2002

86th Annual Meeting, 2002. Program

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PROGRAM
Arkansas Academy of Science
86th Annual Meeting
April 5-6, 2001
University of Arkansas at Little Rock

SCHEDULE OF EVENTS

Friday, April 5, 2002
9:00 am - 3:00 p.m. Registration ETAS Lobby
8:30 a.m. - 10:30 a.m. Executive Committee Meeting ETAS 125L
11:00 a.m. - 12:00 p.m. First Business Meeting ETAS 233

Oral Presentations
1:30 p.m. - 3:30 p.m. Microbiology, Parasitology ETAS 233
1:15 p.m. - 2:30 p.m. Geology, Science Education ETAS 379
3:00 p.m. - 4:00 p.m. Aquatic Ecology ETAS 379
1:30 p.m. - 2:30 p.m. Atmospheric Chemistry ETAS 270
2:45 p.m. - 4:45 p.m. Chemistry ETAS 229
1:15 p.m. - 2:15 p.m. Mathematics ETAS 354
2:45 p.m. - 4:15 p.m. Physics ETAS 354
2:00 p.m. - 4:00 p.m. Poster Presentations ETAS Foyer & Earthquake Ctr

4:30 p.m. - 5:00 p.m. Science Education Committee Meeting ETAS 233
5:30 p.m. - 6:30 p.m. Reception / Social Mixer DSC 2nd Floor Concourse

6:30 p.m. - 8:00 p.m. Banquet ETAS Lobby
9:00 p.m. - 1:30 a.m. Keynote Address: J. Alan Pounds Dickenson Hall

Saturday, April 6, 2002

8:00 a.m. - 10:30 a.m. Invertebrate Zoology ETAS 233
8:00 a.m. - 10:45 a.m. Terrestrial Ecology ETAS 354
8:00 a.m. - 10:30 a.m. Botany & Plant Biology ETAS 379
8:00 a.m. - 10:30 a.m. Inorganic Materials ETAS 229
8:00 a.m. - 10:45 a.m. Engineering ETAS 327

11:00 a.m. Second Business Meeting Fribourgh Hall 101

SECTION PROGRAMS

* Undergraduate **Graduate

ORAL PRESENTATIONS
Friday, April 5, 2002
Microbiology, Parasitology Location: Room 233

Time Topic
1:30 Chris T. McAllister, Charles R. Bursey and Stanley E. Trauth, Department of Biology, Texas A&M University-Texarkana, Texarkana, TX 75505. Department of Biology, Pennsylvania State University - Shenango Campus, Sharon, PA 16146; and Department of Biological Sciences, Arkansas State University, State University, AR 72467. PARASITES OF ENDEMIC PLETHODON SPP. (AMPHIBIA: CAUDATA) FROM ARKANSAS AND OKLAHOMA

2:15 E. Trauth\textsuperscript{2}, (1) Environmental Sciences Ph.D. Program, Arkansas State University, P.O. Box 847, State University, AR 72467; (2) Department of Biological Sciences, Arkansas State University, P.O. Box 599, State University, AR 72467. SEVERE LEECH INFESTATION OF AN OZARK AMPHIBIAN COMMUNITY

1:45 Rachel Trana and Russell Nordeen, University of Arkansas at Monticello, School of Mathematical and Natural Sciences, P.O. Box 3480, Monticello, AR 71656. TRANSPOSON MUTAGENESIS OF IGEFON METABOLIZING BACTERIA

2:30 Joshua E. Kessler and Chris T. McAllister, Department of Biology, Texas A&M University-Texarkana, TX 75505. COCCIDIAN PARASITES (APICOMPLEXA: EIMERIIDAE) OF SELECT RODENTS FROM WESTERN AND SOUTHWESTERN ARKANSAS AND NORTHEASTERN TEXAS

2:45 Nelly P. Norrell, Fumiyo Kubo, G. Cory Morgan, Shane Melton, Dana K. Strassle, and Dr. Steven W. Runge, Department of Biology, University of Central Arkansas, Conway, Arkansas 72035. THE ROLE OF INTRACELLULAR LULAR ACIDIFICATION IN APOPTOTIC PROGRESSION

