115th Annual Meeting
of the
Texas Academy of Science

Program and Abstracts

March 1-3, 2012
Sul Ross State University
Alpine, Texas
THURSDAY

4:00 PM  Registration and Check-in  Morgan University Center
6:00 PM  TAS Social  Kokernot Lodge
7:30 PM  The Collegiate Academy: Starting and Maintaining a Local Chapter  Warnock Science Building
6:45 PM  Hindsight is 20/20: What I wish I knew about graduate school before I went  Kokernot Lodge
7:30 PM  History of Texas update by Ray Mathews  Warnock Science Building
7:30 PM  Science in an Age of Social Media Panel Discussion  Warnock Science Building
9:00 PM  Screening of PHD Movie (based on the PHD comic strip)  Marshall Auditorium

FRIDAY

7:30 AM  Registration, Check-in, and Breakfast  Morgan University Center

Anthropology Oral Presentation I - WSB 204

8:30 AM  Cobbles and quandaries: Prehispanic land use strategies and residence in northwestern Belize  G 72  Antonia L Figueroa, The University of Texas at San Antonio
8:45 AM  Geoarchaeological investigations of natural site formation processes at the Gault Site, a Paleoindian and pre-Clovis site in Bell County, Texas  G 34  Anastasia Gilmer, Texas State University, San Marcos, TX.
9:00 AM  Underwater geoarchaeological survey of the San Marcos Springs  G 145  Jacob Hooge, Texas State University, San Marcos, TX
9:15 AM  Analysis of Quarrying behavior at Alibates Quarry  N 131  Britt Bousman*, Bob Wishoff, Chris Davis-(Center for Archaeological Studies and Department of Anthropology, Texas State University-San Marcos), and Paul Katz (Prehistoric Resources Identification, Assessment and Management, Inc.)
9:30 AM  On the burned rock trail: Using GIS to model site selection in the Lower Pecos Canyonlands  G 180  Charles W. Koenig, Texas State University, San Marcos, TX
9:45 AM  Faunal analysis at the Rowe Valley Site, 41WM437: A case study in Toyah subsistence  G 44  Haley E. Rush, Texas State University, San Marcos, Tx
10:00 AM  View Anthropology Posters - list at end of section  Pete P. Gallego Center
Anthropology Oral Presentation II - WSB204

10:45 AM  N 213 Paleindians in the Big Bend: Preliminary investigations at the Genevieve Lykes Duncan Site (41BS2615), 02 Ranch, Brewster County
William A. Cloud*, Robert J. Mallouf, Richard W. Walter, Roger Boren, Robert Gray, Samuel S. Cason, Elizabeth A. Baker, Dawnella Petrey, and David W. Keller, Center for Big Bend Studies, Sul Ross State University, Alpine, Texas

11:00 AM  N 83 Exploring early archaic and paleoindian occupations at Site 41BX1888 on the San Antonio River, Bexar County, Texas
Cynthia M. Munoz, UT San Antonio, Center for Archaeological Research

11:15 AM  N 173 Stable carbon and nitrogen isotopic analysis of human remains from the Coleman site (41BX568), a Late Prehistoric occupation in Central Texas
Jennifer L. Zonker Rice, Our Lady of the Lake University, San Antonio, Tx and Kirsten Verostick, Laura Carbajal, Cynthia Munoz, Nathanael Dollar, Robert Hard, and Raymond Mauldin*, University of Texas at San Antonio, San Antonio, Tx.

11:30 AM  G 247 Getting through the winter: Dry season resources and their influence on owl monkey (Aotus azarai) reproduction

11:45 AM  G 183 Male dominance structure in two multimale groups of mantled howlers (Alouatta palliata) at Hacienda La Pacifica, Costa Rica
Lisa C. Corewyn*, University of Texas at San Antonio, TX; Margaret R. Clarke, Houston Community College Southwest, Houston, TX; and Kenneth E. Glander, Duke University, Raleigh-Durham, NC

12:00 PM  Anthropology Section Meeting WSB 204

Anthropology Posters

G P11 The Texas Time Machine: Radiocarbon and the Woodland Period Occupation in East Texas
Robert Z. Selden Jr.* and Timothy K. Perttula, Texas A&M University

G P12 Reconstructing seasonal diet in the Lower Pecos using stable isotopes in human hair
Kirsten Verostick*, Robert Hard, Cynthia Munoz and Raymond Mauldin, Department of Anthropology and Center for Archaeological Research, UT San Antonio

G P14 Cranial variation among three regional groups in Mexico
Cristina Figueroa-Soto BS*, Kate Spradley PhD, Texas State University, San Marcos, TX
Biomedical Oral Presentations - WSB 321

8:30 AM  N  230  Separation-induced depressive behavior in the Syrian hamster, *Mesocricetus auratus*  
Caurnel Morgan*, Texas A&M University, College Station, TX, and Weill Cornell Medical College of Cornell University, New York, NY, John L. Shannonhouse, Bryan L. Glossen, Texas A&M University, College Station, TX, Daniel C. York, and Danielle M. Grater, W  

8:45 AM  U  111  Pharmacological Action of L-Cysteine on Bovine Isolated Irides  
Destinee Stroud, Madhura Kulkarni, Ya Fatou Njie-Mbye, Sunny E. Ohia., Department of Pharmaceutical Sciences, College of Pharmacy and Health Sciences, Texas Southern University, Houston, TX 77004  

9:00 AM  U  124  Locating genes responsible for *N*-acetylglucosamine catabolism by *Pseudomonas aeruginosa*, a prominent respiratory pathogen in cystic fibrosis patients  
John Taylor Gabriel*, St. Edward's University, Austin, TX; Aishwarya Korgaonkar and Marvin Whiteley, University of Texas at Austin, Austin, TX.  

9:15 AM  U  126  Quantification and identification of bacteria present on tomatoes collected from markets in the Austin, Texas area  
Madison N. Shaft* and Dr. Patricia Baynham, St. Edward's University, Austin, TX.  

9:30 AM Biomedical Section Meeting  
WSB 321  
1:30 PM View Biomedical Posters  
Pete P. Gallego Center  

Biomedical Posters

U  P22  What is the microbial content of drinks obtained from soda fountain dispensers?  
Jessica Svoboda and Patricia Baynham; St. Edward's University  

G  P30  Sensitivity of Interleukin-2-treated HuT 78 cells to antitumor drugs that inhibit DNA Topoisomerase I or DNA Topoisomerase II  
Varun Tatineni* and David Foglesong, University of the Incarnate Word, San Antonio, TX.  

U  P11  How well do antibacterial contact lens solutions inhibit the growth of *Pseudomonas aeruginosa*?  
Tiffany La and Patricia J. Baynham  

U  P15  The relationship of mono and dual biofilms to antimicrobials  
Aaron Ramirez*, Valarie Cavazos, Robert Pelliccia, and Donna
Janes, Concordia University-Texas, Austin, TX

**P15**  The effect of natural sugars and artificial sweeteners on biofilm formation

Haley Phillips, Natasha McCown, Portia Mosley, Gavin Ellis, Danielle Martinson, and Donna Janes, Concordia University-Texas, Austin, TX

**P16**  Uptake and localization of serotonin in *Candida albicans* yeast cells

Alissa Tuttle* and James Masuoka, Midwestern State University, Wichita Falls, TX

**P16**  Survey of the presence of *Naegleria fowleri* in lakes in Wichita County, Texas

Kriston McLaughlin* and James Masuoka, Midwestern State University, Wichita Falls, TX

**P23**  A survey of Influenza A within feral swine (*Sus scrofa*) and javelina (*Pecari tajacu*) of Trans-Pecos Texas

Anthony Morales*, Desirae Melton, Kody Kubala, Christopher Ritzi, and Jackie Denson, Sul Ross State University, Alpine, TX

**P23**  An analysis of the prevalence of *Trichinella sp.* found within feral swine (*Sus scrofa*) and javelina (*Pecari tajacu*) of Trans-Pecos Texas

Desirae Melton*, Anthony Morales, Kody Kubala, Christopher Ritzi and Jackie Denson, Sul Ross State University, Alpine, TX.

