentucky University</i>	<i>KY Department of Fish and Wildlife Resources</i>

42. - Is Fragment Size or Fragment Number More Important to Moth Biodiversity in Iowa Prairie Fragments?

<i>First Author</i>	<i>Co-author</i>
Andrew Seiler	Andrew Forbes
<i>Thomas More College</i>	<i>University of Iowa</i>

43. - The effects of glutamate exposure on roots growth and physiology of Arabidopsis thaliana: Pharmacological and electrophysiology

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Venky Suryadevara	D. NICHOLAS McLetchie	Robin Cooper
<i>Lafayette High School, Lexington, KY</i>	<i>Univ. of KY</i>	<i>Univ of KY</i>

44. - The studies of mutually symbiotic electrophysiology between Arabidopsis thaliana and mycelial networks.

First Author
Matthew Thomas
University of Kentucky

Saturday, November 2, 2019 8:30am - 10:45am

Geology - Poster Presentations

Baird Lounge, Alumni Building

45. - High Resolution Stratigraphy of the Lexington Limestone (Ordovician) within Cores and Outcrop

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Daniel Draper	William Andrews	Walter Borowski
<i>Eastern Kentucky University</i>	<i>Kentucky Geologic Survey</i>	<i>Eastern Kentucky University</i>

46. - Application of Machine Learning to Predict Lithofacies from Wireline Log Data

<i>First Author</i>	<i>Co-author</i>
Kimberly Kusler	Nilesh Dixit
<i>Northern Kentucky University</i>	<i>Northern Kentucky University</i>

47. - Creation of Digital Elevation Models Using Scanning Airborne Laser Altimetry (LiDAR)

First Author
Cameron Peterson
Northern Kentucky University

48. - Analysis and interpretation of the Depositional Environment of a Glen Dean Limestone Outcrop Grayson County, Kentucky

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Darrell Ray	Justin Brown	Patricia Kambesis	Fred Siewers
<i>western kentucky University</i>	<i>Western kentucky University</i>	<i>Western Kentucky University</i>	<i>Western Kentucky</i>

49. - Using titanite to determine magmatic thermal histories of granites

<i>First Author</i>	<i>Co-author</i>
Austin Weber	Michael Ackerson
<i>Berea College</i>	<i>Smithsonian Institution, National Museum of Natural History</i>

50. - Placing Devonian ctenophore Archeocydippida hunsrueckiana in evolutionary and ecological context

First Author
David Whitaker
University of Bristol

Saturday, November 2, 2019 8:30am - 11:00am

Physics & Astronomy - Poster Presentations

Baird Lounge, Alumni Building

52. - Modeling Keplerian Orbits using ExoFastV2 and Twobody*First Author*

Kendra Herweck

Northern Kentucky University

Co-author

Nathan De Lee

Northern Kentucky University

53. - Why are the Orbits of Uranian Trojans so Unstable?*First Author*

Jeremy Wood

Kentucky Community and Technical College System

54. - Neutron Detector Geometry*First Author*

Sarah Vickers

University of Kentucky

Co-author

Emily Ballantyne

University of Kentucky

Co-author

Rebecca Calvert

University of Kentucky

Co-author

Christopher Crawford

University of Kentucky

55. - Maximum Likelihood Approach to Source Localization Problem*First Author*

Jacob Dobler

Western Kentucky University

Co-author

Ivan Novikov

WKU Physics and Astronomy

56. - Studies of Dihiggs + W/Z boson production in proton-proton collisions*First Author*

Emily Frame

Northern Illinois University/Northern Kentucky University

57. - Modified Embedded-Atom Method Potentials for Iridium and Rhodium*First Author*

Daniel Franklin

Northern Kentucky University

Co-author

David Maess

Northern Kentucky University

Co-author

Matthew Zacate

Northern Kentucky University

58. - Second Nearest Neighbor Modified-Embedded Atom Method for Ruthenium*First Author*

David Maess

Northern Kentucky University

Co-author

Daniel Franklin

Northern Kentucky University

Co-author

Matthew Zacate

Northern Kentucky University

59. - Experimental Measurement of the Bifurcation Diagram of the Chaotic Pendulum*First Author*

