



Adaptation



On-demand

Presentations

Natural selection in the *Talaromyces marneffe* genome (1042)

Heidi Mavengere, University of North Carolina at Chapel Hill



Tell me who your predators are, and I will tell you how you look: Influence of predation on the morphology of *Anolis* lizards. (1290)

Sofía M. María Alfonso (she/her), Pontificia Universidad Javeriana; Julián Andrés Velasco, Centro de Ciencias de la Atmósfera, Universidad Nacional Autónoma de México; Carlos Guarnizo, Pontificia Universidad Javeriana; Rosario Castañeda, Universidad Icesi



Spatial sorting's effect on non-dispersal traits when those traits are linked to movement (1185)

Mattheau Steven Comerford, Rice University; Scott P. Carroll, University of California, Davis; Scott P. Egan, Rice University



Estimating the adaptational lag from quadratic regression: scope and limits (597)

Michael Kopp, Aix-Marseille University



[How do monkeyflowers adapt and acclimate to drought? Examining evolution and plasticity in drought escape and avoidance phenotypes. \(649\)](#)

Joshua Andres FitzPatrick, University of Louisiana at Lafayette; Nic Kooyers, University of Louisiana, Lafayette

[The Topography of Diet: Using molaR to examine the relationship between turtle beak morphology and diet \(1272\)](#)

Brenlee Shipps, Idaho State University; Kenneth Angielczyk, Field Museum of Natural History; Brandon Peacock, Idaho Museum of Natural History, Idaho State University

[Maternal provisioning and fluctuating thermal regimes enhance immune response in a reptile with temperature-dependent sex determination \(113\)](#)

Jessica Alice Leivesley, University of Toronto; Njal Rollinson, University of Toronto

[Evaluating the Effects of Evolutionary Adaptations in Two-Component Response Systems \(Escherichia coli K12 MG1655\) \(1034\)](#)

Brittany Renee Sanders, North Carolina A&T University

[You can have your cake and eat it, too: adaptation to a novel host does not cause strong selection when returned to the original host \(1204\)](#)

Lisa M. Bono, Emory University; Victoria A. Sharp, Rutgers University; Natasia Jacko, University of Pennsylvania; Siobain Duffy, Rutgers University

[RNAseq of kleptocnid in aeolid nudibranchs \(449\)](#)

Rebecca D. Tarvin, PhD, University of California Berkeley; Noah Martin; Yin Chen Wan; Novia Kayfetz-Vuong, UC Berkeley

[Identifying causative traits of non-random gene flow: a field experiment with laboratory-raised stickleback fish \(272\)](#)

Nicole Nesvadba, University of Bern; Thor Veen, Quest University Canada; Keila Stark, University of British Columbia Canada; Mackenzie Kinney, University of British Columbia; Jeffrey Groh, B.Sc. Plant Biology, graduate student, UC Davis; Daniel Bolnick, University of Connecticut; Yoel Stuart, Loyola University Chicago; Catherine Peichel, University of Bern; Marius Roesti, University of Bern Switzerland

[Strain-specific effects of the herbicide RoundUp on diverse natural isolates of Saccharomyces cerevisiae \(729\)](#)

Savannah Kathrine Taggard, Oregon State University; Molly K. Burke, Oregon State University

Local adaptation of a native gastropod to biotic and abiotic gradients within a dynamic river ecosystem (1259)

Mathilde Jackie Anne Salamon, PhD student, Université du Québec à Montréal; Louis Astorg, Université du Québec à Montréal; Antoine Paccard, McGill University; Andrew Hendry, McGill University; Rowan Barrett, McGill University; Alison Derry, Université du Québec à Montréal



Resource availability alters fitness trade-offs: implications for evolution in stressful environments. (1258)

Rachel MacTavish, University of Georgia; Jill T. Anderson, Department of Genetics, University of Georgia, Athens



Deep-time convergent evolution in animal communication (590)

Terry J. Ord, UNSW Sydney; Danielle A. Klomp, UNSW Sydney; Thomas C. Summers, UNSW Sydney; Arvin Diesmos, National Museum of the Philippines; Norhayati Ahmad, Universiti Kebangsaan Malaysia; Indraneil Das, Universiti Malaysia Sarawak