**P24**  A survey of West Nile Virus (WNV) exposure within feral swine (*Sus scrofa*) and javelina (*Pecari tajacu*) of Trans-Pecos Texas

Jonathan Navarrete*, Jodi Carnes, Kody Kubala, Christopher Ritzi and Jackie Denson, Sul Ross State University, Alpine, TX.

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### Botany Oral Presentation Session I - WSB 107

**8:30 AM**  **U107**  A comparison of root iron uptake rates in *Carya aquatica* and *Carya illinoinensis*

Gretchen E. Kroh*, St. Edward's University, Austin, TX, Larry J. Grauke, USDA-ARS Pecan Breeding and Genetics, Somerville, TX, and Michael A. Grusak, USDA-ARS Children's Nutritional Research Center, Department of Pediatrics, Baylor College of Medicine.

**8:45 AM**  **U152**  Are glutamate receptor-like *Arabidopsis thaliana* tolerant to Al?

Vonda Thompson*, Chase Johnson, and Magaly Rincon-Zachary, Midwestern State University, Wichita Falls, TX.

**9:00 AM**  **G188**  Floral scent production in the carrion flower genus *Stapelia* (Apocynaceae)

Johann Souss* and David E. Lemke, Department of Biology, Texas State University, San Marcos, TX.

**9:15 AM**  **U174**  Clinal geographic variation in mescaline concentration among Texas populations of *Lophophora williamsii* (Cactaceae)

Diana Hulsey*, Martin Terry, M. Abul Kalam, Sul Ross State University, Alpine, TX, Norma Fowler, University of Texas at Austin, Austin, TX and Paul Daley, California Pacific Medical Center, San Francisco, CA.
9:30 AM  U  85 Biogeography of *Mentzelia thompsonii* (Loasaceae) on the Colorado Plateau

Emily Crain*, Elizabeth Lurz, Jonathan Stites, and Joshua M. Brokaw, Abilene Christian University, Abilene, TX

10:00 AM  View Botany Posters - see list at end of section  Pete P. Gallego Center

**Botany Oral Presentation Session II - WSB 107**

10:45 AM  N  S  221 Seasonal occurrence of the red algal genus *Batrachospermum* (Rhodophyta: Batrachospermales) in the South Concho River of west Texas

Ned E. Strenth* and Lauren Langley, Angelo State University, San Angelo, TX

11:00 AM  N  S  242 Germination ecology of the native legumes, *Sesbania drummondii* and *Glottidium vesicarium*

Michael A. Grusak, USDA-ARS Children's Nutrition Research Center, Department of Pediatrics, Baylor College of Medicine, Houston, TX

11:15 AM  N  S  2 The effects of drought and record high temperatures on Texas Kangaroo Rats in Wichita County, Texas

Allan D. Nelson*, Jim R. Goetze, and Rebecca J. Nelson; Department of Biological Sciences, Box T-0100, Tarleton State University, Stephenville, TX 76402

11:30 AM  Botany Section Meeting  WSB 107

**Botany Posters**

U  P42 Relationship between seed pod production, number of seeds, and seed mass in *Gleditsia triacanthos* L. (Fabaceae)

Jacob A. Kemmer*, Corin M. Olivas, Jodi L. Schumacher, and Herbert D. Grover

U  P43 Patterns in Seed Pod and Seed Production between *Gleditsia triacanthos* L. (Fabaceae) trees on the Wayland Baptist University campus, in Plainview, Texas

Brittany D. Walton*, Kady Pryde, and Herbert Grover

U  P75 Invasive grass impacts on growth rates of native plants of South Texas (and vice versa)

Juan Chavez*, Paul Mata, Logan Alcala, Ana Mireles, and J. Andrew McDonald, University of Texas-Pan American, Edinburg Texas.

U  P82 Biogeography of *Mentzelia thompsonii* (Loasaceae) on the Colorado Plateau

Emily Crain, Elizabeth Lurz*, Jonathan Stites, and Joshua M. Brokaw, Abilene Christian University, Abilene, TX

G  P21 A Vegetation Survey of Goliad Navy Airfield, Goliad County, Texas

Leah Rhyne* and Roy Lehman, Texas A&M University-Corpus Christi, Corpus Christi, TX.
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<td>1:30 PM</td>
<td>U</td>
<td>View Cell and Molecular Biology Posters - see list at end of section</td>
<td>Pete P. Gallego Center</td>
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| 2:30 PM| U 39    | The role of SATB2 in zebrafish craniofacial development               | Jenna Rozacky1, Kelly Sheehan-Rooney2, and Johann Eberhart2  
St. Edward’s University, Austin, TX1; The University of Texas, Austin, TX2 |
| 2:45 PM| U 273   | Cytotoxic and apoptotic effects of *Zingiber officinale* (Ginger Root), *Curcuma longa* (Turmeric), *Trigonella foenum-graecum*, *Sanguinaria canadensis* (Bloodroot), and *Withania somnifera* (Ashwagand)| Jarrett Ross*, Libby Saultz, Trevor Burrow, Stephanie Whitaker,  
Jenna Wilson, Gary O. Gray, Adam J. Reinhart, Wayland Baptist University, Plainview, TX |
| 2:45 PM| U 60    | Can oil of chenopodium and Alka-Seltzer washes reduce *Escherichia coli* O157:H7 and *Salmonella enterica* on spinach? | Anabel Rodriguez*, Patricia J. Baynham, St. Edward's University, Austin, TX |
| 2:45 PM| U 84    | Effects of titanium dioxide carbon nanotubes on human fetal osteoblast cells | Shantell Phillips, Edidiong C. Obot, Bobby L. Wilson, Renard L. Thomas; Texas Southern University |
| 3:00 PM| U       | Cell and Molecular Biology Section Meeting                           | WSB 307                                                                   |
| 3:00 PM| U 33    | Oh, no! Where’s my head? The effects of a potassium channel blocker (SCH-28080) on behavior and regeneration in *Lumbriculus variegatus* | Diaz, Christopher M., Dunne, Kathryn*, Mendez, Paola, Martinez-Acosta, Veronica G; Univ. of the Incarnate Word; Biology Dept. San Antonio, TX 78209 |
| 3:00 PM| U 56    | The effects of glutaraldehyde on the CNS development in *Drosophila melanogaster* | Taylor Henegar*, Lisa Goering, St. Edward's University, Austin, TX |
| 3:00 PM| U 63    | The effects of genetic background on the expressivity of EGFR pathway mutations affecting *Drosophila melanogaster* eggshell patterning | Catherine Vaziri1, Tony Voong1, Ian Dworkin2 and Lisa M. Goering1 1 St. Edward’s University, Austin, Texas; 2 Michigan State University, East Lansing, Michigan. |
| 3:00 PM| U 64    | Regenerator 3: Rise of the Ophiuroidea                               | Will J. Pickard*, Eric F. Christensen, Ana Beardsley Christensen,  
Lamar University, Beaumont, TX |
| 3:00 PM| U 65    | Effect of dorsomorphin on BMP pathway and craniofacial development    | Ivan Pulido*, St. Edward's University, Austin, TX and C. Ben Lovely,  
Johann Eberhart, Institute for Cellular and Molecular Biology, |
University of Texas at Austin, Austin, TX

G P66 Identification of microsatellite markers in *Peromyscus leucopus*
Prakash Dhanjani* and Dr. Jon Scales, Midwestern State University

U P12 Identification of novel genes involved in *Pseudomonas aeruginosa* biofilm production
Goldie da Costa*, Patricia Baynham, St. Edward's University, Austin, TX, Holly K. Huse, and Marvin Whiteley, University of Texas at Austin, Austin, TX

U P13 A supervening study into insecticide resistance
Evan Jones* and Qiang Xu, Abilene Christian University, Abilene, TX.

