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SECTION PROGRAMS

Friday, April 5, 1991

STUDENTS I: BOTANY/ECOLOGY/AQUATICS
Chairperson: Dr. E.E. Dale, University of Arkansas, Fayetteville

*FLORA OF THE ST. FRANCIS NATIONAL FOREST.
Celia Ison and Don Culwell, Department of Biology, University of Central Arkansas, Conway, AR 72032.

**CYANOBACTERIA OF RICE FIELDS IN CENTRAL ARKANSAS.
Laura K. Simpson, Joyce M. Hardin and Kelly K. Agnew, Department of Biology, Hendrix College, Conway, AR 72032.

*A SURVEY OF THE VASCULAR FLORA OF BAXTER COUNTY, ARKANSAS.
Philip E. Hyatt, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701.

**EVALUATION OF Aposphaeria amaranthi AS A BIOHERBICIDE FOR PIGWEED (Amaranthus spp.).
Angel Mintz and G.J. Weidemann, Department of Plant Pathology, PTCSC217, University of Arkansas, Fayetteville, AR 72701.

*A CLADISTIC ANALYSIS OF EIGHT SPECIES OF Lemma (LEM-NACEAE).
Kevin D. Golden and F.W. Spiegel, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701.

**STUDY ON Taxodium-Nyssa SWAMP IN INDEPENDENCE COUNTY, ARKANSAS.
Kevin Roue and Lisa Morley, Natural Sciences and Mathematics Program, Arkansas College, Batesville, AR 72501 and Winfred Fraser, University of Texas School of Medicine at Galveston, TX 77550.

**AN ANALYSIS OF STOMACH CONTENTS OF THE OUACHITA MADTOM (Noturus lachneri) in Streams of the Upper Saline Drainage.
Tim M. Patton and Mark L. Zornet, Fish and Wildlife Biology Program, Arkansas Tech University, Russellville, AR 72801.

**AN ECOLOGICAL ANALYSIS OF THE INTERTIDAL ZONE OF APPLEDORE ISLAND IN THE ISLES OF SHOALS, GULF OF MAINE.
Eric Haenni and Brian Segool, Department of Biology, Hendrix College, Conway, AR 72032.

**THE EFFECTS OF TRANSFORMATION OF PATHOGENICITY ON Colletotrichum gloeosporioides F.SP. malaec.
C.L. Trout and D.O. TeBeest, Department of Plant Pathology, University of Arkansas, Fayetteville, AR 72701.

**VERIFICATION OF REPRODUCTIVE PERIODICITY OF Corbicula fluminea, THE ASIATIC CLAM, IN THE SALINE RIVER, SALINE COUNTY, ARKANSAS.
Diana L. Saul and John D. Rickett, Department of Biology, University of Arkansas at Little Rock, Little Rock, AR 72204.

THE EFFECT OF FLOODING ON THE WATER QUALITY OF LAKE CATHERINE THREE YEAR COMPARISON.
Grace Velasco, Lakeside High School, 4429 Malvern Rd., Hot Springs, AR 71901.

*A SYNOPSIS OF THE NOTONECIDAE OF ARKANSAS.
Stephen W. Chordas III and George L. Harp, Department of Biological Sciences, Arkansas State University, AR 72467.

**PRELIMINARY SCANNING ELECTRON MICROSCOPY OBSERVATIONS ON THE ORIGIN AND MORPHOLOGY OF CALLUS INDUCED FROM CULTIVATED RICE 'TEBONNET' SEEDS.
S. Wofford, M. Kleve, B. Wagner, B. Good and J. Peck, Department of Biology, University of Arkansas at Little Rock, Little Rock, AR 72204 and R. Dilday, USDA-ARS, P.O. Box 287, Stuttgart, AR 72160.

