Adaptation I

Tue, June 21
10:00 AM - 11:30 AM
Virtual

Adaptation Birds Drosophila Evolutionary ecology Fishes Mammals Plants

Presentations

10:00 AM
10:15 AM

Evolution of gene networks underlying adaptation to drought tolerance in the wild tomato Solanum chilense

Gustavo A Silva Arias[1], Kai Wei[2], Saida Sharifova[3], Aurelien Tellier[4]
[1]Technical University of Munich, Freising, Germany, [2]Technical University of Munich, Germany, [3]Khazar University, [4]Technical University Munich

Adaptation Plants

10:15 AM
10:30 AM

Genetic signals of local adaptation in a desert rodent that occupies diverse climates and habitats

Keaka Farleigh[1], Tereza Jezkova[1]
[1]Miami University

Adaptation Mammals

10:30 AM
10:45 AM

Some traits of covariation between sternum and pelvis shapes in aquatic birds

Oksana Shatkovska[1], Maria Ghazali[2]
[1]Schmalhausen Institute of Zoology of NAS of Ukraine, Kyiv,

Ukraine, [2]Schmalhausen Institute of Zoology of NAS of Ukraine

Adaptation Birds

10:45 AM

11:00 AM

Estimating the capacity of Chamaecrista fasciculata to adapt to novel environments

Anna Peschel[1], Ruth G. Shaw[2]

[1]University of Minnesota, Twin Cities, Minneapolis, [2]University of Minnesota, St. Paul, MN

Adaptation Plants

11:00 AM

11:15 AM

Contrast the geographical distribution and body size of two sibling flower-breeding Drosophila species

Shu-Dan Yeh, National Central University, Taoyuan City, Taiwan

Adaptation Drosophila

11:15 AM

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Phenotypic Correlates of Pelvic Spine Coloration in the Threespine Stickleback (Gasterosteus aculeatus): Implications for Function and Evolution

Christopher M. Anderson[1], Jeffrey McKinnon[1]

[1]East Carolina University, Greenville, NC

Evolutionary ecology Fishes

Evolutionary ecology I

Tue, June 21

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Adaptation Arthropods Biogeography Comparative biology Ecology Evolutionary ecology Invertebrates Marine animals Plants

Presentations

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Exploring range expansion in ferns: Evidence for spore trade-offs, and for dispersal driven by trade winds in the widespread Cheilanthes distans (Pteridaceae)

Karla Sosa, Duke University, Durham, NC

Biogeography Plants

10:15 AM
10:30 AM

Increasing body sizes in Anomala expansa expansa (Coleoptera: Scarabaeidae) populations in response to rising temperatures over time

Ian Maher[1], Matan Shelomi[1]
[1]National Taiwan University, Taipei, Taiwan

Arthropods Ecology

10:30 AM
10:45 AM

Adaptations to agricultural practices: how do trichomes contribute to herbicide resistance?

Nia M. Johnson, Univeristy of Michigan, Ann Arbor, MI

Evolutionary ecology Plants

10:45 AM
11:00 AM

Modelling adaptation in two genetically-correlated traits under antagonistic selection

Meaghan Theodore, University of Guelph, Innisfil

Adaptation Invertebrates

11:00 AM
11:15 AM

Hole-y tendons! Anatomy & novel tendon morphology of the Califonia sea lion hindflipper

Ariel Leahy[1], Aditya Kulkarni[2], Sarah Kerr[3], Katherine Riordan[3], Frank Fish[4], Megan Leftwich[2]
[1]Baylor University, Hewitt, [2]George Washington University, [3]West Chester University, [4]West Chester University, West Chester, PA

Comparative biology Marine animals

11:15 AM
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Genomic evidence that a sexually selected trait captures genome-wide variation and facilitates the purging of genetic load

Jonathan Parrett, Adam Mickiewicz University, Poznan, Poland

Arthropods Evolutionary ecology

Hybridization / Invasion

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Ecology Gene flow Invasive/invasion Invertebrates Plants Pollination

Presentations

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Ecology of hybrid zones in Impatiens

Sneha Joshi, Indian Institute of Science Education and Research, India

Ecology Plants

10:15 AM
10:30 AM

Floral scent divergence across an elevational hybrid zone with varying pollinators

Yedra García[1], Kate Ostevik[2], Joseph J. Anderson[3], Mark D. Rausher[4], Amy L. Parachnowitsch[5]
[1]University of New Brunswick, Fredericton, New Brunswick, [2]UC Riverside, Riverside, [3]Uppsala University, Uppsala, Uppland, Sweden, [4]Duke University, Durham, NC, [5]University of New Brunswick, Fredericton, NB

Plants Pollination

10:30 AM
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Genome structure drives the landscape of introgression from selfing into outcrossing Capsella

Tyler Kent[1], Yaniv Brandvain[2], Stephen I. Wright[3]
[1]University of Toronto EEB, Vancouver, British Columbia, [2]University of Minnesota, [3]Department of EEB, U. Toronto, Toronto, Ontario

Gene flow Plants

10:45 AM
11:00 AM

Tracing the invasion history of Lantana camara in India using genomics

PRAVEEN P, National Center for Biological Sciences, BENGALURU, Karnataka, India

Invasive/invasion Plants

11:00 AM
11:15 AM

Patterns of diversification in a widespread invasive species (Sorghum halepense)

Michael McKain[1], Nate Hofford[2], M'Kayla Motley[2], Bryan MacNeill[2], Andrew Busby[2], Caitlin McCann[2], Fae Oldham[2], Allison Hayes[2], Susie McLaughlin[2], Alaina Dawkins[3]
[1]The University of Alabama, Tuscaloosa, [2]The University of Alabama, [3]Mississippi University for Women

Invasive/invasion Plants

11:15 AM

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Genetically Differentiated Populations of Invasive Tawny Crazy Ant Detected Across Their Geographic Distribution in the US

Jocelyn Holt[1], James Montoya Lerma[2], Louis Calcaterra[3], Tyler Raszick[4], Raul Medina[4]

[1]Texas A&M University / Rice University, [2]Department of Biology, Universidad del Valle, Campus de Meléndez, Colombia, [3]Fundación para el Estudio de Especies Invasivas, Hurlingham, Buenos Aires, Argentina, [4]Department of Entomology, Texas A&M University, College Station, Texas

Invasive/invasion **Invertebrates**

Phylogenetics / Methods

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Virtual

Bioinformatics **Fishes** **No specific taxon** **Phylogenetic comparative methods** **Phylogenetic methods development** **Plants**

Presentations

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Building large phylogenetic trees by combining phylogenomics and DNA barcoding: Methods and biological insights.

M. A. Thanuja M. Fernando, University of Guelph, Guelph, ON

Bioinformatics **Fishes**

10:15 AM
10:30 AM

TensorPhylo: a high-performance likelihood library for a general class of state-dependent birth-death models

Michael R. May[1], Xavier Meyer[1]

[1]UC Berkeley, Berkeley, CA

No specific taxon **Phylogenetic comparative methods**

10:30 AM
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Accounting for intraspecific variation in continuous trait evolution on a reticulate phylogeny

Benjamin Teo[1], Jeffrey Rose[1], Paul Bastide[2], Cecile Ane[3]

[1]University of Wisconsin-Madison, [2]Université de Montpellier,

[3]University of Wisconsin - Madison, Madison, WI

Phylogenetic comparative methods Plants

10:45 AM

11:00 AM

On the inference of complex phylogenetic networks with SnappNet

Charles-Elie Rabier[1], Vincent Berry[2], Fabio Pardi[3], Jean-Christophe Glaszmann[4], Celine Scornavacca[3]
[1]Université de Montpellier, Montpellier, France, [2]Université de Montpellier, [3]CNRS, [4]CIRAD

Phylogenetic methods development Plants

11:00 AM

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Build a better bootstrap and the RAWR shall beat a random path to your door: phylogenetic support estimation revisited

Kevin J. Liu[1], Wei Wang[2], Ahmad Hejasebazzi[3], Julia Zheng[2]
[1]Michigan State University, East Lansing, MI, [2]Michigan State University, East Lansing, Michigan, [3]Michigan State University

No specific taxon Phylogenetic methods development

11:15 AM

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Modeling Process Variation Among Morphological Characters: Inferring Morphological Phylogenies Under a Dirichlet Process Prior Model

Lan Wei[1], Carl Rothfels[2], Michael R. May[3]
[1]University of California, Berkeley, Berkeley, CA, [2]UC Berkeley, Richmond, CA, [3]UC Berkeley, Berkeley, CA

No specific taxon Phylogenetic methods development

Evolutionary ecology II

Tue, June 21
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Virtual

Amphibians Birds Contemporary evolution Ecology Evolutionary ecology Evolutionary theory Fishes Invertebrates Macroevolution Mammals Phenotypic plasticity/GxE Reptiles

Presentations

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The role of near-infrared reflectance in poison frog thermoregulation

Analisa Shields-Estrada[1], David Cannatella[2]

[1]The University of Texas at Austin, Austin, [2]University of Texas, Austin, TX

Amphibians **Evolutionary ecology**

12:15 PM

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Food variation determines effects of harvest on trait distributions of harvested fish populations

Matthew Schumm, Florida State University, Tallahassee

Contemporary evolution **Fishes**

12:30 PM

12:45 PM

Dietary partitioning of the critically endangered Yellow-breasted bunting and other sympatric buntings

Lai Ying Chan[1], Emily Shui Kei Poon[1], Pei-Yu Huang[1], Yat-Tung Yu[2], Simon Sin[3]

[1]The University of Hong Kong, Hong Kong, [2]Hong Kong Bird Watching Society, [3]The University of Hong Kong, Hong Kong, Hong Kong, Hong Kong

Birds **Ecology**

12:45 PM

1:00 PM

Pupal colour plasticity: What factors affect pupal colour and why?

Tarunkishwor Yumnam[1], Birupaksha Banerjee[2], Hazekaiah G Laloo[3], Ullasa Kodandaramaiah[3]

[1]Indian Institute of Science Education and Research Thiruvananthapuram, Thiruvananthapuram, India, [2]Researcher, India, [3]Indian Institute of Science Education and Research Thiruvananthapuram

Invertebrates **Phenotypic plasticity/GxE**

1:00 PM

1:15 PM

Evolution of scapula and pelvis of hystricomorph rodents

Luiza F. Gasparetto[1], Bruno Simionovschi[2], Renan Maestri[3], Bruce Patterson[4], Thales Freitas[2]

[1]Universidade Federal do Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil, [2]Universidade Federal do Rio Grande do Sul, [3]Universidade Federal do Rio Grande do Sul, Brazil, [4]Field Museum of Natural History

Macroevolution **Mammals**

1:15 PM

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Plasticity and the adaptive evolution of switchlike reaction norms under environmental change

Claudia Crowther, UNSW, Epping, Australia

Evolutionary theory Reptiles

Experimental evolution

Tue, June 21
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Virtual

Artificial selection Drosophila Experimental evolution Microbes Mitochondrial Mutation Nematodes No specific taxon

Presentations

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A role for microbes in the experimental evolution of life histories and aging in Caenorhabditis elegans

Ivo M. Chelo[1], Josiane Santos[2], David Pires[3]

[1]Center for Ecology, Evolution and Environmental Changes, Faculdade de Ciências, Universidade de Lisboa, Portugal., Lisbon, NA, Portugal, [2]Center for Ecology, Evolution and Environmental Changes, Faculdade de Ciências, Universidade de Lisboa, Portugal., [3]INIAV - National Institute for Agrarian and Veterinary Research, Portugal, Portugal

Experimental evolution Nematodes

12:15 PM

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Evolvability of sporulation and germination behavior in Bacillus subtilis batch culture

Katie Sagarin[1], Elizabeth Ouanemalay[2], Hilda Asante-Nyame[2], Vera Hong[2], Frederick Cohan[2]

[1]Wesleyan University, Middletown, CT, [2]Wesleyan University

Experimental evolution Microbes

12:30 PM

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Mutation rate does not fully explain the rate of mutator invasion into wild-type populations

Mrudula Sane[1], Deepa Agashe[2]

[1]National Centre for Biological Sciences, Bengaluru, India, [2]National Centre for Biological Sciences, Bangalore, Karnataka,

India

Microbes Mutation

12:45 PM

1:00 PM

Sex and mitonuclear adaptation in experimentally evolved C. elegans

Zachary Dietz[1], Suzanne Estes[2]

[1]Portland State University, Portland, Oregon, [2]Portland State University

Mitochondrial Nematodes

1:00 PM

1:15 PM

Habitat novelty shapes history's influence on trade-offs and trade-ups in digital organisms

Jason Bundy[1], Richard Lenski[2], Charles Ofria[3]

[1]University of Minnesota, LANSING, [2]Michigan State University, East Lansing, MI, [3]Michigan State University

Experimental evolution No specific taxon

Mixed session I

Tue, June 21

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Virtual

Adaptation Arthropods Birds Fishes Phylogeography Systematics

Presentations

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DNA sequencing of historical museum specimens of ladybird beetles (Coleoptera, Coccinellidae) to resolve their phylogenetic relationships

Karen Salazar[1], Romain NATTIER[2], Guillaume ACHAZ[3]

[1]Institut Systématique Evolution Biodiversité (ISYEB - UMR 7205), Muséum national d´Histoire naturelle, Sorbonne Université, CNRS, EPHE, Paris, Ile de France, France, [2]ISYEB (UMR 7205), Muséum national d'Histoire naturelle, CNRS, Sorbonne Université, EPHE, [3]UMR 7206, Musée de l'Homme, Muséum national d'Histoire naturelle & UMR 7241 CIRB, Collège de France

Arthropods Systematics

12:15 PM

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Millennium Institute Biodiversity of Antarctic and Subantarctic Ecosystems (BASE): phylogeographical patterns obtained from genomic data in different taxonomic groups

Juliana A. VIANNA[1], Karin Gerard[2], Angie Diaz[3], Claudio González-Wevar[4], Nicolás Segovia[5], Guillaume Schwob[6], Léa Cabrol[6], Julieta Orlando[7], Elie Poulin[5]

[1]Pontificia Universidad Católica de Chile, SANTIAGO, RM, Chile, [2]Universidad de Magallanes, [3]Universidad de Concepcion, Concepcion, Concepcion, Chile, [4]Universidad Austral de Chile, [5]Universidad de Chile, [6]Millennium Institute Biodiversity of Antarctic and Subantarctic Ecosystems (BASE), [7]Universidad de Chile, Santiago, Chile

Birds **Phylogeography**

12:30 PM

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Exploring gut microbiota diversity associated with divergence in trophic ecology in threespine stickleback

Emma Kurstjens, UCSD, San Diego

Adaptation **Fishes**

Paleobiology / Phylogenetics

Tue, June 21
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Arthropods **Evolutionary ecology** **Mollusks** **No specific taxon** **Paleobiology** **Paleontology** **Phylogenetic comparative methods** **Reptiles** **Systematics**

Presentations

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Understanding the relative contribution of phylogeny and ecomorphology to 2D skull shape in the Mesozoic radiation of fossil archosaurs

Roland Sookias[1], Nicole Grunstra[2], Anne Le Maître[3], Eduardo Ascarrunz[4], Christian Foth[5]

[1]Université de Liège, Liège, Belgium, [2]University of Vienna/Natural History Museum Vienna, [3]University of Vienna/Université de Poitiers, [4]Université de Fribourg, [5]Universté de Fribourg

Paleobiology **Reptiles**

12:15 PM

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Trait-based paleontological niche prediction demonstrates deep time parallel ecological occupation in specialized ant predators

Christine Sosiak[1], Phillip Barden[2]

[1]New Jersey Institute of Technology, [2]New Jersey Institute of Technology, Newark

Arthropods Paleobiology

12:30 PM

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Specialized predation drives aberrant morphological integration and diversity in the earliest ants

Phillip Barden[1], Vincent Perrichot[2], Bo Wang[3]

[1]New Jersey Institute of Technology, Newark, [2]Université de Rennes, [3]Nanjing Institute of Geology and Palaeontology

Arthropods Paleontology

12:45 PM

1:00 PM

Testing for phylogenetic signal in shell shape for the Lucinidae (Bivalvia, Mollusca)

Brooke Long-Fox[1], Laurie Anderson[2], Broc Kokesh[3], Audrey Paterson[4], Shen Jean Lim[5], Barbara Campbell[6], Annette Engel[4]

[1]South Dakota School of Mines and Technology, Rapid City, [2]South Dakota School of Mines and Technology, [3]University of Chicago, [4]University of Tennessee, [5]University of Miami, [6]Clemson University

Mollusks Systematics

1:00 PM

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Deep time extinction of largest insular ant predators and the first fossil Neoponera (Formicidae: Ponerinae) from Miocene age Dominican amber

Gianpiero Fiorentino[1], Phillip Barden[1], Christine Sosiak[2]

[1]New Jersey Institute of Technology, Newark, [2]New Jersey Institute of Technology

Arthropods Evolutionary ecology

1:15 PM

1:30 PM

Phylogenetic Branch Regression (PhyBR): A fast, flexible, and integrative method for modelling traits on phylogenies and conducting comparative analyses.

Russell Dinnage, Florida International University

No specific taxon Phylogenetic comparative methods

Evolutionary ecology III

Tue, June 21
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Virtual

Arthropods | Evolutionary ecology | Methods/techniques | Microbes | Plants | Sensory systems

Presentations

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Is salinity-induced cell death in D. salina adaptive in a fluctuating environment?

Nathalie Zeballos[1], Daphné Grulois[2], Stanislas Fereol[3], Christelle Leung[4], Luis-Miguel Chevin[3]
[1]University of Montpellier, CNRS-CEFE, Montpellier, France, [2]CNRS, [3]CNRS CEFE Montpellier France, [4]CNRS CEFE, France

Evolutionary ecology | Microbes

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3:00 PM

Colonization of opposite ends of an extreme altitudinal gradient

Adrián Villastrigo[1], William F. Humphreys[2], Steven Cooper[3], Michael Balke[4]
[1]Zoologische Staatssammlung München, Munich, Germany, [2]School of Biological Sciences, University of Western Australia, Australia, [3]South Australian Museum / The University of Adelaide, [4]Zoologische Staatssammlung München

Arthropods | Evolutionary ecology

3:00 PM
3:15 PM

Adaptation to the Urban Heat Island in Weedy Plant Species Across US Cities

WITHDRAWN

Eric Yee, Johns Hopkins University, Baltimore, MD

Evolutionary ecology | Plants

3:15 PM
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Evolution in the time of drought: Natural selection on floral traits in water deficit

Kaushalya K. Rathnayake[1], Amy L. Parachnowitsch[2]
[1]University of New Brunswick, Department of Biology, Fredericton, NB, [2]University of New Brunswick, Fredericton, NB

Evolutionary ecology | Plants

3:30 PM

3:45 PM

Exploration of Habronattus jumping spiders crypsis using hyperspectral imaging

Helean Shelton[1], David J. Morris[2]
[1]University of Cincinnati, Cincinnati, [2]University of Cincinnati, CINCINNATI, OH

Arthropods Sensory systems

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4:00 PM

Duckweed as a model system in ecology and evolution

Robert A. Laird, University of Lethbridge, Lethbridge, Alberta

Methods/techniques Plants

Mixed session II

Tue, June 21
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Virtual

Arthropods Bioinformatics Coevolution Genomics Mammals No specific taxon Phylogenomics

Presentations

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Shiny phyloregion: An interactive tool to explore and analyze macroecological and biogeographical data

Gabriel Nakamura, Texas A&M University, Corpus Christi

Bioinformatics No specific taxon

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3:00 PM

Diaspidiotus ancylus: An extremely polyphagous insect or a clade of diverse specialists? or both?

Mayrolin Garcia[1], Ben Normark[2]
[1]UMass Amherst, Amherst, MA, [2]University of Massachusetts Amherst, AMHERST, MA

Arthropods Phylogenomics

3:00 PM

3:15 PM

Mitonuclear Coevolution via Nuclear Compensation: Plausible yet a Paucity of Evidence

Ryan Weaver[1], Samantha Rabinowitz[2], Kiley Theuson[2], Justin C. Havird[3]
[1]Iowa State University, Ames, IA, [2]University of Texas at Austin, [3]University of Texas at Austin, Austin, TX

Coevolution **Mammals**

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Functional Impacts of High-Effect Mutations Associated with dog Hyper-Sociability

Dhriti Tandon, Princeton University, Princeton

Genomics **Mammals**

Population genetics

Tue, June 21
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Virtual

Birds **Ecological genetics** **Fishes** **Genomics** **Mammals** **Marine animals** **No specific taxon** **Population genetics: molecular ecology**

Presentations

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Genetic variation and natural selection across non-MHC immune loci of tiger Panthera tigris

B.V. Aditi Prasad[1], Uma Ramakrishnan[2]
[1]National Center for Biological Sciences-TIFR, Bengaluru, Karnataka, India, [2]NCBS, India

Mammals **Population genetics: molecular ecology**

2:45 PM

3:00 PM

Genetic approaches reveal a healthy population and unexpected origin for Foskett Spring Speckled Dace

Brian Sidlauskas[1], Hakan Aydoğan[2], Samarth Mathur[3], Andrew Black[2]
[1]Oregon State University, Corvallis, OR, [2]Oregon State University, [3]Ohio State University, Dublin, OH

Fishes **Population genetics: molecular ecology**

3:00 PM

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Evaluating the sensitivity of landscape genomic analyses

Anusha Bishop[1], Drew E. Terasaki Hart[2], Ian Wang[3]
[1]UC Berkeley, Berkeley, CA, [2]UC Berkeley, OAKLAND, CA, [3]University of California, Berkeley, Berkeley, CA

No specific taxon **Population genetics: molecular ecology**

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Comparative population genomics reveals drivers of population size fluctuations and genetic basis of adaptation in albatrosses

Simon Sin[1], Stella Huynh[1], Alison Cloutier[2], David Tsz Chung Chan[3], Derek Kong Lam[4], Scott V. Edwards[2]
[1]The University of Hong Kong, Hong Kong, Hong Kong, Hong Kong, [2]Harvard University, Cambridge, MA, [3]The University of Hong Kong, Hong Kong, [4]The University of Hong Kong

Birds **Genomics**

3:30 PM

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Population genetics of a Fundulus spp. hybrid zone in northeastern Florida

Andrew Hardy, University of North Florida, Jacksonville

Ecological genetics **Fishes**

Reproductive biology

Tue, June 21
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Virtual

Arthropods **Comparative biology** **Development** **Fishes** **Invertebrates** **Mating systems (e.g. monogamy, polygamy, etc.)** **Plants** **Reproductive biology** **Species interactions**

Presentations

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Single-cell gene expression of lepidopteran sperm morphs across developmental stages

Melissa Plakke, Governors State University

Arthropods **Reproductive biology**

2:45 PM

3:00 PM

Morphometry And Gametogenesis In The All-Female Chrosomus Eos X Neogaeus: The Role Of Maternal Effects

Joelle Lafond[1], Bernard Angers[2]
[1]Université de Montréal, Montréal, [2]Université de Montréal

Fishes **Reproductive biology** **Speciation**

3:00 PM

3:15 PM

Flower Size and Division of Labor in Buzz-Pollinated Flowers

Peter Quakenbush, Western Michigan University, Kalamazoo

Comparative biology **Plants**

3:15 PM

3:30 PM

How orchids bloom? A molecular perspective of reproductive transition in tropical species

Yesenia Madrigal[1], Michael Scanlon[2], Juan F. Alzate[3], Natalia Pabon-Mora[4]
[1]Universidad de Antioquia, Medellin, Not applicable, Colombia, [2]Cornell University, [3]Universidad de Antioquia, Centro Nacional de Secuenciación Genómica, Colombia, [4]Universidad de Antioquia, Colombia

Development **Plants**

3:30 PM

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Reproductive success of carpenter ant queens: Effects of colony structure, heterozygosity, and nest environment

Miguel Pereira-Romeiro[1], Marianne Azevedo-Silva[2], Henrique Florindo[3], Paulo Oliveira[2], Gustavo Mori[4]
[1]São Paulo State University - UNESP, São Vicente, Brazil, [2]State University of Campinas, [3]São Paulo State University - UNESP, [4]São Paulo State University - UNESP, Brazil

Arthropods **Mating systems (e.g. monogamy, polygamy, etc.)**

3:45 PM

4:00 PM

Somatic And Genital Traits Show Reproductive Character Displacement In Two Sympatric Scorpion Species

Mariela A. Oviedo-Diego[1], Eduardo M. Soto[2], Camilo Mattoni[3], Alfredo Peretti[4]
[1]Laboratorio de Biología Reproductiva y Evolución, Córdoba, Córdoba, Argentina, [2]Instituto de Ecología, Genética y Evolución de Buenos Aires (IEGEBA), Buenos Aires, Argentina, [3]Laboratorio de Biología Reproductiva y Evolución, Argentina, [4]Laboratorio de Biología Reproductiva y Evolución

Invertebrates **Species interactions**

Behavior

Tue, June 21
4:30 PM - 6:00 PM
Virtual

Behavior Birds Drosophila Human Invertebrates

Presentations

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Using simulation models to examine the preferred ambush locations for sit-and-wait predators

Inon Scharf, Tel Aviv University, Tel Aviv, Israel

Behavior Invertebrates

4:45 PM
5:00 PM

Variation in non-songbird vocalizations

Prabhjeet Singh[1], Vinodkumar Saranathan[2]

[1]SIAS, Krea University, India, [2]Krea University, Sricity, India

Behavior Birds

5:00 PM
5:15 PM

Scent feathers: a shared derived trait in the Genus Aethia?

Hector Douglas, Grambling State University, Ruston

Behavior Birds

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5:30 PM

Manipulating Indirect Genetic Effects to reveal their influence on evolutionary rates in D. melanogaster

Julia Saltz[1], Anna Girardeau[1]

[1]Rice University

Behavior Drosophila

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5:45 PM

Somebody's Watching Me: Exploring the Effects of Social Information Use and Production

Marina Hutchins[1], Julia Saltz[2]

[1]Rice University, Houston, [2]Rice University

Behavior Drosophila

Phylogenetics / Biogeography

Tue, June 21
4:30 PM - 6:00 PM
Virtual

Amphibians Biogeography Invertebrates Mammals No specific taxon Phylogeography

Presentations

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5:00 PM

Phylogeography of the cosmopolitan ribbon worm Lineus sanguineus (Rathke 1799)(Heteronemertea: Nemertea) on the Brazilian coast

Dione Jordan[1], Sónia C. Andrade[2], Cecili Mendes[3]
[1]USP, Sao Paulo, Brazil, [2]Institute of Bioscienses, University of São Paulo, [3]University of São Paulo, Brazil

Invertebrates Phylogeography

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5:15 PM

Geography vs. past climate: the drivers of population genetic structure of the Himalayan langur

Kunal Arekar[1], Neha Tiwari[2], Sathyakumar S[3], Mehreen Khaleel[4], Praveen Karanth[5]
[1]Indian Institute of Science, Bangalore, Karnataka, India, [2]Louisiana State University, Baton Rouge, [3]Wildlife Institute of India, [4]4Wildlife Research and Conservation Foundation, Jammu and Kashmir, India, [5]Indian Institute of Science

Mammals Phylogeography

5:15 PM
5:30 PM

Phylogeographic signatures of lineage fusion closely resemble those of population size reduction

Ryan Garrick, U. Mississippi, University, MS

No specific taxon Phylogeography

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5:45 PM

Chronoecogeography and Bergmann's Rule: Integrating geographical and temporal scale patterns

Matan Shelomi, National Taiwan University, Taipei, Taiwan

Biogeography No specific taxon

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6:00 PM

Evolution of the coloration of glass frogs (Anura: Centrolenidae) and its relationship with altitudinal gradients in the Neotropic

María Sánchez-Carvajal[1], Mauricio Ortega[2], Diego F. Cisneros-Heredia[3]
[1]Universidad Regional Amazonica Ikiam, Tena, Napo, Ecuador, [2]Universidad Regional Amazonica Ikiam, Ecuador, [3]Universidad San Francisco de Quito

Amphibians **Biogeography**

Population genetics / Evolutionary theory

Tue, June 21
4:30 PM - 6:00 PM
Virtual

Modeling **Mythical creatures** **No specific taxon** **Population genetics: theory and methods** **Quantitative genetics** **Social systems**

Presentations

4:30 PM
4:45 PM

Information in simulated alignments is limited for recombination rate estimation

Mackenzie Johnson[1], Claus Wilke[1]
[1]University of Texas at Austin

No specific taxon **Population genetics: theory and methods**

4:45 PM
5:00 PM

Modeling minimum viable population size with multiple genetic problems of small populations

Peter Nabutanyi[1], Meike Wittmann[2]
[1]Bielefeld University, Bielefeld, North Rhine-Westphalia, Germany, [2]Bielefeld University, Bielefeld, NRW, Germany

Modeling **No specific taxon**

5:00 PM
5:15 PM

An NK model of adaptation in changing environments

Sonia Singhal[1], Emily Dolson[2]
[1]San José State University, San Jose, [2]Michigan State University, East Lansing, MI

Modeling **No specific taxon**

5:15 PM

5:30 PM

Analytic and numerical evaluation of average evolvability measures for comparison of G matrices

Junya Watanabe, University of Cambridge, Cambridge, Cambridgeshire, United Kingdom

No specific taxon Quantitative genetics

5:30 PM

5:45 PM

Indirect reciprocity in multiple social contexts

Taylor A. Kessinger[1], Corina Tarnita[2], Joshua Plotkin[3]
[1]University of Pennsylvania, Philadelphia, PA, [2]Princeton University, [3]University of Pennsylvania

Mythical creatures Social systems

Adaptation II

Tue, June 21
7:00 PM - 8:15 PM
Virtual

Adaptation Arthropods Drosophila Fishes Marine animals Plants Quantitative genetics

Presentations

7:00 PM

7:15 PM

The genomic basis of spawning and migratory behaviour in a polymorphic salmonid

Anna Tigano[1], Michael Russello[2]
[1]University of British Columbia - Okanagan, Kelowna, NH, [2]University of British Columbia Okanagan

Adaptation Fishes

7:15 PM

7:30 PM

Microgeographic differentiation and adaptation to depth within meadows of the seagrass Zostera marina

Cynthia Hays[1], Torrance C. Hanley[2], A. Randall Hughes[2], Erik Sotka[3]
[1]Keene State College, Keene, NH, [2]Northeastern University, Nahant, MA, [3]College of Charleston

Adaptation Plants

7:30 PM

7:45 PM

How do sizes of host-use gene families differ between specialist and generalist bark beetles?

Jared Bernard, University of Hawaii–Manoa

Adaptation Arthropods

7:45 PM

8:00 PM

Rapid reduction of Paraoxonase expression followed by inactivation across semi-aquatic mammals suggests adaptive benefit of gene loss

Allie M. Graham[1], Nathan Clark[2], Wynn K. Meyer[3], Clement Furlong[4], Jerrica Jamison[5], Rebecca Richter[4], Ari Fustukjian[6]

[1]University of Utah, Salt Lake City, OR, [2]University of Pittsburgh, [3]Lehigh University, Bethlehem, Pennsylvania, [4]University of Washington, [5]University of Toronto, Scarborough, [6]Loveland Living Planet Aquarium

Adaptation Marine animals

8:00 PM

8:15 PM

Genetic architecture of the thermal tolerance landscape of Drosophila melanogaster

Juan A. Soto[1], Luis E. Castañeda[2], Patricio E. Olguín[3]

[1]Universidad de Chile, Quilpué, Valparaíso, Chile, [2]Universidad de Chile, Santiago, Santiago Metropolitan, Chile, [3]Universidad de Chile

Drosophila Quantitative genetics

Evolutionary ecology / Behavior

Tue, June 21
7:00 PM - 8:15 PM
Virtual

Behavior Biogeography Evolutionary ecology Experimental evolution Fishes Mammals Microbes Reptiles

Presentations

7:00 PM

7:15 PM

Evolutionary loss of complexity in animal communication: cause and consequence

Terry J. Ord, UNSW Sydney, Sydney, NSW, Australia

Behavior Reptiles

7:15 PM

7:30 PM

Competition effects on phenotypic and biogeographic evolution in a continental radiation

Octavio Jimenez-Robles[1], Renee Catullo[2], Paul Doughty[3], Craig Moritz[4]

[1]École Normale Supérieure (Paris, FR) / Australian National University (Canberra, AU), Australia, [2]University of Western Australia, [3]Western Australian Museum, [4]Australian National University (ANU)

Biogeography **Reptiles**

7:30 PM

7:45 PM

Does good food make male mice sexy?

Neelam Jitendra Porwal[1], S. Gangothri[2], Himrekha Agarwal[3], Anja Guenther[4]

[1]Adam Mickiewicz University, Poland, [2]Indian Institute of Science Education and Research, Bhopal, India, [3]Ramnarain Ruia Autonomous College, [4]Max Planck Institute for Evolutionary biology

Evolutionary ecology **Mammals**

7:45 PM

8:00 PM

Evolution of stage-specific habitat selection under intraguild predation

Joshua Goldberg[1], Richard Evans[1], David N. Reznick[2]

[1]Bhutan Ecological Society, Bhutan, [2]University of California, Riverside, California

Evolutionary ecology **Fishes**

8:00 PM

8:15 PM

Studying reversions from multicellularity to unicellularity using experimental evolution

Harley Yopp[1], Saranya Gourisetti[2], Peter Conlin[3], William C. Ratcliff[1]

[1]Georgia Institute of Technology, [2]Georgia Institute of Technology, Cumming, [3]Georgia Institute of Technology, Atlanta

Experimental evolution **Microbes**

Genomics / Hybridization

Tue, June 21
7:00 PM - 8:15 PM

Virtual

Birds **Coevolution** **Fishes** **Genomics** **Hybridization** **No specific taxon** **Phylogenetic methods development** **Plants**

Presentations

7:00 PM

7:15 PM

Scans for selective sweeps reveal signatures of local and global adaptation in the California Valley Oak (Quercus lobata)

Jesse A. Garcia[1], Kirk Lohmueller[2], Victoria Sork[3]

[1]UCLA, Los Angeles, CA, [2]UCLA, [3]Department of Ecology & Evolutionary Biology, University of California, Los Angeles

Genomics **Plants**

7:15 PM

7:30 PM

R3F: An R package for evolutionary dates, rates, and priors using relative rate framework

WITHDRAWN

Qiqing Tao[1], Koichiro Tamura[2], Sudip Sharma[3], Sudhir Kumar[4]

[1]Institute for Genomics and Evolutionary Medicine, Philadelphia, PA, [2]Tokyo Metropolitan University, [3]Temple Universirt, Philadelphia, Pennsylvania, [4]iGEM @ Temple, Philadelphia, PA

No specific taxon **Phylogenetic methods development**

7:30 PM

7:45 PM

Early diversifications of angiosperms and their insect pollinators: were they unlinked?

Yasmin Asar[1], Simon Y. Ho[2], Hervé Sauquet[3]

[1]The University of Sydney, Sydney, NSW, Australia, [2]University of Sydney, [3]Royal Botanic Gardens and Domain Trust, Sydney, NSW, Australia

Coevolution **Plants**

7:45 PM

8:00 PM

A novel three-way hybridization event between deeply diverged Xiphophorous species.

Shreya M. Banerjee[1], Daniel Powell[2], Benjamin M. Moran[1], Wilson F. Ramírez-Duarte[3], Quinn Langdon[1], Molly Schumer[1]

[1]Stanford University, Stanford, CA, [2]Stanford University, Belmont, Ca, [3]University of Toronto, St. George, Toronto, Ontario

Fishes **Hybridization**

8:00 PM

8:15 PM

Experimental evidence that mito-nuclear interactions impact mitochondrial function in long-tailed finch hybrids

Callum McDiarmid[1], Daniel Hooper[2], Antoine Stier[3], Simon Griffith[4]

[1]Macquarie University, Marsfield, New South Wales, Australia, [2]American Museum of Natural History, Brooklyn, [3]Department of

Biology, University of Turku, Finland. Université Claude Bernard Lyon 1, France, [4]Macquarie University

Birds Hybridization

Coevolution / Mutualism

Wed, June 22
10:00 AM - 11:30 AM
Virtual

Arthropods Host-parasite Microbes Mitochondrial Molecular evolution Mutualism No specific taxon Prokaryotes Protista

Presentations

10:00 AM
10:15 AM

Transcriptomic analysis of cooperative behavior in a mutualistic ant-plant interaction

MARIA C. TOCORA[1], Christopher Reid[2], Haoran Xue, Megan E. Frederickson[3]
[1]University of Toronto, Toronto, Ontario, [2]University of Toronto, [3]University of Toronto, Torontoo, Ontario

Arthropods Mutualism

10:15 AM
10:30 AM

Small guts, big potentials: Symbiont digestive abilities in a clade of herbivorous ants

Ben Bechade[1], Yi Hu[2], Christian Cabuslay[3], Dharman Anandarajan[4], Valerie Fiers[5], Richard Lu[4], Benjamin Rubin[6], Corrie S. Moreau[7], John Wertz[8], Jacob Russell
[1]Drexel University, Philadelphia, Pennsylvania, [2]Beijing Normal University, [3]Drexel University, Philadelphia, PA, [4]Russell Lab, Drexel University, [5]Drexel University, [6]Princeton University, Princeton, NJ, [7]Cornell University, Ithaca, New York, [8]Calvin College

Microbes Mutualism

10:30 AM
10:45 AM

Mutualistic interactions alter rates of molecular evolution in rhizobia

Tia L. Harrison[1], John R. Stinchcombe[1], Megan E. Frederickson[2]
[1]University of Toronto, Toronto, ON, [2]University of Toronto,

Torontoo, Ontario

Microbes Molecular evolution

10:45 AM

11:00 AM

Mitochondrial-nuclear interactions with the environment affect phenotype expression in a slime mould

WITHDRAWN

Venkatesh Nagarajan Radha[1], Madeleine Beekman[2]

[1]St. John's College, Palayamkottai, NSW, India, [2]University of Sydney

Mitochondrial Protista

11:00 AM

11:15 AM

Studying Symbiosis with Digital Evolution

Anya E. Vostinar[1], Katherine Skocelas[2], Alexander M. Lalejini[3], Luis Zaman[4]

[1]Carleton College, Northfield, MN, [2]Michigan State University, East Lansing, MI, [3]Michigan State University, Owosso, MI, [4]University of Michigan, Ann Arbor, Michigan

Host-parasite No specific taxon

11:15 AM

11:30 AM

Symbiont genome decay associated with free-living environment alters host specificity in a legume-rhizobia mutualism

Anna Simonsen[1], Samuel Andrew[2], Justin Borevitz[3]

[1]Florida International University, Miami, [2]Commonwealth Scientific and Industrial Research Organisation, Australia, [3]Australian National University

Mutualism Prokaryotes

Ecological genetics

Wed, June 22

10:00 AM - 11:30 AM

Virtual

Arthropods Ecological genetics Evolutionary ecology Fishes No specific taxon Parallel/convergent evolution Reptiles

Presentations

10:00 AM

10:15 AM

The population genetics of species range loss in the Anthropocene

Moi Exposito-Alonso, Carnegie Institution for Science & Stanford University, Stanford, CA

Ecological genetics No specific taxon

10:15 AM

10:30 AM

Contrasting Population-Specific Genome-Wide Epigenetic Profiles Across Latitude-Altitude Range Extremes in the Bumble Bee B. vosnesenskii

Sarthok Rasique Rahman[1], Jeffrey D. Lozier[2]

[1]The University of Alabama, Tuscaloosa, Alabama, [2]University of Alabama

Arthropods Ecological genetics

10:30 AM

10:45 AM

Genomic architecture informs the evolutionary history of the Atlantic silversides (Menidia menidia) WITHDRAWN

Áki Jarl Láruson[1], Maria Akopyan[2], Nina O. Therkildsen[3]

[1]University of Iceland, Reykjavík, Iceland, [2]Cornell University, Ithaca, NY, [3]Cornell University

Evolutionary ecology Fishes

10:45 AM

11:00 AM

Functional genomics of abiotic environmental adaptation in lacertid lizards and other vertebrates

Katharina Wollenberg Valero, University of Hull, Kingston-upon-Hull, Humberside, United Kingdom

Parallel/convergent evolution Reptiles

11:00 AM

11:15 AM

HEMOGLOBIN GENES: EVOLUTION ACROSS REPTILES FOLLOWS ENVIRONMENTAL VARIATION TIED TO OXYGEN AVAILABILITY

Juan David Carvajal Castro[1], Randy Ortiz[2], Genrietta Yagudayeva[3], Carolina Benitez[4], Juan C. Santos[5]

[1]St. John's University, New York City, [2]St. John's University, JAMAICA, NY, [3]St. John's University, Brooklyn, [4]St. John's University, [5]St. John's University, Queens-Jamaica, New York

Evolutionary ecology Reptiles

11:15 AM

11:30 AM

Restricted gene flow in the euralyne native crab Cyrtograpsus angulatus along its latitudinal gradient on the Southwestern Atlantic coast

Berenice Trovant[1], Florencia Alvarez Gallego[2], Ivanna H. Tomasco[3], Daniel Ruzzante[4], Néstor G. Basso[5]
[1]IDEAUS - CONICET, Puerto Madryn, Chubut, Argentina, [2]UNPSJB, Argentina, [3]Facultad de Cienias, Universidad de la República, Montevideo, Montevideo, Uruguay, [4]Dalhousie University, [5]IDEAUS-CONICET

Arthropods **Ecological genetics**

Phylogenetics I

Wed, June 22
10:00 AM - 11:30 AM
Virtual

Fishes **Macroevolution** **Mammals** **No specific taxon** **Phylogenetic comparative methods** **Phylogenetic methods development** **Phylogenetic theory** **Phylogenomics**

Presentations

10:00 AM
10:15 AM

Annotating Genomes to Improve Phylogenetic Inference for Distributed in Silico Populations

Matthew A. Moreno[1], Emily Dolson[1], Charles Ofria[2]
[1]Michigan State University, East Lansing, MI, [2]Michigan State University

No specific taxon **Phylogenetic methods development**

10:15 AM
10:30 AM

What can we tell about a reticulate phylogenetic network using genetic distances?

