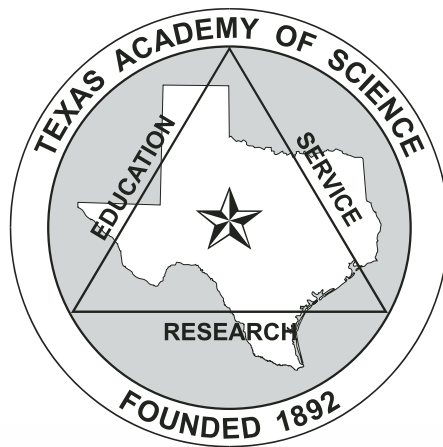


PRESENTATION OVERVIEW

108th Annual Meeting of the Texas Academy of Science



March 3-5, 2005

University of Texas – Pan American
Edinburg, Texas

TEXAS
PARKS &
WILDLIFE

Friday Morning, March 4

Time	BIOLOGICAL SCIENCES Session I SCIE 1.288	BIOLOGICAL SCIENCES Session II SCIE 2.288	BOTANY Session I SCIE 2.106	CHEMISTRY Session I ENGR 1.236	COMPUTER SCIENCE Session I ENGR 1.274	CONSERVATION Session I SCIE 2.102
8:20	A COMPARISON STUDY OF THE ANTICOAGULATION FACTORS Gonzalo Lopez*	DETECTING ANTHRACYCLINE INDUCED RECOMBINATION Jafa Armagost*	DEMOGRAPHIC CHARACTERISTICS OF <i>QUERCUS GAMBELII</i> K.A. Ryniker*	'DE NOVO' PROTEIN SEQUENCING Mario Gomez*		ASSESSING THE STATUS OF <i>PSEUDEMYSS GORZUGI</i> Lindley Bailey*
8:40	A LOOK AT FEMALE COLORATION AND PARASITISM IN SPINY LIZARD Rebecca Calisi	DEVELOPMENT OF LAND-COVER MAPS FOR MAJOR ROW CROPS Daniel Salazar*	SURVEYS OF THE INVASIVE PLANTS OF THE LOWER RIO GRANDE Chetta Owens*	A CORRECTED VALUE FOR THE CEC OF THE STANDARD CLAY SCA-3 Alyx S. Frantzen		COMPARISON BETWEEN MORNING AND EVENING CENSUS COUNTS Colt Westbrook*
9:00	A REVIEW OF THE EFFECTS OF RADIATION ON <i>S. CEREVISIAE</i> Aasim Grinnage*	ACTIVITIES OF <i>CROTALUS SCUTULATUS SCUTULATUS</i> Elda E. Sánchez*	A FLORAL SURVEY OF CHIHUAHUAN DESERT Karen D. Killion*	SYNTHESIS AND CHARACTERIZATION OF NOVEL SURFACTANTS Jason Bragdon*		COMPARISON OF BUTTERFLY COMMUNITIES Daphne McCann
9:20	A TEMPERATURE STUDY ON GREGARINE PARASITES OF COCKROACHES Autumn J. Smith*	EXPLORING TEMPORAL AND SPATIAL BIAS IN MUSEUM COLLECTIONS Christopher J. Bell*	VEGETATION AND MICROTOPOGRAPHY Mathew Kinuthia*	A NOVEL SYNTHESIS OF (Z)-1-TRIMETHYLGGERMYL-1-ALKENES. Vanessa Perez*		CONTRIBUCIÓN AL CONOCIMIENTO DE LA AVIFAUNA DE LA PALMA Julio César