Evidence of Natural Selection in the Mitochondrial Genome of the Brazilian Rocky Shore Marine Gastropod *Littoraria Flava* (1261)

Camilla A. A. Santos, Sao Paulo University; Sônia Cristina da Silva Andrade, Institute of Biosciences, University of São Paulo



Modelling the adaptive evolution of an intertidal snail in a multi-trait framework with divergent selection (1233)

Meaghan Theodore, University of Guelph



Genome-wide data reveal environmental adaptation in Common Dolphins (*Delphinus delphis*) from Southern Australia (1206)

Andrea Barcelo Celis, Flinders University, Cetacean Ecology, Behaviour and Evolution Laboratory (CEBEL); Jonathan B. Sandoval-Castillo, Flinders University; Chris Brauer, Flinders University; Luciano B. Beheregaray, Flinders University; Luciana Möller, Flinders University, leader of Cetacean Ecology, Behaviour and Evolution (CEBEL) Laboratory



How local is local? Investigating the spatial scale of climate adaptation in the forest tree red spruce (*Picea rubens* Sarg.) (1020)

Brittany Verrico, University of Vermont; John Butnor, US Forest Service; Stephen Keller, University of Vermont



Phylogeographic and phenotypic outcomes of brown anole colonization across the Caribbean (1190)

R. Graham Reynolds, PhD, Associate Professor, University of North Carolina Asheville



Local adaptaton to environmental variability through the evolution of gene regulation in a heterogeneous seascape (134)

Csenge Petak, University of Vermont; Melissa Pespeni, University of Vermont; Reid Brennan (he/him), University of Vermont



A look into the genetic architecture of pigmentation pattern in Anole lizards (1251)

Ashmika Behere, B.S. Ecology, Evolution, and Organismal Biology , University of Kansas; Richard E. Glor, University of Kansas; Pietro Longo Hollanda de Mello, University of Kansas



Adaptation and niche divergence along a precipitation gradient in Phlox wildflowers (530)

Charles O. Hale, Harvard University; Antonio Serrato-Capuchina, Harvard University; James Caven, Harvard University; Robin Hopkins, Harvard University



Allometry



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Predicting changes in shape in response to body size reductions in migratory birds (574)

Tiffany Dias, University of Michigan; Marketa Zimova, University of Michigan; Brian Weeks, University of Michigan



Allometry in respiration rates of colonial rotifers (1219)

Patrick Brown, University of Texas at El Paso; Abigail O'hara, University of Texas at El Paso; Jaime Gutierrez, University of Texas at El Paso; Elizabeth J. Walsh, University of Texas El Paso



Identifying shifts in the evolutionary allometry of limb length across lizards (324)

Bailey K. Howell, Virginia Tech; Josef C. Uyeda, Virginia Tech; Travis Hagey, Mississippi University for Women



Behavior



On-demand

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Sarah N. Ruckman, Florida State University; Eve Humphrey, Lincoln University; Kimberly A. Hughes, Florida State University

[Tool-use in assassin bugs and the origin of novel phenotypes \(1215\)](#) >

Fernando G. Soley, PhD, PhD, Organization for Tropical Studies & Escuela de Biología, Universidad de Costa Rica; Mariella E. Herberstein, Macquarie University

[Variation in traits related to reproduction in new strains of wild-derived mice \(535\)](#) >

Caroline A. Reverendo, Monmouth University; Tiffany Longo Claire Longo, Monmouth University; Megan Phifer-Rixey, Monmouth

[Vibrations are modulated in presence of reproductives in a subterranean termite species \(1237\)](#) >

Louis PAILLER, Institut de Recherche sur La Biologie de l'Insecte - UMR 7261; Samuel Desvignes, Institut de Recherche sur La Biologie de l'Insecte - UMR 7261; Fanny Ruhland, Institut de Recherche sur La Biologie de l'Insecte - UMR 7261; Miguel Pineirua; Christophe Lucas, Institut de Recherche sur La Biologie de l'Insecte - UMR 7261

[Body mass dynamics of migratory nightjars are explained by individual turnover and fueling \(319\)](#) >

