93rd Annual Meeting, 2009: Program

Academy Editors
SECTION PROGRAMS
ORAL PRESENTATIONS

SESSION 1: FRIDAY 1:00-2:30. CHAIR: JD SWANSON
BOARD OF TRUSTEES ROOM, ROBSON LIBRARY
Topics: Molecular Biology, Biophysics, Genetics and Microbiology

1:00 CRITICAL EVALUATION OF BACTERIOPHAGE AS AN ALTERNATIVE TO ANTIBIOTICS IN ANIMAL AND HUMAN MEDICINE
Huff, William E; Huff, Geraldine R; Rath, Narayan C; Donoghue, Annie M. USDA/ARS, University of Arkansas - Little Rock

1:15 COMPARISON OF BACILLUS CEREUS AND BACILLUS ANTHRACIS INFECTION MODELS AND GLYCOCONJUGATE-INDUCED IMMUNOMODULATION
Scott, Ashley; Lahiani, Mohamed H; Rasol, Aveen; Tarasenko, Olga. University of Arkansas - Little Rock

1:30 DNA SEQUENCE ANALYSIS OF FRESHWATER EUSTIGMATOPHYCEAE, A POTENTIAL SOURCE OF ESSENTIAL FATTY ACIDS
Prior, Sara E; Fawley, Marvin W; Fawley, Karen P. University of Arkansas - Monticello

1:45 THE COG COMPLEX, RAB6, AND COP1 DEFINE A RETROGRADE TRAFFICKING PATHWAY ACROSS THE GOLGI APPARATUS EXPLOITED BY THE SUBTILASE CYTOTOXIN
Smith, Richard D; Willett, Rose; Paton, Adrienne W; Paton, James C; Lupashin, Vladimir V. University of Arkansas for Medical Sciences

2:00 DIFFERENTIATING THE ROLES OF PAL 1 AND PAL 2 IN LATE PRICKLE DEVELOPMENT IN RUBUS
Little, Coleman; Jones, Nate; Magie, Ben; Delvasto, Jennyfer; Swanson, JD. University of Central Arkansas

2:15 DSCAM BINDING CAPABILITIES AND MICROSPHERE INTERACTIONS
Caldwell, Jennifer L; Collins, Jesse; Manoharan, Vinothan N. University of Arkansas - Pine Bluff

SESSION 1: FRIDAY 1:00-2:30. CHAIR: DEBRA L BURRIS
ROOM 129, SMITH-BROYLES SCIENCE BUILDING
Topics: Physics and Astronomy

1:00 MATTER-ANTIMATTER ASYMMETRY VIA PARTICLES DECAY PROCESSES
Bachri, Abdel G; Kaladi, Babu S. Southern Arkansas University

1:15 ELECTRON FLUID DYNAMICAL EQUATIONS AND IONIZATION RATE FOR BREAKDOWN WAVES PROPAGATING INTO AN IONIZED MEDIUM
Rasul, Noaman; Hemmati, Mostafa; Peden, Robert. Arkansas Tech University

1:30 COMPUTER MODELING OF THE MAGNETICALLY ACTIVE ECLIPSING BINARY V1379 AQUILA
King, John; Robertson, Jeff W. Arkansas Tech University

1:45 SPECIES RICHNESS, DISTRIBUTION, AND RELATIVE ABUNDANCE OF FRESHWATER MUSSELS (BIVALVIA: UNIONIDAE) OF THE BUFFALO NATIONAL RIVER, ARKANSAS
Matthews, Mickey W; Usrey, Faron; Hodges, Shawn W; Harris, John L; Christian, Alan D. Arkansas State University

2:00 UNIONOIDA (MOLLUSCA: MARGARITIFERIDAE, UNIONIDAE) IN ARKANSAS, THIRD STATUS REVIEW
Harris, John L; Posey II, William R; Davidson, Chris L; Farris, Jerry L; Oetker, Susan R; Barnett, M Scott; Martin, HC; Matthews, MW; Seagraves, JH; Wentz, NJ; Winterringer, R; Osborne, C; Christian, Alan D. Arkansas State University, Arkansas Game and Fish Commission, U.S. Fish and Wildlife Service, Arkansas Department of Environmental Quality, Ecological Conservation Organization, Ecological Specialists, Inc.

