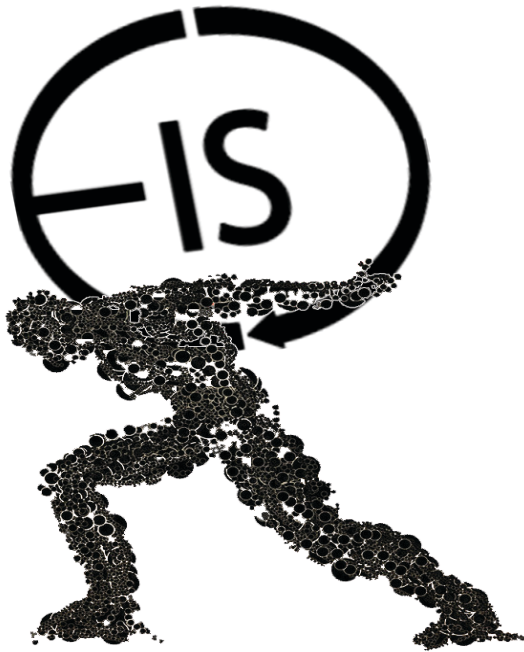


FROM THEORY TO PRACTICE: ECOLOGY AND ITS APPLICATIONS

14TH ANNUAL ECOLOGICAL INTEGRATION SYMPOSIUM
MARCH 22ND AND 23RD, TEXAS A&M UNIVERSITY



Plenary Presentations

Friday March 22nd
Memorial Student Center
Bethancourt Ballroom
9am – 4:30 pm

Student Presentations

Saturday March 23rd
Rudder Tower
4th Floor
9am – 4pm

SYMPOSIUM PROGRAM

14TH EIS SCHEDULE AT-A-GLANCE

Friday, March 22nd, 2013

Plenary Speakers

Memorial Student Center's Bethancourt Ballroom

pg. 3

MSC 2nd Floor

9:00 am	Introductory Remarks
9:15 am	Dr. Thomas Brooks
10:15 am	<i>Coffee Break</i>
10:30 am	Dr. Gary Mittelbach
11:30 am	Dr. Bruce Menge
12:30 pm	<i>Lunch Break</i>
2:00 pm	Dr. Michael Willig
3:00 pm	Dr. Jorge Soberón
4:00 pm	Panel Discussion
4:30 pm	<i>End of day</i>
7:00 pm	Party at Dr. Fitzgerald's House

Saturday, March 23rd, 2013

Student Presentations

Rudder Tower

pg. 16

4th Floor

9:00 am	Session 1 Oral Presentations A, B, and C	Rooms 404, 402, 401
10:15 am	<i>Coffee Break</i>	Room 407
10:45 am	Session 2 Oral Presentations A, B, and C	Rooms 404, 402, 401
12:00 pm	<i>Pizza Lunch</i>	Room 407
12:30 pm	Posters	Room 410
2:15 pm	Session 3 Oral Presentations A, B, and C	Rooms 404, 402, 401
3:45 pm	Closing Remarks and Awards	Room 401
4:00 pm	<i>End of day</i>	

NOTES

FRIDAY, MARCH 22ND
9:00 am
Introductory Remarks
Dr. Kevin Heinz



Kevin Heinz is the current Assistant Provost for Graduate Studies, the Director of the Forensic and Investigative Sciences Program, former Department Head of the Entomology Department, and a professor in the Entomology and Forensic and Investigative Sciences programs. In addition to his generous service to the Texas A&M community, he remains active in research, teaching, and mentoring.