William Poteet

Western Kentucky University

Co-author

Ivan Novikov

Western Kentucky University

Co-author

Doug Harper

Western Kentucky University

60. - Modeling Stochastic Resonance in the Duffing Oscillator*First Author*

Lars Hebenstiel

Gatton Academy

Co-author

Ivan Novikov

Western Kentucky University

61. - Cosmological Model with Acceleration*First Author*

Dylan Ievsey

Northern Kentucky University

Co-author

Sharmanthie Fernando

Northern Kentucky University

62. - Building an Electromyogram Circuit

<i>First Author</i>	<i>Co-author</i>
Daniela Olivera Velarde	Troy Messina
Berea College	Berea College

63. - Advanced Bioinspired and Biomimetic Membranes for for Enhanced Filtration

<i>First Author</i>	<i>Co-author</i>
Taylor Robinson	Sanju Gupta
Western Kentucky University	Western Kentucky University

64. - Transparent, Transferrable and Flexible Pseudocapacitors from PEDOT/V2O5/Graphene with Record Durability in Solid Electr

<i>First Author</i>	<i>Co-author</i>
Brendan Evans	Sanju Gupta
Western Kentucky University	Western Kentucky University

65. - Systematic Study of the Effect of Incorporation of Carbon Nanotubes into GexSe1-x Glass System

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
John Rademacher	Jake Anderson	Wayne Bresser	Chari Ramkumar
Northern Kentucky University	Northern Kentucky University	Northern Kentucky University	Northern Kentucky University

66. - Directed Assembly Strategies to Construct 3D Boron Nitride and Graphene Oxide Nanosheet Topological Networks

<i>First Author</i>	<i>Co-author</i>
Alex Henson	Sanju Gupta
Western Kentucky University	Western Kentucky University

67. - An Investigation of Quark Star Dynamics and the Equation of State

<i>First Author</i>	<i>Co-author</i>
David Suarez	Keith Andrew
Western Kentucky University	Western Kentucky University

68. - Deriving Equations to Calculate the Properties of Pulsars with the P vs. P-dot Diagram

First Author
Colby Winters
Morehead State University - Craft Academy

Saturday, November 2, 2019 8:30am - 11:00am

Science Education - Poster Presentations

Baird Lounge, Alumni Building

69. - Teacher Perspectives on Environmental Education Programs Provided by ECU Division of Natural Areas

<i>First Author</i>	<i>Co-author</i>
Mahala Watts	Michael Bradley
Eastern Kentucky University Division of Natural Areas	Eastern Kentucky University

70. - Summer Internship Experience at the Kentucky Science Center for STEM Students

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Stasio Gibbons	Cody Nygard	Kristin Cook	Akhtar Mahmood
Bellarmine University	Bellarmine University	Bellarmine University	Bellarmine University

71. - Undergraduates Have Varying Expectations for Written Feedback on Scientific Writing Assignments in Biology

First Author
Melody Danley
University of Kentucky

72. - Calling all scientists: Promote your discipline through the airwaves!

<i>First Author</i> Dave Robinson Bellarmine University	<i>Co-author</i> J. Scott Miller Maysville Community and Technical College	<i>Co-author</i> Ashley Best Medpace	<i>Co-author</i> Trent Garrison Northern Kentucky University
<i>Co-author</i> Leslie Moise Bellarmine University			

73. - Neuro-NORSE (Neuroscience Outreach Resources for Secondary Education): Low-cost lessons for high school science labs

<i>First Author</i> Emma DeBurger Northern Kentucky University	<i>Co-author</i> Kayla Jenkins Northern Kentucky University	<i>Co-author</i> Jayasree Mullaguru Northern Kentucky University
<i>Co-author</i> Melissa Garcia-Retama Universidad Autónoma del Estado de Hidalgo	<i>Co-author</i> Lauren Williamson Northern Kentucky University	<i>Co-author</i> Christine Curran Northern Kentucky University

Saturday, November 2, 2019 8:30am - 11:00am

Social Sciences: Anthropology, Psychology, and Sociology - Poster Presentations

Baird Lounge, Alumni Building

74. - Seasonal Harvesting of *Donax variabilis* and Site Occupation at the Tomoka Mound and Midden Complex