Paula Hidalgo-Rodríguez, University of Pablo de Olavide; Pedro Sáez-Gómez, University of Huelva; Julio Blas, Estación Biológica de Doñana - CSIC; Anders Hedenström, Lund University; Pim Edelaar, University Pablo de Olavide; Carlos Camacho, Instituto Pirenaico de Ecología - CSIC

[Es la coloración melánica un mecanismo que reduce los cotos de la termorregulación en lagartijas Patagónicas del grupo *L. fitzingerii*? \(1246\)](#) >

Paula Escudero, IPEEC-CONICET; Luciano Javier Avila, Instituto Patagónico para el Estudio de Ecosistemas Continentales (IPEEC) CCT-CONICET CENPAT Consejo Nacional de Investigaciones Científicas y Técnicas

Aggression bias towards homotypics: implications for coexistence and elevated species richness in Lake Tanganyikan cichlids (406)

Shadow Abbott, Univeristy of Wyoming; Jimena Golcher-Benavides, University of Wyoming; Catherine E. Wagner, University of Wyoming



Investigating the evolution of gregariousness in butterfly larvae (1211)

Callum McLellan, University of Bristol



Worthless gifts, environmental and sexual selection pressures modulates mating tactics in a Neotropical spider (1250)

Camila Pavón-Peláez, Facultad de Ciencias, UdelaR; Valentina Franco-Treccu, Facultad de Ciencias, UdelaR; Maria J Albo, Facultad de Ciencias, UdelaR



Biogeography



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A retrospective view of post-Anthropocene biogeography (663)

George Taylor, University at Fomalhaut



Distribution of Natural Resource in Protected area (Banjosa Game reserve) of Azad Kashmir (Pakistan): conservation, Management and challenges (1186)

abul hassan hassan faiz, women university of Azad Kashmir



Why are arboreal lizards a tropical phenomenon? (1242)

Sarah Kathryn Swiston (She/Her), Washington University in Saint Louis; James T. Stroud, Washington University in St. Louis; Aryeh Miller, Washington University in St. Louis



Diversification of genus Dolichothele (Araneae:Theraphosidae) along Brazilian Dry Diagonal (1195)

Wendy Yohana Arroyo Pérez, UNIVERSITY OF CAMPINAS; Vera Nisaka Solferini, Inst. Biology, University of Campinas; Millke Jasmine Arminini Morales, Inst. Biology, University of Campinas; Elen Arroyo Peres, University of Sao Paulo



A look back in time: Diversification of the “Rosinweeds” (Genus: *Silphium*; Family: Asteraceae) (1292)

Tilottama Roy, Missouri Western State University



Ecological attributes predict divergence among bird populations of geographically isolated South American forests (1181)

Priscila Luszczak, Museo Argentino Ciencias Naturales; Dario A. Lijtmaer, Museo Argentino de Ciencias Naturales “Bernardino Rivadavia” (MACN–CONICET); Pablo L. Tubaro, Museo Argentino de Ciencias Naturales “Bernardino Rivadavia” (MACN–CONICET); Pablo D. Lavinia, Universidad Nacional de Río Negro. CIT Río Negro UNRN - CONICET, Sede Atlántica



Phylogenomic dating and Bayesian biogeography illuminate the history of eucerine bees (Hymenoptera: Apidae: Eucerinae) (1010)

Felipe Vieira Freitas, Faculdade de Filosofia Ciências e Letras - Universidade de São Paulo; Michael Branstetter, USDA; Daniel de Melo Casali, Universidade Federal de Minas Gerais; Antonio J.C. Aguiar, Universidade de Brasília; Terry Griswold, USDA; Eduardo A. B. Almeida, University of São Paulo



Divergence of tropical pitvipers promoted by independent colonization events of montane Andean habitats (1285)

