001. TAS Board Meeting
8:00 to 11:30 am
Jack E. Brown Dining Hall, Foundation Room
Texas Academy of Science Annual Meeting
TAS Board Meeting

002. Section Chairs Pre-Session Lunch Meeting
11:30 am to 12:30 pm
Jack E. Brown Dining Hall, Foundation Room
Texas Academy of Science Annual Meeting
Section Chairs Pre-Session Lunch Meeting

003. Botany Oral Session & Section Meeting
12:30 to 2:30 pm
Marie Hall Building, 201
Botany
Botany Oral Session & Section Meeting
Chair: Martin Kilman Terry, Sul Ross State University
Participants:
12:30 003.001 U A pilot study: Bio-floculation of Chlorococcum microalgae via fungal association, Joanne Elise Thomson, University of Mary Hardin-Baylor; Kathleen Wood, University of Mary Hardin-Baylor
12:45 003.002 G Correlation of mescaline concentration in crown tissue samples of Lophophora williamsii (Cactaceae) with rib number, Richard Paul Newbold, Sul Ross State University; Martin Kilman Terry, Sul Ross State University
1:00 003.003 G Mescaline content in over-the-counter anti-rheumatics presumed to contain Lophophora williamsii (peyote), Robert Joseph LeBlanc, Graduate Student; Martin Kilman Terry, Sul Ross State University
1:15 003.004 N Phylogenetic reconstruction of Mentzelia section Bicuspidaria (Loasaceae) based on plastid and nuclear ribosomal DNA sequences., Joshua M. Brokaw, Abilene Christian University; John J. Schenk, Georgia Southern University
1:30 003.005 N The angiosperm family Lauraceae in Texas, David E. Lemke, Texas State University
1:45 003.006 Section Meeting, Martin Kilman Terry, Sul Ross State University

004. Chemistry & Biochemistry Oral Session 1
12:30 to 2:30 pm
Marie Hall Building, Room 101
Chemistry and Biochemistry
Chemistry & Biochemistry Oral Session 1
Chair: Adrian L. Zapata, Schreiner University
Participants:
12:30 004.007 N Can lanthanide glutarate chlorides be converted into lanthanide glutarate terephthalates?, Ralph Zehnder, Angelo State University
2:15 004.010 U Control of metal nanoparticle parameters using polyamine capping agents, Michael Ray Hayes, research; Thomas Edward Ready, Midland College

005. Conservation Ecology Oral Session & Section Meeting
12:30 to 2:30 pm
Marie Hall Building, 202
Conservation Ecology
Conservation Ecology Oral Session & Section Meeting
Chair: Chris Distel, Schreiner University
Participants:
12:30 005.015 N Misidentification of land snails in museum collections, Jeff Nekola, University of New Mexico; Ben Hutchins, Texas Parks and Wildlife; Briante Najev, University of Texas Rio Grande Valley; Alison Schofield, University of Texas Rio Grande Valley; Kathryn Elizabeth Perez, University of Texas Rio Grande Valley
12:45 005.016 G Nesting ecology of Common Black Hawk (Buteogallus anthracites) and Gray Hawk (Asturina nitida) at Big Bend National Park, Fabiola Baeza-Tarin, Sul Ross State University

1:00 004.008 U Cobalt porphyrins supported by zirconium phosphate layers as OER electrocatalysts, Isabel Barraza, Student; Dino Villagran, Professor
1:00 004.009 U Computational studies of radiofluorinated Gallium Complexes with potential use as PET imaging agents, Aaron Torres, University of Houston-Downtown; Dr. Maria Benavides, University of Houston-Downtown: Department of Natural Sciences
1:15 004.011 G Efficient photocatalyst for visible light water photolysis, Tahmina Akter, University of Texas at El Paso; Geoffrey Sause, University of Texas at El Paso
1:45 004.012 G Theoretical calculations of UV-Vis spectrum and binding energies of TMPyP and TPyP porphyrins with Pb2+, Hg2+, Cu2+, Cd2+, Zn2+, and Fe2+/3+, Christopher Orr, Stephen F. Austin State University; Brian Barngrover, Stephen F. Austin State University
2:00 004.013 U Theoretical stereochemistry of Co(II) IDA with histidine tags to identify binding energies utilizing DFT, Lindsey Ohmstede, Stephen F. Austin State University; Brian Barngrover, Stephen F. Austin State University
2:15 004.014 U Fundamental growth mechanism of thiolate protected platinum nanoparticles, Alexandria Cook, Stephen F. Austin State University; Brian Barngrover, Stephen F. Austin State University

12:45 005.017 N New distribution records for amphibians and reptiles of East-Central Chihuahua, Mexico, Tomas Hernandez, Midland College; Mark Herr, University of Kansas; Skylar Stevens, Sul Ross State University
005.018 N Prey of the Loggerhead Shrike (*Lanius ludovicianus*) in West Texas, Sean Graham, Sul Ross State University; Morgan Seiler, Sul Ross State University; Crystal Kelehear, Sul Ross State University

005.019 U Survey of reptiles and amphibians of the Trans-Pecos Region, Texas, Noah Koby Fields, Sul Ross State University; Sean Graham, Sul Ross State University

005.020 G Terrestrial snail population assessment in the Rio Grande Valley of Texas, Briant Najev, University of Texas Rio Grande Valley; Jeff Nekola, University of New Mexico; Ben Hutchins, Texas Parks and Wildlife; Alison Schofield, University of Texas Rio Grande Valley; Kathryn Elizabeth Perez, University of Texas Rio Grande Valley

005.021 Section Meeting, Chris Distel, Schreiner University

006. Freshwater Science Oral Session & Section Meeting
12:30 to 2:30 pm
Marie Hall Building, 203

Freshwater Science

Freshwater Science Oral Session & Section Meeting

Chair: Russell Minton, University of Houston Clear Lake

Participants:

12:30 006.022 G Determining the host fish of a state-listed freshwater mussel species, *Pleurobema riddellii*, Elizabeth Hinkle, University of Texas at Tyler

12:45 006.023 U Effects of the insecticide imidacloprid on habitat selection in the freshwater amphipod *Hyllela azteca*, Jonatan Valentin Salinas, St. Edward's University; Raelynn Deaton Haynes, St. Edward's University

1:00 006.024 U Flood pool distribution and seasonal recruitment of zebra mussels in a subtropical reservoir along the southern invasion front, Devin Corbitt, Temple College; Jason Locklin, Temple College

1:15 006.025 U Following the curve: Environmental DNA accumulation and degradation rates utilizing apple snails, Madison Granier, Southwestern University; Matthew A Barnes, Texas Tech University; Romi L Burks, Advisor

1:30 006.026 U Unraveling the mystery: Species determination and distribution patterns of two Asian mysterysnail species (*Cipangopaludina japonica* and *C. chinesis*), Shannon M Walsh, Southwestern University; Romi L Burks, Advisor

1:45 006.027 Section Meeting, Russell Minton, University of Houston Clear Lake

007. Geosciences: Oral session 1
12:30 to 2:30 pm
Marie Hall Building, 105

Geosciences

Geosciences: Oral session 1

Chair: Russell LaRell Nielson, Stephen F. Austin State University

Participants:

12:30 007.028 G An insight into the origin of midcontinent unconventionals using an integrated mineralogical and geochemical approach, Giovanni Zanoni, Texas Tech University; Branimir Segvic, Texas Tech University

12:45 007.029 U A study of luecobands in the Wax Factory Laccolith, Big Bend Ranch State Park, TX., Olivia Rose Enriquez, Sul Ross State University McNair Scholar

1:00 007.030 U Clay minerals as Quaternary climate change indicators in the Southern High Plains, West Texas, Moustapha Diaby, Texas Tech University; Giovanni Zanoni, Texas Tech University; Dustin Sweet, Texas Tech University; Branimir Segvic, Texas Tech University

1:15 007.031 U Dendrochronology: A tool to explore past climate of San Antonio, Janice Davila, University of the Incarnate Word; Jillian Guse, Univer of the Incarnate Word; Darcy McCutchen, Univer of the Incarnate Word; Mireles Brittany, Univer of the Incarnate Word; Kyle Sanchez, Univer of the Incarnate Word; Gerald Mulvey, University of the Incarnate Word

1:30 007.032 N Development of rill marks on the beach face at Galveston Island State Park, Texas, Russell LaRell Nielson, Stephen F. Austin State University