**PRELIMINARY OBSERVATIONS ON CALLUS INDUCTION AND PROTOPLAST ISOLATION FROM CULTIVATED RICE 'TEBONNET'.
B. Wagner, B. Good, S. Wofford, M. Kleve and J. Peck, Department of Biology, University of Arkansas at Little Rock, Little Rock, AR 72204 and R. Dilday, USDA-ARS, P.O. Box 287, Stuttgart, AR 72160.

BOTANY/BIO MEDICAL
Chairman: Dr. J.W. Wickliff, University of Arkansas, Fayetteville

A FLORISTIC SURVEY OF THE MOIST SOIL UNITS AT HOLLA BEND NATIONAL WILDLIFE REFUGE.
Stephen A. Walker and George P. Johnson, Department of Biological Sciences, Arkansas Tech University, Russellville, AR 72801.

FINAL REPORT ON FIVE-YEAR STUDY OF Geocarpon minimum AT WARREN PRAIRIE NATURAL AREA.

NEW BOTANIC DISCOVERIES IN THE OUACHITA MOUNTAIN REGION.
Vernon Bates, Consulting Botanist, P.O. Box 1473, Mena, AR 71953 and Albert B. Pittman, South Carolina Heritage Trust, P.O. Box 167, Columbia, SC 29202.

VAS CULAR FLORA OF PERRY COUNTY, ARKANSAS.
Donald E. Culwell, Department of Biology, University of Central Arkansas, Conway, AR 72032.

KENAF – A POTENTIAL NEW CROP FOR ARKANSAS.
Lyell Thompson, Department of Agronomy, University of Arkansas, Fayetteville, AR 72701.

SMALL-HEADED PIPEWORT (Eriocaulon kornickiamum) (ERIOCAULACEAE) IN ARKANSAS.
Gary E. Tucker, Ozark-St. Francis National Forest, Russellville, AR 72801.

ANTHOCYANINS OF THE BIRD-FOOT VIOLET, Viola pedata.
Forrest E. Lane, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701.

GEOTROPISM/GRAVITROPISM: FACT AND FANCY.
Forrest E. Lane, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701.

A CROSS-SECTIONAL STUDY OF THE POSSIBLE HEALTH BENEFITS OF THREE TYPES OF EXERCISE REGIMENS.
L.F. Morgans and A.M. Johnson, Departments of Biology and Mathematics and Statistics, University of Arkansas at Little Rock, Little Rock, AR 72204.
LOCALIZATION OF AEROSOL DEPOSITION IN A SYMMETRICAL LUNG MODEL.
Sam Al-Zaaim, David L. Wankum, Department of Electronics and Instrumentation, University of Arkansas at Little Rock, Little Rock, AR 72204, and Jeff R. Hammersley, UAMS - Pulmonary Department, 4301 W. Markham, Little Rock, AR 72204.

MUTAGENICITIES OF HYDANTOIN SUBSTITUTED NITROAROMATIC COMPOUNDS IN Salmoella typhimurium.
E. Kim Fifer and Cheri Greer, Department of Biopharmaceutical Sciences, College of Pharmacy, University of Arkansas for Medical Sciences, Little Rock, AR 72205.

MUTAGENICITY OF DANTROLENE AND ITS METABOLITES IN Salmoella.
E. Kim Fifer, College of Pharmacy, University of Arkansas for Medical Sciences, Little Rock, AR 72205 and Bruce S. Hass, Division of Comparative Toxicology, National Center for Toxicological Research, Jefferson, Arkansas 72079.

MICROBIOLOGY
Chairman: Dr. T. A. Kral, University of Arkansas, Fayetteville

EFFECTS OF SURFACE-ACTIVE AGENTS ON TISSUE ATTACHMENT OF Salmoella typhimurium.
D.L. Lattin, P.J. Breen, C.M. Compandre, E.K. Fifer and H. Salari, College of Pharmacy, University of Arkansas for Medical Sciences, Little Rock, AR 72205.

ISOLATION AND POLYPEPTIDE CHARACTERIZATION OF SIMIAN VARICELLA VIRUS.
Thomas M. Fletcher III and Wayne Gray, Department of Microbiology and Immunology, University of Arkansas for Medical Sciences, Little Rock, AR 72205.