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<th>Time</th>
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<tr>
<td>1:00</td>
<td>Gregory K. Eads, Arkansas Post National Memorial, Gillett, AR 72055; Philip A. Tappe and Lynne C. Thompson, School of Forest Resources and Arkansas Forest Resources Center, University of Arkansas, Monticello, AR 71656. <strong>OCURRENCE OF TICK-BORNE DISEASE AT ARKANSAS POST NATIONAL MEMORIAL</strong></td>
<td>Room 379</td>
</tr>
<tr>
<td>3:15</td>
<td>Brad Byrne and Wayne L. Gray, Department of Microbiology and Immunology, University of Arkansas for Medical Sciences, Little Rock, AR 72205. <strong>CHARACTERIZATION OF THE SIMIAN VARICELLA VIRUS GLYCOPROTEIN C</strong></td>
<td>Room 379</td>
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<tr>
<td>3:30</td>
<td>Amanda Caldwell.</td>
<td>Room 379</td>
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<tr>
<td>3:45</td>
<td>Anwar A. Bhuiyan and Harry O. Brotherton, Department of Pysical Science, Arkansas Tech University, Russellville, AR 72801; 4Chemistry Department, University of Louisiana at Monroe, Monroe, LA 71209. <strong>SOLID PHASE EXTRAC-</strong></td>
<td>Room 229</td>
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<tr>
<td>4:15</td>
<td>James Daly, Bruce DeYoung, and Terry Hostetler, Department of Microbiology and Immunology, University of Arkansas for Medical Sciences, Little Rock, AR 72205. <strong>INFESTATION OF CROOKED CREEK SMALL-MOUTH WITH YELLOW GRUB (CLINOSTOMUM MARGINATUM)</strong></td>
<td>Room 229</td>
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**Secretary's Report**

**Geology & Science Education**

**Time** | **Topic**                                                                 | **Location**          |
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<td>1:30</td>
<td>Autumn R. Fernald, Stephen A. Leslie, and Jeffrey B. Connelly, University of Arkansas at Little Rock, Department of Earth Sciences, Little Rock, AR 72204. <strong>CARYOCARIS CURVILATA (ARTHROPODA, PHYLLOCARIDA) FROM THE MAZARN SHALE, OUACHITA MOUNTAINS, PARON, ARKANSAS</strong></td>
<td>Room 579</td>
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<tr>
<td>1:45</td>
<td>Alois J. Adams and Deborah L. Herden, Department of Physics and Astronomy, University of Arkansas at Little Rock, 2801 S. University Ave., Little Rock, Arkansas 72204. <strong>PORTABLE PHYSICS MODULES IN STANDARDS-BASED INSTRUCTION</strong></td>
<td>Room 579</td>
</tr>
<tr>
<td>2:00</td>
<td>Deborah L. Herden and Alois J. Adams and Department of Physics and Astronomy, University of Arkansas at Little Rock, 2801 S. University Ave., Little Rock, Arkansas 72204. <strong>THE ARKANSAS PHYSICS LENDING LIBRARY</strong></td>
<td>Room 579</td>
</tr>
<tr>
<td>2:15</td>
<td>David Jamieson, Arkansas State University-Newport, Department of Biological Sciences, 7648 Victory Boulevard, Newport, Arkansas 72112. <strong>TEACHING DARWIN'S THEORY OF EVOLUTION AT THE TWO-YEAR COLLEGE</strong></td>
<td>Room 579</td>
</tr>
<tr>
<td>3:00</td>
<td>Tobin Fuller and Renn Tumison, Department of Biology, Henderson State University, Arkadelphia, AR 71006. <strong>HAZARDS OF LOST FISHING GEAR TO WILDLIFE ON LAKES</strong></td>
<td>Room 579</td>
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<tr>
<td>3:15</td>
<td>Malcolm L. McCallum, and Stanley E. Trauth, (1) Environmental Sciences Ph.D. Program, Arkansas State University, P.O. Box 847, State University, AR 72467; (2) Department of Biological Sciences, Arkansas State University, P.O. Box 599, State University, AR 72467. <strong>A FORTY-THREE YEAR MUSEUM STUDY OF NORTHERN CRICKET FROG (ACRIS CRETIPANS) ABNORMALITIES IN ARKANSAS: UPWARD TRENDS AND DISTRIBUTIONS</strong></td>
<td>Room 579</td>
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<tr>
<td>3:30</td>
<td>Benjamin A. Wheeler and Stanley E. Trauth, Environmental Sciences Ph.D. Program, Arkansas State University, P.O. Box 847, State University, AR 72467-0847; Department of Biological Sciences, Arkansas State University, P.O. Box 500,</td>
<td>Room 579</td>
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**AQUATIC ECOSYSTEMS:**