<i>First Author</i> Kelsey Tuggle Eastern Kentucky University	<i>Co-author</i> Jon Endonino Eastern Kentucky University
---	---

75. - The Correlation Between Borderline Personality Disorder and Suicidality

<i>First Author</i> Shannon Ackerman Eastern Kentucky University	<i>Co-author</i> Russell Smith Eastern Kentucky University
--	--

76. - Sterile Inflammation In Olfactory Neuroepithelial Cells Derived From Bipolar Subjects And Non-Bipolar Controls

First Author
Karson Evans
University of Louisville

77. - Affects of Left Temporal Gyrus on the Development of Autism

<i>First Author</i> Emily Evans Eastern Kentucky University	<i>Co-author</i> Kendall Hairston-Dotson Eastern Kentucky University	<i>Co-author</i> Sadie Shelton Eastern Kentucky University
<i>Co-author</i> Colleen Chambers Eastern Kentucky University		

78. - Audio Learning in Autonomous Driving Situations

<i>First Author</i> Haley Hill Eastern Kentucky University	<i>Co-author</i> Jon Phillips Eastern Kentucky University	<i>Co-author</i> Elizabeth Legg Eastern Kentucky University
<i>Co-author</i> Alli Parker Eastern Kentucky University	<i>Co-author</i> Megan Thomas Eastern Kentucky University	<i>Co-author</i> Micheal Chen Eastern Kentucky University

79. - Distracted Driving

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Hannah Butler	Hailey Suetholz	Kristian Bridges
EKU	EKU	EKU

80. - Assessing Cognitive and Motor Function in Adult Mice Exposed to Benzo[a]Pyrene During Early Brain Development

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Jayasree Mullaguru	Katelyn Clough	Emma DeBurger
Northern Kentucky University	Northern Kentucky University	Northern Kentucky University

<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Kayla Jenkins	Victoria Ferguson	Tyler Forrest
Northern Kentucky University	Northern Kentucky University	Northern Kentucky University

Co-author
Christine Curran
Northern Kentucky University

81. - Assessing Neonatal Motor Function in Three Genotypes of Mice Exposed to Benzo[a]Pyrene During Early Brain Development

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Katelyn Clough	Jayasree Mullaguru	Emma DeBurger
Northern Kentucky University	Northern Kentucky University	Northern Kentucky University

<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Kayla Jenkins	Victoria Ferguson	Melissa Garcia-Retama
Northern Kentucky University	Northern Kentucky University	Universidad Autónoma del Estado de Hidalgo

Co-author
Christine Curran
Northern Kentucky University

82. - Driving distracted and the effects: A meta-analysis

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Emma Judd	Emaleigh Bowling	Chloe Parks
Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University

83. - Empathetic Understanding: A Quantitative Systematic Review Comparing Delinquent and Non-delinquent Juvenile Populations

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Mattie Helen Dunlap	Ines Elena Martin	Kelcie Brophy
Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University

84. - Does prenatal stress cause difficult temperament in children?

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Matthew Smith	Ellen Jennings	Alison Galbraith
Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University

85. - Bingocize: A Novel Mobile Application to Help Improve Older Adult Health in Underserved Areas

<i>First Author</i>	<i>Co-author</i>
Andrea Anderson	Matthew Shake
Western Kentucky University	Western Kentucky University

86. - How Need for Power Explains Why Narcissists are Antisocial

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
MeganBrooke Alexander	Caitlin Hacker	Jonathan Gore
Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University

87. - How Strongly are Substance Abuse and Risky Behavior Related?

