

# 2019 Ecological Integration Symposium



April 4<sup>th</sup> and 5<sup>th</sup> at Rudder Tower and Theater

Come to this **free** two-day event, with presentations by prestigious plenary speakers from around the world and students like YOU.

**All afternoon activities take place in room 301 unless otherwise noted**

## Thursday April 4th

8:30-Throughout	Registration	407
9-9:15am	Welcoming Remarks	301
9:15-10:15am	Graduate Student Oral Presentations	401,404.410
10:15-10:30am	Coffee Break	
10:30-11:45am	Graduate Student Oral Presentations	401,404,410
11:45-1pm	Lunch	On your own
1-2pm	Dr. Ray Hillborn "The environmental cost of dinner?"	
2-3pm	Dr. Laura Kubatko "Estimating species-level phylogenetic relationships with site pattern frequencies"	
3-4pm	Dr. David Hillis "Applications of the Tree of Life"	
4-5pm	Speaker Panel: What's Past is Prologue: The Future of Ecology and Evolutionary Biology	
5:30-6:30pm	Happy hour	Rough Draught

## Friday April 5th

8am	Breakfast (Preregistration Required to Attend)	Rudder Complex
8:30-Throughout	Registration	301
9-10am	Graduate Student Oral Presentations	401,404.410
10-10:15am	Coffee Break	
10:15-11:45am	Graduate Student Oral Presentations	401,404,410
11:45-1pm	Lunch	On your own
1-2pm	Student Poster Session	Rudder Complex
2-3pm	Dr. Michelle Tseng "The effect of species interactions on adaptation to the thermal environment"	
3-4pm	Dr. Amy Angert TBA	
4-5pm	Dr. Iain Couzin "Collective sensing and decision-making in animal groups"	
5-5:30pm	Awards and Closing Remarks	
6pm	Social (Food, Beer, and Wine Provided)	Lee Fitzgerald's Home

**Special thankstoour sponsors:**



**ECOLOGY and  
EVOLUTIONARY  
BIOLOGY**



**RECREATION, PARK  
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TEXAS A&M UNIVERSITY



DEPARTMENT OF ECOSYSTEM SCIENCE AND MANAGEMENT



# Student Presentations



Thursday April 4th

Time	Room 401 Graduate Student Presentations	Room 404 Graduate Student Presentations	Room 410 Graduate Student Presentations
9:15am	Adriana Mendez-Jimenez Does wealth affect the quality of your drinking water? The relationship	Kristin Hamons TBA	Adrian Castellanos One squirrel? Eight squirrel? Orange squirrel? Gray squirrel?: Biogeography of <i>Sciurus variegatoides</i>
9:30am	John Jacisin Snake vertebral ecometrics: towards a better understanding of community	Michael Jochum Host mediated microbiome drought tolerance in the wheat rhizosphere	Paul Goetze Texas High Plains Beef Cattle Production in Future Climates
9:45am	Benjamin Ghasemi Trust and Emotions as the Main Drivers of Support for Large Carnivores Recovery in the Absence of Real Threats	Rachel Adams Water and nutrient acquisition strategies in the tropical forests of Quintana Roo, Mexico	Pedro Leite The effect of juniper trees on the infiltration capacity of rangeland soils in Sonora, TX
10:00am	Constance Lin TBA	Maureen Hayden Thermal preference in the smoothskin octopus ( <i>Muusoctopus leioderma</i> )	Erin Buchholtz Functional connectivity comparisons and considerations for the African elephant
10:15am	Break	Break	Break
10:30am	Faith Hardin The influence of golden-fronted woodpeckers as ecosystem engineers on the local avian community	Raven Blakeway Consumer-driven depletion of The northern diamondback terrapin in Chesapeake Bay, 1840-1980	Lauren Redmore Adapting to the elephant: Gender and firewood harvest in the Okavango Delta
10:45am	J. Kelly Hoffman Heuristics and Fire: Decision-Making Processes and Prescribed Fire Implementation in the Southern Great Plains	Hayden Hays The effect of cheliped function on male mating success in the Louisiana crayfish, <i>Procambarus clarkia</i>	Amanda Beckman Characteristics of male lance-tailed manakin social networks and their impact on future
11:00am	Paloma Cuello Del Pozo Stable isotope signals as proxy for mobility amongst ancient Canary aboriginals: creating a strontium and oxygen baseline for Gran Canaria	Benjamin Thomas Improving Gene Editing Techniques with CRISPR Cas9 in the Yellow Fever Mosquito, <i>Aedes aegypti</i> (Diptera: Culicidae)	Andrea Pilar Drager Effects of floral neighborhoods on visitation and pollination outcomes among co-occurring <i>Cola</i> spp. at different densities
11:15am	Michelle Chrpa Mg/Ca Ratios of Echinoderm Ossicles in Pennsylvanian Coal Balls	Ali Abdulameer Al-Badran The adverse effects of phenylpyrazole fipronil on juvenile white shrimp <i>Litopenaeus setiferus</i>	Samantha Sawyer Vertebrate Scavenger Access to Mass Mortality Events Impact on Associated Arthropod Community Structure