U P20 Effects of ethanol on CNS development and anterior-posterior axis patterning in *Drosophila melanogaster*
Matthew Perez*, Lisa Goering, St. Edward's University, Austin, TX

U P22 The effects of pesticides on the growth of *Escherichia coli* 0157:H7 and *Azotobacter vinelandii* in soil samples
Erika Guin* and Patricia J. Baynham, St. Edward's University

G P22 Mixed model characterization of *Drosophila* embryonic *NPFR1* expression pattern
Mike Cashin*, Amaris Guardiola, Angelo State University, San Angelo, TX

U P22 *Kekkon 1*: An inhibitor of the epidermal growth factor receptor pathway
Catherine Hughes* and Lisa M. Goering

U P26 Age and gender comparisons of estrogen receptor-α mRNA in rat brain
Clinton T. Taylor*, Danielle D. Grove, Biology Department, Texas Lutheran University, Seguin, TX

U P27 Characterization of differentially expressed genes in *gata3* mutants
Jacare Cardoza*, St. Edwards University, Austin, TX, Johann Eberhart and Kelly Sheehan-Rooney, University of Texas, Austin, TX.

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**Chemistry and Biochemistry Oral Presentations Session I - WSB 307**

8:30 AM U 37 Partial Purification and Characterization of 4T1 Murine Breast Cancer Cell Cytotoxins from *Curcuma longa*
Trevor Burrow*, Libby Saultz, Stephanie Whitaker, Jenna Wilson, Jarrett Ross, Adam J. Reinhart and Gary O. Gray, Wayland Baptist University, Plainview, TX

8:45 AM U 87 Extracting and analyzing semivolatile and nonvolatile hydrocarbons from soil samples
Blain Gilbert*, Kim L. Pamplin, and Joshua M. Brokaw, Abilene Christian University, Abilene, TX

9:00 AM U 59 Comparison of the infrared OH stretching spectra of 3-
oxetanol, 3-cyclopenten-1-ol, and 2-indanol
Beverly Pappas*, Zachry Theis, and J.D. Lewis, Department of Chemistry, St. Edward's University, Austin, TX 78704

9:15 AM  U  276 Troubleshooting a gas chromatography assay for triclosan
Elizabeth A. Fawcett* and Kiley P-H Miller, Scheiner University

9:30 AM  U  40 Reaction of 4-methoxybenzylmagnesium chloride with aldehydes
Roy Espinosa*, Danette Vines, Schreiner University, Kerrville TX

9:45 AM  U  96 Lipid composition of whole body extracts of cochineal insect (Dactylopius coccus) and prickly pear cactus pads (Opuntia phaeacantha)
Fabiola Corbette*, Jaidrian Porter*, and Michael Shipley, Midwestern State University, Wichita Falls, TX.

Chemistry and Biochemistry Oral Presentation Session II - WSB 307

10:45 AM  U  149 Rhodium B, a new application of fluorescence of the dye for environmental pollutants
Stanislav Barskov and Mian Jiang

11:00 AM  N  212 Visible light Photocatalytic water splitting using TiO2 doped with Alkaline Metals
Julio E. Valladares and Vianney Flores

11:15 AM  N  246 Determinantial solution of the covariance matrix: Multivariate linear least squares equivalence
Benny E. Arney, Jr.*, Sam Houston State University, Huntsville, TX

11:30 AM  Chemistry and Biochemistry Section Meeting  WSB 307

1:30 PM  View Chemistry and Biochemistry Posters  Pete P. Gallego Center

Chemistry and Biochemistry Posters

U  P31 Fullerene dyads in bulk heterojunction organic photovoltaic devices
Gustavo Hernandez*, Michael D. Irwin, The University of Texas at El Paso

G  P41 Screening and formulation of selected sulfur compounds as antidotes in cyanide toxicity
Siva Krishna Angulakurthi*, Madhuri Ancha, Michelle A. Smith, Mario A. Jane, Stephen A. Lee, Assumpta C. Nwaneri, Kristof Kovacs, Ilona Petrikovics

N  P69 Mineral deposition in a freshwater snail, Planorrella trivolvis
Francis R. Horne, Texas State University

G  P73 Kinetic studies of beta-lactamase enzymes on beta-lactam type antibiotics and beta-lactamase inhibitors
Chamari Wijesooriya*, Kristof Kovacs, Ilona Petrikovics, Sam Houston State University, Huntsville, TX
Novel Application of Fluorescence Based on Rhodamine B
Stanislav Barskov and Mian Jiang

Methodology for the analysis of violin varnish
Sovreyne Chadwick*, Robert Holloway, Schreiner University, Schreiner University, Kerrville, TX

Cyanide analysis using its metabolite 2-aminothiazoline-4-carboxylic acid (ATCA) with surface enhanced Raman spectroscopy (SERS)
Asish Parbatani*, Deepthika De Silva and David E. Thompson, Sam Houston State University, Huntsville, Texas

Developing robust figures of merit for spectroscopic characterization of sphere masks for surface enhanced Raman sensors
Deepthika De Silva*, Antonio Carrillo, Thomas Miller, Kevin Eilers, Lacey Ivie, Asish Parbatani, David E. Thompson, Sam Houston State University, Huntsville, Texas

Isolation, characterization and purification of antiviral agents in regular and single clove garlic
Kimberlyn Garcia*, Wendy Ramirez*, Reihana Elsayed*, and Hamida Qavi, Ph.D., University of Houston - Downtown

Photophysical properties of the redox dye Azure C using Fluorescent Spectroscopy
Trinh Nguyen*, Mian Jiang, University of Houston-Downtown, Houston, TX

Determination of sulfur-containing compounds by carbon based electrode incorporated with oxides
Israel Sierra*, Jimmy Ngo, Mian Jiang, University of Houston-Downtown, Houston, TX and Jun Lou, Rice University, Houston, TX

The solubility of rare earth hexacyanoferrate(III) compounds
Chris Hughes*, Patrick Larsen, Richard L. Garner, Hardin-Simmons University

The abstraction of diesel-like oils from algae
Toni Cowan*, Jaxon Jordan, Gary Stanlake, Richard L. Garner, Hardin-Simmons University

Conservation and Ecology Oral Presentations Session I - WSB 109

8:30 AM G
Landowners and recreationists: Assessing attitudes toward conservation and outdoor recreation
Zack Thomas*, Tom Arsuffi, Texas Tech University, Llano River Field Station, Junction, TX

8:45 AM G
Differential corticosterone response towards native and introduced predators by the San Marcos salamander, Eurycea nana
Drew R. Davis* & Caitlin R. Gabor, Texas State University, San
Characteristics of landscapes occupied by increasing and decreasing populations of scissor-tailed flycatchers (*Tyrannus forficatus*)

Erin Feichtinger* and Joseph Veech

Herpetological distribution of the Cerro El Potosí Galeana, Nuevo Leon, Mexico

Jorge A. Contreras Lozano*, David Lazcano Villarreal and Armando J. Contreras Balderas, Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León.