2:15 A QUALITATIVE FRESHWATER MUSSEL SURVEY OF THE SOUTH FORK SPRING RIVER, MISSOURI AND ARKANSAS
Martin, Holly C; Harris, John L; Christian, Alan D. Arkansas State University

SESSION 1: FRIDAY 1:00-2:30. CHAIR: ANTHONY K GRAFTON
ROOM 133, WALKER HALL
Topic: Marine Biology

1:00 FOOD HABITS OF SYMPATRIC SPOTTED (LEPISOSTEUS OCULATUS) AND SHORTNOSE (LEPISOSTEUS PLATOSTOMUS) GAR DURING FLOODING OF AN ARKANSAS RIVER TRIBUTARY
Walker, Richard H; Benton, Justin; Inebnit, Tommy; Adams, Reid. University of Central Arkansas

2:00 UNIONOIDA (MOLLUSCA: MARGARITIFERIDAE, UNIONIDAE) IN ARKANSAS, THIRD STATUS REVIEW
Harris, John L; Posey II, William R; Davidson, Chris L; Farris, Jerry L; Oetker, Susan R; Barnett, M Scott; Martin, HC; Matthews, MW; Seagraves, JH; Wentz, NJ; Winterringer, R; Osborne, C; Christian, Alan D. Arkansas State University, Arkansas Game and Fish Commission, U.S. Fish and Wildlife Service, Arkansas Department of Environmental Quality, Ecological Conservation Organization, Ecological Specialists, Inc.

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SESSION 1: FRIDAY 1:00-2:30. CHAIR: ANTHONY K GRAFTON
ROOM 133, WALKER HALL
Topic: Chemistry

1:00 FLIPPING THE GENERAL CHEMISTRY CLASSROOM: METHOD AND APPLICATION
Grafton, Anthony K. Lyon College

Journal of the Arkansas Academy of Science, Vol. 63 [2009], Art. 5
Meeting Report

1:15
FORTIFICATION OF GOAT’S MILK YOGHURT WITH WHEY PROTEIN CONCENTRATE AND TRI-CALCIUM CITRATE: CHEMICAL, PHYSICAL AND ORGANOLEPTIC EVALUATION
Zahoor, Tahir; Iqbal, Arshad; Kanwal, Shuja; Hossain, M Zakir; Umair, Bajwa A. University of Agriculture - Faisalabad, University of Arkansas - Little Rock

1:30
MICROENCAPSULATION OF CUMENE HYDROPEROXIDE AND ITS EFFECT ON FRONTAL POLYMERIZATION SYSTEMS
McFarland, Brian H; Popwell, Sam; Pojman, John A. University of the Ozarks

1:45
HYDROGEN PRODUCTION BY STEAM-REFORMING OF ETHANOL OVER SUPPORTED COBALT AND COBALT-ZINC CATALYSTS
Kazi, Abul B. University of Arkansas - Pine Bluff

2:00
ATOMIC FRACTURE MECHANISM OF GRAPHENE SHEET
Terdalkar, Sachin S; Zhang, Sulin L; Rencis, Joseph J. University of Arkansas - Fayetteville

SESSION 2: FRIDAY 3:00-4:30. CHAIR: JAMES M STEWART
BOARD OF TRUSTEES ROOM, ROBSON LIBRARY
Topics: Botany and Ecology

3:00
DETERMINATION OF BENTHIC SOIL CONDITIONS USING NEMATODES
Matute, Moluwa, M; Perschbacher, Peter, M. University of Arkansas - Pine Bluff

3:15
EFFECT OF SALT ON SEVERAL GENOTYPES OF GOSSYPIUM (COTTON)
Tiwari, Rashmi S; Stewart, James M. University of Arkansas - Fayetteville