First Author
Hannah Kaup
Eastern Kentucky University

Co-author
Tyler O'Daniel
Eastern Kentucky University

Co-author
Shelby Moreland
Eastern Kentucky University

Co-author
Ashley Bragg
Eastern Kentucky University

88. - Driving Performance while Under the Influence of Different Distractions

First Author
Alexandra Sievert
EKU

Co-author
jordan owens
EKU

Co-author
alexis clifton
EKU

89. - The Effectiveness of Telepsychology with Rural Populations: A Meta-Analysis

First Author
Jessica King
Eastern Kentucky University

Co-author
Rachael Yeager
Eastern Kentucky University

Co-author
Kelcie Brophy
Eastern Kentucky University

Co-author
Megan Prather
Georgetown College

Co-author
Michael McClellan
Eastern Kentucky University

90. - Is marijuana addictive? Cannabis, Heroin and their Brain Effect

First Author
Logan Strunk
Eastern Kentucky University

Co-author
Mahala Saylor
Eastern Kentucky University

Co-author
Taylor Flake
Eastern Kentucky University

91. - Effects of Distractions on Driving

First Author
Chase Compton
Eastern Kentucky University

92. - On the relation between O-T-C medication labels and demographics.

First Author
Savannah Muse
Morehead State University

Co-author
Sydney Young
Morehead State University

Co-author
Megan Bailey
Morehead State University

Co-author
Sydney Brown
Morehead State University

Co-author
Vanessa Jones
Morehead State University

Co-author
Jorden Crowe
University of Louisville

Co-author
Gregory Corso
Morehead State University

93. - Predicting likeliness to buy O-T-C medicine from label design

First Author
Megan Bailey
Morehead State University

Co-author
Sydney Young
Morehead State University

Co-author
Savannah Muse
Morehead State University

Co-author
Sydney Brown
Morehead State University

Co-author
Vanessa Jones
Morehead State University

Co-author
Jorden Crowe
Morehead State University

Co-author
Gregory Corso
Morehead State University

94. - Re-Evaluating the Relationship Between Socioeconomic Status and PTSD Rates

First Author
Megan Thomas
Eastern Kentucky University

Co-author
Angela Van Berkel
Eastern Kentucky University

95. - The Effects of Different Kinds of Distracted Driving

First Author
Lauren Knipp
Eastern Kentucky University

Co-author
Elizabeth Goff
Eastern Kentucky University

Co-author
Kennedi Fields
Eastern Kentucky University

96. - Sex Differences in PTSD Symptom Presentation and Severity for Military Veterans

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Hogan Gagle	Reagan Overby	Reagan Overby
Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University

97. - The Effects of Driving Distracted, Drunk, and High.

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Sierra Herald	Nancy Arrowood	Adelai Lehman-Vendel
Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University

98. - The Effectiveness of Telepsychology with Veterans: A Meta-Analysis

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Kelcie Brophy	Megan Prather	Jessica King	Rachael Yeager
Eastern Kentucky University	Georgetown College	Eastern Kentucky University	Eastern Kentucky University

Co-author
Michael McClellan
Eastern Kentucky University

99. - The Effectiveness of Telepsychology with Women: A Meta-Analysis

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Rachael Yeager	Kelcie Brophy	Megan Prather	Jessica King	Michael McClellan
Eastern Kentucky University	Eastern Kentucky University	Georgetown College	Eastern Kentucky University	Eastern Kentucky University

100. - The Effectiveness of the MMPI-2-RF in Detecting Feigned Psychopathology: A Meta-Analysis

<i>First Author</i>	<i>Co-author</i>
Colbey Brooke Adair	Taylor Chille
Eastern Kentucky University	Eastern Kentucky University

101. - The effects of driving while distracted

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Makayla Chapman	Destinee furmon	Kristan bridges
Eastern kentucky university	Eastern kentucky university	Eastern kentucky university

102. - Is Improvement Really Improving: The Effectiveness of Social Skills Groups for Individuals With ASD

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Molly King	Myresha Hinton	Gabriella Martin
Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University

103. - The Effectiveness of Telepsychology with Racial and Ethnic Minorities: A Meta-Analysis

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>	<i>Co-author</i>
Megan Prather	Jessica King	Rachael Yeager	Kelcie Brophy	Michael McClellan
Georgetown College	Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University	Eastern Kentucky University

Saturday, November 2, 2019 1:15pm - 3:30pm

Zoology - Oral PresentationsSection meeting follows talks at
3:15

Room 230, MAC Science Building

1:15 - New treehopper species discovered in Kentucky based on specimens excavated from Hoplosoides wasp nests