008. Neuroscience Oral Session & Section Meeting
12:30 to 2:30 pm
Marie Hall Building, 209

Neuroscience

Neuroscience Oral Session & Section Meeting

Chair: Veronica Giselle Martinez-Acosta, Univ. of the Incarnate Word

Participants:

12:30 008.033 U A molecular study of the effects of BPA on hippocampal neurons., Hannah Reiley, Texas Lutheran University; Danielle D. Grove, Texas Lutheran University

12:45 008.034 G Positive cognitive and affective effects of transcranial infrared laser stimulation of the human prefrontal cortex, Courtney Alexander, University of Texas at Austin; Celeste L. Saucedo, University of Texas at Austin; Douglas W. Barrett, The University of Texas at Austin; F. Gonzalez-Lima, The University of Texas at Austin

1:00 008.035 Section Meeting, Veronica Giselle Martinez-Acosta, Univ. of the Incarnate Word

009. Systematics and Evolutionary Biology Oral Session &
Section Meeting 12:30 to 2:30 pm Marie Hall Building, 107 Systematics and Evolutionary Biology Systematics and Evolutionary Biology Oral Session & Section Meeting Chair: Megan S Keith, South Plains College Participants:

12:30 009.036 U A new assemblage of mosasaurs from the Upper Cretaceous Savoy Pit, Austin Chalk, North Texas, Blake Russell Chapman, The University of Texas at Austin; Joshua Ryan Lively, The University of Texas at Austin

12:45 009.037 G A new Miocene gerrhonotine from the Caliente Formation, California, Simon Scarpetta, University of Texas at Austin

1:00 009.038 G A preliminary molecular phylogeny of the Eastern US Oxyłma (Gastropoda: Succineidae), Marco Arturo Martinez Cruz, University of Texas Rio Grande Valley; Kathryn Elizabeth Perez, University of Texas Rio Grande Valley

1:15 009.039 U Does the Dear Enemy Hypothesis hold true in a sex role reversed system, Sygnathus scovelli?, Sarah Joanne Morton, St. Edward’s University; Briana Martinez, St. Edward's University; Claire Adams, St. Edward’s University; Ciara Crochet, St Edward’s University; Pam Cisneros, St. Edward’s University; Raelynn Deaton Haynes, St. Edward’s University; Sunny Scobell, St. Edward’s University

1:30 009.040 U Impact of social context on mating behavior and sperm competition in the western mosquitofish, Amher Raven, St. Edward’s University; Raelynn Deaton Haynes, St. Edward’s University

1:45 009.041 U Testing the Novelty Hypothesis as an explanation of heterospecific mating in livebearing fishes, Dylan J Wichman, St. Edward’s University; Raelynn Deaton Haynes, St. Edward’s University

2:00 009.042 Section Meeting, Megan S Keith, South Plains College

010. Poster Presentation and Judging for: Anthropology; Botany; Conservation Ecology; Environmental Science; Freshwater Science; Geosciences; Mathematics & Computer Science; Neuroscience; Physics & Eng; Science Education; Terrestrial Ecology & Management 2:30 to 4:00 pm Marie Hall Building, Corridor A Anthropology Anthropology Poster Session Participants:

010.043 G Human skeletal evidence: Perspectives for narcotrafficking group identifications through modus operandi from the medico-legal department in Heredia, Costa Rica, Kashmiere Nicole McGee, Texas Tech University; Paola Prada, TTU Research professor PhD.

010.044 G Perception and nocturnal primate face masks, Cody J Moser, Department of Anthropology, Texas A&M University; Gül A. Russell, Department of Humanities in Medicine, Health Science Center, Texas A&M University College of Medicine

010.045 U Precision in 3D Prints: The case of MH1 (Australopithecus sediba), Lauren J. Hammond, Texas A&M University; Kersten Bergstrom, Texas A&M University; Robert Zac Selden, Stephen F. Austin State University; Darryl J. de Ruiter, Department of Anthropology, Texas A&M University

010.046 G Taphonomic and fossil reconstructive analyses of the Ngaloba (LH 18) skull, Kersten Bergstrom, Texas A&M University; Lauren Butleric, Des Moines University; Agness Gidna, National Museum of Tanzania; Charles Musiba, University of Colorado Denver; Robert Zac Selden, Stephen F. Austin State University; Cassian Magori, St. Francis University College of Health and Allied Sciences Botany Botany Poster Session Participants:

010.047 U Effects of increased UV light on monoterpenes in Mentha perpita L., Joshua Rios, St. Edward's University

010.048 U Molecular Identification of the 18S rDNA for Chlorococcum Microalgae C. lacustre and C. macrostigmatum, Joanne Elise Thomson, University of Mary Hardin-Baylor; Kathleen Wood, University of Mary Hardin-Baylor

010.049 U Progress on the vascular flora of the Runningwater Conservancy, Hale County, TX, Krista Shay Epley, Wayland Baptist University; Matthew S Allen, Wayland Baptist University

010.050 U The effects of norflurazon treatment on photosynthesis rate and β-carotene concentration in wheat and corn, Mary Margaret Hillery, St. Edward’s University; Jeremiah Grider, St. Edward's University

Conservation Ecology Conservation Ecology Poster Session Participants:

010.051 N American Eel: Utilizing modern techniques to assess conservation status in Texas, Melissa Casarez, University of Texas at Austin; Stephen Curtis, TPWD; Dean A. Hendrickson, University of Texas at Austin; Adam E. Cohen, University of Texas at Austin; Kevin Mayes, Texas Parks and Wildlife; Gary Garrett, University of Texas at Austin; F. Douglas Martin, University of Texas at Austin

010.052 U Chemosensory signaling: behavioral interactions on interspecific competition between Gray Fox (Urocyn cineareogententes) and Red Fox (Vulpes vulpes), Michaela Elizabeth Gephart, Hardin...
Grasses on native bird populations in West Texas, Francisco Alberto Velasco, Hardin Simmons University; Bryson Holcomb, Hardin Simmons University; Corrender Taylor, Hardin Simmons University; Wendi K Wolfram, Hardin-Simmons University

010.062 G The Kisatchie Painted Crayfish (Orconectes maletae) status in Louisiana, Jade Lynn Marie McCarley, Department of Biology at the University of Texas at Tyler; Josh Banta, Department of Biology at the University of Texas at Tyler; Kate Hertweck, Department of Biology at the University of Texas at Tyler; John S. Placyk, Jr., Department of Biology at the University of Texas at Tyler; Marsha G. Williams, Department of Biology at the University of Texas at Tyler; Lance R. Williams, Department of Biology at the University of Texas at Tyler

Environmental Science
Environmental Science Poster Session
Participants:

010.063 U Animal movement through Southwestern's EcoLab, Zane McDurnham, Southwestern University

010.064 U Mammal trap efficiency verified with trail cameras, Danielle D Cain, Schreiner University; Chris Distel, Schreiner University

010.065 U Roadside edge effects on herbaceous plant communities, My Nguyen, Concordia University Texas; Vincent Sherman, concordia University Texas; Hailey Rafferty, Concordia University Texas; Rikki Ray, Concordia University Texas; Mary Kay Johnston, Concordia University Texas

010.066 U The effects of water quality from natural and man-made resources on wildlife and livestock, Elizabeth Lopez, Hardin Simmons University; Abbie Housden, Hardin Simmons University; Brittany Poor, Hardin Simmons University; Kassidy Hooper, Hardin Simmons University; Wendi K Wolfram, Hardin-Simmons University

010.067 N The Texas Ozonesonde Network, Mark Garling Spychala, St. Edward's University; Gary A. Morris, St. Edward's University; Paul Walter, St. Edward's University

Freshwater Science
Freshwater Science Poster Session
Participants:

010.068 U Comparison of gut microbiomes between native and invasive viviparids (Gastropoda, Viviparidae), Ernest North, University of Houston Clear Lake; Russell Minton, University of Houston Clear Lake

010.069 U Investigating whether freshwater amphipods discriminate between quality and quantity for habitat preference, Fiorella Hernandez, St. Edward's University

010.053 G Chemosensory signaling: Deterrent for livestock predation and support for grassland conservation, Hannah Stouffer, Hardin-Simmons University; Wendi K Wolfram, Hardin-Simmons University