David Salazar-Valenzuela (he/him), Universidad Tecnológica Indoamerica; Diana Mora-Obando; Ulrich Kuch; Omar Torres-Carvajal, Ph.D., Full Professor, Pontificia Universidad Católica del Ecuador; Jorge Valencia; Davinia Pla; Bruno Lomonte; Jimmy Alexander Guerrero-Vargas, Facultad de Ciencias Naturales, Exactas y de la Educación, Departamento de Biología, Centro de Investigaciones Biomédicas-Bioterio, Grupo de Investigaciones Herpetológicas y Toxinológicas, Universidad del Cauca, Popayán, Colombia.; Santiago Ayerbe; Juan J. Calvete; Harold Lisle Gibbs, Ohio State University



An integrative biogeographic-genomics framework reveals aridification-driven divergence in an Australian freshwater species complex (1223)

Emily Jane Booth, Flinders University; Luciano B. Beheregaray, Flinders University; Jonathan B. Sandoval-Castillo, Flinders University; Catherine Attard; Leanne Faulks; Dean Gilligan; Chris Brauer, Flinders University; Peter Unmack



Podocarpus in Hispaniola: a stepping-stone colonization story (1207)

Maria Esther Nieto Blazquez, Senckenberg Gesellschaft für Naturforschung; María P. Quiroga, Laboratorio Ecotono, INIBIOMA-COCINET, Argentina.; Andrea C. Premoli, Laboratorio Ecotono, INIBIOMA-COCINET, Argentina.; Julissa Roncal, Memorial University of Newfoundland



Molecular investigation of biogeographic origins among populations of *Mentzelia dispersa* (Loasaceae) from western North America. (419)

Brianna N. Douglas, Abilene Christian University; Katie Howe, Abilene Christian University; Kaylee Michael Dahl, Abilene Christian University; Joshua Michael Brokaw, Abilene Christian University



Bioinformatics



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Presentations

Comparative Transcriptomics of Anchialine Shrimp (1075)

Cody Lee Campbell, Texas A&M University - San Antonio; Elizabeth Borda, Texas A&M University San Antonio



Olfactory receptors in Testudines adapt to changes in habitat use (306)

Harley Miami Rae Bendzus-Mendoza, Eastern New Mexico University; Michael Vandewege, Eastern New Mexico University



Male-biased microRNA discovery in the pea aphid (1247)

Xiaomi Liu, University of Rochester; Erical L. Culbert, University of Rochester; Jenn Brisson, University of Rochester



Species tree accuracy impacts codivergence analysis (646)

Julia Zheng, Michigan State University



Distinct lineages present at a wood ant mating aggregation (610)

German Lagunas-Robles, University of California, Riverside; Zul Ikram Alam, UCR; Alan Brelsford, University of California, Riverside



Shorter, better, faster, stronger? Evaluating the performance of mini-DNA barcodes in Apidae bees identification (1214)

Leonardo Tresoldi Gonçalves (he/him), PhD student in Genetics and Molecular Biology, Federal University of Rio Grande do Sul (UFRGS), Brazil; Elaine Aparecida Franoso, Royal Botanic Gardens, Kew; Maríndia Deprá, Universidade Federal do Rio Grande do Sul (UFRGS)



Coevolution



On-demand

Presentations

[Running in circles: coevolution does not maintain genetic variation \(6\)](#)

Ailene MacPherson (She/Her), University of Toronto; Sarah (Sally) Otto, UBC



[Worldwide Population Structure of Human Head Lice: Insights from Whole Genome SNPs \(1155\)](#)

Niyomi House, University of Florida; Aida T. Miró-Herrans, University of Florida; Natacha V. Wirdemark, LusFri Inspagat AB, Stockholm, Sweden; Lajos Rozsa, MTA-ELTE-MTM Ecology Research Group, Budapest, Hungary; Muhammad Ashfaq, Centre for Biodiversity Genomics, Biodiversity Institute of Ontario, University of Guelph, Canada; Kosta Y. Mumcuoglu, Department of Microbiology and Molecular Genetics, Hebrew University of Jerusalem, Israel; Jan Stefka, Institute of Parasitology, Biology Centre CAS; Ariel Ceferino Toloza, National Scientific and Technical Research Council, Buenos Aires, Argentina; Heinz Mehlhorn, Heinrich-Heine-Universität Düsseldorf, Germany; Alejandra Perotti, School of Biological Science, University of Reading, UK; Henk Braig, School of Natural Sciences, Bangor University, Wales, UK; Didier Raoult, Faculty of Medicine, Aix-Marseille University, Marseille, France; Oleg Mediannikov, Institute of Research for Development, Marseille, France; Julie M. Allen, University of Nevada, Reno; Bret Boyd, Virginia Commonwealth University, Richmond, USA; David L. Reed, University of Florida