3:30
EFFECT OF HIGH TEMPERATURE ON POLLEN TUBE GROWTH AND ENERGETICS IN THE COTTON PISTIL
Snider, John L; Oosterhuis, Derrick M; Skulman, Briggs W; Kawakami, Eduardo M; Storch, Diana K. University of Arkansas - Fayetteville

3:45
THE FLOWERING WOODY FLORA OF LOGOLY STATE PARK
Shaw, Jesse C; Smith, Thomas; Erickson, Ray; Baker, Claude. Southern Arkansas University

4:00
PINE STRAW RAKING AND FERTILIZER SOURCE IMPACTS NITROGEN MINERALIZATION IN A LOBLOLLY PINE (PINUS TAEDA) PLANTATION
Ellum, Keith A; Liechty, Hal O; Blazier, Michael A. University of Arkansas - Monticello, Louisiana State University

4:15
IS WHALE WATCHING A THREAT TO ENDANGERED ORCINUS ORCA?
Wakefield, Timothy S; Otis, Robert E. John Brown University

SESSION 2 FRIDAY 3:00-4:30. CHAIR: DAVID JAMIESON
ROOM 001 BOREHAM BUSINESS BUILDING
Topic: Marine Biology

3:00
DISTRIBUTION AND POPULATION CHARACTERISTICS OF WALLEYE IN THE LOWER ELEVEN POINT RIVER, ARKANSAS
Johnson, Ronald L; Henry, Sam D; Barkley, Sam W. Arkansas State University

3:15
PERSISTENCE OF LARGEMOUTH BASS ALLELES IN AN ARKANSAS LAKE STOCKED WITH FLORIDA BASS
Allen, Ryan; Johnson, Ronald L. Arkansas State University

3:30
LENGTH AT AGE AND CONDITION FOR BASS RELATIVE TO PHENOTYPE FOR SOUTHERN ARKANSAS RESERVOIRS
Allen, Ryan; Cato, Christopher; Dennis, Colton; Johnson, Ronald L. Arkansas State University

3:45
SPATIAL DISTRIBUTION OF YELLOW GRUB IN SMALLMOUTH BASS OF CROOKED CREEK AS DETERMINED BY METACERCARIAL CYST COUNTS IN THE GILL-MOUTH SITES
Daly Sr., James J; Almond, James. University of Arkansas for Medical Sciences

4:00
SCREENING FOR YELLOW GRUB IN POND-RAISED CATFISH BY COUNTING CYSTS IN VISIBLE ANATOMICAL SITES
Singleton, Jeurel; Daly Sr., James J; Keller, Randall J. University of Maryland - Eastern Shore, University of Arkansas for Medical Sciences, Murray State University

4:15
NEW GEOGRAPHIC DISTRIBUTION RECORDS FOR THREE SPECIES OF NOTROPIS (CYPRINIFORMES: CYPRINIDAE) FROM LARGE RIVERS OF ARKANSAS
McCullister, Chris T; Layher, William G; Robison, Henry W; Buchanan, Thomas M. RapidWrite, Layher BioLogics RTEC, Inc., Southern Arkansas University, University of Arkansas - Fort Smith
### SESSION 2 FRIDAY 3:00-4:30. CHAIR: STANLEY E TRAUTH
#### ROOM 133, WALKER HALL