9:40	ANALYSIS OF MICROBIAL DIVERSITY IN OIL-CONTAMINATED SITES Alexander Fedotov*	GENE DOSAGE EFFECTS IN SODIUM CHANNELS Robina Lozano*	SYSTEMATIC ANATOMY OF THE LEAFY STAPELIAD David Lemke*	ANALYSIS OF ARSENIC AND OTHER TRACE METALS D'Vesharronne Moore*		EFFECT OF GRAZING ON RESTORATION Javier Jiménez*
10:00	Break – ENGR Lobby					
10:30	ANALYSIS OF THE DROSOPHILA KCNKG GENE Alexandra Piña*	GENETIC DIVERSITY OF SPIDERS Donna Hamilton*	COMPARISONS OF THE UNDERSTORY VEGETATION E. Wayne	CARBON-CARBON BOND FORMATION Bimal K. Banik*	MINIMUM SURJECTIVE COVER OF A BIPARTITE GRAPH John Miller*	EVALUACIÓN DE LAS COMUNIDADES DE MAMÍFEROS Yerena-Yamallel*
10:50	CARBONIC ANHYDRASE IN DECAPOD CUTICLES Francis R. Horne	GRAPEFRUIT INCREASES ANTIOXIDANT CAPACITY Erica Lopez*	APPLICATION OF TREE-RING ANALYSIS Herbert Grover*	MICROFLUIDIC DEVICES Kevin McDaniel*	PRIORITY QUEUING STRUCTURE Andrew Cabezas*	FACTORS AFFECTING AVIAN COMMUNITITES Heather Romine*
11:10	EXAMINATION OF ANTI-PATHOGENIC PROPERTIES IN BRYOPHYTES Rob McKenna*	HELMINTH PARASITE ASSEMBLAGES IN BULLFROGS H. Randall Yoder*	PRELIMINARY SURVEY OF HELICONIAS Katrina Carter	DIFFUSION OF CHLORINATED ALKANES Lee D. Cremer*	COMPARISON OF DATA COMPRESSION ALGORITHMS Austin Ledbetter*	FACTORS AFFECTING HABITAT USE BY MULE DEER Alejandro Cavazos*
11:30	CONSTRUCTION OF A GENETIC LIBRARY OF 16S RDNA AND COI GENES McKee Kristi*	HOME RANGE AND DEN ECOLOGY OF STRIPED SKUNKS Joshua Coffey*	PLANTAS ÚTILES DEL PARQUE NACIONAL CUMBRES DE MONTERREY Eduardo Estrada	ELECTRON TRANSFER VIA A SAMARIUM/N-BROMOSUCCINIMIDE REACTION Nacer Aounallah*	FINANCIAL STATEMENTS INVESTIGATION Christopher Cahill*	HISTORICAL CHANGES IN THE FISH POPULATIONS Gary Garrett*
11:50	Sectional Business Meeting					
12:00	Lunch – UTPA Field House					
1:15	TAS Business Meeting – ENGR 1.300					
1:45	Distinguished Scientist Lecture –ENGR 1.300					