[Sex and mitonuclear adaptation in experimentally evolved *C. elegans* \(1262\)](#)

Zachary Dietz, Portland State University; Suzanne Estes, Portland State University



[A geographic mosaic of selection and the host races of *Eurosta solidaginis* on *Solidago altissima* \(397\)](#)

Timothy Paul Craig, Department of Biology University of Minnesota Duluth; Joanne K. Itami, Biology Department, University of Minnesota Duluth; Annelie Livingston-Anderson, Department of Biology University of Minnesota Duluth



Comparative biology



On-demand

Presentations

The role of developmental and functional modularity in the evolution of gecko hands (1188) >

Priscila Souza Rothier (she/her), Muséum National d'Histoire Naturelle; Monique Nouailhetas Simon, Oklahoma State University, OK, USA; Gabriel Marroig, Universidade de São Paulo; Anthony Herrel, Muséum national d'Histoire naturelle; Tiana Kohlsdorf, University of São Paulo

Investigation of evolutionary signals in an highly variable animal weapon: The caudal barb of stingrays (1077) >

Jules justin Chabain, UIUC; Matthew A. Kolmann, George Washington University; Adam Summers, University of Washington

Shifts in evolutionary rate and trait covariation across multiple evolutions of the trap-jaw mechanism in Strumigenys. (1013) >

Philip S. L. Anderson, University of Illinois, Urbana-Champaign

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On-demand

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Including invariant sites for population genetic inference with convolutional neural networks (1284) >

Kerry A. Cobb, Auburn University

A phylogeny of the Ixodes Genus (hard-bodied ticks) (780) >

Jewel Voyer, University of Rhode Island; Rachel S. Schwartz, University of Rhode Island

Mollusks provide an opportunity to observe shifting and novel arrangements of tandem repeated gene duplicates (1295) >

Jose Tomas Di Paola, University of Iowa

Conservation biology



On-demand

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Genetic diversity and evolutionary potential of rare plant species: *Mentzelia mollis* and *M. packardiae* (Loasaceae). (420)

Joshua Michael Brokaw, Abilene Christian University



Morphological effects and conservation implications of captivity in Mexican wolves (260)

Leila Siciliano-Martina, Texas State University; Jessica E. Light, Texas A&M University; David Greg Riley, Texas A&M University; A. Michelle Lawing, Texas A&M



Inconsistencies in measures of population differentiation: Insights into FST and coalescent analysis (1097)

Gina Lamka, Auburn University



Ongoing ecological and evolutionary consequences by the presence of transgenes in a wild cotton population (1178)

Valeria Vázquez-Barrios, Master of Science, Universidad Nacional Autónoma de México; Ana Laura Wegier Briuolo, Botanical Garden UNAM; Karina Boege, Instituto de Ecología, UNAM; Tania Gabriela Sosa Fuentes, UNAM, Jardín Botánico, Instituto de Biología; Patricia Rojas-Fernández, INECOL, Xalapa, México



Optimizing methods and sampling strategy for the detection of recent population declines with genomic data (1216)

Brendan N. Reid, Rutgers University; Malin Pinsky, Rutgers University



Genomic diversity of chiltepin (*Capsicum annum* var. *glabriusculum*) in Mexico (1018)

Gabriela Martínez-Andrade, UNAM; Alicia Mastretta-Yanes (she/her/ella), PhD., CONABIO; Lev Jardón-Barbolla, UNAM; Alejandra Moreno-Letelier, UNAM



Genome-wide diversity in the California condor tracks its prehistoric abundance and decline (1267) >