First Author
Laura Sullivan Beckers
Murray State University

1:30 - 9 new morphologically cryptic members of the *Pseudanophthalmus pubescens* species group (Coleoptera: Carabidae)

First Author
Jedidiah Nixon
Western Kentucky University

1:45 - Cercarial Swimming and Distome Emergence from the Tail Chamber in *Proterometra macrostoma* and *Leuceruthrus micropteri*

First Author *Co-author*
Hannah Jackson Yogesh Budhathoki
Berea College *Berea College*

2:00 - Effects of parasitism on *Neoconocephalus katydids*

First Author *Co-author*
Kyler Rogers Oliver Beckers
Murray State University *Murray State University*

2:15 - Feeding Behaviors and Preferences of Avian Species at John James Audubon State Park in Henderson, Kentucky

First Author *Co-author*
Kelsey Ray Shannon Finerty
Kentucky Wesleyan College *Kentucky Wesleyan College*

2:30 - Overwintering of the Cercaria of the Digenetic Trematode, *Proterometra macrostoma*, within its Snail Host

First Author *Co-author*
Melanie Andrews Sarah Staat
Berea College *Berea College*

2:45 - Behavioral effects to heat in the blow fly (*Phaenicia sericata*).

First Author *Co-author* *Co-author* *Co-author*
Nicole Marguerite Douglas Harrison David Harris Robin Cooper
University of Kentucky *University of Kentucky* *Veterinarian* *Univ of KY*

3:00 - Epigenetic effects introduce variation in the mating songs of the field cricket *Gryllus rubens* (Orthoptera: Gryllinae).

First Author
Oliver Beckers
Murray State University

Saturday, November 2, 2019 1:30pm - 3:30pm

Cellular & Molecular Biology- Oral Presentations

Section meeting follows talks at
3:15

Room 170, MAC Science Building

1:30 - Characterization of a basement membrane associated protein in endomembrane system of *Drosophila melanogaster*

First Author *Co-author* *Co-author*
Aref Ranjbar Ajay Srivastava Mayank Kapadia
Western Kentucky University *Western Kentucky University* *Western Kentucky University*

1:45 - Characterizing preferential RNA-binding targets of ELAVL1 during an immune challenge

First Author *Co-author* *Co-author*
Clara Reasoner Katherine Rothamel Manuel Ascano
Berea College *Vanderbilt University* *Vanderbilt University*

2:00 - Differential regulation of Glis3 under conditions of chronically elevated glucose contributes to beta cell dysfunction

First Author *Co-author*
LilyAnne Grieve Gary ZeRuth
Murray State University *Murray State University*

2:15 - Differentiation of induced pluripotent stem cells into three germ layers using a trilineage differentiation kit

First Author
Jharna Katwal
Berea College

2:30 - Investigating Phenotypic Changes in rad9-deficient Saccharomyces Cerevisiae Due to Altered AdoMet Levels.

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Muhammud Akhtar Khadaroo	Ronald Burns	Erin Strome
Northern Kentucky University	Northern Kentucky University	Northern Kentucky University

2:45 - Targeting endogenous genes in human induced pluripotent stem cells using CRISPR/Cas9 (DNMT3B, KRT5, and KRT18)

First Author
Yacine Choutri
Berea College

3:00 - The cytoplasmic tail of integrin $\beta 1$ is required for TGF β -induced cell proliferation in adenocarcinoma

First Author
Sharon Lee
Berea College

Saturday, November 2, 2019 1:30pm - 3:30pm

Chemistry: Analytical & Physical - Oral Presentations

Section meeting follows talks at
3:00

Room 355, MAC Science Building

1:30 - Incorporation of metal oxides into a polymer substrate for buoyant photocatalysts

First Author
Lovence Ainembabazi
Western Kentucky University

1:45 - Effect of antibiotics on methane production from anaerobic digestion of animal waste

<i>First Author</i>	<i>Co-author</i>	<i>Co-author</i>
Viral Bhavsar	Eric Conte	John Loughrin
Western Kentucky University	Western Kentucky University	United States Department of Agriculture, Bowling Green

<i>Co-author</i>	<i>Co-author</i>
Agga Getahun	John Kasumba
United States Department of Agriculture, Bowling Green	Western Kentucky University