FRIDAY, MARCH 22ND

9:15 am- Dr. Thomas Brooks

**Monitoring biodiversity:
overall trends, and conservation benefits**

With the 2010 establishment of the Convention on Biological Diversity's Aichi Targets, the importance of development of rigorous approaches to monitor biodiversity trends, and the impacts of conservation actions, has become apparent. What can we discern about these trends as regards two of the highest profile of the Aichi Targets, preventing species extinctions (Target 12) and completing protected area coverage (Target 11)? IUCN mobilizes a number of globally standard data systems, of which three are particularly important in monitoring progress towards these targets, documenting extinction risk (the IUCN Red List of Threatened Species), protected area establishment (the World Database on Protected Areas), and significant sites for the global persistence of biodiversity (Key Biodiversity Areas). The data underlying these systems are delivered through IUCN's expert commission structure (comprising >10,000 specialists worldwide) as well as the union's >1,200 state and NGO members; and have become increasingly comprehensive over the last three decades. Regarding overall trends, extinction risk has increased over this period, but at rates varying widely among taxa, with corals and amphibians showing the greatest increases. While protected area coverage has increased overall, proportionate coverage of significant sites has actually slowed. Regarding conservation impact, we use counterfactual scenarios to examine what trends might have looked like in the absence of conservation action. For extinction risk, this approach reveals that the aggregate slide of species towards extinction would have been 20% faster over the period in the absence of conservation action. For protected area coverage, we find that the slide towards extinction for species well-represented in protected areas has been halved in comparison to that for poorly-represented species. Research challenges remain in how to increase the resolution and comprehensiveness of these measures, and to extend them to the other Aichi Targets. More generally, it is clear that while conservation actions are already delivering significant benefits, greatly increased efforts are essential to take these to the scale necessary to halt biodiversity loss.

FRIDAY, MARCH 22ND

9:15 am- Dr. Thomas Brooks



Dr. Thomas Brooks heads science and knowledge at the International Union for Conservation of Nature (IUCN), based in Gland, Switzerland. Originally from Brighton, UK, holds a B.A. (Hons) in Geography from the University of Cambridge (1993) and a Ph.D. in Ecology and Evolutionary Biology from the University of Tennessee (1998). He has previously worked for The Nature Conservancy (1998–1999), Conservation International (1999–2010), and most recently NatureServe (2010–2012) where he was Vice President for Science and Chief Scientist. He holds visiting positions at ICRAF-the World Agroforestry Center in the University of the Philippines Los Baños and in the Department of Geography of the University of Tasmania. He is an ornithologist by training, with extensive field experience in tropical forests of Asia, South America and Africa. His interests lie in threatened species conservation (especially of birds) and in biodiversity hotspots (especially in tropical forests). He has been a member of the IUCN Red List Committee since 2001, the Steering Committee of its Species Survival Commission since 2004, and co-chair of its joint taskforce on ‘Biodiversity and Protected Areas’ since 2009. He has authored 198 scientific and popular articles of which 22 have been in *Nature* or *Science*.

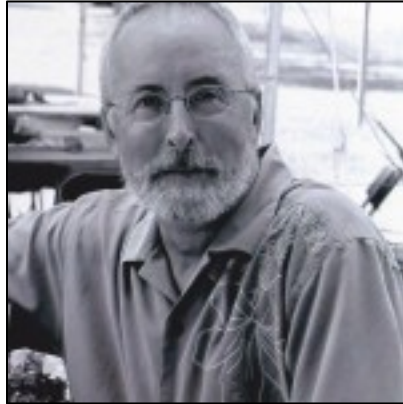
FRIDAY, MARCH 22ND

10:30 am- Dr. Gary Mittelbach

***Productivity and species diversity:
patterns and mechanisms***

Robert MacArthur said “To do science is the search for repeated patterns, not simply to accumulate facts”. One of the most enigmatic patterns in ecology is the relationship between primary productivity and species diversity. At broad spatial scales the pattern is clear – areas of higher productivity support more species (e.g., the latitudinal diversity gradient). Species richness at these broad spatial scales is well correlated with the main climatic drivers of primary productivity (temperature, water availability), however, the mechanisms underlying the relationship remain unresolved. At smaller spatial scales, the relationship between productivity is more varied; positive, negative, and hump-shaped relationships abound. However, one small-scale pattern is very clear – when primary productivity is increased by nutrient addition (e.g., fertilization, eutrophication), species richness declines. But why? In this talk, I will explore what we know about the drivers of productivity-diversity relationships, focusing at the large scale on the latitudinal diversity gradient and at the small scale on experimental manipulations of plant communities.

FRIDAY, MARCH 22ND
10:30 am- Dr. Gary Mittelbach



Gary G. Mittelbach is a Professor at the Kellogg Biological Station and the Department of Zoology at Michigan State University. He graduated with a B.A. from the University of Iowa (1974) and earned his Ph.D. at Michigan State University (1980) working under Dr. Earl Werner. Dr. Mittelbach is recognized as a Highly Cited Researcher by ISI®, is currently on the Board of Editors for *Global Ecology and Biogeography*, and is the author of *Community Ecology* (published 2012 by Sinauer Associates). His research interests include biogeography, community ecology, the generation and maintenance of biodiversity, freshwater ecology, and species interactions.