VESICULAR ADSORPTION SITES ON THE LATERAL EDGES OF Simonsiella stedae.
Fatimah A. Nahhas, Lawrence W. Hinck and W. Donald Newton, Department of Biological Sciences, Arkansas State University, State University, AR 72467.

ADENOSINE TRIPHOSPHATASE (ATPase) LOCALIZATIONS ALONG THE EXTRACELLULAR FIBRILLAR LAYER OF Simonsiella stedae.
Fatimah A. Nahhas, Lawrence H. Hinck and W. Donald Newton, Department of Biological Sciences, Arkansas State University, State University, AR 72467.

IDENTIFICATION OF A 60 KILOGALTON IMMUNEACTIVE RECOMBINANT Brucella PROTEIN AS A HEAT SHOCK PROTEIN HOMOLOG.
Michelle L. Price, R. Martin Roop II and Bruce Dunn, University of Arkansas for Medical Sciences, Little Rock, AR 72205 and Gerhardt G. Schurig, Virginia-Maryland Regional College of Veterinary Medicine, Blacksburg, VA 24061.

SIMIAN VARICELLA VIRUS AND VARICELLA ZOSTER VIRUS SHARE SIMILAR DNA STRUCTURES AND COLINEAR GENOMES.
Carla Y. Pumphrey, Thomas M. Fletcher and Wayne L. Gray, Department of Microbiology and Immunology, University of Arkansas for Medical Sciences, Little Rock, AR 72205.

USING VIRUSES TO EXAMINE SOIL TREATMENT OF SEPTIC TANK EFFLUENT.
Mark Gross, Jenna Hestir, Department of Electronics and Instrumentation, University of Arkansas at Little Rock, Little Rock, AR 72204, Duane C. Wolf and E. Moe Rutledge, Department of Agronomy, University of Arkansas, Fayetteville, AR 72701.

ENHANCED GROWTH OF Bordetella avium IN THE TISSUE CULTURE MEDIUM RPMI 1640.
Eric D. Howard, Kenneth C. Powell and Timothy A. Kral, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701.

PRODUCTION AND ISOLATION OF A RECOMBINANT BACULOVIRUS CONTAINING THE GENE FOR THE HUMAN PROTEIN TYROSINE KINASE p56ck.
Stuart Wright, Box 3711, Hendrix College, Conway, AR 72032 and James M. Trevillyan, Texas Tech University School of Medicine, 1400 Wallace Boulevard, Amarillo, TX 79106.

PHOTOREACTIVATION OF UV-INDUCED DAMAGE IN GI PHASE XENOPUS CELLS THAT LEADS TO SISTER CHROMATID EXCHANGES AND CELL DEATH.
Dawn Laswell, Jennifer Barber and Gaston Griggs, Department of Biology, John Brown University, Siloam Springs, AR 72761.

PHYSICS/ENGINEERING I
Chairman: Dr. R.M. Hawk, University of Arkansas, Little Rock

DIFFUSION OF MUONIC DEUTERIUM IN D2 GAS.
Heather L. Wooten, University of Central Arkansas, Conway, AR 72032.

K-SHELL IONIZATION MEASUREMENTS FOR LIGHT INCIDENT IONS.
Rahul Mehta, Department of Physics, University of Central Arkansas, Conway, AR 72032.

A NEW APPROACH TO THE SOLUTION OF THE ISING MODEL.
Michael George, Department of Computer Science, Mathematics and Physics, Arkansas State University, State University, AR 72467.

HOMOGENEOUS FUNCTIONS IN THERMODYNAMICS.
Stephen R. Addison, Department of Physics, University of Central Arkansas, Conway, AR 72032.

XRF AND FT-IR REFLECTANCE ANALYSIS OF GREASE ON STEEL.
Hudson B. Elbridge, Department of Physics, and Michael W. Rapp, Department of Chemistry, University of Central Arkansas, Conway, AR 72032.