<i>Co-author</i>	<i>Co-author</i>
Rohan Parekh	Stacy Antle
United States Department of Agriculture, Bowling Green	United States Department of Agriculture, Bowling Green

2:00 - Investigating the Effects of Various Buffers and Parameters on the Structure and Behavior of Stimuli-Responsive Polymers

First Author
Madisyn Hayes
Northern Kentucky University Chemistry Department

2:15 - Monitoring Aqueous Reactions Using in situ Surface-Enhanced Raman Spectroscopy

<i>First Author</i>	<i>Co-author</i>
Ryan Lamb	Matthew Nee
Western Kentucky University	Western Kentucky University

2:30 - Effects of nutrient overload and environmental conditions on algal bloom formation: A case study of private ponds in Mad

<i>First Author</i>	<i>Co-author</i>
Lauren Sutton	Cynthia J. Kaeser Tran
Eastern Kentucky University	Eastern Kentucky University

2:45 - Detection of Nitrite Using Nitrite Ionophore VI for Indirect detection of Nitric Oxide

First Author

Anna Bens

Northern Kentucky University

Co-author

Kebede Gemene

Northern Kentucky University

Co-author

Raven McNeese

Northern Kentucky University

Saturday, November 2, 2019 1:30pm - 3:15pm

Environmental Sciences - Oral Presentations

Section meeting follows talks at

Room 251, MAC Science Building

2:45

1:30 - Comparison of benthic macroinvertebrate sampling methods on non-wadeable waters: initial findings

First Author

ED WILCOX

Kentucky State University

Co-author

Richard Cristan

Kentucky State University

1:45 - The Enhancement of Climate Change Science Communication and Understanding Through Glacier Tourism

First Author

Natalie Kincheloe

Western Kentucky University

Co-author

Leslie North

Western Kentucky University

Co-author

Cara Walters

Western Kentucky University

2:00 - Monitoring water quality in relation to the Burgin Sewer Project in Burgin, KY

First Author

Theresa Brooks

Kentucky State University

Co-author

Richard Cristan

Kentucky State University

Co-author

John Sedlacek

Kentucky State University

2:15 - Unexpected restoration outcomes in two urban wetlands resulting from differential groundwater flow

First Author

Martha Carlson Mazur

Bellarmine University

Co-author

Nicholas M Goebel

Bellarmine University

Co-author

Suraj Neupane

Bellarmine University

Co-author

Catherine G Gomez

Bellarmine University

Co-author

Jess Glaser

Bellarmine University

2:30 - Vascular Plants of Pine Mountain Settlement School and James E. Bickford State Nature Preserve, Harlan County, Kentucky

First Author

Ralph Thompson

Berea College

Co-author

Chris Fleming

BDY Natural Science Consultants

Saturday, November 2, 2019 1:30pm - 2:30pm

Microbiology - Oral Presentations

Section meeting follows talks at

Room 102, MAC Science Building

2:15

1:30 - Discovery of Novel Antibiotics Produced by Soil Bacteria: Piloting the Tiny Earth Project

First Author

Michael Vacik

Kentucky Wesleyan College

Co-author

Rachel Pritchard

Kentucky Wesleyan College

1:45 - Identification of Bacteria in Spirit Industry Fermenters

First Author

Brittany Kelevra

Kentucky Wesleyan College

Co-author

Rachel Pritchard

Kentucky Wesleyan College

2:00 - Double trouble for dogs: Emergence and subsequent enzoonosis of two novel canine influenza viruses, H3N2 and H3N8

First Author

Alexander Lai

Kentucky State University

Co-author

Shou Su

Nanjing Agricultural University

Saturday, November 2, 2019 1:30pm - 2:30pm

Physiology & Biochemistry - Oral PresentationsSection meeting follows talks at
2:15

Room 257, MAC Science Building

1:30 - Investigating HMPV Phosphoprotein Function*First Author*

Amber Earlywine

University of Kentucky

Co-author

Trevor Creamer

University of Kentucky

1:45 - Retinol Esterification in American Lobster (*Homarus americanus*)*First Author*