FRIDAY, MARCH 22ND

11:30 am- Dr. Bruce Menge

Ecological forces shaping coastal marine ecosystems: the intermittent upwelling hypothesis, a test, and possible application

The intermittent upwelling hypothesis (IUH) predicts that the strength of ecological subsidies, organismal growth responses, and species interactions will vary unimodally along a gradient of upwelling from persistent downwelling to persistent upwelling, with maximal levels at an intermediate or “intermittent” state of upwelling, and monotonic increasing functions with increasing intermittency. A test of this model involved investigating community and ecosystem dynamics at rocky intertidal study sites in Oregon, California, and New Zealand. Predictions of the IUH were supported via model selection analyses. On average, unimodal relationships of these processes with upwelling magnitude explained ~50% of the variance, and monotonic positive relationships against an index of intermittency explained ~42% of the variance. Results suggest that the IUH has geographic generality, and are also consistent with earlier arguments that bottom-up effects and propagule subsidies are strongly linked to the dynamics of higher trophic levels, or top-down effects, as well as to non-trophic interactions. Climate change models predict that upwelling regimes will change, and the IUH provides a tool to allow predictions of how coastal ecosystems will change in the future.

FRIDAY, MARCH 22ND

11:30 am- Dr. Bruce Menge



Bruce A Menge is a Distinguished Professor of Zoology and the Wayne and Gladys Valley Endowed Professor of Marine Biology in the Department of Zoology at Oregon State University. He also served as Chair of the Department from 2008-2011. His major research areas are marine community and meta-ecosystem ecology, and physiological ecology, and he is currently focused on the impacts of climate change, including ocean acidification, on coastal marine ecosystems. He received a BA in Zoology at the University of Minnesota in 1965 and a PhD in Zoology at the University of Washington in 1970. He is the lead PI in PISCO, the Partnership for Interdisciplinary Studies of Coastal Oceans, OMEGAS, the Ocean Margin Ecosystem Group for Acidification Studies, and ACIDIC, Algal Communities in Distress: Impacts and Consequences. He is a member and Fellow of the American Association for the Advancement of Science, and a member of the Ecological Society of America, the American Society of Naturalists, and the Society of Limnology and Oceanography. Professor Menge has authored or co-authored >125 refereed research papers. Honors include the George Mercer Award (1979) for the Best Paper in Ecology during the previous year, a John Simon Guggenheim Fellowship (1994-95), an Honorary Doctor of Science degree at Long Island University (1999), recognition as one of the 0.5% of the most cited ecologists over the past two decades (ISI Highly Cited.com, 2002), and the Western Society of Naturalists' Lifetime Achievement Award (2010).

FRIDAY, MARCH 22ND

2:00 pm- Dr. Michael Willig

Elevational variation in population, community, and metacommunity dynamics: theoretical and empirical perspectives

Elevational variation in the Luquillo Mountains of Puerto Rico creates strong environmental gradients (temperature, precipitation, forest zones) that affect the abundance and distribution of animal species. Moreover, the geographic mappings of these environmental gradients will likely shift as a consequence of global climate change, subsequently altering patterns of biodiversity that require reconsideration of management practices and conservation actions. Because they are taxonomically diverse, numerically abundant, and potentially keystone heterotrophs (detritivores, herbivores, and carnivores), terrestrial gastropods represent a model taxon for exploring variation in biodiversity. I quantify spatial and environmental variation in multiple aspects of gastropod biodiversity at the population (total abundance as well as abundance of each of 14 species), community (richness, evenness, dominance, rarity, diversity), and metacommunity levels. The abundances of most species varies with elevation in a consistent manner along mixed forest (tabonuco – palo colorado – elfin forest) and a palm forest transects (i.e., decreasing toward lowlands), and are higher at palm than at non-palm sites. Similarly, community-level aspects of biodiversity vary with elevation in a consistent manner along mixed forest and palm forest transects (i.e., generally decreasing toward lowlands and higher in palm than at non-palm sites). Finally, based on analyses of coherence, range turnover, and boundary clumping, metacommunity structure along the mixed forest transect is Clementsian (i.e., compartmentalized distributions), whereas along the palm forest transect it is quasi-Gleasonian (i.e., idiosyncratic distributions). Elevational variation in population- and community-level attributes of biodiversity parallel variation in total gastropod abundance and net primary productivity. A single mechanism (more individuals hypothesis or random placement) accounts for elevational variation and the differences in biodiversity between mixed forest and palm forest transects. Moreover, the higher production and abundance of gastropods in palm-dominated forest patches compared to those in non-palm forest contribute to differences between metacommunity organization in the mixed forest and palm forest transects.