# Student Presentations

Friday April 5th



Time	Room 401 Graduate Student Presentations	Room 404 Undergraduate Student Presentations	Room 410 Graduate Student Presentations
9:00am	Sierra Cagle Lakes, Plankton, and Climate Change: A modeling story told in pictures		Lela Culpepper Soil characteristics and microbial responses to different fire intensities
9:15am	Varuneswara Panyam Designing Power Grids to Mimic Food Webs		Mackenzie Kjeldgaard Sugar is an ant's best friend?: Testing food web theory predictions in invasive ants
9:30am	Xavier Jaime Exploring utilities of spectral diversity for representing plant diversity and its spatial pattern	Alexandra Bishop Using Data Surveillance to Understand the Rising Prevalence of Tick-borne infections	Mickey Parker Preliminary Results from a Translocation of Dunes Sagebrush Lizards ( <i>Sceloporus arenicolus</i> ) in West Texas
9:45am	Leila Siciliano Martina Unintended morphological effects of captivity in Mexican wolves ( <i>Canis lupus baileyi</i> )	Charlie Webb The effects of pesticides on honey bee ( <i>Apis mellifera</i> ) queen mating frequency	Amanda Lofthus Environmental conditions influencing spatial variability in predation risk to juvenile sharks
10:00am	Break	Break	Break
10:15am	Rachel Short Limb morphology of large mammal communities as an environmental predictor	Drew Little TBA	Bert Foquet Comparing behavioral, morphological, and molecular reaction norms of locust phase polyphenism
10:30am	Ashley Tessnow Population genomic insights into <i>Spodoptera frugiperda</i> migration and host	Carla Deloera Taxonomy and diversity of little-known South African grasshopper genus <i>Eremidium</i>	Friedrich Keppeler Weak trophic level-body size relationship of fishes depends on their functional
10:45am	Edwin Lopez Delgado Fish functional diversity changes along the longitudinal gradient of a species-rich tropical	Aaron Rose Calcium hydroxide may promote hybridization in a freshwater fish	Crystal Wright Fecundity Compensation: Possible in the Sugarcane Aphid?
11:00am	Gaston Jofre Rodriguez Signatures of introgression across natural swordtail hybrid zones	Omar Khan The effect of Pesticides on Honey Bee ( <i>Apis Mellifera</i> ) Queen Reproductive Physiology	Hannah Justen Evidence of extrinsic postzygotic isolation in a North American songbird
11:15am	Luke Bower Widespread convergence in stream fishes	Sarah Ebert Correlates of snake entanglement in erosion control blankets	Connor Adams Community organization of a snake guild in a shortleaf pine