**Time** | **Topic**                                                                 | **Location**          |
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<td>3:45</td>
<td>James Daly, Bruce DeYoung, and Terry Hostetler, Department of Microbiology and Immunology, University of Arkansas for Medical Sciences, Little Rock, AR 72205. <strong>INFESTATION OF CROOKED CREEK SMALL-MOUTH WITH YELLOW GRUB (CLINOSTOMUM MARGINATUM)</strong></td>
<td>Room 579</td>
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**Atmospheric Chemistry**

**Time** | **Topic**                                                                 | **Location**          |
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<td>3:15</td>
<td>Joseph D. Scott and David M. Chittenden, Department of Chemistry and Physics, Arkansas State University, State University, AR 72467. <strong>THE CHEMICAL COMPOSITION OF PARTICLES OF d &lt; 0.2 μm IN THE LOWER STRATOSPHERIC AEROSOL, SPRING 1998</strong></td>
<td>Room 579</td>
</tr>
<tr>
<td>2:00</td>
<td>Liz Null, Harding University, HU Box 12030, Searcy, AR 72149. <strong>HYDROXYL RADICAL REACTIONS WITH ALIPHATIC HYDROCARBONS</strong></td>
<td>Room 579</td>
</tr>
<tr>
<td>2:15</td>
<td>Adam Jacoby and Lauren Gilbert, Harding University, HU Box 10592, Searcy, AR 72149. <strong>CHEMICAL KINETICS STUDIES OF THE REACTIONS OF HYDROXYL RADICALS WITH HYDROCARBONS</strong></td>
<td>Room 579</td>
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<tr>
<td>3:00</td>
<td>Leasley White, Jennifer Faulkner, Dr. Mike Panigot, Department of Chemistry, Arkansas State University - Jonesboro, P.O. Box 419, State University, AR 72467-0419; Dr. Robert W. Curley, Jr., Division of Medicinal Chemistry, College of Pharmacy, The Ohio State University, 500 W. 12th Ave., Columbus, OH 43210-1291. <strong>EFFORTS TOWARD THE PREPARATION OF STEREOSELECTIVELY ETA-DUERATED HISTIDINE</strong></td>
<td>Room 579</td>
</tr>
<tr>
<td>3:15</td>
<td>Amanda Caldwell, Jason Boggs, Robin Carlton, and Dr. Mike Panigot, Department of Chemistry, Arkansas State University - Jonesboro, P.O. Box 419, State University, AR 72467-0419. <strong>STUDIES IN THE SYNTHESIS OF C-GLYCOSIDE DENDRIMERS - DIFFICULTIES AND SOLUTIONS</strong></td>
<td>Room 579</td>
</tr>
<tr>
<td>3:30</td>
<td>Cecil A. Sorrells, Ali U. Shaidk, and V. M. Samokyszyn, 1, 2 - Department of Chemistry, University of Arkansas at Little Rock, Little Rock, AR 72204; 3 - Division of Toxicology, University of Arkansas for Medical Sciences, Little Rock. <strong>OXIDATION-REDUCTION CHARACTERISTICS OF CHLOROPHENOLS</strong></td>
<td>Room 579</td>
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AMORPHOUS SILICON USING OPTICAL AND ELECTRON MICROSCOPY

John E. Urbanc and Thomas E. Nupp, Biology Department, Arkansas Tech University, Russellville, AR 72801.

POPULATION STATUS OF INTERIOR LEAST TERN OF THE ARKANSAS RIVER, ARKANSAS

Casey Milford and Brandon Willis, University of Central Arkansas, UCA Math Department, Conway, Arkansas 72035.

EXACT SOLUTIONS TO APPROXIMATE EQUATIONS

Mary E. Kinneor and Stephon C. Grace, Department of Biology, University of Little Rock, Little Rock, AR 72204.

EFFECTS OF LIGHT INTENSITY ON PHENOLIC ANTIOXIDANT PRODUCTION IN TOMATO

Mary E. Kinneor and Stephon C. Grace, Department of Biology, University of Little Rock, Little Rock, AR 72204.

SEASONAL CHANGES IN POLYPHENOLS IN ECHINACEA ANGUSTIFOLIA

Jasa Holt, Arkansas State University, Dept. of Biological Sciences, Jonesboro, AR 72407.

TRILLIUM VIRIDE IN THE STATE OF ARKANSAS

Matthew D. Lewis, Chris Kellner, Biology Department, Arkansas Tech University, Russellville, AR 72801; Steven Felwer, James C. Redinax, Department of Biological Sciences, Arkansas State University, State University, AR 72467.