010.054 G Effects of Red Imported Fire Ants on arthropod community associated with Green-flowered Milkweed plants occupied by Monarch Butterfly eggs and larvae., Kalynn Hudman, Texas A&M University - Commerce; Howard Crenshaw, Texas Parks and Wildlife Department; Jeremy Mayhew, Texas Texas Parks and Wildlife Department; Jeff Kopachena, Texas A&M University- Commerce

010.055 G Fall survival of monarch butterfly (Danaus plexippus) eggs and larvae in northeast Texas, Alyx Rebecca Scott, Texas A&M University - Commerce; Jeff Kopachena, Texas A&M University- Commerce

010.056 N Gauging trends in public interest in conservation issues in Texas and adjacent states: An exploratory analysis using Google Trends data, Rick L Hammer, Hardin-Simmons University

010.057 G Influence of arthropod community structure on the survival of Monarch Butterfly (Danaus plexippus) eggs and larvae in northeast Texas, Misty Nixon, Texas A&M University- Commerce; Howard Crenshaw, Texas Parks and Wildlife Department; Jeremy Mayhew, Texas Texas Parks and Wildlife Department; Jeff Kopachena, Texas A&M University- Commerce

010.058 G Influence of the green-flowered milkweed (Asclepias viridis) health and quality on monarch butterfly (Danaus plexippus) larval survivorship, Kelsey Helgerson, Texas A&M University- Commerce; Howard Crenshaw, Texas Parks and Wildlife Department; Jeremy Mayhew, Texas Texas Parks and Wildlife Department; Jeff Kopachena, Texas A&M University- Commerce

010.059 U Predicting the distribution of seagrass habitat along the Texas Gulf Coast using Maxent, Rachel Bittner, Texas Tech University; Elizabeth L Roesler, Texas Tech University; Matthew A Barnes, Texas Tech University

010.060 U The effects of ant relationships on Texas Horned Lizard populations, Corrender Taylor, Hardin Simmons University; Samuel Thompson, Hardin Simmons University; JD Carnes, Hardin Simmons University; Wendi K Wolfram, Hardin-Simmons University; Allan J. Landwer, Hardin Simmons University; Andrea B. Jensen, Hardin Simmons University

010.061 U The effects of the reintroduction of native Horned Lizard populations, Andrea B. Jensen, Hardin Simmons University; Samuel Thompson, Hardin Simmons University; JD Carnes, Hardin Simmons University; Wendi K Wolfram, Hardin-Simmons University; Allan J. Landwer, Hardin Simmons University; and man

010.062 U The effects of Red Imported Fire Ants on arthropod community associated with Green-flowered Milkweed plants occupied by Monarch Butterfly eggs and larvae., Kalynn Hudman, Texas A&M University - Commerce; Howard Crenshaw, Texas Parks and Wildlife Department; Jeremy Mayhew, Texas Texas Parks and Wildlife Department; Jeff Kopachena, Texas A&M University- Commerce

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010.070 U The effect of alternative mating on sperm competition in coercive livebearing fish, Briana Martinez, St. Edward’s University; Raelynn Deaton Haynes, St. Edward’s University

Geosciences
Geosciences Poster Session
Participants:
010.071 U Analyzing LiDAR slope data to create geologic maps, Joshua Adam Reinhart, Wayland Baptist University; Tim Walsh, Wayland Baptist University
010.072 N Dust emissions from saltation bombardment of salt efflorescences, Robert Scott Van Pelt, USDA Agricultural Research Service; Guoming Zhang, Beijing Normal University
010.073 N Geochemical variation in spring chemistry as evidence for a mixed fluid aquifer; Fort Hood Military Installation, Texas, Kaleb J. Henry, Stephen F Austin State University; Mindy Faulkner, Stephen F Austin State University
010.074 G Petrographic and micro-facies analyses of the Fort Terrett Formation of the Lower Cretaceous Edwards Group, In Kimble County, Texas, Richard Urwin, Stephen F. Austin State University
010.075 G Petrographic and stratigraphic analysis along the Lower Cretaceous strata, in Kimble county Texas, Austin C Wilkerson, Stephen F. Austin State University
010.076 G Regional stress regime study of East Texas using orientation of fractures in the Weches Formation, Cory Dean Ellison, Stephen F. Austin; Chris Barker, Stephen F. Austin
Mathematics and Computer Science
Mathematics & Computer Science Poster Session
Participants:
010.077 U Modeling trends for Texas traffic accidents, Victoria Gore, Southwestern University
010.078 U The impact of accommodated vehicle to vehicle communication, Dominic Carrillo, Sul Ross State University

Neuroscience
Neuroscience Poster Session
Participants:
010.079 U Cerebral hemodynamic effects of transcranial infrared laser stimulation measured with functional near-infrared spectroscopy, Emma Holmes, University of Texas at Austin; Douglas W. Barrett, The University of Texas at Austin; F. Gonzalez-Lima, The University of Texas at Austin
010.080 G Cytokine concentration changes in selected brain regions of adjuvant-induced Rheumatoid Arthritis Lewis Rats, Han Yang, University of the Incarnate Word; Amelia J. Stinson, University of the Incarnate Word; Carlos A. Garcia, University of the Incarnate Word

010.081 U Determination of expression of c16orf52 homologs, Emily CAROLINE Camara, University of Texas at Tyler; Brent R Bill, University of Texas at Tyler
010.082 G Enhanced expression of fragile X mental retardation protein in malformative lesions of patients with focal cortical dysplasia, Conner Douglas Reynolds, University of North Texas Health Science Center; Suzanne O Nolan, Baylor University; Gregory D Smith, Baylor University; Taylor Jefferson, Baylor University; Samantha Hodges, Baylor University; Joaquin N Lugo, Baylor University
010.083 U Generating a grin1a mutation in Zebrafish, Sahir Burkie, The university of Texas at Tyler; Brent R Bill, University of Texas at Tyler

Physics and Engineering
Physics & Engineering Poster Session
Participants:
010.084 U Conductivity of CsH2PO4 and SiO2 composites under ambient and humid conditions over time, Sonam Lhamo, UTEP; Andrea Montgomery, UTEP; Israel Martinez, UTEP; Alex Price, UTEP; Cristian Botez, UTEP
010.085 U Creating a wave-powered robot, Christine Nissen, Southwestern University
010.086 G Stabilization over time of CsH2PO4 conductivity by using propyl sulfonic acid functionalized silica under ambient and humid conditions, Israel Martinez, UTEP; Cristian Botez, UTEP; Alex Price, UTEP; Andrea Montgomery, UTEP; Sonam Lhamo, UTEP
010.087 G The inverse and direct Hofmeister series of Hen egg lysozyme at pH below isoelectric point (pI) as seen by SAXS, Pawan Koirala, University of Texas at El Paso; Jose L. Banuelos, University of Texas at El Paso

Science Education
Science Education Poster Session
Participants:
010.088 U Enhancing understanding of essential organic nomenclature for second semester general chemistry students, Cassandra Orozco, University of Texas at El Paso; James E. Becvar, University of Texas at El Paso; Mahesh Narayan, University of Texas at El Paso
010.089 G Inquiry science teaching professional development course for Biology graduate students, Ykevaa Tyree-Khari Hunt, Texas State University; Julie F. Westerlund, Texas State University
010.090 Workbooks enhance learning in peer-facilitated instruction, Alejandra Belmont, University of Texas at El Paso; Ashley Priego, University of Texas at El Paso; Ashley Baker, University of Texas at El Paso; Mark Smith, University of Texas at El Paso;
010.091 U Activity patterns of White-tail Deer (Odocoileus virginianus) in an urban ecosystem, Lindsey Settles, East Texas Baptist University; Troy A Ladiné, East Texas Baptist University

010.092 N A preliminary examination of the insect biodiversity in the Headwaters Sanctuary, David Starkey, University of the Incarnate Word

010.093 N Characterization of the bacterial flora of Sorcerer's Cave, the deepest cave in Texas, Joshua M. Brokaw, Abilene Christian University; Hannah Seah, Abilene Christian University; Samantha N. Studwick, Abilene Christian University; Diana P. Desai, Abilene Christian University

010.094 U Effects of Melanaphis sacchari (Hemiptera: Aphididae) on the development and growth rate of Coleomegilla maculata (Coleoptera: Coccinellidae), Brad Burden, Texas A&M University - Central Texas; Laura Weiser Erlandson, Texas A&M University - Central Texas