FRIDAY, MARCH 22ND 2:00 pm- Dr. Michael Willig



Michael R. Willig is a Professor of Ecology & Evolutionary Biology, as well as the founding Director of the Center for Environmental Sciences & Engineering, at the University of Connecticut (2006-present). Prior to that, he was a long-term member (> 20 years) of the faculty in the Department of Biological Sciences at Texas Tech University, where he was Chairman of the Department (1995-1997) as well as Director of the Institute for Environmental Studies (1994-1996). In addition, he has served the National Science Foundation in two capacities, as a Program Director in Ecology (2000-2002) and as Division Director for Environmental Biology (2004-2006). He graduated with a BS (1974) and PhD (1981) degrees from the University of Pittsburgh. Michael is the author or co-author of ~ 195 scholarly publications and books, and has enjoyed over twenty million dollars of grant support from federal agencies (e.g., NSF, NIH, USDA, EPA). He recently co-edited three books: *Theory of Ecology* (2011), *A Caribbean Forest Tapestry* (2012), and *Ecological Gradient Analyses in Tropical Ecosystems* (In Press). His research addresses a number of questions in population biology, community ecology, conservation, and biogeography. He has conducted extensive research in Latin America (e.g., Brazil, Paraguay, and Peru), and was a founding collaborator and current co-PI on the NSF-funded Luquillo Mountains Long-Term Ecological Research Program in Puerto Rico. His research focuses on (1) gradients of diversity and range size, (2) productivity – diversity relationships, (3) biogeography and macroecology of island faunas, (4) conservation reserve design at broad spatial scales, (5) effects of reduced impact logging in the Amazon, (6) disturbance ecology, (7) metacommunity ecology.

FRIDAY, MARCH 22ND

3:00 pm- Dr. Jorge Soberón

From practice to theory:

areas of distribution as policy building blocks

The extent and history of the area of distribution of a species are fundamentally important in Macroecology and Biogeography. Moreover, distributional areas are closely linked to decision-making at many scales. Being able to answer where one is likely to find a species (to protect, to manage, to reintroduce, sometimes to eradicate), or what species are found in a place, is of crucial practical importance. For these reasons, modeling species distributions has become an exploding activity. In this talk I will discuss how sometimes it is practical need what drives conceptual and theoretical advances. Using mostly examples from the developing world I will illustrate how estimating distributional areas, for government purposes, required the development of theoretical concepts, mathematical understanding and increasingly powerful algorithms. I will end showing how this question-driven theorizing may perhaps differ from more conventional curiosity-driven theories.

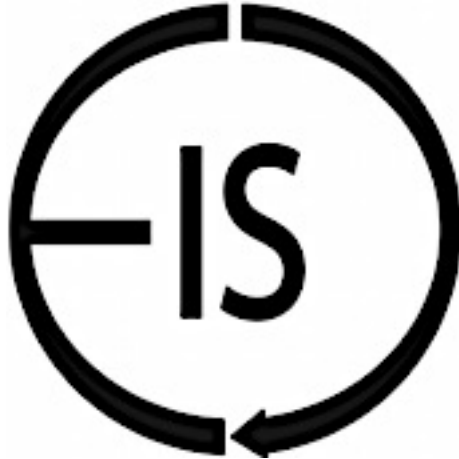
FRIDAY, MARCH 22ND
3:00 pm- Dr. Jorge Soberón



Jorge Soberón is Professor and Senior Scientist at the University of Kansas, where he works on the theory of areas of distribution of species, their integration in biodiversity patterns, and on biodiversity policy. He was trained as a biologist and a biogeographer in the National University of Mexico, and he got his PhD in Theoretical Ecology at Imperial College, University of London. For thirteen years he directed Mexico's national agency on biodiversity, where he was directly involved in decision making in relation to conservation, threatened species, invasive species and management of protected areas.

FRIDAY, MARCH 22ND
4:00 pm- Panel Discussion

The audience will have an opportunity to discuss ecology and evolutionary biology with the plenary speakers.



On behalf of the entire Texas A&M community, the 2013 EIS organizing committee would like to thank our plenary speakers for taking the time to participate in this event.