Ectoparasite Diversity and Rickettsia Testing of Ectoparasites on Feral Swine (*Sus scrofa*) and Collared Peccaries (*Pecari tayacu*) in the Davis Mountains of Texas

Kody Kubala, Department of Biology, Sul Ross State University Alpine, TX 79832 Christopher Ritzi, Department of Biology, Sul Ross State University Alpine, TX 79832

Reproductive timing of *Eurycea naufragia* at two spring sites

Kira McEntire*, Benjamin Pierce, Ashley Wall, Southwestern University, Georgetown, TX

Predator recognition in the Barton Springs salamander, *Eurycea sosorum*

Dominic L. DeSantis*, Drew R. Davis, and Caitlin R. Gabor, Texas State University, San Marcos, TX

Patterns of habitat use and competition between nine-banded armadillos (*Dasypus novemcinctus*) and hog-nosed skunks (*Conepatus leuconotus*)

Katelynn J. Frei* and Robert C. Dowler

A comparative survey of small mammal populations in four different microhabitats from 2002 to 2011

Department of Biology, Abilene Christian University

Shoaling preferences between two sympatric livebearing fishes in Texas and their putative hybrids: the Endangered Pecos Gambusia (*Gambusia nobilis*) and the Largespring Gambusia (*Gambusia geiseri*)


Identifying subspecies of *Phragmites australis* in the Coastal Bend of Texas

Jasmine Jones*, Schreiner University, Kerrville, TX, David J. Grise, TAMU, Corpus Christi, TX, Ryan Reynolds, University of St.
Present and future distribution of *Neotoma micropus* and *Neotoma albigula*, reservoirs of Chagas and leishmaniasis diseases, on the Mexico-Texas border

T. Stephanie Romero, Teresa P. Feria, Robert K. Dearth, Brian L. Fredensborg

Monarch butterfly (*Danaus plexippus*) fall migration weight and wing load during an historic central Texas drought

George C. Romfh*, Jason L. Locklin, Shannon K. Hill, Temple College, Temple, TX

Possible change in distribution of Elf Owl, *Micrathene whitneyi*

Zipporah M Sustaita*, Teresa P. Feria, and Timothy Brush

Wind turbine caused bat fatalities in two counties in Texas

Patty Doyle*, Thomas E. Lee, Jr. Department of Biology, Box 27868, Abilene Christian University, Abilene TX 79699 and Joel G. Brant, Cassi Stapp Dept. of Biology McMurry University, McM Box 368, Abilene, TX 79697

Visual encounter surveys show limited movement of the Georgetown salamander (*Eurycea naufragia*)

Ashley Wall*, Kira McEntire, Benjamin Pierce; Biology Department, Southwestern University, Georgetown, TX

Reproductive investment of two Gambusia congeners and their putative hybrids in west Texas


Mating behaviors of two sympatric livebearing congeners and their putative hybrids


Environmental Science Oral Presentations - WSB 206

8:30 AM  
**86** Effects of simulated microgravity on *Aspergillus nidulans* growth: Using high aspect ratio vessels  
Sharline R. Law*, Obaid Ullah, and Olufisayo Jejelowo, Texas Southern University, Houston, TX.

8:45 AM  
**48** Genetic characterization of putative arsenic-oxidizing bacteria isolated from the Lower Laguna Madre of Texas  
Thomas A. Eubanks*, Kristine L. Lowe, University of Texas - Pan American, Edinburg, TX and Eun-Hae Kim, Yan Bing Lin, Megan McEvoy, Christopher Rensing, University of Arizona, Tucson, AZ

9:00 AM  
**76** Nutrient and metal transport and fate in water, pore-water, sediments, and selected biota of the Laguna Madre, Texas  
Amanda J. Cavazos*, Frank J. Dirrigl, Jr., and Juan L. González,
Identification and quantification of DAAB bacterial consortium using fluorescence in situ hybridization (FISH)
Claudialina Duque*, Karen Little, and Christopher M. Ritzi, Sul Ross State University, Alpine, TX

Nutrient Removal of a Constructed Treatment Wetland in the Rio Grande Valley
Peter Cerda and Hudson DeYoe, Center for Subtropical Studies and Biology Dept, University of Texas-Pan American

Comparison of metabolic scope between the invasive Gambusia geiseri and endangered G. nobilis: potential importance of flow for endangered species management
Krystal Ramsey*, Kaitlen Gary, Chad Hargrave

Environmental Science Posters

Behavioral Analysis of Betta Splendens exposed to Flutamide and Finasteride
Ana Noriega-Grajeda, Dr. Sara Tallarovic, Biology Professor, University of the Incarnate Word, San Antonio, TX

Potential arsenic-reducing bacteria from the Laguna Madre display low phenotype diversity, but utilize a range of carbon sources and tolerate high concentrations of As(V)
Janet E. Ruiz*, Kristine L. Lowe, University of Texas - Pan American, Edinburg, TX

Arsenic-tolerant Streptomyces isolated from a hypersaline estuary, the Laguna Madre, in deep South Texas
Ramiro Garza*, Kristine L. Lowe, University of Texas - Pan American, Edinburg, TX

Phosphorus sorption in alluvial streambank sediments
Dedrick Hail*, Daniel Horton*, Carol Thompson, Tarleton State University, Stephenville, TX

Bioremediation of a tallgrass prairie revisited: Effects of remaining petroleum hydrocarbons
Isabel Lee*, Samantha Saldivar, Emily Adams, and Joshua M. Brokaw, Abilene Christian University, Abilene, TX

Enrichment of acetogenic and methanogenic bacteria for use in biogas production
Alejandro Ochoa* and James Masuoka, Midwestern State University, Wichita Falls, TX

Isolation of halophilic prokaryotes for degradation of polycyclic aromatic hydrocarbons
Nikhil Gaidhani* and James Masuoka, Midwestern State University, TX

The response of native oaks and invasive woody plant
2 species to drought stress in Cameron Park in Waco, Texas
Skyler Toney* and Dr. Susan Bratton, Baylor University, Waco, TX

A survey of the microbial diversity from two distinct locations within the Chihuahuan Desert Research Institute; a perpetual spring and a desert soil site
Laura Tang*, Jodi Carnes, Rachel Milan and Jackie Denson, Sul Ross State University, Alpine, TX.