Jingcheng Xu[1], Cecile Ane[2]
[1]University of Wisconsin - Madison, [2]University of Wisconsin - Madison, Madison, WI

No specific taxon **Phylogenetic theory**

10:30 AM
10:45 AM

Species-level timeline of mammal evolution integrating phylogenomic data

Sandra Alvarez-Carretero[1], Asif Tamuri[2], Matteo Battini[3], Fabricia Nascimento[4], Emily Carlisle[3], Robert Asher[5], Ziheng Yang[6], Phil Donoghue[3], Mario dos Reis[7]
[1]University College London, London, London, United Kingdom, [2]University College London, [3]University of Bristol, [4]Imperial College

London, [5]University of Cambridge, [6]Department of Genetics, Evolution and Environment, University College London, London WC1E 6BT, UK., [7]School of Biological and Chemical Sciences, Queen Mary University of London, London, London, United Kingdom

Mammals **Phylogenomics**

10:45 AM

11:00 AM

Phylogenomic discordance and the evolutionary history of the Neotropical cat genus Leopardus

Jonas Lescroart[1], Paola Pulido-Santacruz[2], Constanza Napolitano[3], William Murphy[3], Hannes Svardal[4], Eduardo Eizirik[4]
[1]University of Antwerp, Wilrijk, Oost-Vlaanderen, Belgium, [2]Alexander von Humboldt Biological Resources Research Institute, Bogota, Colombia, [3]University of Los Lagos, [4]University of Antwerp

Mammals **Phylogenomics**

11:00 AM

11:15 AM

Considering decoupled phenotypic diversification between ontogenetic phases in macroevolution: An example using Triggerfishes (Balistidae)

Katerina Zapfe[1], Alex Dornburg[2], Michael E. Alfaro[3], Thomas Near[4], Bruno Frédérich[5], Haruka Adachi[5], Francesco Santini[5], Richard Morris[5], Joseph Flores[5], Rachel Williams[5]
[1]University of North Carolina at Charlotte, Charlotte, [2]University of North Carolina Charlotte, Charlotte, [3]UCLA, Santa Barbara, CA, [4]Yale University, New Haven, CT, [5]Laboratory of Functional and Evolutionary Morphology, FOCUS, University of Liège

Fishes **Phylogenetic comparative methods**

11:15 AM

11:30 AM

Reinterpreting the molecular evolution of the ray-finned fish innate immune system

Rittika Mallik[1], Kara Carlson[2], Jeffrey Yoder[2], Alex Dornburg[3]
[1]UNC Charlotte, Charlotte, North Carolina, [2]NC State University, [3]University of North Carolina Charlotte, Charlotte

Fishes **Macroevolution**

Coevolution / Host-pathogen

Wed, June 22
12:00 PM - 1:30 PM
Virtual

Amphibians Coevolution Disease Host-parasite Mollusks Viruses Wolbachia

Presentations

12:00 PM

12:15 PM

Hidden structural diversity within a Wolbachia strain infecting cherry-infesting Rhagoletis (Diptera: Tephritidae) flies across North America

Daniel Bruzzese[1], Thomas Wolfe[2], Hannes Schuler[3], Wee L. Yee[4], Juan Rull[4], Martin Aluja[5], Robert Goughnour9[6], Glen R. Hood[7], Christian Stauffer[8], Jeffrey R. Feder[9]

[1]University of Notre Dame, Notre Dame, IN, [2]University of Vienna, [3]Free University of Bozen-Bolzano, Bozen, Bolzano, Italy, [4]USDA, [5]Insituto de Ecología A. C., Xalapa, Mexico, [6]Washington State University Extension, [7]Wayne State University, Detroit, MI, [8]University of Natural Resources and Life Sciences, Vienna, [9]University of Notre Dame

Host-parasite Wolbachia

12:15 PM

12:30 PM

Purifying selection and adaptive evolution spanning the zoonosis of SARS-CoV-1 and SARS-CoV-2

Alex Dornburg[1], Stephen J. Gaughran[2], Hayley Hassler[3], J. Nick Fisk[3], Jeffrey P. Townsend[2], Alison Galvani[3]

[1]University of North Carolina Charlotte, Charlotte, [2]Yale University, New Haven, CT, [3]Yale University, New Haven

Disease Viruses

12:30 PM

12:45 PM

The durability of SARS-CoV-2 vaccine-mediated immunity and the optimal timing of booster vaccination

Hayley Hassler[1], Alex Dornburg[2], Jeffrey P. Townsend[3]

[1]Yale University, New Haven, [2]University of North Carolina Charlotte, Charlotte, [3]Yale University, New Haven, CT

Disease Viruses

12:45 PM

1:00 PM

The speed of antigenic escape in the presence of immunocompromised host

Ryuichi Kumata[1], Akira Sasaki[2]

[1]Department of Evolutionary Studies of Biosystems, School of Advanced Sciences, SOKENDAI, Japan, [2]Department of Evolutionary Studies of Biosystems, School of Advanced Sciences,

SOKENDAI

Disease Viruses

1:00 PM

1:15 PM

Virulence evolution of an amphibian emerging infectious pathogen

Minjie Fu[1], Bruce Waldman[2]

[1]Seoul National University, Seoul, Seoul, South Korea, [2]Oklahoma State University

Amphibians Coevolution

1:15 PM

1:30 PM

Coevolution with freshwater fishes drives the radiation of a group of parasitic bivalves

Chase H. Smith[1], Wendell Haag[2], John M. Pfeiffer[2], Nathan Johnson[3], James Williams[4], Manuel Lopes-Lima[5], Andre Gomes-dos-Santos[5], Elsa Froufe[5], David Hillis[6]

[1]University of Texas at Austin, Austin, TX, [2]US Forest Service, Frankfort, KY, [3]U.S. Geological Survey, Wetland and Aquatic Research Center, Gainesville, FL, USA, [4]Florida Museum of Natural History, University of Florida, Gainesville, FL, USA, [5]CIIMAR/CIMAR - Interdisciplinary Centre of Marine and Environmental Research, University of Porto, Matosinhos, Portugal, [6]University of Texas at Austin

Coevolution Mollusks

Macroevolution / Adaptation

Wed, June 22

12:00 PM - 1:30 PM

Virtual

Adaptation Allometry Arthropods Fishes Macroevolution Mollusks Plants Reptiles Sensory systems Species delimitation

Presentations

12:00 PM

12:15 PM

Ray of light: vegetation cover is the main driver of color brightness evolution in squamates

Jonathan Goldenberg, Ghent University, Belgium

Macroevolution Reptiles

12:15 PM

12:30 PM

Evidence of depth partitioning in Provanna (Gastropoda: Provannidae) from the Costa Rica Margin

Melissa Betters, Temple University, Philadelphia

Mollusks Species delimitation

12:30 PM

12:45 PM

The influence of habitat on the pattern of sexual signals in a freshwater fish radiation (Etheostoma spp.)

Iain R. R. Moodie[1], Tamra C. Mendelson[2], Julien P. Renoult[3]
[1]CNRS Centre d'Ecologie Fonctionnelle et Evolutive, France, [2]University of Maryland, [3]CNRS Centre d'Ecologie Fonctionnelle et Evolutive

Fishes Sensory systems

12:45 PM

1:00 PM

Sexual dimorphism in bite performance, and the evolution of Rensch's rule in Anolis lizards

Ken Toyama[1], Anthony Herrel[2], Luke Mahler[3]
[1]University of Toronto, Toronto, ON, [2]Muséum national d'Histoire naturelle, [3]University of Toronto

Allometry Reptiles

1:00 PM

1:15 PM

Resurrection genomics and evolutionary inference in Daphnia

Matthew J. Wersebe[1], Lawrence J. Weider[2]
[1]University of Oklahoma, Norman, Ok, [2]University of Oklahoma

Adaptation Arthropods

1:15 PM

1:30 PM

Convergence without divergence in North American red-flowering Silene

Andrea E. Berardi[1], Ana Betancourt Morejon[2], Robin Hopkins[3]
[1]Harvard University, Cambridge, MA, [2]University of Puerto Rico - Rio Piedra, [3]Harvard University, Boston, MA

Adaptation Plants

Sex / Recombination

Wed, June 22
12:00 PM - 1:30 PM
Virtual

Fishes Genomics Invertebrates No specific taxon Plants Reproductive biology Sex/recombination Sexual conflict

Presentations

12:00 PM
12:15 PM

Dioecy and chromosomal sex determination are maintained through allopolyploid speciation in the plant genus Mercurialis

Melissa Toups[1], Beatriz Vicoso[2], John R. Pannell[3]
[1]Bournemouth University, Poole, Niederösterreich, United Kingdom, [2]Institute of Science and Technology Austria, [3]University of Lausanne

Plants Sex/recombination

12:15 PM
12:30 PM

Allele specific expression of Rumex hastatulus sex chromosomes

Bianca M. Sacchi[1], Stephen I. Wright[2]
[1]University of Toronto, Toronto, ON, [2]Department of EEB, U. Toronto, Toronto, Ontario

Genomics Plants

12:30 PM
12:45 PM

Repeated translocation of a supergene underlying rapid sex chromosome turnover in Takifugu fish

Ahammad Kabir[1], Risa Ieda[2], Sho Hosoya[2], Daigaku Fujikawa[2], Shotaro Hirase[3], Kiyoshi Kikuchi[4]
[1]University of Tokyo, Hamamatsu, Shizuoka, Japan, [2]University of Tokyo, [3]The University of Tokyo, Hamamatsu, Shizuoka, Japan, [4]The University of Tokyo

Fishes Sexual conflict

12:45 PM
1:00 PM

Were eukaryotes made by sex?

Michael Brandeis, The Hebrew University of Jerusalem, Jerusalem, Israel

No specific taxon Sex/recombination

1:00 PM
1:15 PM

Sex and the City - How social environment influences sex change in a sequential hermaphrodite

WITHDRAWN

Pooja Radhakrishnan[1], Noé Saboul[2]
[1]University Sorbonne Paris Nord, Paris, France, [2]University Sorbonne Paris Nord

Invertebrates **Reproductive biology**

SSE/ASN Public policy panel discussion

Wed, June 22
1:30 PM - 3:00 PM
Virtual

Description

Please join us for a VIRTUAL 2022 Evolution Policy Panel, featuring panelists from academia, NGOs and industry who will share their expertise on how to effectively translate science into policy, and will discuss practical tips for scientists interested in getting more involved in policy.

Open to all Evolution meeting registrants. Discussion will be in a Zoom webinar outside the platform.

Join here: https://us06web.zoom.us/webinar/register/WN_z1q9OiZ5RMWVLbVW-B1o6w

To download the program

Hybridization

Wed, June 22
2:30 PM - 4:00 PM
Virtual

Birds **Fishes** **Genomics** **Human** **Hybridization** **Plants**

Presentations

2:30 PM

2:45 PM

Selection against hybrid benthic and limnetic threespine stickleback

Diana J. Rennison[1], Gregory Owens[2], Ken A. Thompson[3], Thor Veen[4], Dolph Schluter[5]

[1]University of California San Diego, La Jolla, CA, [2]University of Victoria, Victoria, [3]Stanford University, Menlo Park, British Columbia, [4]Quest University Canada, [5]University of British Columbia, Vancouver, British Columbia

Fishes Hybridization

2:45 PM

3:00 PM

Genome resequencing reveals hybrid zone dynamics of secondary contact in darters (Teleostei:Percidae)

Pia Franziska Schwarz[1], Dan MacGuigan[2], Trevor Krabbenhoft
[1]University at Buffalo, State University of New York, [2]University at Buffalo, BUFFALO, NY

Fishes Hybridization

3:00 PM

3:15 PM

Comparing genomic landscapes of introgression across the great ape phylogeny

Michael G. Tassia[1], James B. Pease[2], Rajiv McCoy[3]
[1]Johns Hopkins University, Baltimore, Alabama, [2]Wake Forest University, [3]Department of Biology, Johns Hopkins University

Genomics Human

3:15 PM

3:30 PM

Re-evaluating homoploid reticulate evolution in the annual sunflowers.

Gregory Owens[1], Loren Rieseberg[2], Marco Todesco[3], Kaichi Huang[2]
[1]University of Victoria, Victoria, [2]University of British Columbia, Vancouver, BC, [3]University of British Columbia

Hybridization Plants

Phylogenetics II

Wed, June 22
2:30 PM - 4:00 PM

Virtual

Amphibians Behavior Birds Diversification Evolutionary ecology Fishes Human Mammals Phylogenomics Reptiles Social systems

Presentations

2:30 PM

2:45 PM

A phylogenetic analysis of headhunting practices and political complexity in Austronesian societies

Kiran Basava, University of Oxford, Oxford, Oxfordshire, United Kingdom

Human Social systems

2:45 PM

3:00 PM

Can learning facilitate speciation? The interactions between geographic range overlap, learned song, and speciation in songbirds

Nicole Creanza[1], Emily Hudson[1], Megan Mitchell[1]
[1]*Vanderbilt University*

Behavior Birds

3:00 PM

3:15 PM

New candidate species for northern Andes a criptic species of Anolis tolimensis (Squamata: Dactyloidae),from Colombia

Maria Carolina Acevedo Muñoz[1], Nelsy R. Pinto-Sánchez[2]
[1]*Universidad Militar Nueva Granada, Chia, Colombia,* [2]*Programa de Biología Aplicada, Universidad Militar Nueva Granada, Cajicá, Cundinamarca, Colombia*

Diversification Reptiles

3:15 PM

3:30 PM

Periodic environmental disturbance drives repeated ecomorphological diversification in an adaptive radiation of Antarctic fishes

Elyse Parker[1], Katerina Zapfe[2], Jagriti Yadav[3], Bruno Frédérich[4], Christopher D. Jones[5], Evan P. Economo[6], Sarah Federman[7], Thomas Near[1], Alex Dornburg[8]
[1]*Yale University, New Haven, CT,* [2]*University of North Carolina at Charlotte, Charlotte, South Carolina,* [3]*University of North Carolina, Charlotte,* [4]*Laboratory of Functional and Evolutionary Morphology, FOCUS, University of Liège,* [5]*NOAA Southwest Fisheries Science Center,* [6]*Biodiversity and Biocomplexity Unit, Okinawa Institute of Science and Technology Graduate University,* [7]*Plenty Unlimited Inc.,* [8]*University of North Carolina Charlotte, Charlotte*

Diversification Fishes

3:30 PM

3:45 PM

The evolution of the anuran phalanx: rates, phylogenetic signal, and modularity

André Confetti[1], Tiana Kohlsdorf[2], Marcio R. Pie[3]
[1]*Universidade Federal do Paraná, Curitiba, PR, Brazil,* [2]*University of São Paulo, Ribeirão Preto, SP, Brazil,* [3]*Edge Hill University,*

Ormskirk, PR, United Kingdom

Amphibians Evolutionary ecology

3:45 PM

4:00 PM

Introgression patterns among jaguars, lions, and leopards (Mammalia, Felidae)

Sarah Santos[1], Henrique Figueiro[1], Tomas Flouri[1], Emiliano Ramalho[1], Lauren Cullen Jr.[1], Ziheng Yang[2], William Murphy[2], Eduardo Eizirik[2]

[1]Western University, London, [2]Department of Genetics, Evolution and Environment, University College London, London WC1E 6BT, UK.

Mammals Phylogenomics

Sexual selection

Wed, June 22

2:30 PM - 4:00 PM

Virtual

Birds Drosophila Fishes Genomics Plants Reptiles Sexual conflict Sexual selection

Presentations

2:30 PM

2:45 PM

The genetics of female resistance to male harm in Drosophila melanogaster

Sarah M. Kettelkamp[1], Kimberly A. Hughes[2], Joseph Travis[1]

[1]Florida State University, Tallahassee, FL, [2]Florida State University

Drosophila Sexual conflict

2:45 PM

3:00 PM

Evolution of order from disorder in plumage structural color-producing photonic nanostructures through mate choice

Vinodkumar Saranathan, Krea University, Sricity, India

Birds Sexual selection

3:00 PM

3:15 PM

Sexual Selection in Plants: History and Bias

Jared Griffin[1], Megan Van Etten[2]

[1]Penn State University, Throop, [2]Pennsylvania State University,

Dunmore, PA

Plants Sexual selection

3:15 PM

3:30 PM

Mating success and genetic parentage increase with body size in male brown anole lizards, Anolis sagrei

Rachana S. Bhave[1], Aaron M. Reedy[2], Heidi Seears[3], Tyler Wittman[4], Chris Robinson[5], Daniel Warner[6], Robert Cox[4]

[1]University of Virginia, Charlottesville, VA, [2]Auburn University, Charlottesville, Virginia, [3]University of Virginia, [4]University of Virginia, Charlottesville, Virginia, [5]University of Virginia, Charlottesville, [6]Auburn University

Reptiles Sexual selection

3:30 PM

3:45 PM

Black and orange coloration predict success during male-male competition the guppy

Alexa Guerrera[1], Kimberly A. Hughes[2], Mitchel J. Daniel[3]

[1]Florida State University, Tallahassee, [2]Florida State University, [3]Florida State University, Tallahassee, FL

Fishes Sexual selection

3:45 PM

4:00 PM

Low mutation load in a supergene underpinning alternative male mating strategies in ruff

Erik Enbody[1], Jason Hill[2], Huijuan Bi[2], Sangeet Lamichhaney[3], Doreen Schwochow[2], Shady Younis[2], Fredrik Widemo[4], Leif Andersson[5]

[1]University of California Santa Cruz, Santa Cruz, California, [2]Uppsala University, [3]Kent State University, Kent, OH, [4]SLU, [5]Uppsala University, Sweden

Birds Genomics

Genomics

Wed, June 22

4:30 PM - 6:00 PM

Virtual

Fishes Genomics Hybridization Molecular evolution No specific taxon Plants Sensory systems

Presentations

4:30 PM

4:45 PM

Analysis of the Oldenlandia corymbosa genome

Irene Julca Chávez[1], Daniela Mutwil-Anderwald[2], Marek Mutwil[2]
[1]Nanyang Technological University, Singapore, [2]Nanyang Technological University

Genomics Plants

4:45 PM

5:00 PM

Closely related ginger species remain distinct despite recent and ancient gene flow

Julia Harencar[1], Kathleen M. Kay[2]
[1]University of California, Santa Cruz, Santa Cruz, [2]University of California Santa Cruz, Santa Cruz, CA

Hybridization Plants

5:00 PM

5:15 PM

Conserved non-coding elements evolve repeatedly around homeobox genes in cnidarians, molluscs, arthropods and vertebrates.

Paul Gonzalez[1], Andy Baxevanis[2]
[1]National Institutes oh Health, Bethesda, MD, [2]National Human Genome Research Institute, NIH, Bethesda, MD

Genomics No specific taxon

5:15 PM

5:30 PM

Developmental changes of opsin gene expression in ray-finned fishes (Actinopterygii)

Nik Lupše[1], Monika Kłodawska[2], Veronika Truhlářová[2], Prokop Košátko[2], Vojtěch Kašpar[3], Arnold Roger Bitja Nyom[4], Zuzana Musilova[1]
[1]Department of Zoology, Faculty of Science, Charles University, Vinicna 7, 12844 Prague, Czech Republic, [2]Charles University, [3]University of South Bohemia in České Budějovice, [4]University of Douala, Cameroon

Fishes Sensory systems

5:30 PM

5:45 PM

Diversification of vertebrate toll-like receptors illuminate the evolutionary history of gene family expansion and retraction

Kara Carlson[1], Alex Dornburg[2], Jeffrey Yoder[1]
[1]NC State University, [2]University of North Carolina Charlotte, Charlotte

Molecular evolution No specific taxon

SSB Ernst Mayr symposium

Wed, June 22
4:30 PM - 6:00 PM
Virtual

Arthropods Diversification Host-parasite Macroevolution No specific taxon
Phylogenetic methods development Plants Reptiles Viruses

Presentations

4:30 PM
4:45 PM

Is host switching mediated by the phylogenetic distance of host species a predictor for parasitic associations?

Elvira D'Bastiani[1], Debora Princepe[2], Flavia MD Marquitti[3], Walter A Boeger[4], Karla M Campião[4], Sabrina LB Araujo[4]
[1]Universidade Federal do Paraná, Curitiba, Brazil, [2]Universidade Estadual de Campinas, Campinas, SP, Brazil, [3]Instituto de Física "Gleb Wataghin", Universidade Estadual de Campinas, UNICAMP; Insituto de Biologia, Universidade Estadual de Campinas, UNICAMP, [4]Universidade Federal do Paraná

Host-parasite No specific taxon

4:45 PM
5:00 PM

A phylogenomic approach to understanding adaptation to subterranean habitats in beetles

Pau Balart-García[1], Slavko Polak[2], Perry Grace Beasley-Hall[3], Tessa M. Bradford[4], Ignacio Ribera[5], Steven Cooper[3], Rosa Fernández[5]
[1]Institute of Evolutionary Biology (CSIC-Universitat Pompeu Fabra), Barcelona, Spain, [2]Notranjski muzej Postojna, [3]South Australian Museum / The University of Adelaide, [4]South Australian Museum, [5]Institute of Evolutionary Biology (CSIC - Universitat Pompeu Fabra)

Arthropods Macroevolution

5:00 PM
5:15 PM

Rapid diversification of vascular architecture underlies the Carboniferous fern radiation

Jacob Suissa[1], William Friedman[2]
[1]Harvard University, Roslindale, [2]Harvard University

Macroevolution Plants

5:15 PM
5:30 PM

New Phylogenetic Models Incorporating Interval-Specific Dispersal Dynamics Improve Inference of

Disease Spread

Jiansi Gao[1], Michael R. May[2], Bruce Rannala[3], Brian Moore[1]
[1]University of California, Davis, Davis, CA, [2]UC Berkeley, Berkeley, CA, [3]University of California, Davis, Davis

Phylogenetic methods development Viruses

5:30 PM

5:45 PM

Exploring the role of adaptive diversification at driving congeneric day gecko assemblages in Madagascar

Ashwini V Mohan[1], Antigoni Kaliantzopoulou[2], Loïs Rancilhac[3], Iker Irissari[4], Mark Scherz[5], Sven Gippner, Hervé Philippe[6], Emily C. Lemmon[7], Alan Lemmon[8], Aaron Bauer[9], Frank Glaw[9], Miguel Vences[9], Joan Garcia-Porta[10]
[1]Natural History Museum, London, LONDON, United Kingdom, [2]University of Barcelona, [3]TU Braunschweig, [4]University of Göttingen, [5]University of Copenhagen, [6]CNRS, [7]Florida State University, Department of Biological Science, Tallahassee, Florida, [8]Florida State University, Department of Scientific Computing, Center for Anchored Phylogenomics, [9]Villanova University, [10]Washington University in St. Louis

Diversification Reptiles

Life history

Wed, June 22
4:30 PM - 6:15 PM
Ballroom prefunction space
Virtual

Development Evolutionary ecology Life history Mammals Mollusks Plants Reptiles

Presentations

4:30 PM

4:45 PM

Caloric restriction extends lifespan in an aquatic plant

Suzanne L. Chmilar[1], Robert A. Laird[1], Priyanka Dutt
[1]University of Lethbridge, Lethbridge, Alberta

Life history Plants

4:45 PM

5:00 PM

Effect of mode of larval development on the intertidal recruitment of four Northeastern Pacific

gastropods during extreme El Niño events: Evaluation of four hypotheses

Elizabeth G. Boulding, University of Guelph, Guelph, Ontario

Life history Mollusks

5:00 PM

5:15 PM

Vegan or not: diet influences latitudinal gradients in life-history traits, but not reproductive output, in lizards

Udita Bansal[1], Maria Thaker[2]

[1]Washington University in St. Louis, [2]Indian Institute of Science

Life history Reptiles

5:15 PM

5:30 PM

Life History of Reptiles in Hemoglobin-Oxygen Affinity

Genrietta Yagudayeva[1], Juan C. Santos[2], Juan David Carvajal Castro[3], Randy Ortiz[4], Carolina Benitez[5]

[1]St. John's University, Brooklyn, [2]St. John's University, Queens-Jamaica, New York, [3]St. John's University, New York City, [4]St. John's University, JAMAICA, NY, [5]St. John's University

Life history Reptiles

5:30 PM

5:45 PM

Translating time across the lifespan of primates shows old age as a distinctively human trait

Christine Charvet[1], Carmen Falcone[2], Kwadwo Ofori[3], Brier Rigby Dames[4]

[1]Auburn University, [2]College of Veterinary Medicine, Auburn University, [3]Delaware State University, [4]Department of Computer Science, University of Bath

Development Mammals

5:45 PM

6:00 PM

The impact of parental senescence on offspring population growth in Lemna minor

Vicky Thwaites[1], Robert A. Laird[2], Suzanne L. Chmilar[2]

[1]University of Lethbridge, Lethbridge, [2]University of Lethbridge, Lethbridge, Alberta

Evolutionary ecology Plants

6:00 PM

6:15 PM

The role of traits in biogeographic long-distance dispersal

Sarah-Sophie Weil[1], Laure Gallien[2], Sébastien Lavergne[2], Luca Borger[3], Michaël Nicolaï[4], Gabe Hassler[5], **Will Allen**[6]

[1]Swansea University & Université Grenoble Alpes, [2]Université

Grenoble Alpes, [3]Swansea University, [4]Ugent, Gent, Belgium, Belgium, [5]University of California, Los Angeles, [6]Swansea University, Swansea, United Kingdom

No specific taxon **Phylogeography**

Improving workplace climate: empowering individuals to become active bystanders

Fri, June 24
8:30 AM - 12:00 PM
Room 13
Workshop / Information session

Description

Previous registation required.

This interactive session describes academic practices and institutional structures that allow for sexual harassment, bullying, and other hostile behaviors to persist and provides training in bystander intervention strategies to protect and support targets of harassment. As a result of this session, participants will be empowered to: (1) identify different ways in which sexual and other types of harassment, bullying and microaggressions can manifest in research environments; (2) intervene safely as bystanders, and (3) utilize resources for cultural change in academic institutions and professional societies.

Facilitators: **Amanda Shaffer**, Diversity Officer, College of Agriculture & Natural Resources, University of Maryland & **Jennifer Schuttlefield Christus**, Associate Professor of Chemistry and the Director of the University of Wisconsin System Alliance for Inclusion, Diversity, Equity, and Advancement in STEM.
?
Shaffer has 20+ years of experience designing gender equity and diversity related initiatives for academic institutions across the United States. She has been involved with groundbreaking NSF ADVANCE projects like ADVANCE GEO since 2004. Dr. Christus has a background in atmospheric and environmental chemistry, surface science, and chemical education. In 2020, she participated in an ADVANCEGeo Train-the-trainers workshop and has been helping facilitate workshops with the team over the last two years.

Joint council entrance meeting

Fri, June 24
8:30 AM - 12:00 PM
Room 14

Meeting

Description

Open to ASN/SSB/SSE Joint council members only.

Undergraduate diversity at Evolution (UDE) Career Development workshop

Fri, June 24
8:30 AM - 12:30 PM
Room 21
Workshop / Information session

Description

Pre-registraiton required.

This workshop is part of the Undergraduate Diversity at Evolution program which provides funds for travel, lodging, and meeting registration for undergraduate students in an effort to increase diversity. The workshop is open to all undergraduates who wish to participate. Topics to be covered include navigating and networking at the conference and applying to graduate school. We will also be taking a field trip in the afternoon to the Cleveland Natural History Museum https://www.cmnh.org/.

PhylogatR: phylogeographic data aggregation and repurposing

Fri, June 24
9:00 AM - 12:00 PM
Room 19
Workshop / Information session

Description

Previous registration required.

This SSB-sponsored workshop will introduce users to the phylogatR database. phylogatR brings

together genetic data with georeferenced specimen records resulting in downloads that include DNA sequence alignments with associated GPS coordinates that are analysis ready. The goals of the PhylogatR project are to empower students to actively learn about genetics, computer code, and biodiversity by repurposing genetic and climatic data that cost millions of dollars and decades of hard work by thousands of scientists to acquire. During the workshop we will conduct several walkthroughs of R scripts or Shiny R apps using these data. Shiny R apps make it easy for individuals and instructors to implement R code in an interactive way without any coding experience. This approach makes using real data in the classroom accessible to instructors who do not have experience coding. The workflow will start with data collection and curation, then move on to small level data analysis. We will discuss the use of the database for both research and teaching, but will focus on demonstrating use in the classroom. https://phylogatr.org/

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iEvoBio

Fri, June 24
9:00 AM - 5:00 PM
Room 16
Workshop / Information session

Description

Pre-registration required.

iEvoBio is an event for exploring careers and education in computational evolutionary biology. This year's theme will be "Building it right from the start." The morning session will address issues in developing software and starting a lab in computational evolutionary biology, and will feature speakers from an array of lab settings. The afternoon will focus on educational activities geared towards early involvement of undergraduates in computational and quantitative research. More information can be found on our website (http://www.ievobio.org).

Paleobotany and divergence time estimates using RevBayes

Fri, June 24
9:00 AM - 5:00 PM
Room 20
Workshop / Information session

Description

Pre-registration required.

Divergence time estimation in plant clades requires expertise in paleobotany, systematics, phylogenetics and statistics. Our workshop aims to provide a space for phylogeneticists interested in paleobotany and Bayesian total-evidence dating to: 1) discuss challenges and learn tools to extract character information from plant fossils; 2) explore statistical methods to cluster fossils and extant taxa; and 3) gain a theoretical and practical background in total-evidence dating using the software RevBayes. Although the case study will focus on plant fossils, the clustering methods and divergence time estimation approaches are widely applicable across taxa.

ASN workshop - Science Communication 101

Fri, June 24
1:00 PM - 4:00 PM
Room 21
Workshop / Information session

Description

Pre-registration required.

Facilitator: Dr. Jory Weintraub (Science Communication Director, Duke Initiative for Science & Society, Duke University). Jory teaches undergraduate and graduate science communication courses at Duke University and runs science communication workshops for students, postdocs, and faculty at institutions around the country. Previously he spent over 10 years leading the public outreach and education efforts at NESCent (the National Evolutionary Synthesis Center).

Description: Sure, your research is the most exciting and important science out there! But to have an impact, it must be communicated in ways that enable people to understand and compel them to care. This workshop will combine empirical evidence gained from science communication research with fun, engaging activities to provide you with strategies and approaches to help you communicate your work effectively to diverse audiences. It will also explore specific strategies for communicating “controversial” science in non-controversial, non-confrontational ways. ?

NSF Proposal Writing Workshop

Fri, June 24
1:00 PM - 4:30 PM
Room 15

Workshop / Information session

Description

Pre-registration required. Restricted to postdoctoral fellows.

What makes a good, potentially-fundable grant proposal? In the first part of this workshop, NSF program officers will provide advice and answer questions about what to do, what to avoid, and comment on problems with grant proposals. The second part will be a mock review panel in small groups. This is a hands-on workshop, where you will learn how proposals are evaluated and what makes successful ones successful. Participants will be provided with two proposals to review, along with instructions, ahead of the workshop.

ASN council entrance meeting

Fri, June 24
1:00 PM - 5:00 PM
Room 22
Meeting

Description

Open to ASN council members only.

SSB council entrance meeting

Fri, June 24
1:00 PM - 5:00 PM
Room 13
Meeting

Description

Open to SSB council members only.

SSE council entrance meeting

Fri, June 24
1:00 PM - 5:00 PM
Room 14
Meeting

Description

Open to SSE council members only.

SSE Diverse Careers Workshop - Leveraging your PhD: Careers in and out of Academia

Fri, June 24
1:00 PM - 5:00 PM
Room 19
Workshop / Information session

Description

Pre-registration rrequired.

Wondering what's outside the tenure track? Have the last few years made you wonder how to best use your PhD to make a difference? This active and participatory workshop will guide graduate students and postdocs in planning their careers after graduate school or postdoctoral training. Through presentations and small group activities, you will learn about the many potential avenues open to PhDs in evolutionary biology and ecology. You'll meet professionals working in government, corporations, community colleges, non-profits, and yes, even academia. You'll also learn the basics of building a professional network and how to identify the transferable skills you developed during your training. Based on past workshops, we expect that workshop attendees will experience greater confidence regarding career options and leave with actionable strategies for non-academic job searches. ?

Gould Prize Lecture - Dr. Lisa White

Fri, June 24
7:00 PM - 8:00 PM
Grand Ballroom A
Plenary

Description

The **Stephen Jay Gould Prize** is awarded annually by the Society for the Study of Evolution to recognize individuals whose sustained and exemplary efforts have advanced public understanding of evolutionary science and its importance in biology, education, and everyday life in the spirit of Stephen Jay Gould.

The SSE Gould Prize Committee is pleased to announce **Dr. Lisa White** as the 2022 recipient of the Stephen Jay Gould Prize. Dr. White was selected for her work promoting the broader impacts of paleontology, evolution, and the nature and process of science, and for her role as a national leading voice in diversity, equity and inclusion efforts in the biological and geological sciences.

Dr. White is the Director of Education and Outreach for the University of California Museum of Paleontology at the University of California Berkeley and an adjunct professor in the Department of Earth and Climate Studies at San Francisco State University. Dr. White is also a member of the UC Berkeley Coalition for Education and Outreach Steering Committee, the Berkeley Natural History Museum Outreach Committee, and the UC Berkeley Science@Cal program Advisory Board. She chairs the Diversity and Inclusion Advisory Committee of the American Geophysical Union (AGU), chairs the International Ocean Discovery Program (IODP) Broader Impacts and Outreach working group, and been a panelist at the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) National Diversity in STEM Conference. A micropaleontologist by training, Dr. White is a Fellow and Trustee of the California Academy of Sciences and in multiple invited keynote addresses, she has highlighted strategies for creating a culture that embraces diversity and inclusion in the advancement of the Earth and life sciences.

Info

Talk type:
Plenary/Award

Title:
Facilitating Connections in Evolutionary Science Concepts for Broad and Diverse Audiences through a Website, a Science Journey, and a STEM Escape Room

Abstract:
The University of California Museum of Paleontology (UCMP) has been a leader in evolution education exemplified by the award winning web-based resource, *Understanding Evolution. A* comprehensive and accurate source for well-researched information on evolutionary concepts, the website is highly valued by K-16 educators and provides in-depth content on the history, evidence, and misconceptions pertaining to evolution.

My work in evolution education reflects my own journey as a geoscience professor, science educator, and museum director dedicated to helping users understand new concepts and acquire strategies for and confidence in teaching evolution, particularly to individuals and groups who are otherwise reluctant to learn about evolution. Presenting information in a manner and tone that is appealing to broad and diverse audiences with user-friendly, understandable, and current examples on the mechanisms of evolution, adaptation, the significance of fossils, and the nature of science. The newest UCMP evolution education project takes engagement a step further and applies an escape room game approach, inviting players use their critical-thinking and collaboration skills to solve puzzles on basic evolutionary relationships and concepts in a timed series of exercises.

Author

Lisa White
University of CA Museum of Paleontology

Opening reception

Fri, June 24
8:00 PM - 10:30 PM
Ballroom prefunction space
Social event

Description

Cash bar, light snacks.

SSE Presidential Address - Dr. Laura Galloway

Sat, June 25
8:15 AM - 9:20 AM
Grand Ballroom A
Plenary

Presentations

8:15 AM
8:25 AM

SSE awards announcements

Lynda F. Delph, Indiana University, Bloomington, IN

8:25 AM
9:20 AM

Evolution, of a Society, and a Career

Laura Galloway, University of Virginia, Charlottesville, VA

Adaptation I

Sat, June 25
9:30 AM - 10:45 AM
Room 15
Regular

Presentations

9:30 AM
9:44 AM

The gene's-eye view of evolution

J. Arvid Ågren, Uppsala University, Sweden

9:45 AM
9:59 AM

Molecular mechanisms underlying desiccation resistance in a desert Drosophila species

Zinan Wang[1], Jian Pu[2], Haosu Cong[2], Henry Chung[2]
[1]Michigan State University, East Lansing, MI, [2]Michigan State University, East Lansing, Michigan

10:00 AM
10:14 AM

When the tap runs dry: The physiological effects of acute experimental dehydration in Peromyscus eremicus

Dani Blumstein[1], **Matthew D. MacManes**[2]
[1]University of New Hampshire, Kittery, New Hampshire, [2]Department of Molecular, Cellular and Biomedical Sciences and Center for Evolutionary Genomics,, Durham, NH

10:15 AM
10:29 AM

Shrinking Shrew Brains: evolution of a unique wintering adaptation

William Thomas[1], Liliana M. Davalos[2], Dina Dechmann[2], John Nieland[2], Cecilia Baldoni[2], Marion Muturi[2], Angelique Corthals[3], Domink Elverfeldt[3], Julie Holm-Jacobsen[3]

[1]Stony Brook University, Queens, [2]Stony Brook University, Stony Brook, New York, [3]John Jay College of Criminal Justice

10:30 AM

10:44 AM

Reproductive adaptations that protect fetal growth at altitude are linked to remodeling of placental structure and function

Kate Wilsterman[1], Emily C. Moore[2], Rena M. Schweizer[2], Jeff M. Good[3], Zachary Cheviron[2]
[1]Colorado State University - Fort Collins, Fort Collins, [2]University of Montana, Missoula, MT, [3]Division of Biological Sciences, University of Montana, Missoula

Behavior

Sat, June 25
9:30 AM - 10:45 AM
Room 16
Regular

Presentations

9:30 AM

9:44 AM

Mushroom body evolution in insects and crustaceans: conserved traits and evolved loss

Gabriella Wolff, Case Western Reserve University, Cleveland

9:45 AM

9:59 AM

Multiple climatic factors affect the expression of reproductive traits in wolf spiders

Jake Woods[1], Noah T. Leith[2], Kasey Fowler-Finn[3]
[1]Saint Louis University, Granite City, [2]Saint Louis University, St. Louis, MO, [3]Saint Louis University, Saint Louis, MO

10:00 AM

10:14 AM

A tale of two crickets: glyphosate has different effects on native and introduced crickets

Susan Gershman[1], Lydia Mullins[2]
[1]The Ohio State University at Marion, Marion, OH, [2]The Ohio State University

10:15 AM

10:29 AM

Selection for female dispersal caused correlated selection in male dispersal syndromes

Allyssa Kilanowski[1], David Westneat[2], Charles Fox[2]
[1]University of Kentucky, Lexington, KY, [2]University of Kentucky

10:30 AM

10:44 AM

How does paternal experience influence male behavior, neurophysiology, and gene expression in a biparental mammal?

Maria Colt[1], Amber Valentino[2], Erica Glasper[2], Heidi Fisher[3]
[1]University of Maryland, College Park, College Park, [2]The Ohio State University, [3]University of Maryland

Contemporary Evolution

Sat, June 25
9:30 AM - 10:45 AM
Room 20
Regular

Presentations

9:30 AM

9:44 AM

Urbanization promotes genetic divergence of functional traits in Asclepias syriaca (common milkweed)

Sophie Breitbart[1], Anurag Agrawal[2], Marc Johnson[3], Helene Wagner[3]
[1]University of Toronto, Toronto, ON, [2]Cornell University, [3]University of Toronto Mississauga

9:45 AM

9:59 AM

City limits: winter physiology across the urbanization gradient in the acorn ant, temnothorax curvispinosus

Eric Prileson[1], Ryan Martin[2]
[1]Case Western Reserve University, Cleveland, [2]Case Western Reserve University, Cleveland, Ohio

10:00 AM

10:14 AM

Local adaptation between white clover and rhizobia in the urban mosaic

David Murray-Stoker[1], Marc Johnson[2]
[1]University of Toronto, Toronto, Ontario, [2]University of Toronto Mississauga

10:15 AM

10:29 AM

Evolution in urban-adjacent marine ecosystems: current knowledge and future directions

Liz Alter, California State University Monterey Bay, Seaside, California

10:30 AM

10:44 AM

Experimental evidence for local adaptation and altered ecological effects in urban environments

Aaron Yilmaz[1], Gracie Bellino[2], **Ryan Martin[3]**
[1]Case Western Reserve University, [2]Case Western Reserve University, Essex Jct, [3]Case Western Reserve University, Cleveland, Ohio

Genomics I

Sat, June 25
9:30 AM - 10:45 AM
Room 21
Regular

Presentations

9:30 AM

9:44 AM

Multiple long-read de novo assemblies of House Finches enable pangenome analysis of structural variants

Bohao Fang[1], Scott V. Edwards[2]
[1]Harvard University, Cambridge, [2]Harvard University, Cambridge, MA

9:45 AM

9:59 AM

Evolution and genetics of the strawberry poison frog color polymorphism in Bocas del Toro

Diana Aguilar Gómez[1], Layla Freeborn[2], Yusan Yang[3], Corinne Richards-Zawacki[4], Rasmus Nielsen[5]
[1]University of California, Berkeley, Berkeley, CA, [2]University of Pittsburgh, Department of Biological Sciences, Pittsburgh, PA, [3]Living Earth Collaborative, Washington University in St. Louis, St. Louis, [4]University of Pittsburgh, Pittsburgh, PA, [5]University of California Berkeley & Natural History Museum of Denmark

10:00 AM

10:14 AM

Genetic and peripheral visual system changes underlie evolving butterfly mate preference

Nick VanKuren[1], Nathan Buerkle[2], Erica Westerman[3], Alexandria Im[1], Darli Massardo[1], Laura Southcott[1], Wei Lu[4], Stephanie Palmer[1], marcus kronforst[5]
[1]The University of Chicago, [2]Yale University, [3]University of Arkansas, [4]University of Chicago, Chicago, illinois, [5]University of Chicago

10:15 AM

10:29 AM

Putative drought-adapted SNPs increase in frequency during severe drought

Daniel Anstett[1], Julia Anstett[2], Dylan Moxley[2], Mojtaba Jahani[2], Kaichi Huang[3], Marco Todesco[2], Rebecca Jordan[4], Loren Rieseberg[3], Amy Angert[3]
[1]Michigan State University, East Lansing, British Columbia, [2]University of British Columbia, [3]University of British Columbia, Vancouver, BC, [4]CSIRO

10:30 AM

10:44 AM

Identifying Fractionation Events Across the Tripsacinae Subtribe

Samantha Snodgrass[1], Margaret Woodhouse[2], Matthew Hufford[3]
[1]Iowa State University, Ames, IA, [2]USDA-ARS Corn Insects and Crop Genetics Research Unit, [3]Iowa State

Phylogenetics I

Sat, June 25
9:30 AM - 10:45 AM
Room 19
Regular

Presentations

9:30 AM

9:44 AM

Evolution of Puya (Bromeliaceae), the Queens of the Andes

Julian Aguirre-Santoro[1], Alejandro Zuluaga Trochez[2], Julio Betancur[3], Rachel Jabaily[4]
[1]Universidad Nacional de Colombia, Bogota, Colombia, [2]Universidad del Valle, [3]Universidad Nacional de Colombia, [4]Colorado College

9:45 AM

9:59 AM

The effect of developmental pleiotropy on the evolution of immune genes in Drosophila

Alissa Williams[1], Thi Ngo[1], Ann Tate[2]
[1]Vanderbilt University, [2]Vanderbilt University, Nashville, TN

10:00 AM

10:14 AM

Long-distance dispersal by doves generated ecological opportunities for adaptive radiation by their parasites

Bret Boyd[1], Nam-Phuong Nguyen[1], Julie M. Allen[2], Robert Waterhouse[2], Kyle Vo[2], Andrew Sweet[2], Dale Clayton[3], Sarah Bush[4], Michael Shapiro[5], Kevin P. Johnson[6]
[1]Virginia Commonwealth University, Richmond, USA, [2]University of Nevada, Reno, [3]School of Biological Sciences, University of Utah, Salt Lake City, Utah, [4]School of Biological Sciences, University of Utah, Salt Lake City, UT, [5]School of Biological Sciences, University of Utah, [6]Illinois Natural History Survey, Champaign, IL

10:15 AM

10:29 AM

Effects of using diverse different phylogenetic datasets on diversification rate estimations

Eren Ada[1], Rachel S. Schwartz[2]
[1]University of Rhode Island, Kingston, Rhode Island, [2]University of Rhode Island, Kingston, RI

10:30 AM

10:44 AM

Continuing to elucidate the Echiniscidae phylogeny with new sequencing data

Adam Trautwig[1], jason pienaar[1]
[1]Florida International University, Miami

Speciation I

Sat, June 25
9:30 AM - 10:45 AM
Room 22
Regular

Presentations

9:30 AM

9:44 AM

Drought response, hybridization, and ecological isolation in sympatric Mimulus species

Samuel J. Mantel[1], Andrea Sweigart[1]
[1]*University of Georgia, Athens, GA*

9:45 AM
9:59 AM

Macroevolutionary Patterns of Bird Migration Revealed by Intraspecific Variation

Valentina Gomez-Bahamon, Pennsylvania State University, Ann Arbor

10:00 AM
10:14 AM

Finding the Source of Divergent Selection on Joshua Trees with Genome-Wide Data and Linkage Mapping

Mikhail Plaza, Northwestern University and Chicago Botanic Garden, Skokie

10:15 AM
10:29 AM

Testing for a role of postzygotic incompatibilities in rapidly speciated Lake Victoria cichlids

Anna Feller[1], Catherine Peichel[2], Ole Seehausen[3]
[1]*Harvard University, Boston,* [2]*University of Bern, Bern, Bern, Switzerland,* [3]*The Swiss Federal Institute of Aquatic Science and Technology (EAWAG)*

10:30 AM
10:44 AM

Incipient speciation in a fossil lineage of the threespine stickleback, Gasterosteus doryssus

Yoel Stuart[1], Raheyma Siddiqui[2], Allison Ozark[2], Michael Bell[3]
[1]*Loyola University Chicago, Chicago,* [2]*Loyola University Chicago,* [3]*University of California Museum of Paleontology*

Evolutionary ecology

SSB Ernst Mayr Award Symposium I

Sat, June 25
9:30 AM - 10:45 AM
Room 26BC
Symposium

Description

The Ernst Mayr Award is given to the presenter of the outstanding student talk in the field of systematics at the annual meetings. This is SSB's premier award, and is judged by the quality and creativity of the research completed over the course of the student's Ph.D. program. The award consists of $1000, a

certificate of distinction, and a two-year subscription to the journal *Systematic Biology*. Learn more award the award here.

Presentations

9:30 AM
9:44 AM

Introduction

9:45 AM
9:59 AM

Exploring Species Boundaries: A Story About Hybridization

Carla Bautista[1], Isabelle Gagnon-Arsenault[2], Anna Fijarczyk[2], Devin P. Bendixsen[3], Rike Stelkens[4], Christian Landry[2]
[1]Université Laval, Québec, [2]Université Laval, [3]Stockholm University, Stockholm, US and Canada only, Sweden, [4]Stockholm University

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10:00 AM
10:14 AM

Widespread Reticulate Evolution in an Adaptive Radiation

Dylan DeBaun[1], Christopher Raxworthy[1], Frank Burbrink[2]
[1]American Museum of Natural History, [2]American Museum of Naural History, New York, NY

10:15 AM
10:29 AM

Phylogenomic comparative methods: accurate evolutionary inferences in the presence of gene tree discordance

Mark Hibbins[1], Lara Breithaupt[2], Matthew Hahn[2]
[1]University of Toronto, IN, [2]Indiana University

10:30 AM
10:44 AM

Inference of phylogenetic networks from sequence data using composite likelihood

Sungsik Kong[1], David Swofford[2], Laura Kubatko[3]
[1]The Ohio State University, Columbus, OH, [2]University of Florida, Durham, NC, [3]The Ohio State University, Columbus, Ohio

SSE W.D. Hamilton Award Symposium I

Sat, June 25
9:30 AM - 10:45 AM
Grand Ballroom A

Symposium

Description

The W. D. Hamilton Award for Outstanding Graduate Student Presentation will be given to a current or very recent graduate student who presents an outstanding talk based on their graduate work. Learn more about this award here.