FRIDAY, MARCH 22ND

7:00 pm

Party at Dr. Lee Fitzgerald's

Catered social for invited speakers and EIS guests at the home of Dr. Lee and Gini Fitzgerald
(see map and directions below)

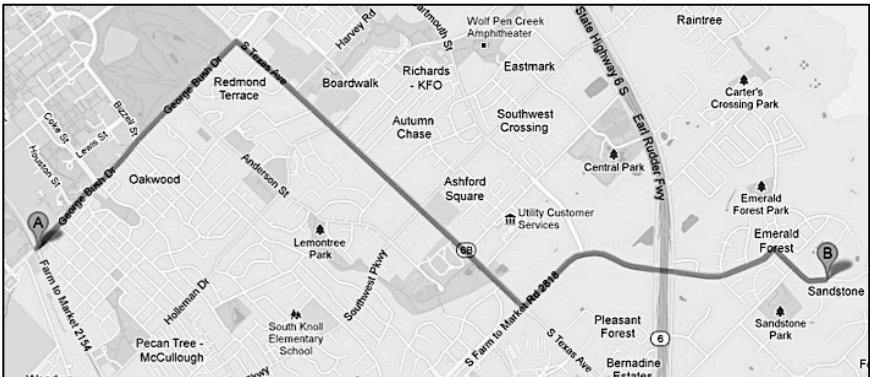
Please only park in the streets. There are not any curbs, so please be careful not to drive on anyone's lawn.

Directions to Dr. Lee Fitzgerald's home:

8901 Sandstone Dr., College Station, TX 77845

From the intersection of Wellborn Rd and George Bush Dr.

1. Head NE on George Bush Dr. towards S. Texas Ave (~1.3 mi)
2. Turn **right** on S. Texas Ave. (~1.8 mi.)
3. Turn **left** onto Harvey Mitchell Pkwy S (~0.8 mi)
a.k.a. S. Farm to Market Rd. 2818
4. Continue onto Emerald Pkwy. (~0.5 mi)
5. Turn **right** onto Sandstone Dr. (~0.3 mi)
8901 will be on your **left**.



SATURDAY, MARCH 23RD

Student Presentations At-a-Glance

Session		A Rudder 404	B Rudder 402	C Rudder 401
1	9:00	Aby Sene-Harper, Caroline Arantes	Adam Landon	Adriana Mendéz-Jiménez
	9:15	Courtney Lee	Ignacie Tumushime	Diana Castillo- López
	9:30	Kenneth Wallen	Kristin Hurst	Kyle Harrison
	9:45	Melissa Giresi	Michelle Ramsey	Nadisha Silva
	10:00	Rebecca Pizano	Suhas Vyavhare	Thitikan Satchabut
10:15-10:45		<i>Coffee Break; Rudder 407</i>		
2	10:45	Alison Bockoven	Benjamin Van Allen	Can Zhou
	11:00	Eboni Hall	Rachel Wellman	Ichsan Fauzi
	11:15	Lu Zhai	Lucas Driver	Maria Mendoza
	11:30	Nick Rasmussen	Nicole Smolensky	Huot
	11:45	Xochitl Fabiola De la Rosa Reyna	Ranjani Kulawardhana	Meaghan Pimsler
12:00-12:30		<i>Lunch; Rudder 407</i>		
12:30-14:00		Poster Session; Rudder 410		
3	14:15	Carrie Deans	Chouly Ou	Carlos Santamaria
	14:30	<i>Cancellation Short break</i>	Jason Christian	Jingxian Jiang
	14:45	Marion Le Gall	Matthew Berg	Christopher Schalk
	15:00	Pablo Granados- Dieseldorf	Humberto Martínez-Montoya	Jialei Xie
	15:45	<i>Closing remarks and award announcements Rudder 401</i>		

SATURDAY, MARCH 23RD
9:00 – 10:15 am
Oral Presentations, Session 1A
Rudder Tower, room 404

9:00 – 9:15

Aby Sene-Harper and Caroline Arantes

Texas A&M University

*Method for measuring the collective action in managing
small-scale fisheries in the lower Amazon Basin of Brazil*

9:15 – 9:30

Courtney Lee

Texas A&M University, Galveston

*Does ecotypic-based genetic diversity improve productivity? A
mesocosm study with Spartina alterniflora*

9:30 – 9:45

Kenneth Wallen

Texas A&M University

*Effects of fire and herbicide on bee communities and floral
resource availability in Oklahoma*

9:45 – 10:00

Melissa Giresi

Texas A&M University

*Morphologically conserved, genetically diverged; Problems in
fisheries management*