Friday Morning, March 4

Time	ENVIRONMENTAL SCIENCE Session I SCIE 2.104	FRESHWATER AND MARINE SCIENCE Session I SCIE 2.108	GEOLOGY AND GEOGRAPHY Session I ENGR 1.250	MATHEMATICS Session I ENGR 1.262	SCIENCE EDUCATION Session I ENGR 1.242	TERRESTRIAL ECOLOGY AND MANAGEMENT Session I ENGR 1.268
8:20		AN ASSESSMENT OF SELECTED TEXAS SPRINGS Chad Norris*			DESIGN AND IMPLEMENTATION OF A DISCOVERY LEARNING LAB Jimmy Hand*	OCELOTS ON THE EL JARDÍN Mitchell Sternberg
8:40	A COMPARISON OF TOPOGRAPHIC CHANGE Kenneth Summy*	ARE SOME POPULATIONS OF BLACK DRUM ANADROMOUS M. Andres Soto*			GEOLOGIC STUDY ABROAD Volker Gobel	NOTES ON THE BIOLOGY OF <i>MICROSELIA TEXANA</i> Richard Patrock
9:00	IDENTIFICATION AND QUANTIFICATION OF VOCs Gabriel.A.Kristanto*	BASKING ECOLOGY AND COMMUNITY STRUCTURE OF TURTLES Shannon Hill*	UNDERGRADUATES MAP STRUCTURES Joe Satterfield*	CHARACTERIZATION OF COMPACT SPACES Hueytzen Wu*	INTERACTIVE ENVIRONMENTAL EDUCATION Deborah Mann*	PHOTOSYNTHETIC RESPONSES OF DESERT PLANTS Lisa Patrick*
9:20	CENIZO LIKE BIO-INDICATOR OF ATMOSPHERIC CONTAMINATION Marisol Sosa*	BENTHIC MACROINVERTEBRATE COLONIZATION David Levine*	ADDITIONS TO THE PLIOCENE AND PLEISTOCENE FAUNA Jon Baskin*	A KAWAGUCHI PROCESS FOR PRODUCING BINOMIAL COEFFICIENT P. S. Morey	PHYSICS FIRST Cindy Nyland*	UTILIZATION OF MOSQUITO SURVEILLANCE TO IDENTIFY HABITAT TRENDS Michelle Rapier
9:40	DOES AQUATIC INVERTEBRATE FAMILY RICHNESS VARY Laura Gallant	CIGUATERA FISH POISONING Tracy Villareal*			Sectional Business Meeting	WILDLIFE MONITORING OF REPLANTED AND MATURE BRUSHLANDS Mitchell Sternberg
10:00	Break – ENGR Lobby					
10:30	GEOLOGIC CONTROL OF STREAM WATER COMPOSITION Mindy Shaw*	<i>CORBICULA FLUMINEA</i> DISTRIBUTION IN TEXAS Karatayev	THE GIANT GREAT WHITE SHARK <i>CARCHARODON MEGALODON</i> James Westgate*			ABOVEGROUND NET PRIMARY PRODUCTIVITY IN BIG BEND NATIONAL PARK Traesha Robertson
10:50	GIS AND GEOPHYSICAL ANALYSIS OF SEDIMENTATION Neble*	DENSITY AND GROWTH RATE OF FRESHWATER MUSSELS Lyubov Burlakova*	CREEPY TOMBSTONES LaRell Nielson*	ANALYZING INTERNET TRAFFIC DATA Cheng Chen*	Outstanding Texas Educator – ENGR 1.300	VERTEBRATE PREDATOR INFLUENCES ON PITFALL SURVEY Adam Ferguson*
11:10	TOXICITY OF SELECTIVE INHIBITORS Temidayo Fadelu	DIEL DRIFT PATTERNS OF MACROINVERTEBRATES David Pendergrass*	NUTRIENT EXCHANGE IN A FIRST-ORDER STREAM Margaret Neill*	MATHEMATICAL RESEARCH AND MENTORING Miguel Paredes		APPROACH TO ASSESSING ECOLOGICAL HEALTH Raúl Garza-Cuevas*
11:30		DO FISH ADVISORIES ACCURATELY CONVEY RISK? Matthew Chumchal*		SUBTRACTION-A COMPLETE CHARACTERIZATION OF ABELIAN GROUPS David Cecil		EFFECT OF LOG ABUNDANCE ON HABITAT USE Travis Hinkelman*
11:50	Sectional Business Meeting					
12:00	Lunch – UTPA Field House					
1:15	TAS Business Meeting – ENGR 1.300					
1:45	Distinguished Scientist Lecture –ENGR 1.300					