Analysis of Selenate Bioaccumulation and Toxicity in *Chlamydomonas*
Jordan Jones, Chelsey Friedrichs, Aaron Luckevich, Charles Hauser, St. Edward's University, Austin TX

Freshwater Science Oral Presentations Session I - WSB 209

8:30 AM  U  100 Effects of parasites on brood size in two closely related poeciliids with different reproductive strategies
Edwin Quintero*, Brian L Fredensborg, The University of Texas-Pan American

8:45 AM  U  190 Thermal minimum and maximum for three species of temperate *Gambusia*
Nkenna Odom*, Kelbi Delaune, Chad Hargrave, Sam Houston State University, Huntsville, TX

9:00 AM  U  193 Population dynamics, Food Web Structure and Potential Community-level interactions in a reconstructed desert wetland, San Solomon Cienega, Balmorhea State Park, Texas
Ashley Sequeria*, Kelbi Delaune, Kaitlen Gary, Chad Hargrave, Sam Houston State University, Huntsville, TX, and Gary Garrett, Texas Parks and Wildlife, Kerrville, TX

9:15 AM  U  17 Streamlining techniques and improving efficiency for mass rearing the damselfly, *Ischnura ramburii* (Odonata: Coenagrionidae), in the laboratory
Joshua S. Huckabee*, Jason L. Locklin, Temple College, Temple, TX and Eben J. Gering, University of Texas, Austin, TX

9:30 AM  U  77 The pink predicament: *Pomacea insularum* eggs fail to deter predation by red-eared sliders (*Trachemys scripta elegans*)
Allyson Plantz, Romi L. Burks, Department of Biology, Southwestern University

9:45 AM  N  155 The Texas Water Symposium: Educating the public on complex water issues to improve environmental literacy using expert panels, rotating venues, partnerships and Texas Public Radio
T.L. Arsuffi*, Llano River Field Station, Texas Tech University@Junction, Junction, TX, Christy Muse, Hill Country Alliance, Austin, TX, Ernie Villereal, Texas Public Radio, San Antonio, TX, Chris Distel, Schreiner University, Kerrville, TX

Freshwater Science Oral Presentations Session II - WSB 209

10:45 AM  G  198 Potential hybridization between endangered *Gambusia nobilis* and invasive *G. geiseri* in a reconstructed desert wetland
Kelbi Delaune*, Chad Hargrave, Sam Houston State University,
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<tr>
<td>11:00 AM</td>
<td>G</td>
<td>Role of Female Resistance in Sexual Conflict in three livebearing of the tribe Gambusiini</td>
<td>Janalyn West*, Sam Houston State University, and Raelynn Deaton, St. Edward's University</td>
</tr>
<tr>
<td>11:15 AM</td>
<td>S</td>
<td>Water quality of the Rio Grande from Brownsville, Texas to the tidal reach</td>
<td>Joseph L. Kowalski* and Hudson R. DeYoe, Department of Biology and the Center for Subtropical Studies, The University of Texas - Pan American, Edinburg, TX and Carla Guthrie, Texas Water Development Board, Austin, TX.</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>S</td>
<td>Relative importance of local, regional and temporal drivers of community structure in streams of the Big Thicket National Preserve, TX</td>
<td>Chad Hargrave*, Kaitlen Gary, Sam Houston State University, Huntsville, TX.</td>
</tr>
</tbody>
</table>

**Freshwater Science Posters**

<table>
<thead>
<tr>
<th>Poster Number</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>U P15</td>
<td>Investigating gregarine parasitism in the damselfly, Argia moesta (Odonata: Coenagrionidae): Do host populations associated with lentic systems have greater parasite prevalences and intensities?</td>
<td>Rodney Duckett* and Jason L. Locklin, Temple College, Temple, TX.</td>
</tr>
<tr>
<td>G P19</td>
<td>Preliminary taxonomic results of a completed survey of stream inhabiting insects in the chihuahuan desert of west texas</td>
<td>Sanjeev Mahabir* and Roy C. Vogtsberger Department of Biology, Midwestern State University, Wichita Falls, TX</td>
</tr>
<tr>
<td>U P10</td>
<td>Freshwater fish population specification: Insights into bridging the gap between theoretical studies and field practices</td>
<td>Joseph Falade* and Dale B. McDonald, Midwestern State University</td>
</tr>
<tr>
<td>U P11</td>
<td>Probably not snail eating plants: Enriched macrophyte N¹⁵ values in a stable isotope study of Pomacea insularum's trophic interactions</td>
<td>Tracy V. Day* &amp; Romi L. Burks, Southwestern University, Georgetown, TX</td>
</tr>
<tr>
<td>N S P15</td>
<td>Taxonomic, zoogeographical and ecological study of freshwater fishes from the upper río Nazas, Durango, México</td>
<td>Hiram Herrera-Barquin, Ma de L. Lozano-Vilano and Ma E. García-Ramírez, Laboratorio de Ictiología, Departamento de Vertebrados, Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León</td>
</tr>
<tr>
<td>U P14</td>
<td>Microscopic buffet: Estimates of meiofauna availability for the Georgetown salamander in two permanent springs</td>
<td>Jonathan O. Miley*, Allyson K. Plantz, Tracy V. Day, Romi L. Burks, Southwestern University, Georgetown, TX</td>
</tr>
</tbody>
</table>
Frail snails: Effect of pH on the growth and survival rate in juvenile apple snails *Pomacea insularum*

Kevin Burge* and Romi L. Burks, Southwestern University, Georgetown, Texas

Current distribution of the largespring Gambusia, *Gambusia geiseri*, in Texas


Post-parturition females cannibalism at high rates but do not discriminate against their own young

S. Hamontree*, Texas State-San Marcos, L. Brown, S. Holguin, Sam Houston State University, S. Stoops, Texas A&M, Z. Schertz, R. Deaton, St. Edward’s University

Effects of competitor size ratio on male mating and competition in the western mosquitofish, *Gambusia affinis*

T. Voong*, St. Edward’s University, C. Kroll, J. Sanchez, Sam Houston State University, and R. Deaton, St. Edward’s University

Status of the endangered Pecos gambusia and Comanche Spings pupfish in Phantom Lake Spring, west Texas

R. Deaton*, St. Edwards University, R. Lewis, J. West, C. Kroll, Sam Houston State University, S. Stoops, Texas A&M, G. Garrett, TPWD, and N. Allan, US Fish and Wildlife

Reproductive assessment across six isolated populations of the largespring gambusia, *Gambusia geiseri*.

J. West*, J. Reeves, Sam Houston State University, R. Martin, S. Stoops, Texas A&M, and R. Deaton, St. Edward’s University

Interbrood Interval and Mean Brood Mass as a Function of Stored Sperm in the Livebearing Western Mosquitofish, *Gambusia affinis*

G. Kroh, R. Deaton, St. Edward’s University, E. Marsh-Matthews, University of Oklahoma

Putting on Mussel: Interactions between the Asian Golden Mussel (*Limnoperna fortunei*) and Native Ampullariid Snails

Katie Gibson*, Allyson L. Plantz, Clementina Clavo and Romi L. Burks, Animal Behavior Program, Southwestern University, Georgetown, TX

Geosciences Oral Presentations Session I - WSB 101

Additions to the middle Eocene WU-26 fauna from the Uinta Basin in northeastern Utah

Kayla Scates* 1, Nick Brandes 1, Dee Gad 2, Jeffrey Westgate 1, and James Westgate 1; 1 Earth and Space Sciences, Lamar University, Texas University System; 2 Criminal Justice, Texas State University

A primitive Hadrosauroid (Dinosauria: Ornithischia) from the Cretaceous Woodbine Formation at the Arlington Archosaur Site, North Texas
Issues with museum specimen identifications: Discriminant function analysis of mandibular first molar measurements for two cryptic rodent taxa, *Gerbilliscus leucogaster* and *G. brantsii*

Timothy L. Campbell* Department of Anthropology, Texas A&M University, Patrick J. Lewis and Monte L. Thies, Sam Houston State University

Identifying meteorites by energy dispersive x-ray fluorescence (XRF)

Katelyn Lehman*, R.G. Mayne, A. J. Ehlmann, School of Geology, Energy and the Environment, Texas Christian University, Fort Worth, Texas

Thin Section Analysis of Sheared and Brecciated Rocks in the Southern Burro Mountains, NM: Implications for Tectonic History

Theda Strickler*, Chris A. Barker, and LaRell Nielson, Stephen F. Austin State University, Nacogdoches, TX, and Manetta Dillingham, Consultant