10:00 – 10:15

Rebecca Pizano

Texas A&M University

*Impacts of droughts on fish assemblage and water quality in
the lower Neches River: Implications for environmental
flow recommendations*

SATURDAY, MARCH 23RD

9:00 – 10:15 am

Oral Presentations, Session 1B

Rudder Tower, room 402

9:00 – 9:15

Adam Landon

Texas A&M University

Role of a species in a human dominated world: A conceptual model of social-ecological niche

9:15 – 9:30

Ignacie Tumushime

Texas A&M University

Effect of fertilization and weed control on carbon, nitrogen and phosphorus mineralization rates in a loblolly- and slash pine forest in north-central Florida

9:30 – 9:45

Kristin Hurst

Texas A&M University

Cultural waters: Values of water resources in Hidalgo, Mexico

9:45 – 10:00

Michelle Ramsey

Texas A&M University

Cilia positioning in zebrafish photoreceptors

10:00 – 10:15

Suhas Vyavhare

Texas A&M University

Invasion of redbanded stink bug, Piezodorus guildinii: A new threat for Texas soybean producers

SATURDAY, MARCH 23RD
9:00 – 10:15 am
Oral Presentations, Session 1C
Rudder Tower, room 401

9:00 – 9:15

Adriana Méndez-Jiménez

Texas A&M University

Use of low-cost surface drifters to study the dispersal pathways of eggs of Cubera snapper (Lutjanus cyanopterus) at Gladden Spit, Belize

9:15 – 9:30

Diana Castillo-López

Texas A&M University

Fungal endophytes: Negative effects on cotton aphid reproduction in greenhouse and field conditions

9:30 – 9:45

Kyle Harrison

Texas A&M University

Exploring host-associated differentiation (HAD) in six arboreal Sternorrhyncha species

9:45 – 10:00

Nadisha Silva

Texas A&M University

A look at the change in gene expression as a result of the association between maternally inherited endosymbionts and their Drosophila host

10:00 – 10:15

Thitikan Satchabut

Texas A&M University

Recreation and environmental concern: A case study with an experimental design

SATURDAY, MARCH 23RD

10:45 am – 12 noon

Oral Presentations, Session 2A

Rudder Tower, room 404

10:45 – 11:00

Alison Bockoven

Texas A&M University

*Cooperation and competition during multiple queen founding
in the red imported fire ant*

11:00 – 11:15

Eboni Hall

Texas A&M University

*Understanding the relationship between carbon storage and
water availability in urban landscapes*

11:15 – 11:30

Lu Zhai

Texas A&M University

*The effects of genotype, cultural regime, deployment and
environment on stand dynamics in ten years of planted
loblolly pine forests in Texas and Louisiana*

11:30 – 11:45

Nick Rasmussen

Rice University

*Consequences of phenological shifts for species interactions:
Testing the importance of size-mediated priority effects*

11:45 – 12:00

Xochitl Fabiola De la Rosa Reyna

Texas A&M University

*Mitochondrial genomes phylogenetic analyses supports the
conservation of white-tailed deer (Odocoileus
virginianus) subspecies*

SATURDAY, MARCH 23RD
10:45 am – 12 noon
Oral Presentations, Session 2B
Rudder Tower, room 402

10:45 – 11:00

Benjamin Van Allen

Rice University

Environmental carry-over effects drive context dependent competitive dynamics

11:00 – 11:15

Rachel Wellman

Texas A&M University

Root dynamics in post oak savanna: Response to global change forcing factors

11:15 – 11:30

Lucas Driver

University of North Texas, Denton

Dynamics of intermittent stream fish metacommunities

11:30 – 11:45

Nicole Smolensky

Texas A&M University

Phylogeography and conservation of cryptic Osteolaemus species

11:45 – 12:00

Ranjani Kulawardhana

Texas A&M University

Characterization of salt marsh vertical structure using airborne LIDAR and spectral data

SATURDAY, MARCH 23RD

10:45 am – 12 noon

Oral Presentations, Session 2C

Rudder Tower, room 401

10:45 – 11:00

Can Zhou

Texas A&M University

*The effects of discrete reproduction and complex life history
on predator-prey dynamics*

11:00 – 11:15

Ichsan Fauzi

Texas A&M University

*Evaluation of elevated dietary aluminum and iron level on red
drum Sciaenops ocellatus*

11:15 – 11:30

Maria Mendoza

Texas A&M University

*Effects of various levels of ash in the diet of juvenile red drum
Sciaenops ocellatus*

