



Kentucky Academy of Science

94th ANNUAL MEETING

Hosted by:

University of Kentucky

Lexington, Kentucky

October 31- November 1, 2008



KAS - 94 Years Serving Kentucky

WELCOME

TO THE 94TH ANNUAL MEETING OF THE KENTUCKY ACADEMY OF SCIENCE

The University of Kentucky is please to host this year's annual meeting of the Kentucky Academy of Science. We are happy to have the opportunity to hold the meeting on campus and to have students as well as faculty interact with colleagues from across the state.

There are 235 poster and oral sessions to be presented at this year's meeting. In addition, we have exciting special presentations at the Symposium, Plenary Session and Awards banquet.

This year's meeting is a different format than in past years and part of the reason is the hope to make the meeting more encouraging for students to attend without class conflicts. In addition, by moving from a 3 day/2 night to a 2 day/1 night meeting, we hope this will be more financially responsible for our KAS attendees.

Friday evening we will hold a Symposium on the status of STEM education in KY in the UK Student Center followed by a social in the UK Student Center, Small Ballroom. All the poster and oral presentations will be on Saturday in the White Hall Classroom Building. The Plenary Session will be held in the Worsham Theater in the Student Center on Saturday followed by the Presidential Reception which precedes the Annual Awards Banquet at the Hyatt Regency Hotel (downtown Lexington).

Free parking will be provided both on Friday and Saturday in the large parking structure on Limestone across from the Student Center.

We wish you an enjoyable and engaging 94th KAS annual meeting.

The 94th KAS Annual Meeting
Local Arrangements Committee

KENTUCKY ACADEMY OF SCIENCE

94th Annual Meeting

October 31 - November 1, 2008

Hosted by the University of Kentucky

Lexington, Kentucky

GOVERNING BOARD

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Robert Creek (Program Coordinator).....	Eastern Kentucky University
Claire Rinehart (Editor, Webpage).....	Western Kentucky University
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SYMPOSIUM

Friday, October 31, 2008, 6:30 - 8:30 p.m.
Worsham Theater - Student Center

Welcome: Dr. Robin Cooper, President - Elect, KAS
University of Kentucky

Panel Discussion
**“STEM in Kentucky – What is it? Where are we?
Where are we going?”**

Moderator: Karen Kidwell

“Introduction and Overview of the STEM Work/Emphasis in the State.” Karen Kidwell, Department of Education.

“The Work of Districts and Schools at the K-12 Level as They Implement New Programs for Both Students and Teachers to Address STEM Concern and 21st Century Learning and to Seek to Prepare Students for Higher Education and the Future Workplace.”
David Helm, Fayette County Public Schools.

“Discussion of the Issues Affecting Industry and Research Around STEM topics, Including the Critical Technologies Survey and the Current Work With the Advance KY Initiative to Help Address Those Concerns and Bridge the Gap Between High School/Higher Education and the Workplace.”
M. Joanne Lang, Kentucky Science and Technology Corporation.

“A Discussion on How Higher Education is Addressing STEM Concerns Via Partnerships With Schools/Districts as Well as Preparing New Teachers Via SKyTeach at WKU.”
Rico Tyler, Western Kentucky University.

“A Discussion on the Work That KDE Is Involved in to Address the STEM Concerns for K-12 Particularly, Including Statewide and National Initiatives Underway.”
Karen Kidwell, Kentucky Department of Education.



Karen Kidwell, Science Consultant

Karen Kidwell has been a science consultant and state coordinator of Kentucky's NCLB Mathematics and Science Partnership Program for the Kentucky Department of Education since 2001. She earned her BS from the University of Louisville (1986) and her MA from Georgetown College (1993), both in education. She taught school in Jefferson Co., Fayette Co., and Harlan, before serving as a science consultant for the Central Kentucky Education Cooperative and the Region 5 Service Center. In 2002, Karen was honored by the Kentucky Science Teachers Association with the Distinguished Service Award. Her accomplishments include co-developing the Science Program Improvement Review with Stephen Henderson, which is currently being marketed by the National Science Teachers Association, and serving on the first Board of Directors for Kentucky's Intel ISEF-affiliated Science and Engineering Fair. More recently, she was appointed to the Council of Chief State School Officers' Mathematics and Science Education Task Force (2006). This group was commissioned to address a common set of concerns regarding mathematics and science education in the United States to inform policy and practice throughout the states via chief state school officers. Currently, Karen is working with other educators to develop and implement a statewide plan for improving the quality of teaching and learning in science and mathematics for K-12 students and teachers as an outcome of participation in The Executive Leadership Program for Educators at Harvard University.



M. Joanne Lang, Executive Vice President, Kentucky Science and Technology Corporation

Joanne Lang joined Kentucky Science and Technology Corporation (KSTC) in 1996. She is involved in all aspects of corporate operations and directs several initiatives including AdvanceKentucky, a new statewide effort supported by the National Math and Science Initiative to dramatically accelerate the numbers of students achieving success in rigorous math, science, and English courses. She also directed the Kentucky Survey of Critical Technologies. This is an education effort spinning out of KSTC's portfolio of some 500 investments made since 2002 in new economy research and start-up

companies. Other related efforts have included, for example, Kentucky's Science and Technology Strategy (which created the programs and funding for making these investments in research and entrepreneurship), Cluster Analysis of Kentucky Industries, Policy Audit of Kentucky Policies for the new economy, Kentucky's New Economy Initiatives, the entreSchools® Initiative, the international IdeaFestival®, and the Partnership for Reform Initiatives in Science and Mathematics (PRISM). Prior to joining the KSTC team, Joanne spent over 17 years at the Kentucky Council on Postsecondary Education during which time she developed and implemented three different five-year, statewide strategic plans for higher education. Lang holds a M.S. degree from SUNY Buffalo.



Rico Tyler, Master Teacher and Science Practitioner in Residence

Rico Tyler joined Western Kentucky University in 2001 after 19 years working in P-12 science education. In addition to teaching secondary and middle grades astronomy, physical science and physics Rico served as a science consultant for the Region 3 Service Center. This summer Rico completed his twenty-fifth year teaching astronomy with the Kentucky Governor's Scholars Program. In 1994 he was honored with the Presidential Award for Excellence in Science Teaching.

His current duties at Western Kentucky University include teaching in both the departments of Curriculum and Instruction as well as Physics and Astronomy. He also serves as a master teacher with the SkyTeach math and science teacher preparation program. He is deeply interested in the professional development of science teachers. Rico is the PI, project director or leadership team member for 7 different funded science education projects. Rico is on the Kentucky Science Teachers Association Board of Directors and is vice president of the Barren River Area Imaginative Museum of Science.



David W. Helm, Science Content Specialist

David W. Helm is a Science Content Specialist for the Fayette County Public Schools located in Lexington, KY. David has been involved in public education for the past seventeen years with fourteen of those years in the secondary science classroom where he taught Human Anatomy & Physiology, Biological Science, Chemistry, and Physical Sciences. In addition to his responsibilities with the Fayette County Public Schools, David also is an

adjunct instructor for the University of Kentucky College of Education where he teaches graduate level classes for up and coming secondary science teachers. He also is an educational consultant to CPO Science / Delta Education, a subsidiary of School Specialty. David is on the Kentucky Science Teachers Association Board of Directors as well as the Aviation Museum of Kentucky Board of Trustees. During free time, David enjoys coaching hockey for two different teams in the Lexington area.

PLENARY SESSION

Saturday, November 1, 2008
Whorsham Theater - Student Center
4:15 - 5:15 p.m.

Presiding: Dr. John Mateja
President - KAS
Murray State University

“Amazing Caves: Amazing Microbes”

Hazel Barton, Ph.D.
Northern Kentucky University



Dr. Hazel A. Barton was born in Bristol, England. She received a First Class B.Sc. from the University of the West of England in 1993, before moving to Colorado and obtaining her Ph.D. in Microbiology and Immunology from the University of Colorado Health Sciences Center in 1997. Following Post-doctoral positions studying microbial ecology with Dr. Norman Pace at the University of Colorado, Boulder, and microbial physiology with Dr.

John Roth at the University of California, Davis, Dr. Barton accepted a position as the Ashland Endowed Professor of Integrative Science at Northern Kentucky University, and is also currently an Associate Professor of Biological Sciences. In addition to teaching microbiology at NKU, she also coordinates an active undergraduate research laboratory including a National Institutes of Health funded study examining microbial responses to starvation and a National Science Foundation (NSF) funded project examining the energetic interactions of bacteria in cave environments. Dr. Barton is also an avid caver, having explored caves on five continents, is an award winning cave cartographer and has served as a director of the National Speleological Society (NSS) and the Quintana Roo Speleological Survey. Her cave research has been featured in Sports Illustrated, Forbes, National Geographic Explorer, Outside Magazine, Science News and The Scientist, on NPR and BBC Radio, Animal Planet, the History Channel, CBS and in the IMAX movie Journey into Amazing Caves. She is currently a Fellow of the NSS and the recipient of an NSF CAREER Award.

AWARDS BANQUET SPEAKER

Saturday, November 1, 7:00 - 9:00 p.m.
Patterson Room - Hyatt Regency Hotel

“Animals as Models for Robot Mobility and Autonomy: Crawling, Walking, Running, Climbing and Flying”

Roger Quinn, Ph.D.
Case Western Reserve University



Roger D. Quinn is the Arthur P. Armington Professor of Engineering at Case Western Reserve University. He joined the Mechanical and Aerospace Engineering department in 1986 after receiving a Ph.D. (1985) in Engineering Science Mechanics from Virginia Tech and a M.S. (1983) and B.S. (1980) in Mechanical Engineering from the University of Akron. He has directed the Biorobotics Laboratory since its inception in 1990 and has been working with Roy Ritzmann and other biologists since that time. His research, in collaboration with biologists, is devoted to the development of robots and control strategies based upon

biological principles. He has over 200 publications and several patents. His biology-engineering collaborative work on behavior based distributed control, robot autonomy, and human-machine interfacing have each earned IEEE awards. He is the lead inventor of a group of vehicles that benefit from abstracted biological principles. These patented vehicles called Wheggs™ run rapidly and adapt their gait to the terrain in an insect-like manner using primarily passive mechanisms. They are ready for near-term use in exploration, agricultural, search and rescue, and military missions. His current work includes developing robots that can climb vertical surfaces using animal-inspired materials and mechanisms and developing insect-inspired intelligent systems to increase the autonomy of mobile robots.

35TH ANNUAL MEETING OF THE SOCIETY OF KENTUCKY LEPIDOPTERISTS



The Society of Kentucky Lepidopterists is a group of professional scientists and amateur enthusiasts dedicated to the study of the butterflies and moths of the Commonwealth. The members of the society are pleased to have their 35th Annual Meeting in conjunction with the Kentucky Academy of Science. All KAS attendees are invited to examine the UK Entomology Collections in the Agriculture Science Center North Building on October 31 and in the morning on

November 1. Conference goers are also invited to attend the oral presentations hosted by the Society of Kentucky Lepidopterists on November 1. There is no additional registration fee for attending the Kentucky Lepidopterists meeting, but if people would like to join the Society, annual membership is available for \$12. For more information about the Society or a membership application form, the Society web site is: <http://www.kylepidopterists.org>.

Saturday, Nov 1. Schedule

Entomology Department, Agriculture Science Center North Building

9:00 AM to Noon

Collection open for viewing

Coffee, donuts, and fellowship
*White Hall Classroom Building
(KAS Meeting Site), room 231*

1:00 PM to 2:00 PM

Business Meeting

2:00 PM to 3:00 PM

Featured Speaker: Dr. Tony Frankino, Univ. of Houston will be giving a presentation entitled "The evolution and development of wing morphologies in butterflies"

3:00 PM to 5:00 PM

Contributed Talks and Papers



Tony Frankino, Assistant Professor, Dept. Biology & Biochemistry, Univ. of Houston. "The evolution and development of wing morphologies in butterflies". Much of the morphological diversity exhibited by animals is achieved through changes in the relative size of different structures. For example, giraffes derive their distinctive, gracile morphologies from exaggeration in the size of their necks and limbs relative to their bodies, whereas walrus gain their robust, compact appearance from reduction in the size of their limbs relative to their massive bodies. Among the animals, insects in particular have produced a spectacular diversity of form through modifications of the relative size of morphological structures.