Presentations

9:30 AM
9:44 AM

Fight not flight: parasites drive bacterial evolution of resistance, not migration

Mike Blazanin[1], Jeremy Moore[2], [2], Michael Travisano[3]
[1]Yale University, New Haven, CT, [2]Yale University, [3]University of Minnesota, St. Paul

9:45 AM
9:59 AM

Global Gradients in the Distribution of Animal Polyploids

Kyle T. David, Auburn University, Auburn, Alabama

10:00 AM
10:14 AM

Multicellularity as a Darwinian material: the biophysical basis of de novo multicellular adaptation during long-term experimental evolution

Thomas Day[1], William C. Ratcliff[2], G. Ozan Bozdag[1], Peter Yunker[2], Kai Tong[3], Peter Conlin[1]
[1]Georgia Institute of Technology, Atlanta, [2]Georgia Institute of Technology, [3]Georgia Institute of Technology, Atlanta, GA

10:15 AM
10:29 AM

Body size as a magic trait in plant-feeding insects

Ashleigh Glover[1], Catherine R. Linnen[2]
[1]University of Kentucky, Lexington, [2]University of Kentucky, Lexington, KY

10:30 AM
10:44 AM

Massive inversion polymorphisms shape the genomic landscape of deer mice

Olivia S. Harringmeyer[1], Hopi Hoekstra[2]
[1]Harvard University, Cambridge, MA, [2]Harvard University

Coffee break

Sat, June 25
10:45 AM - 11:15 AM
Grand Ballroom BC
Social event

John Edmonstone Coffee Social for BIPOC Scientists

Sat, June 25
10:45 AM - 11:15 AM
Room 25ABC
Social event

Description

This event is named after John Edmonstone, who was born into slavery in British Guiana and eventually taught and influenced a young Charles Darwin. Edmonstone's life highlights that people of color have been present--if invisible--in the development of evolutionary biology from the beginning. This mixer is an opportunity to interact with evolutionary biologists at all stages of their career and training who identify as people of color and their allies. Attendees will have the opportunity to meet, discuss their work, share experiences, establish mentor-mentee connections, and build on constructive ways to make evolutionary biology a more inclusive community.)

Includes coffe break service. Sign-up was during meeting registraiton but all welcome.

Adaptation II

Sat, June 25
11:15 AM - 12:30 PM
Room 15
Regular

Presentations

11:15 AM
11:29 AM

Variation in seasonal timing traits and life history along a latitudinal transect in Mimulus ringens

James M Sobel, Binghamton University, Binghamton

11:30 AM

11:44 AM

Local adaptation between and within closely related Phlox species

Robin Hopkins[1], Benjamin Goulet-Scott[2]
[1]Harvard University, Boston, MA, [2]bgoulet@g.harvard.edu

12:00 PM

12:14 PM

Rescue through an increase of the selfing rate under pollen limitation: plasticity vs. genetic evolution

Kuangyi Xu, University of North Carolina at Chapel Hill, Chapel Hill, NC

12:15 PM

12:29 PM

Rapid microgeographic evolution in response to climate change

Andis Arietta[1], David K. Skelly[2]
[1]Yale University, New Haven, Connecticut, [2]Yale University

Genomics II

Sat, June 25
11:15 AM - 12:30 PM
Room 21
Regular

Presentations

11:15 AM

11:29 AM

Analysis of tandem repeats across the tree of life

Shu-Ting Cho[1], Erik S. Wright[2]
[1]University of Pittsburgh, Pittsburgh, [2]University of Pittsburgh, Pittsburgh, PENNSYLVANIA

11:30 AM

11:44 AM

The role of DNA methylation in shaping genome evolution following whole genome duplication: insight from Chinese Sucker (Myxocyprinus asiaticus)

Hannah Waterman[1], Trevor Krabbenhoft
[1]University at Buffalo, BUFFALO, NY

11:45 AM

11:59 AM

A chromosome-level genome assembly and annotation of the desert horned lizard, Phrynosoma

platyrhinos, provides insight into chromosomal rearrangements among reptiles

Nazila Koochekian[1], Alfredo Ascanio[2], Keaka Farleigh[2], Daren Card[3], Drew R. Schield[4], Todd Castoe[5], Tereza Jezkova[2]
[1]Miami University, Cincinnati, OH, [2]Miami University, [3]Harvard University, Cambridge, MA, [4]University of Colorado, [5]University of Texas, Arlington

12:00 PM

12:14 PM

Shared and Unique Features of Structural Genomic Variants in Fish Evolutionary Divergence

Trevor Krabbenhoft[1], Dan MacGuigan, Nate Backenstose[2], Christopher A. Osborne[3]
[1]University at Buffalo, Buffalo, NY, [2]University at Buffalo, Buffalo, New York, [3]University at Buffalo, Lockport, New York

12:15 PM

12:29 PM

Mining Museums for Historic DNA

Alexander Salis[1], Brian T. Smith[2], Christopher Raxworthy[2]
[1]American Museum of Natural History, New York, [2]American Museum of Natural History

Host-Parasite

Sat, June 25
11:15 AM - 12:30 PM
Room 20
Regular

Presentations

11:15 AM

11:29 AM

Defense at what cost: quantifying the energetic cost of inflammation

Trey Sasser[1], Jesse Weber[2]
[1]University of Wisconsin, Madison, [2]University of Wisconsin-Madison, Madison, AK

11:30 AM

11:44 AM

Birds as islands: Using an avian contact zone to investigate their parasite population structure

Emily Ostrow[1], Lucas H. DeCicco[2], Monica Carlson[3], Robert Moyle[2]

[1]University of Kansas, Lawrence, [2]University of Kansas, [3]Princeton University

11:45 AM

11:59 AM

Evolutionary gain and loss of a pathological immune response to parasitism

Jesse Weber[1], Natalie Steinel[2], Foen Peng[3], Kum Chuan Shim[4], Brian Lohman[5], Lauren E. Fuess[6], Swapna K. Subramanian[7], Stephen De Lisle[8], Daniel Bolnick[9]
[1]University of Wisconsin-Madison, Madison, AK, [2]University of Massachusetts Lowell, [3]University of Connecticut, storrs, CONNECTICUT, [4]University of Texas at Austin, [5]Huntsman Cancer Institute, University of Utah, [6]Texas State University, San Marcos, Texas, [7]University of Connecticut, Mansfield Center, CT, [8]Lund University, Lund, Skåne, Sweden, [9]University of Connecticut, Storrs, CT

12:00 PM

12:14 PM

Bugs vs. 'Bugs': Potential for coevolution between a maternally inherited symbiont, its phage, and a parasitoid wasp

Melissa Carpenter[1], Stephanie Weldon[2], Andrew Smith[3], Linyao Peng[1], Jonah Joffe[3], Nicole Lynn-Bell[4], Kerry Oliver[5], Jacob Russell[6]
[1]Drexel University, Philadelphia, PA, [2]University of Montana, [3]Drexel University, [4]University of Georgia, [5]Dept. of Entomology, University of Georgia, Athens, Georgia, [6]Drexel University, PHILADELPHIA, Pennsylvania

Phylogenetics II

Sat, June 25
11:15 AM - 12:30 PM
Room 19
Regular

Presentations

11:15 AM

11:29 AM

A phylogenomic perspective reveals sex-specific migration in an African Reed Frog

Lucinda Lawson[1], Gabriela Bittencourt-Silva[2], Simon Loader[2], Michelle Thompson[3], Werner Conradie[4], Breda Zimkus[5], Daniel M. Portik[6]

[1]University of Cincinnati, Cincinnati, OH, [2]Natural History Museum, [3]Field Museum, [4]Port Elizabeth Museum, [5]Harvard University, [6]California Academy of Science, San Francisco, California

11:30 AM

11:44 AM

Using the abba baba test to characterize genome-wide patterns of homoeologous exchange in the allotetraploid Coffea arabica

WITHDRAWN

Andre Ortiz[1], Joel Sharbrough[2]
[1]New Mexico Institute of Mining and Technology, Socorro, [2]New Mexico Institute of Mining and Technology, Socorro, NM

11:45 AM

11:59 AM

Genomic differentiation between subspecies of red-tailed chipmunk (Tamias ruficaudus) across old and young hybrid zones

David Sneddon[1], Jack Sullivan[2]
[1]University of Idaho, MOSCOW, ID, [2]University of Idaho

12:00 PM

12:14 PM

Conflict analysis using entire gene families reveals the importance of phylogenomics in inferring trait evolution: a case study in the carnivorous Caryophyllales

Holly Robertson[1], Edwige Moyroud[1], **Joseph F. Walker**[1]
[1]University of Illinois Chicago, Chicago, MI

12:15 PM

12:29 PM

Rock on! Inferring the evolution of a novel trait in deep-sea sea pens (Cnidaria:Anthozoa:Octocorallia:Pennatulacea)

Upasana Ganguly[1], Scott France[2]
[1]University of Louisiana at Lafayette, Lafayette, [2]University of Louisiana at Lafayette

Sensory systems

Sat, June 25
11:15 AM - 12:30 PM
Room 16
Regular

Presentations

11:15 AM
11:29 AM

The influence of ecology on the evolution of visual systems in frogs

Jeffrey W. Streicher, Natural History Museum, London, United Kingdom

11:30 AM
11:44 AM

Evaluating the role of mechanosensation in host adaptation and reproductive success

Ryan Ridenbaugh[1], Will Holland[2], Vasav Rachan[2], Wynne Radcliffe[2], Catherine R. Linnen[1]
[1]University of Kentucky, Lexington, KY, [2]University of Kentucky

11:45 AM
11:59 AM

Rapid shifts in visible Carolina grasshopper (Dissosteira carolina) coloration during flights

Nicholas Brandley[1], Ezekiel Martin[2]
[1]College of Wooster, Wooster, [2]College of Wooster

12:00 PM
12:14 PM

Visual Environment and the Evolution of Ornaments in Habronattus Jumping Spiders

David J. Morris[1], Helean Shelton[2], Nathan I. Morehouse[3]
[1]University of Cincinnati, CINCINNATI, OH, [2]University of Cincinnati, Cincinnati, [3]University of Cincinnati

12:15 PM
12:29 PM

Dynamic evolution of olfactory receptor repertoires across avian ecology and phylogeny

Robert Driver[1], Christopher Balakrishnan[2]
[1]East Carolina University, Greenville, NC, [2]East Carolina University, Greenville, North Carolina

Speciation II

Sat, June 25
11:15 AM - 12:30 PM
Room 22
Regular

Presentations

11:15 AM
11:29 AM

Reproductive barriers and genomic hotspots of adaptation during allopatric species divergence

Krushnamegh J. Kunte[1], Riddhi Deshmukh[2], Saurav Baral[3], Muktai Kuwalekar[3], Athulya G. Kizhakke[4]
[1]National Centre for Biological Sciences, Bangalore, India, [2]National Centre for Biological Sciences, Bengaluru, Karnataka, India, [3]National Centre for Biological Sciences, Tata Institute of Fundamental Research, [4]National Centre for Biological Sciences, Bangalore, Karnataka, India

11:30 AM
11:44 AM

Testing the evolutionary consequences of sympatry in Drosophila subquinaria

Will Jarvis[1], Howard D. Rundle[2], Kelly Dyer[3]
[1]University of Ottawa, Ottawa, [2]University of Ottawa, Ottawa, ON, [3]University of Georgia, Athens, GA

11:45 AM
11:59 AM

Stepwise divergence of genetic barriers to gene flow in the Pacific West Warblers

Silu Wang[1], Graham Coop[2]
[1]University of California Davis, Davis, CA, [2]University of California - Davis, DAVIS, CA

12:00 PM
12:14 PM

How much introgression does it take to hide the species tree, and how can we find it again?

Matthew Hahn, Indiana University

12:15 PM
12:29 PM

The ecology of allopatric speciation

Sean A. Anderson[1], Jason Weir[2]
[1]University of Toronto, Toronto, Ontario, [2]University of Toronto Scarborough

SSB Ernst Mayr Award Symposium II

Sat, June 25
11:15 AM - 12:30 PM
Room 26BC
Symposium

Description

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research completed over the course of the student's Ph.D. program. The award consists of $1000, a certificate of distinction, and a two-year subscription to the journal *Systematic Biology*. Learn more award the award here.

Presentations

11:15 AM
11:29 AM

On the origin of the bird's nest fungi: Phylogenomic analyses of fungi in the Nidulariaceae (Agaricales, Basidiomycota)

WITHDRAWN

Nattapol Kraisitudomsook[1], Matthew E. Smith[2]
[1]University of Florida, Florida, [2]University of Florida

11:30 AM
11:44 AM

You Glow Some, You Lose Some: Horizontal Transfer, Duplication, And Loss Of Genes In The Evolution Of Bioluminescence In Toadfishes

Emily S. Lau[1], Todd H. Oakley[2]
[1]University of California, Santa Barbara, Santa Barbara, California, [2]University of California, Santa Barbara

11:45 AM
11:59 AM

Geography and ecology structure lineage diversity in the endemic Hawaiian fern Polypodium pellucidum

Jonas I. Mendez-Reneau[1], Nicholas J. Kooyers[1], Erin M. Sigel[2]
[1]University of Louisiana, Lafayette, Lafayette, LA, [2]University of New Hampshire

12:00 PM
12:14 PM

Whole-genome phylogeography of a classic leapfrog pattern: origin and color variation of an Andean tanager, the Superciliaried Hemispingus

Jonathan Schmitt[1], Scott V. Edwards[2]
[1]Harvard University, Cambridge, Massachusetts, [2]Harvard University, Cambridge, MA

SSE W.D. Hamilton Award Symposium II

Sat, June 25
11:15 AM - 12:30 PM
Grand Ballroom A
Symposium

Description

The W. D. Hamilton Award for Outstanding Graduate Student Presentation will be given to a current or very recent graduate student who presents an outstanding talk based on their graduate work. Learn more about this award here.

Presentations

11:15 AM
11:29 AM

Rapid polygenic evolution of Brassica rapa (field mustard) under experimental drought

Stephen Johnson[1], Silas Tittes[2], Steve J. Franks[3]
[1]University of Michigan, NY, [2]University of California, Davis, Davis, CA, [3]Fordham University, Bronx, NY

11:30 AM
11:44 AM

Evolution of improved stress tolerance and post-copulatory reproductive traits in populations of Drosophila melanogaster experimentally evolved for adaptation to a crowded larval environment

Rohit Kapila[1], Nagraj G. Prasad[2]
[1]Florida International university, Miami, India, [2]IISER Mohali

11:45 AM
11:59 AM

Divorce and attachment: Distinct behaviors with a shared goal

Brian Lerch[1], Trevor Price[2], Maria Servedio[3]
[1]University of North Carolina at Chapel Hill, [2]University of Chicago, [3]University of North Carolina, Chapel Hill, NC

12:00 PM
12:14 PM

Morphometric analysis of locomotory ecology in the fossil bird Ichthyornis (Avialae: Ornithurae)

Talia Lowi-Merri[1], Oliver Demuth[2], Daniel J. Field[2], Roger Benson[3], Santiago Claramunt[4], David Evans[5]
[1]University of Toronto, Royal Ontario Museum, Toronto, Ontario, [2]University of Cambridge, [3]University of Oxford, [4]Royal Ontario Museum, Toronto, ON, [5]University of Toronto, Royal Ontario Museum

12:15 PM
12:29 PM

Evolution of cooperation in the chemostat

Bryan K. Lynn, Oregon State University, Corvallis, OR

SSE/ASN Public policy panel discussion

Sat, June 25
12:30 PM - 2:15 PM
Room 24
Workshop / Information session

Description

Pre-registration required.?

Are you interested in promoting scientific research to the public and legislators, but are not sure how to get started? This event, which will feature a panel of experts in science policy, will equip you with the tools you need to begin engaging with key decision makers in your community.

Evolution editorial board meeting

Sat, June 25
12:30 PM - 2:30 PM
Room 13
Meeting

Description

For journal editors/associate editors only.

LGBTQ+ networking lunch

Sat, June 25
12:30 PM - 2:30 PM
Offsite
Social event

Description

Join your LGBTQ+ colleagues for a small group networking lunch event! This event aims to facilitate interactions between LGBTQ+ identified scientists at all career stages, help folks to network, glean

career and professional advice, and create community for LGBTQ+ identified individuals.

Sign-up was required during meeting registraiton and groups were pre-arranged. Each group is responsible for finding their own lunch venue.

Lunch

Sat, June 25
12:30 PM - 2:30 PM
Offsite
Social event

Description

Attendees are on their own; lunch is not provided.

Systematic Biology editorial board meeting

Sat, June 25
12:30 PM - 2:30 PM
Room 14
Meeting

Description

For journal editors/associate editors only.

SSE members open forum

Sat, June 25
1:15 PM - 2:15 PM
Room 22
Meeting

Description

Open to all members of the SSE; registration not required. Lunch is not provided

Development

Sat, June 25
2:30 PM - 3:45 PM
Room 19
Regular

Presentations

2:30 PM – 2:44 PM

Using leaf morphology modeling in herbaria specimens of three Capsella species to predict changes in leaf shape in response to climate change.

Asia T. Hightower[1], Emily Josephs[2]
[1]Michigan State University, East Lansing, Michigan, [2]Michigan State University, East Lansing, MI

2:45 PM – 2:59 PM

Probing for a developmental mechanism underlying the re-evolution of lost mandibular teeth in frogs

Daniel J. Paluh, University of Florida, Gainesville, FL

3:00 PM – 3:14 PM

The origin of color in butterflies

Robert Reed, Cornell University, Ithaca, New York

3:15 PM – 3:29 PM

Genetic variation in vegetative phase change alters response to abiotic stress

Erica Lawrence[1], Jesse Lasky[1]
[1]Pennsylvania State University, University Park, PA

3:30 PM – 3:44 PM

Development and evolution of the avian voice box

Evan Kingsley, Harvard Medical School, Boston

Evolution in the tropics: 70 years since Dobzhansky I

Sat, June 25
2:30 PM - 3:45 PM
Room 26BC
Symposium

Description

Organizers: Dr. Kathleen Kay and Dr. Oscar Vargas
Tropical diversity has long fascinated biologists, but most research to-date has addressed the ecological mechanisms maintaining diversity rather than evolutionary mechanisms generating diversity. This symposium seeks to synthesize macro- and micro-evolutionary work on patterns and mechanisms of diversification in the tropics, and specifically addresses Janzen and Dobzhansky's classic hypotheses about physiological tolerances and biotic interactions. With a recent resurgence of studies into tropical evolution, the time is right to assess the current state of knowledge and identify productive avenues for future research.

Presentations

2:30 PM
2:44 PM

Dobzhansky, Janzen, and speciation research in the tropics

Kathleen M. Kay, University of California Santa Cruz, Santa Cruz, CA

2:45 PM
3:14 PM

MACROEVOLUTIONARY APPROACHES AND THE CONSTRUCTION OF THE LATITUDINAL DIVERSITY GRADIENT

Jonathan Rolland, CNRS - University of Toulouse III, Toulouse, France

3:15 PM
3:44 PM

Testing hypotheses about Neotropical plant diversifications using comparative methods

Oscar Vargas[1], Kathleen M. Kay[2], Christopher Dick[3], Beryl Simpson[4]
[1]Cal Poly Humboldt, Arcata, [2]University of California Santa Cruz, Santa Cruz, CA, [3]University of Michigan, [4]The University of Texas at Austin

Life History I

Sat, June 25
2:30 PM - 3:45 PM
Room 15
Regular

Presentations

2:30 PM
2:44 PM

Food supplementation and lifetime reproductive success in a wild population of squirrels

Faye Romero[1], Stan Boutin[2], David Coltman[2], Ben Dantzer[3], Jeffrey Lane[4], Andrew McAdam[5], Nancy Chen[6]
[1]University of Rochester, Rochester, [2]University of Alberta, [3]University of Michigan, [4]University of Saskatchewan, [5]University of Colorado, Boulder, Ontario, [6]University of Rochester, Rochester, NY

2:45 PM
2:59 PM

The genomic consequences of novel age-at-maturity phenotypes in pink salmon (Oncorhynchus gorbuscha) introduced to the Great Lakes

Morgan Sparks[1], Lisa Seeb[2], James Seeb[2], Mark Christie[3]
[1]Biological Sciences, Purdue University, West Lafayette, [2]School of Aquatic and Fishery Sciences, University of Washington, [3]Purdue University

3:00 PM
3:14 PM

A population dynamics tipping point for aging as a cause of adult death

Andrea Scharf, St. Louis, St. Louis

3:15 PM
3:29 PM

Maternal and paternal age effects on male antler flies: a field experiment

Chris Angell[1], Rebecca Janacek[2], Howard D. Rundle[3]
[1]Earlham College, Richmond, IN, [2]University of Ottawa, [3]University of Ottawa, Ottawa, ON

3:30 PM
3:44 PM

Multilevel selection on offspring size and the maintenance of variation

WITHDRAWN

Hayley Cameron[1], Darren Johnson[2], Keyne Monro[3], Dustin Marshall[4]
[1]Monash Universit, Eltham, Australia, [2]California State University, Long Beach, [3]Monash University, Melbourne, Victoria, Australia, [4]Monash University, Monash University, Australia

Phylogenetic Methods I

Sat, June 25
2:30 PM - 3:45 PM
Room 16
Regular

Presentations

2:30 PM
2:44 PM

Protein Functional Inference using Co-evolutionary Signal

Aidan Lakshman[1], Erik S. Wright[2]
[1]University of Pittsburgh, PITTSBURGH, [2]University of Pittsburgh, Pittsburgh, PENNSYLVANIA

2:45 PM
2:59 PM

Phylogenetic niche modeling

Sean W. McHugh[1], Anahi Espindola[2], Emma White[3], Josef C. Uyeda[4]
[1]Washington University in St. Louis, St Louis, VA, [2]University of Maryland, College Park, College Park, MD, [3]George Mason University, [4]Virginia Tech, Blacksburg, VA

3:00 PM
3:14 PM

Comparison of genome-scale hybridization detection methods

Marianne Bjorner[1], Claudia Solis-Lemus[2]
[1]University of Wisconsin, Madison, [2]University of Wisconsin-Madison, Madison, WI

3:15 PM
3:29 PM

Macroevolutionary modeling of life history evolution in vertebrates

Josef C. Uyeda[1], George Brooks[2], Holly Kindsvater[2], Nic Bone[1], Chris Mull[3], Hailey Conrad[2]
[1]Virginia Tech, Blacksburg, VA, [2]Virginia Tech, [3]Dalhousie University

3:30 PM
3:44 PM

Why reconstruct when you can simulate? Exploring stochastic character mapping of continuous traits

Bruce S. Martin[1], Marjorie Weber[2]
[1]Michigan State University, Lansing, MI, [2]Michigan State University, East Lansing, Michigan

Population Genetics I

Sat, June 25
2:30 PM - 3:45 PM
Room 21
Regular

Presentations

2:30 PM
2:44 PM

The population genomics of invasion in a cosmopolitan weed

Jonas I. Mendez-Reneau[1], James S. Santangelo[2], Lucas J. Albano[3], Courtney Patterson[4], Kathryn Hodgins[5], Marc Johnson[6], **Nicholas J. Kooyers[1]**

[1]University of Louisiana, Lafayette, Lafayette, LA, [2]University of Toronto, Mississauga, Ontario, [3]University of Toronto - Mississauga, Mississauga, ON, [4]University of Louisiana, Lafayette, [5]Monash University, [6]University of Toronto Mississauga

2:45 PM
2:59 PM

Population genomics of Xenopus laevis in South Africa

Tharindu Premachandra[1], Ben Evans[2], Caroline M. Cauret[3], John Measey[4]

[1]McMaster University, Hamilton, [2]McMaster University, Hamilton, ON, [3]McMaster University, Hamilton, Ontario, [4]Stellenbosch university

3:00 PM
3:14 PM

Study of the incidence of homologous recombination in function of the population dynamics of Ensifer meliloti

Mario Ceron Romero[1], Katy D. Heath[2], Tandy Warnow[3]

[1]University of Illinois at Urbana-Champaign, Cali, Colombia, [2]University of Illinois at Urbana-Champaign, Urbana, IL, [3]University of Illinois at Urbana-Champaign

3:15 PM
3:29 PM

Gene flow and population connectivity in Hawaiian cave-adapted planthoppers

Jordan M. Gossett[1], Becky Chong[2]

[1]University of Hawaii Manoa, Honolulu, HI, [2]University of Hawaii, Honolulu, Hawaii

3:30 PM

3:44 PM

A weird way that gene drive causes balancing selection in partial selfers

Matthew Rockman, NYU Biology, New York, NY

Species Interactions

Sat, June 25
2:30 PM - 3:45 PM
Room 20
Regular

Presentations

2:30 PM

2:44 PM

Investigating the relationship between burying beetles (Nicrophorus sp.) and associated microbial symbionts

Kathryn Herr[1], Tory Hendry[2]

[1]Cornell University, [2]Cornell University, ITHACA

2:45 PM

2:59 PM

Herbivore resistance and mechanisms of local adaptation in Mimulus guttatus

WITHDRAWN

Megan Blanchard, Northern Arizona University, Flagstaff

3:00 PM

3:14 PM

Glow away: Impacts of bacterial fluorescence diversity on aphid behavior.

Tory Hendry[1], Kathryn Herr[2]

[1]Cornell University, ITHACA, [2]Cornell University

3:15 PM

3:29 PM

Context-dependent effects in the Dictyostelium discoideum-Paraburkholderia symbiosis

Trey Scott[1], David Queller[2], Joan Strassmann[2]

[1]Washington University in St. Louis, Saint Louis, Missouri, [2]Washington University in St. Louis

3:30 PM

3:44 PM

The contribution of costs, benefits, and resource use efficiency to variation in outcomes in the legume-rhizobia mutualism.

McCall Calvert[1], Corlett W. Wood[2]
[1]University of Pennsylvania, Philadelphia, PA, [2]University of Pennsylvania

SSE W.D. Hamilton Award Symposium III

Sat, June 25
2:30 PM - 3:45 PM
Grand Ballroom A
Symposium

Description

The W. D. Hamilton Award for Outstanding Graduate Student Presentation will be given to a current or very recent graduate student who presents an outstanding talk based on their graduate work. Learn more about this award here.

Presentations

2:30 PM
2:44 PM

Substitution load imposes a mild constraint on adaptation, with a high proportion of deaths in A. thaliana being selective

Joseph Matheson[1], Moises Exposito-Alonso[2], Joanna Masel[3]
[1]University of Arizona, Tucson, [2]Department of Plant Biology, Carnegie Institution for Science, [3]University of Arizona

2:45 PM
2:59 PM

Adaptation during range expansion: a phylogenetic, population genetic, and physiological perspective

Cinnamon Mittan, Michigan State University, Hickory Corners

3:00 PM
3:14 PM

Global urban environmental change drives adaptation in white clover

James S. Santangelo, University of Toronto, Mississauga, Ontario

3:15 PM
3:29 PM

Group augmentation underlies the evolution of complex sociality in the face of environmental instability

Shailee Shah[1], Dustin Rubenstein[2]
[1]University of Rochester, [2]Columbia University

3:30 PM

3:44 PM

Cultural evolution after environmental stress: a case study of songbird populations affected by the 2016 New York drought

Kate Snyder[1], Nicole Creanza[2]

[1]Vanderbilt University, Nashville, [2]Vanderbilt University

Coffee break

Sat, June 25
3:45 PM - 4:15 PM
Grand Ballroom BC
Social event

Flying solo coffee social

Sat, June 25
3:45 PM - 4:15 PM
Room 25ABC
Social event

Description

Registration not required.

The SSE Graduate Student Advisory Council is organizing a coffee break for people who attend the meeting without their lab group or advisor. The event is intended to provide networking for people who are "flying solo" at Evolution 2022.

Disease

Sat, June 25
4:15 PM - 5:30 PM
Room 22
Regular

Presentations

4:15 PM

4:29 PM

Fitness consequences of depression vary across generations: evidence from a large cohort study of women across the 20th Century

Christopher I. Gurguis[1], Renee A. Duckworth[2], Nicole Bucaro[3], Consuelo Walss-Bass[3]

[1]McGovern Medical School at UTHealth, HOUSTON, TX, [2]University of Arizona, [3]McGovern Medical School at UTHealth

4:30 PM

4:44 PM

Traits, phylogeny and host cell receptors predict Ebolavirus host status among African mammals

Mekala Sundaram[1], Barbara Han[2], John Paul Schmidt[3], John M. Drake[3], Patrick Stephens[4]

[1]Oklahoma State University, Stillwater, [2]Cary Institute of Ecosystem Studies, [3]University of Georgia, [4]Oklahoma State University

4:45 PM

4:59 PM

A probabilistic model predicting host specificity in mites parasitic on mammals

Pavel Klimov[1], Qixin He[2]

[1]Purdue University, West Lafayette, [2]Purdue University, West Lafayette, Indiana

5:00 PM

5:14 PM

Strain diversity explains different biogeographic patterns of relationships between transmission intensity and the spread of drug resistance

Qixin He[1], **Jack Chaillet**[2]

[1]Purdue University, West Lafayette, Indiana, [2]Purdue University

5:15 PM

5:29 PM

Do differences in pathogen exposure and migratory movements influence immune gene diversity?

Susanna Campbell[1], Ben M. Winger[2], Liliana Cortés-Ortiz[3]

[1]University of Michigan, Ypsilanti, MI, [2]University of Michigan Museum of Zoology, [3]University of Michigan, Ann Arbor, Mi

Evolution in the tropics: 70 years since Dobzhansky II

Sat, June 25
4:15 PM - 5:30 PM
Room 26BC
Symposium

Description

Organizers: Dr. Kathleen Kay and Dr. Oscar Vargas
Tropical diversity has long fascinated biologists, but most research to-date has addressed the ecological mechanisms maintaining diversity rather than evolutionary mechanisms generating diversity. This symposium seeks to synthesize macro- and micro-evolutionary work on patterns and mechanisms of diversification in the tropics, and specifically addresses Janzen and Dobzhansky's classic hypotheses about physiological tolerances and biotic interactions. With a recent resurgence of studies into tropical evolution, the time is right to assess the current state of knowledge and identify productive avenues for future research.

Presentations

4:15 PM
4:44 PM

Janzen's mountain passes and diversification in the tropics

Kimberly Sheldon, University of Tennessee, Knoxville

4:45 PM
4:59 PM

Diversity and divergence: Evolution of defense chemistry in the tropical tree genus Inga

Dale Forrister[1], María-José Endara[2], Abrianna J. Soule[3], Gordon C. Younkin[4], Phyllis D. Coley[3]
[1]University of Utah, Salt Lake City, [2]Centro de Investigación de la Biodiversidad y Cambio Climático (BioCamb) e Ingeniería en Biodiversidad y Recursos Genéticos, Facultad de Ciencias de Medio Ambiente, Universidad Tecnológica Indoamérica, Quito, Ecuador, [3]School of Biological Sciences, University of Utah, Aline W. Skaggs Biology Building, 257 S 1400 E, Salt Lake City, UT 84112-0840, USA, [4]Boyce Thompson Institute, Ithaca, New York 14853, USA

5:00 PM
5:29 PM

Standing species richness shapes the tempo and mode of avian speciation across the Neotropics

Michael Harvey, The University of Texas at El Paso, EL PASO

Experimental Evolution I

Sat, June 25
4:15 PM - 5:30 PM
Room 19
Regular

Presentations

4:15 PM
4:29 PM

Strength of selection potentiates distinct adaptive responses in an evolution experiment with outcrossing yeast

Mark A. Phillips[1], Molly K. Burke[2]
[1]Oregon State University, Corvallis, Oregon, [2]Oregon State University, Corvallis, OR

4:30 PM
4:44 PM

The effect of Horizontal Gene Transfer on genome modularity and evolvability

Mike J. Wiser[1], Rosangela Canino-Koning[2], Charles Ofria[3]
[1]Michigan State University, East Lansing, MI, [2]Independent Scientist, [3]Michigan State University

4:45 PM
4:59 PM

EvolvingSTEM: a high school research curriculum to enhance student inclusion and agency and advance scientific discovery

Abigail M. Matela[1], Vaughn S. Cooper[2]
[1]University of Pittsburgh, Pittsburgh, PA, [2]University of Pittsburgh

5:00 PM
5:14 PM

On the (ir)reversibility of the evolution of multicellularity: epistasis and entrenchment during long-term experimental evolution

WITHDRAWN

Peter Conlin[1], Penelope Kahn[2], G. Ozan Bozdag[1], William C. Ratcliff[3]
[1]Georgia Institute of Technology, Atlanta, [2]University of British Columbia, [3]Georgia Institute of Technology

5:15 PM
5:29 PM

The Holy Grail: Predicting the evolution of antibiotic resistance

Nishant Panicker[1], Erik S. Wright
[1]University of Pittsburgh, Pittsburgh, Pennsylvania

Gene Expression I

Sat, June 25
4:15 PM - 5:30 PM

Room 20
Regular

Presentations

4:15 PM
4:29 PM

Sexually dimorphic coloration evolves through alterations to hormonally mediated gene expression in Sceloporus lizards

Chris Robinson[1], Matthew Hale[2], Tyler Wittman[3], Christian Cox[4], Henry John-Alder[5], Robert Cox[3]
[1]University of Virginia, Charlottesville, [2]University of Virginia, [3]University of Virginia, Charlottesville, Virginia, [4]Florida International University, [5]Rutgers University

4:30 PM
4:44 PM

Insectahemoglobins: transcriptomes reveal expression of hemoglobins throughout insecta

Hollister Herhold[1], Steven Davis[2], David Grimaldi[2]
[1]American Museum of Natural History, New York, NY, [2]American Museum of Natural History

4:45 PM
4:59 PM

Chance promoter activities illuminate the origins of eukaryotic intergenic transcriptions

Haiqing Xu[1], Jianzhi Zhang[2]
[1]University of Michigan, ANN ARBOR, [2]University of Michigan

5:00 PM
5:14 PM

How does mutation create gene expression variation in Chlamydomonas reinhardtii?

Eniolaye Balogun[1], Rob W. Ness[2]
[1]University of Toronto Mississauga, Mississauga, [2]University of Toronto

5:15 PM
5:29 PM

Role of Plasticity in Evolutionary Adaptation to Salt Stress

Yeshoda Harry-Paul[1], Rob W. Ness[2]
[1]Univeristy of Toronto, Mississauga, [2]University of Toronto

Life History II

Sat, June 25
4:15 PM - 5:30 PM

Room 15
Regular

Presentations

4:15 PM
4:29 PM

Experimental warming reduces body mass but not reproductive investment

Alycia Lackey, University of Louisville, Louisville, KY

4:30 PM
4:44 PM

The physiological and developmental basis of life history transitions in grasses

David Des Marais[1], Marjorie Lundgren[2], Caio Guilherme Pereira[3]
[1]Massachusetts Institute of Technology, Cambridge, [2]Lancaster University, [3]Massachusetts Institute of Technology, Cambridge, MA

4:45 PM
4:59 PM

Metamorphosis adaptively decouples juvenile and adult evolution for some traits more than others in dragonflies

Michael Moore, Living Earth Collaborative, St. Louis

5:00 PM
5:14 PM

Macroevolutionary patterns in metabolism and development

George Jarvis[1], Craig White[2], Dustin Marshall[3]
[1]Monash University, Melbourne, Australia, [2]Monash University, [3]Monash University, Monash University, Australia

5:15 PM
5:29 PM

Size-number tradeoffs and the ancillary costs of producing larger offspring: egg size variation a marine fish

Darren Johnson, California State University, Long Beach

Phylogenetic Methods II

Sat, June 25
4:15 PM - 5:30 PM
Room 16
Regular

Presentations

4:15 PM
4:29 PM

Evolutionary rate covariation across the plasmodium phylogeny reveals new candidate proteins involved in red blood cell invasion

Helena Hopson[1], Ellen Leffler[1]
[1]*University of Utah*

4:30 PM
4:44 PM

Cophylogenetic event reconciliation are affected by species tree quality

Julia Zheng, Michigan State University, East Lansing, Michigan

4:45 PM
4:59 PM

Beyond the Mk Model for Studying Discrete Character Evolution on Trees

Liam J. Revell, University of Massachusetts Boston, Boston, MA

5:00 PM
5:14 PM

Direct and indirect defensive trait evolution across scales in Vitis

Carolyn Graham[1], Marjorie Weber[2]
[1]*Michigan State University, East Lansing,* [2]*Michigan State University, East Lansing, Michigan*

5:15 PM
5:29 PM

Evolution of Biological Networks: Factors affecting Network Rewiring Rates.

Alejandro G. Gil-Gomez[1], Joshua S. Rest[1]
[1]*Stony Brook University, Stony Brook, NY*

Population Genetics II

Sat, June 25
4:15 PM - 5:30 PM
Room 21
Regular

Presentations

4:15 PM
4:29 PM

Estimation of selection components in a pedigreed population of Florida Scrub-Jays

Elissa J. Cosgrove[1], Reed Bowman[2], John Fitzpatrick[3], Andrew G. Clark[4], **Nancy Chen[5]**
[1]Cornell University, [2]Archbold Biological Station, [3]Cornell Lab of Ornithology, [4]Cornell University, Ithaca, NY, [5]University of Rochester, Rochester, NY

4:30 PM
4:44 PM

Drivers of within- and between-population genetic diversity in a widespread plant spanning an elevation gradient

Anita Cisternas Fuentes[1], Matthew Koski[2]
[1]Clemson University, Clemson, [2]Clemson University

4:45 PM
4:59 PM

Spread of segregation distorter in self-pollinated plants

Hongru Wang[1], Rasmus Nielsen[2], Léo Planche[2]
[1]UC Berkeley, Hayward, CALIFORNIA, [2]University of California Berkeley & Natural History Museum of Denmark

5:00 PM
5:14 PM

Genetic architecture and evolutionary history of the brown coat color variant in American black bears

Emily Puckett[1], Michael Marks[2], Gregory Barsh[3]
[1]University of Memphis, Memphis, TN, [2]Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, [3]HudsonAlpha, Huntsville, AL

5:15 PM
5:29 PM

The origin and persistence of mixed-ploidy in Andropogon gerardi

Alyssa Phillips[1], Taylor AuBuchon-Elder[2], Brenda Cameron[1], Patrick Minx[2], Elizabeth Kellogg[3], Jeffrey Ross-Ibarra[1]
[1]UC Davis, [2]Donald Danforth Plant Science Center, [3]Donald Danforth Plant Science Center, St. Louis, MO

SSE Dobzhansky Award Symposium

Sat, June 25
4:15 PM - 5:30 PM
Grand Ballroom A
Symposium

Description

The Theodosius Dobzhansky Prize is awarded annually by the Society for the Study of Evolution to recognize the accomplishments and future promise of an outstanding young evolutionary biologist. The prize was established in memory of Professor Dobzhansky by his friends and colleagues, and reflects his lifelong commitment to fostering the research careers of young scientists.