# Poster Presentations

Friday April 5th

Station	Name	Title
1	Adam Baker	Effects of Climate Change on <i>Anaplasma phagocytophilum</i> infection risk in Minnesota and Wisconsin from 2005 to 2015
2	Ajinkya Deshpande	Prolonged inundation affects water-use strategies in bottomland oaks
3	Alexis Pence	Cattle Grazing Impacts on Small Mammal Populations in South Texas
4	Allison Guggenheimer	Correlating Body Condition and Habitat Management of Wintering Duck Populations in Texas Wetlands
5	Ashish Nerlekar	Old-growth grasslands and savannas worldwide are more species-rich than their secondary counterparts
6	Blake Elkins	
7	Chase Corrington	Spot-on: Using melanistic spots to identify individual Shoal Chub
8	Chelsea Veloso	Niche segregation among sunfishes ( <i>Lepomis spp.</i> ) in an East Texas urban stream
9	Connor Brown	Spatial and temporal variation in benthic macroinvertebrate
10	Danielle DeChellis	Revisiting The Coastal Marsh Grass Assemblages Of Anahuac National Wildlife Refuge:
11	David Saenz	Evolution of sensory receptor organization in weakly electric fishes
12	Dylan Thompson	Assessing the functional role of skinks ( <i>Scincella lateralis</i> ) in forest food webs
13	Edan Morag	Fish taxonomic and functional diversity in an East Texas urban stream
14	Elyssa Garza	Integrating multiple genomic datasets to understand stress adaptation
15	Fernanda Montes	Analysis of genetic diversity in pataxte and cacao
16	Fiala Bumpers	A Spatial and Temporal Analysis of Texas Bays and Marine Species
17	Hailley Hester	Advertisement Calls for Eleven Anuran Species from the Bolivian Gran Chaco
18	James Alfieri	Divergence times among hybridizing gamefowl
19	James West	Distribution and Biodiversity of Head Morphology in Horned Lizards
20	Jesse Rodrigo Rios Rodriguez	Population diversity and genetic structure of blackfin tuna
21	Poster Withdrawn	
22	Jocelyn Holt	Characterization of the Sugarcane Aphid Microbiota
23	Kasey Jobe	Caudates as prey: Predator diversity and size-relationship patterns
24	Katrina Keith	Preliminary Investigation of Toll-Like Receptor 1B in Chihuahuan Desert Ecoregion Species of Interest
25	Kelly J. Wallace	Neuromolecular underpinnings of social competence and cognition in dynamic communities of a highly social cichlid fish
26	Kenith Meissner	Biomedical engineering
27	Krista Ward	Flight Initiation Distance in Fox Squirrels ( <i>Sciurus niger</i> ) Varies with Threat Assessment
28	Lois-Anna Voelkel	The Conservation Action for <i>Xenomys nelsoni</i> (Magdalena Wood Rat)
29	Marluci Muller Rebelato	Seasonal variation in trophic structure of amphibians and snakes of a Ramsar
30	Miranda Peterson and Zakary Derouen	Determinants of <i>Tubastraea coccinea</i> invasion and likelihood of further
31	Negar Yaryan	Evolutionary journey from the seashore to the world's highest coastal range
32	Pierre Lau	Everything's sweeter in Texas? A chemical and palynological analysis of honey in Texas
33	Richard Bovio	Early generation hybrid evolution in swordtails
34	Mason Bird	Yellow Fever Mosquito, <i>Aedes aegypti</i> (Diptera: Culicidae) Rearing Protocol
35	Samuel Neeley	Leaf destruction by <i>melampus coffeus</i> in basin and Fring Mangrove Swamps, Barnes Sound, Key Largo, FL
36	Scott Lakeram	Preliminary Analysis of Predation by Arthropods on Cordaites in Carboniferous Coal Balls
37	Stephanie Rodriguez	Sex differences in pollen consumption among blow flies (Diptera: Calliphoridae)
38	Ben Sloan	Yellow Fever Mosquito, <i>Aedes aegypti</i> (Diptera: Culicidae) Flower Color Preference
39	Crystal Alexander	Silvicultural systems in southern bottomland hardwoods: a review of avifauna community
40	Tofunmi Oladimeji	Population genetics of wild and cultured populations of the African bonytongue,
41	Sydney Jackson	Variation in Arthropod Community on a Prairie-Style Green Roof