11:30 – 11:45

Ordorm Huot

Texas A&M University

*Evaluating the resource availability theory to manipulate and
optimize plant-induced defense against insect vector and
bacterial pathogen*

11:45 – 12:00

Meaghan Pimsler

Texas A&M University

*Temporally and sexually dimorphic patterns of gene
expression from a de novo transcriptome in
an invasive fly*

SATURDAY, MARCH 23RD
12:30 – 2:00 pm
Graduate Student Posters
Rudder Tower, room 410

Poster 1

Warren Sconiers

Texas A&M University

*The Nutrient Availability Hypothesis: A hypothesis unifying
plant stress and herbivore performance*

Poster 2

Ana Dal Molin

Texas A&M University

*Phylogenetic systematics of the family Signiphoridae
(Hymenoptera: Chalcidoidea)*

Poster 3

Ana Paula Ferrari-Hoeinghaus

University of North Texas

*Thresholds of floodplain fish assemblages in response to river
impoundment and flood timing, magnitude and duration*

Poster 4

Collin McMichael

Texas A&M University

*Nepotism and selective cannibalism in the red imported fire
ant*

Poster 5

Dae-Min Kim

Texas A&M University

*High genetic diversity within the morphologically
conservative dwarf loach, Kichulchoia brevifasciata
(Teleostei: Cobitidae), an endangered freshwater fish
from South Korea*

SATURDAY, MARCH 23RD

12:30 – 2:00 pm

Graduate Student Posters

Rudder Tower, room 410

Poster 6

Elizabeth Marchio

Texas A&M University

Novel biogeographic break in southern Belize inferred by fish molecules

Poster 7

Elizabeth Wilson

Texas A&M University

The effects of water stress on variability in mesophyll conductance of loblolly pine (Pinus taeda L.) leaves

Poster 8

Emma Gómez-Ruiz

Texas A&M University

Potential distribution of the migratory corridor of an endangered pollinating bat

Poster 9

Heidi Jane de Guzman

Texas A&M University, Galveston

Genetic diversity of the sabellid polychaete Amphiglena mediterranea Leydig from shallow carbon dioxide vents and non-acidified control areas in the Mediterranean Sea

Poster 10

Jian Gong

Texas A&M University

Conical tufted mats: A record of social motility mediated population/environment interactions in filamentous bacteria?

SATURDAY, MARCH 23RD
12:30 – 2:00 pm
Graduate Student Posters
Rudder Tower, room 410

Poster 11

Julia Cope

Texas A&M University

*Screening microbial communities from extreme environments
in a carboxylate platform for cellulosic biofuel production
and evaluating community compositions found during
superior performance*

Poster 12

Julie Foote

Texas A&M University

*Forest management impacts on soil carbon, nitrogen, and
phosphorus storage in the western Gulf Coastal Plain*

Poster 13

Loriann Garcia

Texas A&M University

*Overcompensation for insect herbivory: Evidence for plant-
herbivore mutualisms*

Poster 14

Mattie Squire

Texas A&M University

Reproductive skew in a hybrid population of swordtail fish

Poster 15

Megan Young

Texas A&M University

*Home range and habitat use of northern Mexican
gartersnakes (*Thamnophis eques megalops*) in a highly
modified habitat*

SATURDAY, MARCH 23RD

12:30 – 2:00 pm

Graduate Student Posters

Rudder Tower, room 410

Poster 16

Michael Treglia

Texas A&M University

Integrative research for biodiversity conservation and water resource management

Poster 17

Michele Clark

Texas A&M University

The interactive effects of prescribed fire and grazing on bankrupt bush (Seriphium plumosum) in a South African highveld grassland

Poster 18

Nicole Angeli

Texas A&M University

Comparing ground-truth and remotely sensed canopy heights to predict an invasive woody shrub, Rubus phoenicolasius, in deciduous forests

Poster 19

Pablo Delclos

Texas A&M University

Environmental effects on male traits in hybrid populations of northern swordtails Xiphophorus malinche x birchmanni

Poster 20

Paul A. Lenhart

Texas A&M University

Diet breadth and macronutrient regulation in coexisting generalist herbivores

SATURDAY, MARCH 23RD
12:30 – 2:00 pm
Graduate Student Posters
Rudder Tower, room 410