Despite this diversity in relative trait size, some limits on the degree to which traits can be exaggerated or reduced in size likely exist. I will discuss a series of experiments conducted by myself and others that are aimed at determining the factors that regulate the expression and evolution of relative trait size in butterflies. In particular, I will focus on work involving the african butterfly *Bicyclus anynana*. These experiments reveal a remarkable flexibility in the short-term evolution of color pattern, relative wing size, and wing shape. Although these experiments raise as many questions as they answer, they pave the way towards achieving a deep understanding of the how different factors shape - and limit - the evolution of butterfly morphology.

PROGRAM SUMMARY

FRIDAY, OCTOBER 31, 2008

1:00pm – 3:30pm	KAS Governing Board Meeting	Room 203 – Student Center
5:30pm - 7:00pm	Registration	Room 213 – Student Center
4:00pm – 5:00pm	KAS Annual Business Meeting	Room 230 – Student Center
6:30pm - 8:30pm	SYMPOSIUM	Worsham Theater – Student Center

Panel Discussion

“STEM in Kentucky – What is it? Where are we? Where are we going?”

Karen Kidwell – Kentucky Department of Education

M. Joanne Lang – Kentucky Science and Technology Corporation

Rico Tyler – Western Kentucky University

David Helm – Fayette County Public Schools

8:45pm -9:15pm	KAS Sectional Officers Meeting.....	Room 213 – Student Center
8:45pm -10:30pm	Social.....	Small Ballroom – Student Center

SATURDAY, NOVEMBER 1, 2008

7:00am – 10:00am	Refreshments	Room 304 – White Hall Classroom Bldg.
7:00am - 5:00pm	Registration	Room 233 – White Hall Classroom Bldg.
8:00am - 5:00pm	Vendor’s Exhibits.....	2 nd Floor – White Hall Classroom Bldg.
8:00am -11:30am	Paper Sessions	See Table of Contents
9:30am -10:00am	Refreshment Break	Room 304 – White Hall Classroom Bldg.
8:00am - 11:30am	Scientific Posters:	Room 303 – White Hall Classroom Bldg.

Agricultural Sciences Section – Ecology and Environmental Science Section

10:00am- 11:30am	Kentucky Comm. & Tech. Coll.	
	Faculty Meeting.....	Room 201 – White Hall Bldg.
	Biology Faculty	Room 201 – White Hall Classroom Bldg.
	Chemistry Faculty	Room 237 – White Hall Classroom Bldg.
	Physics Faculty.....	Room 235 – White Hall Classroom Bldg.

11:30am - 12:45pm	Lunch (see list of possibilities in Registration Folder)	
11:30am – 12:45pm	KAS Past President’s Luncheon.....	Small Ballroom – Student Center

1:00pm – 4:00pm	Paper Sessions	See Table of Contents
1:00pm - 5:00pm	Scientific Posters:	Room 303 – White Hall Classroom Bldg. Geology Section - Zoology Section
2:00pm – 5:00pm	Society of KY Lepidopterists Presented Papers	Room 231 – White Hall Bldg.

- 2:15pm- 2:45pm Refreshment Break Room 304 – White Hall Classroom Bldg.
- 4:15pm – 5:15pm **PLENARY SESSION** Worsham Theater – Student Center
“Amazing Caves: Amazing Microbes”
Hazel Barton, Ph.D.
Northern Kentucky University
- 6:00pm - 7:00pm Presidential Reception Hyatt Suites -Hyatt Regency Hotel
- 7:00pm - 9:00pm **ANNUAL AWARDS BANQUET**..... Patterson Room
- Hyatt Regency Hotel
- “Animals as Models for Robot Mobility and Autonomy:
Crawling, Walking, Running, Climbing and Flying”**
Roger Quinn, Ph.D.
Case Western Reserve University

University of Kentucky Local Arrangement Committee

Ms. Jessica Baer

Dr. Robin Cooper

Ms Ann Cooper

Dr. Mohati Desai

Ms. Jennifer Ellis

Mr. Jun-young Lee

Dr. Andrew Wiggington

UK Infrastructure Staff

PRESENTATIONS

AGRICULTURAL SCIENCES

Norm Strobel, Chair
Bluegrass Community and Technical
College

Martin Stone, Secretary
Western Kentucky University

SATURDAY, NOVEMBER 01, 2008

WHITE HALL - 204

- 8:00 am **A Simplified Procedure for Glucosinolates Quantification.** George Antonious and Michael Bomford - Kentucky State University, Paul Vincelli - University of Kentucky
- 8:15 am **Organic Beekeeping in Kentucky: Status and Possibilities** Sean Clark - Berea College
- 8:30 am **Comparison of circulating progesterone and metabolic profiles in Holstein heifers and lactating cows.**¹ W. A. Smith and L. E. Davis Rincker - Eastern Kentucky University
- 8:45 am **Conifer Decline and Potential Causes at Baker Arboretum**¹ Rick Heavrin and Martin Stone - Western Kentucky University
- 9:00 am **Impact of Red and Black Plastic Mulch on Yield of Field Grown, Staked Tomatoes.**¹ Brandon Burchett and Martin Stone - Western Kentucky University
- 9:15 am **Populations of Lady Beetles and Green Lacewings in Organic, Conventional and Genetically Engineered (Bt) Sweet Corn.**¹ Leslye S. Brent, Karen L. Friley and John D. Sedlacek - Kentucky State University
- 9:30 am **The Influence of Light on Annonaceous Acetogenin Activity in Pawpaw (*Asimina triloba*) Stem and Leaf Tissue.**¹ Emerald W. Gates, Jeremiah D. Lowe, Kirk W. Pomper and Sheri B. Crabtree - Kentucky State University
- 9:45 am **Break** - 304 Whitehall Classroom Building
- 10:00 am **Ascorbic Acid and Phenol Contents of Hot Pepper Fruits from Eight Countries of Origin.**¹ Lauren Lobel, George Antonious and Tejinder Kochhar - Kentucky State University
- 10:15 am **Absorption and Accumulation of Heavy Metals in Vegetables Grown in Soil-Mixed with Sewage Sludge.**¹ Maleka Embry, George Antonious and Tejinder Kochhar - Kentucky State University
- 10:30 am **Yield and Quality of Vegetables Grown in Sewage Sludge ended Soil.** Regina Hill, Eric Turley and George Antonious - Kentucky State University
- 10:45 am **Heavy Metal Concentrations in the Fruits of *Capsicum chinense*.** George Antonious - Kentucky State University

¹Undergraduate Research Competition

²Graduate Research Competition

- 11:00 am **Clonality of Pawpaw (*Asimina triloba*) Patches in Kentucky.** Kirk W. Pomper, Jeremiah D. Lowe, Li Lu, Sheri B. Crabtree and Lauren A. Collins - Kentucky State University
- 11:15 am **Is Farmer Participation in the Farm-to-School Progr Economically Sensible?** Stephen A. King - Western Kentucky University, Jon T. Biermacher - The S Roberts Noble Foundation
- 11:30 am **Lunch** – See folder for possibilities
- 1:00 pm **Effect of Glucosinolate Exposure on *Sclerotinia sclerotiorum* and *Phytophthora capsici*.** Michael Bomford - Kentucky State University, Y. Bateman - University of Kentucky, Brian Geier - Kentucky State University, Paul Vincelli - University of Kentucky, George Antonious - Kentucky State University
- 1:15 pm **Properties of Soil under Five Forage Grasses.**² Robert S. Tokosh and Iin P. Handayani - Jefferson Community College
- 1:30 pm **Effects of early spring growth annual ryegrass consumption on pareters associated with linitis in horses.**² Morgan Akers - Western Kentucky University
- 1:45 pm **Phytomining of Gold and Plant-mediated Production of Gold Nanoparticles.**² Daniel L. Starnes and Dr. S.V. Sahi - Western Kentucky University
- 2:00 pm **Investigation of Yield and Quality of Grafted Heirloom and Hybrid Tomatoes.**² Stephen Flomo, Martin Stone and Elmer Gray - Western Kentucky University, Nathan Howell - University of Kentucky, Diana Eldin - Western Kentucky University
- 2:15 pm **Impact of Ripe Pawpaw Fruit Extract on Mortality and Feeding Deterrence of Striped Cucumber Beetles on Squash.** Karen L. Friley, John D. Sedlacek, Jeremy M. Lowe and Kirk W. Pomper - Kentucky State University
- 2:30 pm **Break - 304 Whitehall Classroom Building**
- 2:45 pm **Heirloom and Hybrid Tomato Yield in Organic and Conventional Production Systems.**² Diana Edlin, Martin Stone, Stephen Flomo and Elmer Gray - Western Kentucky University, Nathan Howell - University of Kentucky
- 3:00 pm **Kentucky Farmers' Markets: An Analysis of Accessibility to Small-Scale Producers.**² Kelly R. Probst and Siddhartha Dasgupta - Kentucky State University
- 3:15 pm **Economics of a Soft-shell Crayfish Operation.**² Nathan Bussen and, Siddhartha Dasgupta - Kentucky State University
- 3:30 pm **Evaluation of Global Corn Accessions Suitable for Baby Corn Production.** Martin Stone, Elmer Gray and Willi Willian - Western Kentucky University
- 3:45 pm **Business Meeting and Selection of Officers**
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

ANTHROPOLOGY AND SOCIOLOGY

Changzheng Wang, Chair
Kentucky State University

Donald Ball, Secretary
U. S. Army Corps of Engineers

SATURDAY, NOVEMBER 01, 2008 WHITE HALL - 209

- 9:30 am **Break** - 304 Whitehall Classroom Building
- 10:00 am **Tub Mills in Southern Appalachia: A Forgotten Type of Material Culture.** Donald B. Ball - Retired
- 10:15 am **Spatial Analysis of Sex Offender Treatment Resources.**² Lincoln Sloas - Morehead State University
- 10:30 am **Knowledge and Attitudes about Vegetable Consumption Affects Body Weight Status of Kentucky Adults.**¹ Jonathan Strayer, Lingyu Huang, Cecil Butler and Changzheng Wang - Kentucky State University
- 10:45 am **Increasing public interest in the celebration of Chinese New Year in the Bluegrass regions.**² Cheryl Pan - University of Kentucky
- 11:00 am **Business Meeting and Selection of Officers**
- 11:15 am **Break** - 304 Whitehall Classroom Building
- 11:30 am **Lunch** – See folder for possibilities
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

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²Graduate Research Competition

BOTANY

Maggie Whitson, Chair
Northern Kentucky University

Allen Risk, Secretary
Morehead State University

SATURDAY, NOVEMBER 01, 2008 WHITE HALL - 219

- 9:30 am **Break - 304 Whitehall Classroom Building**
- 11:30 am **Lunch** – See folder for possibilities
- 1:00 pm **Roadside Pennycress (*Thlaspi alliaceum*, Brassicaceae), a New Invasive Pest Plant for Kentucky and its Brassicaceae Associates.** Ralph L. Thompson and Katrina Rivers Thompson - Berea College
- 1:15 pm **Influence of elevation, host species and host size on the density of mistletoes, *Phoradendron robustissimum* (Viscaceae) in Costa Rica.**¹ Jessica R. Price - Berea College
- 1:30 pm **The status of *Paxistima canbyi* (mountain lover) in Kentucky: Recent surveys reveal glacial relict evergreen shrub is threatened by non-native bug.** Tara R. Littlefield - Kentucky State Nature Preserves Commission
- 1:45 pm **Pteridophytes of Carter Caves State Resort Park, Carter County, Kentucky. How does this park compare?**¹ Channing Richardson and Allen C. Risk - Morehead State University
- 2:00 pm **Preliminary floristic survey of Old Mulkey Meeting House State Historic Site, Monroe County, Kentucky.** Ralph L. Thompson - Berea College, Ronald L. Jones - Eastern Kentucky University
- 2:15 pm **Pursuing Purslane (*Portulaca*, Portulacaceae) in Kentucky and Surrounding States.** Maggie Whitson - Northern Kentucky University
- 2:30 pm **Break - 304 Whitehall Classroom Building**
- 2:45 pm **The silky aster of the southeastern United States, and a virtual herbarium solution to a botanical mystery.** Ronald Jones - Eastern Kentucky University
- 3:00 pm **Acquisition of the Orphaned Davies Herbarium (DHL) by Western Kentucky University.** Lawrence Alice and Robert Neidlinger - Western Kentucky University
- 3:15 pm **Isolation of triterpenoids from Reishi mushroom and their anti-cancer effects.**¹ Sanda Zolj, Melissa D. Pawley, Dave L. Robinson, Mary O. Huff and Joann M. Lau - Bellarmine University
- 3:30 pm ***Sphagnum* (Section *Sphagnum*) in the Cumberlands: taxonomy, ecology, and distribution.** Allen C. Risk - Morehead State University
- 3:45 pm **Business Meeting and Selection of Officers**
- 4:00 pm **Break - 304 Whitehall Classroom Building**
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