SURVIVAL AND HABITAT USE OF PEN-READED NORTHERN BOBWHTHE AT CAMP ROBINSON WILDLIFE DEMONSTRATION AREA, ARKANSAS


HYDROGEOLOGY AND PHYSICAL CHARACTERISTICS OF WATER SAMPLES AT THE RED RIVER ALUMINUM SITE, STAMPS, ARKANSAS

Wendi J. W. Williams, Earth Science, University of Arkansas at Little Rock, 2801 S. University Ave., Little Rock, AR 72204.

QUATERNARY MAAR VOLCANISM IN THE SOUTHERN RIO GRANDE RIFT, NEW MEXICO

Felton, William Joseph and Owens, Don R., Department of Earth Sciences, and Al-Shukri, Haydar, Department of Applied Science, University of Arkansas at Little Rock, Arkansas 72204-1006.

MAGNETIC SURVEY OF THE OPELLO BRECCIA

Susan E. Baker, Rose McConnell, and Walter Godwin, School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, AR 71656.

CO-POLYMERS OF FURAN WITH PYRROLE OR THIOPHENE: A SYNTHETIC STUDY

Amy Stefan, Crystal Newton, Nikki Herring, Rose McConnell, and Walter Godwin, School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, AR 71656.

PREPARATION OF NEW CATHESPIN D INHIBITORS

E. C. Gordon, T. C. Keiging, L. R. Oliver, and T. A. Castille, Northeast Research and Extension Center, Keiser, AR 72351; University of Arkansas, Fayetteville, AR 72701, and RiceTec, Jonesboro, AR 72467.

EFFECT OF TILLAGE AND HERBICIDE TREATMENTS ON REDVINE (BRUNNICHIA OVAZ) SUBTERRANEAN MORPHOLOGY

Beatrice Kiranga, Chris M. Harrison, Lize Wilcox, Malay K. Mazumder, and David A. Lindquist, THE REACTION PRODUCTS OF DIETHYLALUMINUM AMIDE WITH ACETONE AND SUBSEQUENT HYDROLYSIS TO FORM ALUMINA

David W. Clark and Robert S. Sikes, Department of Biology, University of Arkansas at Little Rock, Little Rock, AR 72204.

FORAGING ACTIVITY AND ENERGY PROCUREMENT UNDER THE THREAT OF PREDATION

Steffany C. White, Carrie D. Day, David W. Clark, and Robert S. Sikes, Little Rock Zoo, 1 Jonesboro Dr., Little Rock, AR 72205.

CHANGES IN ASSIMILATION EFFICIENCES AS A FUNCTION OF DIET IN CAPTIVE OTTERS

Rajesh Sharma, David Caldwell, David A. Lindquist, Malay K. Mazumder, Department of Applied Science and Department of Chemistry, University of Arkansas at Little Rock, Little Rock, AR 72204.

HIGH TEMPERATURE OXYGEN ION TRANSPORT USING PEROVSKITE-PHASE CERAMICS MEMBRANES

Greg Giuffria and K. C. Larson, Department of Biology, University of Central Arkansas, Conway, AR 72035.

A COMPARISON OF FISH COMMUNITIES BETWEEN THE BUFFALO NATIONAL RIVER AND CROOKED CREEK USING AN INDEX OF BIOTIC INTEGRITY

Lee A. Elizondo, Department of Microelectronics-Photonics, University of Arkansas, Fayetteville, 72701; Hameed Naseem, Department of Electrical Engineering, University of Arkansas, Fayetteville, 72701.

THE ROLE OF HYDROGEN IN ALUMINUM INDUCED CRYSTALLIZATION OF HYDROGENATED AMORPHOUS SILICON

ORAL PRESENTATIONS

Saturday, April 6, 2002
Invertebrate Zoology
Location: Room 233

Topic

Michael D. Warriner, Arkansas Natural Heritage Commission, 1500 Tower Building, 323 Center Street, Little Rock, AR 72201; T. Evan Nebeker and Steven A. Tucker, Department of Entomology and Plant Pathology, Mississippi State University, Mississippi State, MS 39762.

INSECT DIVERSITY IN AN EASTERN COTTONWOOD (POPULUS DELTOIDES) PLANTATION AND ADJACENT BOTTOMLAND HARDWOOD FOREST IN SOUTHEASTERN ARKANSAS

Chris T. McAllister, Rowland M. Shelley, and James T. McAllister, III, Department of Biology, Texas A&M University-Texarkana, Texarkana, TX 75505; Research Laboratory, North Carolina State Museum of Natural Sciences, Raleigh, NC 27607; and W. T. White High School, 1244 Forest Rd., Dallas, TX 75228.