Chemical composition of organic matter in surface sediments of the Eel River shelf depocenter

Stephanie D. Smith, Miguel Goni, Jeff Borgeld, Rob Wheatcroft

Geosciences Oral Presentations Session II - WSB 101

Subsidence history of SE Texas based on GPS resurveying of bench marks

Christine M. Gartner, Joshua A. McBride, Jasma J. Thompson, Lauren Dugat and Joseph M. Kruger

Fecal source determination within the Concho River System, San Angelo, Tom Green Conty, TX

Andrew Timmermann*, Jarrett Louder, James Word, Angelo State University, San Angelo, TX

Epikarst development of Karrens on the Marble Falls Limestone, Pedernales Falls State Park, Texas 76972

R. LaRell Nielson* and Chris A. Barker, Stephen F. Austin State University, Nacogdoches, Texas 75692

New sequence of polyphase Laramide and younger folding recognized throughout Big Bend region

Joseph I. Satterfield*, Angelo State University, San Angelo, TX, Jonathan E. Dyess, University of Minnesota Duluth, Duluth, MN, Chris A. Barker and LaRell Nielson, Stephen F. Austin State University, Nacogdoches, TX

Geosciences Section Meeting

View Geosciences Posters

Geosciences Posters
Environmental Preferences of the Cretaceous turtles of the San Juan Basin, New Mexico
*Asher Lichtig, Sul Ross State University, New Mexico Museum of Natural History

Folds and sills south and east of Dagger Mountain, Big Bend National Park and Black Gap Wildlife Management Area
Nathan K. Knox* and Joseph I. Satterfield, Angelo State University, Henry F. Schreiner III, University of Texas at Austin

Detailed mapping of Mariscal Mountain anticline, Big Bend National Park
M. Justin Cartwright*, Trent R. Bieberly, Joseph I. Satterfield, Angelo State University, San Angelo, TX, and Daniel P. Miggins, U.S. Geological Survey, Denver, CO

Microbial activity on fossils: A threat to repositories?
Randolph G. De La Garza*, Todd P. Primm, and Patrick J. Lewis, Sam Houston State University, TX.

Maximum discharge estimates for Terlingua Creek at the Highway 170 bridge, Terlingua, Texas
Taylor Bruecher, Jonas Ball, Lauren Royter and Kevin Urbanczyk

Marine Science

10:00 AM
View Marine Science Posters - see list at end of section
Pete P. Gallego Center

Marine Science Oral Presentations - WSB 209

2:30 PM G 262 To catch as catch can: Using otoliths to determine age of red snapper for use in developing effective management in Texas waters
Nicole Carrillo, Texas A&M at Galveston

2:45 PM G 225 Establishing a monofilament recycling and recovery program (MRRP) in Texas coastal counties
Jessica DiGiulio*, Tom Linton and Wes Highfield, Texas A&M University at Galveston, Galveston, TX.

3:00 PM U 70 Suitability of trematodes in snails as indicators of coastal bay health in South Texas
Mayra Rangel*, Brian L Fredensborg, The University of Texas-Pan American, Edinburg, TX

3:15 PM U 101 Are highly specialized parasites limited to only one host?
Rebecca Hernandez*, Brian L Fredensborg, The University of Texas-Pan American

3:30 PM N S 244 Tracing nitrogen from the Arroyo Colorado into the Lower Laguna Madre
Hudson DeYoe*1 and Warren Pulich2, 1Center for Subtropical Studies and Biology Dept at University of Texas-Pan American, Edinburg, TX, 2River Systems Institute, Texas State University, San Marcos, TX
Marine Science Posters

U
P99 Nitrogen leaching from a wind-tidal flat cyanobacterial mat community
Tyler Murray* and Hudson DeYoe, Biology Dept and Center for Subtropical Studies, University of Texas-Pan American, Edinburg, TX

N S
P10 2 Comparison of macrofauna in Halodule wrightii and Thalassia testudinum in Lower Laguna Madre, TX
Natali Mejia, Joseph L Kowalski, Hudson DeYoe, Brian L Fredensborg*, The University of Texas-Pan American

G
P14 3 The spatial and temporal distribution of drifting macroalgae of Emmord’s Seagrass Meadow in the Laguna Madre
Veronica Thompson and Dr. Roy Lehman, Texas A&M University - Corpus Christi

U
P20 6 Fate of seagrass gaps- Influence of gap size
John N. Garcia*, Danielle Garza, Joseph Kowalski, and Hudson DeYoe, Center for Subtropical Studies and Biology Dept, University of Texas-Pan American

U
P23 3 Potential competitive interactions between the seagrass Thalassia testudinum and the rhizophytic alga Penicillus capitatus in the Laguna Madre of Texas: Year two
Danielle R. Garza*, The International Baccalaureate Program at Lamar Academy, McAllen I.S.D., McAllen, Texas, Hudson R. DeYoe, Department of Biology and the Center for Subtropical Studies, The University of Texas-Pan American, Edinburg, Texas, and Joseph L

U
P23 7 Primary productivity in the Lower Laguna Madre and Arroyo Colorado, Texas
Marco Ramos III*, The International Baccalaureate Program at Lamar Academy, McAllen I.S.D., McAllen, Texas, Hudson R. DeYoe, Department of Biology and the Center for Subtropical Studies, The University of Texas-Pan American, Edinburg, Texas, and Joseph L

U
P28 9 Arsenic as a stressor of the seagrass Thalassia testudinum
Marlon Duran, Michael Persans and Hudson DeYoe

Mathematics Oral Presentations - WSB 107

2:30 PM
9 Cassini’s Identity
Elsie M. Campbell*, Angelo State University, and Dionne T. Bailey*, Angelo State University, jointly

2:45 PM
192 Picard’s iterative scheme for initial value problems
Judith Loya and Lloyd Moyo

3:00 PM
200 Evaluation of the generalized Fresnel’s integrals
Neuroscience Oral Presentations Session I - WSB 201

8:30 AM U 128 Age-dependent differential effects of neurotoxin exposure on associative learning in Caenorhabditis elegans

Wendy Flores*, Linda Armstrong, Emily Hazen, Dr. Fidelma O’Leary, St. Edwards University Dept. of Biological Sciences

8:45 AM U 121 Examination of the effects of imidacloprid on the acquisition and retention of associative memory in Caenorhabditis elegans

Emily Hazen*, Fidelma O’Leary, St. Edward’s University, Austin TX

9:00 AM U 119 Heritability of a learning deficit induced in C. elegans by Exposure to the Neurotoxin Imidacloprid

Linda Armstrong*, Wendy Flores, Fidelma O’Leary

9:15 AM U 184 Assessing the impact of amyloid-β peptide on associative learning in a transgenic Caenorhabditis elegans model of Alzheimer’s disease

Anne Busch*, Jennie Cassady, Fidelma O’leary

9:30 AM U 267 Possible protein interaction between maspardin and ALDH18A1 in Mast syndrome

Mary A. Mason*, Michael C. Hanna, Texas A&M University-Commerce, Commerce, TX.