ELECTRICAL BREAKDOWN OF GASES; HISTORICAL BACKGROUND AND SOLUTIONS.
Mostafa Hemmati Department of Physics, Arkansas Tech University, Russellville, AR 72801.

EARTHRUSE ON THE MOON.
Dean Hirschi, Department of Physics and Astronomy, University of Central Arkansas, Conway, AR 72032.

MICROWAVE SOIL STERILIZATION USED FOR PLANT SEEDLINGS.
Rudolph J. Eichenberger, Department of Physical Science and Technology, Southern Arkansas University, Magnolia, AR 71753.

ELECTROCHEMICAL DEGRADATION OF 2,2-DICHLORO DIPHENYL AT A RUTHENIUM DIOXIDE ELECTRODE.
G. Fuller, D. Miller, B. Miller, R. Hawk and R. Brower, Department of Electronics and Instrumentation, University of
Arkansas at Little Rock, Little Rock, AR 72204.

PROPERTIES OF (RUTILE) RuO2 COATINGS.
Kamesh V. Gadepally, David N. Patangia* and Roger M. Hawy, Department of Electronic and Instrumentation, University of Arkansas at Little Rock, Little Rock, AR 72204 and *Senior, Central High School, Little Rock, AR 72204.

DOUBLE TUNED COSINE COIL FOR NMR IMAGING/SPECTROSCOPY.
Rao P. Gullapalli, Picker International Inc., 5500 Avion Park Drive, Highland Heights, OH 44143; Dikoma P. Shungu, Department of Radiology, John Hopkins School of Medicine, Baltimore, MD 21205; and Roger M. Hawk, Department of Electronics and Instrumentation, University of Arkansas at Little Rock, Little Rock, AR 72204.

ANN: A SET OF EDUCATIONAL NEURAL NET SIMULATORS.
Siripong Malasri, Christian Brothers University, Memphis, TN 38104 and Stanley P. Franklin, Memphis State University, Memphis, TN 38152.

FISH BIOLOGY
Chairman: Dr. R. Kilambi, University of Arkansas, Fayetteville

UNDERWATER OBSERVATIONS OF HABITAT USE PATTERNS IN BASS AND SUNFISH IN OZARK IMPOUNDMENTS.
E.D. Dibble and C.A. Annett, Arkansas Cooperative Fish and Wildlife Research Units, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701.

BEHAVIOR AND MICROHABITAT USE PATTERNS OF BASS IN CHANNELIZED AND NATURAL RIVERS.
C.A. Annett, Arkansas Cooperative Fish and Wildlife Research Unit, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701.

FIELD AND LABORATORY ANALYSIS OF THERMAL PREFERENCE OF LARGEMOUTH BASS FROM THERMALLY ENRICHED FLINT CREEK COOLING RESERVOIR.
M.L. Galloway, Department of Science, Northwestern Arkansas Community College, Rogers, AR 72756 and R.V. Kilambi, Department of Zoology, J. William Fulbright College of Arts and Sciences, University of Arkansas, Fayetteville, AR 72701.

HYPERINFECTION OF SMALLMOUTH BASS (Micropterus dolomieu) BY THE TROMEDOTE Clinostomum marginatum ("YELLOW GRUB").
James J. Daly, Bruce DeYoung and Terry L. Hostetler, Department of Microbiology and Immunology, University of Arkansas for Medical Sciences, Little Rock, AR 72205.

EVALUATING METHODS OF ESTIMATING SMALLMOUTH BASS IN ARKANSAS GAME AND FISH COMMISSION NURSERY PONDS.
James E. Johnson, Mitzi Pardew and Darrel Bowman, Arkansas Cooperative Fish and Wildlife Research Unit, Fayetteville, AR 72701.

BIOLOGY OF Erimystax dissimilis (PISCES: CYPHRINIDAE) IN THE WHITE RIVER DRAINAGE, ARKANSAS.
John L. Harris, Environmental Division, Arkansas Highway and Transportation Department, P.O. Box 2261, Little Rock, AR 72203.