010.095 N Feeding rates of natural enemies on the sugarcane aphid, Melanaphis sacchari (Hemiptera: Aphididae), Laura Weiser Erlandson, Texas A&M University - Central Texas; Brad Burden, Texas A&M University - Central Texas; Kaitlyn Liane Clark, Texas A&M University - Central Texas

010.096 G Life history of the perforate dome, Ventridens demissus (Gastropoda: Zonitidae), Adrian Medellin, University of Houston Clear Lake; Russell Minton, University of Houston Clear Lake

010.097 U Loggerhead Shrike predation, Morgan Seiler, Sul Ross State University; Sean Graham, Sul Ross State University

010.098 U Preliminary colony density estimates and spatial analyses of harvester ants at Rolling N LLP properties, Runnels County, Texas, Alexis Skiles, Hardin-Simmons University; Alyssa Brooks, Hardin-Simmons University; Kenneth Davis, Oregon Institute of Technology; Rick L Hammer, Hardin-Simmons University; Andrea B. Jensen, Hardin Simmons University

010.099 U Relationship between plant biodiversity and soil type at the Texas A&M University – Central Texas campus, Tara Nawrocki, Texas A&M University - Central Texas; Laura Weiser Erlandson, Texas A&M University - Central Texas

010.100 U Significance of eBird as a predictive migratory tool on wild hummingbird migration, Ashley Michaela Rea, Schreiner University

010.101 G Testing dark spot affinity of bee flies (Diptera: Bombyliidae) using a novel pan trapping method, Lauren G Garrett, Sul Ross State University; Chris M Ritz, Sul Ross State University

010.102 U The effects of dispersal and nitrogen fertilizer on leaf litter arthropod communities, Kendall Nicole Terry-Stewart, Concordia University Texas; Jordan Davis, Concordia University Texas; Rebecca Navarro, Concordia University Texas; Courtney Jones, Concordia University Texas; Mary Kay Johnston, Concordia University Texas

010.103 U The link between larval cannibalism in Chrysoperla rufilabris and egg stalk length, Kaitlyn Liane Clark, Texas A&M University - Central Texas; Laura Weiser Erlandson, Texas A&M University - Central Texas

010.104 N The sawflies of Texas with an account of world grass feeders, Richard James Wilson Patrock, TAMUK

010.105 U Total cholesterol and triglyceride influence on Siphonaptera abundance in Neotoma microps (the Southern Plains Woodrat), Clarence Sparks, Midland College; Diana Garcia Garcia, Midland College; Missy Schenkman, Sul Ross State University; Joseph Schenkman, Midland College; Chris M Ritz, Sul Ross State University

010.106 U Track-tube assessment of a small mammal population in an urban ecosystem, Austin Word, East Texas Baptist University; Benjamin Dyess, East Texas Baptist University; Troy A Ladiné, East Texas Baptist University

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011. Cell and Molecular Biology Oral Session & Section Meeting
4:00 to 6:00 pm
Marie Hall Building, 202
Cell and Molecular Biology
Cell and Molecular Biology Oral Session & Section Meeting
Chair: Stephanie Perez, Texas Lutheran University
Participants:

4:00 011.107 U A bioinformatic approach to identify potential vaccine targets against the southern cattle tick, Rhipicephalus microplus, Caley Thomasson, St. Edwards University; Charles Hauser, St. Edward's University; Adalberto Perez De Leon, U.S. Department of Agriculture; Felix Guerrero, U.S. Department of Agriculture

4:15 011.108 U Differential gene expression in C. reinhardtii after exposure to cerium nanoparticles,
012. Chemistry & Biochemistry Oral Session 2
4:00 to 6:00 pm
Marie Hall Building, Room 101
Chemistry and Biochemistry
Chemistry & Biochemistry Oral Session 2
Chair: Adrian L. Zapata, Schreiner University
Participants:
4:00 012.113 U Cactus Mucilage nongelling extract as a descalant in water, Abraham Fausto Jornada Cooper, Howard Payne University
4:15 012.114 U Cation exchange capacity determination: Comparison of three different methods, Lillie Susana Beltran, Southwestern University; Alyx S. Frantzen, Stephen F. Austin State University
4:30 012.115 G CEC determination of alkyl ammonium exchanged smectite clays using combustion methods, Celeste Keith, 1994; Alyx S. Frantzen, Stephen F. Austin State University
4:45 012.116 U Cactus Mucilage effects on produced water, Richard Treviso, Student
5:00 012.117 U Latent fingerprint development: Mechanistic study of DFO and serine using DFT, Alaina Spurr, Stephen F. Austin State University; Brian Barngrover, Stephen F. Austin State University
5:15 012.118 G Photothermal absorbance detector for liquid chromatography, Bikash Chouhan, University of Texas at Arlington; Purnendu K. Dasgupta, UT Arlington
5:30 012.119 G Synthesis and characterization of biodiesel fuels via transesterification of triglycerides with furfuryl alcohol, Amanda Lynn Raley, Stephen F. Austin State University
5:45 012.120 U Theoretical mechanistic study of latent fingerprint development using 1,2-indanedione and serine, T. Russell Stoger, Stephen F. Austin State University; Brian Barngrover, Stephen F. Austin State University

013. Geosciences Oral Session 2 & Section Meeting
4:00 to 6:00 pm
Marie Hall Building, 105
Geosciences
Geosciences Oral Session 2 & Section Meeting
Chair: Russell LaRell Nielson, Stephen F. Austin State University
Participants:
4:00 013.121 G The application of ZooMS to North American faunal material, Erin M Keenan Early, Jackson School of Geosciences, University of Texas at Austin
4:15 013.122 N Integrated geophysical characterization of Karst related geohazards along Ranch to Market 652, Wesley Augustus Brown, Stephen F. Austin State University; Kevin W. Stafford, Stephen F. Austin State University
4:30 013.123 N Status of excavation of the middle Eocene WU-26 micro-mammal fauna from the Uinta Formation in the Uinta Basin, James Westgate, Lamar University
4:45 013.124 U Geochemical and petrographic characterization of Chert workability, Joshua Cyrus Wynn, Wayland Baptist University; Tim Walsh, Wayland Baptist University
5:00 013.125 Section Meeting, Russell LaRell Nielson, Stephen F. Austin State University

014. Physics and Engineering Oral Session & Section Meeting
4:00 to 6:00 pm
Marie Hall Building, 107
Physics and Engineering
Physics and Engineering Oral Session & Section Meeting
Chair: Kim Arvidsson, Schreiner University
Participants:
4:00 014.126 U Comparing the number of Radio Loud Quasars with high velocity Hβ line widths to total number of Quasars, Miranda Brooke Gilbert, Sul Ross State University
4:15 014.127 U Development of instrumentation and metrology for low magnetic field bio-imaging, Susana Beltran, Southwestern University; Joshua Biller, National Institute of Standards and Technology, Magnetic Imaging Group; Karl Stupic, National Institute of Standards and Technology, Magnetic Imaging Group
4:30 014.128 U Effects of nickel, multi-walled carbon nanotubes, and multi-walled carbon nanotubes/nickel nanoparticles on power production and wastewater treatment of microbial fuel cells, Diana Beltran, Southwestern University; Jia Liu, Southern Illinois University Carbondale
4:45 014.129 N Physical and thermal properties of modern stabilized Adobe, Gerald Mulvey, University
of the Incarnate Word; Sreedeji J. Ande, University of the Incarnate Word

5:00 014.130 N Visualizing hydrogen molecular wavefunctions using Monte Carlo methods, Steve Alexander, Southwestern University; R.L. Coldwell, University of Florida

5:15 014.131 U Visualizing non-linear dynamical systems in virtual reality (VR), Bryan Hollingsworth, Southwestern University

5:30 014.132 Session Meeting, Kim Arvidsson, Schreiner University

015. Science Education Oral Session 1
4:00 to 6:00 pm
Marie Hall Building, 201
Science Education
Science Education Oral Session 1
Chair: Stephanie Ann Garcia, The University of Texas at San Antonio
Participants:

4:00 015.133 N A case-based approach to teaching evolutionary biology, Raelynn Deaton Haynes, St. Edward's University

4:15 015.134 G An exploration of an informal robotics/art program in a children's STEAM museum, Sarah Harris, University of Texas at Austin

4:30 015.135 U Assessing elementary pre-service teachers' science content knowledge and teaching efficacy, Mamta Singh, Lamar University

4:45 015.136 G Exploring Latino parent attitudes toward and involvement in Science, Izzy De Leon, Texas State University; Julie F. Westerland, Texas State University