Presentations

4:15 PM – 4:29 PM
Introduction

4:30 PM – 4:59 PM
Behavioral evolution in a complex world: environmental impacts on mating decisions across species
Philipp Brand, The Rockefeller University, New York, NY

5:00 PM – 5:29 PM
The dual role of parental conflict in speciation: Lessons from Mimulus
Jenn M. Coughlan, University of North Carolina, Chapel Hill, Chapel Hill, NC

Saturday poster session

Sat, June 25
5:30 PM - 8:00 PM
Grand Ballroom BC
Poster

Presentations

Using Barcoding loci to evaluate species relationships in two populations of Eisenia arborea (Poster board 13)
Katherine Haines[1], Naomi Phillips[2]
[1]Arcadia University, Glenside, [2]Biology Arcadia University, Glenside

Linking root phenotypes to environmental associations in Zea mays landraces (Poster board 14)
Chloee McLaughlin, Penn State University, State College

Evolution of a femme fatale firefly: Comparative transcriptomics reveals gene families associated with predatory behavior (Poster board 15)

Cheyenne McKinley[1], Sarah Lower[2]
[1]University of California, Santa Barbara, Santa Barbara, [2]Bucknell University

Species delimitation in the North American deer mouse using museum specimens (Poster board 16)

Natalie Hamilton[1], Sharon A. Jansa[2], Jessica E. Light[1]
[1]Texas A&M University, College Station, Texas, [2]University of Minnesota

Isolation of Microorganisms from Ten-Year-Old Southern Pine Beetle Galleries. (Poster board 17)

Shang Xu[1], Lily Khadempour[2]
[1]Rutgers Univerisity, Newark, [2]Rutgers University-Newark, Newark, NJ

Transcriptomic response of juvenile American alligators to salt stress (Poster board 18)

John Konvalina[1], Eric Hoffman[2]
[1]University of Central Florida, Orlando, [2]University of Central Florida

Comparative genomics: chromosomal inversions in eudicots without adaptive selection (Poster board 19)

Kaede Hirabayashi[1], Gregory Owens[2]
[1]University of Victoria, Victoria, BC, [2]University of Victoria, Victoria

Comparing divergent plastid genomes in Campanula americana at a structural level using Minion long read sequencing (Poster board 20)

Tyler Gandee, James Madison University, Harrisonburg, VA

Sexual Conflict and Hybridization: A Phylogenomic Test of Macroevolutionary Predictions (Poster board 21)

Emma Lehmberg[1], Igor Cavalcanti de Araújo Souto Santos[2], Paulo A. Buckup[3], David N. Reznick[4], Gil Rosenthal[5]
[1]Texas A&M University, College Station, [2]Museu Nacional, Universidade Federal do Rio de Janeiro, [3]Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brazil, [4]University of California, Riverside, California, [5]University of Padova

Strategies for predation in a social amoeba, Dictyostelium discoideum (Poster board 22)

Shreenidhi P M[1], Joan Strassmann[2], David Queller[2]
[1]WUSTL, St Louis, Missouri, [2]Washington University in St. Louis

Examining nuclear transfer between homokaryotic and dikaryotic strains of Rhizophagus irregularis (Poster board 23)

Bianca Turcu, University of Ottawa

The genomic landscape of hybridization with increased genomic instability (Poster board 24)

Carla Bautista[1], Isabelle Gagnon-Arsenault[2], Anna Fijarczyk[2], Devin P. Bendixsen[3], Rike Stelkens[4], Christian Landry[2]
[1]Université Laval, Québec, [2]Université Laval, [3]Stockholm University, Stockholm, US and Canada only, Sweden, [4]Stockholm University

Investigating sources of conflict in a phylogenomic analysis of placental mammals (Poster board 25)

Leann Biancani[1], Alexander Knyshov[2], Rachel S. Schwartz[3]
[1]University of Rhode Island, [2]University of Rhode Island, Kingston, Rhode Island, [3]University of Rhode Island, Kingston, RI

Reducing the biases in false correlations between discrete characters (Poster board 26)

James Boyko[1], Jeremy Beaulieu[1]
[1]University of Arkansas, Fayetteville, AR

Exploring the most recent range expansion of threespine stickleback with population genetics (Poster board 27)

Max Reynolds[1], Jesse Weber[2]
[1]University of Wisconsin-Madison, Madison, [2]University of Wisconsin-Madison, Madison, AK

Mycorrhizal response of homokaryotic versus dikaryotic arbuscular mycorrhizal fungi. (Poster board 28)

Victoria Terry, University of Ottawa, Ottawa

Increased variability in adenine methylation in the absence of methyl-directed mismatch repair in Escherichia coli (Poster board 29)

Carl J. Stone[1], Megan G. Behringer[1]
[1]Vanderbilt University, Nashville, TN

Population genomics of Myzomela honeyeaters in the Solomon Islands (Poster board 30)

Emily Ostrow[1], Devon DeRaad[2], Stephen Baca[2], Elsie H. Shogren[3], Jason M. Sardell[4], J. Albert C. Uy[5], Robert Moyle[6]
[1]University of Kansas, Lawrence, [2]University of Kansas, Lawrence, KS, [3]University of Rochester, Rochester, New York, [4]University of Texas, Austin, TX, [5]Biology, University of Rochester, Rochester, NY, [6]University of Kansas

Newly evolved rattling crickets use novel morphology to attract mates while evading eavesdroppers (Poster board 31)

Jay H. Gallagher[1], David M. Zonana[2], Dale Broder[3], Robin Tinghitella[1]
[1]University of Denver, Denver, CO, [2]University of Denver, Denver, Colorado, [3]St Ambrose University

Drosophila mettleri: A Study in the Loss of Adaptability (Poster board 32)

Lidane Noronha, Cornell University, Ithaca

TREE-QMC: Scalable and accurate species tree estimation from gene tree embedded quartets via graph cuts (Poster board 33)

Yunheng Han[1], Erin Molloy[2]
[1]UMCP, [2]University of Maryland, College Park

Multi-locus species tree estimation with TREE-TMC (Poster board 34)

Tobias Rubel[1], Yunheng Han[2], Erin Molloy[3]
[1]University of Maryland, College Park, College Park, [2]UMCP, [3]University of Maryland, College Park

Investigating the evolution and maintenance of variable species boundaries and repeatability of evolution using a classic hybrid zone model (Poster board 35)

Thomas (TJ) Firneno[1], Erica Larson[2], Robin Tinghitella[2], Luana S. Maroja[3]
[1]University of Denver, Denver, [2]University of Denver, Denver, CO, [3]Williams College, Williamstown, Massachusetts

Population genomics can delineate conservation units: the case of the White Sands pupfish (Cyprinodon tularosa) (Poster board 36)

Erangi Heenkenda[1], Andrew Black[2], Brian L. Pierce[3], Sarah Turner[3], David Rizzuto[3], J. Andrew A. DeWoody[4]
[1]Purdue university, West Lafayette, [2]Purdue University, [3]Texas A&M University, College Station, [4]Purdue University, West Lafayette, IN

Do plants increase microbial activity? Using BONCAT-FACS to measure microbial activity across the root-soil resource gradient (Poster board 37)

Jennifer Harris[1], Liana T. Burghardt[2], Regina Bledsoe[3], Estelle Couradeau[3], Sharifa Crandall[3], Haneen Omari[3]

[1]The Pennsylvania State University, University Park, PA, [2]The Pennsylvania State University, State College, MINNESOTA, [3]The Pennsylvania State University

Tracing the Origins of Repletism and Identifying the Honeypot Ant Gut Microbiota (Poster board 38)

Indira Sawh[1], Phillip Barden[2], Lily Khadempour[3]

[1]Rutgers University, East Orange, New Jersey, [2]New Jersey Institute of Technology, Newark, [3]Rutgers University-Newark, Newark, NJ

Susceptibility of common bottlenose dolphins to three variants of SARS-CoV-2 (Poster board 39)

Helen Stone[1], Paul E. Turner[2]

[1]Yale University, New Haven, [2]Yale University, New Haven, CT

Chromosome-level genome assembly of the Western black widow spider (Latrodectus hesperus) provides insight into arachnid sex chromosome evolution (Poster board 40)

Hannah Waterman[1], Lindsay Miles[2], Robert Haney[3], Jessica Garb[3], Nadia Ayoub[4], Trevor Krabbenhoft, Brian C. Verrelli[5]

[1]University at Buffalo, BUFFALO, NY, [2]University of Toronto Mississauga, Mississauga, ON, [3]University of Massachusetts Lowell, Lowell, MA, [4]Department of Biology, Washington and Lee University, Lexington, VA, [5]Virginia Commonwealth University, Richmond, VA

Co-evolutionary genetics and functional validation of partner quality genes in Ensifer meliloti (Poster board 41)

Ivan Sosa-Marquez, UIUC, Urbana

Early Detection of an Invasive New Zealand Freshwater Snail Using Environmental DNA (Poster board 42)

Mae-Ling Kao[1], Anna Hunt[2], Joel Sharbrough[3]

[1]New Mexico Institute of Mining and Technology, Socorro, [2]New Mexico Institute of Mining and Technology, [3]New Mexico Institute of Mining and Technology, Socorro, NM

Transcription error rates in unicellular eukaryotes (Poster board 43)

Lada Isakova[1], Stephan Baehr[2], Jean-Francois Gout[3], Michael Lynch[4]

[1]Arizona State University; ENS PSL, Tempe, [2]Arizona State University, Tempe, [3]Mississippi State University, [4]Arizona State University

Adaptation of Lobelia spicata to soil microbial communities across the North American tallgrass prairie (Poster board 44)

Sydney K. Metternich, Illinois State University, Normal, IL

Fitness seascapes facilitate models of therapy resistance under time-varying selection (Poster board 45)

Eshan King[1], Julia Pelesko[2], Jeff Maltas[3], Steph Owen[4], Emily Dolson[5], Jacob Scott[3]
[1]Case Western Reserve University School of Medicine, Cleveland, [2]Cleveland Clinic Lerner Research Institute, [3]Cleveland Clinic, [4]Cleveland Clinic Lerner Institute, Cleveland, [5]Michigan State University, East Lansing, MI

Paramutations to the rescue? (Poster board 46)

WITHDRAWN

Puneeth Deraje[1], Matthew Osmond[2]
[1]University of Toronto, Toronto, [2]University of Toronto

The Macroevolution of a Smoke-induced Seed Germination Trait (Poster board 47)

Yanni Chen[1], Maribeth Latvis[2], Lora Perkins[2], A. Joshua Leffler[2], Matthew G. Johnson[3]
[1]Texas Tech University, Lubbock, TX, [2]South Dakota State University, [3]Texas Tech University

Untangling the radiation of lizards (Pleurodonta) and the role of viviparity in driving species diversification (Poster board 48)

Laura R. Alencar[1], Saúl F Domínguez-Guerrero[2], Meaghan Gade[3], Elizabeth Daniel[4], Brooke L. Bodensteiner[3], Josef C. Uyeda[5], Martha Muñoz[1]
[1]Yale University, New Haven, CT, [2]Yale University, New Haven, [3]Yale University, [4]Virginia Polytechnic Institute and State University, Blacksburg, [5]Virginia Tech, Blacksburg, VA

Variation in selective signals within the American pika (Ochotona princeps) (Poster board 49)

Zach Farrand[1], Kurt Galbreath[1], Kate Teeter[1]
[1]Northern Michigan University

The Fitness Effects of Mutations Given a History of Adaptation (Poster board 50)

Kevin Bao, UW Madison - Genetics Department

The influence of demographic history and genetic architecture on complex phenotypes via runs of homozygosity (Poster board 51)

Zachary Szpiech, Penn State University

Evolution of Type IIA Topoisomerases in Extremophilic Bacteria (Poster board 52)

Alexa G. Gonzalez[1], Jeremy M. Brown[2], Allyn Schoeffler[3]
[1]Louisiana State University, Metairie, LA, [2]Louisiana State University, Baton Rouge, LA, [3]Loyola University New Orleans

Gene annotation of the insulin signaling pathway in model organisms (Poster board 53)

Isabella Armstrong[1], Tara A. Pelletier[2]
[1]Radford University, Falls Church, [2]Radford University, Radford, VA

Comparative functional analysis of KLK3/PSA in primates to reveal its natural and sexual selective pressures (Poster board 54)

Emine F. F. Kahveci[1], Michael Jensen-Seaman[2]
[1]Duquesne University, Pittsburgh, Pennsylvania, [2]Duquesne University, Pittsburgh, PA

Strong evidence for positive and negative correlational selection revealed by recreating ancestral variation (Poster board 55)

Robin Waterman[1], Heather Sahli[2], Vanessa Koelling[3], Keith Karoly[4], Jeff Conner[5]
[1]Michigan State University, Hickory Corners, [2]Shippensburg University, [3]Auburn University at Montgomery, Montgomery, [4]Reed College, [5]Kellogg Biological Station, Hickory Corners, MI

Genomic Patterns of Homozygosity and Deleterious Alleles in Wild Rhesus Macaques (Poster board 56)

Camille Steux[1], Zachary Szpiech[1]
[1]Penn State University

Runs of homozygosity reveal extensive inbreeding among K'gari dingoes (Poster board 57)

Ana Victoria Leon Apodaca[1], Manoharan Kumar[2], Gabriel Conroy[2], Steven Ogbourne[2], Kylie M. Cairns[3], Sankar Subramanian[4], Zachary Szpiech[5]
[1]Pennsylvania State University, University Park, [2]Genecology Research Centre, University of the Sunshine Coast, QLD, Australia, [3]Evolution and Ecology Research Centre, School of BEES, University of New South Wales, NSW, Australia, [4]University of the Sunshine Coast, Sippy Downs, QLD, Australia, [5]Penn State University

LoRaD: marginal likelihood from a single posterior sample (Poster board 58)

Analisa Milkey[1], Paul O. Lewis[2]
[1]UConn EEB, Willimantic, CT, [2]Ecol. and Evol. Biol. Dept., Univ. of Connecticut, Storrs, Connecticut

Spatio-temporal dynamics of disease pressure driven by abiotic stressors and implications for space-for-time substitution modeling (Poster board 59)

Madeline Eppley[1], Kathleen E. Lotterhos[2]
[1]Northeastern University, Boston, [2]Northeastern University Marine Science Center, Nahant, MA

Local Adaptation of Male Reproductive Success in Drosophila melanogaster (Poster board 60)

Cameron Kendrick[1], Aneil Agrawal[2], Howard D. Rundle[3]
[1]University of Ottawa, Ottawa, [2]U of Toronto, Toronto, ON, [3]University of Ottawa, Ottawa, ON

Characterizing environmental scaling of indirect genetic effects in Drosophila (Poster board 61)

Tristan L. Ducharme[1], Howard D. Rundle[2]
[1]University of Ottawa, Etobicoke, ON, [2]University of Ottawa, Ottawa, ON

Convergence and selection throughout the evolutionary history of visual opsin proteins in geckos (Poster board 62)

Natalie Allen[1], Tony Gamble[2]
[1]Marquette University, Gainesville, [2]Marquette University

Motherhood and field science: challenges, strategies, and supports for success (Poster board 63)

Tara A. Pelletier[1], Anja Whittington[1]
[1]Radford University, Radford, VA

The effects of assortative mating and environmental stress on the strength and magnitude of inbreeding and outbreeding depression in Lythrum salicaria populations across Easter North America. (Poster board 64)

Maria Jose Gomez Quijano[1], Robert I. Colautti[2]
[1]Queen's University, Kingston, [2]Queen's University, Kingston, Kingston, ON

Testing the association of ROH with non-disease phenotypes in dogs (Poster board 65)

Sweetalana .[1], Zachary Szpiech[2], Jazlyn Mooney[2]
[1]The Pennsylvania State University, [2]Penn State University

The causes and consequences of transitions in life history strategy in a broadly distributed plant (Poster board 66)

Simon Innes[1], Nic Kooyers[2]
[1]University of Louisiana, Lafayette, Lafayette, LA, [2]University of Louisiana, Lafayette

Chemical attacks and the evolution of resistance in plants (Poster board 67)

Megan Brown[1], Andrea Case[2]
[1]Kent State University, Kent, OH, [2]Kent State University, Kent, Ohio

Anatomy of hybrid gars bridging a 105-million-year divergence and the limits of evolvability (Poster board 68)

WITHDRAWN

Chase D. Brownstein[1], Thomas Near[2]
[1]Yale University, Stamford, Connecticut, [2]Yale University, New Haven, CT

Investigating heritability of resistance gene copy number variation in glyphosate-resistant Amaranthus palmeri (Poster board 69)

Lisa Han[1], Kathryn F. Dungey[2], Sarah Yakimowski[3]
[1]Queen's University, Kingston, ON, [2]Queen s University, Kingston, ON, [3]Queen's University (Kingston, ON, Canada), Kingston, Ontario

A new framework for efficiently sampling ancestral recombination graph (Poster board 70)

Yun Deng, UC Berkeley, Berkeley

Distribution and genetic diversity of Notropis volucellus and Notropis wickliffi (Leuciscidae: Pogonichthyinae) in the Mississippi River (Poster board 71)

Roberto V. Cucalón[1], MArk Davis[2], Joel Corush[3], Robert Hrabik[4], Konrad Schmidt[5], John Lyons[6], Milton Tan[7]
[1]University of Illinois at Urbana Champaign, Urbana, Illinois, [2]University of Illinois, [3]University of Illinois, Champaign, Illinois, [4]Missouri Department of Conservation, Oak Ridge, MO, [5]North American Native Fishes Association, Saint Paul, MN, [6]University of Wisconsin Zoological Museum, [7]Illinois Natural History Survey, Champaign, Illinois

Genetic Variation Related to Thiamine Metabolism Among Great Lakes and Finger Lakes Lake Trout (Poster board 72)

Christopher A. Osborne[1], Dimitry Gorsky[2], Jacques Rinchard[3], Brian Lantry[4], Trevor Krabbenhoft[5]

[1]University at Buffalo, Lockport, New York, [2]U.S. Fish and Wildlife Service, [3]SUNY Brockport, [4]USGS Lake Ontario Biological Station, [5]University at Buffalo, Buffalo, NY

Genome evolution of the crested gecko sex chromosomes (Poster board 73)

Shannon E. Keating[1], Brendan J. Pinto[1], Tony Gamble[2]

[1]Marquette University, Milwaukee, WI, [2]Marquette University

Mallard introductions to New Zealand result in extensive hybridization with endemic grey ducks (Poster board 74)

Joshua Brown[1], Jennifer Sheppard[2], Jonathon Mohl[3], Philip Lavretsky[1]

[1]University of Texas at El Paso, [2]Simax Ecology, Tauranga, Bay of Plenty, NZ, New Zealand, [3]University of Texas El Paso

Microgeographic adaptation of yeast communities in apple orchards (Poster board 75)

Swapna K. Subramanian, University of Connecticut, Mansfield Center, CT

Does phenotypic plasticity facilitate population persistence? Evaluating the buying time hypothesis (Poster board 76)

Emily Harmon[1], David Pfennig[2]

[1]UNC Chapel Hill, Burlington, NC, [2]University of North Carolina, Chapel Hill, NC

A Y-linked duplication of anti-Mullerian hormone is necessary for testis development in threespine stickleback (Gasterosteus aculeatus) (Poster board 77)

Matthew J. Treaster[1], Michael A. White[1]

[1]University of Georgia, Athens, GA

Evolutionary capacitance driven by HSP90 during the de novo evolution of multicellularity (Poster board 78)

Dung Lac[1], Vivian Cheng[2], Kai Tong[3], Kristopher Montrose[4], Anthony Burnetti[2], G. Ozan Bozdag[1], Juha Saarikangas[4], William C. Ratcliff[2]

[1]Georgia Institute of Technology, Atlanta, [2]Georgia Institute of Technology, [3]Georgia Institute of Technology, Atlanta, GA, [4]University of Helsinki

Effects of mitochondrial replacement in Tigriopus californicus (Poster board 79)

Jacob Denova[1], Ben A. Flanagan[2], Murad Jah[3], Suzanne Edmands
[1]University of Southern Californis, Los Angeles, [2]University of Southern California, LOS ANGELES, CA, [3]University of Southern California, Los Angeles

A comparative analysis of the chloroplast genomes of two southeastern azaleas, Rhododendron cumberlandense and R. prunifolium (Ericaceae). (Poster board 80)

Vanessa Koelling[1], Michael McKain[2]
[1]Auburn University at Montgomery, Montgomery, [2]The University of Alabama, Tuscaloosa

Using UCE-based landmarking to explore patterns of genomic disparity in tetrapods (Poster board 81)

Jeffrey W. Streicher[1], Anjali Goswami[2], Ashwini V. Mohan[3]
[1]Natural History Museum, London, United Kingdom, [2]Department of Life Sciences, The Natural History Museum, London SW7 5DB, UK, [3]TU Braunschweig, Braunschweig, Lower Saxony, Germany

The role of carnivory in shaping carnivoran genome evolution (Poster board 82)

Matthew Pollard[1], Emily Puckett[1]
[1]University of Memphis, Memphis, TN

Imprints of the past: relating demographic histories to variation in deleterious load and runs of homozygosity within three species of bears (Poster board 83)

Heather Clendenin[1], Emily Puckett[1]
[1]University of Memphis, Memphis, TN

The Influence of Reproductive Mode on Genome Evolution in Oscheius Nematodes (Poster board 84)

Tori Eggers, Florida International University, Tuscaloosa

Mutation accumulation maintains outcrossing in the face of selfing invasion (Poster board 85)

Michelle McCauley[1], Levi Morran[2]
[1]Emory University, Atlanta, GA, [2]Emory University, Atlanta

PhyloHerb: A high-throughput phylogenomic pipeline for processing genome-skimming data (Poster board 86)

Liming Cai[1], Hongrui Zhang[2], Charles C. Davis[3]
[1]UT Austin, Austin, MA, [2]Texas A&M, [3]Harvard University

Exploring the Effects of Urban Pollution on an Intertidal Marine Invertebrate (Poster board 87)

WITHDRAWN

Maddie L. Armstrong[1], Rachael Bay[2]
[1]University of California Davis, Department of Evolution and Ecology, Davis, CA, [2]University of California, Davis

Sex Chromosomes in the Tribe Cyprichromini (Teleostei: Cichlidae) of Lake Tanganyika (Poster board 88)

Kristen Behrens[1], Stephan Koblmüller[2], Thomas Kocher[1]
[1]University of Maryland, [2]University of Graz

The complete genotype-phenotype map of an ancestral regulatory module (Poster board 89)

Santiago Herrera-Alvarez[1], Jaeda Patton[2], Joseph Thornton[2]
[1]University of Chicago, Chicago, [2]University of Chicago

Biogeography

Is deliberate mistranslation of in Streptomyces adaptive or not? (Poster board 90)

Yuxuan Chen, University of Michigan, Ann Arbor

Batch effects in population genomic studies with low-coverage whole genome sequencing data: Causes, detection, and mitigation (Poster board 91)

R. Nicolas Lou[1], Nina O. Therkildsen[2]
[1]Cornell University, Ithaca, NY, [2]Cornell University

Facilitation & Phylogenetic Structure of Montane Plant Communities (Poster board 92)

Leah Veldhuisen[1], Brian Enquist[2], Katrina M. Dlugosch[3]
[1]University of Arizona, Tucson, Colorado, [2]University of Arizona, [3]University of Arizona, Tucson, AZ

Prezygotic isolation and speciation in a Neotropical lizard through a sensory drive lens (Poster board 93)

Janelle Talavera[1], Thomas H. Powell[2], Lindsey Swierk[3]
[1]Binghamton University - SUNY, Binghamton, [2]Binghamton University (SUNY), Binghamton, NY, [3]Binghamton University

Does sex determination architecture differ between a turtle with sex chromosomes and a turtle without them? A network modeling approach. (Poster board 94)

Thea Gessler[1], Nicole Valenzuela[1]
[1]Iowa State University, AMES, IA

Differentially expressed genes and genetic adaptation to high altitudes in the Tibetan Partridge (Poster board 95)

Catalina C. Palacios[1], Pengcheng Wang[2], Nan Wang[3], Megan Brown[1], Sangeet Lamichhaney[1]
[1]Kent State University, Kent, OH, [2]Chinese Academy of Sciences, [3]Beijing Forestry University

A proposal to contrast the landscape genetics of brown and American black bears across Southeast Alaska (Poster board 96)

Phil Douchinsky[1], Emily Puckett[2], Anthony Crupi[3]
[1]University of Memphis, Memphis, [2]University of Memphis, Memphis, TN, [3]Alaska Department of Fish and Game, Juneau, Alaska

Changes in genetic parallelism between independently evolving populations (Poster board 97)

Caroline Turner[1], Eric Libby[2], Vaughn S. Cooper[3]
[1]Loyola University Chicago, Chicago, IL, [2]Umeå University, [3]University of Pittsburgh

Exploring the effects of climate change on an important speciation complex (Poster board 98)

WITHDRAWN

Jordyn Condrate[1], Thomas H. Powell[1]
[1]Binghamton University (SUNY), Binghamton, NY

Environment exposure, but not maternal lineage, shapes the gut microbiome in two lineages of lizards (Poster board 99)

Braulio Assis[1], Terrence S. Bell[2], Heather Engler[1], William King[1]
[1]Penn State, [2]The Pennsylvania State University, University Park, PA

Mutualism Among Unequal Partners (Poster board 100)

Peter Bednekoff, Eastern Michigan University, Ypsilanti

A sex chromosome transition in banded geckos (Coleonyx, Eublepharidae, Gekkota) (Poster board 101)

tony gamble[1], Shannon E. Keating[2], Eli Greenbaum[3]
[1]marquette university, milwaukee, [2]Marquette University, Milwaukee, WI, [3]University of Texas at El Paso, El Paso, Texas

Biogeography and systematics in the leaf-toed geckos (Phyllodactylus) (Poster board 102)

Kathryn Sullivan[1], Tony Gamble[2]
[1]Marquette University, Milwaukee, [2]Marquette University

A model for the evolution of gene regulatory networks governing social traits (Poster board 103)

Elliott Greene[1], Jeremy Van Cleve[2]
[1]University of Kentucky, Lexington, [2]University of Kentucky, Lexington, KY

Mitochondrial function under heat stress in diploid vs. polyploid wheat (Poster board 104)

Sinai Grijalva[1], Joel Sharbrough[2], Anna Hunt[3]
[1]New Mexico Institute of Mining and Technology, Socorro, [2]New Mexico Institute of Mining and Technology, Socorro, NM, [3]New Mexico Institute of Mining and Technology

Molecular and physiological consequences of warming and habitat loss in a coral reef fish (Poster board 105)

Ally Swank[1], Moises A. Bernal[2]
[1]Auburn University, Auburn, [2]Auburn University, Auburn, AL

Genotype-by-environment interaction (GxE) in gene regulatory networks in Brachypodium distachyon under soil water deficit (Poster board 106)

Jie Yun[1], David Des Marais[2]
[1]MIT, Cambridge, MA, [2]Massachusetts Institute of Technology, Cambridge

Selection favors greater predator-induced behavioral plasticity in prey activity (Poster board 107)

Wade Boys, University of Arkansas, Department of Biological Sciences, Fayetteville

Designing Custom Genetic Loci to Improve the Phylogeny of Dampiera (Goodeniaceae) (Poster board 108)

Pike Li[1], Nola Fanestil[2], Jacob Lynn-Palevsky[2], Rachel Jabaily[2], Kelly Shepherd[3]
[1]Colorado College, Colorado Springs, Colorado, [2]Colorado College, [3]Western Australian Herbarium,

Cophylogenetic event reconciliation are affected by species tree quality (Poster board 109)

Julia Zheng, Michigan State University, East Lansing, Michigan

Pink Genome, Blue Genome: Do traits have different genetic architectures in males and females? (Poster board 110)

Mia Miyagi[1], Sarah Richardson[2]
[1]Harvard University, Cambridge, MA, [2]Harvard University

Saturday poster session (Undergraduate diversity at Evolution posters)

Sat, June 25
5:30 PM - 8:00 PM
Grand Ballroom BC
Poster

Presentations

The effects of spontaneous mutations on sexual performance in budding yeast. (Poster board 1)

Tara Disanayaka[1], Nathaniel Sharp[2]
[1]Sharp Lab, University of Wisconsin-Madison, Madison, [2]University of Wisconsin-Madison, Madison, WI

Cuticular hydrocarbons, male-like females and fertility in two hybridizing field crickets (Poster board 2)

Eddy Lee[1], Jaeeun Lee[2], Nevyn Neal[3], Luana S. Maroja[4], Nathan Cook[3]
[1]Williams College, Williamstown, [2]Williams College, 01267, [3]Williams College, [4]Williams College, Williamstown, Massachusetts

Investigating fitness consequences due to insect herbivory in native and non-native hostplants (Poster board 3)

Tyler Pereira[1], Anna Parker[1], joel g. Kingsolver[2]
[1]University of North Carolina - Chapel Hill, [2]University of North Carolina, Chapel Hill, NC

The effects of nicotine and hostplant on growth, consumption, and frass production in the tobacco hornworm (Poster board 4)

Madison Milotte[1], Anna Parker[1], joel g. Kingsolver[2]
[1]University of North Carolina - Chapel Hill, [2]University of North Carolina, Chapel Hill, NC

Investigating the Transcriptomic Responses to Heat Stress and Starvation in the Economically Important Red Abalone Haliotis rufescens (Poster board 5)

Hanna Franklin, Sacramento State, Citrus Heights

Automatically extracted vocalization data by machine learning model corroborate evidence that two subspecies of the White-crowned Sparrow have divergent songs (Poster board 6)

Jiaying Yang[1], Kaiya Provost[2], Bryan C. Carstens[3]
[1]The Ohio State University, COLUMBUS, [2]The Ohio State University, Columbus, OH, [3]The Ohio State University, Columbus, Ohio

Do female field crickets with a male-like cuticular hydrocarbon composition mate with more males in the wild? (Poster board 7)

Jaeeun Lee[1], Eddy Lee[2], Luana S. Maroja[3], Jo Kim[4]
[1]Williams College, 01267, [2]Williams College, Williamstown, [3]Williams College, Williamstown, Massachusetts, [4]Williams College

How Diet, Exercise and Sex Influence Methylation Patterns in the Companion Dog. (Poster board 8)

Jazmine Harvey[1], Brianah M. McCoy[2], Layla Brassington[2], Noah Synder-Mackler[2], Kelly Jin[3]
[1]CSUS/ASU, [2]Arizona State University, [3]Allen Institute

Fitness of XXY Drosophila melanogaster (Poster board 9)

Elizabeth Makovec[1], Kayla Janke[1], Caitlin Kestell[2], Nathaniel Sharp[3]
[1]University of Wisconsin-Madison, Madison, [2]UW-Madison Alum, [3]University of Wisconsin-Madison, Madison, WI

The Demographic, Environmental, and Genetic Forces that Drive Microfilariae Infections in the Florida Scrub-Jay (Poster board 10)

Kristin Hardy, University of Rochester, Rochester, NY

To Smell or Not to Smell: Measuring Evolutionary Pressures in Chemosensory Genes and Morphology of Snakes with Divergent Ecologies (Poster board 11)

Mason Petty[1], Matteo Fabbri[2], Bhart-Anjan Bhullar[3], Laurel Yohe[4]
[1]University of North Carolina Charlotte, Charlotte, [2]Field Museum of Natural History, [3]Yale University, [4]UNC Charlotte, Charlotte, CT

Experimental evidence suggests that tadpole transport on the dorsum affects warning signal effectiveness in poison frogs (Poster board 12)

Maria Paula Toro, Universidad del Quindio, Armenia, Colombia

ASN Grad social

Sat, June 25
7:30 PM - 9:00 PM
Room 25ABC
Social event

Description

The ASN Graduate Council is hosting a student-faculty mixer for members of the American Society of Naturalists. The goal of this mixer is to create a venue for academic discussion, particularly between graduate students, postdocs, and senior researchers. One free drink ticket will be provided to each ASN member as part of their registration package; refreshments will be served (cash bar).

UDE social event

Sat, June 25
7:30 PM - 9:00 PM
Room 25ABC
Social event

Description

All undergraduates are invited to join the Undergraduate Diversity at Evolution organizers for an undergraduate student social. The event will include food and beverages and give you an opportunity to talk with one another and previous UDE participants. All undergraduates are welcome and you do not need to register.

ASN Presidential Address - Dr. Judith Bronstein

Sun, June 26
8:00 AM - 9:20 AM
Grand Ballroom A
Plenary

Info

Talk type:
Plenary/Award

Title:
Dissolving Boundaries: Towards Unification in the Study of Species Interactions

Author

Judie Bronstein
University of Arizona

Adaptation III

Sun, June 26
9:30 AM - 10:45 AM
Room 16
Regular

Presentations

9:30 AM

9:44 AM

Genetic adaptation in high gene flow systems: coupling RNA-Seq and common gardens to understand marine range expansions

Andy Lee[1], Benjamin Daniel[2], Jean Davidson[3], Rob Toonen[4], Crow White[2], Mark Christie[5]
[1]Purdue University, West Lafayette,, [2]California Polytechnic State

University, San Luis Obispo, [3]Cal Poly SLO, [4]University of Hawaii, [5]Purdue University

9:45 AM

9:59 AM

Targeted capture sequencing reveals shared patterns of variation in hydrogen sulfide detoxification genes in extremophile fish P. mexicana

Kara Ryan[1], Ryan Greenway[1], Jake Landers[1], Lenin Arias-Rodriguez[2], Michael Tobler[3], Joanna Kelley[1]
[1]Washington State University, [2]Universidad Juárez Autónoma de Tabasco, Villahermosa, Tabasco, México, [3]Kansas State University

10:00 AM

10:14 AM

Historical demography and population genomics of adaptive radiations in Great Lakes salmonids

Nate Backenstose[1], Dan MacGuigan[2], Moises A. Bernal[3], Wendylee Stott[4], Daniel L. Yule[5], Christopher A. Osborne[6], Trevor Krabbenhoft
[1]University at Buffalo, Buffalo, New York, [2]University at Buffalo, BUFFALO, NY, [3]Auburn University, Auburn, AL, [4]Ministry of Northern Development, Mines, Natural Resources and Forestry, [5]USGS Great Lakes Science Center, [6]University at Buffalo, Lockport, New York

10:15 AM

10:29 AM

Detection of structural variants among inland annual and coastal perennial ecotypes of the yellow monkey flower, Mimulus guttatus

Leslie Kollar[1], David B. Lowry[2], Chad Niederhuth[3], Sunil Kenchanmane Raju[3]
[1]Michigan State University, East Lansing, [2]Michigan State University, East Lansing, MI, [3]Michigan State University

10:30 AM

10:44 AM

The genetic, developmental, and physiological mechanisms of local adaption to oceanic salt spray in Mimulus guttatus

David B. Lowry, Michigan State University, East Lansing, MI

ASN Vice-Presidential Symposium: Re-viewing adaptive genetic variation I

Sun, June 26
9:30 AM - 10:45 AM

Grand Ballroom A
Symposium

Description

Organizer: Dr. Deepa Agashe
Genetic variation is central to evolutionary change, and has always featured prominently in attempts to understand biological diversity. Our understanding of its provenance, maintenance and impact have advanced substantially in the past few decades, and this symposium aims to integrate these advances. Focusing on the importance of new mutations and standing genetic variation during adaptation, we will aim to bridge across molecular and ecological perspectives on how mutational input shapes evolution in natural populations. We will address questions such as: what is the relative role of new mutations, standing genetic variation, and selection, during adaptation? What is the impact of mutation rate and bias? What can we say about these effects in natural populations and their ability to survive the coming decades?

Presentations

9:30 AM
9:59 AM

Re-viewing adaptive genetic variation

Deepa Agashe, National Centre for Biological Sciences, Bangalore, Karnataka, India

10:00 AM
10:29 AM

Introduction biases: theory, evidence, and broader implications

Bryan L. Gitschlag[1], Alejandro V. Cano[2], Joshua L. Payne[2], David M. McCandlish[3], **Arlin Stoltzfus[4]**
[1]Simons Center for Quantitative Biology, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, USA, [2]Swiss Institute of Bioinformatics, Lausanne, Switzerland, [3]Cold Spring Harbor Laboratory, [4]Office of Data and Informatics, NIST, Gaithersburg

10:30 AM
10:44 AM

Salt stress alters the spectrum of de novo mutation available to selection during experimental adaptation of Chlamydomonas reinhardtii

Ahmed R. Hasan[1], Josianne Lachapelle[1], Roman Potjewyd[2], Scott Ford[2], Sara El-Shawa[2], Rob W. Ness[2]
[1]University of Toronto, Toronto, ON, [2]University of Toronto

Experimental Evolution II

Sun, June 26
9:30 AM - 10:45 AM
Room 21
Regular

Presentations

9:30 AM
9:44 AM

Experimental evolution of macroscopic multicellularity

G. Ozan Bozdag[1], William C. Ratcliff[2]
[1]Georgia Institute of Technology, Atlanta, [2]Georgia Institute of Technology

9:45 AM
9:59 AM

Evolution of novel cellular differentiation in a multicellular long term evolution experiment (MuLTEE)

Kai Tong[1], Juha Saarikangas[2], William C. Ratcliff[3]
[1]Georgia Institute of Technology, Atlanta, GA, [2]University of Helsinki, [3]Georgia Institute of Technology

10:00 AM
10:14 AM

Adaptation of Escherichia coli hypermutators to a novel environment

Wei-Chin Ho[1], Megan G. Behringer[2], Samuel F. Miller[3], Lily King[3], Jadon Gonzales[3], Amber Nguyen[3], Meriem Allahwerdy[3], Gwyneth F. Boyer[3], Michael Lynch[3]
[1]Arizona State University, Tempe, AZ, [2]Vanderbilt University, Nashville, TN, [3]Arizona State University

10:15 AM
10:29 AM

Mutation-transcription tango: are mutations more common in regions of high or low expression?

Sarah Schaack, Reed College, Portland, OR

10:30 AM
10:44 AM

Complex Ecotype Dynamics Evolve in Response to Fluctuating Resources

Megan G. Behringer[1], Wei-Chin Ho[2], Carl J. Stone[1], Michael Lynch[3]
[1]Vanderbilt University, Nashville, TN, [2]Arizona State University, Tempe, AZ, [3]Arizona State University

Field Safety and Ethics in Evolution and Ecology: Experiences and Tools for Inclusive Practices I

Sun, June 26
9:30 AM - 10:45 AM
Room 26BC
Symposium

Description

Organizers: Susana Wadgymar, Rich Kliman, and Cathy Rushworth
Field work is a critical part of many biologists' lives. It serves an entry point to a career in science, and it provides vital data for dissertations and funded projects. However, field work also presents physical, psychological, and emotional safety hazards for many, especially scientists from historically excluded groups. In the first ever tri-society Diversity Symposium, we discuss experiences in the field, colonialism and field work, and tools for creating safer, more inclusive, and positive field experiences for all.

Presentations

9:30 AM

9:44 AM

The fieldwork that we envision: A future of equitable field biology and reciprocity with the local communities

Valeria Ramírez Castañeda[1], Erin P. Westeen[2], Jeffrey Frederick[3], Sina Amini[4], Daniel Wait[5], Anang Achmadi[6], Moises A. Bernal[7], Rafe Brown[8], ROSA A. JIMENEZ[9], Roberto Márquez[10], Juan L. Parra[11], Santiago R. Ron[12], Noviar Andayani[13], Evy Arida[14], Umilaela Arifin[15], Elisa Bonaccorso[16], Marites Bonachita Sanguilai[17], Jing Che[18], Frank Peter Condori[19], Diny Hartiningtias[20], Anne E Hiller[21], Djoko Iskandar[22], Khelifa[23], José G Martínez-Fonseca[24], Joshua Peñalba[25], Lina Pinto-García[26], Onja Razafindratsima[4], Sara Souza[4], Jatna Supriatna[27], Jimmy A. McGuire[2], Rauri C. Bowie[28], Carla Cicero[4], Rebecca D. Tarvin[4]
[1]University of California Berkeley, Berkeley, [2]University of California, Berkeley, Berkeley, CA, [3]University of California, Berkeley, [4]University of California Berkeley, [5]University de California Berkeley, [6]Museum Zoologicum Bogoriense, Research Center for Biology, [7]Auburn University, Auburn, AL, [8]Biodiversity Institute and Department of Ecology and Evolutionary Biology, University of Kansas, [9]University of California, Berkeley - Universidad de San Carlos de Guatemala, El Sobrante, CA, [10]University of Michigan, ANN ARBOR, [11]Universidad de Antioquia, [12]Pontificia Universidad Católica del Ecuador, Quito, Pichincha, Ecuador, [13]Universitas Indonesia, [14]Museum Zoologicum Bogorense, [15]University of

Califonia Berkeley, [16]Universidad San Francisco de Quito, [17]Father Saturnino Urios University, [18]Chinese Academy of Sciences, [19]Universidad Nacional de San Antonio Abad del Cusco, [20]Belantara Foundation, [21]Louisiana State University, [22]Institut Teknologi Bandung, [23]University of British Columbia, [24]Northern Arizona University, [25]Leibniz Institute for Evolution and Biodiversity Science, [26]Universidad de los Andes, [27]Universitas Indonesia, Depok, West Java, Indonesia, Jawa Barat, Indonesia, [28]Museum of Vertebrate Zoology, University of California Berkeley

9:45 AM
9:59 AM

The colonial legacy of herbarium collections

Daniel Park, Purdue University, West Lafayette

10:00 AM
10:14 AM

Safely navigating field work as Black Biologist

Alex Troutman, Georgia Southern University, Austell

10:15 AM
10:29 AM

Disabled in the field: navigating fieldwork as a disabled scientist

Kelsey J. Byers, John Innes Centre, Norwich, Norfolk, United Kingdom

10:30 AM
10:44 AM

Intersectionality and Safety in International Conservation Fieldwork

Gabriela Fleury, University of Wisconsin-Madison, Madison

Gene Expression II

Sun, June 26
9:30 AM - 10:45 AM
Room 19
Regular

Presentations

9:30 AM
9:44 AM

Marine heatwaves lead to increases in aerobic demand and changes to gene expression in the pinfish (Lagodon rhomboides)

Katie M. Eaton[1], Adam Hallaj[2], Jim Stoeckel[3], Moises A. Bernal[4]
[1]Department of Biological Sciences, Auburn University, Auburn, AL,

[2]Department of Biological Sciences, Auburn University, [3]Department of Fisheries, Aquaculture, and Aquatic Sciences, Auburn University, [4]Auburn University, Auburn, AL

9:45 AM

9:59 AM

Mate choice in the brain: Species differ in how male traits turn on gene expression in female brains

Janette W. Boughman[1], Jason Keagy[2], Hans Hofmann[3]
[1]Michigan State University, East Lansing, MI, [2]Penn State University, [3]University of Texas, Austin

10:00 AM

10:14 AM

Genotype-by-environment interaction (GxE) in gene regulatory networks in Brachypodium distachyon under soil water deficit

Jie Yun[1], David Des Marais[2]
[1]MIT, Cambridge, MA, [2]Massachusetts Institute of Technology, Cambridge

10:15 AM

10:29 AM

Insight into the evolutionary origins of snake venom gene regulatory architecture

Blair Perry[1], Siddharth Gopalan[2], Giulia Pasquesi[3], Drew R. Schield[4], Aundrea Westfall[5], Cara Smith[6], Ivan Koludarov[7], Paul Chippindale[5], Mark Pellegrino[5], Edward Chuong[3], Stephen Mackessy[6], Todd Castoe[5]
[1]Washington State University, Pullman, WA, [2]University of Texas, Arlington, Arlington, TX, [3]University of Colorado Boulder, [4]University of Colorado, [5]University of Texas, Arlington, [6]University of Northern Colorado, [7]Justus Leibig University

10:30 AM

10:44 AM

Gene duplication and the evolution of aphid wing dimorphisms

Omid Saleh Ziabari[1], Jenn Brisson[1]
[1]University of Rochester, Rochester, NY

Hybridization I

Sun, June 26
9:30 AM - 10:45 AM
Room 20
Regular

Presentations

9:30 AM
9:44 AM

The genomics and metabolomics of hybridization in the common and showy milkweeds (Asclepias)

Carrie Olson-Manning[1], Sydney Kreutzmann[2], Steven Matzner[2]
[1]Augustana University, SD, Sioux Falls, [2]Augustana University

9:45 AM
9:59 AM

Genomic patterns of post-glacial secondary contact and mosaic hybridization in the Johnny Darter (Etheostoma nigrum) species complex

Dan MacGuigan[1], Pia Franziska Schwarz[2], Oliver Orr[3], Thomas Near[4], Trevor Krabbenhoft
[1]University at Buffalo, BUFFALO, NY, [2]University at Buffalo, State University of New York, [3]Yale University, [4]Yale University, New Haven, CT

10:15 AM
10:29 AM

Baseline expectations for the high variability of outcomes in replicate hybrid zones

Eryn McFarlane[1], **Josh Jahner**[2], Alex Buerkle[1], Elizabeth Mandeville[3]
[1]University of Wyoming, [2]University of Wyoming, NV, [3]University of Guelph, Guelph, Ontario

10:30 AM
10:44 AM

Hybridization as a diversification mechanism in Penstemon

Benjamin W. Stone[1], Carrie Wessinger[2]
[1]University of South Carolina, [2]University of South Carolina, Columbia, SC

Phenotypic Plasticity I

Sun, June 26
9:30 AM - 10:45 AM
Room 15
Regular

Presentations

9:30 AM
9:44 AM

“Physiological response to temperature stress in Drosophila melanogaster and D. pseudoobscura”

Natalia Rivera Rincon[1], Ulku Huma Altindag[2], Ruksana Amin[3], Brianna Stanley[4], Rita M. Graze[2], Laurie Stevison[2]
[1]Auburn University, Auburn, [2]Auburn University, [3]Auburn University, Auburn, Alabama, [4]University of Alabama

9:45 AM

9:59 AM

Range expansion impacts the evolvability of plastic generalism in coarse-grained landscapes

Caitlin M. Miller[1], Jeremy Draghi[2]
[1]Virginia Tech, Blacksburg, VA, [2]Virginia Tech, Blacksburg, VIRGINIA

10:00 AM

10:14 AM

Three phenotypes, one genotype: How variable gene expression leads to predator-induced phenotypic plasticity in a Neotropical tadpole

Justin Touchon[1], Jared Freedman[2], Megan Saari[2], Victoria Armitage[2], Sedona Ryan[2]
[1]Vassar College, Poughkeepsie, [2]Vassar College

10:15 AM

10:29 AM

Evolution of phenotypic plasticity in wild populations of the butterfly Junonia coenia

Noah Brady[1], Robert Reed[2], Karin R. van der Burg[3]
[1]Cornell University, Ithaca, [2]Cornell University, Ithaca, New York, [3]Cornell University, Ithaca, NY

10:30 AM

10:44 AM

Some don't like it hot: meiotic failure at high temperatures reduces intraspecific mating

Caiti Smukowski Heil[1], Lauren M. Bailey[2], Mili Jimenez[3]
[1]North Carolina State University, Raleigh, NC, [2]NC State University, Clayton, NC, [3]NC State University

Phylogenetics III

Sun, June 26
9:30 AM - 10:45 AM
Room 22
Regular

Presentations

9:30 AM

9:44 AM

Investigating the Impact of Sequence Evolution Model Complexity on Gene Tree Discordance

Benjamin S. Toups[1], Jeremy M. Brown[1]
[1]Louisiana State University, Baton Rouge, LA

9:45 AM
9:59 AM

Evolution of mycorrhizal symbiosis in Inocybaceae lineage of fungi

Faheema K. Khan, Uppsala University, Uppsala, Upplands, Sweden

10:00 AM
10:14 AM

Posterior predictive tests have surprising behavior, but reveal important idiosyncratic patterns of molecular evolution

Jeremy M. Brown[1], Luiza Guimarães Fabreti[2], Kylie Domangue[3], Lyndon Coghill[4], Robert Thomson[5], Sebastian Höhna[6]
[1]Louisiana State University, Baton Rouge, LA, [2]LMU - Munich, [3]Louisiana State University, [4]University of Missouri, [5]University of Hawaii, Honolulu, Hawaii, [6]LMU Munich

10:15 AM
10:29 AM

A new framework for efficiently sampling ancestral recombination graph

Yun Deng, UC Berkeley, Berkeley

10:30 AM
10:44 AM

Exploring the Drivers of Phylogenomic Uncertainty in the Hyper-diverse Neotropical Snake Family Dipsadidae

Juan Ramirez Ramirez[1], Tod W. Reeder[2]
[1]San Diego State University/University of California, Riverside, San Diego, California, [2]San Diego State University, San Diego, CA

Coffee break

Sun, June 26
10:45 AM - 11:15 AM
Grand Ballroom BC
Social event

Adaptation IV

Sun, June 26

11:15 AM - 12:30 PM
Room 16
Regular

Presentations

11:15 AM
11:29 AM

Insect biological control agent adapts timing of winter dormancy to latitude during range expansion

Eliza Clark[1], Ellyn Bitume[2], Amanda R. Stahlke[3], Dan Bean[4], Paul A. Hohenlohe[5], Ruth A. Hufbauer[6]
[1]Colorado State University, Fort Collins, CO, [2]USDA Forest Service, [3]University of Idaho, [4]Colorado Dept. of Agriculture Insectary, [5]University of Idaho, Moscow, ID, [6]Colorado State University

11:30 AM
11:44 AM

240 million years of adaptive evolution in squamate voltage-gated sodium channels

Kerry L. Gendreau[1], Angela Hornsby[1], Josef C. Uyeda[2], **Joel McGlothlin**[2]
[1]Virginia Tech, Blacksburg, Virginia, [2]Virginia Tech, Blacksburg, VA

11:45 AM
11:59 AM

Temporal variation in the form and magnitude of natural selection on an extended phenotype: contributions of parasitism and predation to gall size

Glen R. Hood[1], Sarah Black[2], Mike Sergeant[2], Scott P. Egan[3], Mattheau S. Comerford[3]
[1]Wayne State University, Detroit, MI, [2]Wayne State University, [3]Rice University, Houston, TX

12:00 PM
12:14 PM

Spatially and temporally varying selection in two sympatric Mimulus species

Diana Tataru[1], Kathleen Ferris[2]
[1]Tulane University, NEW ORLEANS, LA, [2]Tulane University, New Orleans, Louisiana

12:15 PM
12:29 PM

Tri-trophic effects on ecological speciation in the goldenrod gall fly system

Pheobe M. Deneen[1], Thomas H. Powell[2]
[1]Binghamton University, Binghamton, New York, [2]Binghamton University (SUNY), Binghamton, NY

ASN Vice-Presidential Symposium: Re-viewing adaptive genetic variation II

Sun, June 26
11:15 AM - 12:30 PM
Grand Ballroom A
Symposium

Description

Organizer: Dr. Deepa Agashe
Genetic variation is central to evolutionary change, and has always featured prominently in attempts to understand biological diversity. Our understanding of its provenance, maintenance and impact have advanced substantially in the past few decades, and this symposium aims to integrate these advances. Focusing on the importance of new mutations and standing genetic variation during adaptation, we will aim to bridge across molecular and ecological perspectives on how mutational input shapes evolution in natural populations. We will address questions such as: what is the relative role of new mutations, standing genetic variation, and selection, during adaptation? What is the impact of mutation rate and bias? What can we say about these effects in natural populations and their ability to survive the coming decades?

Presentations

11:15 AM
11:44 AM

Evolving the mutation spectrum

Lindi M. Wahl, Western University, London

11:45 AM
12:14 PM

How does mutation contribute to phenotypic variation and how may this affect population adaptation?