DISTRIBUTION AND HABITAT OF THE YELLOWCHEEK DARTER (Etheostoma moorei) IN THE SOUTH FORK OF THE LITTLE RED RIVER IN ARKANSAS.

Lisa J. Hlass, 511 S. Denver, Russellville, AR 72801.

John L. Harris, Arkansas Highway and Transportation Department: Environmental Division, P.O. Box 2261, Little Rock, AR 72203; Henry W. Robinson, School of Science and Technology, Southern Arkansas University, Magnolia, AR 71753; and Betty G. Cochran, US Forest Service, P.O. Box 369, Glenwood, AR.

Saturday, April 6, 1991

STUDENTS II:
VERTEBRATES/MICROBIOLOGY/BIO MEDICAL/ CHEMISTRY/ENGINEERING
Chairman: Dr. E.E. Dale, University of Arkansas, Fayetteville

*RED-COCKADED WOODPECKER HOME RANGE SIZES IN THE SHORTLEAF PINE FORESTS OF WESTCENTRAL ARKANSAS.
Robert H. Doster, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701

USE OF RESTRICTED CAVITIES BY RED-COCKADED WOODPECKERS.
Barbara Raulston, Arkansas Cooperative Fish and Wildlife Research Unit, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701.

*GEOGRAPHIC VARIATION IN THE TYPE A AND B SONGS OF THE NORTHERN PARULA.
Michael D. Bay, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701 and Ralph R. Moldenhauer, Department of Biology, Sam Houston State University, Huntsville, TX 77341.

*PAST AND PRESENT DISTRIBUTIONS OF THE RED-COCKADED WOODPECKER Picoides borealis IN THE OUACHITA MOUNTAINS, ARKANSAS.
Joseph C. Neal, Arkansas Cooperative Fish and Wildlife Research Unit, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701 and Warren G. Montgomery, Ouachita National Forest, P.O. Box 100, Waldron, AR 72958.

**ISOLATION OF CA125 USING NEW MONOCLONAL ANTIBODIES.
Lisa A. Lowery, Gary A. Bannor, Hildur, H. Hardardottir, F.C. Muller, J. Gerald Quirk, Jr., and Timothy J. O'Brien, University of Arkansas for Medical Sciences, Departments of Obstetrics and Gynecology and Biochemistry and Molecular Biology, Little Rock, AR 72205 and Laurence M. Raymond, Arkansas Biotechnology Center, University of Arkansas Biomass Research Center, Fayetteville, AR 72701.

COMPARATIVE QUANTITATIVE STRUCTURE-ACTIVITY ANALYSIS OF CYSTEINE PROTEINASES.
R.I. Sanchez, R.L. Lopez de Compadre, C.M. Compadre, Department of Biopharmaceutical Sciences, University of Arkansas for Medical Sciences, Little Rock, AR 72205 and C. Bhuvaneswaran, Department of Biochemistry, University of Arkansas for Medical Sciences, Little Rock, AR 72205.

**TRIPEPTIDE ANALOGS OF PEPSTATIN: SYNTHESIS & PEPSIN INHIBITION.
Amanda Evans and Rose McConnell, Department of Chemistry, University of Arkansas at Pine Bluff, Pine Bluff, AR 71601.

INHIBITION DATA OF NEW LEUPEPTIN ANALOGS.
Amanda Camp and Rose McConnell, Department of Chemistry,
University of Arkansas at Pine Bluff, Pine Bluff, AR 71601.

**DETERMINATION OF CIMETIDINE IN PHARMACEUTICALS BY CAPILLARY ZONE ELECTROPHORESIS.**

Susan Arrowood and A.M. Hoyt, Jr., University of Central Arkansas, Conway, AR 72032.