Friday Afternoon, March 4

Time	BIOLOGICAL SCIENCES Session III SCIE 1.288	BIOLOGICAL SCIENCES Session IV SCIE 2.288	BOTANY Session II SCIE 2.106	CHEMISTRY Session II ENGR 1.236	COMPUTER SCIENCE Session II ENGR 1.274	CONSERVATION Session II SCIE 2.102
2:40	IDENTIFICATION OF FLY KCNQ-BINDING PROTEINS	MUTATIONAL ANALYSIS OF THE FLY KCR1 POTASSIUM CHANNEL MODULATOR Deborah N. Ponce*	PHENOLOGY AND DEMOGRAPHY OF WINTER GRAPE FERN Michelle Roberts*	ENVIRONMENTAL CLEANUP TECHNOLOGY IN SOUTH TEXAS Craig A. Bowe	HOLLERISTICS Wesley Holler	PHYLOGENETIC RECONSTRUCTION AND GENETIC CONSERVATION OF <i>HELODERMA HORRIDUM</i> Angela Rainer*
3:00	IDENTIFYING DISINTEGRIN GENES FROM <i>CROTALUS</i> Steven R. Reyes*	ACTIVITIES OF DUVERNOY'S GLAND SECRETION Luis M. Salgueiro*	THE EFFECT OF ELEVATION ON PHOTOSYNTHETIC RATES IN <i>POPULUS TREMULOIDES</i> Jason G. Alvarez*	FREE SOLUTION CAPILLARY ELECTROPHORESIS OF LEPTIN TRYPTIC DIGESTS August Blackburn*	SENSITIVITY ANALYSIS OF POMDP PROBLEMS Andrew Staltman*	POSSIBLE BREEDING RANGE EXTENSIONS OF BIRDS Timothy Brush*
3:20	IMPACT OF COLOR MORPHOLOGY ON <i>COLUMBIA LIVIA</i> SEXUAL ATTRACTION Jessica Mauricio*	OXIDATIVE STRESS AFFECTS LATE, BUT NOT EARLY, EMBRYOGENESIS Zen Faulkes*	THE EFFECT OF RADIANT ENERGY LEVELS ON PHOTOSYNTHESIS Tiffany Dean*	HOMOLOGY MODEL OF MALIC ENZYME OF <i>C. ELEGANS</i> Felix R. Chavez*	SIMULATING MULTICAST ROUTING Nick Havens*	PRELIMINARY RESULTS FROM TEXAS AMPHIBIAN WATCH Lee Ann Johnson
3:40	IMPACT OF OXIDATIVE STRESS ON MACROPHAGE CYTOKINE PRODUCTION Craig Whitaker*	PURIFICATION OF DISINTEGRINS FROM CRUDE <i>CROTALUS HORRIDUS HORRIDUS</i> VENOM Jacob Galan*	THE EFFECT OF RADIANT ENERGY LEVEL ON PHOTOSYNTHETIC RATES IN <i>POPULUS TREMULOIDES</i> Jason R. Caballero*	INHIBITION OF MALIC ENZYME FROM <i>ASCARIS SUUM</i> Elizabeth L. Richter	STATIC PRIORITIES, CONTENTION, AND DOMINANCE IN PERIODIC REAL-TIME SCHEDULING Donald A. Varvel*	PRIORIDADES DE INVESTIGACIÓN PARA LA CONSERVACIÓN DEL GÉNERO <i>GOPHERUS</i> Salas-Westphal
4:00	ISOLATION AND CHARACTERIZATION OF A DISINTEGRIN Rene Palomar*	REGULATION OF THE <i>DROSOPHILA</i> KCNQ POTASSIUM CHANNEL GENE Octaviano J. Beltran*	THE EFFECTS OF VARYING NUTRIENT TYPES ON GROWTH OF <i>H. PARADOXUS</i> Andrea Anderson*	LEAD CONTAMINATION IN MEXICAN CANDIES David Mauk*	DEVELOPING A COMPOSITE DIAGNOSTIC INDEX John A. Ward*	RESPUESTAS DE LA COMUNIDAD DE AVES RESIDENTES AL USO DEL AIREADOR Feliciano Pineda*
4:20	ISOLATION OF GENOMIC DNA FROM THE CLAM Seshu Inkollu*	THE BIRDS COMMUNITY OF A <i>JUNIPERUS</i> FOREST Ballesteros-Medrano*	DETECTION AND CHARACTERIZATION OF THE AA-NAT GENE Jennifer Lee Herrell*	LINKING HYDRATION TO CATION EXCHANGE CAPACITY OF CLAYS Jason H. Cole*		SUMMER HABITAT USE BY WATERBIRDS Andrew C. Kasner*
4:40	MINIDISC RECORDERS VERSUS AUDIOCASSETTE RECORDERS David E. Gammon*	THE EFFECT OF RELATEDNESS ON SPATIAL DISTRIBUTION Stephanie Alley*	HYBRIDIZATION BETWEEN WESTERN AND UTAH JUNIPER Randall Terry	THE USE OF L-CYSTEINE CLAY TO SEPARATE A RACEMIC MIXTURE Katie A. Clark*		WATER QUALITY IMPAIRMENT BY AVIAN CONTRIBUTED NUTRIENTS Lockwood B. Cox*
5:00	MOLECULAR IDENTIFICATION OF ARBUSCULAR MYCORRHIZAL FUNGI Kevin Stroup*	TRANSCRIPTIONAL REGULATION OF THE <i>DROSOPHILA</i> ERG POTASSIUM CHANNEL GENE Omar Salgado*	COMPARATIVE STUDY ON THE EFFECTS OF <i>GREYWATER</i> Bernardino Villasenor*	TOWARD THE SYNTHESIS OF POSSIBLE DMSO REDUCTASE MIMICS Christopher Hobbs*		
5:20	All Section Chairs Meeting – SCIE 1.288	TRAVELING WAVE BEHAVIOR FOR A DIFFUSION MODEL Zhaosheng Feng	All Section Chairs Meeting – SCIE 1.288			