Katrina McGuigan, The University of Queensland, Brisbane, Australia

12:15 PM
12:29 PM

Evolution as a smart system: The human malaria resistant hemoglobin S mutation originates de novo more frequently where it is of adaptive significance

Adi Livnat[1], Daniel Melamed[2], Evgeni Bolotin[2], Yuval Nov[2], Assaf Malik[2], Michael B. Yakass[3], Revital Shemer[4], Edem K. Hiadzi[3], Karl Skorecki[5]
[1]University of Haifa, Haifa, Israel, [2]University of Haifa Israel, [3]Lister

Hospital & Fertility Centre, Accra, Ghana, [4]Technion - Israel Institute of Technology, Haifa, Israel, [5]Bar-Ilan University, Safed, Israel

Experimental Evolution III

Sun, June 26
11:15 AM - 12:30 PM
Room 21
Regular

Presentations

11:15 AM
11:29 AM

The experimental evolution of pesticide resistance trades off with insect immune responses

Ann Tate[1], Stephanie Birnbaum[2], Nora Schulz[3]
[1]Vanderbilt University, Nashville, TN, [2]Vanderbilt University, [3]Vanderbilt University, Nashville, Tennessee

11:30 AM
11:44 AM

The genomic implications of sexual size dimorphism reversal in a long-term artificial selection experiment on Drosophila melanogaster

Tyler Audet, McMaster University, Hamilton

11:45 AM
11:59 AM

Looking for leviathans: free riding on a multicellular yeast

Rodrigo Zorrilla Gonzalez[1], Michael Travisano[2]
[1]Ecology Evolution & Behavior, University of Minnesota, Minneapolis, MN, [2]University of Minnesota, St. Paul

12:00 PM
12:14 PM

Loss-of-heterozygosity facilitates the evolution of simple multicellularity

Beatriz Baselga Cervera[1], Michael Travisano[2]
[1]University of Minnesota, Saint Paul, Minnesota, [2]University of Minnesota, St. Paul

12:15 PM
12:29 PM

Pleiotropic effects of adaptation to metals in yeast

Anna Bazzicalupo[1], Penelope Kahn[1], Eully Ao[1], Sarah (Sally) Otto[2]
[1]University of British Columbia, [2]UBC, Vancouver, BC

Field Safety and Ethics in Evolution and Ecology: Experiences and Tools for Inclusive Practices II

Sun, June 26
11:15 AM - 12:30 PM
Room 26BC
Symposium

Description

Organizers: Susana Wadgymar, Rich Kliman, and Cathy Rushworth
Field work is a critical part of many biologists' lives. It serves an entry point to a career in science, and it provides vital data for dissertations and funded projects. However, field work also presents physical, psychological, and emotional safety hazards for many, especially scientists from historically excluded groups. In the first ever tri-society Diversity Symposium, we discuss experiences in the field, colonialism and field work, and tools for creating safer, more inclusive, and positive field experiences for all.

Presentations

11:15 AM
11:29 AM

Building collaborations, and promoting research within indigenous communities

Justin Yeager[1], Carlos Robinson Quiro Chiripua[2]
[1]Universidad de las Americas, Quito, Ecuador, [2]Resguardo Indígena Calle Santa Rosa, Timbiqui, Colombia

11:30 AM
11:44 AM

Building a Better Fieldwork Future: Benefits of interactive training for sexual harassment and assault prevention in scientific fieldwork

Allison Payne, UCSC, Santa Cruz

11:45 AM
11:59 AM

Fieldwork Inspiring Expanded Leadership and Diversity (FIELD)

Lisa White, University of CA Museum of Paleontology, Berkeley

12:00 PM
12:14 PM

Best practices for preventing and responding to harassment in field settings

Anne Kelly[1], Stephanie Murphy[2], **Terry McGlynn**[3], Kristen Yarincik[4]
[1]The Nature Conservancy, [2]Duke University, [3]CSU Desert Studies, Zzyzx, [4]Consortium for Ocean Leadership

12:15 PM

12:29 PM

Research grants and NSF's plan for safe and inclusive fieldwork

Leslie J. Rissler, National Science Foundation, Alexandria, VA

Hybridization II

Sun, June 26
11:15 AM - 12:30 PM
Room 20
Regular

Presentations

11:15 AM

11:29 AM

Incomplete lineage sorting despite hybridization in Holacanthus Angelfishes in the Tropical Eastern Pacific

Remy Gatins[1], Carlos A. Sánchez-Órtiz[2], Giacomo Bernardi[3]
[1]Northeastern University, Nahant, CA, [2]Universidad de Baja California Sur, [3]University of California Santa Cruz

11:30 AM

11:44 AM

Patterns of genomic variation support a single evolutionary origin of the recent allotetraploid Mimulus sookensis

Makenzie R. Whitener[1], Andrea Sweigart[1]
[1]University of Georgia, Athens, GA

11:45 AM

11:59 AM

The regulatory basis of hybrid male sterility in dwarf hamsters

Kelsie E. Hunnicutt[1], Jeff M. Good[2], Erica Larson[1]
[1]University of Denver, Denver, CO, [2]Division of Biological Sciences, University of Montana, Missoula

12:00 PM

12:14 PM

Systematics and hybridization in the genus “Poecile” with insights from immune genes

Angela Theodosopoulos[1], Tyler Chafin[2], Kathryn Grabenstein[3], Amber M. Rice[4], Jason Weir[5], Vladimir Pravosudov[6], Scott Taylor[7]
[1]University of Colorado at Boulder, Broomfield, [2]University of Colorado, Nederland, CO, [3]The University of Colorado, Boulder, Boulder, Colorado, [4]Lehigh University, Bethlehem, PA, [5]University

of Toronto Scarborough, [6]University of Nevada Reno, [7]University of Colorado Boulder, Boulder, CO

12:15 PM

12:29 PM

The hills are alive with the scent of hybrids: how floral traits mix and match in Alpine orchids

Kelsey J. Byers[1], Mikhaela Neequaye[1], Roman Kellenberger[2], Becca Collier[3], Katie Wenzell[4], Philipp Schlueter[5]
[1]John Innes Centre, Norwich, Norfolk, United Kingdom, [2]University of Cambridge, [3]John Innes Centre, [4]Northwestern University, Chicago, Illinois, [5]University of Hohenheim

Phenotypic Plasticity II

Sun, June 26
11:15 AM - 12:30 PM
Room 15
Regular

Presentations

11:15 AM

11:29 AM

Plasticity to ocean warming in tropical damselfishes: molecular and aerobic perspectives

Moises A. Bernal[1], Jennifer Donelson[2], Timothy Ravasi[3], Philip L. Munday[4]
[1]Auburn University, Auburn, Alabama, [2]ARC Centre of Excellence for Coral Reef Studies, [3]Okinawa Institute of Science and Technology Graduate University, [4]James Cook University, Australia

11:30 AM

11:44 AM

Effect of Mitochondrial-Nuclear Genomes and Thermal Stress on Metabolism of Invasive Snails

Omera Matoo[1], Maurine Neiman[2], Kristi L. Montooth[3]
[1]University of Nebraska-Lincoln, Lincoln, Nebraska, [2]University of Iowa, Iowa City, Iowa, [3]University of Nebraska-Lincoln, Lincoln, NE

11:45 AM

11:59 AM

Genotype by environment interactions for lifetime total fitness in the field: effects of single and double knockouts of duplicated genes in Arabidopsis thaliana planted in spring and fall

Jeff Conner[1], Melissa Lehti-Shiu[2], Siobhan Cusack[2], Ava J. Garrison[3], Patrick Krysan[4], Shin-Han Shiu[2]

[1]Kellogg Biological Station, Hickory Corners, MI, [2]Department of Plant Biology, Michigan State University, [3]Michigan State University, Kalamazoo, MI, [4]University of Wisconsin

12:00 PM

12:14 PM

Altered foraging behaviors of predators encountering prey with induced defenses.

Travis Klee[1], Carl Keiser[2], Colette St Mary[3]
[1]University of Florida, Gainesville, [2]University of Florida, [3]National Science Foundation, Alexandria, VA

12:15 PM

12:29 PM

Many Factors Influence Female Guppy Foraging

Shayna Rosenbloom[1], Swanne Gordon[2], Yusan Yang[3], Lauren Johnson[2]
[1]University of Louisville, Louisville, [2]Washington University in St. Louis, [3]Living Earth Collaborative, Washington University in St. Louis, St. Louis

Phylogenetics IV

Sun, June 26
11:15 AM - 12:30 PM
Room 22
Regular

Presentations

11:15 AM

11:29 AM

Unraveling the patchy distribution of photosynthesis in Erythrobacteraceae

Alexandra G. Walling[1], Robert DeSalle[2], Susan L. Perkins[3]
[1]American Museum of Natural History, New York, New York, [2]American Museum of Natural History, [3]American Museum of Natural History, New York, NY

11:30 AM

11:44 AM

Phylogenomics of mito-nuclear discordance: an example from New Zealand cicadas

Mark Stukel[1], Alexandra E. Porczak[2], Eric R. Gordon[1], Jason Vailionis[1], Chris Simon[1]
[1]University of Connecticut, Storrs, CT, [2]University of Connecticut Ecology and Evolutionary Biology Simon Lab, Middletown, CT

11:45 AM

11:59 AM

Chevrons and Thorns: First Molecular Phylogeny Addressing the Evolution of the Acanthogorgiidae, a Speciose and Cosmopolitan Octocoral Family (Cnidaria: Anthozoa)

Jaymes Awbrey[1], Scott France[2]
[1]University of Louisiana at Lafayette, LAFAYETTE, [2]University of Louisiana at Lafayette

12:00 PM

12:14 PM

Using 3RAD and environmental niche modeling to test the validity of a narrow-range endemic snail

Nathan Whelan[1], Ellen E. Strong[2], Nicholas Gladstone[2], Jason Mays[3]
[1]United States Fish and Wildlife Service & Auburn University, Auburn, AL, [2]National Museum of Natural History, Smithsonian Institution, [3]United States Fish and Wildlife Service

12:15 PM

12:29 PM

Widespread introgression across a phylogeny of 155 Drosophila genomes

Anton Suvorov[1], Bernard Kim[2], Jeremy Wang[3], Ellie Armstrong[3], David Peede[4], Emmanuel R. D'Agostino[5], Donald K. Price[6], Peter Waddell[6], Michael Lang[6], Virginie Courtier-Orgogozo[6], Jean David[6], Dmitri Petrov[2], Daniel R. Matute[7], **Daniel R. Schrider**[8], Aaron Comeault[8]
[1]UNC Chapel Hill, Chapel Hill, NC, [2]Stanford University, [3]UNC Chapel Hill, [4]Brown University, Providence, RI, [5]University of North Carolina at Chapel Hill, Carrboro, NC, [6]University of Nevada - Las Vegas, Las Vegas, Nevada, [7]University of North Carolina, Chapel Hill, Chapel Hill, NC, [8]University of North Carolina, Chapel Hill, NC

Sexual Selection I

Sun, June 26
11:15 AM - 12:30 PM
Room 19
Regular

Presentations

11:15 AM

11:29 AM

Sexual conflict and seminal fluid protein Acp29AB in Drosophila melanogaster

Samantha Kincaid[1], Graham C. McLaughlin[2], Sophia Sudak[3], Brian Hollis[4]
[1]University of South Carolina, Columbia, South Carolina, [2]University of South Carolina, Indian Land, South Carolina, [3]University of South Carolina, [4]University of South Carolina, Columbia, SC

11:30 AM
11:44 AM

Varied female and male courtship behavior facilitated the evolution of a novel sexual signal

Sophia Anner[1], Robin Tinghitella[2], Sophia Fitzgerald[3]
[1]University of Louisville, Louisville, [2]University of Denver, Denver, CO, [3]University of Montana

11:45 AM
11:59 AM

Temperature and water availability shape the dynamics of multimodal courtship, intersexual aggression, and mating success in wolf spiders.

Noah T. Leith[1], Jake Woods[2], Eshu Senthilkumaran[3], Kasey Fowler-Finn[4]
[1]Saint Louis University, St. Louis, MO, [2]Saint Louis University, Granite City, [3]Saint Louis University, [4]Saint Louis University, Saint Louis, MO

12:00 PM
12:14 PM

Trans regulatory control of an odorant binding protein coding gene constrains the evolution male mating performance in flies

Rich Meisel, University of Houston, Houston, Texas

12:15 PM
12:29 PM

Hipster moms and sexy sons: female preference for rare males maintained via breeding success of sons

Tomos Potter[1], Jeff Arendt[2], David N. Reznick[3], Joseph Travis[4]
[1]Florida State University / The Guppy Project, United Kingdom, [2]University of California at Riverside, Riverside, CA, [3]University of California, Riverside, California, [4]Florida State University, Tallahassee, FL

SSE Education & Outreach committee

Sun, June 26
12:30 PM - 1:30 PM
Room 13
Meeting

Description

Open to SSE Education & Outreach committee members. Lunch is provided.

Lunch

Sun, June 26
12:30 PM - 2:30 PM
Offsite
Social event

Description

Attendees are on their own; lunch is not provided.

NSF/BIO/DEB Workshop

Sun, June 26
1:00 PM - 2:15 PM
Room 15
Workshop / Information session

Description

Open to all attendees; registration not required. Lunch is not provided.

The National Science Foundation funds basic research in evolutionary biology and systematics, training of the next generation of evolutionary biologists, and broader impacts extending the reach of evolutionary research to benefit society. However, newer (and even experienced) scientists can find NSF's numerous programs, detailed guidance, and merit review process to be a difficult landscape to navigate. In this informational session NSF program officers will discuss new and ongoing programs and the merit review process (including Intellectual Merit and Broader Impacts), followed by an open-ended question and answer session. Participants who wish to meet briefly individually with an NSF Program Officer may be able to do so following the discussion. Program Officers participating: Matthew Herron, Maureen Kearney, Diana Pilson, and Sam Scheiner.

Primer on Peer Review & Meet the Editors

Sun, June 26
1:00 PM - 2:15 PM
Room 26BC
Workshop / Information session

Description

Open to all attendees; registration is not required. Lunch is not provided.?

Come learn about the ins and outs of the scientific publishing process from the Editors of Evolution, Evolution Letters, American Naturalist, and Systematic Biology. The event will be begin with a walk-through of the peer review process from the perspectives of each of the editors, and then will open to a more general question and answer session guided by audience interest - anything from writing a great cover letter to the mysterious "impact factor" to the role of pre-print servers like bioRxiv.

SSB members business meeting

Sun, June 26
1:00 PM - 2:15 PM
Room 21
Meeting

Description

Open to all SSB members; registration is not required. Lunch is not provided

Evolutionary Biologists with Disabilities Mixer

Sun, June 26
1:00 PM - 2:30 PM
Room 25ABC
Social event

Description

Registration not required.

Interested in meeting fellow evolutionary biologists with disabilities/chronic illnesses/Deaf folks and interested allies? Want to discuss increasing the inclusion and representation of disabled/chronically ill/Deaf students and staff in our diverse field? This is an informal chance to meet others interested in these topics, share experiences of disability in evolutionary biology, and hopefully increase our inclusion around issues of disability as a community. Anyone at any career stage and level of ability (including allies) is welcome to come join us. Note that although this event is scheduled during the lunch break, lunch is NOT provided; attendees are encouraged to grab some take-out and head back to the Convention Center for the mixer.

ASN members business meeting

Sun, June 26
1:30 PM - 2:15 PM
Room 22
Meeting

Description

Open to all ASN members; registration is not required. Lunch is not provided

ASN Vice-Presidential Symposium: Re-viewing adaptive genetic variation III

Sun, June 26
2:30 PM - 3:45 PM
Grand Ballroom A
Symposium

Description

Organizer: Dr. Deepa Agashe
Genetic variation is central to evolutionary change, and has always featured prominently in attempts to understand biological diversity. Our understanding of its provenance, maintenance and impact have advanced substantially in the past few decades, and this symposium aims to integrate these advances. Focusing on the importance of new mutations and standing genetic variation during adaptation, we will aim to bridge across molecular and ecological perspectives on how mutational input shapes evolution in natural populations. We will address questions such as: what is the relative role of new mutations,

standing genetic variation, and selection, during adaptation? What is the impact of mutation rate and bias? What can we say about these effects in natural populations and their ability to survive the coming decades?

Presentations

2:30 PM

2:59 PM

Whole-genome sequencing shows the role of gene regulation in local adaptation to environmental variability in a heterogeneous seascape

Csenge Petak[1], Lapo Frati[2], Reid Brennan[3], **Melissa Pespeni[2]**
[1]University of Vermont, Burlington, Vermont, [2]University of Vermont, [3]University of Vermont, Burlington, VT

3:00 PM

3:29 PM

The past contribution and future fate of genetic variants under climate change

Cheng-Ruei Lee[1], Ya-Ping Lin[2], Cheng-Yueh Lu[3]
[1]National Taiwan University, Taipei, Taiwan, [2]World Vegetable Center, Taiwan, Taiwan, [3]National Taiwan University

3:30 PM

3:44 PM

Genomics of the Hawaiian Metrosideros adaptive radiation: Understanding the mechanism behind the speciation paradox

Jae Young Choi[1], Michael Purugganan[2], Elizabeth A. Stacy[3]
[1]New York University, New York, NY, [2]Center for Genomics and Systems Biology, Department of Biology, 12 Waverly Place, New York University, New York, NY USA, [3]University of Nevada Las Vegas, Las Vegas, NV

Ecological Genetics I

Sun, June 26
2:30 PM - 3:45 PM
Room 15
Regular

Presentations

2:30 PM

2:44 PM

Re-evaluating the paradigm of genotype-environment associations: The paradox of adaptive

phenotypic clines without clines in causal allele frequencies
Kathleen E. Lotterhos, Northeastern University Marine Science Center, Nahant, MA

2:45 PM
2:59 PM

Fine-scale local adaptation in snowshoe hare populations across seasonal environments
Cynthia K. Ulbing, University of Montana, Missoula, MT

3:00 PM
3:14 PM

Evolution of thermal physiology alters projected distributions of threespine stickleback under climate change
Sara J. Smith Wuitchik[1], Stephanie Mogensen[2], Tegan Barry[3], Antoine Paccard[4], Heather Jamniczky[2], Rowan Barrett[4], Sean M. Rogers[2]
[1]University of Victoria & Simon Fraser University, Victoria, MA, [2]University of Calgary, [3]University of Lethbridge, [4]McGill University

3:15 PM
3:29 PM

Seasonally varying thermal selection drives supergene-based adaptation in Drosophila
Alan Bergland[1], Joaquin Nunez[2], Alyssa Bangerter[3], Benedict Lenhart[3], Yang Yu[3], Connor Murray[3], Taylor Nystrom[3], Priscilla Erickson[4]
[1]University of Virginia, Charlottesville, VA, [2]University of Virginia, Charlottesville, [3]University of Virginia, [4]University of Richmond

3:30 PM
3:44 PM

The not-so-secret life of flies: seasonal cycles of boom-and-bust demography drive evolution in Drosophila
Joaquin Nunez[1], Alyssa Bangerter[2], Connor Murray[2], Alan Bergland[3]
[1]University of Virginia, Charlottesville, [2]University of Virginia, [3]University of Virginia, Charlottesville, VA

Field Safety and Ethics in Evolution and Ecology: Experiences and Tools for Inclusive Practices III

Sun, June 26
2:30 PM - 3:45 PM
Room 26BC
Workshop / Information session

Description

This workshop session of the Field Safety & Ethics symposium is open to pre-registered faculty members only.

Organizers: Susana Wadgymar, Rich Kliman, and Cathy Rushworth
Field work is a critical part of many biologists' lives. It serves an entry point to a career in science, and it provides vital data for dissertations and funded projects. However, field work also presents physical, psychological, and emotional safety hazards for many, especially scientists from historically excluded groups. In the first ever tri-society Diversity Symposium, we discuss experiences in the field, colonialism and field work, and tools for creating safer, more inclusive, and positive field experiences for all.

Info

Talk type:
Symposium

Title:
Building a Better Fieldwork Future workshop for Faculty

Abstract:
Fieldwork is an important and often necessary component of many scientific disciplines, yet research suggests that it presents a high-risk setting for incidents of sexual/gender-based harassment and assault. The Building a Better Fieldwork Future (BBFF) Program involves a 90-minute workshop developed by a team of field researchers at UC Santa Cruz. It identifies the unique risks posed by fieldwork and offers a suite of evidence-based tools for field researchers, instructors, and students to prevent, intervene in, and respond to sexual harassment and assault. Through a series of practical intervention scenarios, this workshop guides participants on how to be an active and engaged bystander, how to report incidents, and how to plan field settings to minimize risk. Armed with these tools, participants can play a role in ensuring that field settings are safer, more equitable, and more welcoming for the next generation of field scientists.

Author

Allison Payne
UCSC

Macroevolution I

Sun, June 26
2:30 PM - 3:45 PM
Room 16
Regular

Presentations

2:30 PM
2:44 PM

Allometry of sexual size dimorphism in geckos

Elizabeth Glynne[1], Dean Adams[2]
[1]EEOB at Iowa State University, Ames, Iowa, [2]Iowa State University, Ames, IA

2:45 PM
2:59 PM

The evolution of sexual dimorphism and dichromatism in anole dewlap ornaments

Michael Yuan[1], Erin P. Westeen[2], Guin Wogan[3], Ian Wang[2]
[1]University of California, Davis, Davis, [2]University of California, Berkeley, Berkeley, CA, [3]Oklahoma State University, gwogan@berkeley.edu

3:00 PM
3:14 PM

Inferring the evolutionary history of the Sino-Himalayan biodiversity hotspot using Bayesian phylodynamics

Bethany Allen[1], Timothy Vaughan[2], Louis du Plessis[2], Tanja Stadler[3]
[1]ETH Zürich, Switzerland, [2]ETH Zürich, [3]ETH Zürich, Zürich, Switzerland

3:15 PM
3:29 PM

Beyond proxy variables: sexual selection and speciation rate in vertebrates

Matheus Januario[1], Renato Macedo-Rego[2], Daniel L. Rabosky[3]
[1]University of Michigan, ANN ARBOR, Sao Paulo, [2]University of Sao Paulo, [3]University of Michigan, Museum of Zoology and Department of Ecology & Evolutionary Biology

3:30 PM
3:44 PM

Body size shows a flat adaptive landscape in fossil and living cetaceans

Gustavo Burin[1], Travis Park[2], Tamora James[3], Graham J. Slater[4], Natalie Cooper[5]

[1]Natural History Museum - London, London, United Kingdom, [2]Natural History Museum, London, United Kingdom, [3]University of Leeds, [4]University of Chicago, Chicago, IL, [5]Department of Life Sciences, Natural History Museum, London, UK

Molecular Evolution I

Sun, June 26
2:30 PM - 3:45 PM
Room 20
Regular

Presentations

2:30 PM
2:44 PM

Inside giant genomes: determinants of genetic diversity in Neotropical salamanders (Plethodontidae: Bolitoglossini)

María Segovia Ramírez[1], Paul P. Decena[2], Hairo Rios[3], Sean M. Rovito[4]
[1]Unidad de Genómica Avanzada, Cinvestav-IPN, Irapuato, Mexico, [2]Cinvestav, Irapuato, Guanajuato, Mexico, [3]LANGEBIO, Irapuato, Mexico, [4]Langebio-Cinvestav, Irapuato, Guanajuato, Mexico

2:45 PM
2:59 PM

Dissecting mechanisms of sex determination in African Clawed Frogs (Xenopus laevis) using gene editing

Lindsey Kukoly[1], Caroline M. Cauret[2], Ben Evans[3], Marko Horb[3], Sarah Burton[3], Danielle Jordan[3]
[1]McMaster University, Hamilton, [2]McMaster University, Hamilton, Ontario, [3]McMaster University, Hamilton, ON

3:00 PM
3:14 PM

Comparative functional analysis of KLK3/PSA in primates to reveal its natural and sexual selective pressures

Emine F. F. Kahveci[1], Michael Jensen-Seaman[2]
[1]Duquesne University, Pittsburgh, Pennsylvania, [2]Duquesne University, Pittsburgh, PA

3:15 PM
3:29 PM

Genome size and selection efficiency in tropical salamanders

Hairo Rios, LANGEBIO, Irapuato, Mexico

3:30 PM

3:44 PM

The intriguing evolution of the MutS mismatch repair gene family in animals

Dennis Lavrov[1], Viraj Muthye[2], Cameron Mackereth[3], James Stewart[4]

[1]Iowa State University, Ames, [2]Iowa State University, [3]Univ. Bordeaux, Institut Européen de Chimie et Biologie, [4]Wellcome Centre for Mitochondrial Research, Newcastle Upon Tyne, United Kingdom

Quantitative Genetics

Sun, June 26
2:30 PM - 3:45 PM
Room 21
Regular

Presentations

2:30 PM

2:44 PM

Flowering time adaptation in Yellowstone monkeyflowers

WITHDRAWN

Colette Berg[1], Lila Fishman[1]

[1]University of Montana, Missoula, MT

2:45 PM

2:59 PM

What is causing selection on floral traits in the wild? A meta-analysis

Chris Caruso[1], Katherine Eisen[2], Ryan Martin[3], Nina Sletvold[4]

[1]Department of Integrative Biology, University of Guelph, Guelph, Ontario, [2]Department of Ecology and Evolutionary Biology, Cornell University, Ithaca, NY, [3]Case Western Reserve University, [4]Uppsala University, Uppsala, N/A, Sweden

3:00 PM

3:14 PM

Population genomics and floral syndrome divergence in a Penstemon species complex

Carrie Wessinger[1], John Kelly[2], Lena Hileman[2]

[1]University of South Carolina, Columbia, SC, [2]University of Kansas

3:15 PM

3:29 PM

Investigating the effect of gene flow on the genetic architecture of ultraviolet floral phenotype using sympatric and allopatric populations of Mimulus guttatus and M. laciniatus

Caroline Dong[1], Kathleen Ferris[2]
[1]Tulane University, New Orleans, [2]Tulane University, New Orleans, Louisiana

3:30 PM

3:44 PM

Evidence for a general relationship between phenotypic divergence and trait mismatch in hybrids

Ken A. Thompson, Stanford University, Menlo Park, British Columbia

Sexual Selection II

Sun, June 26
2:30 PM - 3:45 PM
Room 19
Regular

Presentations

2:30 PM

2:44 PM

Genomic signatures of sexual selection in the Yellow Fever mosquito Aedes aegypti

Claudia Wyer[1], Brian Hollis[2], Lauren Cator[3]
[1]Imperial College London, Ascot, United Kingdom, [2]University of South Carolina, Columbia, SC, [3]Imperial College London

2:45 PM

2:59 PM

Who's the daddy: A selfish genetic element and sperm competition in Teleopsis dalmanni

Sade Bates[1], Andrew Pomiankowski[2]
[1]University College London, London, United Kingdom, [2]UCL

3:00 PM

3:14 PM

Sperm Competition and Its Effects on the Evolution of Prostatic Acid Phosphatase in Hominids

Brandon L. Dimick[1], Michael Jensen-Seaman[1]
[1]Duquesne University, Pittsburgh, PA

3:15 PM

Drosophila melanogaster females can adjust sperm use patterns in response to perceived changes in

3:29 PM

male quality

Brooke Peckenpaugh[1], **Leonie Moyle[2]**
[1]Indiana University, Bloomington, IN, [2]Indiana University, Bloomington, Indiana

Coffee break

Sun, June 26
3:45 PM - 4:15 PM
Grand Ballroom BC
Social event

Computational Biology

Sun, June 26
4:15 PM - 5:30 PM
Room 21
Regular

Presentations

4:15 PM
4:29 PM

Evolution of Induced and Constitutive Defenses in Stochastic Environments

Danial Asgari, University of Houston, Houston

4:30 PM
4:44 PM

Investigating the effects of pleiotropy on immune system evolution

Reese Martin[1], Ann Tate[2]
[1]Vand, Nashville, [2]Vanderbilt University, Nashville, TN

4:45 PM
4:59 PM

A Penalized Likelihood Approach for Estimating Haplotypes from Environmental DNA

Maya Lemmon-Kishi[1], Rasmus Nielsen[2]
[1]University of California, Berkeley, [2]University of California Berkeley & Natural History Museum of Denmark

5:00 PM
5:14 PM

Can genetic networks predict the fitness effects of mutations?

Rob W. Ness, University of Toronto

5:15 PM

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Evolutionary Engineering of Microbial Communities

Chang-Yu Chang[1], Alvaro Sanchez[2]
[1]Yale University, New Haven, [2]Yale University

Ecological Genetics II

Sun, June 26
4:15 PM - 5:30 PM
Room 15
Regular

Presentations

4:15 PM

4:29 PM

Orange is the new Red: introgression and trait convergence during a plant invasion on the Galápagos Islands

Leonie Moyle, Indiana University, Bloomington, Indiana

4:30 PM

4:44 PM

Immunogenetic evolution at an invasion front: do invasive Anolis lizards experience selection on their MHC genes??

Iris Holmes[1], Andrew M. Durso[2], Michael Yuan[3], Tory Hendry[4]
[1]Cornell University, Freeville, [2]Department of Biological Sciences, Florida Gulf Coast University, [3]University of California, Davis, Davis, [4]Cornell University, ITHACA

4:45 PM

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Host associated divergence in populations of the redheaded pine sawfly on two northern hosts

Robin Bagley[1], Carson Kephart[2], Catherine R. Linnen[3]
[1]The Ohio State University at Lima, Lima, [2]Ohio State University, Columbus, [3]University of Kentucky, Lexington, KY

5:00 PM

5:14 PM

Investigating the genomic basis of rapid adaptation in an invasive migratory fish

Azwad Iqbal, Cornell University, ITHACA

Field Safety and Ethics in Evolution and Ecology: Experiences and Tools for Inclusive Practices IVa

Sun, June 26
4:15 PM - 5:30 PM
Room 26BC
Symposium

Description

Organizers: Susana Wadgymar, Rich Kliman, and Cathy Rushworth
Field work is a critical part of many biologists' lives. It serves an entry point to a career in science, and it provides vital data for dissertations and funded projects. However, field work also presents physical, psychological, and emotional safety hazards for many, especially scientists from historically excluded groups. In the first ever tri-society Diversity Symposium, we discuss experiences in the field, colonialism and field work, and tools for creating safer, more inclusive, and positive field experiences for all.

Info

A discussion with symposium panelists: Kelsey Byers, Terry McGlynn, Daniel Park, Valeria Ramírez-Castañeda, Leslie Rissler, Al Troutman, and Lisa White.

Field Safety and Ethics in Evolution and Ecology: Experiences and Tools for Inclusive Practices IVb

Sun, June 26
4:15 PM - 5:30 PM
Grand Ballroom A
Workshop / Information session

Description

This is a workshop session of the Field Safety & Ethics symposium and it is open to pre-registered student/postdoc members only.

Organizers: Susana Wadgymar, Rich Kliman, and Cathy Rushworth
Field work is a critical part of many biologists' lives. It serves an entry point to a career in science, and it provides vital data for dissertations and funded projects. However, field work also presents physical,

psychological, and emotional safety hazards for many, especially scientists from historically excluded groups. In the first ever tri-society Diversity Symposium, we discuss experiences in the field, colonialism and field work, and tools for creating safer, more inclusive, and positive field experiences for all.

Info

Talk type:
Symposium

Title:
Building a Better Fieldwork Future workshop for Students/postdocs

Abstract:
Fieldwork is an important and often necessary component of many scientific disciplines, yet research suggests that it presents a high-risk setting for incidents of sexual/gender-based harassment and assault. The Building a Better Fieldwork Future (BBFF) Program involves a 90-minute workshop developed by a team of field researchers at UC Santa Cruz. It identifies the unique risks posed by fieldwork and offers a suite of evidence-based tools for field researchers, instructors, and students to prevent, intervene in, and respond to sexual harassment and assault. Through a series of practical intervention scenarios, this workshop guides participants on how to be an active and engaged bystander, how to report incidents, and how to plan field settings to minimize risk. Armed with these tools, participants can play a role in ensuring that field settings are safer, more equitable, and more welcoming for the next generation of field scientists.

Author

Allison Payne
UCSC

Macroevolution II

Sun, June 26
4:15 PM - 5:30 PM
Room 16
Regular

Presentations

4:15 PM
4:29 PM

Evolution of avicularia in the Cretaceous cheilostome bryozoan Wilbertopora

Sarah Leventhal, University of Colorado, BOULDER, CO

4:30 PM
4:44 PM

The impact of fossil data on the power and accuracy of estimates under state-dependent diversification models

WITHDRAWN

Bruno do Rosario Petrucci[1], Walker Pett[2], Tracy Heath[2]
[1]Iowa State University, Ames, IA, [2]Iowa State University, Ames, Iowa

4:45 PM
4:59 PM

Irreversible convergence on hummingbird pollination in Neotropical Costus provides insight into the causes of pollinator shifts

Dena Grossenbacher[1], Kathleen M. Kay[2]
[1]California Polytechnic State University, San Luis Obispo, San Luis Obispo, [2]University of California Santa Cruz, Santa Cruz, CA

5:00 PM
5:14 PM

The macroevolution of sexual size dimorphism in birds

Fernanda d. Caron[1], **Marcio R. Pie**[2]
[1]Universidade Federal do Paraná, Curitiba, Brasil, Brazil, [2]Edge Hill University, Ormskirk, PR, United Kingdom

5:15 PM
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Molecular footprints of local adaptation of a native herbivore on a toxic invasive plant

Nitin Ravikanthachari[1], Rachel Steward[2], Carol L. Boggs[3]
[1]University of South Carolina, Columbia, SC, [2]Stockholm University, [3]University of South Carolina, Biological Sciences

Molecular Evolution II

Sun, June 26
4:15 PM - 5:30 PM
Room 20
Regular

Presentations

4:15 PM
4:29 PM

Relaxed-clock dating analysis with phylogenetic uncertainty

Jose Barba-Montoya[1], Sudip Sharma[2], Sudhir Kumar[3]
[1]Institute for Genomics and Evolutionary Medicine, Temple University, Philadelphia, PA, [2]Temple Universirt, Philadelphia, Pennsylvania, [3]iGEM @ Temple, Philadelphia, PA

4:30 PM
4:44 PM

Transcription factors evolve faster than their structural gene targets in the flavonoid pigment pathway

Lucas C. Wheeler[1], Joseph F. Walker[2], Julienne Ng[2], Rocio Deanna[3], Amy Dunbar-Wallis[3], Alice Backes[3], Pedro Henrique H. Pezzi[4], Virginia Palchetti[4], Holly Robertson[4], Andrew Monaghan[4], Loreta B. Freitas[5], Gloria Barboza[6], Edwige Moyroud[6], **Stacey D. Smith**[7]
[1]University of Colorado-Boulder, Boulder, Colorado, [2]University of Illinois Chicago, Chicago, MI, [3]University of Colorado - Boulder, Boulder, [4]Universidade Federal do Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil, [5]Federal University of Rio Grande do Sul (UFRGS), Brazil, [6]Instituto Multidisciplinario de Biología Vegetal, [7]University of Colorado Boulder, Boulder, CO

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Unbiased inference of the fitness landscape ruggedness from imprecise fitness estimates

Siliang Song[1], Jianzhi Zhang[2]
[1]University of Michigan, Ann Arbor, MI, [2]University of Michigan

5:00 PM
5:14 PM

Genetic mechanisms underlying a sexually dimorphic trait in Drosophila erecta

Haosu Cong[1], Jian Pu[1], Zinan Wang[2], Henry Chung[1]
[1]Michigan State University, East Lansing, Michigan, [2]Michigan State University, East Lansing, MI

5:15 PM
5:29 PM

101 Evolutions: Evaluating maize gene annotations with genome sequences across the Andropogoneae

WITHDRAWN

Aimee Schulz, Cornell University, Ithaca

Mutualism / Coevolution I

Sun, June 26
4:15 PM - 5:30 PM
Room 19
Regular

Presentations

4:15 PM
4:29 PM

Evolutionary stability of host-endosymbiont mutualism is reduced by multi-infection

Shakeal Hodge[1], Zhen Ren[1], Anya E. Vostinar[2], **Emily Dolson[3]**
[1]Carleton College, [2]Carleton College, Northfield, MN, [3]Michigan State University, East Lansing, MI

4:30 PM
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Maternally biased homoeologous exchange of chloroplast-targeted rbcS genes in allotetraploid Coffee

Catherine Batchelder[1], Justin L. Conover[1], Evan Forsythe[1], Corrinne Grover[1], Joel Sharbrough[1]
[1]New Mexico Institute of Mining and Technology, Socorro, NM

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Wolbachia reduces virus infection in a natural population of Drosophila

Rodrigo Cogni[1], Shuai Dominique Ding[2], André Pimentel[3], Jonathan Day[2], Francis Jiggins[2]
[1]Universidade de Sao Paulo, Sao Paulo, SP, Brazil, [2]University of Cambridge, [3]Universidade de São Paulo

5:00 PM
5:14 PM

Coevolution and chemical communication between tardigrades and their host mosses

jason pienaar[1], Sogol Momeni[2], Lukasz Ciesla[2]
[1]Florida International University, Miami, [2]University of Alabama

5:15 PM
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The role of indirect effects in coevolution as mutualism transitions into antagonism

Fernando Pedraza Perez[1], Jordi Bascompte[2], Klementyna A. Gawecka[2], Hanlun Liu[3]
[1]University of Zurich, Zurich, Switzerland, [2]University of Zurich, [3]Sun Yat-sen University, China

Parallel / Convergent Evolution

Sun, June 26
4:15 PM - 5:30 PM
Room 22
Regular

Presentations

4:15 PM
4:29 PM

Uncovering the genetic architecture of replicated adaptation

WITHDRAWN

Maddie James[1], Robin Allsopp[1], Jeffrey Groh[2], Avneet Kaur[3], Melanie J. Wilkinson[4], Daniel Ortiz-Barrientos[5]
[1]The University of Queensland, Brisbane, Queensland, Australia, [2]UC Davis, Davis, California, [3]The University of Queensland, Brisbane, Australia, [4]The University of Queensland, [5]The University of Queensland, St Lucia, QLD, Australia

4:30 PM
4:44 PM

Spotlight on cephalopods: Revealing multi-level convergence in photophores

Bridget A. Vincent[1], Emily S. Lau[2], Sriram Ramamurthy[3], Clara Bourguignon[3], Todd H. Oakley[3]
[1]University of California, Santa Barbara, Goleta, CA, [2]University of California, Santa Barbara, Santa Barbara, California, [3]University of California, Santa Barbara

4:45 PM
4:59 PM

Mutually exclusive constraints dictate path dependence during rapid convergent evolution of chiton eyes

Rebecca Varney, University of California, Santa Barbara, Santa Barbara

5:00 PM
5:14 PM

How frogs get their stripe: genomics and evolution of a widespread color pattern in anurans

Sandra Goutte[1], Imtiyaz Hariyani[2], Kole Utzinger[2], Yann Bourgeois[3], Stephane Boissinot[2]
[1]New York University Abu Dhabi, Abu Dhabi, United Arab Emirates, [2]New York University Abu Dhabi, [3]University of Portsmouth

5:15 PM

5:29 PM

Developmental convergence underlying the repeated evolution of adhesive structures in lizards

Aaron Griffing[1], Tony Gamble[2], Thomas Sanger[3]
[1]Marquette University, Milwaukee, Wisconsin, [2]Marquette University, [3]Loyola University Chicago

Tri-society field clothing and gear swap

Sun, June 26
5:30 PM - 6:30 PM
Room 26BC
Workshop / Information session

Description

Announcing the first inaugural tri-society field clothing and gear swap! This year, as part of the first biennial tri-society diversity symposium (focusing on field safety), we're offering a clothing and gear swap for field biologists. ***Bring something you no longer use or wear that's in good to excellent condition to share, take something you could wear or make use of!***

We aim to especially support our junior colleagues who are just getting started in their field careers. Donations will be accepted at the DEI Booth prior to the symposium, or in the back of the room during the symposium. We will also be raffling away FREE GIFT CARDS from outdoor clothing companies. Students and postdocs can pick up a free raffle ticket at the DEI Booth - drawings will happen at the end of the symposium!

Open to all meeting attendees; registration not required.

International Mixer

Sun, June 26
5:30 PM - 7:00 PM
Room 25ABC
Social event

Description

Registration is not required.

The international mixer is an opportunity for members from outside the US to connect, share

experiences, and socialize. We will have some interactive games to help break the ice and help people to interact with each other. We are looking forward to hearing dozens of different accents!?

SSB Presidential Address - Dr. Laura Kubatko

Mon, June 27
8:00 AM - 9:20 AM
Grand Ballroom A
Plenary

Info

Talk type:
Plenary/Award

Title:
Embracing variability

Author

Laura Kubatko
Professor
The Ohio State University

Evolution in action I

Mon, June 27
9:30 AM - 10:45 AM
Room 26BC
Symposium

Description

Organizers: Dr.John Benning, Dr. Ruth Hufbauer, and Dr. Christopher Weiss-Lehman
Recent years have thrown into sharp relief an intimidating set of global issues. Drug resistance, invasive species, global pandemics, species extinctions, threats to biodiversity from climate change — these are

existential crises with no easy answers. Solutions to these problems will depend in large part on basic research into the evolutionary processes underlying these phenomena. This symposium will be a timely assessment of how evolutionary biology is helping to solve pressing problems in society today, while seeking to catalyze a closer integration of basic and applied research moving forward. Symposium speakers will explore the COVID-19 pandemic, climate change adaptation, conservation, drug resistance, invasive species, and the history of evolutionary biology as a tool for societal progress. These talks will highlight how fundamental evolution research informs our understanding of, and solutions to, this varied set of global issues. At the same time, talks will demonstrate how these so-called "applied" research topics offer unique opportunities to advance our understanding of basic evolutionary patterns and processes. The speakers span a range of career stages and study organisms from across the tree of life using a variety of experimental, theoretical, and molecular approaches. By highlighting exciting junctures of basic and applied research, we hope the symposium will help to chart a course for the role of evolutionary biology in society moving forward.

Presentations

9:30 AM
9:59 AM

Exceptions to the rule: Why does resistance evolution not undermine antibiotic therapy in all bacterial infections?

Amrita Bhattacharya[1], Anton Aluquin[2], David A. Kennedy[2]
[1]Pennsylvania State University, University Park, PA, [2]Pennsylvania State University

10:00 AM
10:29 AM

SARS-CoV-2: an evolving pandemic

Sarah (Sally) Otto, UBC, Vancouver, BC

10:30 AM
10:44 AM

Teasing apart environmental variation and evolutionary relationships to assess climate vulnerability in native bees.