**IDENTIFICATION OF A GENE INVOLVED IN REGULATING THE STABILITY OF A Tetrahymena thermophila SURFACE PROTEIN mRNA.**

P.J. McMillan, M.M. Tondravi, Department of Biochemistry and Molecular Biology, University of Arkansas for Medical Sciences, Little Rock, AR 72205; F.P. Doerder, Department of Biology, Washington University, St. Louis, MO 63130; G.A. Bannon, Department of Biology, Cleveland State University, Cleveland, OH44115.

**PHASE ANGLE MEASUREMENT FOR THE EVALUATION OF CUTTING FLUID PERFORMANCE ON A-36 CARBON STEEL DURING COMMON LATHING OPERATIONS.**

Gary L. Fuller, Department of Electronics and Instrumentation, University of Arkansas at Little Rock, Little Rock, AR 72204.

**REPRODUCTION IN THE SOUTHERN FLYING SQUIRREL (Glaucomys volans) IN THE OUACHITA MOUNTAINS OF CENTRAL ARKANSAS.**

Paul T. Caster, Karen D. Stone, Gary A. Heidt and David Saugey, Department of Biology, University of Arkansas at Little Rock, AR 72204 and U.S. Forest Service, Jessville, AR 71949.

**WINTER HOME RANGE OF FEMALE SOUTHERN FLYING SQUIRRELS (Glaucomys volans) IN THE OUACHITA MOUNTAINS OF CENTRAL ARKANSAS.**

Karen D. Stone and Gary A. Heidt, Department of Biology, University of Arkansas at Little Rock, Little Rock, AR 72204.

**AGGRESSIVE BEHAVIOR BETWEEN THE TEXAS MOUSE (Peromyscus attwateri) AND THE COTTON MOUSE (P. gossypinus).**

John A. Peppers, David W. Royal, Gary A. Heidt and Catherine Hall, Department of Biology, University of Arkansas at Little Rock, Little Rock, AR 72204.

**BOTANY II/SCIENCE EDUCATION**

Chairman: Dr. F.E. Lane, University of Arkansas, Fayetteville

PLANT REGENERATION FROM HERBICIDE RESISTANT RICE (Oryza sativa L.) CALLUS.

A.F. Mirlohi, F.H. Huang, L.F. Thompson, R.H. Dilday, and J.M. Al-Khayri, University of Arkansas, Fayetteville, AR 72701.

PHOTOSYNTHETIC EFFICIENCY OF DROUGHT-INDUCED LEAVES IN Nevisia alabamenis.

Jennifer Martzolf and Robert Wright, Department of Biology, University of Central Arkansas, Conway, AR 72032.

GROUNDWATER HYDROLOGY OF A POPULATION OF Lindera melissifolia IN ARKANSAS.

Dainette Priest and Robert Wright, Department of Biology, University of Central Arkansas, Conway, AR 72032.

PHOTOSYNTHESIS AND WATER RELATIONS OF A RARE SHRUB, Nevisia alabamenis.

Robert D. Wright, University of Central Arkansas, Conway, AR 72032.

LEAF COLOR CHANGE IN Acer saccharum CORRELATES WITH EARLY OCTOBER TEMPERATURES.

J.L. Wickliff, University of Arkansas, Fayetteville, AR 72701.

ONE TEACHER'S APPROACH TO THE BATTLE AGAINST CHEMOPHOBIA.

Karen C. Weaver, Department of Chemistry, University of Central Arkansas, Conway, AR 72032.

A LABORATORY SKILLS TEST.

Richard S. Mitchell, Arkansas State University, Box 700, State University, AR 72467.

COMPUTERIZED EQUIPMENT AND NETWORKING IN BIOLOGY LABORATORIES: A REPORT ON AN NSF-ILLI PROJECT AT UALR.

Alvan A. Karlin, Department of Biology, University of Arkansas at Little Rock, Little Rock, AR 72204.

CRITICAL THINKING WITH BOTANY: USE OF RAPID CYCLING Brassica (RcBr), WISCONSIN "FAST PLANTS".

James H. Peck, Department of Biology, University of Arkansas at Little Rock, Little Rock, AR 72204.