CELLULAR AND MOLECULAR BIOLOGY

Sigrid Jacobshagen, Chair
Western Kentucky University

Dawn Anderson, Secretary
Berea College

SATURDAY, NOVEMBER 01, 2008

WHITE HALL - 201

- 9:30 am **Break** - 304 Whitehall Classroom Building
- 11:30 am **Lunch** – See folder for possibilities
- 1:00 pm **Novel characterization of Epacs within the adult rat retina.**²
Christopher M. Whitaker and Nigel G. F. Cooper - University of Louisville
- 1:15 pm **Searching for binding partners for the novel Phosphorylase kinase variant, Phk γ 181.**² Kishore Kumar reddy - Western Kentucky University
- 1:30 pm **The regular 24-minute switch between the two functions of ECTO-NOX proteins might constitute the pacemaker of the circadian clock.**²
Jennifer Forbes-Stovall - Western Kentucky University, D. James Morr  - Purdue University, Sigrid Jacobshagen - Western Kentucky University
- 1:45 pm **Role of "animal-like cryptochrome" in *Chlamydomonas reinhardtii*.**²
Shobha L. Silparasetty and Sigrid Jacobshagen - Western Kentucky University
- 2:00 pm **Human B cell immunomodulation by *Uncaria tomentosa*: application toward rheumatoid arthritis.**¹ Christina Nichols, Dana Cunningham and Joseph Mester - Northern Kentucky University
- 2:15 pm **Break** - 304 Whitehall Classroom Building
- 2:45 pm **Binding of Autotaxin/LysoPhospholipase D to Platelet Integrins.**¹
Matthew Riddle - Asbury College, Tracy Drennan, Craig Vander Kooi and Susan S. Smyth - University of Kentucky, Malinda A. Stull - Asbury College, Andrew J. Morris - University of Kentucky
- 3:00 pm **Characterization of Dual-Specificity Phosphatase 1, Dusp1, in Lung Cancer.**¹ Joshua Lester and Malinda A. Stull - Asbury College, E. Penni Black - University of Kentucky
- 3:15 pm **p63 defines an epithelial phenotype and represses the mesenchymal-specific gene COL5A1.**¹ Dikshya Bastakoty - Berea College, Christopher Barton and Jennifer Pietenpol - Vanderbilt University
- 3:30 pm **Are prions vital to your immune system?**¹ Dana Cunningham and Joseph Mester - Northern Kentucky University
- 3:45 pm **Business Meeting and Selection of Officers**
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

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²Graduate Research Competition

CHEMISTRY

Matthew Saderholm, Chair
Berea College

Kevin Revell, Secretary
Murray State University

SATURDAY, NOVEMBER 01, 2008 WHITE HALL - 214

- 8:00 am **Synthesis of electron rich dehydrobenzoannulenes for incorporation into multi-component sensors.**¹ Chris Miller and KC Russell - Northern Kentucky University
- 8:15 am **What Is That Nice Smell? Analysis of the Muscatel Aroma in Darjeeling Black Teas.**¹ Nathan Defreitas, Bruce M. Branan and Bruce Richardson - Asbury College
- 8:30 am **Potential Macrocylic B-Sheet Peptide that May Inhibit B-Amyloid Aggregates of Alzheimer's Disease.**¹ Sudipa Chowdhury - University of Kentucky
- 8:45 am **Automating the management of an introductory chemistry open lab at EKU.** Jessica B. Smith - Harrison County High School, Daniel C. Tofan - Eastern Kentucky University
- 9:00 am **Preliminary leaching and petrographic studies of coal combustion by-products produced by three stoker boilers.**¹ Lauren Gray, Ryne Carroll, Miranda Noel, Elizabeth Lyon, Nathan Coker, Ann Macintosh and Jen O'Keefe - Morehead State University
- 9:15 am **Computational Database Screening for the Discovery of Novel SERCA Inhibitors.** Michael Lape and Stefan Paula - Northern Kentucky University
- 9:30 am **Break** - 304 Whitehall Classroom Building
- 10:00 am **Synthesis of complementary push-pull [14]-dehydrobenzoannulenes.**¹ Jason Beck and KC Russell - Northern Kentucky University
- 10:15 am **Molecular Modeling and Synthesis of Oligo(phenyleneacetylene) Molecules for Application in Organic Solar Cells.**¹ Jon Slaughter, Michael Chance, Nalini Sathyanarayan, Junting Wang and John M. Ponting - Murray State University
- 10:30 am **The Inverse Isotope Effect of the Synthesis of Hydrocarbons from CO and H₂.** Buchang Shi, Chufen Jin and Mick Miller - Eastern Kentucky University, M. K. Gnanamati - University of Kentucky, B. H. Davis, Shenke Zheng, Yali Liu and Jinlin Li Miller - Eastern Kentucky University
- 10:45 am **Collaborative learning through worksheet based problem solving.** Jennifer Imel and Daniel C. Tofan - Eastern Kentucky University
- 11:00 am **Synthesis of Cariporide Derivatives for Sodium-Proton Exchange Inhibition.**¹ Jacob Vervynckt - Western Kentucky University
- 11:30 am **Lunch** – See folder for possibilities

¹Undergraduate Research Competition

²Graduate Research Competition

- 1:00 pm **A Chloride Selective Electrode Based on New Class of Halide Receptors.**² Elsayed Zahran - University of Kentucky, Yuran Hua and Amar Flood - Indiana University, Leonidas G. Bachas - University of Kentucky
- 1:15 pm **The “Edge effect” in an immobilized protein pattern towards the aptamer binding.**² Pei Gao and Yuguang Cai - University of Kentucky
- 1:30 pm **The Role of Exosomes in Alzheimer's disease.**² Jennifer Collins - University of Kentucky
- 1:45 pm **Study of bisphosphonate affinity to hydroxyapatite using a constant composition method of crystal growth.**² Jivan Yewle, David Puleo and Leonidas Bachas - University of Kentucky
- 2:00 pm **SYNTHETIC APPROACHES TO ACENE AND HETEROCYCLE-FUSED COMPLEXES OF RUTHENIUM OR MANGANESE**² Uttam R. Pokharel - University of Kentucky
- 2:15 pm **Break** - 304 Whitehall Classroom Building
- 2:45 pm **Functionalization and Characterization of Nanodiamond-Der Multi-Layered Fullerenes (Carbon Nano-Onions).**² Mahendra Kumar Sreeramaju and John P. Selegue - University of Kentucky
- 3:00 pm **Attrition rates in chemistry at EKU.**² Jessica B. Smith - Harrison County High School, Jennifer Imel and Daniel C. Tofan - Eastern Kentucky University
- 3:15 pm **Preparation, Functionalization and Characterization of Electric Arc-Prepared Carbon and Nano Onions.**² Rituraj Borgohain and John P. Selegue - University of Kentucky
- 3:30 pm **Business Meeting and Selection of Officers**
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

COMPUTER AND INFORMATION SCIENCES

Jerzy Jaromczyk, Chair
University of Kentucky

Eric Rouchka, Secretary
University Of Louisville

SATURDAY, NOVEMBER 01, 2008

WHITE HALL - 247

- 8:00 am ***In silico* Prediction of Novel Tissue Specific Isoforms.** ¹ Elizabeth Cha, Christopher M. Whitaker, Xiaohong Li, Nigel G. F. Cooper and Eric Christian Rouchka - University of Louisville
- 8:15 am **The Periodic Table Database. Conversion to multiple formats.**¹ Jennifer Imel and Daniel C. Tofan - Eastern Kentucky University
- 8:30 am **Development of Data Mining Algorithms for the 4G Mobile Network.**¹ Joshua Bradley and Sherif Rashad - Morehead State University
- 8:45 am **3D: A Mysterious World.**¹ Austin Areaux - Eastern Kentucky University
- 9:00 am **Toward DNA-Based Computing: Random Number Generation.**² Christy M. Bogard - University of Louisville, Benjamin Araiz - Ben-Gurion University, Eric C. Rouchka - University of Louisville
- 9:15 am **EMPIRE: An International Multiplayer Online Game and Its Challenges from the Perspective of Developer, Player and Computer Science Person.**² Ray Hyatt and Jerzy W. Jaromczyk - University of Kentucky
- 9:30 am **Parallelized Smith-Waterman algorithm using CUDA on G80 architecture.**² Sungbo Jung, Ming Ouyang and Dar-Jen Chang - University of Louisville
- 9:45 am **Business Meeting and Selection of Officers**
- 10:00 am **Break** - 304 Whitehall Classroom Building
- 11:30 am **Lunch** – See folder for possibilities
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

ECOLOGY AND ENVIRONMENTAL SCIENCE

Scott Grubbs, Chair
Western Kentucky University

Sarah Emery, Secretary
University of Louisville

SATURDAY, NOVEMBER 01, 2008

WHITE HALL - 242

- 8:00 am **Reconstructing Eastern Kentucky Drought: Were the Late-1780s a Climatological Boon for Mr. Daniel?** Neil Pederson and Kacie Tackett - Eastern Kentucky University, Stacy Clark - USDA Forest Service, Glade Brosi - University of Kentucky, Ray Eaton and R. Drew Stockwell - Eastern Kentucky University
- 8:15 am **Algal Survey of Abraham Lincoln National Historic Site.** Thomas Smith, Tim Schroeder, Surya Banks and Nitish Narula - Southern Arkansas University
- 8:30 am **Genetic Diversity in Native and Invasive Rubus (Rosaceae).** Ashley Wint - Western Kentucky University
- 8:45 am **Water Quality in Coal Country: An Assessment of Right Fork Beaver Creek, Floyd and Knott Counties.** Reagan Weaver and Alice Jones - Eastern Kentucky University
- 9:00 am **Late Cenozoic Molluscan Paleoecology of Southwestern Kansas.**² Brian W. Steffen and James E. Alexander, Jr. - University of Louisville
- 9:15 am **Comparison of the decomposition, macroinvertebrate colonization, and fungal biomass of leaves along hydrologic gradients in headwater stream channels in eastern Kentucky, U.S.A.**² Miller S. Jarrell and Scott A. Grubbs - Western Kentucky University
- 9:30 am **Break** - Whitehall Classroom Building
- 10:00 am **A comparative ecological study of two disjunct, congeneric species of darters in Kentucky: *Etheostoma kantuckeense* and *Etheostoma lawrencei*.**² Bjorn Schmidt and Scott Grubbs - Western Kentucky University
- 10:15 am **The effects of prey abundance and flower quality on foraging site decisions in a juvenile crab spider.**² Chadwick J. Hanna and Perri K. Eason - University of Louisville
- 10:30 am **Why is the Green River Green? An assessment of algal biomass and nutrient levels along a longitudinal gradient in the Upper Green River.**² Mary Douglas Penick and Scott A. Grubbs - Western Kentucky University
- 10:45 am **Population Genetic Analysis of Gopher Tortoises (*Gopherus polyphemus*) Across the Landscape of a Military Training Facility.**² Jeffrey Jackson and Stephen C. Richter - Eastern Kentucky University
- 11:00 am **Influences of Microbial Networks on Food Webs.**¹ Kati Coates, Albert J. Meier and Jonathan Bowers - Western Kentucky University
- 11:30 am **Lunch** – See list of possibilities in registration folder

¹Undergraduate Research Competition

²Graduate Research Competition

- 1:00 pm **Optimizing cellulosic ethanol production by evaluation of Kentucky prairie grasses for ethanol yield.**¹ Christie Otto - Asbury College, Ray Smith - University of Kentucky, Ann Witherington - Asbury College
- 1:15 pm **Edge Effects on Native and Invasive Plant Communities in Areas of Differing Land Use.**¹ Rodney Ripberger and Tamara sluss - Kentucky State University
- 1:30 pm **Trace metals in surface soils: a descriptive survey of a non-industrial small town in central Kentucky.**¹ Emily Rehner - Asbury College, Nancy E. Johnson - University of Kentucky, Bobby R. Baldrige - Asbury College
- 1:45 pm **Business Meeting and Selection of Officers**
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