**Topics: Herpetology, amphibians**

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<tr>
<th>Time</th>
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<th>Presenter(s)</th>
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<tr>
<td>3:00</td>
<td>COMPARATIVE UROGENITAL ANATOMY OF NORTH AMERICAN MALE COLUBROID SNAKES</td>
<td>Trauth, Stanley E. Arkansas State University</td>
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<td>3:15</td>
<td>DOES HABITAT QUALITY AFFECT POPULATION DENSITIES OF AMERICAN ALLIGATORS (ALLIGATOR MISSISSIPPIENSIS) IN SOUTHWEST ARKANSAS?</td>
<td>Smith, Geoff D; Dinkelacker, Stephen A. University of Central Arkansas</td>
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<td>3:30</td>
<td>DEMOGRAPHIC TRAITS OF WESTERN CHICKEN TURTLES (DEIROCHELYS RETICULARIA MIARIA) IN CENTRAL ARKANSAS</td>
<td>Hilzinger, Nathanael L; Dinkelacker, Stephen. University of Central Arkansas</td>
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<td>3:45</td>
<td>BUFO FOWLERI ALTERS ITS ATTRACTION TO LIGHT IN THE PRESENCE OF A POTENTIAL PREDATOR</td>
<td>Wrensch, Zachary C; Mills, Nathan E. Harding University</td>
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<tr>
<td>4:00</td>
<td>COMMON GROUND SKINK FOUND ALIVE IN TALONS OF JUVENILE EASTERN BLUEBIRD</td>
<td>Freeman-Nelson, Kellie J; Risch, Thomas. Arkansas State University</td>
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### SESSION 3 SATURDAY 9:00-10:30. CHAIR: JOYCE HARDIN
#### ROOM 001 BOREHAM BUSINESS BUILDING

**Topic: Birds**

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<tr>
<td>9:00</td>
<td>RESPONSE OF AVIAN POPULATIONS TO WOODLAND RESTORATION IN THE OZARK MOUNTAINS, ARKANSAS</td>
<td>Chang, Helen; McClung, Maureen R. University of Arkansas - Fayetteville</td>
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<tr>
<td>9:15</td>
<td>TWO NEW BIRDS FOR ARKANSAS PLUS COMMENTS ON THE FORK-TAILED FLYCATCHER AND CLARIFYING OTHER ARKANSAS RECORDS</td>
<td>James, Douglas A; Neal, Joseph C; Smith, Kimberly G; Shepherd, William M; Mills, Charles. University of Arkansas - Fayetteville</td>
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<tr>
<td>9:30</td>
<td>ADVENT, DISPERSAL, AND CURRENT STATUS OF THE EXOTIC EURASIAN COLLARED-DOVE (STREPTOPELIA DECAOCTO) IN ARKANSAS</td>
<td>Dodd, Alena; Fielder, Mike; Kannan, Ragupathy. University of Arkansas - Fort Smith</td>
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<td>9:45</td>
<td>HOUSE SPARROWS REDUCE NESTING SUCCESS OF CLIFF SWALLOWS IN WESTERN ARKANSAS</td>
<td>Leasure, Douglas R; Kannan, Ragupathy; James, Douglas A. University of Arkansas - Fort Smith, University of Arkansas - Fayetteville</td>
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### SESSION 3:SATURDAY 9:00-10:30. CHAIR: ANWAR A BHUIYAN
#### ROOM 129, SMITH-BROYLES SCIENCE BUILDING