5:00 015.137 N Outcomes from a teaching module for how science works aimed at college students, Rebecca M Price, University of Washington Bothell; Kathryn Elizabeth Perez, University of Texas Rio Grande Valley

5:15 015.138 N Sustaining student facilitated learning via a workbook: ending the cycle of grant dependency, James E. Becvar, University of Texas at El Paso; Geoffrey Sause, University of Texas at El Paso; Juan Noveron, University of Texas at El Paso; Mahesh Narayan, University of Texas at El Paso

5:30 015.139 N Maximizing STEM learning in microbiology laboratory through bacterial enumeration, Joni H Ylostalo, University of Mary Hardin-Baylor

016. Terrestrial Ecology & Management Oral Session 1
4:00 to 6:00 pm
Marie Hall Building, 203
Terrestrial Ecology and Management
Terrestrial Ecology & Management Oral Session 1
Chair: Richard Patrock, TAMUK
Participants:

4:00 016.140 U Assessing the dendroclimatological potential of juniper tree-rings in Palo Duro and Caprock Canyons, TX, Chelsea Beaubouef, Wayland Baptist University; Matthew S Allen, Wayland Baptist University

4:15 016.141 G Blood hormone and lipid level correlation to the quantity of ectoparasites present on the Southern Plains Woodrat (Neotoma micropus), Missy Schenkman, Sul Ross State University; Joseph Schenkman, Midland College; Clarence Sparks, Midland College; Diana Garcia Garcia, Midland College; Chris M Ritzi, Sul Ross State University

4:30 016.142 U Comparison of two non-toxic particle films for control of Juvenile Lone Star Ticks (Amblyomma americanum), Eduardo Munoz, Schreiner University; Allan Showler, USDA Agricultural Research Service; Weste Osbrink, USDA Agricultural Research Service; Ryan Matthew Caesar, Schreiner University

4:45 016.143 G Does consumption of different prey influence epidermal lipids in snake skin?: A quantitative and qualitative analysis, John Michael Weidler, Sam Houston State University

5:00 016.144 U Effects of burrowing prairie crayfish on soil nutrients and microbial communities., Tara Nawrocki, Texas A&M University - Central Texas; Harold P. Collins, USDA-ARS; Philip Fay, USDA-ARS; Wayne Polley, USDA-ARS

5:15 016.145 N Beetles, Weevils, and Scales, Oh My! Monitoring of three biocontrols for salt cedar in the Trans-Pecos Texas and Southeast New Mexico, Chris M Ritzi, Sul Ross State University; Alexandra M Hassenflu, Sul Ross State University

5:30 016.146 U Habitat associations and population estimates for the Texas Horned Lizard (Phrynosoma cornutum) in the Texas Panhandle, Sara van der Leek, Wayland Baptist University; Andrew Kasner, Wayland Baptist University

5:45 016.147 Section Meeting, Richard Patrock, TAMUK

Saturday, March 3

017. Past Presidents Breakfast
7:00 to 8:00 am
Jack E. Brown Dining Hall, Foundation Room
Texas Academy of Science Annual Meeting
Past Presidents Breakfast

018. Anthropology Oral Session & Section Meeting
8:00 to 10:00 am
Marie Hall Building, 107
Anthropology
Anthropology Oral Session & Section Meeting
Chair: Robert Zac Selden, Stephen F. Austin State University
Participants:
018.148 G Preliminary analysis of 87Sr/86Sr ratios from organisms on Lanzarote, Canary Islands: Creating a bioavailable baseline for understanding ancient human mobility, Paloma Cuello del Pozo, Texas A&M University College Station

8:15 018.149 Section Meeting, Robert Zac Selden, Stephen F. Austin State University

019. Biomedical Sciences Oral Session & Section Meeting
8:00 to 10:00 am
Marie Hall Building, 105
Biomedical Sciences

Biomedical Sciences Oral Session & Section Meeting

Chair: Joni H Ylostalo, University of Mary Hardin-Baylor

Participants:
8:00 019.150 U Assessment of endocrine disrupting compounds among children through the analysis of Bisphenol A in milk., Angela Marisol Encerrado, student; Wen-Yee Lee, Associate Professor

8:15 019.151 G Associations of obesity and lifestyle factors between children in rural and urban areas in West Texas, Kassandra Hernandez, Sul Ross State University; Chris M Ritzi, Sul Ross State University

8:30 019.152 U Dermatophyte susceptibility to Gentian Violet, Debbie Steiert Brannon, University of Texas of the Permian Basin

8:45 019.153 U Effects of imidacloprid on physiological and neurological functions of the non-target organisms Caenorhabditis elegans and Hyalella azteca., Mayra Levario, St. Edward's University

9:00 019.154 N Persistent organic pollutants (POPs) residues in human milk, Mohamed Hamza EL-Saeid, Prof. Chem @ Environmental Pollution, King Saud Univ.

9:15 019.155 Section Meeting, Joni H Ylostalo, University of Mary Hardin-Baylor

020. Chemistry & Biochemistry Oral Session 3 & Section Meeting
8:00 to 10:00 am
Marie Hall Building, Room 101
Chemistry and Biochemistry

Chemistry & Biochemistry Oral Session 3 & Section Meeting

Chair: Adrian L Zapata, Schreiner University

Participants:
8:00 020.156 N Classic physical chemistry experiments: They ain’t broke but we’re fixin’ ‘em anyway, Alyx S. Frantzen, Stephen F. Austin State University

8:15 020.157 G Evolved-gas analysis of the pre-ignition stage of a fire of invasive plants of East Texas with STA-IR, Antonio David Trevino, Stephen F. Austin State University; Alyx S. Frantzen, Stephen F. Austin State University

8:30 020.158 G Identification of products of redox reacted dialkyl polysulfides, Indika Kasun Warnakula, Mrs.; Marton Kiss, Dr.; Christian Thomas Rios, Mr.; Mariissa Vergara, Miss.; Ramesha D. Gaspe Ralalage, Mrs.; Ashley Christina Whiteman, Miss.; Ilona Petrikovics, Prof.

8:45 020.159 U Optimizing the RSIT value technique for invasive plant species, Sydney Thompson, Stephen F. Austin State University; Alyx S. Frantzen, Stephen F. Austin State University

9:00 020.160 U Prolonging the time of fluorescence for Cy3-alkyne and Cy5-alkyne using ROXS, Mauro A. Garcia, Southwestern University; Ian Oramtes-Orellana, Southwestern University; Lauren Gillespie, Southwestern University; Dr. David Cooper, Southwestern University

9:15 020.161 U Protein corona formation: Investigating the effects of cell culture growth media on nanoparticle size, stability, and net charge, Yeliza Idalys Avila, Sul Ross State University; Denise Perry Simmons, University of North Texas; Mohammad A. Omary, University of North Texas

9:30 020.162 N Students productively using phones: Improving the chemistry classroom through augmented reality, Brian Barngrover, Stephen F. Austin State University

9:45 020.163 Section Meeting, Adrian L Zapata, Schreiner University

021. Marine Science Oral Session & Section Meeting
8:00 to 10:00 am
Marie Hall Building, 202
Marine Science

Marine Science Oral Session & Section Meeting

Chair: Joseph Lawrence Kowalski, The University of Texas Rio Grande Valley

Participants:
8:00 021.164 G Effects of high temperature on ovarian functions and heat shock protein expression in Atlantic Sea Urchin, Jackson Brooks Johnstone, University of Texas Rio Grande Valley; Department of Marine Sciences; Sarah Nash, University of Texas Rio Grande Valley, Department of Marine Sciences; Mario Molino, University of Texas Rio Grande Valley, Department of Marine Sciences; MD Saydur Rahman, University of Texas Rio Grande

8:15 021.165 U Habitat Preference of the Gulf Toadfish Opsanus beta, Claire Adams, St. Edward's University

8:30 021.166 U Prevalence and intensity of Aspergillosis on Gorgonia ventailina and G. flabellum on the Mesoamerican Barrier Reef, Roatán, Honduras, Austin Ryan Biddy, Texas Tech University - Waco

8:45 021.167 Section Meeting, Joseph Lawrence Kowalski, The University of Texas Rio Grande Valley

022. Mathematics & Computer Science Oral Session &
Section Meeting
8:00 to 10:00 am
Marie Hall Building, 203
Mathematics and Computer Science
Mathematics & Computer Science Oral Session & Section Meeting