ENGINEERING

Jennifer Birriel, Chair
Morehead State University

Ignacio Birriel, Secretary
Morehead State University

SATURDAY, NOVEMBER 01, 2008

WHITE HALL - 208

- 9:30 am **Break** - 304 Whitehall Classroom Building
- 11:30 am **Lunch** – See list of possibilities in registration folder
- 1:45 pm **Reversible supply chain in recycling center.** Jaby Mohammed and Rashika Agrawal - Morehead State University
- 2:00 pm **Early Detection of Lung Cancer in CT Scans Using Computer Automated Detection.**¹ Teresa Shaffer - University of the Cumberlands, Ayman El-Baz - University of Louisville
- 2:15 pm **Applying Knowledge Based Engineering to Plastic Drum Design.** Jared May, Dr. Jaby Mohammed and Dr. Yuqiu You - Morehead State University
- 2:30 pm **Break** - Whitehall Classroom Building
- 2:45 pm **Kentucky Space Consortium Space Express Mission.**² Tyler Doering and James Lump - University of Kentucky
- 3:00 pm **KySat-1 Satellite Status and Qualification Testing.**¹ Twyman Clements and James Lump - University of Kentucky
- 3:15 pm **KySat-1 Flight Software Design.**² Samuel Hishmeh and James Lump - University of Kentucky
- 3:30 pm **Kentucky Space Balloon-1 Near-Space Experiment.**² Samir Rawashdeh and James Lump - University of Kentucky
- 3:45 pm **Business Meeting and Selection of Officers**
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

GEOGRAPHY

F. Tyler Huffman, Chair
Eastern Kentucky University

Stuart Foster, Secretary
Western Kentucky University

SATURDAY, NOVEMBER 01, 2008

WHITE HALL - 243

- 9:30 am **Break** - 304 Whitehall Classroom Building
- 10:00 am **Kentucky Counties and Small Island Developing Countries.** Bruce E. Davis - Eastern Kentucky University, C. Dewayne Sims - Gateway Area Development District
- 10:15 am **Relationships between land use/land cover, land surface condition and macroinvertebrate community structure at three spatial scales.** Christine McMichael and David Smith - Morehead State University, Robert Johnson - University of Louisville
- 10:30 am **Threatening Change: Metrics on Vicinity to 2001-2005 Temporal Land Cover Change for the Calibration Sites of the 2001 Kentucky Landscape Snapshot Project.** Demetrio P. Zourarakis - Kentucky Division of Geographic Information
- 10:45 am **Comparison of aspirate and non-aspirated temperature measurements in the Kentucky Mesonet.** Stuart Foster, Rezaul Mahmood, Steve Struebig, Dana Grabowski, Michael Grogan and Megan Ferris - Western Kentucky University
- 11:00 am **Building Climate Change Resilience Through Improved Resource Management.** John All and Narcisa Pricope - Western Kentucky University
- 11:15 am **Resource Management and Climate Variability in the Chilean Lakes District.**¹ Robert Critchelow and John All - Western Kentucky University
- 11:30 am **Business Meeting and Selection of Officers**
- 11:45 am **Lunch** – See list of possibilities in registration folder
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

GEOLOGY

Frank Ettensohn, Chair
University Of Kentucky

John Rockaway, Secretary
Northern Kentucky University

SATURDAY, NOVEMBER 01, 2008 WHITE HALL - 209

- 9:30 am **Break** - 304 Whitehall Classroom Building
- 11:30 am **Lunch** – See list of possibilities in registration folder
- 1:00 pm **Establishing a Stratigraphic Framework for the Upper Green River Biological Preserve, Hart County, Kentucky.**¹ Robert D. Moore and Michael T. May - Western Kentucky University
- 1:15 pm **Determination of suspended sediment concentrations, instantaneous suspended sediment loads, and potential sources for suspended sediment, Dry Creek and Morgan Fork, Rowan County, Kentucky.**¹ Samuel Williams, Steven Reid and Christine McMichael - Morehead State University
- 1:30 pm **Gravity Modeling -- New Madrid Seismic Zone.**² David Fries, Jame Combs and Andrew C. Kellie - Murray State University
- 1:45 pm **Business Meeting and Selection of Officers**
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

HEALTH SCIENCES

Avinash Tope, Chair
Kentucky State University

Phyllis Rogers, Secretary
Kentucky State University

SATURDAY, NOVEMBER 01, 2008

WHITE HALL - 219

- 9:30 am **Break** - 304 Whitehall Classroom Building
- 10:00 am **Effects of a body conditioning class on the body weight and body composition of college students.** Jo Sloan, Cecil Butler, Lingyu Huang and Changzheng Wang - Kentucky State University
- 10:15 am **The effect of the commensal bacterium, *Prevotella nanceiensis*, on experimental autoimmune encephalomyelitis, an animal model for multiple sclerosis** ¹ Megan Jackson - Berea College, Ashutosh Mangalam - Mayo Graduate School, Chella David - Mayo Graduate School
- 10:30 am **Metabolic Syndrome: Role of College in Early Detection and Intervention** ¹ De'Andra Robertson, Avinash Tope and Phyllis Rogers - Kentucky State University
- 10:45 am **Getting High on Tea: How Elevation affects Epigallocatechin Gallate (EGCG) Concentration in *Camellia Sinensis*.** ¹ Aaron Baker, Bruce M. Branan and Bruce Richardson - Asbury College
- 11:00 am **Analysis of Caffeine Levels in Multiple Infusions of Tea** ¹ Micah Buckel, Bruce M. Branan and Bruce Richardson - Asbury College
- 11:15 am **Business Meeting and Selection of Officers**
- 11:30 am **Lunch** – See list of possibilities in registration folder
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

MATHEMATICS

Russell May, Chair
Morehead State University

Mark Robinson, Secretary
Western Kentucky University

SATURDAY, NOVEMBER 01, 2008 WHITE HALL - 211

- 9:30 am **Break** - 304 Whitehall Classroom Building
- 10:00 am **Multiplication is not repeated addition** Rus May - Morehead State University
- 10:15 am **The Average Regression Line: an Alternative to Least Squares** Andy Martin - Kentucky State University
- 10:30 am **Analysis of Systems of Differential Equations** Mark P. Robinson - Western Kentucky University
- 10:45 am **Solving Systems of Multivariable Polynomial Equations** John Mosley - Morehead State University
- 11:00 am **Equivalence numbers of graphs** R. Douglas Chatham, R. Duane Skaggs, Robin Blankenship and Brian Salyer - Morehead State University
- 11:15 am **Business Meeting and Selection of Officers**
- 11:30 am **Lunch** – See list of possibilities in registration folder
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

MICROBIOLOGY

Marcia Pierce, Chair
Eastern Kentucky University

Hazel Barton, Secretary
Northern Kentucky University

SATURDAY, NOVEMBER 01, 2008 WHITE HALL – 245

- 8:00 am **Raccoons and opossums as potential reservoir hosts for tick-borne zoonoses in Kentucky.**² Kristina Tackett - Western Kentucky University
- 8:15 am **Evaluation of Three Polymerase Chain Reaction tests Directed against *Theileria equi*.** Mariam Hanna - Transylvania University, Fabien Miszczak, Christine Fortier and Stephane Pronost - Laboratoire Départementale Frank Duncombe - Manager of Research Department
- 8:30 am **Virus particles directly modulate human natural killer cells.**¹ Andrew Jones, Dana Cunningham and Joseph Mester - Northern Kentucky University
- 8:45 am **Effects of Anti-protozoan Drugs on the Pathogenic Bacterial Species *Enterococcus faecalis* and *Pseudomonas aeruginosa*.**¹ Stephanie Green and Marcia Pierce - Eastern Kentucky University
- 9:00 am **Microbial Atrazine Breakdown in Karst Groundwater Systems and its Effect on Ecosystem Energetics.** Brandon Iker - Northern Kentucky University, Pat Kambesis - Western Kentucky University, Stuart Oerhle - Northern Kentucky University, Chris Groves - Western Kentucky University, Hazel A. Barton - Northern Kentucky University
- 9:30 am **Break** - 304 Whitehall Classroom Building
- 10:00 am **Mechanisms of antimicrobial resistance in clinical isolates of Group A Streptococci.**¹ Codey Gillum and Marcia Pierce - Eastern Kentucky University
- 10:15 am **Seroprevalence of *Toxoplasma gondii* infection in Kentucky opossums.**¹ Kourtney R. Gentry, Colleen E. Gavin, Chad Groce and Cheryl D. Davis - Western Kentucky University
- 10:30 am **Effectiveness of four novel polyamine compounds in inhibiting the growth of *Escherichia coli* and *Staphylococcus aureus*.**¹ Melissa Smith and Marcia Pierce - Eastern Kentucky University
- 10:45 am **Business Meeting and Selection of Officers**
- 11:30 am **Lunch** – See list of possibilities in registration folder
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

PHYSICS AND ASTRONOMY

Jennifer Birriel, Chair
Morehead State University

Ignacio Birriel, Secretary
Morehead State University

SATURDAY, NOVEMBER 01, 2008

WHITE HALL - 208

- 8:00 am **Using the Earth's Magnetic Field to Detect Cosmic Ray Electrons.**
Scott Nutter - Northern Kentucky University
- 8:15 am **Energy-density relations for the spherically confined D -dimensional harmonic oscillator.** Ed Montgomery - Centre College
- 8:30 am **Bit Error Rate Testing of the Microhard MHX-2400 S-Band Radio for KySat1 Using Serbert.**² Marc Beck - Morehead State University
- 8:45 am **Study of the period of variable star at Berea College Observatory.**¹
Ramesh Adhikari, Jimmy Rop, William Cole and Tracy Hodge - Berea College
- 9:00 am **Investigating the Plausibility of Blue Straggler Production without Cluster Dynamics: A Binary Evolution Only Approach.**¹ Matthew Bailey - Berea College, Robert D. Mathieu and Aaron M. Geller - Department of Astrophysics, University of Wisconsin, Tracy M Hodge - Berea College
- 9:15 am **Laser Ablation of Diamond.** William D. Norris, David Gilmour and A. S. Lahamer - Berea College, R. E. Haufler - MDS Analytical Technologies
- 9:30 am **CREST Veto Counter Design and Fabrication.**¹ Sean Bodine and Scott Nutter - Northern Kentucky University
- 9:45 am **Break** - 304 Whitehall Classroom Building
- 10:00 am **Measuring the Proper Motion and Parallax of Barnard's Star.**¹ Ryan Sketch and Wesley Ryle - Thomas More College
- 10:15 am **Computer Simulations for the CREST Data Analysis.**¹ Mitchell Cahill and Scott Nutter - Northern Kentucky University
- 10:30 am **Investigation of AGN Variability in the Optical Regime.**¹ Diana Gudkova - Berea College, H. Richard Miller and Wesley Thomas Ryle - Georgia State University, Amer Lahamer - Berea College
- 10:45 am **Numerical Simulations On Disordered Classical Spin Systems.**¹
Brandon Brown, Brad Steele and Martin Viellette - Berea College
- 11:00 am **Corrections to Gibbs Formation Energy and the Nucleation Rate.**¹
James A. Harris and H. R. Kobraei - Murray State University
- 11:15 am **Characterization of an all-fiber Lyot birefringent filter.**¹ John H. Gruenewald and Jason D. Neiser - Centre College
- 11:30 am **The Magnetic Field on the Surface of a Circular Current Loop.**
Marshall Wilt - Centre College
- 11:45 am **Lunch** – See list of possibilities in registration folder

¹Undergraduate Research Competition

²Graduate Research Competition

- 1:00 pm **Search for the Omega_c star Charmed Baryon at the BABAR Detector at SLAC (Stanford Linear Accelerator Center), Akhtar Mahmood** - Bellarmine University
- 1:15 pm **Objective quantification of astronomical seeing conditions with inexpensive commercial off the shelf video equipment and free software.** Arthur K. Pallone, Melissa Addessi and Sarah Evans - Murray State University, Joshua Clifford - Graves County High School, Brittany Jackson and Adam Jones, Evans - Murray State University
- 1:30 am **Business Meeting and Selection of Officers**
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