**Topics: Physical and Inorganic Chemistry**

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<tr>
<td>9:00</td>
<td>SYNTHESIS AND CHARACTERIZATION OF HOMOLEPTIC AND HETEROLEPTIC RUTHENIUM POLYPYRIDINE COMPLEXES</td>
<td>Wade, Christina; Kudo, Shotaro; Davis, Robby F; Bhuiyan, Anwar A. Arkansas Tech University</td>
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<tr>
<td>9:15</td>
<td>SYNTHESIS OF [(6-P-CYMENE)Ru(3-ATSC)Cl]PF6 AND ITS INTERACTION WITH HUMAN SERUM ALBUMIN (9-ATSC = 9-ANTHRALDEHYDE THIOSEMICARBAZONE)</td>
<td>Beckford, Floyd; Shaloski, Michael. Lyon College</td>
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<td>9:30</td>
<td>MAGNETIC FIELD CONTROLLED SPRAY DEPOSITION OF NICKEL INK TO FORM ELECTRICALLY CONDUCTIVE CONTACT PATTERNS – PART I. USE OF AN ELECTROMAGNET</td>
<td>Sattler, Michael; Engelken, Robert; Felizco, Frederick M; Hickerson, Alan; Thapa, Shyam; Jacobs, Tom. Arkansas State University</td>
</tr>
<tr>
<td>9:45</td>
<td>MAGNETIC FIELD CONTROLLED SPRAY DEPOSITION OF NICKEL INK TO FORM ELECTRICALLY CONDUCTIVE CONTACT PATTERNS – PART II. RESULTS WITH A PERMANENT MAGNET AND WITH NO MAGNETIC FIELD</td>
<td>Felizco, Frederick M; Engelken, Robert; Sattler, Michael; Hickerson, Alan; Thapa, Shyam. Arkansas State University</td>
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<tr>
<td>10:00</td>
<td>FURTHER DEVELOPMENTS IN HIGH TEMPERATURE CHEMICAL BATH DEPOSITION OF INDIUM (III) SULFIDE FILMS FROM ORGANIC SOLUTIONS</td>
<td>Hickerson, Alan; Engelken, Robert; Sattler, Michael; Felizco, Frederick M; Thapa, Shyam; Chaudhury, Zariff; Karabacak, Tansel; Seo, Hyewon; Jakobs, Tom; Ewing, Barret. University of Arkansas - Fayetteville; InvoTek, Inc.</td>
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### SESSION 3:SATURDAY 9:00-10:30. CHAIR: THOMAS SMITH
#### BOARD OF TRUSTEES ROOM, ROBSON LIBRARY

**Topics: Zoology and ecology**

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<td>9:00</td>
<td>CATERPILLARS AND KATYDIDS: DO THEIR CANAL-CUTTING BEHAVIORS FACILITATE HOST-RANGE EXPANSION?</td>
<td>Dussourd, David E. University of Central Arkansas</td>
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<td>9:15</td>
<td>RANGE EXTENSION OF THE SEMINOLE BAT IN ARKANSAS</td>
<td>Risch, Thomas S; Klots, Tracy L. Arkansas State University</td>
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<td>9:30</td>
<td>THE IMPACT OF AIR POLLUTION ON AEROPHYTIC ALGAE AND SLIME MOLDS FROM TWO SITES IN COLORADO</td>
<td>Smith, Thomas; Stephenson, Steve; Nelson, Rodney K; Nelson, Lynda. Southern Arkansas University</td>
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<td>9:45</td>
<td>REVISED ARKANSAS ALGAE AND NEW ADDITIONS</td>
<td>Smith, Thomas. Southern Arkansas University</td>
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<td>10:00</td>
<td>ALGAL EXTREMOPHILES FROM HOT SPRINGS NATIONAL PARK, HOT SPRINGS, ARKANSAS</td>
<td>Smith, Thomas; Manoylov, Kalina; Packard, Anne. Southern Arkansas University</td>
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<td>10:15</td>
<td>THE EFFECT OF LIGNITE ON PHASEOLUS VULGARIS PLANT DEVELOPMENT</td>
<td>Smith, Thomas; Banks, Surya; Narula, Nitish. Southern Arkansas University</td>
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Published by Arkansas Academy of Science, 2009
Meeting Report

10:00 NUTRITIONAL IMMUNOMODULATION AS AN APPROACH TO DECREASING THE NEGATIVE EFFECTS OF STRESS IN POULTRY PRODUCTION
Huff, Geraldine R; Huff, William E; Rath, Narayan C. USDA/ARS, University of Arkansas - Fayetteville

10:15 PROTEOMIC CHANGES IN TIBIAL HEAD CARTILAGE OF CHICKENS WITH TIBIAL DYSCHONDROPLASIA, A METABOLIC SKELETAL DISEASE
Rasaputra, Komal S; Liyanage, Rohana; Lay, Jackson O; Rath, Narayan C. University of Arkansas – Fayetteville

SESSION 3: SATURDAY 9:00-10:30
CHAIR: MOLUWA M MATUTE. ROOM 133, WALKER HALL
Topics: Insects and arthropods