Chair: Prudence York-Hammons, Temple College
Participants:

8:00 024.185 Richard Patrock
The University of Texas at Austin;
Richard Patrock, TAMUK

8:45 024.184 Patridges, USDA - APHIS;
Richard Shires, University of Sydney

9:15 024.183 Antibacterial effects of organic plant extracts, Marlynn Cadena,
University of Texas at El Paso; Homero Ivan Dominguez, University of Texas at El Paso;
Delfina Dominguez, University of Texas at El Paso; Rachid Skouta, University of Texas at El Paso;
Carlos Valenzuela, University of Texas at El Paso

023. Science Education Oral Session 2 & Section Meeting
8:00 to 10:00 am
Marie Hall Building, 201
Science Education
Science Education Oral Session 2 & Section Meeting

Chair: Stephanie Ann Garcia, The University of Texas at San Antonio
Participants:

8:00 023.171 N Making small open tubular liquid and ion chromatographs for Terra Firma and beyond,
Purnendu K. Dasgupta, UT Arlington

8:15 023.172 G The black and white of dye color and fluorescence: A simple teaching demonstration,
Laura I Saucedo, University of Texas at El Paso; Keith Panell, University of Texas at El Paso

8:30 023.173 G Transforming science education to increase interdisciplinarity and relevancy,
Stephanie Ann Garcia, The University of Texas at San Antonio

8:45 023.174 N The position of nature of science (NOS) in teacher preparation programs in Texas,
Patricia Ramirez, The University of Texas Rio Grande Valley; Jair Aguilar, The University of Texas Rio Grande Valley; Noshin Nouri, The University of Texas Rio Grande Valley

9:00 023.175 N The impact of a 15 hours workshop on Hispanic preservice teachers’ attitudes and beliefs toward teaching science, Jair Aguilar, The University of Texas Rio Grande Valley; Noshin Nouri, The University of Texas Rio Grande Valley; Patricia Ramirez, The University of Texas Rio Grande Valley

9:15 023.176 Section Meeting, Stephanie Ann Garcia,
The University of Texas at San Antonio

024. Terrestrial Ecology & Management Oral Session 2 & Section Meeting
8:00 to 10:00 am
Marie Hall Building, 203
Terrestrial Ecology and Management
Terrestrial Ecology & Management Oral Session 2 & Section Meeting

Chair: Richard Patrock, TAMUK
Participants:

8:00 024.177 U How citizen science augments our understanding of Texas amphibian natural history,
Julianne Dewar, The University of Texas at Austin; Travis J LaDuc, University of Texas at Austin

8:15 024.178 G Insect pollinator diversity and other associates of Salt Cedar (Tamarix sp) along the Rio Grande in Presidio County, Texas, Alexandra M Hassenflu, Sul Ross State University; Chris M Ritzi, Sul Ross State University

8:30 024.179 U Post-Burn analysis of insect diversity at the Chihuahuan Desert Research Institute, Jeff Davis County, Texas, Katherine Marie Lee Mancha, Sul Ross State University; Chris M Ritzi, Sul Ross State University

9:00 024.180 G Preliminary analysis of habitat use of sympatric rattlesnakes in West Texas, Jaimie Michelle Lawhorn, Sul Ross State University; Sean Graham, Sul Ross State University

9:45 024.181 N Ticks on toads: first report of exotic ticks (Amblyomma rotundatum) parasitizing invasive cane toads (Rhinella marina) in Hawaii, Crystal Keleheau, Sul Ross State University; Cameron Hudson, University of Sydney; James Mertins, USDA - APHIS; Richard Shire, University of Sydney

10:00 am to 12:00 pm
Marie Hall Building, Corridor B

Biomedical Sciences
Biomedical Sciences Poster Session

025. Poster Presentation and Judging for: Biomedical; Cell & Molecular Biology; Chemistry & Biochemistry; Marine Science; Systematics & Evolutionary Biology.

025.183 U A hybrid regulator in the TetR family with predictable properties in DNA-binding and allostERIC response, Ben Jordan, University of Texas at Tyler; Rey Preston Dimas, UT Tyler; Clement Chan, University of Texas at Tyler

025.184 U Antibacterial effects of organic plant extracts, Marlynn Cadena, University of Texas at El Paso; Homero Ivan Dominguez, University of Texas at El Paso; Delfina Dominguez, University of Texas at El Paso; Rachid Skouta, University of Texas at El Paso; Carlos Valenzuela, University of Texas at El Paso

025.185 U Counteracting the negative effects of Imidacloprid using autophagy-inducing mechanisms, Astrid Romero, St. Edwards University; Garrett Tauras, School of natural sciences
025.186 U Cytokine profiling of pre-clinical and clinical cancer studies, Valerie Gallegos, University of Texas at El Paso; Armando Estrada, Post Doctoral Fellow at University of Texas at El Paso; Valeria Rolih, Graduate student; Paloma Valenzuela, Graduate student at University of Texas at El Paso; Karla Parra, Graduate student at University of Texas at El Paso; Georgialina Rodriguez, -; Marian Manciu, -; Giulio Francia, University of Texas at El Paso; Robert Kirken, -

025.187 U Heat's role as a mechanism of dynamic stretching, Matthew Boineau, Concordia University Texas; Rachel Boice, Concordia University Texas; Cory Smith, Concordia University Texas; Mary Kay Johnston, Concordia University Texas

025.188 U Reducing some physiological stress effects by exercising, Caleb Austin Maddox, Concordia University Texas; Mary Kay Johnston, Concordia University Texas

025.189 U The discovery of novel inhibitors for K. pneumoniae Carbapenemase (KPC-2) using high-throughput virtual screening, tu nhat nguyen, university of texas; Josh Beckham, Research Educator

025.190 U Therapeutic organotin compounds against Leishmania major and Trypanosoma cruzi, Itzel Amacalli Tejeda, University of Texas at El Paso; Rosa Maldonado, University of Texas at El Paso; Keith Pannell, University of Texas at El Paso

025.191 U Toxicity of virus like particles in Danio rerio., Olivia Gean Brandenburg, University of Texas at Tyler; Bridget A. Fitzgerald, University of Texas at Tyler; Brent R Bill, University of Texas at Tyler

025.192 U Virtual Screening for novel inhibitors of Plasmodium vivax 6-phosphogluconate dehydrogenase, Geovanny Antonio Zarceno, 1997; Josh Beckham, Research Educator; Walter Fast, Principal Investigator

Cell and Molecular Biology

Cell & Molecular Biology Poster session

Participants:

025.193 U Altered maintenance of hematopoietic cells by hydroquinone-treated S17 stromal cells, Joyce Nawara, Texas Lutheran University; Stephanie Perez, Texas Lutheran University

025.194 G Antimicrobial properties of moderate halophiles isolated from soil surrounding a hypersaline lake, Eduardo de la Garza, University of Texas Rio Grande Valley

025.195 U Characterization of cancer hallmarks in PA28γ-/- cancer clones and A9 tumor cells, Estefany Zambrano, Austin College; Bethany Bundrant, Austin College; Lance Barton, Austin College

025.196 U Cytotoxicity of Cinnamomum verum (Cinnamon) and Salvia officinalis (Sage) in 4T1 Murine breast cancer cells., Makayla Nicholson, Wayland Baptist University; Alana Quackenbush, Wayland Baptist University; Ethan Nicholson, Wayland Baptist University; Adam Reinhart, Wayland Baptist University; Robert L Moore, Wayland Baptist University; Gary O. Gray, Wayland Baptist University

025.197 U Detection of mutations in the sodium channel of Rhipicephalus microplus using High Resolution Melting Analysis, Ariel Delgado, University of Texas Rio Grande Valley; Guilherme Klafke, USDA-ARS Cattle Fever Tick Research Laboratory; Jason Tidwell, USDA ARS Cattle Fever Tick Research Facility; Robert John Miller, USDA-ARS Cattle Fever Tick Research Laboratory; Adalberto Perez De Leon, U.S. Department of Agriculture

025.198 U Evaluation of the breast epithelial cell line EpH4-Ev as a non-tumorigenic control to the 4T1 tumorigenic breast cancer cell line, Alana Quackenbush, Wayland Baptist University; Makayla Nicholson, Wayland Baptist University; Gary O. Gray, Wayland Baptist University; Adam Reinhart, Wayland Baptist University