Carmen da Silva[1], Rosalyn Gloag[2], Vanessa Kellermann[3]
[1]Monash University, Melbourne, Australia, [2]University of Sydney, [3]Monash University, Hawthorn, Australia

Evolutionary Ecology I

Mon, June 27
9:30 AM - 10:45 AM
Room 19
Regular

Presentations

9:30 AM

9:44 AM

Progress and shortcomings in pursuing inclusivity in EEB and within the tri-societies

Cathy Rushworth[1], Susana Wadgymar[2], Paula Assis[3], Isabela Lima Borges[4], Janet Buckner[5], Kelsey J. Byers[6], Andreas Chavez[7], Timothy J. Colston[8], Alonso Delgado[9], Katherine Eisen[10], Anahi Espindola[11], Vincent Formica[12], Austin G. Garner[13], Tracy Heath[14], Manpreet k. Kohli[15], Joel McGlothlin[16], Maria E. Orive[17], Luca Pozzi[18], Maria Rebolleda-Gomez[19], Sarah Schaack[20], Arun Sethuraman[21], Scott Taylor[22], Nancy Chen[23], Jessica ware[24]

[1]Utah State University, Logan, CA, [2]Davidson College, Davidson, NC, [3]University of Montana, Missoula, SP, [4]Michigan State University, Hickory Corners, Michigan, [5]University of Texas at Arlington, Arlington, Texas, [6]John Innes Centre, Norwich, Norfolk, United Kingdom, [7]The Ohio State University, Columbus, OH, [8]University of Florida, Gainesville, FL, [9]Ohio State University, Columbus, OH, [10]Department of Ecology and Evolutionary Biology, Cornell University, Ithaca, NY, [11]University of Maryland, College Park, College Park, MD, [12]Swarthmore College, Swarthmore, PA, [13]Harvard University, Roslindale, Ma, [14]Iowa State University, Ames, Iowa, [15]Rutgers University, Newark, NJ, [16]Virginia Tech, Blacksburg, VA, [17]University of Kansas, Lawrence, KS, [18]UNIVERSITY OF TEXAS AT SAN ANTONIO, SAN ANTONIO, TX, [19]University of California, Irvine, New Haven, CT, [20]Reed College, Portland, OR, [21]San Diego State University, San Diego, California, [22]University of Colorado Boulder, Boulder, CO, [23]University of Rochester, Rochester, NY, [24]Ware Lab, Cranbury, NJ

9:45 AM

9:59 AM

Evolutionary innovation by the entanglement of cooperation and competition

Michael Travisano[1], William Driscoll[2]

[1]University of Minnesota, St. Paul, [2]Penn State Harrisburg

10:00 AM

10:14 AM

Ecological gradients oppose spatial sorting during biological invasions

John W. Benning[1], Ruth A. Hufbauer[2], Topher Weiss-Lehman[3]

[1]University of Wyoming, Minneapolis, MN, [2]Colorado State University, [3]University of Wyoming

10:15 AM

10:29 AM

The correlated evolution of foraging mode and reproductive output in lizards

Dylan J. Padilla[1], Michael J. Angilletta[2], Dale DeNardo[1]

[1]Arizona State University, Tempe, AZ, [2]Arizona State University

10:30 AM

10:44 AM

Using juvenile songbirds to study the genetic basis of the migratory syndrome

WITHDRAWN

Hannah Justen[1], Wendy Easton[2], Kira Delmore[3]

[1]Texas A&M University, College Station, [2]Environment and Climate Change Canada, [3]Texas A&M University, College Station, TX

Genomics III

Mon, June 27
9:30 AM - 10:45 AM
Room 16
Regular

Presentations

9:30 AM

9:44 AM

Insights from the draft genome assembly for the hydrozoan Podocoryna carnea: Just the tip of the tentacle

E. Sally Chang[1], Matthew Travert[2], Steven M. Sanders[3], Anna M.L. Klompen[2], Paul Gonzalez[4], Sofia Barreira[5], Paulyn Cartwright[2], Andy Baxevanis[6]

[1]National Human Genome Research Institute, National Institutes of Health, WASHINGTON, DC, [2]University of Kansas, [3]University of Pittsburgh, Pittsburgh, PA, [4]National Institutes oh Health, Bethesda, MD, [5]National Human Genome Research Institute, NIH, Bethesda, Maryland, [6]National Human Genome Research Institute, NIH, Bethesda, MD

9:45 AM

9:59 AM

Evolutionary history and divergence of tuna species using whole genome comparisons

Pavel Dimens[1], Eric Saillant[2]

[1]University of Southern Mississippi, Gulf Coast Research Lab, Ocean Springs, Mississippi, [2]University of Southern Mississippi

10:00 AM

10:14 AM

Genome Assembly of a Meloid Beetle (Meloe sp. cf. dianella) Provides Insight into Genome Size Evolution in Beetles and Biosynthetic Pathways of Cantharidin Proteins

Christopher A. Osborne[1], Kimberly Louisor[2], Kiarra Furey[3], Trevor Krabbenhoft[4]
[1]University at Buffalo, Lockport, New York, [2]University at Buffalo, NY, [3]University at Buffalo, [4]University at Buffalo, Buffalo, NY

10:15 AM

10:29 AM

Genomics of secondarily temperate adaptation in the only non-Antarctic icefish

Angel G. Rivera-Colón[1], Christina Cheng[2], Julian M. Catchen[3]
[1]Dept of Evolution, Ecology, and Behavior, University of Illinois at Urbana-Champaign, Urbana, IL, [2]University of Illinois at Urbana-Champaign, [3]University of Illinois at Urbana-Champaign, Urbana, IL

10:30 AM

10:44 AM

Transposable element content reduces maize fitness

Michelle Stitzer[1], Cedric Feschotte[2], Ed Buckler[3]
[1]Cornell University, Ithaca, NY, [2]Cornell University, [3]Cornell

How do we make decisions about data and analyses in systematic biology? It depends! I

Mon, June 27
9:30 AM - 10:45 AM
Grand Ballroom A
Symposium

Description

Organizers: Dr. Natya Hans, Dr. Alexandra Hernandez, and Chloe Nash, PhD candidate
When conceiving and developing evolutionary studies, scientists must confront a vast array of difficult questions, such as how to choose among different data types and methods of data collection, and determine which analyses will best address hypotheses. These decisions can affect study outcomes, and often depend upon the scope of the question, the data currently available, and other logistical challenges. In this time of ever-expanding quantities of data and elaborate statistical and computational tools, what is the best way for systematists and evolutionary biologists to make informed decisions about data collection and analysis? The answer we often encounter is “it depends,” which causes confusion among new scientists entering the field or those exploring a new topic in evolutionary biology. The first step towards dispelling this confusion and guiding the future work of systematists is assembling a catalog of benefits and pitfalls of current approaches. This symposium brings together a wide range of experts studying molecular and morphological evolution, paleobiology, and biogeography to discuss practical and theoretical considerations faced when designing and conducting research in each of these fields. Experts will discuss the caveats and assumptions they grapple with when choosing data and

methods to apply to a particular question, focusing both on successful approaches as well as setbacks they have encountered throughout the process.

Presentations

9:30 AM

9:59 AM

Genomic and transcriptomic dynamics within Ctenophora: Insights from the genome of a ctenophore-eating ctenophore

Alexandra Hernandez[1], Melissa DeBiasse[1], Lana Dykes[1], Allison Edgar[1], Mark Martindale[1], Joseph Ryan[2]

[1]Whitney Laboratory for Marine Bioscience, [2]Whitney Laboratory for Marine Bioscience, University of Florida, ST AUGUSTINE, FL

10:00 AM

10:14 AM

Decreasing bias against marine invertebrates in comparative genomics studies through machine learning.

Jennifer L. Spillane[1], Rebecca Dikow[2]

[1]Smithsonian Institution, Brunswick, NH, [2]Smithsonian Institution, Washington, DC

10:15 AM

10:29 AM

Data types, taxon sampling, and other decisions in phylotranscriptomics and inferring whole genome duplications: a study in ferns

Jessie Pelosi[1], Emily Kim[2], W. Brad Barbazuk[3], Emily Sessa[4]

[1]University of Florida, Gainesville, [2]Department of Microbiology and Cell Sciences, University of Florida, [3]University of Florida, Biology, [4]University of Florida, Gainesville, FL

10:30 AM

10:44 AM

Panel discussion/Q&A

Invasive Species

Mon, June 27
9:30 AM - 10:45 AM
Room 20
Regular

Presentations

9:30 AM
9:44 AM

Climate anomalies and competition reduce establishment success during biological invasion

Dan Nicholson[1], Rob Knell[2], Rachel McCrea[3], Lauren Neel[4], John David Curlis[5], Claire Williams[6], Albert Chung[7], Owen McMillan[8], Trent Garner[9], Christian Cox[10], Michael Logan[6]
[1]University of Texas Arlington, Arlington, [2]Queen Mary University London, [3]University of Kent, [4]Arizona State University, [5]University of Michigan, [6]University of Nevada Reno, [7]Princeton University, [8]Smithsonian Tropical Research Institute, [9]Institute of Zoology, [10]Florida International University

9:45 AM
9:59 AM

Trait Shifts in Range Expansions: a Meta-Analysis

Christopher Peterson, University of Texas at Austin, Austin, TX

10:00 AM
10:14 AM

How do soil and root-associated bacteria in an invasive plant vary with genotype and geography?

Mae Berlow[1], Katrina M. Dlugosch[2]
[1]University of Arizona, Tucson, [2]University of Arizona, Tucson, AZ

10:15 AM
10:29 AM

Founder effects reduce fitness at the range edge of an expanding invasive bee population

Thomas Hagan[1], Rosalyn Gloag[2]
[1]BEELab, University of Sydney, Sydney, Australia, [2]University of Sydney

10:30 AM
10:44 AM

Genetic Applications to Inform Invasive Species Management: Sitka Black-tailed Deer in Haida Gwaii WITHDRAWN

Brock Burgess[1], Robyn Irvine[2], Michael Russello[3]
[1]The University of British Columbia, [2]Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve and Haida Heritage Site, Parks Canada, [3]University of British Columbia Okanagan

Phylogeography I

Mon, June 27
9:30 AM - 10:45 AM
Room 15

Regular

Presentations

9:30 AM
9:44 AM

Phylogeography within the Peromyscus maniculatus species group: Understanding past distribution of genetic diversity and areas of refugia in western North America

Robert Boria[1], Jessica Blois[2]
[1]Harvard University, Cambridge, MA, [2]Univeristy of California-Merced

9:45 AM
9:59 AM

The genetic history of Nasonia

Garima Prazapati[1], Rhitoban Raychoudhury[2], John Werren[3]
[1]Indian Institute of Science Education and Research, Mohali, Mohali, Punjab, India, [2]Indian Institute of Science Education and Research, Mohali, [3]University of Rochester

10:00 AM
10:14 AM

Apicoplast phylogeny illuminates worldwide dispersal history of Plasmodium vivax

Benjamin D. Redelings[1], Greg Wray[2], Valerie Gartner[2]
[1]Duke University, Durham, NC, [2]Duke University

10:15 AM
10:29 AM

Understanding human phylogeography through reconstructed genealogies

Andrew Vaughn[1], Rasmus Nielsen[2]
[1]UC Berkeley, Moraga, [2]University of California Berkeley & Natural History Museum of Denmark

10:30 AM
10:44 AM

The story behind the strains: Examining the phylogeography of wild yeast from woodlands

Jacqueline Peña[1], Eduardo Scopel[2], Douda Bensasson[2]
[1]University of Georgia, Athens, GA, [2]University of Georgia

Population Genetics III

Mon, June 27
9:30 AM - 10:45 AM
Room 22
Regular

Presentations

9:30 AM
9:44 AM

Colombian Aedes aegypti and the evolution of insecticide resistance

Becca Love[1], Daniel R. Matute[2], Daniel R. Schrider[3]
[1]University of North Carolina, Carrboro, [2]University of North Carolina, Chapel Hill, Chapel Hill, NC, [3]University of North Carolina, Chapel Hill, NC

9:45 AM
9:59 AM

Evolutionary history of a sex-ratio supergene in Formica ants

German Lagunas-Robles[1], Madison Sankovitz[2], Jessica Purcell[2], Alan Brelsford[2]
[1]University of California, Riverside, Riverside, CA, [2]University of California, Riverside

10:00 AM
10:14 AM

Evolutionary history and population genomic structure of American alligators

John Konvalina[1], Eric Hoffman[2]
[1]University of Central Florida, Orlando, [2]University of Central Florida

10:15 AM
10:29 AM

Gene flow and inversions shape evolution of garter snake life-history ecotypes

Jessica Judson[1], Anne Bronikowski[2]
[1]KBS Michigan State University, [2]Iowa State University Department of Ecology, Evolution, and Organismal Biology

10:30 AM
10:44 AM

Pangenomes of Woodhouse's Scrub-Jay (Aphelocoma woodhouseii) reveal fitness effects of abundant structural variation

Scott V. Edwards[1], Timothy B. Sackton[2], Erik Garrison[3], Li[4]
[1]Harvard University, Cambridge, MA, [2]Harvard University, [3]University of Tennessee Health Science Center, [4]Dana Farber Cancer Institute

Reproductive Biology I

Mon, June 27

9:30 AM - 10:45 AM
Room 21
Regular

Presentations

9:30 AM
9:44 AM

Bee taxa differ in their pollen movement patterns and contribution to the male fitness of a self-incompatible prairie perennial

Avery Pearson[1], Zeke Zelman[1], Lauryn Hill[1], Mia Stevens[1], Evan Jackson[1], Miyauna Incarnato[1], Ren Johnson[1], Stuart Wagenius[2], **Jennifer L. Ison[3]**
[1]The College of Wooster, [2]Chicago Botanic Garden, [3]The College of Wooster, Wooster

9:45 AM
9:59 AM

Gametophytic selection and selective embryo abortion in Mimulus guttatus

WITHDRAWN

Karla d. Berg[1], Jaime A. Schwoch[2], Mitch Cruzan[1]
[1]Portland State University, Portland, Oregon, [2]Portland State University, Portland, OR

10:00 AM
10:14 AM

Pollination effectiveness of different floral visitors to Mimulus ringens

Randy J. Mitchell[1], Dana Starvaggi[2], Victor Fitzgerald[3], Jeffrey D. Karron[4]
[1]University of Akron, Akron, OH, [2]Akron Public Schools, [3]Miami University Ohio, [4]University of Wisconsin-Milwaukee, Milwaukee, Wisconsin

10:15 AM
10:29 AM

A drought-driven hypothesis for the origin of obligate apomixis in ferns

Amanda Grusz[1], Michael D. Windham[2], Kathryn Picard[3], Kathleen Pryer[2], Eric Schuettpelz[3], Christopher Haufler[4]
[1]University of Minnesota Duluth / Smithsonian Institution, [2]Duke University, [3]Smithsonian Institution, [4]University of Kansas

10:30 AM
10:44 AM

Causes and consequences of biparental inbreeding in two marine invertebrates with limited potential for dispersal

Kevin Olsen[1], Felipe Barreto[2], Ron Burton[3], Don Levitan[4]
[1]University of California San Diego, SCRIPPS Institution of Oceanography, [2]Oregon State University, Corvallis, Oregon, [3]Univ of Cal San Diego, La Jolla, CA, [4]Florida State University

Coffee break

Mon, June 27
10:45 AM - 11:15 AM
Grand Ballroom BC
Social event

PUI Mixer

Mon, June 27
10:45 AM - 11:15 AM
Room 25ABC
Social event

Description

Registration not required.

An opportunity for evolutionary biologists working at primarily undergraduate institutions (PUIs) to meet up with colleagues, and discuss common experiences, challenges, and opportunities. Grab a beverage - come and meet friends, network, and have fun! ?

Evolution in action II

Mon, June 27
11:15 AM - 12:30 PM
Room 26BC
Symposium

Description

Organizers: Dr.John Benning, Dr. Ruth Hufbauer, and Dr. Christopher Weiss-Lehman
Recent years have thrown into sharp relief an intimidating set of global issues. Drug resistance, invasive

species, global pandemics, species extinctions, threats to biodiversity from climate change — these are existential crises with no easy answers. Solutions to these problems will depend in large part on basic research into the evolutionary processes underlying these phenomena. This symposium will be a timely assessment of how evolutionary biology is helping to solve pressing problems in society today, while seeking to catalyze a closer integration of basic and applied research moving forward. Symposium speakers will explore the COVID-19 pandemic, climate change adaptation, conservation, drug resistance, invasive species, and the history of evolutionary biology as a tool for societal progress. These talks will highlight how fundamental evolution research informs our understanding of, and solutions to, this varied set of global issues. At the same time, talks will demonstrate how these so-called "applied" research topics offer unique opportunities to advance our understanding of basic evolutionary patterns and processes. The speakers span a range of career stages and study organisms from across the tree of life using a variety of experimental, theoretical, and molecular approaches. By highlighting exciting junctures of basic and applied research, we hope the symposium will help to chart a course for the role of evolutionary biology in society moving forward.

Presentations

11:15 AM – 11:44 AM

The interplay of evolution and plasticity has shaped insect responses to recent climate change

Lauren Buckley[1], joel g. Kingsolver[2]
[1]University of Washington, Seattle, WA, [2]University of North Carolina, Chapel Hill, NC

11:45 AM – 12:14 PM

Evolution in the dynamics and management of biological invasions

Ben Phillips, University of Melbourne, Parkville, Australia

12:15 PM – 12:29 PM

Harnessing genomics for informing genetic rescue of small populations

Sarah W. Fitzpatrick[1], Brendan N. Reid[2]
[1]Kellogg Biological Station; Michigan State University, HICKORY CORNERS, MI, [2]Rutgers University, New York, NY

Evolutionary Ecology II

Mon, June 27
11:15 AM - 12:30 PM
Room 19
Regular

Presentations

11:15 AM
11:29 AM

Evolution of viviparity drives convergent phenotypes in phrynosomatid lizards

Saúl F Domínguez-Guerrero[1], Martha Muñoz[2]
[1]Yale University, New Haven, [2]Yale University, New Haven, CT

11:30 AM
11:44 AM

Ancestral genetic variation in phenotypic plasticity underlies rapid evolutionary changes in resurrected populations of waterfleas

Alex Landy[1], Matthew R. Walsh[2]
[1]University of Tampa, TAMPA, [2]University of Texas at Arlington, Arlington, TEXAS

11:45 AM
11:59 AM

Nematode infection of male fig wasps: potential benefits for nematodes and consequences for fig-fig wasp communities

Justin M. Van Goor, Derek Houston[3], John Nason[4], Eric Haag[5]
[1]University of Maryland College Park , [2] University of Kansas, College Park, MD, [3]Western Colorado University, [4]Iowa State University, [5]University of Maryland College Park

12:00 PM
12:14 PM

Seed borne endophytic bacteria modulate the season of seed germination and exert cascading effects on the expression of post-germination traits and natural selection

Byungwook Choi[1], Taemin Kim[2], Seorin Jeong[2], Yousuk Kim[2], Eunsuk Kim[2]
[1]Gwangju Institute of Science and Technology, South Korea, [2]Gwangju Institute of Science and Technology

12:15 PM
12:29 PM

Novel insights evolution of temperature-dependent sex determination

Mariel Terebiznik[1], Njal Rollinson[2]
[1]University of Toronto, Toronto, [2]University of Toronto

Genomics IV

Mon, June 27
11:15 AM - 12:30 PM
Room 16

Regular

Presentations

11:15 AM
11:29 AM

The impact of clonal propagation on DNA methylation in angiosperms

Eleanore Ritter[1], Chad Niederhuth[2]
[1]Michigan State University, East Lansing, [2]Michigan State University

11:30 AM
11:44 AM

Genome size changes by duplication, divergence and insertion in Caenorhabditis

Janna Fierst[1], Paula Adams[2], Joshua Millwood[3], jason pienaar[1], John Sutton[4]
[1]Florida International University, Miami, [2]University of Alabama, Tuscaloosa, AL, [3]The University of Alabama, [4]Absci

11:45 AM
11:59 AM

Sex chromosome evolution in beetles

Ryan Bracewell[1], Anita Tran[2], Doris Bachtrog[2]
[1]Indiana University, [2]UC Berkeley

12:00 PM
12:14 PM

A high-resolution map of Drosophila hybrid pairing connects BLACK heterochromatin to pairing loss, reproductive incompatibility, and DNA underreplication

James G. Baldwin-Brown, University of Utah, Salt Lake City, UT

12:15 PM
12:29 PM

Genomics reveals repeated convergent body size evolution in Solomon Islands Leaf-nosed Bats WITHDRAWN

Devon DeRaad[1], Tyrone Lavery[2], Karen Olson[2], Lucas H. DeCicco[3], Robert Moyle[3]
[1]University of Kansas, Lawrence, KS, [2]The Australian National University, [3]University of Kansas

How do we make decisions about data and analyses in systematic biology? It depends! II

Mon, June 27

11:15 AM - 12:30 PM
Grand Ballroom A
Symposium

Description

Organizers: Dr. Natya Hans, Dr. Alexandra Hernandez, and Chloe Nash, PhD candidate
When conceiving and developing evolutionary studies, scientists must confront a vast array of difficult questions, such as how to choose among different data types and methods of data collection, and determine which analyses will best address hypotheses. These decisions can affect study outcomes, and often depend upon the scope of the question, the data currently available, and other logistical challenges. In this time of ever-expanding quantities of data and elaborate statistical and computational tools, what is the best way for systematists and evolutionary biologists to make informed decisions about data collection and analysis? The answer we often encounter is “it depends,” which causes confusion among new scientists entering the field or those exploring a new topic in evolutionary biology. The first step towards dispelling this confusion and guiding the future work of systematists is assembling a catalog of benefits and pitfalls of current approaches. This symposium brings together a wide range of experts studying molecular and morphological evolution, paleobiology, and biogeography to discuss practical and theoretical considerations faced when designing and conducting research in each of these fields. Experts will discuss the caveats and assumptions they grapple with when choosing data and methods to apply to a particular question, focusing both on successful approaches as well as setbacks they have encountered throughout the process.

Presentations

11:15 AM
11:44 AM

Evolution of species interactions: from tanglegrams to ancestral networks

Mariana P Braga, SLU, Uppsala, Sweden

11:45 AM
11:59 AM

Testing the robustness of evidence for genomic parallelism associated with climatic adaptation

Samridhi Chaturvedi[1], Zachariah Gompert[2], jeffrey L. feder[3], Owen Osborne[4], Moritz Muschick[5], Rudiger Riesch[6], Patrik Nosil[7]
[1]University of California, Berkeley, Berkeley, CA, [2]Utah State University, Logan, UT, [3]University of Notre Dame, granger, Indiana, [4]Bangor University, [5]1. University of Bern, 2.EAWAG Center for Ecology, Evolution & Biogeochemistry, Bern, BE, Switzerland, [6]Department of Biological Sciences, Royal Holloway University of London, [7]University Paul Valéry Montpellier

12:00 PM

12:14 PM

Evolution of substrate use across global assemblages of the goatfishes (Mullidae)

Chloe M. Nash[1], Linnea Lungstrom[2], Mark W. Westneat[2]
[1]University of Chicago, Chicago, IL, [2]University of Chicago

12:15 PM

12:29 PM

Panel discussion/Q&A

Organelle Evolution

Mon, June 27
11:15 AM - 12:30 PM
Room 20
Regular

Presentations

11:15 AM

11:29 AM

Organellar genomes of Silene nutans: two genomes, two tales

Zoe Postel[1], Daniel Sloan[2], Sophie Gallina[3], Jean-Stéphane Varré[4], Cécile Godé[3], Eric Schmitt[3], Pascal Touzet[5]
[1]Laboratoire EEP-CNRS 8198 - France, Villeneuve d'Ascq, Haut de France, France, [2]Colorado State University, [3]Univ. Lille, CNRS, UMR 8198 - Evo-Eco-Paleo, F-59000 Lille, France, [4]Univ. Lille, Inria, UMR CNRS 9189 - CRIStAL F-59000 Lille, France, [5]Univ. Lille, CNRS, UMR 8198 - Evo-Eco-Paleo, F-59000 Lille, France, Villeneuve d'Ascq, Nord, France

11:30 AM

11:44 AM

Cytonuclear stoichiometry in the wake of genome duplication

Joel Sharbrough[1], Evan Forsythe[1], Matheus Fernandes Gyorfy[1], Raymond Castillo[2], Emma Dostal[2], Corrinne Grover[2], Mae-Ling Kao[3], Jonathan Wendel[4], Daniel Sloan[5]
[1]New Mexico Institute of Mining and Technology, Socorro, NM, [2]New Mexico Tech, Socorro, NM, [3]New Mexico Institute of Mining and Technology, Socorro, [4]Iowa State University, Ames, IA, [5]Colorado State University

11:45 AM

11:59 AM

Evolutionary patterns of plastid RNA editing and its ties to DNA substitution rates: insights from

Pteridaceae

Blake Fauskee[1], Kathleen Pryer[2], Li-Yaung Kuo[3]
[1]Duke University, DURHAM, [2]Duke University, [3]National Tsing Hua University, Taiwan

12:00 PM

12:14 PM

Mitochondrial function in sexual vs. asexual P. antipodarum

Cameron Steffensen[1], Aaron Ortiz[1], Danielle Turner[2], Snezna Rogelj[2], Omera Matoo[3], Kristi L. Montooth[4], Maurine Neiman[5], Joel Sharbrough[6]
[1]New Mexico Tech, Socorro, NM, [2]New Mexico Tech, [3]University of Nebraska-Lincoln, Lincoln, Nebraska, [4]University of Nebraska-Lincoln, Lincoln, NE, [5]University of Iowa, Iowa City, Iowa, [6]New Mexico Institute of Mining and Technology, Socorro, NM

12:15 PM

12:29 PM

Heteroplasmy in Mexican populations of the ant Ectatomma ruidum

Ian Butler[1], Alejandro Zaldívar-Riverón[2]
[1]Instituto de Biología, Universidad Nacional Autónoma de México, Ciudad de Mexico, Mexico, [2]Instituto de Biología, Universidad Nacional Autónoma de México

Phylogeography II

Mon, June 27
11:15 AM - 12:30 PM
Room 15
Regular

Presentations

11:15 AM

11:29 AM

Incipient or ephemeral? Lineage formation and fusion in a widespread terrestrial salamander (Plethodon cinereus)

Brian Waldron[1], Emily F. Watts, Donald Morgan[2], Maggie M. Hantak[3], Emily C. Lemmon[4], Alan Lemmon[5], Shawn Kuchta[6]
[1]Ohio University, Athens, OH, [2]Ohio University, [3]Florida Museum of Natural History, Gainesville, Florida, [4]Florida State University, Department of Biological Science, Tallahassee, Florida, [5]Florida State University, Department of Scientific Computing, Center for Anchored Phylogenomics, [6]Ohio University, Athens

11:30 AM

11:44 AM

Phlylogeographic and population genomics of a widespread trunk-ground anole (Anolis cybotes) on Hispaniola

WITHDRAWN

Guin Wogan[1], Luke Mahler[2], Ian Wang[3]

[1]Oklahoma State University, gwogan@berkeley.edu, [2]University of Toronto, [3]University of California, Berkeley, Berkeley, CA

11:45 AM

11:59 AM

Testing cryptic species hypotheses in four woodland salamanders.

Tom Radomski[1], Kevin de Queiroz[2], Donald Shepard[3], Kenneth H. Kozak[4]

[1]University of Minnesota, St. Paul, MN, [2]National Museum of Natural History, [3]Louisiana Tech University, [4]University of Minnesota

12:00 PM

12:14 PM

Tropical-temperate gradients of species and genetic diversity across the rugged landscapes of the American Cordillera

Chaz Hyseni[1], Camilo A. Calderón-Acevedo[2], Marcelo Gehara[3], Isaac Overcast[4]

[1]US Forest Service, Oxford, MS, [2]Rutgers University Newark, [3]American Museum of Natural History, New York, NY, [4]Institut de Biologie de l'Ecole Normale Superieure, Paris, ile-de-france, France

12:15 PM

12:29 PM

Geographic patterns of genetic diversity in Darwin Wasps (Ichneumonidae, Hymenoptera)

Jessica Castellanos-Labarcena, University of Guelph, Guelph

Population Genetics IV

Mon, June 27
11:15 AM - 12:30 PM
Room 22
Regular

Presentations

11:15 AM

11:29 AM

Pleiotropy in the melanocortin system and frequency-dependent selection may influence bimodal melanic morph frequencies across populations.

Eve Humphrey[1], Joseph Travis[2], Kimberly A. Hughes[3]
[1]Lincoln University, Lincoln University, Pennsylvania, [2]Florida State University, Tallahassee, FL, [3]Florida State University

11:30 AM

11:44 AM

CYP1A expression in freshwater fish of western New York as an indicator of pollution levels

Rebecca Williams, The College of Wooster, Wooster

11:45 AM

11:59 AM

Genome Analysis Traces Regional Dispersal of Rice in Taiwan and Southeast Asia

Ornob Alam[1], Rafal Gutaker[2], Michael Purugganan[3], Ronald K. Bocinsky[4], Jade d'Alpoim Guedes[5]
[1]New York University, New York, [2]New York University, [3]Center for Genomics and Systems Biology, Department of Biology, 12 Waverly Place, New York University, New York, NY USA, [4]Crow Canyon Archaeological Center, Cortez, CO, [5]University of California, San Diego

Sensory systems

12:00 PM

12:14 PM

The genetic, anatomical, and evolutionary origin of convergent evolution in poison frog coloration

Roberto Márquez, University of Michigan, ANN ARBOR

12:15 PM

12:29 PM

Exploiting natural genetic variation to quantify developmental constraints

Haoran Cai[1], David Des Marais[2]
[1]Massachusetts Institute of Technology, MA, [2]Massachusetts Institute of Technology, Cambridge

Reproductive Biology II

Mon, June 27
11:15 AM - 12:30 PM
Room 21
Regular

Presentations

11:15 AM
11:29 AM

Reproductive metabolism scaling across ectotherms

Samuel Ginther[1], Hayley Cameron[2], Craig White[3], Dustin Marshall[4]
[1]Monash University, Melbourne, Australia, [2]Monash Universit, Eltham, Australia, [3]Monash University, [4]Monash University, Monash University, Australia

11:30 AM
11:44 AM

High larval temperature alters synchrony of adult eclosion in the European corn borer moth

Genevieve M. Kozak[1], Brittany Velikaneye[2]
[1]UMass-Dartmouth, Dartmouth, MA, [2]UMass-Dartmouth, North Dartmouth

11:45 AM
11:59 AM

MLH3 an endonuclease, has a non-enzymatic role in mitigating germ line aneuploidy

Tolkappiyan Premkumar, MD Anderson, Houston

12:00 PM
12:14 PM

Evolution of Imprinted Expression in the Mouse Placenta

Fernando Rodriguez Caro[1], Emily C. Moore[2], Jeff M. Good[3]
[1]University of Montana, Missoula, [2]University of Montana, Missoula, MT, [3]Division of Biological Sciences, University of Montana, Missoula

12:15 PM
12:29 PM

The limiting factor of sexual isolation; variation and divergence in female preference functions in natural and artificially selected Drosophila species

Roman Yukilevich, Union College, Schenectady, NY

American Naturalist editorial board meeting

Mon, June 27
12:30 PM - 2:30 PM
Room 24
Meeting

Description

Open to editors/associate editors of the journal only. Lunch is provided.

Faculty-Student networking lunch

Mon, June 27
12:30 PM - 2:30 PM
Offsite
Social event

Description

Pre-registration required.

The SSE Graduate Student Advisory Council organized small group networking lunches to facilitate interactions between students and faculty. Interest was indicated during conference registration and surveys were sent out to match students with faculty. Resulting groups will areresponsible for finding their own lunch venues.

Joint council exit meeting

Mon, June 27
12:30 PM - 2:30 PM
Room 14
Meeting

Description

Open to members of the ASN/SSB/SSE Joint council only. Lunch is provided.

Lunch

Mon, June 27
12:30 PM - 2:30 PM
Offsite
Social event

Description

Attendees are on their own; lunch is not provided.

Postdoc networking lunch

Mon, June 27
12:30 PM - 2:30 PM
Offsite
Social event

Description

Prior reqistration required.

The SSE Graduate Student Advisory Council organized small group networking lunches to facilitate interactions among postdocs. Signup was during conference registration and a survey was sent out to set up groups. Groups are responsible for finding their own lunch venues.

Project Baseline

Mon, June 27
12:30 PM - 2:30 PM
Room 13
Workshop / Information session

Description

Pre-registration required. Lunch is provided.

This lunch session will facilitate and promote the national and international use of the Project Baseline seed bank for evolutionary comparisons between current populations and their antecedents. At this lunch, Project Baseline leaders will be available to answer questions, and participants can brainstorm their research plans and network with others for discussion and collaboration to generate research proposals for projects that employ the Project Baseline collection in evolutionary studies. Early career investigators and researchers from underrepresented groups are especially encouraged to join. Limited funding to cover registration for Evolution 2022 and lunch is available for up to 20 attendees. For more information, and to apply to attend, see here.

Evolution in action III

Mon, June 27
2:30 PM - 3:45 PM
Room 26BC
Symposium

Description

Organizers: Dr.John Benning, Dr. Ruth Hufbauer, and Dr. Christopher Weiss-Lehman
Recent years have thrown into sharp relief an intimidating set of global issues. Drug resistance, invasive species, global pandemics, species extinctions, threats to biodiversity from climate change — these are existential crises with no easy answers. Solutions to these problems will depend in large part on basic research into the evolutionary processes underlying these phenomena. This symposium will be a timely assessment of how evolutionary biology is helping to solve pressing problems in society today, while seeking to catalyze a closer integration of basic and applied research moving forward. Symposium speakers will explore the COVID-19 pandemic, climate change adaptation, conservation, drug resistance, invasive species, and the history of evolutionary biology as a tool for societal progress. These talks will highlight how fundamental evolution research informs our understanding of, and solutions to, this varied set of global issues. At the same time, talks will demonstrate how these so-called “applied” research topics offer unique opportunities to advance our understanding of basic evolutionary patterns and processes. The speakers span a range of career stages and study organisms from across the tree of life using a variety of experimental, theoretical, and molecular approaches. By highlighting exciting junctures of basic and applied research, we hope the symposium will help to chart a course for the role of evolutionary biology in society moving forward.

Presentations

2:30 PM
2:59 PM

Hard limits to contemporary evolution along stress gradients

Robert I. Colautti, Queen's University, Kingston, Kingston, ON

3:00 PM
3:29 PM

Masters of Tomorrow: How Technocracy Promised to Unlock the Future of Human Evolution for J. B. S. Haldane, J. D. Bernal, and Julian Huxley.

Luis Felipe Eguiarte Souza, University of Minnesota, Minneapolis

3:30 PM
3:44 PM

Panel Discussion

Evolutionary Ecology III

Mon, June 27
2:30 PM - 3:45 PM
Room 19
Regular

Presentations

2:30 PM
2:44 PM

pH as an eco-evolutionary driver of priority effects

Tadashi Fukami[1], Callie R. Chappell[1], Manpreet Dhami[2], Mark C. Bitter[3], Lucas Czech[4], Sur H. Parades[3], Katherine Eritano[3], Lexi-Ann Golden[3], Veronica Hsu[5], Clara Kieschnick[3], Nicole Rush[3]
[1]Stanford University, Stanford, CA, [2]Manaaki Whenua Landcare Research, [3]Stanford University, [4]Carnegie Institution for Science, Stanford, California, [5]MIT

2:45 PM
2:59 PM

Temporal Dynamics of Predator Learning in a Batesian Mimicry Complex

Abby Robinson, Boston University, Boston

3:00 PM
3:14 PM

Investigating frequency- and density-dependent inbreeding depression in Sabatia angularis

Mark J. Walker[1], Rachel Spigler[1]
[1]Temple University, Philadelphia, PA

3:15 PM
3:29 PM

Antagonistic effects of thermoregulation and mate recognition shape contemporary evolution of a complex melanin trait

Angie Lenard[1], Sarah Diamond[2]
[1]Case Western Reserve University, SOUTH EUCLID, OH, [2]Case Western Reserve University, Cleveland, OH

3:30 PM
3:44 PM

Balancing selection and drift in a polymorphic salamander metapopulation

Sean Giery, Pennsylvania State University, University Park, PA

Genomics V

Mon, June 27
2:30 PM - 3:45 PM
Room 21
Regular

Presentations

2:30 PM
2:44 PM

Transposon insertional mutagenesis of diverse yeast strains suggests coordinated gene essentiality polymorphisms

Piaopiao Chen[1], Agnès Michel[1], Jianzhi Zhang[2]
[1]University of Michigan, Ann arbor, [2]University of Michigan

2:45 PM
2:59 PM

The transposable element landscape in neotropical salamanders.

Paul P. Decena, Cinvestav, Irapuato, Guanajuato, Mexico

3:00 PM
3:14 PM

Paleoneurobiology of the Tetrapod Olfactory Bulb Inferred from Extant Olfactory Receptor Repertoires

Laurel Yohe[1], Matteo Fabbri[2], Nicholas Krell[3], Bhart-Anjan Bhullar[4]
[1]UNC Charlotte, Charlotte, CT, [2]Field Museum of Natural History, [3]University of North Carolina at Charlotte, Charlotte, [4]Yale University

3:15 PM
3:29 PM

Natural variation in copper resistance among mining and agricultural sites

Elizabeth Everman, University of Kansas, Lawrence, Lawrence, KS

3:30 PM
3:44 PM

From morphology to genomics: reconstructing the history of a host shift in an invasive insect

Jeremy S. Davis[1], Catherine R. Linnen[1]
[1]University of Kentucky, Lexington, KY

How do we make decisions about data and analyses in systematic biology? It depends! III

Mon, June 27
2:30 PM - 3:45 PM

Grand Ballroom A
Symposium

Description

Organizers: Dr. Natya Hans, Dr. Alexandra Hernandez, and Chloe Nash, PhD candidate
When conceiving and developing evolutionary studies, scientists must confront a vast array of difficult questions, such as how to choose among different data types and methods of data collection, and determine which analyses will best address hypotheses. These decisions can affect study outcomes, and often depend upon the scope of the question, the data currently available, and other logistical challenges. In this time of ever-expanding quantities of data and elaborate statistical and computational tools, what is the best way for systematists and evolutionary biologists to make informed decisions about data collection and analysis? The answer we often encounter is “it depends,” which causes confusion among new scientists entering the field or those exploring a new topic in evolutionary biology. The first step towards dispelling this confusion and guiding the future work of systematists is assembling a catalog of benefits and pitfalls of current approaches. This symposium brings together a wide range of experts studying molecular and morphological evolution, paleobiology, and biogeography to discuss practical and theoretical considerations faced when designing and conducting research in each of these fields. Experts will discuss the caveats and assumptions they grapple with when choosing data and methods to apply to a particular question, focusing both on successful approaches as well as setbacks they have encountered throughout the process.

Presentations

2:30 PM
2:44 PM

Automated landmarking via multiple templates

Chi Zhang[1], Arthur Porto[2], Sara Rolfe[3], Altan Kocatulum,[4], A. Murat Maga[5]
[1]Seattle Children's Research Institute, Seattle, [2]Department of Biological Sciences, Louisiana State University, [3]Seattle Children's Research Institute, [4]Alfred University,, [5]University of Washington

2:45 PM
2:59 PM

Morphometrics as a tool for molluscan systematics: a paleobiological perspective

Shamindri Tennakoon, University of Florida, Gainesville

3:00 PM
3:14 PM

Inferring diversification rates from fossil data: assumptions, choices, challenges

David Cerný[1], Orlando Schwery[2]
[1]University of Chicago, Chicago, Illinois, [2]Southeastern Louisiana University, Hammond, ID

3:15 PM

3:29 PM

Evaluating different approaches to handling taxonomic uncertainty using the fossilized birth-death process

Rachel C. Warnock[1], Joëlle Barido-Sottani[2], Kenneth De Baets[3], Jérémie Sciré[4], Alexander Pohle[5], Duncan Murdock[6]

[1]FAU, Erlangen, Germany, [2]ENS PSL, Paris, France, [3]University of Warsaw, [4]ETH Zurich, [5]University of Zurich, [6]Oxford Museum of Natural History

3:30 PM

3:44 PM

Panel discussion/Q&A

Phylogenetic Methods III

Mon, June 27
2:30 PM - 3:45 PM
Room 15
Regular

Presentations

2:30 PM

2:44 PM

PhyloHerb: a high-throughput phylogenomic pipeline for processing genome-skimming data

Liming Cai[1], Hongrui Zhang[2], Charles C. Davis[3]

[1]UT Austin, Austin, MA, [2]Texas A&M, [3]Harvard University

2:45 PM

2:59 PM

PATHTREES: a Python package to explore the tree landscape

Marzieh Khodaei[1], Megan Owen[2], Peter Beerli[3]

[1]Florida State University, Tallahassee, [2]Lehman College and Graduate Center, CUNY, [3]Florida State University

3:00 PM

3:14 PM

Fast and accurate bootstrap confidence limits on genome-scale maximum-likelihood phylogenies using little bootstraps

Sudip Sharma[1], Sudhir Kumar[2]

[1]Temple Universirt, Philadelphia, Pennsylvania, [2]iGEM @ Temple, Philadelphia, PA

3:15 PM

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Phylogenetic inference using Generative Adversarial Networks

Megan L. Smith[1], Matthew Hahn[2]
[1]Indiana University, Bloomington, IN, [2]Indiana University

3:30 PM

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Bayesian Phylogenetic Inference of HIV Latent Lineage Ages

Anna Nagel[1], Bruce Rannala[1]
[1]University of California, Davis, Davis

Population Genetics V

Mon, June 27
2:30 PM - 3:45 PM
Room 16
Regular

Presentations

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Population genomics of the common kingsnake complex

Sean Harrington, University of Wyoming, HI

2:45 PM

2:59 PM

Pitfalls and promise of detecting demographic declines using population genetics in species with long lifespan and overlapping generations

Meaghan Clark[1], Gideon Bradburd[2]
[1]Michigan State University, East Lansing, MI, [2]Michigan State University, East Lansing, Michigan

3:00 PM

3:14 PM

Population genomics of the Phyllotis xanthopygus species complex in Chile

Schuyler Liphardt[1], Zachary Cheviron[2], Guillermo D'Elía[3], Jay Storz[4], Marcial Quiroga-Carmona[5], Timothy J. Thurman[6], Jeff M. Good[7]
[1]University of Montana, Division of Biological Sciences, [2]University of Montana, Missoula, MT, [3]Instituto de Cs. Ambientales y Evolutivas, Universidad Austral de Chile, Valdivia, Chile, [4]University of Nebraska, [5]Instituto de Cs. Ambientales y Evolutivas Universidad Austral de Chile, Venezuela, [6]Division of Biological Sciences,

University of Montana, [7]Division of Biological Sciences, University of Montana, Missoula

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Recurrent mutation in the ancestry of a rare allele: theory and application to human data

John Wakeley[1], Wai-Tong (Louis) Fan[2], Evan Koch[3], Shamil Sunyaev[3]
[1]Harvard University, Cambridge, MA, [2]Department of Mathematics, Indiana University, [3]Department of Biomedical Informatics, Harvard Medical School

3:30 PM

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The best of both worlds: combining population genetic and quantitative genetic models

Léonard Dekens[1], Sarah (Sally) Otto[2], Vincent Calvez[2]
[1]Université Claude Bernard Lyon 1, Institut Camille Jordan, Villeurbanne Cedex, Rhône, France, [2]UBC, Vancouver, BC

Sexual Selection III

Mon, June 27
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Regular

Presentations

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The genetic and neural basis of female mate preference in Drosophila.