PHYSIOLOGY AND BIOCHEMISTRY

Cecil Butler, Chair
Kentucky State University

Michael Smith, Secretary
Western Kentucky University

SATURDAY, NOVEMBER 01, 2008 WHITE HALL - 212

- 8:00 am **Inverse relationship between the polyphenol concentration and head size of cabbages grown organically.** Lingyu Huang, Changzheng Wang, Michael Bomford, Brian Geier, Cecil Butler and John Rogers - Kentucky State University
- 8:15 am **Regulation of Cell Proliferation by Endothelin-1 in Bovine Corneal Endothelial Cells.**² Lakshmi Bollu and Kenneth M. Crawford - Western Kentucky University
- 8:30 am **DNA damage originating from raloxifene interaction with copper.**¹ Logan W. Murphy and David Saxon - Morehead State University
- 8:45 am **Characterization of osteoblastic properties of 7F2 cultures after acclimation to reduced levels of fetal bovine serum.**¹ Gregory C. Howard, Levi D. Castle, Sourik Ganguly, Laura A. Ashley - Morehead State University, Ryan D. Grey, David K. Peyton, Mike. E. Fultz, Darrin L. DeMoss
- 9:00 am **Effect of Rho kinase inhibition on alpha-actin remodeling in the contracting A7r5 smooth muscle cell.**² Suzette M. Pike, William R. Hankinson and Michael E. Fultz - Morehead State University
- 9:15 am **Variability in face recognition for adults and children in the fusiform and inferior occipital regions.**¹ Corwin R. Butler - Asbury College, Jane E. Joseph - University of Kentucky, Bobby R. Baldrige - Asbury College
- 9:30 am **Break** - 304 Whitehall Classroom Building
- 10:00 am **Retinol esterification in the crayfish (*Procambarus clarkii*) hepatopancreas.**¹ Becky Lindhorst, Bryan Fioret, Anna Canelas and Stephanie Dew - Centre College
- 10:15 am **Characterization of osteoblastic properties of UMR-106 cultures after acclimation to reduced levels of fetal bovine serum.**² Levi D. Castle, Gregory C. Howard, Sourik Ganguly, Laura A. Ashley, Ryan D. Grey, David K. Peyton, Micheal E. Fultz and Darrin L. DeMoss - Morehead State University
- 10:30 am **Analysis of Vascular Reactivity in Independent Phospholipase A2, iPLA₂, Transgenic Mice.**¹ Wanda Eberhard - Asbury College, Su Wen - University of Kentucky, Malinda A. Stull - Asbury College, Ming Gong - University of Kentucky
- 10:45 am **The loss of stromal TGF-beta leads to increased expression of STAT1P1.**¹ Miluka Gunaratna - Berea College, Veronica R. Placencio, Xiaohong Li, Ali-Reza Sharif-Afshar, Magaly Martinez-Ferrer and Neil A. Bhowmck - Vanderbilt University

¹Undergraduate Research Competition

²Graduate Research Competition

- 11:00 am **Analysis of Two Germline Variants of the TGFBR1 Gene in Ovarian Cancer Patients.**¹ Robert Shields, James Schaeper, Kevin Bree, Brandon Kohrs, Christina Baldwin, Larry Douglass and Julia Carter - Wood Hudson Cancer Research Laboratory
- 11:30 am **Lunch** – See list of possibilities in registration folder
- 1:00 pm **Sugar modifies the water activity and water phase salt content of smoked paddlefish meat.**¹ Kia Rodriguez, Cecil Butler, Lingyu Huang, Rick Onders, Steven D. Mims and Changzheng Wang - Kentucky State University
- 1:15 pm **Roles of the SERCA, PMCA and NCX in calcium regulation in the *Drosophila* larval heart.**¹ Matt Ward, Mohati Desai-Shah, Andrew Papoy and Robin L. Cooper - University of Kentucky
- 1:30 pm **Developing RNA linking ilbraries for combinatorial chemical candidates.** Craig Tuerk and Kendra McQuerry - Morehead State University
- 1:45 pm **Microarray analysis and quantitative real-time PCR validation of gene expression during auditory hair cell regeneration in zebrafish (*Danio rerio*).**² Chia-Hui Lin, W. Todd Penberthy, Julie B. Schuck and Michael E. Smith - Western Kentucky University
- 2:00 pm **Business Meeting and Selection of Officers**
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

PSYCHOLOGY

Cary Feria, Chair
Morehead State University

Brian Cusato, Secretary
Centre College

SATURDAY, NOVEMBER 01, 2008
WHITE HALL - 234

- 8:00 a.m. **"Interconnections between parental depression and children's observable behaviors and strategies."** Stacy Vetter, Paula Sexton and, Shari L. Kidwell - Morehead State University
- 8:15 a.m. **Differential validity of the Ruff 2 & 7 Selective Attention Test for Adults with AD/HD, Depression, and Mixed Anxiety-Depression.**² Julie Cash and Sean P. Reilley - Morehead State University
- 8:30 a.m. **Discrimination reversal during acute withdrawal from amphetamine.**² Steven C. Adams, Britney A. Maynard and Wesley White - Morehead State University
- 8:45 a.m. **The Impact of Enhanced AD/HD Knowledge on Successful Malingered of Childhood Symptoms on the Wender Utah Rating Scale.**¹ Cassie M. Watkins - and Sean P. Reilley - Morehead State University
- 9:00 a.m. **Does Amygdala Contribute to Amphetamine-induced Behavioral Activation?**¹ Cory Ruffing, Britney Maynard and Ilsun White - Morehead State University
- 9:15 a.m. **Effects of D1 antagonist pre-treatment on withdrawal-related hypophagia produced by amphetamine.**¹ Nicholas Rudd, Cory T. Ruffing and, Wesley White - Morehead State University
- 9:30 a.m. **Break** - 304 Whitehall Classroom Building
- 10:00 a.m. **"Casual" amphetamine administration and changes in stimulant- and withdrawal-related reductions in food intake in rats.**¹ Nathan C. Adams and Wesley White - Morehead State University
- 10:15 a.m. **Reminiscing about past behavior: Parental sensitivity as a predictor of children's internalizing and externalizing problems.**¹ Hanna E. Gash, Rachel Messer, Shana Silger and Shari Kidwell - Morehead State University
- 10:30 a.m. **Heightened Anxiety in a Mouse Model for Accelerated Aging.**¹ David Cox, Andrew McKinney and Melissa Burns-Cusato - Centre College
- 10:45 a.m. **Pavlovian Conditioning Improves the Reproductive Success of Female Japanese Quail.**¹ Emily Sither, Rebekah Holder and Brian Cusato - Centre College
- 11:00 a.m. **Insecure representations of attachment and children's internalizing and externalizing symptoms.**¹ Tracy L. Osborne, Shameka Anderson and Shari L. Kidwell - Morehead State University
- 11:15 a.m. **Defensive Pessimism: Relations with Inhibition, Rejection, and Coping.**¹ Jeffery Dobson, David Olson and Carole Olson - Morehead State University

¹Undergraduate Research Competition

²Graduate Research Competition

- 11:30 am **Lunch** – See list of possibilities in registration folder
- 1:00 p.m. **Children’s mastery-motivation, parental assistance, and early academic skills.**¹ Christa N. Patterson and Lisa A. Bryant - Morehead State University
- 1:15 p.m. **Reactive Gliosis after only two days of Alcohol Exposure.**¹ Carey Shaner - Centre College, Ayumi Deeney - University of Kentucky, Kim Nixon - University of Kentucky
- 1:30 p.m. **The Impact of Studying Specific AD/HD Symptom Information on AD/HD Knowledge and Malingering of AD/HD symptoms.**¹ Kelly D. Gruber and Sean P. Reilley - Morehead State University
- 1:45 p.m. **Hostile attribution bias and children’s self-perceptions: The roles of attachment and maternal acceptance.**² Andrew A. Hancock, Shari L. Kidwell, Kaye Thomas and Marion E. Young - Morehead State University
- 2:00 pm **Business Meeting and Selection of Officers**
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

SCIENCE EDUCATION

Jennifer Myka, Chair
Thomas More College

Beth Nolte, Secretary
Spalding University

SATURDAY, NOVEMBER 01, 2008

WHITE HALL - 247

- 9:30 am **Break** - 304 Whitehall Classroom Building
- 11:30 am **Lunch** – See list of possibilities in registration folder
- 1:00 pm **Using Cooperative Learning To Teach Scientific Writing.** William Staddon - Eastern Kentucky University
- 1:15 pm **“NCLEX-like” exam items for use in science courses taught for nursing programs.** Jennifer Leigh Myka and Michelle Ottersbach - Galen College of Nursing
- 1:30 pm **Community college student opinions of online courses.** John G. Shiber, PhD - Kentucky Community and Technical College System
- 1:45 pm **A Story of Two Geology Courses' Student Perceptions and Learning: Geology and Cinema vs. Introductory Geology.** Margaret E. Crowder - Western Kentucky University
- 2:00 pm **Science methods courses: Appropriate for internet instruction?** Wilson J. Gonzalez-Espada - Morehead State University
- 2:15 pm **Business Meeting and Selection of Officers**
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

ZOOLOGY

David Peyton, Chair
Morehead State University

Anthony Lentz, Secretary
Bellarmine University

SATURDAY, NOVEMBER 01, 2008 WHITE HALL - 246

- 8:00 am **Male aggression is modulated differently via the neuropeptides vasotocin and isotocin in males of a parental fish species versus a non-parental fish species.** Nick Santangelo - Eastern Kentucky University
- 8:15 am **A comparison of the aquatic biodiversity in eastern hemlock dominated and hardwood dominated forest streams located within central and eastern Kentucky.** ² Aric Payne and Sherry Harrel - Eastern Kentucky University
- 8:30 am **Dietary analysis of the Northern Ring-necked Snake, *Diadophis punctatus edwardsii* (Dipsadidae), in eastern Kentucky.** ² James A. Evans - Morehead State University
- 8:45 am **Continued Studies of Ventral Eversible Gland Function and Composition in Velvetbean Caterpillars, *Anticarsia gemmatalis* (Lepidoptera: Noctuidae).** ¹ Elizabeth A. Shaw and Anthony J. Lentz - Bellarmine University
- 9:00 am **A Summary of the July Fourth Butterfly Counts in Oldham County, Kentucky, 1976-2008.** Charles V. Covell Jr. - McGuire Center of Lepidoptera and Biodiversity
- 9:30 am **Break** - 304 Whitehall Classroom Building
- 10:00 am **Population structure of buckeye butterflies (genus *Junonia*) in Texas based on Cytochrome Oxidase II DNA sequences.** ¹ Jauan Burbage and Jeffrey M. Marcus - Western Kentucky University
- 10:15 am **Social Interactions: Influence of sensory cues and environmental conditions on fighting strategy in blind crayfish.** ¹ Easter Bocook, Becca Liberty, Jessica McQuerry, Sonya Bierbower and Robin Cooper - University of Kentucky
- 10:30 am **The Effects of an Altered Dopaminergic System on Behavior, Development, and Physiology in *Drosophila melanogaster*.** ¹ Ashby Turner and Dr. Robin Cooper - University of Kentucky
- 10:45 am **Preliminary survey of crayfish diversity and abundance in Ohio River watersheds of northern Kentucky.** ¹ Matthew Ewald and Charles Acosta - Northern Kentucky University
- 11:00 am **Comparison of conspecific sound production and hearing thresholds between two loriciariid catfishes.** ¹ Amanda L Webb and Michael E. Smith - Western Kentucky University
- 11:30 am **Lunch** – See list of possibilities in registration folder

¹Undergraduate Research Competition

²Graduate Research Competition

- 1:00 pm **Decreased dissolved oxygen content in aquatic systems resulting from invasive plant leaf litter and its effects on Wood frog (*Rana sylvatica*) tadpole development and fitness.**¹ Elizabeth Droessler - and Richard D. Durtsche - Northern Kentucky University
- 1:15 pm **Behavioral ecology and translocation of the endangered Stephens' Kangaroo Rat (*Dipodomys stephensi*).**¹ Jessica R. Price - Berea College
- 1:30 pm **Systematic Analysis of a 7-kDa vertebrate pheromone from *Desmognathus ocoee*.**¹ Kari Leichty, Kathleen Bowen, Pamela Feldhoff and Richard Feldhoff - University of Louisville
- 1:45 pm **Business Meeting and Selection of Officers**
- 4:00 pm **Break** - 304 Whitehall Classroom Building
- 4:15 pm **Plenary Session** - Worsham Theater, UK Student Center

¹Undergraduate Research Competition

²Graduate Research Competition

POSTER PRESENTATIONS

Due to the increase number of posters being presented it is becoming difficult to provide adequate space to display them. We will this year, as we did last year, divide the poster presentations into a morning session and an afternoon session according to sections. Each presenter will be provided with an easel and a 4x6 ft. poster board. Each poster board will be identified with a number that matches the presenter's number in the poster portion of the program booklet. Poster presenters must check in at Room 303 of the White Hall Classroom Bldg.

The **Saturday A.M. session** will include the Agricultural Science section through the Ecology and Environmental Science section. These posters will be set up between 7:30 - 8:00 a.m. Students entering the URC will have their posters judged at 9:00 a.m and the presenters **must be present** in order to have their posters judged. **The A.M. posters must be removed or arrangements made to take them down between 11:30 - 12:00.** It is very important that the posters are removed at this time in order to allow the P.M. session to set up.