025.199 U Identifying potential Bacillus thuringiensis candidates to control Aethina tumida., Gilberto Vento, University of Texas Rio Grande Valley

025.200 U Investigating the effects of p53 mutations on cancer phenotypes in transformed MEF cells, Janani Ramesh, Austin College; Emily Bourcier, Austin College

025.201 U Investigating the role of PA28γ in NFκB-mediated inflammatory and cancer responses, Hannah Butterfield, Austin College; Trung Nguyen, Austin College; Emma Thornburg, Austin College; Brian Nguyen, Austin College

025.202 U Pyruvate dehydrogenase complex related genes are differentially expressed between neonatal and adult cardiomyocytes, Emily L Ensley, University of Mary Hardin-Baylor; Jori H Ylostalo, University of Mary Hardin-Baylor

025.203 U Regulatory mechanisms dictating the activity of post-translational modification systems in mammalian cells, Carlos Oscar Ontiveros, The University of Texas at El Paso; Arely Diaz, The University of Texas at El Paso; Germán Rosas-Acosta, The University of Texas at El Paso

025.204 U Seasonal variation of the Honey Bee honey stomach microbiome, A H M Zuberi Ashraf, Student; Laura Weiser Erlandson, Texas A&M University - Central Texas; Allyson K Martinez, TAMU

025.205 U Tumor growth monitoring of orthotopic colon cancer model, Jose Lopez, University of Texas at El Paso; Giulio Francia, University of Texas at El Paso

025.206 U Using colocalization studies to explore potential interactions between the Drosophila proteins Kinesin, Dynactin and Eip63E, Kaitlin Beettner, Schreiner University; Kara Miller, Schreiner
Participants:


025.208 U Annual reproductive cycle of Atlantic Sea Urchin in the Southern Gulf of Mexico, Eleazar Hernandez, University of Texas at Rio Grande Valley; Omar Vasquez, University of Texas at Rio Grande Valley; Andre Torruco, University of Texas at Rio Grande Valley; MD Saydur Rahman, University of Texas Rio Grande Valley

025.209 N Association of Boring Organisms with Dark Spot Syndrome in Roatan, Honduras, Jennifer Novak, McLennan Community College - T.I.D.E.S Lab

025.210 H Community primary productivity patterns along a salinity gradient in the Lower Laguna Madre of Texas, Nicholas VanHee, The International Baccalaureate Program at Lamar Academy; Alejandro Vasquez, International Baccalaureate Program at Lamar Academy; Paulina Ocadiz, International Baccalaureate Program at Lamar Academy; Paulina Sanchez, The International Baccalaureate Program at Lamar Academy; Alejandro Vasquez, International Baccalaureate Program at Lamar Academy; Nicholas VanHee, The International Baccalaureate Program at Lamar Academy; Jessica Ayala, The International Baccalaureate Program at Lamar Academy; Alison McClellan, The International Baccalaureate Program at Lamar Academy; Hudson DeYoe, The University of Texas Rio Grande Valley; Joseph Lawrence Kowalski, The University of Texas Rio Grande Valley

025.211 U Comparison of analyses of ocean marine nutrients using commercial aquarium kits vs. established literature protocols, Micah Nathaniel Bigby, Midland College

025.212 U Dermo presence in Lower Laguna Madre Oysters, Daniel Gonzalez, University of Texas Rio Grande Valley

025.213 U Development of a submersible sensor system for in-situ water quality measurements, Nicholas David Mastroianna, Midland College; Jeremy Lusk, Midland College; Greg Larson, Midland College; Brian Steven Flowers, Midland College

025.214 H Faunal diversity along a salinity gradient, Lower Laguna Madre, Texas, Jessica Ayala, The International Baccalaureate Program at Lamar Academy; Alison McClellan, The International Baccalaureate Program at Lamar Academy; Alejandro Vasquez, International Baccalaureate Program at Lamar Academy; Nicholas VanHee, The International Baccalaureate Program at Lamar Academy; Paulina Ocadiz, International Baccalaureate Program at Lamar Academy; Paulina Sanchez, The International Baccalaureate Program at Lamar Academy; Hudson DeYoe, The University of Texas Rio Grande Valley; Joseph Lawrence Kowalski, The University of Texas Rio Grande Valley

025.215 U Fish assemblages on the Mesoamerican Barrier Reef in Roatán, Honduras, Scheila Rene Corujo, Texas Tech University

025.216 U Gut content analysis of the Gulf Toadfish Opsanus beta, Claire Adams, St. Edward’s University

025.217 U Methodological comparison of the Line Transect and the Randell-Robertson Marine Survey technique, Brooke Allison, McLennan Community College TIDES Lab

025.218 U Preference of Ctenogobius boleosoma on habitats with and without sea grasses, Roberto Cesar Robles, Saint Edwards University

025.219 U Sea Fun Abundance and Frequency of Millepora alcicornis on the Mesoamerican Barrier Reef in Roatán Honduras, Shirley Rose Stewart, McLennan Community College

025.220 H Water quality of the tidal Arroyo Colorado of Texas along a salinity gradient., Paulina Ocadiz, International Baccalaureate Program at Lamar Academy; Paulina Sanchez, The International Baccalaureate Program at Lamar Academy; Jessica Ayala, The International Baccalaureate Program at Lamar Academy; Alison McClellan, The International Baccalaureate Program at Lamar Academy; Alejandro Vasquez, International Baccalaureate Program at Lamar Academy; Nicholas VanHee, The International Baccalaureate Program at Lamar Academy; Hudson DeYoe, The University of Texas Rio Grande Valley; Joseph Lawrence Kowalski, The University of Texas Rio Grande Valley

Systematics and Evolutionary Biology

025.221 N Development of new nuclear markers for phylogeny reconstruction in Thomasomys (Rodentia: Cricetidae), Joshua M. Brokaw, Abilene Christian University; Hannah Seeh, Abilene Christian University; John P Placide, Abilene Christian University; Meagan R. Benson, Abilene Christian University; Jonathan G. Jasper, Abilene Christian University

025.222 U Examination of Virgin/Non-Virgin Gambusia affinis mating latency in a crossed experiment., Samuel Kenyon, St Edward’s University; Raelynn Deaton Haynes, St. Edward’s University

025.223 U Morphological and behavioral predictors of male dominance in Gambusia affinis, Ciara Crochet, St Edward’s University; Dylan J. Wichman, St. Edward’s University; Raelynn Deaton Haynes, St. Edward’s University

025.224 U Preliminary insect biodiversity survey of Rolling N LLP properties, Runnels County, Texas,
Participants:

Chemistry and Biochemistry
Chemistry & Biochemistry Poster Session

025.225 U Quantifying Wolbachia infection rates in Monarch and Queen Butterflies, Kendall Wermine, Abilene Christian University; Christian Williams, Abilene Christian University; Rebecca - Hunter, Abilene Christian University

025.226 U Analysis of mineral ion content of potable water from the natural springs of manitou springs, Colorado using inductively coupled plasma-mass spectroscopy, Gilberto Gonzalez, University of The Incarnate Word; Abraham A. Williams, University of The Incarnate Word; Jason Gerding, University of The Incarnate Word; Alakananda R. Chaudhuri, University of The Incarnate Word; Edward E. Gonzalez, University of The Incarnate Word

025.227 U A new silicon-metal complex that reveals unknown phosphine-metal chemistry, Deidrah Carrillo, University of Texas at El Paso; Renzo Arias, University of Texas at El Paso; Alejandro Metta-Magaña, The University of Texas at El Paso; Hemant K. Sharma, The University of Texas at El Paso; Keith Pannell, University of Texas at El Paso

025.228 U Beta-2-microglobulin mutations, Mikayla Rose Gascich, Austin College

025.229 U Characterization of Texas home distilled alcohol using gas chromatography and flame atomic absorption spectroscopy, Link Pham, Texas A&M University - Central Texas; Randy Alan Stoneroad II, Texas A&M Central Texas; John Grady Barber, Texas A&M University Central Texas; Coady Lapierre, Texas A&M University - Central Texas

025.230 U Chemical signaling in the phycosphere: Growth response of Chromists to bacterial signals and Phytohormones, Daniela Hirsch, University of the Incarnate Word; BD Leverett, University of the Incarnate Word

025.231 U Construction of peptide-based molecular building blocks for the controlled assembly of nanomaterials, Jessica Bird, University of Texas at Tyler; Dustin Patterson, The University of Texas at Tyler; Sean C Butler, The University of Texas at Tyler