SOME MILLIPEDES (ARTHROPODA: DIPLOPODA) OF WESTERN AND CENTRAL ARKANSAS AND SOUTHEASTERN OKLAHOMA

David R. Lyon and Matthew D. Moran, Department of Biology, Hendrix College, Conway, AR 72032.

PATTERNS OF ARTHROPODS IN HABITING EPIPHYTES IN A
Arkansas Academy of Science

TEMPERATE DECIDUOUS FOREST

8:45  George L. Harp, Dept. of Biological Sci., Arkansas State Univ., State University, AR 72467. NEW DRAGONFLY RECORDS FOR NICARAGUA

9:00  Chris S. Harris, Chris T. McAllister, Rowland M. Shelley, and James T. McAllister, III, Department of Biology, Texas A&M University-Texarkana, Texarkana, TX 75905; Research Laboratory, North Carolina State Museum of Natural Sciences, Raleigh, NC 27607; and W. T. High School, 1244 Forest Lane, Dallas, TX 75228. MILLIPEDS (ARTHROPODA: DIPLOPODA) OF SEVEN COUNTIES OF THE WEST GULF COASTAL PLAIN OF ARKANSAS

9:15  Gerald F. Walah, 9 Yocum Road, Rogers, AR 72756; Brian F. Coles, 4202 Scottie Smith Drive, Jefferson, AR 72079. POLYGYRID LAND SNAILS (GASTROPODA, POLYGYRIDAE) OF ARKANSAS

9:30  Gregory K. Ends, Arkansas Post National Memorial, Gillett, AR 72055; Philip A. Tappe and Lynne C. Thompson, School of Forest Resources and Arkansas Forest Resources Center, University of Arkansas, Monticello, AR 71656. TICK SEASONALITY AND ABUNDANCE AT ARKANSAS POST NATIONAL MEMORIAL

9:45  Alexander J. D., Murray J. A., Department of Biology, University of Central Arkansas, Conway, AR 72035. MECHANICS OF TURNING WHILE CRAWLING IN THE MARINE SLUG TRITONIA DIOMEDA

10:00  Redondo R., Murray J. A., Department of Biology, University of Central Arkansas, Conway, AR 72035. ROLE OF A SINGLE NEURON IN TURNING WHILE CRAWLING IN THE MARINE SLUG TRITONIA DIOMEDA

10:15  Larry R. Hilburn and Lynita M. Cooksey, Department of Biological Sciences, Arkansas State University, P.O. Box 599, State University, AR 72467. GENETIC VARIABILITY IN ANOPIELES QUADRIMACULATUS SAY POPULATIONS FROM EASTERN ARKANSAS

Terrestrial Ecology
Location: Room 354

Time  Topic
8:00  Jeremy L. Jackson, Shane Prescott, and J. D. Wilhide, Department of Biological Sciences, Arkansas State University, Jonesboro, AR 72401. PRELIMINARY EFFECTS OF WILDLIFE STAND IMPROVEMENTS AND LOW INTENSITY PRESCRIBED BURNS ON BAT POPULATIONS ON THE BUFFALO RANGER DISTRICT, OZARK NATIONAL FOREST, AR

8:15  James R. Samples, J. D. Wilhide, and Roger Buchanan, Arkansas State University, Department of Biological Sciences, Jonesboro, AR 72467. PRELIMINARY BAT SURVEY OF FORT CHAFFEE MTC

8:30  Pradeepa Rampagajen1, Ali U. Shaikh2, Gary A. Heith4, and David Clark1, 2Department of Chemistry, 3Department of Biology, University of Arkansas at Little Rock, Little Rock, AR 72204. DETERMINATION OF BILE ACIDE PROFILES IN SCAT SAMPLES OF WILD ANIMALS BY GAS CHROMATOGRAPHY - MASS SPECTROMETRY

8:45  Matthew J. Butler and Phillip A. Tappe, School of Forest Resources and Arkansas Forest Resources Center, University of Arkansas, Monticello, AR 71656. UNDERSTORY HABITAT CHARACTERISTICS OF INDUSTRIAL FOREST STANDS USED BY FORAGING RED-COCKADED WOODPECKERS IN SOUTHERN ARKANSAS AND NORTHERN LOUISIANA

9:00  Matthew J. Butler and Phillip A. Tappe, School of Forest Resources and Arkansas Forest Resources Center, University of Arkansas, Monticello, AR 71656. ESTIMATION OF HABITAT AVAILABILITY FOR HABITAT SELECTION ANALYSIS