9:00 ENDEANGERED NIOCRYPHORUS AMERICANUS PREFER DISTURBED SUCCESSIONAL COMMUNITIES AT MILITARY INSTALLATION IN WESTERN ARKANSAS
Leasure, Douglas R; Garner, Kristine A. Fort Chaffee Maneuver Training Center, University of Arkansas - Fort Smith

9:15 A PRELIMINARY REPORT ON INSECTS INHABITING THE BURROWS OF BIRD'S POCKET GOPHER IN ARKANSAS
Kovarik, Peter W; Connor, Matthew B; Chordas III, Steven W; Robison, Henry W; Guenther, Idu; Skelley, Paul E. Columbus State Community College, Arkansas State University, Ohio State University, Southern Arkansas University, Florida Department of Agriculture and Consumer Services

9:30 RECENT COLLECTIONS AND ADDITIONAL RECORDS OF COLEMBOLA FROM ARKANSAS CAVES
Slay, Michael E; Graening, GO. The Nature Conservancy, California State University

9:45 NEW STATE DISTRIBUTIONAL RECORDS OF ANTS COLLECTED IN 2008
General, David M; Thompson, Lynne C. University of Arkansas - Monticello

10:00 YOU FOUND THOSE "BUGS" IN YOUR BACKYARD, HERE IN CLARKSVILLE? NO WAY?
Chordas III, Stephen W; Kremers, Joe. Ohio State University

POSTER PRESENTATIONS

1. RESIDUAL EFFECTS ON THE ANT COMMUNITY OF 2 HARVESTING TREATMENTS APPLIED 12-YEARS-EARLIER IN A PINE-HARDWOOD FOREST IN SOUTHEASTERN ARKANSAS
Thompson, Lynne C; General, David M. University of Arkansas - Monticello

2. LIFESTYLE INFLUENCES ON BODY MASS INDEX
Bournjte, Perre A; Black, Viktoriya A
Southern Arkansas University

3. LIPID PRODUCTION IN ALGAE AS A BIO-FUEL SOURCE
Narula, Nitish; Smith, Thomas. Southern Arkansas University

4. PRELIMINARY CHECKLIST OF VASCULAR FLORA OF COLUMBIA COUNTY, ARKANSAS
Logan, LA; Smith, Thomas; Winstead, Joe. Southern Arkansas University

5. PRELIMINARY CHECK-LIST OF VASCULAR FLORA OF LAKE COLUMBIA, COLUMBIA COUNTY, ARKANSAS
Logan, LA; Smith, Thomas; Baker, Claude. Southern Arkansas University

6. ALGAE OF LAKE COLUMBIA, COLUMBIA COUNTY, ARKANSAS
Bryan, Brynne; Smith, Thomas. Southern Arkansas University

7. SILVER CITRATE - A NOVEL TOPICAL ANTIMICROBIAL?
Durham, April; Hug, Amber; Yeboah, George; Atchley, Daniel. Harding University

8. ASSESSING THE "HEALTH" OF SAGER CREEK THROUGH WATER CHEMISTRY AND MACROINVERTEBRATE POPULATIONS
Caldwell, Andrew; Colp, Jason; Fegel, Melanee; Flores, Kristin; Hallenbeck, Josh; Meng, David; Mitskevich, Mary; Oswald-Bauer, Teal; Wakefield, Timothy. John Brown University

9. THE USE OF NATURAL POLYMERS FOR SOIL REClaimATION
Iahbeh, Tony L; Pinelo, Laura F; Watkins, Kayla, Saito, Chris, Lack, Jessica, Shelton, James; Love, Ebony; Bailey, Brittany; Benjamin, Earl; Benjamin, Ellis. Arkansas State University, Illinois Wesleyan University

10. GLYCOCONJUGATE STIMULATE BACILLUS ANTHRACIS SPORES KILLING INDEPENDENTLY FROM RACE OR GENDER
Lahiani, Mohamed H; Scott, Ashley; Rasol, Aveen; Saheb, Entsar; Alkarakooly, Zeyiad; Tarasenko, Olga. University of Arkansas - Little Rock