**AQUATICS/INVERTEBRATES**

Chairman: Dr. L. Rusert-Kraemer, University of Arkansas, Fayetteville

EVIDENCE OF SIGNIFICANT GENETIC VARIATION IN THE NON-TRANSFORMING SALAMANDER GENUS Amphiuma.

Alvan A. Karlin, Department of Biology, University of Arkansas at Little Rock, Little Rock, AR 72204 and D. Bruce Means, 1313 North Duval St., Tallahassee, FL 32303.

Aeromonas hydrophilia ASSOCIATED WITH DEATH IN AN ARKANSAS ALLIGATOR.

James J. Daly, Department of Microbiology and Immunology, University of Arkansas for Medical Sciences, Little Rock, AR 72205; Samuel Barkley, Arkansas Game and Fish Commission, Little Rock, AR; and Peggy Benton, St. Vincent’s Infirmary Medical Center, Clinical Laboratory, Little Rock, AR.

THE IMPORTANCE OF REGIONAL COLLECTIONS IN BIOGRAPHIC STUDIES: AN EXAMPLE FROM THE CADDISFLIES (INSECTA: TRICHOPTERA).

David E. Bowles, Captain, U.S. Army, Medical Corp, San Antonio, TX and Robert T. Allen, Department of Entomology, University of Arkansas, Fayetteville, AR 72701.

FIRST REPORT OF THE SUBGENUS Podocampa (INSECTA: DIPLURA: CAMPOSEIDAE: Camptodes) NORTH OF MEXICO: Camptodes (Podocampa) snowi, A NEW SPECIES FROM ARKANSAS.

Robert T. Allen, Department of Entomology, University of Arkansas, Fayetteville, AR 72701.

SPIDERS COLLECTED IN SOUTHEAST ARKANSAS BY THE PIT TRAP METHOD.

Peggy Rae Dorris, Henderson State University, Arkadelphia, AR 71923.

THE HABITAT VALUE OF AQUATIC PLANTS: EFFECTS OF Potamogeton nodosus ON INVERTEBRATES IN THE SALINE RIVER, BRADLEY COUNTY, ARKANSAS.

Edmond J. Bacon, Department of Natural Sciences, University of Arkansas, Monticello, AR 71655 and Andrew C. Miller, US Army
A SIMPLE SYNCHRONOUS DETECTOR FOR SPECTROSCOPY STUDIES.
Mokhtar Mofidi and M. Keith Hudson, Department of Electronics and Instrumentation, University of Arkansas at Little Rock, Little Rock, AR 72204.

INVESTIGATION OF INFRARED EMISSIONS FROM FLAMES AND ROCKET PLUMES USING A RADIO-METER.
Kathy Underhill, M. Keith Hudson, Jason Willis, Department of Electronics and Instrumentation, University of Arkansas at Little Rock, Little Rock, AR 72204 and Matt Russo, Hercules Aerospace, 1101 Johnson Avenue, McGregor, TX 76657.

CHROMATOGRAPHIC DATA ACQUISITION AND PEAK DETECTION SOFTWARE.
William G. Hood and M. Keith Hudson, Department of Electronics and Instrumentation, University of Arkansas at Little Rock, Little Rock, AR 72204.

EVALUATION OF PARTICULATE AIR FILTERS FOR INDOOR AIR CLEANING.

PREPARATION OF A SERIES OF N-PHENYLAMIDES OF 5-BROMO-6-CHLORONICOTINIC ACID AND 5-BROMO-2-CHLORONICOTINIC ACID.
Jody Z. Caldwell and Frank L. Setliff, Department of Chemistry, University of Arkansas at Little Rock, Little Rock, AR 72204.

VERTEBRATES/GEOLGY
Chairman: Dr. T. Martin, University of Arkansas, Fayetteville

LANDOWNER REPORTS OF DEER HUNTER DAMAGE IN ARKANSAS.
Richard A. Klaender and T. Bently Wigley, Jr., Forest Resources Department, University of Arkansas at Monticello, Monticello, AR 71655.