9:45 AM U 20 Fungicide exposure alters sexual behavior in adult male rats

Briana Cobos, St. Edward’s University

10:00 AM View Neuroscience Posters - see list at end of section Pete P. Gallego Center

11:45 AM Neuroscience Section Meeting WSB 201

Neuroscience Special Presentation 10:45 - 11:45

10:45 AM Cellular mechanisms of Alzheimer’s disease WSB 201

Neuroscience Special Presentation 2:30-3:30 pm

2:30 PM Neurometabolic mechanisms for memory enhancement and neuroprotection WSB 201

Neuroscience Posters

P13 U 8 Examination of the ability of nicotine to enhance memory function and alleviate learning deficits induced by Amyloid-β plaques in a C. elegans model of Alzheimer’s disease

Jennifer Cassady*, Annie Busch, Fidelma O’Leary, St. Edward’s University, Austin, TX

G P14 Maspardin effects on BMP signaling molecules
Lauren E. Bailey*, Michael C. Hanna, Ph.D., Texas A&M University
- Commerce, Commerce, TX.

Katherine Najera, Beth Pelser*, Fidelma O’Leary, St. Edward’s University, Austin, TX

Social affiliation and sex status regulate emotional and energetic components of energy balance in Syrian hamsters
Bryan L. Clossen1, John L. Shannonhouse1, Ross E. Hairgrove2, Daniel C. York3, Benjamin Li An Fong2, Gregory W. Hercules2, B. Walker2, Lauren M. Mertesdorf4, Margi Patel2, and Caurnel Morgan1,2,3. 1Texas A&M Institute for Neuroscience, Texas A&M Universit

Plasmalemmal repair of transected neurites of murine B104 cells requires PKC η and θ, and PKA
Aleksej Zuzek*, Jerry D. Fan, Christopher S. Spaeth, George D. Bittner, University of Texas at Austin, Austin, TX

Antidepressant drug treatment at puberty induces sex-dependent emotional instability and hyper-stimulation of GABA currents in the nucleus accumbens of female hamsters
John Shannonhouse*, Dustin Dubois, Annette Fincher, Chad Chalker, Morgan Henry, Paul Wellman, Alejandra Vela, Gerald Frye, Caurnel Morgan, Texas A&M University, College Station, Texas

Investigation of KIF5A-maspardin interaction: Potential link among Hereditary Spastic Paraplegias
Brookins, S.D., Hanna, M.C.

Physics Oral Presentations - WSB 305

8:30 AM U 35 Harvesting energy at Midwestern State University
Abhishek Chatterjee, M. Salim Azzouz, Midwestern State University, Wichita Falls, TX

8:45 AM U 18 Analysis of electron diffraction in crystallography
William Ware, Robert Nicholas Lanning, Spencer Wigginton, Bryan Neal, Cristian Bahrim, Department of Physics, Lamar University, TX 77710-10046

9:00 AM G 217 Status of the LUX dark matter search experiment
LUX Collaboration

9:15 AM G 197 Modeling leucophores in the skin of cephalopods
Meng Gao* and George W. Kattawar, Texas A&M University

9:30 AM G 250 Numerical study of chromatophore in the skin of cephalopods
Dayou Chen, Meng Gao, Angela R. Marotta and George W. Kattawar

9:45 AM Physics Section Meeting WSB 305

10:00 AM View Physics Posters Pete P. Gallego Center
Physics Posters

U P55 Development of an image library of abell clusters in search of supernovae
James Boshart*, Courtney Geiger*, Tarleton State University, Stephenville, TX.

U P17 Asteroid detection using Tarleton’s .8m research telescope
Jordan Hernandez*, Court Sullivan, Jake Rhodes, James Boshart, Courtney Geiger, Dr. Mike Hibbs, Tarleton State University, Stephenville, TX

Science Education Oral Presentations Session I - WSB 305

10:45 AM N S 14 Electronic professional development
Barbara ten Brink, Ph.D., Austin ISD

11:00 AM G 264 Link Science & Math to Improve Middle School Student Performance
Alysha Kinsel*, Sandra West, Texas State University, San Marcos, TX

11:15 AM U 141 Staying SMARt: Assessment of a one-on-one inquiry model to teach the scientific method to elementary school students
Meredith Liebl*, Kate Roberts, Suzy Pukys and Romi Burks, Southwestern University, Georgetown, TX 78626

11:30 AM G 214 Adapting the paper time roll technique for teaching the diversity of Life in conjunction with deep geologic time in geology, paleontology, and biology courses
Robert W. Burroughs*, Travis Z. Wicks, Julia A. Clarke, Jackson School of Geosciences, The University of Texas at Austin

10:00 AM View Science Education Posters - see list at end of section

Science Education Oral Presentations Session II - WSB 305

2:30 PM N S 122 A new four-year cohort model for research in an undergraduate curriculum
Chris Distel, Schreiner University, Kerrville, TX

2:45 PM N S 3 International Astronomical Search Collaboration: A student discovery program in astronomy
Patrick Miller, Hardin-Simmons University

3:00 PM N S 207 Elliptical Fourier analysis of closed contours: Implementation and application
Benny E. Arney, Jr.*, Sam Houston State University, Huntsville, TX and Irisa D. Arney, New Mexico State University, Las Cruces, NM

3:15 PM Science Education Section Meeting

Science Education Posters
Relative contributions of faculty, undergraduates, and graduate students to forming a community supportive of undergraduate research experience
Susan Power Bratton, Baylor University, Waco, TX

Building bridges in our region: Texas Karst Outreach and Research Program at Stephen F. Austin State University
Melinda G. Shaw*, Kevin W. Stafford, Stephen F. Austin State University

Systematics and Evolutionary Biology Oral Presentations Session I - WSB 210

10:45 AM
G 103 Mitochondrial, morphological, and karyotypic data confirm the presence of multiple lineages of Mus in Botswana
Molly M. McDonough*, Cibele G. Sotero-Caio, Robert J. Baker, Department of Biological Sciences, Texas Tech University, Lubbock, TX and Patrick J. Lewis, Monte L. Thies, Department of Biology, Sam Houston State University, Huntsville, TX and Matlhgonolo T

11:00 AM
G 191 Morphological and Molecular Variation in Townsend’s big-eared Bat (Corynorhinus townsendii) in West Texas
T. Marie Tipps* and Loren K. Ammerman

11:15 AM
N 16 Additions to the parasitoids and inquilines of Trypoxylon manni (Hymenoptera: Crabronidae) in Trinidad, West Indies
Allan Hook, St. Edward's University, Austin, TX

11:30 AM
U 229 Got anything to eat? Prey modification and its impact on frequency dependent selection in assassin bugs
Julia Potocnjak* and Dr. Christopher Vitek The University of Texas-Pan American

1:30 PM
View Systematics and Evolutionary Biology Posters - see list at end of section Pete P. Gallego Center

Systematics and Evolutionary Biology Oral Presentations Session II - WSB 210

2:30 PM
G 71 A morphological comparison of the land snails Holospira monclovana and Holospira picta (Gastropoda: Urocotidae) from northern Mexico using X-ray computed tomography
Rigel R. Rilling*, Ned E. Strenth, Angelo State University, San Angelo, TX and Alfonso Correa-Sandoval, Instituto Tecnológico de Cd. Victoria, Cd. Victoria, Tamaulipas, Mexico

2:45 PM
G 261 Description and phylogenetic utility of the forelimb of Angistorhinus (Phytosauria)
Michelle R. Stocker, The University of Texas at Austin, Austin, TX; Kelsey Hornung, The University of Texas at Austin, Austin, TX

3:00 PM
G 277 Potential ancient hybridization and mitochondrial capture in hybridizing ground squirrels (genus Spermophilus)
Cody W. Thompson*, Texas Tech University, Lubbock, TX, Frederick B. Stangl, Jr., Midwestern State University, Wichita Falls, TX, and Robert D. Bradley, Texas Tech University, Lubbock, TX.
Systematics and Evolutionary Biology Posters