11. GLYCOCONJUGATE STIMULATE BACILLUS ANTHRACIS SPORES AND TOXINS KILLING
Rasol, Aveen H; Lahiani, Mohamed H; Scott, Ashley; Saheb, Entsar; Alkarakooly, Zeyiad; Tarasenko, Olga. University of Arkansas - Little Rock

12. EFFECT OF GLYCOCONJUGATES ON VIABILITY OF MACROPHAGES BY REDUCING LACTATE DEHYDROGENASE PRODUCTION AGAINST BACILLUS SPORES AND TOXINS
Alkarakooly, Zeyiad; Rasol, Aveen; Saheb, Entsar; Lahiani, Mohammed H; Scott, Ashley; Tarasenko, Olga. University of Arkansas - Little Rock

13. ENHANCE MACROPHAGES NITRIC OXIDE PRODUCTION THAT PROMOTE KILLING BACILLUS ANTHRACIS SPORES AND TOXINS BY USING GLYCOCONJUGATES
Lahiani, Mohammed H; Saheb, Entsar; Rasol, Aveen; Alkarakooly, Zeyiad; Tarasenko, Olga. University of Arkansas - Little Rock

14. THE EFFECT OF HIGH TEMPERATURE ON IN VIVO POLLEN TUBE GROWTH, CALCIUM LEVELS, ANTIOXIDANT RESPONSE, AND SUPEROXIDE PRODUCTION IN THE COTTON PISTIL
Snider, John L; Oosterhuis, Derrick M; Skulman, Briggs W; Kawakami, Eduardo M; Storch, Diana K. University of Arkansas - Fayetteville

15. MODELING THE INTERNAL STRUCTURE OF THE BREAST
Greenlee, Jordan D; El-Shenawee, Magda. University of Arkansas - Fayetteville

16. EFFECTS OF CRAYFISH DENSITY ON BENTHIC PERiphyTON
Banks, Brandon T; Ludlam, John P; Magoullick, Daniel D. University of Arkansas - Fayetteville

17. DISTRIBUTION AND ECOLOGY OF THE ASSEMBLAGES OF PROTOPTELOID AMOEBAE ASSOCIATED WITH MAJOR VEGETATION TYPES IN BIG BEND NATIONAL PARK, USA
Ndiritu, George G; Stephenson, Steven L; Spiegel, Frederick W. University of Arkansas - Fayetteville
Arkansas Academy of Science

18. ASSESSMENT OF CHINQUAPIN (CASTANEA OZARKENSIS) IN OZARKS NORTHWEST ARKANSAS
Onduso, Francis N; Paillet, Frederick L; Stephenson, Steven L. University of Arkansas - Fayetteville

19. STUDYING THE MYXOMYCETE-BRYOPHYTE RELATIONSHIP
Bates, Amanda; Doss, Robin; Rojas, Carlos; Stephenson, Steven L. University of Arkansas - Fayetteville

20. BIOGEOGRAPHY OF MYXOMYCETES IN HIGH-ELEVATION AREAS OF THE NORTHERN NEOTROPICS
Rojas, Carlos; Stephenson, Steven L. University of Arkansas - Fayetteville

21. FLOW CYTOMETRY ANALYSIS OF MERCURY AFFECTED B CELL ACTIVATION
Weigand, Kara; Rowley, Ben. University of Central Arkansas

22. USE OF ANALYTICAL FLOW CYTOMETRY REGARDING THE EFFECTS OF MERCURY ON T-CELL SIGNAL TRANSDUCTION
Reno, J Leigh; Rowley, Ben. University of Central Arkansas

23. EFFECTS OF ATRAZINE AND NITRATE ON HYALLELA AZTECA (AMPHIPODA) IN LABORATORY EXPOSURES
Pandey, Ram B; Adams, Ginny, L; Warren, Laurie University of Central Arkansas