WITHDRAWN

Tabashir Chowdhury[1], William Yeung[1], Sebastian Heine[1], Asil El Galad[1], **Amanda Moehring[2]**
[1]Western University, [2]Western University, London, ON

2:45 PM

2:59 PM

Inferring the influence of sexual selection on primate protein evolution

Brianna Ports[1], Michael Jensen-Seaman[1]
[1]Duquesne University, Pittsburgh, PA

3:00 PM

Temperature, size and density drive sperm metabolism across the tree of life

3:14 PM

Ashley Potter[1], Craig White[2], Dustin Marshall[3]
[1]Monash University, Australia, [2]Monash University, [3]Monash University, Monash University, Australia

3:15 PM

3:29 PM

Evolution of visual opsins in freshwater threespine sticklebacks in response to environment and behavior

Thomas (TJ) Firneno[1], Gabrielle Welsh[2], Jennifer Gumm[3], Erica Larson[2], Robin Tinghitella[2]
[1]University of Denver, Denver, [2]University of Denver, Denver, CO, [3]US Fish and Wildlife Service

3:30 PM

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Early social learning shapes male mating strategy in Trinidadian guppies

Yusan Yang[1], Eleanor Grant[2], Ellen Urquhart[2], Katie Talbert[2], Shayna Rosenbloom[3], Lauren Johnson[2], Zakiya Walker[2], Kyle Hsiao[2], Swanne Gordon[2]
[1]Living Earth Collaborative, Washington University in St. Louis, St. Louis, [2]Washington University in St. Louis, [3]University of Louisville, Louisville

Coffee break

Mon, June 27
3:45 PM - 4:15 PM
Grand Ballroom BC
Social event

Bioinformatics

Mon, June 27
4:15 PM - 5:30 PM
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Regular

Presentations

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Machine learning assisted gene annotation of a nematode phylogeny by proteotranscriptomics

Alejandro Ceron-Noriega[1], Michal Levin[2], Falk Butter[3]
[1]Institute for molecular biology Mainz, Germany, Mainz, Germany, [2]Institute for molecular biology Mainz, Germany, [3]Institute for molecular biology Mainz, Germany, Germany

4:30 PM

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Building better genome annotations across the tree of life: choosing tools and making them work

Adam H. Freedman[1], Timothy B. Sackton[2], Nathan Weeks[2]
[1]Harvard University, Cambridge, MA, [2]Harvard University

4:45 PM

4:59 PM

SIDR: A software package for decontaminating eukaryotic genome assemblies with machine learning

Paula Adams[1], Janna Fierst[2]
[1]University of Alabama, Tuscaloosa, AL, [2]Florida International University, Miami

5:00 PM

5:14 PM

Deducing the Common Ancestor of the Nucleolar Transcription Factor and its Potential Role in Regeneration

Sofia Barreira[1], Andy Baxevanis[2]
[1]National Human Genome Research Institute, NIH, Bethesda, Maryland, [2]National Human Genome Research Institute, NIH, Bethesda, MD

Evolutionary Ecology IV

Mon, June 27
4:15 PM - 5:30 PM
Room 19
Regular

Presentations

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Combined effects of heat stress and a novel, introduced hostplant on a tritrophic system

Anna Parker[1], Tyler Pereira[1], Madison Milotte[1], joel g. Kingsolver[2]
[1]University of North Carolina - Chapel Hill, [2]University of North Carolina, Chapel Hill, NC

4:30 PM

4:44 PM

Population-specific patterns of toxin sequestration in monarch butterflies from around the world

Micah Freedman[1], Sue-Ling Choquette[2], Santiago Ramirez[2], Sharon Y. Strauss[3], Mark Hunter[4], Rachel Vannette[2]
[1]University of Chicago, Chicago, CA, [2]University of California, Davis, [3]University of California, Davis, Davis, CA, [4]University of Michigan

4:45 PM

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Hawaiian lava tube biology and evolution along the space-time continuum

Becky Chong, University of Hawaii, Honolulu, Hawaii

5:00 PM

5:14 PM

Color scales with climate in North American ratsnakes: a test of the thermal melanism hypothesis using community science images

Maggie M. Hantak, Florida Museum of Natural History, Gainesville, Florida

5:15 PM

5:29 PM

Timing and duration of temperature elevation alters reproduction of the European corn borer moth

Brittany Velikaneye[1], Genevieve M. Kozak[2]
[1]UMass-Dartmouth, North Dartmouth, [2]UMass-Dartmouth, Dartmouth, MA

Genomics VI

Mon, June 27
4:15 PM - 5:30 PM
Room 21
Regular

Presentations

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Double-Strand Break Resolution in Saccharomyces uvarum

Enrique Schwarzkopf[1], Nathan Brandt[2], Caiti Smukowski Heil[1]
[1]North Carolina State University, Raleigh, NC, [2]North Carolina State University

4:30 PM

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Comparative genomics of skink genomes supports multiple mechanisms of limb reduction in squamate reptiles

Daren Card[1], Sangeet Lamichhaney[2], Mark Hutchinson[3], Steve Donnellan[4], Michael Lee[5], Scott V. Edwards[1]
[1]Harvard University, Cambridge, MA, [2]Kent State University, Kent, OH, [3]Flinders University, [4]South Australian Museum, [5]South Australian Museum & Flinders University, Australia

4:45 PM

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Whole genome sequencing combined with nextRAD validates a single sex-specific genetic marker in the sexually monomorphic Hybognathus amarus (Cypriniformes:Leuciscidae)

Guilherme Caeiro Dias[1], Megan Osborne[2], Hannah Waterman[3], Trevor Krabbenhoft, Thomas Turner[2]
[1]University of New Mexico, Albuquerque, [2]Department of Biology and Museum of Southwestern Biology, University of New Mexico, [3]University at Buffalo, BUFFALO, NY

5:00 PM

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The morphological and genetic basis of parallel evolution in seed dispersal in weedy rice

Ana Caicedo[1], Xiang Li[1]
[1]University of Massachusetts Amherst, Amherst, MA

5:15 PM

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Genomic diversification of Acinetobacter in floral nectar environments

Vivianna Sanchez[1], Tory Hendry, Tanya Renner[2]
[1]Cornell University, Ithaca, [2]Penn State University

Mutualism / Coevolution II

Mon, June 27
4:15 PM - 5:30 PM
Room 20
Regular

Presentations

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Diverse evolutionary histories in the diverse yet conserved turtle ant gut community

Christian Cabuslay[1], Daniel Freeman[2], Yi Hu[3], Jacob Russell[4]
[1]Drexel University, Philadelphia, PA, [2]Drexel University, [3]Beijing Normal University, [4]Drexel University, PHILADELPHIA, Pennsylvania

4:30 PM

4:44 PM

Cryptic community structure and within-host ecology of heritable pea aphid microbiomes

Linyao Peng[1], Andrew Smith[2], Danielle Rock[2], Jessica Hoban[2], Melissa Carpenter[1], Jonah Joffe[2], Kerry Oliver[3], Jacob Russell[4]
[1]Drexel University, Philadelphia, PA, [2]Drexel University, [3]Dept. of Entomology, University of Georgia, Athens, Georgia, [4]Drexel University, PHILADELPHIA, Pennsylvania

4:45 PM

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Testing the roles of hybridization and introgression in the evolution of a Panamanian fig and pollinator mutualism

Jordan Satler[1], Allen Herre[2], Tracy Heath[3], Carlos Machado[4], Adalberto Gomez[2], Charlotte Jander[5], Deren A. Eaton[6], John Nason[7]
[1]The Ohio State University, [2]Smithsonian Tropical Research Institute, [3]Iowa State University, Ames, Iowa, [4]University of Maryland, [5]Uppsala University, [6]Columbia University, New York, NY, [7]Iowa State University

5:00 PM

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Mobile plasmids, gene expression, and symbiotic partner quality in the rhizobial symbionts of legumes

WITHDRAWN

Katy D. Heath, University of Illinois at Urbana-Champaign, Urbana, IL

5:15 PM

5:29 PM

Gene Flow Accelerates Adaptation to a Parasite

Jordan Lewis[1], Prathyusha Kandala[2], McKenna Penley[3], Levi Morran[3]
[1]Emory University, Atlanta, [2]Emory University, [3]Emory University, Atlanta, GA

Paleobiology

Mon, June 27
4:15 PM - 5:30 PM
Room 22

Regular

Presentations

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The impact of paleoclimatic changes on body size evolution in marine fishes

Emily M. Troyer[1], Ricardo Betancur-R.[2], Lily Hughes[3], Mark W. Westneat[4], Giorgio Carnevale[5], William White[6], John Pogonoski[6], James Tyler[7], Carole Baldwin[8], Guillermo Orti[9], Andrew Brinkworth[10], Julien Clavel[11], DAHIANA ARCILA[12]

[1]University of Oklahoma, NORMAN, OK, [2]University of Oklahoma, [3]University of Chicago, Chicago, IL, [4]University of Chicago, [5]Università degli Studi di Torino, [6]CSIRO Australian National Fish Collection, [7]National Museum of Natural History, Smithsonian Institution, Washington DC, [8]National Museum of Natural History, Smithsonian Institution, [9]George Washington University, Washington, DC, [10]University of Bath, [11]The Natural History Museum, London, London, United Kingdom, [12]University of Oklahoma, Norman, Oklahoma

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Fossil nightshade berries reveal the global radiation of an Andean-centered family in the Eocene

Rocio Deanna[1], Camila Martinez[2], Steven Manchester[3], Abel Campos[4], Sandra Knapp[5], Peter Wilf[6], Franco Chiarini[7], Gloria Barboza[7], Gabriel Bernardello[8], Hervé Sauquet[9], Ellen Dean[10], Andres Orejuela[11], Stacey D. Smith[12]

[1]University of Colorado - Boulder, Boulder, [2]Universidad EAFIT, [3]Florida Museum of Natural History, [4]University of Colorado Boulder, [5]Natural History Museum, London, [6]Pennsylvania State University, [7]Instituto Multidisciplinario de Biología Vegetal, [8]IMBIV (CONICET-Universidad Nacional de Córdoba, Argentina), Córdoba, Córdoba, Argentina, [9]Royal Botanic Gardens and Domain Trust, Sydney, NSW, Australia, [10]University of California, Davis, [11]Jardín Botánico José Celestino Mutis, [12]University of Colorado Boulder, Boulder, CO

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Resolving cryptic evolutionary histories of problematic trilobite orders

Mark Nikolic[1], Melanie Hopkins[2]

[1]American Museum of Natural History, New York City, NY, [2]American Museum of Natural History

5:00 PM

5:14 PM

High morphological disparity in a bizarre Paleocene fauna of predatory freshwater reptiles

Chase D. Brownstein, Yale University, Stamford, Connecticut

5:15 PM

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Maximizing molecular data for systematics from “low-quality” fluid-preserved specimens in natural history collections

Justin M. Bernstein[1], Sara Ruane[2]

[1]Rutgers University-Newark, Newark, NJ, [2]Field Museum of Natural History

Phylogenetic Methods IV

Mon, June 27
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Room 15
Regular

Presentations

4:15 PM

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Exploring the space of phylogenetic networks under a birth-death-hybridization process

Joshua Justison[1], Tracy Heath[1]

[1]Iowa State University, Ames, Iowa

4:30 PM

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Accounting for gene tree discordance while estimating substitution rate shifts in non-coding elements

Han Yan[1], Zhirui Hu[2], Gregg Thomas[1], Timothy B. Sackton[1], Scott V. Edwards[3], JUN LIU[3]

[1]Harvard University, [2]Tsinghua University, China, [3]Harvard University, Cambridge, MA

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Prioritizing loci for ILS-aware rate analyses using phylogenetic concordance factors

Gregg Thomas[1], Han Yan[1], zhirui hu[2], Scott V. Edwards, JUN LIU, Timothy B. Sackton[1]

[1]Harvard University, [2]Harvard University, CAMBRIDGE, MA

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Inferring phylogenetic trees and divergence times using epimutations

Nan Yao[1], Zhilin Zhang[2], Hosung Jang[3], Rashmi Hazarika[2], Frank Johannes[2], Robert Schmitz[3]
[1]University of Georgia, Athens, [2]Technical University of Munich, [3]University of Georgia

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Deep learning from phylogenies for diversification analyses

Sophia Lambert[1], Jakub Voznica[1], Hélène Morlon[2]
[1]Institute of Biology of ENS (IBENS), Paris, Paris, Paris, France, [2]IBENS, Université PLS, CNRS

Population Genetics VI

Mon, June 27
4:15 PM - 5:30 PM
Room 26BC
Regular

Presentations

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Testing Wright's intermediate population size hypothesis – when genetic drift is a good thing

Mitch Cruzan, Portland State University, Portland, Oregon

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Population Genetics of Loss-Of-Function Mutations

Raymond Castillo[1], Joel Sharbrough[2]
[1]New Mexico Tech, Socorro, NM, [2]New Mexico Institute of Mining and Technology, Socorro, NM

4:45 PM

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The evolution of resistance: dissecting sources of gene copy number variation

Sarah Yakimowski, Queen's University (Kingston, ON, Canada), Kingston, Ontario

5:00 PM

5:14 PM

SNP-level FST outperforms whole window statistics for detecting soft sweeps in local adaptation

Tiago da Silva Ribeiro[1], John Pool[2]
[1]University of Wisconsin-Madison, Madison, WI, [2]UW-Madison

5:15 PM

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Genome size variation due to repeat content as an adaptation to local climate

Julianna Porter[1], Cinta Romay[2], Arun Seetharam[3], Matthew Hufford[4], Jeffrey Ross-Ibarra[5], Alyssa Phillips[5]
[1]UC Davis, Davis, [2]Cornell University, [3]Iowa State University, [4]Iowa State, [5]UC Davis

Monday poster session

Mon, June 27
5:30 PM - 8:00 PM
Grand Ballroom BC
Poster

Presentations

Behavioral and chemical changes during development in Hawaiian crickets (genus Laupala) (Poster board 1)

Bhaavya Srivastava[1], KERRY SHAW[1]
[1]Cornell University, Ithaca, New York

SNPfiltR: an R package for interactive and reproducible SNP filtering (Poster board 2)

WITHDRAWN

Devon DeRaad, University of Kansas, Lawrence, KS

Complete Parasitic Bacterial Genome Assembled from a Eukaryote (Poster board 3)

Kimberly Louisor[1], Christopher A. Osborne[2], Kiarra Furey[3], Marilena Papavassiliou[3], Meaghan Birkemeier[3], Alice Tarun[4], Trevor Krabbenhoft[5]
[1]University at Buffalo, NY, [2]University at Buffalo, Lockport, New York, [3]University at Buffalo, [4]St. Lawrence University, [5]University at Buffalo, Buffalo, NY

Transfer, differentiation, and maintenance of the symbiosis region under environmentally-dependent selection in Rhizobium leguminosarum. (Poster board 4)

David Vereau Gorbitz[1], Jennifer A. Lau[2], Rachel Whitaker[3], Carin Vanderpool[4], Katy D. Heath[5]
[1]University of Illinois at Urbana Champaign, Urbana, [2]Indiana University Bloomington,

[3]University of Illinois - Urbana Champaig, [4]University of Illinois - Urbana Champaign, [5]University of Illinois at Urbana-Champaign, Urbana, IL

Adaptation and constraints in endotherm and ectotherm body temperature evolution. (Poster board 5)

Elizabeth Daniel[1], Emma White[2], Martha Muñoz[3], Brooke L. Bodensteiner[4], Josef C. Uyeda[5]
[1]Virginia Polytechnic Institute and State University, Blacksburg, [2]George Mason University, [3]Yale University, New Haven, CT, [4]Yale University, [5]Virginia Tech, Blacksburg, VA

Assessing genetic diversity of Greater One-Horned Rhinoceros of Nepal (Poster board 6)

Abhinaya Pathak[1], Yu-Cheng Hsu[2], Amir Sadaula[3], Janardan Joshi Joshi[3], Kamal Prasad Gairhe[4], Ram Chandra Kandel[5], Prashamsa Paudel[6]
[1]Department of National Parks and Wildlife Conservation, Nepal, Kathmandu, Nepal, [2]National Dong Hwa University, [3]National Trust for Nature Conservation, Kathmandu, Nepal, [4]Department of National Parks and Wildlife Conservation, Nepal, [5]Department of National Parks and Wildlife Conservation, Government of Nepal, Kathmandu, Bagmati, Nepal, [6]Tribhuwan University, Kathmandu, Nepal

Examining the dynamics of synthetic phototrophs in a resource-limiting environment (Poster board 7)

Autumn Peterson[1], Anthony Burnetti[2], Will Ratcliff[1]
[1]Georgia Tech, Atlanta, [2]Georgia Institution of Technology

Approximate Bayesian computational methods to estimate the strength of divergent selection in population genomics models (Poster board 8)

Martyna Lukaszewicz[1], Ousseini Issaka Salia[2], Paul A. Hohenlohe[3], Erkan Buzbas[4]
[1]University of Idaho, Moscow, [2]University of Idaho, Moscow, Idaho, [3]University of Idaho, Moscow, ID, [4]University of Idaho

Experimental validation of genome-environment associations using t-DNA knockouts and drought experiments in Arabidopsis (Poster board 9)

Yuxin Luo[1], Claire Lorts[2], Diana Gamba[3], Erica Lawrence[4], Jesse Lasky[4]
[1]Pennsylvania State University, State College, [2]Penn State University, [3]Pennsylvania State University, University Park, Pennsylvania, [4]Pennsylvania State University, University Park, PA

Why do symbiotic mutualisms often increase parasite infection? (Poster board 10)

Eunnuri Yi[1], Corlett W. Wood[2]
[1]University of Pennsylvania, Philadelphia, PA, [2]University of Pennsylvania

Alternative splicing facilitates local adaptation in house mice (Poster board 11)

David N. Manahan[1], Michael Nachman[2]
[1]UC Berkeley, Berkeley, CA, [2]UC Berkeley

Investigating the genetic basis of life history and shoot architecture diversity in Mimulus guttatus (Poster board 12)

Madison Plunkert[1], Annie Zell[2], Dena Grossenbacher[3], David B. Lowry[4]
[1]Michigan State University, East Lansing, [2]Cal Poly, San Luis Obispo, [3]California Polytechnic State University, San Luis Obispo, San Luis Obispo, [4]Michigan State University, East Lansing, MI

Stress and evolutionary innovations in vision and bioluminescence (Poster board 13)

WITHDRAWN

Todd Oakley, UC Santa Barbara, Santa Barbara

Predicting locus phylogenetic utility using machine learning (Poster board 14)

Rachel S. Schwartz[1], Alexander Knyshov[2]
[1]University of Rhode Island, Kingston, RI, [2]University of Rhode Island, Kingston, Rhode Island

The role of pollinators in shaping plant population structure (Poster board 15)

Grace Burgin[1], Robin Hopkins[1]
[1]Harvard University, Boston, MA

Dissecting the Role of Mobile Elements in Shaping Placental Evolution using Single-Cell Multi-omics (Poster board 16)

Francisca L. Catalan[1], Peter H Sudmant[2], Kaitlin Allen[3], Juan Vazquez[3]
[1]University of California, Berkeley, Berkeley, Ca, [2]UC Berkeley, Berkeley, California, [3]University of California, Berkeley

The use of genomic diversity as a key conservation metric: an example using mammalian whole-genome resequencing data (Poster board 17)

Jong Yoon Jeon[1], Andrew Black[2], Anna Brüniche-Olsen[3], Janna Willoughby[4], Erangi Heenkenda, Safia Janjua[5], Andrew Mularo[6], Gina Lamka[7], John Bickham[8], J. Andrew A. DeWoody
[1]Purdue University, West Lafayette, [2]Purdue University, [3]University of Copenhagen, Copenhagen N, Denmark, [4]Auburn University, [5]Purdue university, West lafayette, IN, [6]Purdue University, Lafayette, [7]Auburn University, MI, [8]Texas A&M University

Constraint in limb length allometry across lizards (Poster board 18)

Bailey Howell[1], Travis Hagey[2], Josef C. Uyeda[3]
[1]Virginia Tech, Blacksburg, [2]Mississippi University for Women, Columbus, MS, [3]Virginia Tech, Blacksburg, VA

Evolution and genetic basis of wing dimorphism in North American field crickets (Gryllus spp.) (Poster board 19)

Lisa Treidel[1], Renee Box[1], Ibrahim El Shesheny[1], Caroline Williams[1], Colin Meiklejohn[1], Kristi L. Montooth[2]
[1]University of Nebraska, Lincoln, Lincoln, [2]University of Nebraska-Lincoln, Lincoln, NE

Age-specific changes in resource use can lead to the evolution of the life history (Poster board 20)

Eliza Jansujwicz[1], Ron D. Bassar[2]
[1]Williams College, [2]Williams College, Williamstown, MA

The Dragon Man Revisited: Hominin Phylogenetic Inference with Rogue Taxa and Incomplete Datasets (Poster board 21)

Walker L. Sexton[1], Michael Landis[2]
[1]Washington University in St. Louis, DOTHAN, AL, [2]Washington University in St. Louis, St. Louis, MO

Gene networks underlying adaptation to high altitude in the world's highest dwelling mammal Phyllotis vaccarum. (Poster board 22)

Paula Assis[1], Chandrasekhar Natarajan[2], Timothy J. Thurman[3], Marcial Quiroga-Carmona[4], Guillermo D'Elía[5], Jeff M. Good[6], Jay Storz[2], Zachary Cheviron[7]
[1]University of Montana, Missoula, SP, [2]University of Nebraska, [3]Division of Biological Sciences, University of Montana, [4]Instituto de Cs. Ambientales y Evolutivas Universidad Austral de Chile, Venezuela, [5]Instituto de Cs. Ambientales y Evolutivas, Universidad Austral de Chile, Valdivia, Chile, [6]Division of Biological Sciences, University of Montana, Missoula, [7]University of Montana, Missoula, MT

How does realistic plant biodiversity loss select on soil microbial communities? (Poster board 23)

Rebecca Bland[1], Amelia Wolf[2], Erika Zavaleta[3], Katrina M. Dlugosch[4]
[1]University of Arizona, [2]University of Texas at Austin, AUSTIN, TX, [3]University of California Santa Cruz, [4]University of Arizona, Tucson, AZ

In-silico comparative genomics illuminate turtle chromosome evolution. (Poster board 24)

Basanta Bista[1], Nicole Valenzuela[2]
[1]Iowa State University, Ames, Iowa, [2]Iowa State University, AMES, IA

Surveying the Lepidopteran Community in a Restored Prairie (Poster board 25)

Marie Walton[1], Robin Bagley[2]
[1]The Ohio State University, [2]The Ohio State University at Lima, Lima

Variation in fitness in response to increased temperature within and among clones of the freshwater crustacean Daphnia pulex (Poster board 26)

Allison Nalesnik[1], Margaret Bui[1], Catherine Searle[1], Mark Christie[1]
[1]Purdue University

Discovery of XX/XY male heterogamety in Emydura subglobosa turtles exposes a novel trajectory of sex chromosome evolution in Emydura (Poster board 27)

LingSze Lee[1], Eugenia E. Montiel[2], Nicole Valenzuela[3]
[1]Iowa State University, Ames, Iowa, [2]Iowa State University, [3]Iowa State University, AMES, IA

Investigating evolution of gene regulation across 300+ grass species (Poster board 29)

Charlie O. Hale[1], Aimee Schulz[2], Thuy La[3], Evan Long[3], Zachary Miller[3], Brandon Monier[3], Arun Seetharam[4], Taylor AuBuchon-Elder[5], Cinta Romay[3], Matthew Hufford[6], Elizabeth Kellogg[7], Ed Buckler[8]
[1]Cornell University, Ithaca, New York, [2]Cornell University, Ithaca, [3]Cornell University, [4]Iowa State University, [5]Donald Danforth Plant Science Center, [6]Iowa State, [7]Donald Danforth Plant Science Center, St. Louis, MO, [8]Cornell

Local adaptation in the native and invaded ranges of cheatgrass (Poster board 30)

Diana Gamba[1], Peter Adler[2], Dana Blumenthal[3], Matt Germino[4], Mevin Hooten[5], Elizabeth A. Leger[6], Lauren Porensky[3], Jesse Lasky[7]
[1]Pennsylvania State University, University Park, Pennsylvania, [2]Utah State University, [3]USDA-ARS (CO), [4]USGS (ID), [5]University of Texas Austin, [6]University of Nevada - Reno, [7]Pennsylvania State University, University Park, PA

Song, chemical, and morphometric variation in a putative cricket hybrid zone (Poster board 31)

Raunak Sen[1], Bhaavya Srivastava[2], KERRY SHAW[2]
[1]Cornell University, Ithaca, NY, [2]Cornell University, Ithaca, New York

Looking for new clues to an old puzzle: revisiting the invasion conundrum with individual-based genomic simulations (Poster board 32)

Prothama Manna[1], Diego F. Alvarado-Serrano[2]
[1]Ohio University, Athens, Ohio, [2]Ohio University, Athens, OH

Quantifying geographic variation and color variation in populations of Mimulus ringens with divergent life histories. (Poster board 33)

Sarah White[1], Anne M. Royer[2]
[1]The University of Scranton, Brooklyn, [2]University of Scranton, Scranton, PA

Resolving Phylogenetic Relationships of New World Leaf-nosed Bats Utilizing Ultra-Conserved Elements (Poster board 34)

Jonathan Richards[1], Liliana M. Davalos[2], Laurel Yohe[3]
[1]University of North Carolina at Charlotte, Charlotte, [2]Stony Brook University, Stony Brook, New York, [3]UNC Charlotte, Charlotte, CT

The Causes and Consequences of Synanthropic Life-History Evolution of Fungus Moths (Family Tineidae): Some Moths Eat Weird Stuff (Poster board 35)

Isabel Novick[1], Jasmine Alqassar[2]
[1]Boston University, Waltham, [2]Boston University, Providence, RI

Does past reproductive success influence subsequent reproductive performance? (Poster board 36)

Rick Lehtinen[1], David Raines[2]
[1]The College of Wooster, Wooster, OH, [2]The College of Wooster

Understanding host-specific malaria adaptation in Brazilian Howler Monkeys (Poster board 37)

Katherine McVay[1], Katharine Korunes[2], Amy Goldberg[1]
[1]Duke University, [2]Duke University, Durham, NC

Neotropical Bat Nasal Microbiome: Interplay Between Microbial Hosting and Unique Immunity (Poster board 38)

Stevie Clemens[1], Laurel Yohe[2]
[1]University of North Carolina at Charlotte, Chapel Hill, [2]UNC Charlotte, Charlotte, CT

Using RNA from silica dried specimens for phylogenetic reconstruction (Poster board 39)

Natalia Ruiz-Vargas, University of Illinois at Chicago, Chicago

Examining the role of oxygen-binding proteins in the evolution of multicellularity (Poster board 40)

Whitney Wong[1], Anthony Burnetti[2], William C. Ratcliff[1]
[1]Georgia Institute of Technology, [2]Georgia Institution of Technology

The biogeography of adaptive resilience to climate change: insights from genotype-environment associations and plasticity of gene expression (Poster board 41)

Luciano B. Beheregaray[1], Peter Unmack[1], Louis Bernatchez[2], Jonathan B. Sandoval-Castillo[3], Chris Brauer[4], Katie Gates[1], Martin Laporte[5], Catherine Attard[5], Steve Smith[6]
[1]Flinders University, Adelaide, SA, Australia, [2]Université Laval - Institut de Biologie Intégrative des systèmes, [3]Flinders University, [4]Flinders University, Bedford Park, SA, Australia, [5]Université Laval - Institut de Biologie Intégrative des systèmes, québec, Quebec, [6]University of Vienna

Complex interactions among quantitative trait loci explain natural variation in C. elegans germ stem cell niche activity (Poster board 42)

Sarah Fausett[1], Asma Sandjak[2], Bénédicte Billiard[3], **Christian Braendle**[4]
[1]University of North Carolina Wilmington, WILMINGTON, North Carolina, [2]Universite? Co?te d Azur, CNRS, Inserm, iBV, France, NICE, Alpes-Maritimes, France, [3]Universite? Co?te d Azur, CNRS, Inserm, iBV, France, [4]CNRS Nice, France, Nice, France

Investigating variation in phage susceptibility within and among lung-derived populations of a pathogenic bacterium (Poster board 43)

Noah S. Houpt[1], Paul E. Turner[2]
[1]Yale University, New Haven, Ontario, [2]Yale University, New Haven, CT

Local adaptation in leaf shape plasticity along an elevational cline in Mimulus laciniatus (Poster board 44)

Jill Syrotchen[1], Kathleen Ferris[1]
[1]Tulane University, New Orleans, Louisiana

Role of learned song in the evolution and speciation of Eastern and Spotted Towhees (Poster board 45)

Ximena Leon[1], Nicole Creanza[1]
[1]Vanderbilt University

Higher female reproductive expression of pollen performance genes in outcrossing species (Poster board 46)

Timothy Biewer-Heisler[1], Matthew Gibson[2], Leonie Moyle[2]
[1]Indiana University Bloomington, Bloomington, IN, [2]Indiana University, Bloomington, Indiana

Seed dispersal mutualisms affect species' geographic ranges (Poster board 47)

Christopher Moore[1], Sihang Chen[2]
[1]Colby College, Waterville, Maine, [2]Stanford University, Stanford, California

Mitochondrial genome architecture in a New Zealand freshwater snail (Poster board 48)

Emily Cook[1], Joel Sharbrough[2], Peter Fields[3], Laura Bankers[4], Joseph Jalinsky[5], John Logsdon[5], Maurine Neiman[6], Kyle E. McElroy[7], Jeffrey Boore[8]
[1]New Mexico Tech, Socorro, NM, [2]New Mexico Institute of Mining and Technology, Socorro, NM, [3]University of Basel, [4]University of Colorado, [5]University of Iowa, Iowa City, IA, [6]University of Iowa, Iowa City, Iowa, [7]Iowa State University, Ames, IA, [8]Providence St. Joseph Health & Institute for Systems Biology, Seattle, WA

CloudForest: A Framework for Intuitive and Flexible Analysis of Phylogenomic Datasets (Poster board 49)

Benjamin S. Toups[1], Jeremy M. Brown[1], Kyle Gallivan[2], Reid Wagner[3], Zhifeng Deng[2], James Wilgenbusch[3]
[1]Louisiana State University, Baton Rouge, LA, [2]Florida State University, [3]University of Minnesota

Quantifying the influence of mutations on competitive ability in Daphnia magna (Poster board 50)

Jon deVries[1], Sarah Schaack[2]
[1]Reed College, Portland, [2]Reed College, Portland, OR

Catch a fish, catch a ride: alternate methods of piscivory drive divergent skull evolution (Poster board 51)

JoJo West[1], Kory Evans[1]
[1]Rice University, Houston

Characterization of hybrid genetic incompatibilities within Caenorhabditis briggsae (Poster board 52)

Lesly Pereira-Fita[1], Jordan Montgomery[1], Joel Rodriguez[1], Leonardo Velazco-Cruz[1], Marisol Lauri[1], Morgan Montelongo[1], **Joseph Ross**[2]
[1]California State University, Fresno, [2]California State University, Fresno, Fresno

Predation-induced plasticity in mate preference in Trinidadian guppies (Poecilia reticulata) (Poster board 53)

Katie Talbert[1], Yusan Yang[2], Eleanor Grant[1], Lauren Johnson[1], Ellen Urquhart[1], Shayna Rosenbloom[3], Zakiya Walker[1], Kyle Hsiao[1], Swanne Gordon[1]
[1]Washington University in St. Louis, [2]Living Earth Collaborative, Washington University in St. Louis, St. Louis, [3]University of Louisville, Louisville

Correlated trait evolution impacts ecological interactions of the bacterial plant pathogen Pseudomonas syringae (Poster board 54)

Cathy Hernandez, Yale University, New Haven, CA

Is metabolic rate sex-specific in Tigriopus californicus? (Poster board 55)

Murad Jah[1], Suzanne Edmands[2], Scott Applebaum[3]
[1]University of Southern California, Los Angeles, [2]University of Southern California, Los Angeles, CA, [3]University of Southern California

Updated site concordant factors minimize effects of homoplasy and taxon sampling (Poster board 56)

Yu Mo[1], Dan Vanderpool[1], Robert Lanfear[2], Minh Bui[3], Matthew Hahn[4]
[1]Indiana University, Bloomington, [2]Australian National University, [3]Australian National University, Canberra, ACT, Australia, [4]Indiana University

Does infection increase host metabolic rates? A meta-analysis spanning multiple hosts, elicitors, and pathogens. (Poster board 57)

Justin Buchanan, University of Wisconsin-Madison, Madison, WI

Evolution of the Parrotfish Beak Across Space and Time. (Poster board 58)

Kory Evans[1], Olivier Larouche[2], Samantha M. Gartner[2], Mark W. Westneat[3]
[1]Rice University, Houston, [2]Rice University, Houston, Texas, [3]University of Chicago

Evaluating the Hymenopteran parasitoid community of the redheaded pine sawfly, Neodiprion lecontei (Poster board 59)

Carson Kephart[1], Robin Bagley[2], Wasequddin Mohammed[3]
[1]Ohio State University, Columbus, [2]The Ohio State University at Lima, Lima, [3]The Ohio State University at Lima

Detecting horizontal gene transfers from diverse taxa in the pea aphid genome (Poster board 60)

Rose Driscoll[1], John Werren[2], Jenn Brisson[2]
[1]University of Rochester, Rochester, NY, [2]University of Rochester

Developing the Drosophila innubila Nudivirus into a model to study host-pathogen coevolution and interaction (Poster board 61)

Maggie Schedl[1], **Rob L. Unckless**[2], Kent Mulkey[3]
[1]The University of Kansas, Lawrence, [2]University of Kansas, LAWRENCE, KS, [3]The University of Kansas

Thermal tolerance of cryptobenthic fishes in the northern Gulf of Mexico (Poster board 62)

Logan F. Turner, Auburn University, Auburn, AL

Direct estimate of the germline mutation rate in opossums. (Poster board 63)

Yadira Peña-García[1], Richard Wang[2], Muthuswamy Raveendran[3], R. Alan Harris[3], Paul Samollow[4], Jeffrey Rogers[3], Matthew Hahn[5]
[1]Indiana University, Bloomington, Indiana, [2]Indiana University, Bloomington, IN, [3]Baylor College of Medicine, [4]Texas A&M University, [5]Indiana University

Heritable somatic mutation as a mechanism for adaptation in Mimulus guttatus (Poster board 64)

Ariana Walczyk[1], Mitch Cruzan[2], Jaime A. Schwoch[3]
[1]Portland State University, Portland, NY, [2]Portland State University, Portland, Oregon, [3]Portland State University, Portland, OR

The effect of demography on the evolutionary dynamics of altruism (Poster board 65)

Daniel A. Priego Espinosa[1], Jeremy Van Cleve[1]
[1]University of Kentucky, Lexington, KY

Treatment-specific expression correlates with nonsynonymous divergence and diversity in Arabidopsis thaliana genes (Poster board 66)

Miles Roberts[1], Emily Josephs[2]
[1]Michigan State University, East Lansing, [2]Michigan State University, East Lansing, MI

Not just flowering time: A resurrection approach shows floral attraction traits are changing over time (Poster board 67)

Sasha Bishop[1], Regina Baucom[2]
[1]University of Michigan, Ann Arbor, MI, [2]University of Michigan, Ann Arbor, Michigan

Co-variation of leaf and floral traits in the evolution of Rhododendron diversity (Poster board 68)

Juliana Medeiros[1], Jean Burns[2], Andrea Case[3], Adam Roddy[4]
[1]The Holden Arboretum, Kirtland, [2]Case Western Reserve University, [3]Kent State University, Kent, Ohio, [4]Florida International University

An Evolving Pandemic: A Systematic Review on the Virulence of SARS-CoV-2 Variants (Poster board 69)

Nathan Steffens, University of Louisville, Louisville

Parallel evolution of independently acquired LEA genes in tardigrades and mosses? (Poster board 70)

Justin Rosario, Florida International University, Miami

Tardigrade coevolution with cryptogams (Poster board 71)

Ana Perezsanchez, Florida International University, Miami

Predicting gene expression response to environment in Arabidopsis thaliana using DNA sequence (Poster board 72)

Margarita Takou[1], Jesse Lasky[2], Emily Bellis[3]
[1]Pennsylvania State University, [2]Pennsylvania State University, University Park, PA, [3]Penn State University, University Park, PA

Identifying introgressed regions in subgenome of Shepherd's Purse (Poster board 73)

Maya Wilson Brown[1], Emily Josephs[2]
[1]Michigan State University, Lansing, Michigan, [2]Michigan State University, East Lansing, MI

The Biogeography of Polyploid Plants in Historical and Phylogenetic Context (Poster board 74)

Eric Hagen[1], James Boyko[2], Thais Vasconcelos[2], Jeremy Beaulieu[2]
[1]University of Arkansas, [2]University of Arkansas, Fayetteville, AR

Diet-based RNAi mediated gene knockdowns in Tigriopus californicus (Poster board 75)

Rujuta V. Vaidya[1], Morgan Kelly[2]
[1]Louisiana State University, Baton Rouge, LA, [2]Louisiana State University, Baton Rouge

Genomic consequences of translocations within an imperiled Florida Scrub-jay metapopulation (Poster board 76)

Tyler Linderoth[1], Lauren Deaner[2], Reed Bowman[3], Raoul Boughton[4], Sarah W. Fitzpatrick[5]
[1]Kellogg Biological Station, [2]Flatwoods Consulting Group Inc., [3]Archbold Biological Station, [4]The Mosaic Company, [5]Kellogg Biological Station; Michigan State University, HICKORY CORNERS, MI

The influence of aggressive calls on mating choice in females of Gray treefrogs (Hyla chrysoscelis) (Poster board 77)

Alejandro Marcillo[1], Michael Reichert[2]
[1]Oklahoma State University, Stillwater, [2]Oklahoma State University

Invasive Potamopyrgus antipodarum appear more resilient to heat stress than native counterparts. (Poster board 78)

Humu Mohammed, University of Iowa, Iowa

Evolution of Immune Genes in a Model System for Host-Parasite Coevolution (Poster board 79)

Chelsea Higgins[1], Laura Bankers[2], Kyle E. McElroy[3], Doug Houston[4], Jeffrey Boore[5], John Logsdon[6], Maurine Neiman[1]
[1]University of Iowa, Iowa City, Iowa, [2]University of Colorado, [3]Iowa State University, Ames, IA, [4]University of Iowa, [5]Providence St. Joseph Health & Institute for Systems Biology, Seattle, WA, [6]University of Iowa, Iowa City, IA

Shallow scale application of ultraconserved elements parse relationships and inform taxonomy in the aquatic Notomicrus traili species complex (Coleoptera: Adephaga). (Poster board 80)

WITHDRAWN

Stephen Baca, University of Kansas, Lawrence, KS

Olfactory Receptor Diversity In Turtles May Depend On Ecology (Poster board 81)

Charles Vesely[1], Matteo Fabbri[2], Scott Yohe[3], Miccaella Estefania Vergara[3], Daniel Smith Paredes[4], Bhart-Anjan Bhullar[5], Laurel Yohe[6]
[1]University of North Carolina at Charlotte, Charlotte, [2]Field Museum of Natural History, [3]Yale, [4]Mfn, Germany, [5]Yale University, [6]UNC Charlotte, Charlotte, CT

Latitudinal variation of type III antifreeze protein gene regions in Zoarcid fish (Poster board 82)

Tait Algayer[1], Scott Hotaling[2], Joanna Kelley[2]
[1]Washington State University, Pullman, [2]Washington State University

Human genome complete? Extensive underestimation of duplicated genes in largest protein-coding gene family (Poster board 83)

Nicholas Krell[1], Laurel Yohe[2]
[1]University of North Carolina at Charlotte, Charlotte, [2]UNC Charlotte, Charlotte, CT

Genetic Analysis of UV Pattern and Red Spotting Using Sympatric Species of Mimulus (Poster board 84)

Whitney Murchison-Kastner[1], Caroline Dong[1], Kathleen Ferris[2]
[1]Tulane University, New Orleans, [2]Tulane University, New Orleans, Louisiana

Comparative genomics of geminate Damselfish across the Isthmus of Panama (genus Abudefduf) (Poster board 85)

Claire Tracy[1], Owen McMillan[2], Carlos Arias[2], Marc Höppner[3], Moises A. Bernal[4]
[1]Auburn University, [2]Smithsonian Tropical Research Institute, [3]Kiel University, [4]Auburn University, Auburn, AL

Widespread changes in gene expression accompany body size evolution in nematodes (Poster board 86)

Gavin Woodruff[1], John H. Willis[2], Erik Johnson[2], Patrick Phillips[2]
[1]University of Oklahoma, [2]University of Oregon

Methods for detecting TE PAVs in a maize diversity panel (Poster board 87)

Nathan Catlin[1], Adrian E. Platts[1], Emily Josephs[2]
[1]Michigan State University, East Lansing, [2]Michigan State University, East Lansing, MI

Inferring phylogenetic trees and divergence times using epimutations (Poster board 88)

Nan Yao[1], Zhilin Zhang[2], Hosung Jang[3], Rashmi Hazarika[2], Frank Johannes[2], Robert Schmitz[3]
[1]University of Georgia, Athens, [2]Technical University of Munich, [3]University of Georgia

Variable testes abnormalities associated with hybrid breakdown between African and European populations of Drosophila melanogaster (Poster board 89)

Myron B. Child[1], Matthew Lollar[2]
[1]University of Wisconsin, Madison, Madison, UT, [2]University of Wisconsin, Madison

Doors and dead-ends in the evolution of avian migratory behavior (Poster board 90)

Nic Bone[1], Josef C. Uyeda[1]
[1]Virginia Tech, Blacksburg, VA

Understanding Coping Styles in a fish with Alternative Reproductive Tactics (Poster board 91)

Sunishka Thakur, University of Texas at Austin, AUSTIN, TX

Assessing the adequacy of morphological models used in phylogenetic palaeobiology (Poster board 92)

Laura Mulvey[1], April Wright[2], Sebastian Höhna[3], Rachel C. Warnock[4]
[1]Friedrich Alexander University, Erlangen, Bavaria, Germany, [2]Southeastern Louisiana University, Hammond, LA, [3]LMU Munich, [4]FAU, Erlangen, Germany

Red coloration and the evolution of aposematism in arboreal sciurids (Poster board 93)

Alec Sheets[1], Andreas Chavez[2]
[1]Ohio State University, Columbus, OH, [2]The Ohio State University, Columbus, OH

Potexvirus Detection, Taxonomy, and Transmission as Revealed by Phylogenomics of Cacti (Poster board 94)

Alexa Tyszka[1], Karolis Ramanauskas[2], Boris Igic[3]
[1]University of Illinois at Chicago, [2]University of Illinois at Chicago, Oak Park, Illinois, [3]University of Illinois at Chicago, Chicago, IL

The Evolution of Multicellularity as a Response to Experimental Snowball Earth Viscosities (Poster board 95)

Andrea Halling, University of Colorado Boulder, Boulder

Do DNA methylation and gene expression mediate adaptive plastic responses to temperature and competition in threespine stickleback? (Poster board 96)

Emily Kerns[1], Trey Sasser[2], Jesse Weber[3]
[1]University of Wisconsin-Madison, Madison, [2]University of Wisconsin, Madison, [3]University of Wisconsin-Madison, Madison, AK

Positioning the tragedy of the commons within density-dependent selection (Poster board 97)

Fiona McCann, The University of Arizona, Tucson, AZ

How does the Male Secreted Short (MSS) glycoprotein provide a competitive advantage to Caenorhabditis sperm? (Poster board 98)

Justin M. Van Goor, Eric Haag[3]
[1]University of Maryland College Park , [2] University of Kansas, College Park, MD, [3]University of Maryland College Park

Scale shape vs Trophic position: Testing form and function relationships in an assemblage of reef fishes (Poster board 99)

Sean Trainor, Rice University

Herodotools: An R package to integrate Macroevolution, Community Ecology and Biogeography (Poster board 101)

WITHDRAWN

Gabriel Nakamura[1], Arthur Rodrigues[2], André Luza[3], Vanderlei Debastiani[2], Renan Maestri[4], Leandro Duarte[4]
[1]Texas A&M University, Corpus Christi, [2]Universidade Federal do Rio Grande do Sul, Departamento de Ecologia, Porto Alegre, Brazil, [3]Universidade Federal de Santa Maria, [4]Universidade Federal do Rio Grande do Sul, Brazil

An unbiased approach selecting multiple templates for automated landmarking (Poster board 102)

Chi Zhang[1], Arthur Porto[2], Sara Rolfe[3], Altan Kocatulum,[4], A. Murat Maga[5]
[1]Seattle Children's Research Institute, Seattle, [2]Department of Biological Sciences, Louisiana State University, [3]Seattle Children's Research Institute, [4]Alfred University,, [5]University of Washington

Population Differentiation for Plasticity in Arabidopsis thaliana (Poster board 103)

Sophie F. Buysse[1], Emily Josephs[1], Jeff Conner[2]
[1]Michigan State University, East Lansing, MI, [2]Kellogg Biological Station, Hickory Corners, MI

Evolution of cooperation in the chemostat (Poster board 104)

Bryan K. Lynn, Oregon State University, Corvallis, OR

Molecular and morphological evolution across the most species-rich radiation in mammals (Poster board 105)

Gregg Thomas[1], Carl R. Hutter[2], Paula Assis[3], Emily Kopania[4], Sebastian M. Mortimer[5], Colin Callahan[5], PIerre-Henri Fabre[6], Kevin C. Rowe[7], Jacob A. Esselstyn[8], Jeff M. Good[9]
[1]Harvard University, [2]Louisiana State University, Baton Rouge, LA, [3]University of Montana, Missoula, SP, [4]University of Utah; University of Montana, [5]Oregon State University, Corvallis, Oregon, [6]ISEM lab Montpellier University, [7]Sciences Department, Museums Victoria; School of

BioSciences, The University of Melbourne, [8]Museum of Natural Science, Louisiana State University; Department of Biological Sciences, Louisiana State University, [9]Division of Biological Sciences, University of Montana, Missoula

Pattern, process, and the evolution of sexual dimorphism in Three-spine stickleback fish (Gasterosteus aculeatus) (Poster board 106)

Katie Van Dame, Loyola University Chicago, Chicago

Let's globalize the voices of science! PeerEdits.org (Poster board 107)

Andrew McAdam[1], Gladiana Spitz[2]
[1]University of Colorado, Boulder, Ontario, [2]University of Colorado Boulder, Boulder, CO

What's in a territory anyways? Ecological components of a territorial phenotype in the North American red squirrel (Poster board 108)

Gladiana Spitz[1], Stan Boutin[2], Ben Dantzer[3], Jeffrey Lane[4], Andrew McAdam[5]
[1]University of Colorado Boulder, Boulder, CO, [2]University of Alberta, [3]University of Michigan, [4]University of Saskatchewan, [5]University of Colorado, Boulder, Ontario

Guane: A flexible shiny platform for learning, teaching, and analyses in comparative biology (Poster board 109)

Viviana Romero Alarcon, Universidad Católica de la Santísima Concepción, Concepción, Chile

One size does not fit all: Variation in anatomical traits associated with emersion behavior in mudskippers (Gobiidae: Oxudercinae) (Poster board 110)

Joel Corush[1], Jie Zhang1[2]
[1]University of Illinois - Illinois Natural History Survey, Champaign, [2]Key Laboratory of Animal Ecology and Conservation Biology, Chinese Academy of Sciences

Evolution's Rainbow

Mon, June 27
7:30 PM - 10:00 PM
Grand Ballroom A
Social event

Description

Registraiton required. If you purchased a ticket during conference registration, you will receive it when you pick up your conference name badge. ?Tickets may still be available here.

Join us for an exciting evening of engaging talks and discussion on evolution's rainbow, with special guest host Nina West. This event will start with a series of talks from experts on the diversity of sex, sexuality, and gender that exist in nature, and end with a panel discussion on how this diversity fits into a broader evolutionary context and what we as a community can do to support and retain our LGBTQ+ students and colleagues. We aim to facilitate dialogue, inspire wonder, and provide a community-oriented, light-hearted evening of curiosity!

The event welcomes in-person attendance from both conference goers and the general public. Cost $5 is for in-person attendees, with profits donated to the LGBT Community Center of Greater Cleveland. Registered virtual Evolution 2022 participants are also welcome and may view a live-stream of the event for free. Light refreshments and a cash bar will be available during the event.

Door open at 7:30pm, event starts at 8pm.

IDEA Award Lecture - Dr. Adriana D. Briscoe

Tue, June 28
8:00 AM - 9:20 AM
Grand Ballroom A
Plenary

Description

The Inclusiveness, Diversity, Equity, and Access (IDEA) Award was created in 2019 by the ASN, SSE, and SSB. The IDEA Award is given to a person at any career stage who has strengthened the ecology and evolutionary biology community by promoting inclusiveness and diversity in our fields. The award can also be presented to a group.