U P80 Evolutionary potential of rare plant species: Mentzelia mollis and M. packardiae (Loasaceae)
Blain Gilbert*, Emily Sparks, Isabel Lee, and Joshua M. Brokaw, Abilene Christian University, Abilene, TX

N S P81 Morphological and molecular diagnostic characters for Mentzelia monoensis (Loasaceae)
Levi Gates and Joshua M. Brokaw*, Abilene Christian University, Abilene, TX

U P24 Molecular systematics of the Ophiuroidea using 16S rDNA
Shannon Rose*, Rebecca Hunter, Abilene Christian University

Terrestrial Ecology and Management Oral Presentation Session I - WSB 111

8:30 AM G 259 The dark side of birding: Perceptions of bird watching impacts
Lisa J. Reznicek, Texas A&M University at Galveston

8:45 AM G 146 Nest defense by Carolina Wrens (Thryothorus ludovicianus) in natural and urban environments
Ashley Bogrand*, Diane L. H. Neudorf, Sam Houston State University

9:00 AM U 32 Experimental test of the function of Rock Wren nest pavement using artificial nests
Ivy G. Sustaita* and Andrew C. Kasner, Wayland Baptist University, Plainview, TX.

9:15 AM G 133 Characterization of the abiotic niche of the American hog-nosed Skunk (Conepatus leuconotus) using ecological niche modeling: Past and present viewpoints
Adam W. Ferguson*, Richard E. Strauss, Texas Tech University, Lubbock, TX and A. Townsend Peterson, University of Kansas, Lawrence, KS.

9:30 AM U 38 Effectiveness of scent stations, game cameras, and scent types for assessing mammalian presence and abundance in an urban environment
Corin M. Olivas* and Andrew C. Kasner, Wayland Baptist University, Plainview, TX.

9:45 AM G 36 Temporal niche partitioning in forest-dwelling bats
Anica Debelica-Lee*, Yuanyuan Guo, Kenneth T. Wilkins, Baylor University, University, TX.

10:00 AM View Terrestrial Ecology and Management Posters - see list at end of section Pete P. Gallego Center

Terrestrial Ecology and Management Oral Presentation Session II - WSB 111
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Number</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:45</td>
<td>AM</td>
<td>N</td>
<td>Habitat preferences of the dengue virus vectors <em>Aedes aegypti</em> and <em>Aedes albopictus</em>: People, mosquitoes, and dengue risk</td>
<td>Christopher Vitek*, University of Texas Pan American, Edinburg, TX</td>
</tr>
<tr>
<td>11:00</td>
<td>AM</td>
<td>G</td>
<td><em>Anopheles quadrimaculatus</em> in South Texas</td>
<td>Norma Hermelinda Martinez*, Christopher John Vitek , University of Texas-Pan American, Edinburg, TX</td>
</tr>
<tr>
<td>11:15</td>
<td>AM</td>
<td>U</td>
<td><em>Lutzomyia diabolica</em> and Leishmaniasis: A potential threat to human health</td>
<td>Miroslava Garza*, Ana L. Cavazos*, Teresa P Feria, University of Texas Pan-American, Edinburg, TX.</td>
</tr>
<tr>
<td>11:30</td>
<td>AM</td>
<td>G</td>
<td>A survey of Ectoparasites of Small Mammals from Honduras</td>
<td>Lizbeth Marquez and Christopher Ritzi</td>
</tr>
<tr>
<td>11:45</td>
<td>AM</td>
<td>G</td>
<td>Index of biological integrity of the birds (Bibi) comparing the structure between the east and west orientation of the Cerro El Potosi, Galeana, Nuevo Lón, México, natural protected area</td>
<td>Blanca Lizeth Gaspar Rodríguez*, Armando Jesús Contreras Balderas, Juan Antonio García Salas, Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León.</td>
</tr>
<tr>
<td>12:00</td>
<td>PM</td>
<td>N</td>
<td>Where in the world is <em>Wedelia</em>? Global distribution patterns of Texas native plants including presumptive endemics</td>
<td>Richard Patrock, Brackenridge Field Laboratories, University of Texas at Austin</td>
</tr>
</tbody>
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### Terrestrial Ecology and Management Oral Presentation Session III - WSB111

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Number</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:30 PM</td>
<td>G</td>
<td>248</td>
<td>Arthropod Ecology of Carrion Resources in the Trans-Pecos Region of Texas</td>
<td>Melinda K. Dooley* &amp; Christopher M. Ritzi, Sul Ross State University, Alpine, TX</td>
</tr>
<tr>
<td>2:45 PM</td>
<td>N</td>
<td>120</td>
<td>The impact of saltcedar biological control along the Rio Grande on a non-target species, <em>Tamarisk aphylla</em></td>
<td>Anne Marie Hilscher* and Christoper M. Ritzi (Sul Ross State University Biology Dept)</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>G</td>
<td>272</td>
<td>Survey of vertebrate communities in invasive saltcedar (<em>Tamarix</em>, spp.), monocultures in Presidio County, Texas</td>
<td>Karin L. Nilsen*, and Christopher M. Ritzi, Department of Biology, Sul Ross State University</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>N</td>
<td>98</td>
<td>Demographics and natural history of <em>Kinosternon flavescens</em> in Jeff Davis County, Texas</td>
<td>Travis J. LaDuc and James L. Christiansen, Texas Natural History Collections, The University of Texas at Austin</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>G</td>
<td>104</td>
<td>Recent reptile fossils from the Pindai Caves of New Caledonia</td>
<td>Alicia M. Kennedy, The University of Texas at Austin</td>
</tr>
<tr>
<td>3:45 AM</td>
<td></td>
<td></td>
<td>Terrestrial Ecology and Management Section Meeting</td>
<td>WSB 111</td>
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</table>
Terrestrial Ecology and Management Posters

**P10**

**eBird and management: Assessing the application of large scale data and data collection strategies for local management use**

Thomas Riddle, Texas A&M University at Galveston

**U P11**

**A Survey of Ectoparasites of Small Mammals from Guatemala**

Joel Natividad* and Christopher M. Ritzi, Sul Ross State University, Alpine, TX.

**U P16**

**Mammals of selected areas in east central Tamaulipas, Mexico**


**U P18**

**A Look At The Mexican Spotted Owl in the Davis Mountains of Texas**

David P. Rumbelow advised by Dr. Chris Ritzi and Dr. Steven Platt

**U P21**

**Avifauna of two plant communities in Marin, Nuevo Lón, México**

Hugo González-Páez, Juan A. Garcia-Salas* and Armando J. Contreras-Balderas. Laboratorio de Ornitologia, Facultad de Ciencias Biologicas, Universidad Autónoma de Nuevo León. Apartado Postal 425. San Nicolas de los Garza, Nuevo Leon, Mexico 66450

**U P23**

**Mammals of the Monumento Natural Cerro de La Silla, Nuevo León, México**

Mercedes A. Salinas-Camarena, Armando J. Contreras-Balderas*, Juan A. García-Salas and David A. Borré-González. Laboratorio de Ornitologia, Facultad de Ciencias Biologicas, Universidad Autónoma de Nuevo León. Apaartado Postal 425. San Nicolas de los Garza

**U P23**

**Bird distribution of Sierra La Silla, Nuevo Leon, Mexico; a GIS projection**


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**4:00 PM**

Section Chairs Meeting

WSB 101

**4:45 PM**

2012 TAS Outstanding Texas Educator and Texas Distinguished Scientists presentations

Marshall Auditorium