The **Saturday PM session** will include the Geology section through the Zoology section. These posters will be set up between 12:00 - 1:00 p.m. The URC posters will be judged starting at 2:00 p.m. during which time the presenters must be at their posters. These posters can be removed at 5:00 p.m. The individual in charge of the poster session is Dr. Andrew Wiggington. He and his associates will be available to provide any assistance that may be necessary.

SATURDAY MORNING

AGRICULTURE SCIENCES

1. **Effect of planting date on biomass production by Brassica juncea var. 'Pacific Gold' cover crops** . ¹ John Rodgers, Michael Bomford, George Antonious, Brian Geier - Kentucky State University
2. **Evaluation of Baby Corn as a Niche Crop for Kentucky**. ¹ Tara Holaday and Crystal Walker - Transylvania University, Martin Stone, Elmer Gray, William Willian - Western Kentucky University
3. **Sausage as a Value-Added Local Pork Product**. ¹ Steven Hammond, Jonathan Sands, Michael Panciera - Berea College
4. **Physical characteristics and phenolic content of 14 pawpaw genotypes**. . Hideka Kobayashi, Changzheng Wang and Kirk W. Pomper - Kentucky State University
5. **Home-Based Processing to Add Value to Horticultural Products** . ¹ Jonathan Sands, Steven Hammond, Sean Clark and Sarah Paulson - Berea College

6. **Weed Control in Organic Sweet Corn and Edamame** . Anthony Silvernail, and Dr. Michael Bomford - Kentucky State University
7. **Soluble Solids Content Varies by Pawpaw (*Asimina triloba*) Variety**. Sheri B. Crabtree, Anthony McCormick, Charlene Daniels, Kirk W. Pomper - Kentucky State University
8. **Assessment of Variation in Annonaceous Acetogenin Activity in Pawpaw (*Asimina triloba*) Cultivars**. Jeremiah D. Lowe, Kirk W. Pomper, Sheri B. Crabtree and Jessica Durham - Kentucky State University
9. **Residual Effects of Broiler Litter on Soybean Productivity**. Matt Upchurch, D. Ferguson, I. Handayani and J. Mikulcik - Murray State University
10. **Testing native multi-use perennials for use in high-value mixed plantings**. Michael Bomford and Hideka Kobayashi - Kentucky State University

ANTHROPOLOGY AND SOCIOLOGY

11. **Human Sex Ratio and Family Size for a Selected Sample From the China Population in 2008**. Zheng Wang and Elmer Gray - Western Kentucky University

BOTANY

12. **Using Molecular Markers to Study the Patterns of Genotypic Variation of an Invasive Plant, Alligator Weed (*Alternanthera philoxeroides*)**. Hao Jiang, Dongjiao Liu and Kate He - Murray State University
13. **Does the Reishi mushroom induce apoptosis in female lung cancer?**¹ Melissa D. Pawley, Sanda Zolj, Mary O. Huff, Dave L. Robinson and Joann M. Lau - Bellarmine University
14. **Preliminary Analysis of the Soil Algae Community of an Oil and Metal Contaminated Site in Southwestern Arkansas**. Joe E. Winstead - Southern Arkansas University, Susan Jones-Held - Rutgers University, Michael E. Held - Saint Peter's College
15. **Tissue Specific Differential Gene Expression in Fungal Endophytes**.¹ Lesley Mann, Christopher Schardl and Uljana Hesse - University of Kentucky
16. **The Effect of Simulated Acid Rain on Root Systems of *E. aureum***. Thomas V. El-Mallakh, YongLin Gao and Rif S. El-Mallakh - University of Louisville

¹Undergraduate Research Competition

CELLULAR AND MOLECULAR BIOLOGY

17. **Inhibition of 26S Immunoproteasome Subunit LMP2 Is Not Sufficient to Prevent NF- κ B Activation.**¹ Samantha Mangold and Marie Wehenkel - University of Kentucky
18. **HER2-overexpressing PIK3CA mutated breast cancer cells rely on HER3 for their survival.**¹ Oliver Munyaradzi - Berea College, Anindita Chakrabarty and Carlos L Arteaga - Vanderbilt-Ingram Comprehensive Cancer Center
19. **Trafficking and expression of deletion mutants of the serum resistance-associated protein in *Trypanosoma brucei*.**¹ Keri M. Jamison - Centre College, Natalie A. Stephens and Stephen L. Hajduk - University of Georgia
20. **The effect of single nucleotide polymorphisms on brain-derived neurotrophic factor (BDNF) biosynthesis in lymphoblast cells from bipolar disorder patients.**¹ Mathew Galante - Bellarmine University, Yonglin Gao, Zhenmin Lei and Rif S. El-Mallakh - University of Louisville
21. **Genetic analysis of caloric restriction in *Caenorhabditis elegans*.** .¹ April Taylor - Berea College, Nick Thompson - Centre College, Jim Lund - University of Kentucky
22. **Regulation of Notch4 activity in kidney tubule cells.** .¹ Crystal Thomas - Berea College, Timothy Cummins, Michelle Barati, Michael Mendenhall and David Powell - University of Louisville
23. **Roles of p38 MAPK signaling in *Drosophila*.**¹ Kyle Blackburn - Kentucky Wesleyan College, Morgan Kelty - Transylvania University, Mara Layne - Berea College, Qian Chen, Susan Harrison and Douglas Harrison - University of Kentucky
24. **Troubleshooting NK-1 Receptor Immunohistochemistry to permit a taxonomy of Respiratory Networks in the Ventrolateral Medulla of the Neonate Rat.**¹ Alexis Thomas - Berea College, Deepak Mishra and Nicholas Mellen - University of Louisville
25. **Genetic Analysis of *recQ* DNA helicase function in *Aspergillus nidulans*.** .¹ Christopher Allen - Centre College, Kayla Kinker - Berea College, Jordan Robinson - Georgetown College, Sandeep Mallareddy and Peter M. Mirabito - University of Kentucky
26. **Creating knockout mutations of the *Drosophila crmp* gene by transposon mutagenesis.**¹ Christopher Gantt - Kentucky State University, Natasha Pistilli - Transylvania University, Deanna Morris and John Rawls - University of Kentucky

27. **DNA Sequence Variation in the wingless Gene Product, A Putative Morphogen for Patterning the Eyespot Foci of Buckeye Butterflies (genus *Junonia*).**¹ Bonnie S. McCullagh and Jeffrey M. Marcus - Western Kentucky University
28. **Study of Kss1 ERK kinase-specificity in yeast *Saccharomyces cerevisiae* via a reverse genetic approach.**¹ Joseph Corbett - Thomas More College, Jaclyn Malloy - University of Kentucky
29. **Investigating Cytokinesis Defects Using a Small Molecule and a Novel Gene.**¹ Katharin Shaw - Transylvania University, Dr. Xin Zhang and Dr. Ulrike Eggert - Harvard University
30. **Development of a recombinant expression system for preparation of Goodpasteru Disease autoantigens.**¹ Aaron Fidler - Berea College, C. Cummings, V. Pedchnk and Billy G. Hudson - Vanderbilt University Medical Center
31. **Kinetic imaging of single molecule interaction (KISMI): SNARE proteins and UNC-18 interactions .**¹ Tsering Dolma - Berea College, Chris Hopkins, Wayne Davis and Erik Jorgensen - University of Utah
32. **Generation 4 Biotinylated PAMAM Dendrimer Passage in an *In Vivo* Model of the Blood-Brain Barrier.**¹ Michael Hester, Brett Rossow, Jared Patton, Heather A. Bullen and Kristi Haik Martines - Northern Kentucky University
33. **Striatal Nicotinamide Adenine Dinucleotide Phosphate-Diaphorase-Containing Neurons in an Animal Model of Korsakoff's Syndrome.**¹ Megan Caroway, Megan Kramer, Leslie Fausnacht, Trina Phillips and Kristi Haik Martines - Northern Kentucky University
34. **Systemic Effects of *In Vivo* Administration of Generation 4 Biotinylated PAMAM Dendrimers.**¹ Brett Rossow, Michael Hester, Jared Patton, Heather A. Bullen and Kristi Haik Martines - Northern Kentucky University
35. **Influence of nicotine on physiology, development and behavior of *Drosophila melanogaster*.** Wen-Hui Wu - University of Kentucky, J. Hill - past student, R.L. Cooper - University of Kentucky

CHEMISTRY

36. **Synthesis and Characterization of Oligo(phenylenevinylene) Systems for Application in Organic Photovoltaic Devices.** Broadus Fitzhugh, Ricky Futrell and Kevin Revell - Murray State University

37. **Reaction of methionine derivatives with a platinum(II) diamine compound.** Yueh Ying Liao and Kevin M. Williams - Western Kentucky University
38. **Synthesis and Electro-Optical Characterization of Conjugated Oligomers for Use in Organic Solar Cells.**¹ Broadus Fitzhugh, Jon Slaughter and Kevin D. Revell - Murray State University
39. **Synthesis and Characterization of Novel Organic-inorganic Hybrids Containing Polytungstates.** Bangbo Yan, Dalton Hubble, Hou-Yin Zhao, Yan Cao and Wei-ping Pan - Western Kentucky University
40. **A Thermostable Phenol Hydroxylase for the Cathode in a Biofuel Cell.** Megan Gillespie, Yinan Wai, Sylvia Daunert and Leonidas G. Bachas - University of Kentucky
41. **Towards the Synthesis of Imidazolyl-Porphyrin Ionic Liquids for Delignification.** Brent A. Casper, Terry L. Price, Jr and Laurel A. Morton - Eastern Kentucky University
42. **Synthesis of a Task-Specific Metalloporphyrin Functionalized Ionic Liquid for Use in the Delignification of Biomass.** Terry L. Price, Jr., Brent A. Casper, Matthew Fields and Laurel A. Morton - Eastern Kentucky University
43. **Pollution History of the Kentucky Lake in Comparison with Estonian Pollution History.**¹ Holly Mowery and Bommanna Loganathan - Murray State University
44. **Synthesis, Characterization, and Reactivity of Ti(IV) Complexes Supported by Aryloxide Ligands Bearing Pendant Donor Groups.**¹ Chris Murdock - Kentucky Wesleyan College, Dr. Folami Ladipo and Dr. Leon Dyers, Jr. - University of Kentucky
45. **Diastereoselectivity of Alpha Heteroatom Substituted Ketones.** Rod Erfani and Robert Rosenberg - Transylvania University
46. **Cariporide Prodrugs: Targeting Brain Cancer Cells Through Sodium-Proton Exchange Inhibition.**¹ Johnathan Brantley, Jacob Vervynckt and Mark Graves II - Western Kentucky University, William Harley and Fredriac A Gorin - University of California, Davis, Hasan Palandoken - Western Kentucky University
47. **Determination of BTEX compounds in Ambient Air using Solid Phase Microextraction Gas Chromatography-Mass Spectrometry.**¹ Christopher L. Marcum - Eastern Kentucky University, Bert C. Lynn - University of Kentucky
48. **A chemical thermometer: Illustrating Le Chatelier's principle.**¹ Jennifer Imel and Daniel C. Tofan - Eastern Kentucky University

49. **A laboratory practicum in general chemistry.** Jennifer Imel and Daniel C. Tofan - Eastern Kentucky University
50. **Surface Analysis of the Role of Pyoverdinin Siderophores in Biofilm Formation of *Pseudomonas aeruginosa* on Metal Oxide Substrates.**¹ Whitney Schmidt, Hazel Barton and Heather A. Bullen - Northern Kentucky University
51. **Impact of Metal/Aqueous Interfaces on Biofilm Formation: Probing the Role of Siderophores.**¹ Stephen Wall, Hazel Barton and Heather Bullen - Northern Kentucky University
52. **Developing Analytical Techniques to Investigate Dendrimer Interactions with the Blood Brain Barrier.**¹ Tony Haskamp, Chevelle, Michael Hestor, Brett Rossow, Kristi Haik Martines, Keith Walters and Heather Bullen - Northern Kentucky University
53. **Surface Complexation of Hydroxamate Siderophore Models on Metal Oxide Surfaces.**¹ Hector Urcia, Hazel Barton and Heather Bullen - Northern Kentucky University
54. **Synthesis and Characterization of Furan-2-yl-[5-(furan-2-yl-hydroxy-methylene)-cyclopenta-1,3-dienyl]-methanone .** Richard Unger and Mark Blankenbuehler - Morehead State University
55. **Synthesis of an isocyanide ligand for efficient photo induced charge transfer processes within an octahedral W(0) compound.** Danielle Mazor, Lana Karasiova, Rebecca Seger and Dr. Keith Walters - Northern Kentucky University
56. **Examination of Tungsten (0) Isocyanides as High-Energy Photoreducing Agents.**¹ Sviatlana Karasiova, Stephanie Kramer, Danielle Mazor and Keith A. Walters - Northern Kentucky University
57. **Scent Properties of Trans-Cinnamaldehyde.** Megan O'Conner, Sydney Blevins, Chelsey McCoy and Eva Csuha - Transylvania University
58. **Mesoporous organosilicates-based carriers for chemotherapy drug delivery: Synthesis and characterization.** Nathaniel Reis, Brian Hoffman and Isabelle Lagadic - Northern Kentucky University
59. **Mesoporous organosilicate-based carriers for chemotherapy drug delivery: Loading and release of doxorubicin.** Nathanael Reis, Brian Hoffman and Isabelle Lagadic - Northern Kentucky University
60. **In vitro selection of glucose binding single-strand DNA aptamers.** Linliang Yu and Yinan Wei - University of Kentucky