24. ANALYSIS OF B-CELL ANTIBODY GENE SEGMENT USE IN RESPONSE TO MERCURY TREATMENT
Clarke, Heather, J. University of Central Arkansas

25. BEHAVIORAL AND FUNCTIONAL ANALYSIS OF CAF4 IN SACCHAROMYCES CEREVISIAE
Seiter, Jacob L; Wilkins, Annette; Naylor, Kari K. University of Central Arkansas

26. STUDYING THE DICTYOSTELIUM DISCOIDEUM MITOCHONDRIAL FISSION PROCESS TO UNDERSTAND THE EVOLUTIONARY LINK BETWEEN EUKARYOTES
Apata, LaRhonda; Turbeville, Dean; Naylor, Kari K. University of Central Arkansas

27. CLONING BY YEAST GAP REPAIR TO DETERMINE THE DIFFERENT FUNCTIONS OF THE HOMOLOGOUS PROTEINS MDV1 AND CAF4
Allen, Justin; Huett, Elizabeth; Naylor, Kari K. University of Central Arkansas

28. DISTRIBUTION AND FUNCTION OF GIRDLING BY CATERPILLARS OF PROMINENT MOTHS (LEPIDOPTERA: NOTODONTIDAE)
Ganong, Carissa N; Dussourd, David E. University of Central Arkansas

29. DO CARDENOLIDES AND PYRROLIZIDINE ALKALOIDS PROTECT EGGS OF THE MONARCH, DANAUS PLEXIPPUS?
Wright, Justin D; Dussourd, David E. University of Central Arkansas

30. WILL GIBBERELIC ACID PROMOTE EARLY FLOWERING IN IMPORTANT PLANTS OF INTEREST?
Renn, Robert L; Bhandari, Bikash. University of Central Arkansas

31. EXAMINATION OF ALLIGATOR MISSISSIPPIENSIS POPULATIONS IN ARKANSAS FOR MULTIPLE PATERNITY
Knox, Nicole E; Swanson, JD. University of Central Arkansas

32. THE TISSUE CULTURE AND TRANSFORMATION OF RUBUS
Gates, Nadine; Kayla, Parker; Swanson, JD. University of Central Arkansas

33. IDENTIFYING STAGE ONE PRICKLE DEVELOPMENT GENES
Kellogg, Allicia A; Thompson, Meghan N; Swanson, JD. University of Central Arkansas

34. CHARACTERIZING THE VARIABILITY OF CHEMICAL PROPERTIES OF SOIL MAPPED AS AMY SILT LOAMS IN SOUTHEASTERN ARKANSAS
Bhandari, Bikash; Ficklin, Robert L. University of Arkansas - Monticello

35. MICROWAVE ASSISTED SYNTHESIS OF RUTHENIUM-DMSO COMPLEXES
Harvey, Amanda; Chui, Shengkuei; Snell, Rian; Draganjac, Mark; Benjamin, Ellis. Arkansas State University

36. TGA AND DTA STUDIES OF SELECTED RU-DMSO COMPLEXES
Chui, Shengkuei; Draganjac, Mark. Arkansas State University

37. MODIFICATION OF THALIDOMIDE FOR IMPROVED BIOLOGICAL ACTIVITY AND VISUALIZATION
Bailey, Brittany; James, Tony; Watkins, Kayla; Saito, Christopher; Lack, Jessica; Shelton, James; Hutson, Shannon; Bailey, Benjamin; Earl. Arkansas State University

38. DEVELOPMENT OF METAL PHOTOSensors IN SOL GEL MATRIXES
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39. ATOMIC FRACTURE MECHANISM OF GRAPHENE SHEET
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40. E-85 VS. REGULAR GASOLINE: EFFECTS ON ENGINE PERFORMANCE, FUEL EFFICIENCY, AND EXHAUST EMISSIONS
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42. SYNTHESIS OF IRON COMPLEXES OF N-CONFUSED TETRAHEDRALPORPHYRINS
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