025.232 U Design of laboratory experiences in material science for cooperative project-based experimentation in General Chemistry, Corbin McCleary, Sam Houston State University; Adrian Villalta-Cerdas, Sam Houston State University

025.233 U Difference of tRNA gene distribution between three low-GC bacteria, Gracia Sebastiao, Wayland Baptist University; Robert L. Moore, Wayland Baptist University

025.234 U Effect of Trichoderma viride volatile organic compounds on growth inhibition and protein synthesis in Neolentinus luteideus, Elizabeth Nguyen, St. Edward's University; Mary A. Kopecki-Fjelalnd, Ph.D, St. Edward's University

025.235 G Extraction and antimicrobial activity in three classes of microalgae, Patrick Matulich, University of the Incarnate Word; BD Leverett, University of the Incarnate Word

025.236 U Gold (I) Catalyzed Synthesis of 1H-Isochromenes, Saarah Cantu, Southwestern University

025.237 U Green synthesis of a cross-linked polymerized hydrogel containing NDHGA-capped gold nanoparticles, Elizabeth O Rugutt, University of Texas of the Permian Basin; Milka O Montes, University of Texas Permian Basin

025.238 G Hydrogenation of CO2 using bifunctional transition metal catalysts containing hydride-relay ligands, Nilakshi Devi, Ms.; Christopher M Zall, Dr.

025.239 U Investigation of acetylation of β-2 microglobulin to trigger misfolding, Robbie Moore, Austin College

025.240 U Isolation of visible and fluorescent dyes from red cabbage for new applications, Eric Yang, Member of the Texas Academy of Science; Thomas Edward Ready, Midland College

025.241 G Lanthanide and actinide extractions using di(p-tert-butylphosphanyl)-(N,N-di-(isobutyl)carbamoylmethylphosphine oxide substituted acetic acid, Raul Alejandro Cuevas, Student; Keith Pannell, University of Texas at El Paso

025.242 U Modifying the HK97 virus-Like particle as a cargo delivery and protection system, Michael King, University of Texas at Tyler; Dustin Patterson, The University of Texas at Tyler

025.243 U Phenolic composition and essential oil contents of 23 basil (Ocimum basilicum L.) cultivars, Melanie S. Aing, Southwestern University; Eunice M. Bajomo, Southwestern University; Lucas S. Ford, Southwestern University; Emily Niemeyer, Southwestern University

025.244 U Photolytic cleavage of N-acyl-7-nitroindolines on nanoparticles and in metal organic frameworks, Karen Liliana Castaneda, University of Texas El Paso

025.245 U Preventing photobleaching in Cy5-alkyne systems, Ian Orantes-Orellana, Southwestern University; Dr. David Cooper, Southwestern University; Mauro A. Garcia, Southwestern University; Lauren Gillespie, Southwestern University

025.246 U Sequential encapsulation of enzymes within the P22 virus-like particles indicates maturation of an enzyme is important to obtaining optimal kinetic activity, Christy Hjorth, The
University of Texas at Tyler; Dustin Patterson, The University of Texas at Tyler

025.247 U Study of the effects of titanium dioxide nanoparticles in the nitrogen cycle of Favites Pentagona Coral environment, Melissa Wood, University of Texas of the Permian Basin; Milka O Montes, University of Texas Permian Basin

025.248 U Synthesis of 1,4-Diketones with Low-Valent Titanium Species, Nathan Le, Southwestern University

025.249 U Synthesis of small organic molecule for near-infrared lasers, Payton J Nelson, Schreiner University

025.250 U The reduction of gold nanoparticle formation by Lactobacillus acidophilus, Ezequiel Paz, University of Texas of the Permian Basin; Milka O Montes, University of Texas Permian Basin

025.251 U Using local GC percentage to detect unusual regions in bacterial genomes, Sharon Leigh Ann DeMerritt, Wayland Baptist University; Gracia Sebastiao, Wayland Baptist University; Robert L Moore, Wayland Baptist University

025.252 U Viability of API testing kit for ammonium measurement, Sonal V Jha, University of Texas Rio Grande Valley

025.253 U Virtual screening for novel inhibitors of Trypanosoma cruzi 6-phosphogluconate dehydrogenase, Kaan Kumru, University of Texas at Austin

026. Lunch
12:00 to 1:30 pm
Carrasco Building, Lunch Room
Texas Academy of Science Annual Meeting
Lunch

027. Graduate Competition Oral Session 1
1:30 to 3:00 pm
Carrasco Building, Lecture Room
Graduate Student Paper Competition
Graduate Competition Oral Session 1
Participants:

1:30 027.254 G Evaluating suitable habitat of invasive tilapia and forecasting hotspots for potential impacts on imperiled fishes of Texas, Elizabeth L Roesler, Texas Tech University; Monica McGarry, Texas Parks and Wildlife Department; Matthew A Barnes, Texas Tech University

1:45 027.255 G Post-op bleeding in a patient with noonan syndrome and factor XIII deficiency: a case study, Tyler Jay Homewood, UNTHSC/TCOM

2:00 027.256 G Role of time in K9 narcotic training aids: Perspectives on working dog performance, Lauren Alejandro, Graduate Student; Paola Prada, TTU Research professor PhD.

2:15 027.257 G An implantable flow monitor for hydrocephalus, Chuchu Qin, University of Texas at Arlington; Purnendu K. Dasgupta, UT Arlington

2:30 027.258 G Triethylsiloxyethyl-N,N-dimethylamine as a Mannich reagent: The varied chemistry with anilines, Anwar Jacintomoreno, The University of Texas at El Paso; Alejandro Metta-Magaña, The University of Texas at El Paso; Hemant K. Sharma, The University of Texas at El Paso; Keith Pannell, University of Texas at El Paso

028. Graduate Competition Oral Session 2
3:00 to 3:45 pm
Carrasco Building, Lecture Room
Graduate Student Paper Competition
Graduate Competition Oral Session 2
Participants:

3:00 028.259 G Detecting presence or absence of alternative splicing at the superkdr locus in horn fly, Haematobia irritans, Gabriela Solis, Texas State University

3:15 028.260 G Laser-Enhanced sustained attention and working memory in neurocognitive disorder, Celeste L. Saucedo, University of Texas at Austin; Courtney Alexander, University of Texas at Austin; Douglas W. Barrett, The University of Texas at Austin; F. Gonzalez-Lima, The University of Texas at Austin

3:30 028.261 G Specimen dates and species longevity: an evaluation of temporal range data for questions of ancestry in the hominin fossil record, Timothy Lee Campbell, Department of Anthropology, Texas A&M University; Chris A. Robinson, Department of Biological Sciences, Bronx Community College; Susanne Cote, Department of Anthropology and Archaeology, University of Calgary; Darryl J. de Ruiter, Department of Anthropology, Texas A&M University

3:45 028.262 G Synthesis of biodiesel fuels via transesterification using acorn (Quercus sp.) as an alternative triglyceride source, Darean Bague, Stephen F. Austin State University; Russell J Franks, Ph.D., Stephen F. Austin State University

4:00 028.263 G The taxonomic and anatomical diversification of mosasaurs during the Late Cretaceous: a study system for understanding evolution in a greenhouse world, Joshua Ryan Lively, The University of Texas at Austin

029. Section Chairs Post Session Meeting
3:00 to 3:45 pm
Marie Hall Building, Room 101
Texas Academy of Science Annual Meeting
Section Chairs Post Session Meeting

030. TAS Business Meeting
3:45 to 4:00 pm
Carrasco Building, Lecture Room
Texas Academy of Science Annual Meeting
TAS Business Meeting

**031. Texas Outstanding Educator Award and Lecture**
4:00 to 4:35 pm  
*Carrasco Building, Lecture Room*  
Texas Academy of Science Annual Meeting  
Texas Outstanding Educator Award and Lecture

**032. Distinguished Texas Scientist Award and Lecture**
4:35 to 5:10 pm  
*Carrasco Building, Lecture Room*  
Texas Academy of Science Annual Meeting  
Distinguished Texas Scientist Award and Lecture

**033. Reception**  
6:30 to 7:15 pm  
*CAF Airpower Museum, Hanger*  
Texas Academy of Science Annual Meeting  
Reception

**034. Awards Banquet**  
7:15 to 9:30 pm  
*CAF Airpower Museum, Hanger*  
Texas Academy of Science Annual Meeting  
Awards Banquet