Friday Afternoon, March 4

Time	ENVIRONMENTAL SCIENCE Session II SCIE 2.104	FRESHWATER AND MARINE SCIENCE Session II SCIE 2.108	PHYSICS AND MATERIAL SCIENCE Session I ENGR 1.262	SCIENCE EDUCATION Session II ENGR 1.242	SYSTEMATICS AND EVOLUTIONARY BIOLOGY Session I ENGR 1.268	THREATENED OR ENDANGERED SPECIES Session I ENGR 1.250
2:40	ECONOMIC REGIONALIZATION IN THE HYDROGRAPHIC BASIN Gerardo Jiménez González*	DRIFT ALGAE TISSUE NUTRIENTS AS AN INDICATOR OF NUTRIENT LOADING Onur Dundar*	REFLECTIVE CRACK OF ASPHALT CONCRETE MATERIAL Zhanping You*	PROFESSIONAL LEARNING COMMUNITIES Frank F. Willingham	SYSTEMATICS AND MORPHOMETRICS OF <i>ELIMIA COMALENSIS</i> David M. Hayes*	ECOLOGY, DISTRIBUTION AND HABITAT GOLDEN-CHEEKED WARBLER Efraín Castillejos-Castellanos*
3:00	STATE-OF-THE-ART PROTECTION AGAINST SEVERE STORMS Hector Estrada*	GENETIC IMPACTS OF SHRIMP TRAWLING ON GULF RED SNAPPER J. R. Gold*	HIGH HYDROGEN STORAGE MATERIALS Banglin Chen	PROFILES OF MIDDLE SCHOOL INSERVICE TEACHERS Deborah S. Koeck*	A PHYLOGENETIC STUDY OF THE INVASIVE LAND SNAIL SPECIES Kathryn E. Perez*	FOLIAGE STRUCTURE AND FOOD AVAILABILITY FOR THE GOLDEN-CHEEKED WARBLER Edgar Selvin Pérez*
3:20	VARIATION OF THE ABIOTIC FACTORS IN THE SALT MARSH Matthew Grunstra*	INFLUENCE OF TEMPERATURE ON MAYFLY ASSEMBLAGES Mark P. Gustafson	Sectional Business Meeting	PROGRAM EVALUATION OF GRADES 6 & 7 SCIENCE MODULE Sandra S. West	MOLECULAR SYSTEMATICS OF THE TEXAS GENERA OF NYCTAGINACEAE. Diana J. McHenry*	POPULATION DYNAMICS AND SURVIVORSHIP ESTIMATES OF THE HOUSTON TOAD Todd M. Swannack*
3:40		TEMPERATURE AND RELATIVE HUMIDITY EFFECTS ON WATER LOSS Elisa Moreno*		THE EFFECT OF ACTIVE LEARNING STRATEGIES ON EDUCATIONAL OUTCOMES R. Russell Wilke*	A REVIEW OF THE GENUS <i>POPENAIAS</i> Ned E. Strenth*	BOBCAT USE OF WILDLIFE CORRIDORS Mitchell A. Sternberg
4:00		SUCCESSIONAL CHANGES IN VEGETATIVE COMMUNITIES Margaret M. Russell*		THE IMPACT OF ENVIRONMENTAL ISSUES INSTRUCTION Eunice A. Hefty*	THE GENETICS OF POSTZYGOTIC REPRODUCTIVE ISOLATION IN <i>XENOPUS</i> John H. Malone*	NEW GENUS OF DAMSELFLY IN UNITED STATES Jim Sinclair*
4:20		PHENOLOGY OF <i>HALODULE WRIGHTII</i> Joseph L. Kowalski*			PHYLOGENETIC RELATIONSHIPS BETWEEN ORYZOMYINI RODENTS J. Delton Hanson*	BREEDING SYSTEM OF <i>ASTROPHYTUM ASTERIAS</i> Anna W. Strong*
4:40		RAPID BIOASSESSMENT OF TRANS PECOS SPRINGS Craig Watts*			Sectional Business Meeting	Sectional Business Meeting
5:00		ZOOBENTHOS COMMUNITY IN SHALLOW LAKES Olga Minich*				
5:20	All Section Chairs Meeting – SCIE 1.288					