61. **Reaction of Methionine with a Non-C2-Symmetrical Platinum(II) Diamine Compound.**¹ Nilesh Sahi and Dr. Kevin M. Williams - Western Kentucky University
62. **Biosensing with Functionalized Gold Nanotubes.**¹ Sarah A. Steele, Emily C. Green, Benjamin G. Gowen, Sarah M. Hawkins and Jeffrey E. Fieberg - Centre College
63. **The Expression of Signaling Proteins in Control Brain versus Mild Cognitive Impairment Brain: Insights into Alzheimer's Disease.**¹ Georgianne Tiu, Rukhsana Sultana, Ph.D. and D. Allan Butterfield, Ph.D. - University of Kentucky
64. **Chelation and N-Heterocyclic Carbene Complexes.**¹ Donia J. Arthur - Berea College
65. **Pyridylidene N-Heterocyclic Carbene Complexes.**¹ Joshua A. Schmeling and Theint Theint - Berea College
66. **Rapid Screening of Compound Libraries for Novel SERCA Inhibitors.** Christopher Elam, Joel Deye, Michael Lape, Robert Ratliff, Kayla Evans and Stefan Paula - Northern Kentucky University
67. **The synthesis of boc-(4-fmoc)aminoproline.**¹ Efua Wilmot, Kabindra Kafle and Matthew Saderholm - Berea College
68. **Alkoxyamine Polymers: Versatile Materials for Surface Ligation Applications.**¹ Lindsey Hines, Jessica Moore, David Dahl, Belinda Lady and Hasan Palandoken - Western Kentucky University
69. **Rhenium h⁵-Cyclopenta[c]pyridazyl Complexes via 1,2-Diacyclopentadienes: Proposed Route for Substituted Pyrroyl Complexes.** Phenahas Sriramula and Chad Synder - Western Kentucky University
70. **Generation and Kinetic Studies of High-Valent Metal-Oxo Porphyrin.**¹ Wesley Cartwright, Chris Abebrese, Yan Huang and Rui Zhang - Western Kentucky University
71. **[Re(CO)₃1,2-C₅H₃(CRN)(CRN)] Complexes via 1,2-Diacyclopentadienes: Proposed Route for [Re(CO)₃{h⁵-NC₇H₃-1,3-R₂}].** Joseph B. Scott and Chad Synder - Western Kentucky University
72. **Reaction of a Bulky Platinum Triamine Complex with Guanine and Methionine.** Michael P. Starling - Western Kentucky University, Becca Sandlin - Vanderbilt, Kevin M. Williams - Western Kentucky University
73. **Synthesis of novel, asymmetric [14]-pyridoannulenes.**¹ Brenda Barnes, Rick Grimminger, Phil Pickett, Dominique Johnson, Sara Hitchcock, Brice Dunlap and KC Russell - Northern Kentucky University

74. **Imaging the Morphological Changes in Birch Reduced Nitrogen Doped Multiwalled Carbon Nanotubes (N-MWNTs).** Aman Preet Kaur and Mark S. Meier - University of Kentucky
75. **A Deeper Insight to Hg Bioaccumulation in the Bat Population in Kentucky and Tennessee.**¹ Melinda Rucks, Sarah Kuhl, Lindsey Clark, Erika Whitehouse and Cathleen Webb - Western Kentucky University
76. **Liquid-Liquid Phase Transition of Nanoscaled Supercooled Silicon.**¹ Anthony Reynolds - Berea College, Robert DeMille - University of Utah, Valeria Molinero - Berea College

COMPUTER AND INFORMATION SCIENCES

77. **Runway safety with magnetic sensor networks .** Jennifer Green and Siddhartha Bhattacharyya - Kentucky State University, Biswajit Panja - Morehead State University

ECOLOGY AND ENVIRONMENTAL SCIENCE

78. **Host distribution of *Neobenedenia melleni* (Monogenea: Capsalidae) parasitic on Caribbean reef fishes.** Cynthia Estremera, Lillian Tuttle and Paul Sikkel - Centre College
79. **Ontogenetic shifts in timing of host infestation by parasitic gnathiid isopod larvae on Caribbean coral reefs.** Whitney Sears, Jessica Wheeler, Robert Ziemba and Paul Sikkel - Centre College
80. **Evaluation of Microsatellites in *Ambystoma maculatum*.**¹ Sarah Thomason and Sarah Farmer - Murray State University
81. **Development of a 313-year *Quercus montana* chronology in Powell County, Kentucky.**¹ Ray Eaton - Eastern Kentucky University, Glade Brosi - University of Kentucky, R. Drew Stockwell and Neil Pederson - Eastern Kentucky University
82. **Linking chemical tolerance to reproductive fitness: initial results of *in vitro* experiments examining pollutant effects in teleost primary hepatocytes.** Ben F. Brammell - University of Kentucky, Adria A. Elskus - US Geological Survey
83. **Effects of Human Disturbance on Ground Beetle Diversity.**¹ Oliver Pogue, Sean Clark and Sarah Paulson - Berea College

84. **Food choice and stream water quality reduce the survival and growth of a dominant stream invertebrate.**¹ Tyler C Kilgore, Robert C Johnson, Margaret M Carreiro, Hwa-Seong Jin and Colin B Ogilvie - University of Louisville
85. **Assignment of abundance classifications to leaf beetles (Coleoptera: Chrysomelidae) found in Kentucky.** Sarah L. Hall and Robert J. Barney - Kentucky State University
86. **Cowbird parasitism and increased predation on Indigo Bunting nests as a reflection of nest site selection (POSTER).**¹ Jesse Howell and Sarah L. Martin - University of Kentucky
87. **Environmental Quality of Scott County (KY) Streams as Determined by Biological Indicators.** Allison Bickers and Rick Kopp - Georgetown College
88. **The impact of mining and residential pollutants on stream salamanders in eastern Kentucky.**¹ Chad Downey and Stephen Richter - Eastern Kentucky University
89. **Ohio River Periphytic Diatom Community.**¹ Joseph Strano, Daniel Hannigen, Vickie Kier and Miriam Kannan - Northern Kentucky University
90. **Evaluation of Passive Integrated Transponder (PIT) tags and autonomous antennae in a saltwater system.**¹ Tanner Yess - Northern Kentucky University, Aaron Adams - Mote Marine Laboratory, Pine Island, Florida, Rebecca Evans-Kelley - Northern Kentucky University

SATURDAY AFTERNOON

GEOGRAPHY

1. **Seasonal changes in a eutrophic lake, Wilgreen Lake, Madison County, Kentucky.**¹ Richard D. Stockwell and Walter S. Borowski - Eastern Kentucky University

HEALTH SCIENCES

2. **Sleep Disturbances in Euthymic in BiPolar Subjects.** Sharon Brill, Praveen Penagaluri and Rif S. El-Mallakh - University of Louisville
3. **Withaferin A binds to Vimentin and Modulates Gliosis.**¹ Riya Paranthan - University of Kentucky
4. **Plant-based expression of the cancer chemoprevention protein lunasin.**¹ Lauren E. Seber - Kentucky Wesleyan College, Brian W. Barnett - Owensboro Cancer Research Program, Keith R. Davis - University of Louisville
5. **Pesticide Safety Practices and Nutritional Status of Workers Occupational Exposed to Pesticides - A brief survey.** Frederick N. Bebe and Myna Panemangalore - Kentucky State University
6. **Human sex ratio and family size for a selected sample from the India population in 2007-2008.** Elmer Gray and Archana Lakkaraju - Western Kentucky University
7. **Life Expectancy and the Human Sex Ratio.** Pramod Gupta and Elmer Gray - Western Kentucky University
8. **Pramipexole in Bipolar Depression: A Naturalistic Retrospective Chart Review.** Praveen Penagaluri, Arun Kantamneni and Rif S. El-Mallakh - University of Louisville
9. **A Transcranial Magnetic Stimulation Study of Reward Processing.**¹ Kelsey Curd Ladit - University of Kentucky
10. **Self-selected walking pace as a predictor of maximal oxygen consumption.**¹ Ashley Crockett and Jeff McClung - Berea College
11. **BDNF Expression in Lymphoblastoid Cell Lines Carrying BDNF SNPs Associated with Bipolar Disorder.** YonLin Gao - University of Louisville, Mathew Galante - Bellarmine University, James El-Mallakh - Jefferson Community College, Zhenmin Lei and Rif S. El-Mallakh - University of Louisville

12. **Hallucinations, Pseudohallucinations – Severity of Suicidal Ideation Among Emergency Psychiatry Patients: A Pilot Study.** Praveen Penagaluri - University of Louisville, Kristen L. Walker - University of Tennessee, Rif S. El-Mallakh - University of Louisville

MICROBIOLOGY

13. **To Grow or Not To Grow: Cultivation Strategies and the Culturable Phylogeny of Hypogean Cave Environments Environments.** Eric D. Banks, Brandon C. Iker, Jennifer L. Milette, Bradley R. Lubbers and Hazel A. Barton - Northern Kentucky University
14. **Using SOS Mutagenesis Assays to Observe Whether an Unique *umuD* Allele found in *Acinetobacter baylyi* Can Complement *UmuD* function in *Escherichia coli*.**¹ Tyler Elam, Casie Caldwell and Janelle Hare - Morehead State University
15. **Nitrogen and the Hydrogen Economy: Roraima Sur Cave, Venezuela.**¹ Brittany Muench, Mark Broering, Eric Banks and Brad Lubbers - Northern Kentucky University, Juan Giarrizzo and Paula Suarez - Universidad Simon Bolivar, Kathuri Venkateswaran - California Institute of Technology, Hazel Barton - Northern Kentucky University
16. **Genetic Determination of Antibiotic Resistance in Group B Streptococci.**¹ Zachary Gillum and Marcia Pierce - Eastern Kentucky University
17. **Probing a newly isolated soil bacterium for the specificity-conferring code of adenylation domain.** Williard Mazhawidza and Narayanan Rajendran - Kentucky State University
18. **Genomic foundations of carbon fixation by bacteria living in hot springs.**¹ Rachel Skinner - Transylvania University, Brian P. Hedlund - Universtiy of Nevada Las Vegas, Jeremy A. Dodsworth - University of Nevada Las Vegas
19. **Expression and Purification of Peptide Antigens Containing Genetic Adjuvants for the Generation of Antibodies Used in Protein Analysis.** Marcel Hampton - Kentucky State University

PHYSICS AND ASTRONOMY

20. **Variable Star Research at Berea College Observatory During the Summer of 2008.**¹ William Cole, Ramesh Adhikari, Jimmy Rop and Tracy Hodge - Berea College
21. **Measuring the influence of a string using PASCO equipment.** Catrinia Druen and Ignacio Birriel - Morehead State University

¹Undergraduate Research Competition

22. **Effect of Minimal Length on Non Relativistic Quantum Mechanics.**¹ Jason Musser, Selva Caldron, Brett Bolen and Keith Andrew - Western Kentucky University
23. **Computational Analysis of Neutron and Photon Transport in Active Interrogation of Cargo Trucks.** Brian Cooper, Jason Smith, Dr. Alexander Barzilov and Dr. Ivan Novikov - Western Kentucky University
24. **Design and Characterization of Antenna Systems for the KySat-1 Orbiting Satellite.** Jason M. Smathers - Morehead State University
25. **Sloan Digital Sky Survey Data and the Generalized Cosmological Reduced Void Probability Distribution Function.** Keith Andrew, Jacob Baxley, Armin Smailhodzic, Brett Bolin, James Gary, Lisa Taylor and David Barnaby - Western Kentucky University
26. **Discovering and Cataloging Variable Objects in the Nearby Galaxies Supernova Search Data.**¹ April M. Pease, Louis-Gregory Strolger, Andrew M. Gott, Schuyler G. Wolff and Nathan B. Campbell - Western Kentucky University