Collin Wells

Centre College

Co-author

Olivia Honaker

Centre College

Co-author

Yuzhang Li

Centre College

Co-author

Stephanie Dew

Centre College

2:00 - Pak1, TGFÎ±, and Ki-67 expression in Human Gastric and Gastroesophageal Junction Adenocarcinomas.*First Author*

Michael Parritt

Wood Hudson Cancer Research Laboratory

Co-author

Mariah Dooley

Wood Hudson Cancer Research Laboratory

Co-author

Michelle Robillard

Wood Hudson Cancer Research Laboratory

Co-author

Molly Frydl

Wood Hudson Cancer Research Laboratory

Co-author

Leah Focke

Wood Hudson Cancer Research Laboratory

Co-author

Kyle Damen

Wood Hudson Cancer Research Laboratory

Co-author

James Deddens

University Of Cincinnati

Co-author

Larry Douglass

Wood Hudson Cancer Research Laboratory

Co-author

Julia Carter

Wood Hudson Cancer Research Laboratory

Past Presidents of the Kentucky Academy of Science

1914-1915	Joseph H. Kastle	1963-1964	R.A. Chapman	2013	Cheryl Davis
1915-1916	N.F. Smith	1964-1965	C.B. Hamann	2014	K.C. Russell
1916-1917	A.M. Miller	1965-1966	John M. Carpenter	2015	David White
1917-1918	R.C. Ballard	1966-1967	Robert M. Boyer	2016	Eric Jerde
1918-1919	J.E. Barton	1967-1968	Paul G. Sears	2017	Darrin Smith
1919-1920	Paul P. Boyd	1968-1969	Orville Richardson	2018	Jennifer Birriel
1920-1921	W.H. Coolidge	1969-1970	Lloyd Alexander	2019	Leslie North
1921-1922	George D. Smith	1970-1971	Karl Hussung		
1922-1923	Lucien Becker	1971-1972	Louis Krumholz		
1923-1924	W.R. Jillson	1972-1973	Marvin W. Russell		
1924-1925	Cloyd M. McAllister	1973-1974	Donald Batch		
1925-1926	Austin R. Middleton	1974-1975	Ellis V. Brown		
1926-1927	W.G. Burroughs	1975-1976	Frederick M. Brown		
1927-1928	W.D. Valleau	1976-1977	Charles Payne		
1928-1929	G.D. Bucker	1977-1978	Charles Kupchella		
1929-1930	Frank L. Rainey	1978-1979	Sanford Jones		
1930-1931	V.F. Payne	1979-1980	Rudolph Prins		
1931-1932	Anna A. Schnieb	1980-1981	John Philley		
1932-1933	George Roberts	1981-1982	Ted M. George		
1933-1934	John S. Bangson	1982-1983	J.G. Rodriguez		
1934-1935	Alfred M. Peter	1983-1984	Gary Boggess		
1935-1936	J.S. McHargue	1984-1985	Joe Winstead		
1936-1937	Robert T. Hinton	1985-1986	Charles V. Covell		
1937-1938	L.Y. Lancaster	1986-1987	Larry Giesmann		
1938-1939	W.R. Allen	1988	William P. Hettinger, Jr.		
1939-1940	A.W. Homberger	1989	Richard N. Hannan.		
1940-1941	Charles Hire	1990	Debra K. Pearce		
1941-1942	G.B. Pennebaker	1991	W. Blaine Early, III		
1942-1943	J.T. Skinner	1992	Douglas L. Dahlman		
1943-1944	L.A. Brown	1993	Charles N. Boehms		
1944-1945	L.A. Brown	1994	Larry P. Elliott		
1945-1946	P.J. Kolachov	1995	Robert O. Creek		
1946-1947	Ward Sumter	1996	William S. Bryant		
1947-1948	Alfred Brauer	1997	Marcus McEllistrem		
1948-1949	Morris Scherago	1998	Patricia K. Doolin		
1949-1950	W.E. Blackburn	1999	Gordon K. Weddle		
1950-1951	E.P. Penrod	2000	Blaine R. Ferrell		
1951-1952	Harvey B. Lovell	2001	Ron Rosen		
1952-1953	Thomas Herndon	2002	Jerry Warner		
1953-1954	C.B. Hamann	2003	Robert Barney		
1954-1955	R.H. Weaver	2004	Robert Kingsolver		
1955-1956	J.G. Black	2005	Bruce Mattingly		
1956-1957	A.M. Wolfson	2006	Miriam Kannan		
1957-1958	William M. Clay	2007	Nigel Cooper		
1958-1959	William B. Owsley	2008	John Mateja		
1959-1960	Pete Panzera	2009	Robin Cooper		
1960-1961	H.H. LaFuze	2010	Nancy Martin		
1961-1962	Charles Whittle	2011	Barbara Ramey		
1962-1963	Lyle Dawson	2012	Dawn Anderson		