DISTRIBUTION, SCUTELLATION, AND REPRODUCTION IN THE QUEEN SNAKE, Regina septemvittata (SERPENTES: COLUMBRAE), FROM ARKANSAS.
Stanley E. Trauth, Department of Biological Sciences, Arkansas State University, State University, AR 72467.

POSTERIOR MAXILLARY FANGS OF THE FLATHEAD SNAKE, Tanitilla gracilis (SERPENTES: COLUMBRAE), USING SCANNING ELECTRON MICROSCOPY.
Stanley E. Trauth, Department of Biological Sciences, Arkansas State University, State University, AR 72467.

HABITAT UTILIZATION AND DISTRIBUTION OF THE FOUR-TOED SALAMANDER, Hemidactylium scutatum, IN THE OUACHITA MOUNTAINS.
David A. Saugey, United States Forest Service, Jessieville, AR 71949 and Stanley E. Trauth, Department of Biology, Arkansas State University, State University, AR 72467.

RANGE EXTENSION OF THE ENDANGERED GRAY BAT, Myotis grisescens, INTO THE ARKANSAS RIVER VALLEY.

IDENTIFYING Colibri HUMMINGBIRDS IN ARKANSAS USING INDIRECT MEASUREMENTS.
Douglas A. James, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701.
ORGANOCHLORINE PESTICIDE CONCENTRATIONS IN VARIOUS SPECIES OF SOUTHBOUND MIGRATORY PASSERINES IN NORTHEASTERN LOUISIANA.
Ragupathy Kannan, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701 and David T. Kee, Department of Biology, Northeast Louisiana University, Monroe, LA 71209.

REPRODUCTIVE BIOLOGY OF FEMALE WHITE-TAILED DEER ON HOLLA BEND REFUGE.
Thomas A. Nelson, Arkansas Tech University, Russellville, AR 72801.

HYBRIDIZATION AND SYSTEMATICS IN MONOGAMOUS VERTEBRATES: THE GENUS Canis IN ARKANSAS.
Raymond Pierotti, Alicia Shirakbari and David Pennock, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701.

OBSERVATIONS ON THE NATURAL HISTORY OF THE MEDITERRANEAN GECKO Hemidactylus turcicus (SAURIA: GEKKONIDAE) IN NORTHWESTERN ARKANSAS.
Mark A. Paulissen, Department of Biology, Slippery Rock University, Slippery Rock, PA 16557 and Thomas M. Buchanan, Division of Science, Math and Engineering, Westark Community College, Ft. Smith, AR 72913.

REPORTED ANIMAL RABIES IN ARKANSAS: 1981-1990. A TEN YEAR UPDATE.
Laura R. Chandler, Karen D. Stone, Gary A. Heidt, Department of Biology, University of Arkansas at Little Rock, Little Rock, AR 72204 and David A. Saugey, U.S. Forest Service, Jessieville, AR 71949.

PLEISTOCENE MAMMALS FROM THE SOUTH SULPHUR RIVER, HUNT COUNTY, TEXAS.
Leo Carson Davis, Department of Physical Sciences, Southern Arkansas University, Magnolia, AR 71753 and Kenneth M. Ball, Barton Junior High School, 400 West Faulkner, El Dorado, AR 71730.

EFFECTIVENESS OF VARPEL ROPE(TM) ON WILD RAT (Rattus norvegicus) AND MICE (Mus musculus) IN LABORATORY AND FIELD CONDITIONS.
J.D. Wilhide, M.D. Fletcher and V.R. McDaniel, Department of Biological Sciences, Arkansas State University, State University, AR 72467.

OBSERVATIONS ON A RESIDENT POPULATION OF Myotis lucifugus, IN JACKSON COUNTY, ARKANSAS.
M.D. Fletcher and J.D. Wilhide, Department of Biological Sciences, Arkansas State University, State University, AR 72467.