9:15  Christopher L. Witt and Phillip A. Tappe, School of Forest Resources and Arkansas Forest Resources Center, University of Arkansas, Monticello, AR 71656. SHORT-TERM UNDERSGTY VEGETATION RESPONSES TO DEER EXCLOSURES AT ARKANSAS POST NATIONAL MEMORIAL

9:30  Matthew D. Moran, Department of Biology, Hendrix College, Conway, AR 72032. THE ROLE OF AMERICAN BISON (BOS BISON) IN STRUCTURING ARTHROPOD COMMUNITIES IN TALLGRASS PRAIRIE

10:00  Jennie S. Popp, University of Arkansas, Dept. of Agr. Econ. and Agribusiness, 217 Agriculture Building, Fayetteville, AR 72701; Terry W. Griffin, University of Illinois, Macomb Extension Center; Dr. Bill Baker, Arkansas State University, Jonesboro, AR; Michael Popp, University of Arkansas, Dept. of Agr. Econ. and Agribusiness, 217 Agriculture Building, Fayetteville, AR 72701. PROFITABILITY OF VARIABLE RATE PHOSPHORUS IN A TWO CROP ROTATION

10:15  Britteny Cioni, Colorado State University, Department of Agricultural and Resource Economics, Fort Collins, Colorado 80521. Jennie S. Popp, University of Arkansas, Dept. of Agr. Econ. and Agribusiness, 217 Agriculture Building, Fayetteville, AR 72701; Martin Redfern, University of Arkansas, Dept. of Agr. Econ. and Agribusiness, 217 Agriculture Building, Fayetteville, AR 72701; Wayne Miller, University of Arkansas, Cooperative Extension Service, Little Rock; Michael Popp, University of Arkansas, Dept. of Agr. Econ. and Agribusiness, 217 Agriculture Building, Fayetteville, AR 72701. ASSESSING THE IMPACTS OF ENVIRONMENTAL REGULATIONS ON CONFINED ANIMAL FEEDING OPERATIONS

10:30  Paul Doruska, Travis Posey, and Richard Leverett, Assistant Professor of Forest Biometrics, graduate student, and undergraduate student, respectively, Arkansas Forest Resources Center, School of Forest Resources, University of Arkansas, P.O. Box 3468, Monticello, AR 71656. USE OF MINIATURE PLANTATIONS TO EXAMINE ACCELERATED STAND DEVELOPMENT IN Loblolly PINE PLANTATIONS: FIRST YEAR RESULTS

Vertebrate Zoology
Location: Room 262

Time  Topic
8:00  Stanley E. Trauth1, John C. Harshbarger2, and Patrick Daniel3, 1Department of Biological Sciences, Arkansas State University, P.O. Box 599, State University, Arkansas 72467-0599; 2Registry of Tumors in Lower Animals, Department of Pathology, Ross 520, George Washington University Medical
Secretary's Report

Center, 2300 I Street, N.W., Washington, D.C. 20037. EPIDERMAL PAPILLOMA IN AN OZARK HELLBENDER (CRYPTOBRONCHUS ALLEGANIENSIS BISHOP) FROM THE SPRING RIVER OF NORTHERN ARKANSAS

8:15
Reon Tumblison, Tommy Finley, Tobin Fulmer, and David Saugert, Department of Biology, Henderson State University, Arkadelphia, AR 71999 and U.S. Forest Service, Jettieville, AR 71949. BATS OF THE JESSIEVILLE RANGER DISTRICT, OUACHITA NATIONAL FOREST

8:30
Kelly S. Richey, David W. Allard and Chris T. Mallkiss, Department of Biology, Texas A&M University-Texarkana, Texarkana, TX 75505. A PRELIMINARY STUDY ON DISTRIBUTION OF FROGS AND TOADS (AMPHIBIA: ANURA) IN THE ARK-LATEX

8:45
Amanda C. Crnkovic; Museum of Life Sciences, Louisiana State University in Shreveport, One University Place, Shreveport, LA 71115-2999. THE DISCOVERY OF THE NORTHERN LONG-EARED MYOTIS, MYOTIS SEPTENTRIONALIS (CHIROPTERA: VESPERTILIONIDAE), IN LOUISIANA

9:00
Malcolm L. McCallum1, Robert G. Neal2 (vneal@cox-internet.com), and Stanley E. Trauth2 (strauth@astate.edu), 1Environmental Sciences Ph.D. Program, Arkansas State University, P.O. Box 847, State University, AR 72467. 2Department of Biological Sciences, Arkansas State University, P.O. Box 309, State University, AR 72467. TAIL-COILING IN RINGNECK SNAKES: FLASH DISPLAY OR DECOY?