Dr. Adriana Briscoe is the recipient of the 2021 IDEA Award. Over her entire career, Dr. Briscoe has shown a commitment to diversity, equity and inclusion that has resulted in the recruitment and retention of diverse scientists in the evolution workforce at all professional levels. Dr. Briscoe also contributes to international inclusion, regularly publishing research with co-authors from global south countries. Her DEI work also includes published scholarship and popular media related to her outreach. Dr. Briscoe has also been recognized for her research excellence and contributions to education by the largest STEM diversity organization in the country, the Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS). Thank you to Dr. Briscoe for your commitment and contributions to the community!

Presentations

IDEA Award introduction
Janet Buckner, University of Texas at Arlington, Arlington, Texas

Familia, comunidad y maestros: How I became a Latina science professor
Adriana D. Briscoe, UC Irvine, Irvine

Adaptation V

Tue, June 28
9:30 AM - 10:45 AM
Room 22
Regular

Presentations

9:30 AM
9:44 AM

Landscape genomics reveals environmental drivers of local adaptation and speciation in desert adapted Mexican ducks
Joshua Brown[1], Philip Lavretsky[1]
[1]University of Texas at El Paso

9:45 AM
9:59 AM

Habitat-linked genetic variation supports microgeographic adaptive divergence in an island-endemic bird species
Rebecca Cheek[1], Brenna Forester[2], Patricia Salerno[3], Daryl Trumbo[3], Kathryn Langin[3], Nancy Chen[4], T S. Sillett[5], Scott A. Morrison[6], Cameron Ghalambor[3], Chris Funk[3]
[1]Colorado State University, Fort Collins, [2]Colorado State Universty, [3]Colorado State University, [4]University of Rochester, Rochester, NY, [5]Smithsonian Migratory Bird Center, [6]The Nature Conservancy

10:00 AM
10:14 AM

Mechanisms of Organismal Persistence to Rapid Environmental Change; Plasticity vs. Genetic Adaptation
WITHDRAWN
Catalina C. Palacios[1], Pengcheng Wang[2], Nan Wang[3], Megan Brown[1], **Sangeet Lamichhaney**[1]

[1]Kent State University, Kent, OH, [2]Chinese Academy of Sciences, [3]Beijing Forestry University

10:15 AM

10:29 AM

Adaptive shifts in size and shape in response to climate change

Tiffany Dias[1], Marketa Zimova[1], Brian Weeks[2]
[1]University of Michigan, Ann Arbor, Michigan, [2]University of Michigan

10:30 AM

10:44 AM

Genetic variation for adaptive traits is associated with polymorphic inversions in the Atlantic silverside

Maria Akopyan[1], Arne Jacobs[1], Aryn Wilder[2], Hannes Baumann[3], Nina O. Therkildsen[4]
[1]Cornell University, Ithaca, NY, [2]San Diego Zoo, [3]University of Connecticut, [4]Cornell University

Biogeography

Tue, June 28
9:30 AM - 10:45 AM
Room 15
Regular

Presentations

9:30 AM

9:44 AM

A conceptual framework to integrate cold-survival strategies: torpor, resistance, and seasonal migration

Giorgia Auteri, University of Michigan, Columbus

9:45 AM

9:59 AM

Biogeographical patterns of the Ironcolor shiner (Notropis chalybaeus) in North America.

Joel Corush[1], Roberto V. Cucalón[2], MArk Davis[3], Milton Tan[4], Brian Metzke[5], Jeffrey Stein[3], Haruma Kurita[6]
[1]University of Illinois - Illinois Natural History Survey, Champaign, [2]University of Illinois at Urbana Champaign, Urbana, Illinois, [3]University of Illinois, [4]Illinois Natural History Survey, Champaign, Illinois, [5]Illinois Department of Natural Resources, [6]University of Illinois at Urbana-Champaign

10:00 AM
10:14 AM

Can species trait-based models of contemporary range shifts be rescued?

Sarah Diamond, Case Western Reserve University, Cleveland

10:15 AM
10:29 AM

Species delimitation on Eastern Pine snakes

Basanta Khakurel[1], April Wright[1]
[1]Southeastern Louisiana University, Hammond, LA

10:30 AM
10:44 AM

Conserved niches and phenotypic convergence underscore speciation in hoary bats

Angelo Soto-Centeno[1], Nancy Simmons[2]
[1]Rutgers University, Newark, [2]Department of Mammalogy, American Museum of Natural History

Evolutionary Ecology V

Tue, June 28
9:30 AM - 10:45 AM
Room 16
Regular

Presentations

9:30 AM
9:44 AM

Evolution at the rear edge: phenotypic variation within and among populations

Antoine PERRIER[1], Laura Galloway[2]
[1]University of Virginia, CHARLOTTESVILLE, [2]University of Virginia, Charlottesville, VA

9:45 AM
9:59 AM

The effects of plant inbreeding on the legume-rhizobia mutualism

Isabela Lima Borges[1], Sarah W. Fitzpatrick[2]
[1]Michigan State University, Hickory Corners, Michigan, [2]Kellogg Biological Station; Michigan State University, HICKORY CORNERS, MI

10:00 AM
10:14 AM

Evolution of coexistence in Trinidadian guppies and Hart's killifish

Joseph Travis[1], Jaime Anaya-Rojas[1], Ron D. Bassar[2], Blake Matthews[2], Joshua Goldberg[3], David N. Reznick[4], Leighton King[5]
[1]Florida State University, Tallahassee, FL, [2]Williams College, Williamstown, MA, [3]Bhutan Ecological Society, Bhutan, [4]University of California, Riverside, California, [5]Eawag, Switzerland

10:15 AM

10:29 AM

Genetic variation in reproductive investment across an ephemerality gradient in Daphnia pulex.

Karen Barnard-Kubow[1], Alan Bergland[2], Dörthe Becker[2], Andrew Beckerman[3], Connor Murray[4], Robert Porter[5], Joaquin Nunez[6], Priscilla Erickson[7], Erin R. Voss[8]
[1]James Madison University, Harrisonburg, VA, [2]University of Virginia, Charlottesville, VA, [3]University of Sheffield, [4]University of Virginia, [5]University of Virginia, Troy, Virginia, [6]University of Virginia, Charlottesville, [7]University of Richmond, [8]University of California, Berkeley, Berkeley, CA

10:30 AM

10:44 AM

The evolution of the annual cycle across time and space in migratory birds

Ben M. Winger[1], Frank La Sorte[2]
[1]University of Michigan Museum of Zoology, [2]Cornell Lab of Ornithology

Evolutionary Theory

Tue, June 28
9:30 AM - 10:45 AM
Room 19
Regular

Presentations

9:30 AM

9:44 AM

Morphological integration of the hominoid os coxa: implications for human bipedalism

Mark Conaway[1], Dean Adams[2]
[1]Department of Ecology, Evolution, & Organismal Biology, Iowa State University, Ames, [2]Iowa State University, Ames, IA

9:45 AM

9:59 AM

Eco-evolutionary dynamics of autotomy

Rohan S. Mehta[1], Julie Kraus[2]
[1]Emory University, Decatur, GA, [2]Georgia Institute of Technology

10:00 AM
10:14 AM

The effect of positive niche construction on evolutionary rescue

Alex Longcamp[1], Jeremy Draghi
[1]Virginia Tech, Blacksburg, Virginia

10:15 AM
10:29 AM

A Hidden Markov Model of the evolution body size and host shifting strategies in a parthenogenetic wasp

WITHDRAWN

Arun Sethuraman, San Diego State University, San Diego, California

10:30 AM
10:44 AM

Rock-Paper-Scissors: The myriad and complex ways that organisms adapt to various environments

Sam Scheiner, National Science Foundation, Alexandria, VA

Experimental Evolution IV

Tue, June 28
9:30 AM - 10:45 AM
Room 21
Regular

Presentations

9:30 AM
9:44 AM

Selection mediated by stage of invasion in experimental plant communities

Taylor Zallek[1], Martin M. Turcotte[2]
[1]University of Pittsburgh, Pittsburgh, [2]University of Pittsburgh, Pittsburgh, PA

9:45 AM
9:59 AM

Why are some antibiotics seemingly evolution-proof? The case of vancomycin-resistant Staphylococcus aureus

Sam Blechman, University of Pittsburgh

10:00 AM

10:14 AM

Characterization of trait drift in the field and laboratory: Shifts in microbial community composition

Monica Sanchez, Los Alamos National Labs, LOS ALAMOS

10:15 AM

10:29 AM

Directed evolution of resistance to a bacterial Type VI Secretion System

Katie MacGillivray[1], Siu Lung Ng[2], Sophia Wiesenfeld[1], Tahrima Jubery[1], William C. Ratcliff[1], Brian Hammer[1]
[1]Georgia Institute of Technology, [2]Georgia Tech

10:30 AM

10:44 AM

Rates and spectra of de novo structural mutation in Chlamydomonas reinhardtii

Rory Craig[1], Eugenio López-Cortegano[2], Jobran Chebib[3], Eniolaye Balogun[4], Peter Keightley[5]
[1]UC Berkeley, Berkeley, [2]University of Edinburgh, Edinburgh, Edinburgh, United Kingdom, [3]University of Edinburgh, Edinburgh, Scotland, United Kingdom, [4]University of Toronto Mississauga, Mississauga, [5]University of Edinburgh

Macroevolution III

Tue, June 28
9:30 AM - 10:45 AM
Room 20
Regular

Presentations

9:30 AM

9:44 AM

Adequacy of Fossilised Birth-Death models: a test case in ants

Orlando Schwery[1], Basanta Khakurel[2], April Wright[2]
[1]Southeastern Louisiana University, Hammond, ID, [2]Southeastern Louisiana University, Hammond, LA

9:45 AM

9:59 AM

On the origin of patterns of temperature-dependent sex determination

Caleb Krueger[1], Fredric Janzen[2]
[1]W. K. Kellogg Biological Station, Michigan State University, [2]Iowa State University

10:00 AM

10:14 AM

Developmental rules of primates dental evolution align microevolution with macroevolutionary tempo and mode

Fabio Machado[1], Carrie Mongle[2], Graham J. Slater[3], Anna Penna[4], Anna Soffin[5], Vitor Dutra[6], Josef C. Uyeda[7]
[1]Virginia Tech, Blacksburg, Virginia, [2]Stony Brook University, [3]University of Chicago, Chicago, IL, [4]University of Texas San Antonio, San Antonio, Texas, Brazil, [5]Virginia Tech, [6]Florida International University, [7]Virginia Tech, Blacksburg, VA

10:15 AM

10:29 AM

Molecular early burst associated with the diversification of birds at the K–Pg boundary

Jake S. Berv[1], Sonal Singhal[2], Daniel J. Field[3], Nathanael Walker-Hale[3], Sean W. McHugh[4], Jeremy R. Shipley[5], Eliot Miller[6], Rebecca Kimball[7], Edward L. Braun[7], Alex Dornburg[8], Richard Prum[9], Matt Friedman[10], Stephen A. Smith[10]
[1]University of Michigan, Ithaca, NY, [2]CSU Dominguez Hills, Carson, CA, [3]University of Cambridge, [4]Washington University in St. Louis, St Louis, VA, [5]Max-Planck-Institut für Verhaltensbiologie, [6]Cornell Laboratory of Ornithology, [7]University of Florida, [8]NC Museum of Natural Sciences, Raleigh, NC, [9]Yale University, [10]University of Michigan

10:30 AM

10:44 AM

Topernawi: A New Oligocene site in West Turkana, Kenya

Emmanuel Aoron[1], Patricia Princehouse[2]
[1]Harvard University, Lodwar, Kenya, [2]Case Western Reserve University Institute for the Science of Origins

Species distributions and coexistence: the intersection of evolution and ecology I

Tue, June 28
9:30 AM - 10:45 AM
Grand Ballroom A
Symposium

Description

Organizers: Dr. Laura Galloway and Dr. Lynda Delph
Talks in this symposium will explore threads such as what determines species' distributions, the extent to which coexistence between congeners impacts distributions, and how reproductive isolation impacts distributions and rates of speciation. In other words, what keeps species apart both genetically and spatially?

Livestream will commence with the second talk of the morning session, by Dr. Anna Hargreaves, at 9:45 am.

Presentations

9:30 AM 9:44 AM	**symposium introduction** **Lynda F. Delph**, Indiana University, Bloomington, IN
9:45 AM 10:14 AM	**How often and when do species interactions limit species distributions?** **Anna Hargreaves**, McGill University, Montreal
10:15 AM 10:44 AM	**Leveraging clinal variation to investigate ecological specialization in the face of gene flow** **Adriana Hernandez**, Cornell University, Plant Biology, Ithaca

Towards the Network of Life: Phylogenetic networks as a tool to understand complex evolutionary histories I

Tue, June 28
9:30 AM - 10:45 AM
Room 26BC
Symposium

Description

Organizers: Dr. Kevin Kong and Dr. Rejuan Haque
While phylogenetic trees have been essential in understanding how species evolve and are useful for a tremendous range of practical applications, they cannot adequately describe some types of evolutionary processes, such as hybrid speciation, introgression, recombination, horizontal gene transfers, and gene duplication and loss. In these cases, a phylogenetic network, a modification and generalization of a

phylogenetic tree that allows two branches to merge into a single node to create a directed acyclic structure called a reticulation, represents the true evolutionary history more appropriately than a phylogenetic tree. The talks in this symposium will be focused around the development of techniques for inferring phylogenetic networks from multilocus data and on their application to empirical problems. Speakers in the session will address computational challenges that arise from analyzing large-scale data, challenges in interpreting the inferred networks, as well as future directions for solving these challenges.

Presentations

9:30 AM
9:44 AM

Lost in the jungle of phylogenetic network classes? An overview of popular constraints on phylogenetic network topologies and why they are useful.

Sungsik Kong[1], Joan Carles Pons[2], Laura Kubatko[3], **Kristina Wicke[3]**

[1]The Ohio State University, Columbus, OH, [2]University of the Balearic Islands, [3]The Ohio State University, Columbus, Ohio

9:45 AM
9:59 AM

Reconstructing phylogenetic networks from small building blocks

Simone Linz, University of Auckland, New Zealand

10:00 AM
10:14 AM

Fast inference of highly entangled phylogenetic networks with RF-Net

Alexey Markin[1], Sanket Wagle[2], Tavis Anderson[1], Eulenstein Oliver[2]

[1]USDA-ARS, [2]Iowa State University

10:15 AM
10:29 AM

Testing tree-likeness of phylogenetic network data with tripletized cross-validation

James Degnan[1], Md Rashidul Hasan[1]

[1]University of New Mexico

10:30 AM
10:44 AM

Panel Discussion

Coffee break

Tue, June 28

10:45 AM - 11:15 AM
Grand Ballroom BC
Social event

Comparative Biology

Tue, June 28
11:15 AM - 12:30 PM
Room 20
Regular

Presentations

11:15 AM
11:29 AM

Gene expression evolution across organs and species of Hawaiian Drosophila

Samuel Church, Yale university

11:30 AM
11:44 AM

Genetic evidence for widespread population size expansion in North American boreal birds prior to the Last Glacial Maximum

Abby Kimmitt[1], Teresa Pegan[2], Andrew Jones[3], Courtney Brennan[4], Jocelyn Hudon[5], Jeremy Kirchman[6], Kristen C. Ruegg[7], Brett Benz[8], Rachael Herman[9], Ben M. Winger[10]
[1]University of Michigan, Ecology and Evolutionary Biology, Ann Arbor, [2]University of Michigan, Ann Arbor, MI, [3]Cleveland Museum of Natural History; Spring Island Land Trust, [4]Cleveland Museum of Natural History, [5]Royal Alberta Museum, [6]New York State Museum, [7]Colorado State University, [8]Department of Ecology and Evolutionary Biology and Museum of Zoology, University of Michigan, [9]Stony Brook University, [10]University of Michigan Museum of Zoology

11:45 AM
11:59 AM

Ecological Opportunity Drives Morphological Evolution in the Ecologically Diverse Garter and Water Snakes (Thamnophiini)

Leroy Nuñez[1], Frank Burbrink[2]
[1]American Museum of Natural History, New York, New York, [2]American Museum of Naural History, New York, NY

12:00 PM

12:14 PM

Investigation of convergent evolution with the southern marsupial mole and other subterranean mammals

Sarah Lucas[1], Stephen Frankenberg[2], Charles Feigin[3], Andrew Pask[2], Nathan Clark[4]
[1]University of Utah, Salt Lake City, [2]University of Melbourne, [3]Princeton University, [4]University of Utah

12:15 PM

12:29 PM

Population genomic analyses reveal hybridization and marked differences in genetic structure of Scurria limpet sister species with parapatric distributions across the southeastern pacific

Pablo Saenz-Agudelo[1], Livia Peluso[2], Roberto Nespolo[2], Bernardo Broitman[3], Pilar Haye[4], Marco Lardies[5]
[1]Universidad Austral de Chile, Valdivia, Chile, [2]Universidad Austral de Chile, [3]Universidad Adolfo Ibañez, [4]Universidad Católica del Norte, [5]Universidad Adolfo Ibañez, Chile

Conservation

Tue, June 28
11:15 AM - 12:30 PM
Room 22
Regular

Presentations

11:15 AM

11:29 AM

Exploring patterns of persistence in rediscovered Harlequin frogs

Kyle Jaynes[1], Monica Paez-Vacas[2], David Salazar-Valenzuela[3], Juan Guayasamin[4], Andrea Terán-Valdez[5], Fausto Siavichay[6], Sarah W. Fitzpatrick[7], Luis A. Coloma[5]
[1]Michigan State University, [2]Universidad Indoamerica, Quito, Pichincha, Ecuador, [3]Universidad Tecnologica Indoamerica, Quito, Pichincha, Ecuador, [4]Universidad San Francisco de Quito, [5]Centro Jambatu de Investigación y Conservación de Anfibios, [6]Amaru Zoológico Bioparque, [7]Kellogg Biological Station; Michigan State University, HICKORY CORNERS, MI

11:30 AM

11:44 AM

Eco-evolutionary models of population decline: How much migration is necessary for at risk

populations?

Gina Lamka[1], Janna Willoughby[2]
[1]Auburn University, MI, [2]Auburn University

11:45 AM
11:59 AM

Time-series data reveal the genomic ramifications of a fishery collapse

R. Nicolas Lou[1], Harmony Borchardt-Wier[2], Nina O. Therkildsen[2]
[1]Cornell University, Ithaca, NY, [2]Cornell University

12:00 PM
12:14 PM

Disease dynamics of the world's highest elevation amphibians after expansion into recently deglaciated terrain

Emma C. Steigerwald[1], Cassandra C. Gendron[2], Juan C. Chaparro[3], Rosemary G. Gillespie[4], Allie Q. Byrne[5], Erica B. Rosenblum[6], Rasmus Nielsen[7]
[1]The University of California, Berkeley, Berkeley, CA, [2]The University of California, Berkeley, [3]Museo de Biodiversidad del Peru, Cusco, Peru, Peru, [4]University of California Berkeley, Berkeley, CA, [5]University of California, Berkeley, Berkeley, CA, [6]UC Berkeley, Berkeley, California, [7]University of California Berkeley & Natural History Museum of Denmark

12:15 PM
12:29 PM

An evolutionary perspective on genetic load in small isolated populations

Samarth Mathur[1], John Tomeček[2], Luis Tarango-Arámbula[3], Robert Perez[4], J. Andrew A. DeWoody[5]
[1]Ohio State University, Dublin, OH, [2]Texas A&M University, College Station, [3]Colegio de Postgraduados, Campus San Luis Potosí, [4]Texas Parks and Wildlife Department, [5]Purdue University, West Lafayette, IN

Mutualism / Coevolution III

Tue, June 28
11:15 AM - 12:30 PM
Room 15
Regular

Presentations

11:15 AM

11:29 AM

Coupled population genomic patterns in corals (Acropora spp.) and their symbionts help predict optimal partnerships

Brendan Cornwell[1], Stephen Palumbi[2]
[1]Stanford University, Pacific Grove, [2]Hopkins Marine Station of Stanford University

11:30 AM

11:44 AM

Host-associated transmission rapidly reduces cooperative symbiont traits

Kayla S. Stoy[1], Erika Diaz-Almeyda[2], Levi Morran[3], Nicole Gerardo[4]
[1]Emory University, Atlanta, GA, [2]New College of Florida, Sarasota, [3]Emory University, Atlanta, [4]Emory University

12:00 PM

12:14 PM

Mitochondrial effects on sexual dimorphism in Tigriopus californicus

Suzanne Edmands[1], Jacob Denova[2], Ben A. Flanagan, Murad Jah[3], Scott Applebaum[4]
[1]University of Southern California, Los Angeles, CA, [2]University of Southern Californis, Los Angeles, [3]University of Southern California, Los Angeles, [4]University of Southern California

Macroevolution

12:15 PM

12:29 PM

Comparative genomics support reduced-genome Paraburkholderia symbionts of Dictyostelium discoideum amoebas are ancestrally adapted professional symbionts

Suegene Noh[1], Benjamin Capodanno[2], Songtao Xu[3], Marisa Hamilton[2], Joan Strassmann[4], David Queller[4]
[1]Colby College, Waterville, ME, [2]Department of Biology, Colby College, [3]Department of Biology, Colby College, China, [4]Washington University in St. Louis

Phenotypic Plasticity III

Tue, June 28
11:15 AM - 12:30 PM
Room 21
Regular

Presentations

11:15 AM
11:29 AM

cancelled talk

11:30 AM
11:44 AM

Polyphenisms and polymorphisms: genetic variation in plasticity and color variation within and among bluefin killifish populations

Becky Fuller[1], Joseph Travis[2], Benjamin A. Sandkam[3], Katie E. McGhee[4], Matthew Schrader[5]
[1]University of Illinois, Champaign, IL, [2]Florida State University, Tallahassee, FL, [3]University of British Columbia, [4]University of the South, Sewanee, TN, [5]University of the South, Department of Biology, Sewanee, TN

11:45 AM
11:59 AM

Chromatin contributes to developmental plasticity of genotype-dependent reproductive arrest

Abigail DiVito Evans[1], Regina Fairbanks[2], Paul Schmidt[1], Mia Levine[1]
[1]University of Pennsylvania, [2]University of California, Davis

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12:00 PM
12:14 PM

Plasticity and evolution of brain morphology in divergent Trinidadian guppies

Caleb Axelrod, Washington University in St. Louis, St. Louis

12:15 PM
12:29 PM

Social interactions and ecological challenges shape the evolvability of fertility in a small-scale human society

Jordan Martin, University of Zurich, Switzerland

Population Genetics Theory / Methods I

Tue, June 28
11:15 AM - 12:30 PM
Room 16
Regular

Presentations

11:15 AM
11:29 AM

The spatial distribution of rare deleterious alleles: evolutionary modeling & implications for study

design

Maggie Steiner, University of Chicago, Chicago

11:30 AM

11:44 AM

Statistical inference in population genomics

Parul Johri[1], Charles F. Aquadro[2], Mark Beaumont[3], Brian Charlesworth[4], Laurent Excoffier[5], Adam Eyre-Walker[6], Peter Keightley[4], Michael Lynch[7], Gil McVean[8], Bret Payseur[9], Susanne P. Pfeifer[7], Wolfgang Stephan[10], Jeffrey D. Jensen[7]

[1]Arizona State University, Tempe, AZ, [2]Cornell University, [3]University of Bristol, UK, [4]University of Edinburgh, [5]University of Berne, [6]University of Sussex, [7]Arizona State University, [8]University of Oxford, UK, [9]University of Wisconsin-Madison, [10]Leibniz-Institute for Evolution and Biodiversity Science, Berlin, DE, Germany

11:45 AM

11:59 AM

Dominance can increase genetic variance after a population bottleneck: a synthesis of the theoretical and empirical evidence

Andrew Mularo[1], Ximena Bernal[2], J. Andrew A. DeWoody[3]

[1]Purdue University, Lafayette, [2]Purdue University, [3]Purdue University, West Lafayette, IN

12:00 PM

12:14 PM

An Efficient Exact Algorithm for Identifying Hybrids Using Population Genomic Sequences

Sneha Chakraborty[1], Bruce Rannala[2]

[1]University of California Davis, Davis, [2]University of California, Davis, Davis

12:15 PM

12:29 PM

Mutation load paradox resolved by large-effect compensation: Why we haven't 'died 100 times over'

Walid Mawass[1], Joseph D. Matheson[2], Joanna Masel[3]

[1]University of Arizona, Tucson, QC, [2]University of Arizona, Tucson, AZ, [3]University of Arizona

Species distributions and coexistence: the intersection of evolution and ecology II

Tue, June 28
11:15 AM - 12:30 PM
Grand Ballroom A
Symposium

Description

Organizers: Dr. Laura Galloway and Dr. Lynda Delph
Talks in this symposium will explore threads such as what determines species' distributions, the extent to which coexistence between congeners impacts distributions, and how reproductive isolation impacts distributions and rates of speciation. In other words, what keeps species apart both genetically and spatially?

Presentations

11:15 AM
11:44 AM

• From disjunct to aggregated: explaining patterns of spatial overlap of close relatives across scales

Andrea Case[1], Christopher Blackwood[2], Lynda F. Delph[3]
[1]Kent State University, Kent, Ohio, [2]Kent State University, [3]Indiana University, Bloomington, IN

11:45 AM
11:59 AM

Disentangling the historical routes to community assembly in the global epicentre of biodiversity

Bouwe Reijenga[1], Benjamin Freeman[2], David Murrell[3], Alex Pigot[4]
[1]University College London, London, London, United Kingdom, [2]University of British Columbia, Vancouver, BC, [3]University College London, United Kingdom, [4]University College London

12:00 PM
12:29 PM

Estimating spatial demographic patterns in a dynamic environment with species distribution models and genome-wide data

Connor M. French[1], Michael J. Hickerson[2], Ana C. Carnaval[3]
[1]City University of New York, New York, NY, [2]The City College of New York, [3]City Collegue of New York

Towards the Network of Life: Phylogenetic networks as a tool to understand complex evolutionary histories II

Tue, June 28
11:15 AM - 12:30 PM
Room 26BC
Symposium

Description

Organizers: Dr. Kevin Kong and Dr. Rejuan Haque
While phylogenetic trees have been essential in understanding how species evolve and are useful for a tremendous range of practical applications, they cannot adequately describe some types of evolutionary processes, such as hybrid speciation, introgression, recombination, horizontal gene transfers, and gene duplication and loss. In these cases, a phylogenetic network, a modification and generalization of a phylogenetic tree that allows two branches to merge into a single node to create a directed acyclic structure called a reticulation, represents the true evolutionary history more appropriately than a phylogenetic tree. The talks in this symposium will be focused around the development of techniques for inferring phylogenetic networks from multilocus data and on their application to empirical problems. Speakers in the session will address computational challenges that arise from analyzing large-scale data, challenges in interpreting the inferred networks, as well as future directions for solving these challenges.

Presentations

11:15 AM
11:29 AM

Leveraging graph-theoretic results for phylogenetic networks to estimate admixture graphs

Erin Molloy, University of Maryland, College Park

11:30 AM
11:44 AM

Avoiding model misspecification is crucial for accurate species network inference

Huw A. Ogilvie[1], Zhen Cao[2], Zhi Yan[2], Luay Nakhleh[2]
[1]Rice University, Houston, TX, [2]Rice University

11:45 AM
11:59 AM

Deconstructing spatial genealogical variation across genomes

Deren A. Eaton[1], Patrick McKenzie[1]
[1]Columbia University, New York, NY

12:00 PM
12:14 PM

Statistical challenges to infer phylogenetic networks

Claudia Solis-Lemus, University of Wisconsin-Madison, Madison, WI

12:15 PM
12:29 PM

Panel Discussion

Lunch

Tue, June 28
12:30 PM - 2:30 PM
Offsite
Social event

Description

Attendees are on their own; lunch is not provided.

SSE council exit meeting

Tue, June 28
12:30 PM - 2:30 PM
Room 14
Meeting

Description

Open to members of the SSE council only. Lunch is provided.

ASN council exit meeting

Tue, June 28
1:30 PM - 2:30 PM
Room 13
Meeting

Description

Open to members of the ASN council only. Lunch is provided.

Latines in Evolution Mixer

Tue, June 28

1:30 PM - 2:30 PM
Room 25ABC
Social event

Description

Join the 'Latines in Evolution' mixer to get to know other Latines doing fantastic science in and outside Latin America. We welcome the participation of people from diverse backgrounds to stimulate conversations about the perspective of evolutionary biology in Latin America and strategies to strengthen local communities. We aim to foster more interactions across organisations from different Latin American countries and the SSE, ASN & SSB communities.

This event is open to all conference attendees. Lunch is not provided but if you get takeout, you can bring it to the mixer.

SSB council exit meeting

Tue, June 28
1:30 PM - 2:30 PM
Room 24
Meeting

Description

Open to members of the SSB council only. Lunch is provided.

ASN Early Career Investigator Award Symposium

Tue, June 28
2:30 PM - 3:45 PM
Room 26BC
Symposium

Presentations

2:30 PM	**Introduction**
2:44 PM	

2:45 PM

3:14 PM

Understanding processes that structure communities at multiple spatial scales

Laura Melissa Guzman, University of Southern California

3:15 PM

3:44 PM

Symbionts and stresses: the impact of protective microbes on host and pathogen evolution

Kim Hoang[1], Kayla King[2], Levi Morran[3], Nicole Gerardo[4]
[1]Emory University, Georgia, [2]University of Oxford, [3]Emory University, Atlanta, GA, [4]Emory University

Diversification

Tue, June 28
2:30 PM - 3:45 PM
Room 20
Regular

Presentations

2:30 PM

2:44 PM

Phylogenetic history, allometry and elevational range influence skull diversification of the New World toads of the genera Anaxyrus, Incilius and Rhinella

Julia Soares Parreiras[1], Tod W. Reeder[2]
[1]San Diego State University, San Diego, California, [2]San Diego State University, San Diego, CA

2:45 PM

2:59 PM

The effect of genetic background on phenotypic diversification of Pseudomonas aeruginosa

Alex Hicks[1], Rees Kassen[2]
[1]University of Ottawa, Ottawa, [2]University of Ottawa, Ottawa, Ontario

3:00 PM

3:14 PM

Ecology and Biogeography of the Diversification of Minnows (Cypriniformes: Leuciscidae) of the Holarctic

Milton Tan[1], Jonathan W. Armbruster[2]
[1]Illinois Natural History Survey, Champaign, Illinois, [2]Auburn University

3:15 PM

3:29 PM

Extreme variation in paper wasp facial color patterns

Sara Miller[1], Michael J. Sheehan[1], James P. Tumulty[2]
[1]Cornell University, Ithaca, NY, [2]Dept Neurobiology and Behavior, Cornell University, Ithaca, NY

Phylogenetic Methods V

Tue, June 28
2:30 PM - 3:45 PM
Room 15
Regular

Presentations

2:30 PM

2:44 PM

Integrating ecological niche models with phylogenetic inference using the FBD process

Joëlle Barido-Sottani[1], Simon Darroch[2], Erin Saupe[3], Rachel C. Warnock[4]
[1]ENS PSL, Paris, France, [2]Vanderbilt University, [3]University of Oxford, [4]FAU, Erlangen, Germany

2:45 PM

2:59 PM

Fast phylogenies from genomic big data, without compromising accuracy

Jing Peng[1], Haseena Rajeevan[2], Laura Kubatko[1], **Arindam RoyChoudhury**[3]
[1]The Ohio State University, Columbus, Ohio, [2]Yale University, [3]Weill Cornell Medicine, Cornell University, New York

3:00 PM

3:14 PM

Introducing the early high disparity phylogenetic comparative model, with applications to body size evolution in whales (Mammalia: Cetacea) and ichthyosaurs (Reptilia: Ichthyosauromorpha)

Ricardo Ely, Indiana University, Bloomington, Indiana

3:30 PM

3:44 PM

An effect size for comparing the strength of morphological integration across studies

Dean Adams[1], Mark Conaway[2]
[1]Iowa State University, Ames, IA, [2]Department of Ecology, Evolution, & Organismal Biology, Iowa State University, Ames

Population Genetics Theory / Methods II

Tue, June 28
2:30 PM - 3:45 PM
Room 16
Regular

Presentations

2:30 PM
2:44 PM

Models for the evolution of conformity

Kaleda Denton[1], Uri Liberman[2], Marcus Feldman[1]
[1]Stanford University, Stanford, [2]Tel Aviv University

2:45 PM
2:59 PM

Allelic gene conversion softens selective sweeps

Daniel R. Schrider, University of North Carolina, Chapel Hill, NC

3:00 PM
3:14 PM

Inference of the proportion of recessive lethal mutations in humans and Drosophila

Chris C. Kyriazis[1], Emma Wade[2], Maria Izabel A. Cavassim[3], **Kirk E. Lohmueller**[4]
[1]UCLA Department of Ecology and Evolutionary Biology, Los Angeles, CA, [2]Mississippi State University, [3]UCLA, Brazil, [4]UCLA, Los Angeles, CA

3:15 PM
3:29 PM

Examining polygenic adaptation in time-stratified genome samples

WITHDRAWN

Xiaoheng Cheng[1], Matthias Steinrücken[2]
[1]University of Chicago, Chicago, IL, [2]University of Chicago

Social Evolution

Tue, June 28
2:30 PM - 3:45 PM
Room 21
Regular

Presentations

2:30 PM

2:44 PM

Learning from microbial collective behavior in complex, natural environments

Emily Hager[1], Allyson Sgro[2]
[1]Boston University, Boston, MA, [2]Boston University

Speciation

2:45 PM

2:59 PM

Robust evolution of altruism based on similarity of complex phenotypes

Linnea Bavik[1], Rohan S. Mehta[2], Daniel B. Weissman[3]
[1]Emory University, Atlanta, [2]Emory University, Decatur, GA, [3]Emory University, Atlanta, GA

3:00 PM

3:14 PM

Cheating and the Evolution of Multipartite Viral Genomes

Asher Leeks[1], Paul E. Turner[2], Geoff Wild[3], Stuart West[4]
[1]Yale, New Haven, [2]Yale University, New Haven, CT, [3]Queens University, Ontario, [4]University of Oxford

3:15 PM

3:29 PM

Indirect Genetic Effects across ontogeny in the Florida Scrub-Jay

Gladiana Spitz[1], Elissa J. Cosgrove[2], Reed Bowman[3], John Fitzpatrick[4], Nancy Chen[5]
[1]University of Colorado Boulder, Boulder, CO, [2]Cornell University, [3]Archbold Biological Station, [4]Cornell Lab of Ornithology, [5]University of Rochester, Rochester, NY

Speciation III

Tue, June 28
2:30 PM - 3:45 PM
Room 19
Regular

Presentations

2:30 PM

2:44 PM

Hotspots of disruption in placental regulatory gene networks reflect a common genetic architecture underlying hybrid placental dysplasia in rodents

Emily C. Moore[1], Kate Wilsterman[2], Fernando Rodriguez Caro[3], Paigan J. Aspinall[4], Quynh McKelvey-Pham[5], Leslie Turner[6], Jeff M. Good[7]
[1]University of Montana, Missoula, MT, [2]Colorado State University - Fort Collins, Fort Collins, [3]University of Montana, Missoula, [4]University of Bath, Bath, Bath, United Kingdom, [5]Hellgate High School, Missoula, MT, [6]Milner Centre for Evolution, Univ of Bath, Bristol, Bristol, United Kingdom, [7]Division of Biological Sciences, University of Montana, Missoula

2:45 PM
2:59 PM

The phoenix hypothesis of speciation

Ryo Yamaguchi[1], Bryn Wiley[2], Sarah (Sally) Otto[3]
[1]Hokkaido University, Sapporo, Hokkaido, Japan, [2]UBC, [3]UBC, Vancouver, BC

3:00 PM
3:14 PM

Impacts of changing host plant ranges on the evolutionary history of a specialist insect species

Alaine Hippee, University of Iowa, Iowa City, Iowa

3:15 PM
3:29 PM

Diverse mechanisms contribute to reproductive isolation between selfing and outcrossing morning glory species

Kate Ostevik[1], Joanna Rifkin[2], Irene Liao[3], Mark D. Rausher[3]
[1]UC Riverside, Riverside, [2]ISPA Environmental Labs, Toronto, Ontario, [3]Duke University, Durham, NC

3:30 PM
3:44 PM

The buildup from intra to inter-specific variation in an ecologically important ant complex

Gabriella I. Quartuccia[1], Thomas H. Powell[2], Kirsten M. Prior[3], Carmela M. Buono[3]
[1]Binghamton University, Bronx, NY, [2]Binghamton University (SUNY), Binghamton, NY, [3]Binghamton University

Species distributions and coexistence: the intersection of evolution and ecology III

Tue, June 28
2:30 PM - 3:45 PM
Grand Ballroom A
Symposium

Description

Organizers: Dr. Laura Galloway and Dr. Lynda Delph
Talks in this symposium will explore threads such as what determines species' distributions, the extent to which coexistence between congeners impacts distributions, and how reproductive isolation impacts distributions and rates of speciation. In other words, what keeps species apart both genetically and spatially?

Presentations

2:30 PM
2:59 PM

Reproductive isolation and reproductive interactions shape plant species distributions at fine scales

Kyle Christie, Michigan State University / Northern Arizona University, Flagstaff

3:00 PM
3:29 PM

Form genes to speciation: how ecological divergence causes reproductive isolation

Catherine R. Linnen, University of Kentucky, Lexington, KY

3:30 PM
3:44 PM

Panel Discussion - Dr. Laura Galloway

Coffee break

Tue, June 28
3:45 PM - 4:15 PM
Grand Ballroom BC
Social event

Ecology

Tue, June 28
4:15 PM - 5:30 PM
Room 16
Regular

Presentations

4:15 PM
4:29 PM

Could phosphorus limitation contribute to the maintenance of sex and ploidy polymorphism in a New Zealand snail?

Briante Najev[1], Amy Krist[2], Josie Bliss[3], Chase McInville[3], Maurine Neiman[1]
[1]University of Iowa, Iowa City, Iowa, [2]University of Wyoming, [3]University of Iowa

4:30 PM
4:44 PM

Evolutionary Opportunity and the Limits of Community Similarity in Replicate Radiations of Island Lizards

Luke Frishkoff[1], Gavia Lertzman-Lepofsky[2], Luke Mahler[2]
[1]University of Texas at Arlington, [2]University of Toronto

4:45 PM
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The role of climate change and niche shifts in divergent range dynamics of a sister-species pair

Jeremy Summers[1], Dieter Lukas[2], Corina Logan[2], Nancy Chen[1]
[1]University of Rochester, Rochester, NY, [2]Max Planck Institute

5:00 PM
5:14 PM

Drivers of gut microbiome community assembly in oreohelix land snails

Ian Oiler[1], T. Mason Linscott[2], Christine Parent[1]
[1]University of Idaho, Moscow, [2]University of Idaho, Moscow, ID

5:15 PM
5:29 PM

Evolutionary history limits adaptation of color sensitivity across Metazoa

Matthew Murphy[1], Erica Westerman[2]
[1]University of Arkansas, Fayetteville, [2]University of Arkansas

Modeling

Tue, June 28
4:15 PM - 5:30 PM
Room 20
Regular

Presentations

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4:29 PM

Family-Based Paradigms Improve Response of Selection on Variability

Shraddha Lall[1], Benjamin de Bivort[1]
[1]*Harvard University*

4:45 PM
4:59 PM

Unbalanced selection: the challenge of maintaining a social polymorphism when a supergene is selfish

Alireza G. Tafreshi[1], Sarah (Sally) Otto[2], Michel Chapuisat[3]
[1]*UBC Zoology, Vancouver,* [2]*UBC, Vancouver, BC,* [3]*University of Lausanne*

5:00 PM
5:14 PM

Evolutionary Diversification in a Digital Video Game

Kristen Martinet[1], Landon Wright[2], Terence Soule[2], Luke Harmon[1], Barrie Robison[2]
[1]*University of Idaho, Moscow, Idaho,* [2]*University of Idaho*

5:15 PM
5:29 PM

Predictive Optimisation Of Carbon Storage Allocation in Stressed Plants

Elisa Stefaniak[1], Belinda Medlyn[2], David Tissue[2], Andrew Jarvis[3]
[1]*Western Sydney University, Wenrworth Falls, NSW, Australia,* [2]*Western Sydney University,* [3]*Lancaster University*

Mutation

Tue, June 28
4:15 PM - 5:30 PM
Room 15
Regular

Presentations

4:15 PM
4:29 PM

Modelling the evolution and predictors of mutation rate variation

Madeleine Oman[1], Rob W. Ness[2]
[1]*University of Toronto, ON,* [2]*University of Toronto*

4:30 PM
4:44 PM

Generation times across human history inferred from the mutation spectrum

Richard Wang[1], Samer Al-Saffar[2], Jeffrey Rogers[3], Matthew Hahn[2]
[1]*Indiana University, Bloomington, IN,* [2]*Indiana University,* [3]*Baylor*

College of Medicine

4:45 PM

4:59 PM

Contribution of spontaneous mutations to quantitative and molecular variation at the highly repetitive rDNA locus in yeast

Nathaniel Sharp, University of Wisconsin-Madison, Madison, WI

5:00 PM

5:14 PM

How Low Can We Go? Measuring E coli Mutation rates with DNA rolling circles

Stephan Baehr[1], Michael Lynch[2], Jean-Francois Gout[3]
[1]Arizona State University, Tempe, [2]Arizona State University, [3]Mississippi State University

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Synonymous mutations in representative yeast genes are mostly strongly nonneutral

Xukang Shen[1], Siliang Song[2], Jianzhi Zhang[3]
[1]University of Michigan, Ann Arbor, [2]University of Michigan, Ann Arbor, MI, [3]University of Michigan

Speciation IV

Tue, June 28
4:15 PM - 5:30 PM
Room 19
Regular

Presentations

4:30 PM

4:44 PM

Isolating the mutational basis of reinforcement in Phlox

Austin G. Garner[1], Andrea E. Berardi[2], Robin Hopkins[3]
[1]Harvard University, Roslindale, Ma, [2]Harvard University, Cambridge, MA, [3]Harvard University, Boston, MA

4:45 PM

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Genomic signatures of reinforcement speciation in monkeys

Nick Bailey[1], Isaac Niedzwiecki[1], Cody Ruiz[2], Anthony Tosi[2], Laurie Stevison[3]
[1]Auburn University, Auburn, AL, [2]Kent State University, [3]Auburn University

5:00 PM

5:14 PM

Strength of postzygotic isolation within and between closely related taxa of monkeyflowers (Mimulus)

Irene Martinez[1], James M Sobel[2]
[1]Binghamton University, Binghamton, NY, [2]Binghamton University, Binghamton

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A Lethal Genetic Incompatibility between Naturally Hybridizing Species in Mitochondrial Complex I

Benjamin M. Moran[1], Cheyenne Payne[2], Daniel Powell[3], Erik N. Iverson[4], Shreya Banerjee[5], Angel Madero[5], Theresa Gunn[5], Quinn Langdon[1], Fang Liu[5], Rowan Matney[5], Kratika Singhal[5], Ryan Leib[5], Osvaldo Hernandez-Perez[6], Russell Corbett-Detig[7], Judith Frydman[5], Manfred Schartl[8], Justin C. Havird[9], Molly Schumer[1]
[1]Stanford University, Stanford, CA, [2]Stanford University, Stanford, California, [3]Stanford University, Belmont, Ca, [4]University of Texas at Austin, Austin, Texas, [5]Stanford University, [6]Centro de Investigaciones Científicas de las Huastecas "Aguazarca", A.C., [7]UC Santa Cruz, Santa Cruz, CA, [8]University of Würzburg, Wuerzburg, Bavaira, Germany, [9]University of Texas at Austin, Austin, TX

ASN Early Career Investigator Award Symposium

Tue, June 28
4:15 PM - 5:45 PM
Room 26BC
Symposium

Presentations

4:15 PM

4:44 PM

Mechanisms and consequences of repeated evolution

Rachel Moran, University of Chicago, Chicago

4:45 PM

5:14 PM

Assortative mating enhances post-zygotic barriers to gene flow via ancestry bundling.

Pavitra Muralidhar[1], Graham Coop[2], Carl Veller
[1]University of California, Davis, Davis, CA, [2]University of California - Davis, DAVIS, CA

5:15 PM

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Beta diversity in a nutshell: a hypervolume geometric approach to measure community composition variations

Chuliang Song[1], Muyang Lu[2], Joseph R. Bennett[3], Benjamin Gilbert[4], Marie-Josée Fortin[4], Andrew Gonzalez[5]

[1]McGill University and University of Toronto, MONTREAL, MA, [2]Yale University, [3]Carleton University, [4]University of Toronto, [5]McGill University

Super Social - Rock & Roll Hall of Fame

Tue, June 28
7:00 PM - 11:00 PM
Rock & Roll Hall of Fame
Social event

Description

Pre-registration (ticket purcase) required. No on-site ticket sales.

This is the final conference dinner and social event. It will be held at the Rock & Roll Hall of Fame a waterfront indoor/outdoor venue that is only 0.5 miles (~10 min. walk) from the Huntington Convention Center (Uber vouchers are available if you need mobility assistance - please contact us). One drink ticket and a selection of food items are included with the cost and cash bars will be on-site. We will have full access to all of the Rock Hall exhibits throughout the evening.