Saturday Morning, March 5

Time	BOTANY Session III SCIE 2.106	CHEMISTRY Session III SCIE 1.288	FRESHWATER AND MARINE SCIENCE Session III SCIE 2.108
8:20	PLANTS OF THE TEXAS COASTAL BEND Roy L. Lehman*	A NOVEL ROUTE TO (E)-1-iodo-1-trimethylgermyl-1-alkenes Magaly Salinas*	SEASONAL CHANGES IN BENTHIC MACROALGAE COMPOSITION Kyle Klootwyk*
8:40	LIFE ON THE PHYLLOSHERE Christopher Little*	BISMUTH NITRATE-INDUCED NOVEL REACTION OF AZAINDOLE Bimal K. Banik*	MANGANESE ENRICHMENT IN SEAGRASS Thomas Whelan III*
9:00	A COMPARISON OF SPECTRAL CHANGES IN CUCUMBER Shireen Yousef*	NOVEL SYNTHESIS OF HETEROCYCLES Bimal K. Banik*	KILLING SEAGRASS WITH DRIFT ALGAE Hudson DeYoe*
9:20		PAAL KNOOR SYNTHESIS Jocabed Marquez*	USING GEO-CHEMISTRY TO CLASSIFY TRANS-PECOS SPRINGS David Flores*
9:40			DRAINAGE DITCH MACROINVERTEBRATE COMMUNITY Guadalupe Medina*
10:00	Break – SCIE Lobby		

ROOM SCHEDULE

ROOM	FRIDAY MORNING	FRIDAY AFTERNOON	SATURDAY MORNING
SCIE 1.288	BIOL I	BIOL III	CHEM III
SCIE 2.288	BIOL II	BIOL IV	
SCIE 2.106	BOT I	BOT II	BOT III
SCIE 2.108	FMS I	FMS II	FMS III
SCIE 2.102	CONS I	CONS II	
SCIE 2.104	ENV SCI I	ENV SCI II	
ENGR 1.300	OTE	DTS	
ENGR 1.236	CHEM I	CHEM II	
ENGR 1.268	TERR I	SYST I	
ENGR 1.242	SCI ED I	SCI ED II	
ENGR 1.250	GEOL I	TOES I	
ENGR 1.262	MATH I	PHY I	
ENGR 1.274	CS I	CS II	
ENGR 1.290	Practice	Practice	Practice

ABBREVIATION

SECTION

BIOL	Biological Science
BOT	Botany
CHEM	Chemistry
CONS	Conservation and Management
CS	Computer Science
ENV SCI	Environmental Science
FMS	Freshwater and Marine Sciences
GEOL	Geology and Geography
MATH	Mathematics
PHY	Physics and Materials Science
SCI ED	Science Education
SYST	Systematics and Evolutionary Biology
TERR	Terrestrial Ecology and Management
TOES	Threatened or Endangered Species
DTS	Distinguished Texas Scientist
OTE	Outstanding Texas Educator