Past Meeting Locations of the Kentucky Academy of Science

1914-15 State College (presently University of Kentucky)	1957 Western Kentucky State College, Mammoth Cave National Park & Berea College	1992 Ashland Community College
1916-28 University of Kentucky		1993 Georgetown College
1929 Berea College	1958 Natural Bridge State Park & University of Kentucky	1994 Paducah Community College
1930 Centre College		1995 Western Kentucky University (Joint meeting with the Tennessee Academy of Science)
1931 Transylvania University	1959 Lake Cumberland State Park & Western Kentucky State College	1996 Kentucky State University
1932 Eastern Kentucky State Teachers College		1997 Morehead State University
1933 University of Kentucky	1960 Murray State College & University of Louisville	1998 Jefferson Community College, S.W.
1934 Berea College	1961 Morehead State College & University of Louisville	1999 Eastern Kentucky University
1936 University of Kentucky	1962 Eastern Kentucky State College	2000 University of Kentucky
1936 Western Kentucky State College		2001 Middle Tennessee State (Joint meeting with the Tennessee Academy of Science)
1937 University of Louisville	1963 University of Kentucky	2002 Northern Kentucky University
1938 Morehead State Teachers College	1964 Morehead State College	2003 Western Kentucky University
1939 Murray State Teachers College	1965 University of Kentucky	2004 Murray State University
1940 University of Kentucky	1966 Kentucky Wesleyan College	2005 Eastern Kentucky University
1941 Eastern Kentucky State Teachers College	1967 University of Louisville	2006 Morehead State University
1942 University of Kentucky	1968 Western Kentucky University	2007 University of Louisville
1943 University of Louisville	1969 Murray State University	2008 University of Kentucky
1944 University of Kentucky	1970 Georgetown College	2009 Northern Kentucky University
1945 No Annual Meeting	1971 Eastern Kentucky University	2010 Western Kentucky University
1946 University of Louisville	1972 Morehead State University	2011 Murray State University
1947 Western Kentucky State College	1973 Transylvania University	2012 Eastern Kentucky University
1948 University of Kentucky	1974 Centre College	2013 Morehead State University
1949 Cumberland Falls State Park	1975 University of Louisville	2014 Lexington, Kentucky
1949 Eastern Kentucky State College	1976 University of Kentucky	2015 Northern Kentucky University
1950 University of Louisville	1977 Western Kentucky University	2016 University of Louisville
1951 University of Kentucky	1978 Eastern Kentucky University	2017 Murray State University
1952 Georgetown College	1979 Northern Kentucky University	2018 Western Kentucky University
1953 Ashland & University of Kentucky	1980 Transylvania University	2019 Berea College
1954 Berea College & University of Louisville	1981 Murray State University	
1955 Cumberland Falls State Park & Kentucky State College	1982 Ashland Oil Inc, Ashland	
1956 Kentucky Dam Village	1983 University of Louisville	
1956 Eastern Kentucky State College	1984 Kentucky State University	
	1985 Morehead State University	
	1986 Lexington, Kentucky (with SSMA)	
	1987 Western Kentucky University	
	1988 Eastern Kentucky University	
	1989 University of Kentucky	
	1990 Northern Kentucky University	
	1991 Owensboro, Kentucky	

Next KAS Annual Meeting

**The 106th Annual Meeting of the
Kentucky Academy of Science**

will be hosted jointly by

Eastern Kentucky University
&

Kentucky Science Teachers Association

November 5-7, 2020