9:15
Mark F. Roth and Philip A. Tappe, School of Forest Resources and Arkansas Forest Resources Center, University of Arkansas, Monticello, AR 71656. CHARACTERISTICS OF AMERICAN ALLIGATOR HABITAT AT ARKANSAS POST NATIONAL MEMORIAL

9:30
Christopher L. Watt, Mark F. Roth, and Philip A. Tappe, School of Forest Resources and Arkansas Forest Resources Center, University of Arkansas, Monticello, AR 71656. AMERICAN ALLIGATOR DISTRIBUTION IN ARKANSAS

9:45
Mark F. Roth and Philip A. Tappe, School of Forest Resources and Arkansas Forest Resources Center, University of Arkansas, Monticello, AR 71656. AMERICAN ALLIGATOR SEASONAL AND ANNUAL HOME RANGE ESTIMATES AT ARKANSAS POST

10:00
Matthew J. Butler and Philip A. Tappe, School of Forest Resources and Arkansas Forest Resources Center, University of Arkansas, Monticello, AR 71656. RED-COCKADED WOODPECKER FORAGING HABITAT REQUIREMENTS ON INDUSTRIAL FORESTS IN SOUTHERN ARKANSAS AND NORTHERN LOUISIANA

10:15

Botany & Plant Biology

Time
Topic
8:00
Staci Thomas, Texas A&M, Texarkana, 2600 N. Robison Rd., Texarkana, TX 75501. PURIFICATION OF FOREWVED ANTIVIRAL PROTEIN COMPLEX

8:15
Don C. Bragg, USDA Forest Service, Southern Research Station, P.O. Box 3516 UAM, Monticello, AR 71656. CHECKLIST OF MAJOR PLANT SPECIES IN ASHLEY COUNTY, ARKANSAS NOTED BY GENERAL LAND OFFICE SURVEYORS

8:30
Jason A. Haley, Henderson State University, 1100 Henderson St., Arkadelphia, AR 71923; and Daniel L. Marsh, Greenwood, AR 72936. A DISTINCTIVE LEAFY LIVERWORT IN THE ARKANSAS OUACHITAS

8:45
Phillip A. Tappe and Christopher L. Watt, School of Forest Resources and Arkansas Forest Resources Center, University of Arkansas, Monticello, AR 71656; Gregory K. Eads, Arkansas Post National Memorial, Gillet, AR 72055. A VEGETATION INVENTORY OF ARKANSAS POST NATIONAL MEMORIAL

9:00
George P. Johnson, Biological Sciences, Arkansas Tech University, Russellville, AR 72801. ARKANSAS' ORCHIDS: FREQUENCY AND DISTRIBUTION

9:15
Katherine C. Larson, Department of Biology, University of Central Arkansas, Conway, AR 72035. KLARSON@mail.uca.edu. CONTRASTING MOBILITY OF NATIVE AND EXOTIC HONEYSUCKLE VINES IN ARKANSAS

9:30
Alison Boyer, Department of Biology, Hendrix College, Conway, AR 72032. THE ABILITY OF SOIL FUNGI TO DEGRADE GLYPHOSATE (ROUNDUP®)

9:45
Jessie K. Fly and Joyce M. Hardin, Hendrix College, 1600 Washington Avenue, Conway, Arkansas 72032. THE EFFECTS OF TREE SPECIES AND TREE AGE ON EPILPHYTE COMMUNITY STRUCTURE IN A TEMPERATE DECIDUOUS FOREST

10:00
Donald E. Culwell, Department of Biology, University of Central Arkansas, Conway, AR 72035. PilIwORT, AN ELUSIVE, BUT THRIVING, GRAMINOID FERN