PHYSIOLOGY AND BIOCHEMISTRY

27. **Ion Channel Properties Underlying Voltage Insensitivity in Rod Phototransduction.**¹ Joshua Schwartz - Transylvania University
28. **Development of a micro-electrode perfusion system for testing gastric activity in stomach tissue.**¹ Suzanne Q. Summe, Kelly M. Stuard, Brittany Garera and Richard D. Durtsche - Northern Kentucky University
29. **Assessment of synaptic function during short-term facilitation in motor nerve terminals in the crayfish.**¹ V.K. Srinivasan, M. Desai-Shah, K. Viele and G. Sparks - University of Kentucky, J. Nadolski - Benedictine University, B. Hayden and R.L. Cooper - University of Kentucky
30. **Regulation of larval *Drosophila* heart rate by calcium ion channels.** David Kerbl - University of Kentucky
31. **The Effects of CO₂ on Behavior and Physiology in Crayfish.**¹ Barbie. S. Bierbower and R. Cooper - University of Kentucky
32. **Across species comparison of the autonomic response of multiple sensory modalities in crayfish.**¹ Marti Robinson, J. Mando, M. Baker, S.M. Bierbower and R.L. Cooper - University of Kentucky
33. **Rho kinase inhibition of podosome maintenance in the contracted A7r5 smooth muscle cell.**¹ William R. Hankinson, Suzette M. Pike and Michael E. Fultz - Morehead State University

34. **The effects of Diltiazem and Nifedipine on osteoblast viability in a cell culture environment devoid of fetal bovine serum.**¹ Courtney Forbis, Savannah Slone, Michael Fultz and Darrin DeMoss - Morehead State University
35. **Pre- & Post-synaptic Actions of Kainate: Negative Feedback at Glutamatergic Nerve Terminals.** J. -Y. Lee, D. Bhatt and D. Bhatt - University of Kentucky, W.-Y. Chung - Dept. of Chemistry, Korea Military Academy, Seoul, Republic of Korea., R. L. Cooper - University of Kentucky

PSYCHOLOGY

36. **A Comparison of Attitudes Toward Body and Self Between Division I and Division III Athletes.**¹ Rebecca Rhule, Charlotte Jones, Melissa Burns-Cusato - Centre College, Rick Grieve - Western Kentucky University
37. **The Impact of Reviewing Information from AD/HD Case Studies on AD/HD Knowledge and Malingering of AD/HD symptoms.**¹ Nora Weyh, Matt Berry and Sean P. Reilley - Morehead State University
38. **Do male Japanese quail prefer familiar or unfamiliar females?** Amanda C Glueck, Samantha Bottom and Dr. Brian Cusato - Centre College
39. **Emotion induced by music: subjective and physiological measures.**¹ Luke Miller - Berea College, Tato Skhadze and Barbara Wheeler - University of Louisville
40. **The Effects of Object Familiarity and Time on Incidental Recall.**¹ Julia UL Price - Berea College
41. **Predicting Academic Success in the Third Semester.**¹ Megan Rodgers, Kaleigh McCoy, Bozhidar Bashkov and Angela Sutton - Berea College
42. **Robbers Cave Revisited: The Effects of Race and Instructions on Implicit and Explicit Measures of Racial Prejudice.**¹ Brian Owens - Berea College
43. **The Effects of Gender and Condition of Fifth Graders' Block Stacking Performance.**¹ Lacey Owens - Berea College
44. **The Effects of Physical Appearance and Subjective Description on Rated Likability.**¹ Samantha Buchanan - Berea College
45. **The effect of stereotype threat on Sudoku performance.**¹ Danielle Pelenkahu - Berea College
46. **The Impact of Malingering on the Child and Current Symptoms Scales for AD/HD.**¹ Hank Scott, Rachel Cooley and Sean Reilley - Morehead State University

47. **The Impact of Math Anxiety and Math Self-Efficacy on Math Performance of Students With Remedial and Non-Remedial Math Deficiencies.**¹ Evelynn Hudson and Sean P. Reilley - Morehead State University
48. **Preschoolers with Specific Language Impairment Classified by Event Related Potentials (ERPs) to Voice Onset Time (VOT) Stimuli.**¹ Zach Bechtle - Centre College, Scott Miller - University of Wisconsin-Madison, Alexander Sukhorukov and Stephanie Schemke - University of Louisville, Paul Yoder - Vanderbilt University, Victoria Molfese and Dennis Molfese - University of Louisville
49. **To Tell the Truth: The Effects of Viewer and Presenter Personal Political Preferences on Perceptions of Sincerity.**¹ John Damron - Berea College
50. **The Influence of Grammatical Class and Rime Priming on Homophone Substitution Errors.** Katherine White, Tara Milburn and Emily Boyle - Centre College
51. **Excitation of Amygdala Affects Psychostimulant-Induced Behavioral Activation.**¹ Britney A. Maynard, Kyle A. Windisch, Wesley White and Ilun M. White - Morehead State University

SCIENCE EDUCATION

52. **Early Identification of Introductory Major's Biology Students for Inclusion in an Academic Support Program.** Bethany V. Bowling and E.David Thompson - Northern Kentucky University
53. **Bring biomedical research into your classroom with *The Ambrosia Project*.** Dave L. Robinson and Joann M. Lau - Bellarmine University
54. **Molecular Biology and Biotechnology Courses and Opportunities at Kentucky State University.** Li Lu, Kirk W. Pomper, Karan Kaul, Narayanan Rajendran and James Tidwell - Kentucky State University
55. **Scientific Inquiry: Factors that influence evolution of scientific skills and disposition.**¹ Jessica Carnes, Amy Jones and Jon Saderholm - Berea College

ZOOLOGY

56. **Genetic Analysis of the Distribution of *Rana pipiens* and *Rana sphenoccephala* Across a Zone of Sympatry.** Emily S. Gustin and Stephen C. Richter - Eastern Kentucky University
57. **The perception of phagostimulants is context dependent in larval *Manduca sexta*.**¹ Yili Gan, Jordan Harrison, Tricia Stephens and Marc Rowley - Berea College

58. **Can blind crayfish learn a motor task?**¹ Courtney Allen, Sahill Naik, Sonya Bierbower and Robin Cooper - University of Kentucky
59. **Long-Term Memory Retention in Crayfish.**¹ Y.Boyechko, V. Galperin, S.M. Bierbower and R.L. Cooper - University of Kentucky
60. **The role of sensory cues and environmental conditions on the fighting strategy in sighted crayfish.** Becca Liberty, Jessica McQuerry, Easter Bocook, Sonya Bierbower and Robin Cooper - University of Kentucky
61. **Hurricane Katrina changes the bird community of a coastal forest.** David Brown - Eastern Kentucky University, Thomas Sherry - Tulane University
62. **Comparison of cranial characteristics, body measurements, and salivary amylase for differentiation between deer mice (*Peromyscus maniculatus*) and white-footed mice (*Peromyscus leucopus*).**¹ Jennifer L. Rose, Kim N. Williams and Joseph C. Whittaker - Pikeville College
63. **Presence, Distribution and Habitat of White-footed Mice (*Peromyscus leucopus*) and Deer Mice (*P. maniculatus*) in Eastern Kentucky and Northwestern Minnesota.**¹ Kim N. Williams, Jennifer L. Rose and Joseph C. Whittaker - Pikeville College
64. **Responses of salamanders to simulated environmental vibration.**¹ K. Marie Damron, Robert W. Arts and Joseph C. Whittaker - Pikeville College
65. **A Survey of Fishes of Rock Creek, Kentucky, with Emphasis on the Impact of Stocking Rainbow Trout on Native Fishes.** Stephanie L. Brandt and Sherry Harrel - Eastern Kentucky University
66. **Thermal Tolerance of Tadpoles of Three Temperate-zone Anurans.** Patrick Gaskin and Paul Cupp - Eastern Kentucky University
67. **Conspecific sound localization in *Otocinclus affinis*.**¹ Patrick Stewart - Western Kentucky University
68. **Impact of the invasive Amur honeysuckle leaf teas on wood frog tadpole digestion.** Richard D. Durtsche, Elizabeth Droessler, Kenna Milner, S. Lincoln Fugal and Richard L. Boyce - Northern Kentucky University
69. **Field evidence of unpalatability of northern red salamanders, *Pseudotriton ruber*.** Paul V. Cupp, Jr. - Eastern Kentucky University
70. **High prevalence of raccoon roundworm (*Baylisascaris procyonis*) in South Central Kentucky.**¹ Crystal B. Walker and Tara C. Holaday - Transylvania University, Chad Groce and Cheryl D. Davis - Western Kentucky University

71. **Evolutionary Pattern of Mitochondrial Genome Order in Amphibians.**¹
Joshua S. Williams - Eastern Kentucky University, Carol M Buker - University of Kentucky, Stephen C. Richter - Eastern Kentucky University
72. **Time Budget of Western Lowland Gorillas (*Gorilla Gorilla Gorilla*) in Captivity.** Angela M. Feist and Charles Elliott - Eastern Kentucky University
73. **The Effects of Serotonin on Circadian Pattern and Behaviors in *Drosophila*.** Ann S. Cooper - Lafayette High School
74. ***Proterometra macrostoma* (Digenea: Azygiidae): The Effect of Osmolality on the Retraction of the Distome Body into its Cercarial Tail.**¹ Elizabeth Fleming, Alaina Faust, Alisha Holmberg and Ron Rosen - Berea College

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Past Meeting Locations of the Kentucky Academy of Science

1914-33	No records available	1968	Western Kentucky University
1935	University of Kentucky	1969	Murray State University
1936	Western Kentucky State College	1970	Georgetown College
1937	University of Louisville	1971	Eastern Kentucky University
1938	Morehead College	1972	Morehead State University
1939	Murray State College	1973	Transylvania College
1940	University of Kentucky	1974	Centre College
1941	Eastern Kentucky State College	1975	University of Louisville
1942	University of Kentucky	1976	University of Kentucky
1943	University of Louisville	1977	Western Kentucky University
1944	University of Kentucky	1978	Eastern Kentucky University
1945	No annual meeting	1979	Northern Kentucky University
1946	University of Louisville	1980	Transylvania University
1947	Western Kentucky State College	1981	Murray State University
1948	University of Kentucky	1982	Ashland Oil, Inc.
S1949	Cumberland Falls State Park	1983	University of Louisville
F1949	Eastern Kentucky State College	1984	Kentucky State University
1950	University of Louisville	1985	Morehead State University
1951	University of Kentucky	1986	Lexington, Ky (with SSMA)
1952	Georgetown College	1987	Western Kentucky University
S1953	Ashland	1988	Eastern Kentucky University
F1953	University of Kentucky	1989	University of Kentucky
S1954	Berea College	1990	Northern Kentucky University
F1954	University of Louisville	1991	Owensboro
S1955	Cumberland Falls State Park	1992	Ashland Community College
F1955	Kentucky State College	1993	Georgetown College
1956	Eastern Kentucky State College	1994	Paducah Community College
S1957	Western Kentucky State College and Mammoth Cave State Park	1995	Western Kentucky University (Joint Meeting with TAS)
F1957	Berea College	1996	Kentucky State University
S1958	National Bridge State Park	1997	Morehead State University
F1958	University of Kentucky	1998	Jefferson Community College, S.W.
S1959	Lake Cumberland State Park	1999	Eastern Kentucky University
F1959	Western Kentucky State College	2000	University of Kentucky
S1960	Murray State College	2001	Middle Tennessee State (Joint Meeting with TAS)
F1960	University of Louisville	2002	Northern Kentucky University
S1961	Morehead State College	2003	Western Kentucky University
F1961	University of Kentucky	2004	Murray State University
1962	Eastern Kentucky State College	2005	Eastern Kentucky University
1963	University of Kentucky	2006	Morehead State University
1964	Morehead State College	2007	University of Louisville
1965	University of Kentucky		
1966	Kentucky Wesleyan College		
1967	University of Louisville		

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NOTES

NOTES

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Ogden College of Science and Engineering – Western Kentucky University
The Space Science Center - Morehead State University
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