Poster 21

Rachel Curtis

Texas A&M University

West Nile virus risk assessment in College Station, Texas, USA

Poster 22

Shruthi Srinivasan

Texas A&M University

Retrieving forest structural parameters and studying forest growth at individual tree level using multi-temporal terrestrial LIDAR datasets

SATURDAY, MARCH 23RD

12:30 – 2:00 pm

Undergraduate Student Posters

Rudder Tower, room 410

Poster 23

Alyssa Mann

Texas A&M University

Construction of an electronic, multiple-entry identification key to two species groups of Signiphora (Hymenoptera: Signiphoridae)

Poster 24

Danielle Macedo

Texas A&M University

The impact of hybridization on morphological variation in Xiphophorus fishes

Poster 25

Ellen Giddens

Texas A&M University

Patterns of spatial and temporal genetic differentiation of the blue crab (Callinectes sapidus), an estuarine keystone species, in the northern Gulf of Mexico

Poster 26

Emily Boothe

Texas A&M University

Detection of multiple parasites in bloodfed Culex pipiens mosquitoes

Poster 27

Laura Springer

Texas A&M University

Morphological diversity of Chihuahuan Desert anurans

SATURDAY, MARCH 23RD
12:30 – 2:00 pm
Undergraduate Student Posters
Rudder Tower, room 410

Poster 28

Lauryn Winter

Texas A&M University

*The effect of iron on the defensive mutualism of Spiroplasma
bacteria and Drosophila flies*

SATURDAY, MARCH 23RD

2:15 – 3:15 pm

Oral Presentations, Session 3A

Rudder Tower, room 404

2:15 – 2:30

Carrie Deans

Texas A&M University

*Macronutrient content of cotton (Gossypium hirsutum)
tissues across genotypes and environments: An indicator
of resource quality for insect herbivores*

2:30 – 2:45

Cancellation

15 minute break

2:45 – 3:00

Marion Le Gall

Texas A&M University

*The effects of food macronutrient content on an insect
herbivore: a fitness landscape approach*

3:00 – 3:15

Pablo Granados-Dieseldorff

Texas A&M University

*Include stakeholders or miss the point: Socio-ecological
analysis of the mutton snapper (Lutjanus analis)
aggregating fishery at Gladden Spit, Belize*

SATURDAY, MARCH 23RD
2:15 – 3:15 pm
Oral Presentations, Session 3B
Rudder Tower, room 402

2:15 – 2:30

Chouly Ou

Texas A&M University

*Seasonal hydrology drives shifts in production sources
supporting fishes in the lower Mekong River Basin*

2:30 – 2:45

Jason Christian

University of North Texas

*Effects of body size, trophic position and ecosystem type on
mercury in fishes of the Upper Paraná River basin, Brazil*

2:45 – 3:00

Matthew Berg

Texas A&M University

*Reservoir sediments as a window to long-term watershed
ecological dynamics*

3:00 – 3:15

Humberto Martínez-Montoya

Texas A&M University

*Preliminary assembly of the genome of Spiroplasma hyd-1: an
endosymbiotic bacterium that protects Drosophila flies
against parasitic wasps*

SATURDAY, MARCH 23RD

2:15 – 3:15 pm

Oral Presentations, Session 3C

Rudder Tower, room 401

2:15 – 2:30

Carlos Santamaria

Texas A&M University

Phylogeography of Ligia isopods in the Caribbean and Eastern Pacific

2:30 – 2:45

Jingxian Jiang

University of North Texas

Mentoring minority students: Examining communication linkages between partners and students participating in the Rocky Mountain Sustainability Network Academy

2:45 – 3:00

Christopher Schalk

Texas A&M University

Spatiotemporal variation in food web structure of tropical ponds

3:00 – 3:15

Jialei Xie

Texas A&M University

Rapid spread of defensive endosymbionts Spiroplasma in Drosophila hydei under a high parasitoid wasp pressure

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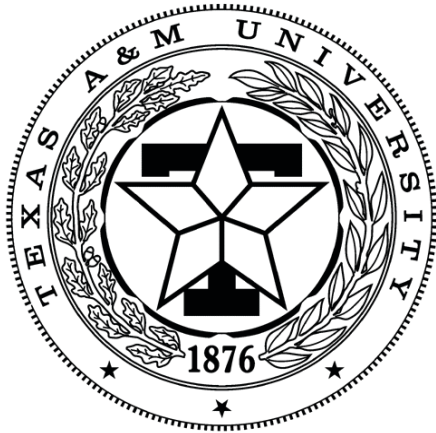
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