10:15
Michael P. Popp, University of Arkansas, Dept. of Ag. Econ. and Agribusiness, 217 Agriculture Building, Fayetteville, AR 72701; Terry C. Keising, University of Arkansas HC 69, Box 51, Rover, AR 72860; Lanny O. Ashlock, University of Arkansas, 2301 S. University Ave., P.O. Box 391, Little Rock, AR 72203; Larry C. Purcell, University of Arkansas, 276 Allbeimber Drive, Fayetteville, AR 72701; Paul A. Counce, University of Arkansas, RREC, 2900 Hwy. 130E, Stuttgart, AR, 72160; David C. Amos Jr., Noble Foundatio, Oklahoma; Patrick M. Manning, University of Arkansas, Dept. of Ag. Econ. and Agribusiness, 217 Agriculture Building, Fayetteville, AR 72701; Eddie Gordon, University of Arkansas, NREC, Keiser, AR 72351. INNOVATIVE PRODUCTION METHODS ON WET CLAY SOILS FOR RICE AND SOYBEAN
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<td>8:15</td>
<td>Stephen E. Hall, Lize Wilcox, William S. Tyree, Malay K. Mazumder, and David A. Lindquist. POROUS ALUMINA AMIDE WITH BENZALDEHYDE FOLLOWED BY THE REACTION OF DIETHYLLALUMINUM HYDROLYSIS</td>
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<td>Anil Baral, Dr. Robert Engelken, Richard Tanner, Randy Stidham, Lee Ketchum, and Gustavo Rehder. ELECTRODEPOSITION OF CHROMIUM FROM MIXED AQUEOUS/ORGANIC CHROMIUM (III) BATHS</td>
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<td>Lee Ketchum, Dr. Robert D. Engelken, Richard Tanner, Anil Baral, Gustavo Rehder, Randy Stidham, Barrett Brown, and Chad Chastain. OXIDE-DERIVED ALUMINUM METALS AND ALLOYS BY INDUCED CODEROSITION FOLLOWED BY ANODIC STRIPPING OF EASIER-TO-PLATE METALS</td>
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<td>Randy Stidham, Dr. Robert Engelken, Gustavo Rehder, Richard Tanner, Lee Ketchum, and Anil Baral. OPTIMIZING THERMAL VACUUM EVAPORATION OF THIN INDUM SULFIDE FILMS FOR USE AS PHOTOCONDUCTIVE PHOTOVOLTAIC CELLS ON PRINTED CIRCUIT BOARD AND INDUM TIN OXIDE-COATED GLASS SUBSTRATES</td>
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<td>Marwan Barghouthi and Hameed Naseem. THE EFFECT OF THE NATIVE OXIDE LAYER ON METAL INDUCED CRYSTALIZATION</td>
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<td>Maruf Hossain, Dr. Hameed A. Naseem, Dr. W. D. Brown. CHLORINE DOPED CADMIUM SULFIDE THIN FILMS FOR SOLAR CELL APPLICATION</td>
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<td>Richard Tanner, Dr. Robert Engelken, Chad Chastain, Barrett Brown, Gustavo Rehder, Randy Stidham, Lee Ketchum, and Anil Baral, Optoelectronic Materials Research Laboratory, College of Engineering, University of Arkansas. A LOW BOILING POINT SOLUTIONS OF METAL SALTS FOR LOW TEMPERATURE DEPOSITION OF MOLYBDENUM AND TUNGSTEN OXIDE FILMS BY SPRAY PYROLYSIS</td>
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<td>11:00</td>
<td>Constance Meadows and A. B. Wright. SIMULATION OF VIDEO ELECTRIC SINGLE PARTICLE AERODYNAMIC RELAXATION TIME ANALYZERS</td>
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<td>12:00</td>
<td>Nick Grable, D. Saini, P. Williams, M. Frichtet, M. K. Mazumder, and S. D. Farmer. ELECTROSTATIC EFFECTS ON THE DISPERION OF RESPIRABLE AEROSOLS IN LUNG MODELS</td>
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S. University Avenue, Little Rock, Arkansas 72204. **TRIBOCHARGING OF JSC MARS-1 SIMULANT DUST**

10:00

A. S. Biris, C. U. Yurteri, M. K. Mazumder, R. A. Sims, P. H. Williams; University of Arkansas at Little Rock Applied Science Dept. ETAS 501, 2801 South University Ave., Little Rock, AR 72204. **REDUCTION OF DENDRITE FORMATIONS TO IMPROVE THE APPEARANCE OF THE POWDER CURED FILMS FOR AUTOMOTIVE INDUSTRY**

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10:30

S. De, M. Pritchett, A. Rego, M. K. Mazumder, C. U. Yurteri, and R. A. Sims, Department of Applied Science, University of Arkansas at Little Rock, 2801 S. University Avenue, Little Rock, Arkansas 72204. **ELECTROSTATIC MICROENCAPSULATION OF COMPOSITE PARTICULATE MATERIALS FOR MANUFACTURING AND ENVIRONMENTAL APPLICATIONS**