Jacqueline Robinson, University of California San Francisco; Rauri C. K. Bowie, Museum of Vertebrate Zoology, University of California Berkeley; Olga Dudchenko; Erez Lieberman Aiden; Sher L. Hendrickson, Shepherd University; Cynthia C. Steiner, San Diego Zoo Wildlife Alliance; Oliver Ryder, San Diego Zoo; David P. Mindell, Univ. California at Berkeley, MVZ; Jeffrey D. Wall, University of California San Francisco

Contemporary evolution



On-demand

Presentations

Phenotypic responses to climate change are significantly dampened in big-brained birds (1161) >

Justin Baldwin, Washington University in St. Louis; Joan Garcia-Porta, Washington University in St. Louis; Carlos Botero, Washington university in st louis

Eleven years of watching: long-term changes in color morph frequency in polymorphic eastern gray squirrel populations (1232) >

Richard Lehtinen, The College of Wooster

Demographic and evolutionary responses to invading predators by gastropod prey with low dispersal potential (105) >

Elizabeth G. Boulding, PhD UW Seattle, MSc UAlberta, BSc Honours UBC, Professor of Integrative Biology, University of Guelph

Resurrection ecology of the bluet (*Cyanus segetum*) reveals spatiotemporal differentiation (1200) >

Dominique Jeton Groffman, Université de Montpellier; Pierre-Olivier Cheptou, Centre d'Ecologie Fonctionnelle et Evolutive (CNRS)

Development



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Joel Atallah, University of New Orleans; Bronwyn Cass Miller, University of New Orleans; Madeline Chenevert, University of New Orleans; Anna Rusnak, University of New Orleans; Ahmad Karkoutli, University of New Orleans

How to build a bigger brain: variation in cell proliferation underpinning mushroom body expansion in *Heliconius* butterflies (982) >

Amaia Alcalde, University of Bristol

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Emilie Snell-Rood, University of Minnesota; Sean Ehlman, Humboldt University, Germany

Developmental trajectories of urogenadal genome-wide gene expression reveal retention of thermosensitivity despite evolution of turtle sex chromosomes 145 mya (1213) >

Thea Gessler (she/her), Iowa State University; Robert Literman, University of Rhode Island; zhiqiang wu, Colorado State University; Nicole Valenzuela, Iowa State University

Aggregative and developmental multicellularity in clonal *Chlamydomonas reinhardtii* (143) >

Eneji De Andre Onyi, University of Arizona; Dinah Davison (she/her), PhD candidate, University of Arizona; Richard Michod, University of Arizona

Defining the origin of the prenatal gut microbiome in *Mus* (1179) >

Sarah Gardner, University of California, Riverside; Polly Campbell, University of California Riverside

Disease

 On-demand

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Louis Bubrig, University of Virginia; Amanda Kyle Gibson, PhD, University of Virginia

[The free-rider problem and the evolution of immune suppression by parasites \(90\)](#) >

Daniel Bolnick, University of Connecticut

Diversification



On-demand

Presentations

[Exponential diversity-dependence in speciation and extinction rates emerges from competition in an individual-based model \(950\)](#) >

Theo Pannetier (he/him), University of Groningen / University of Stirling; Rampal Etienne, University of Groningen; Brad Duthie, University of Stirling

[The evolution of feeding strategies in danionin fishes \(1231\)](#) >

W. James J. Cooper, Western Washington University; Moira R. Conith, Western Washington University; Andrew J. Conith, University of Massachusetts, Amherst; Danielle Ringo, Western Washington University; Chloe Cason, Western Washington University; Sarah K. McMenamin, mcmenam@bc.edu

[Understanding global radiations: how did crows diversify around the world? \(562\)](#) >

Joan Garcia-Porta, Washington University in St Louis; Daniel Sol, CREAM; Matthew W. Pennell, University of British Columbia; Ferran Sayol, University College London; Antigoni Kaliontzopoulou, University of Barcelona; Carlos Botero, Washington university in st louis

Ecological genetics



On-demand

Presentations

Genomic and chemical evidence for local adaptation in resistance to different herbivores in *Datura stramonium* (1183)



Ivan Mijail De la Cruz Arguello, Institute of Ecology, National Autonomous University of Mexico; Juha Merilä, Ecological Genetics Research Unit, Organismal and Evolutionary Biology Research Program, Faculty of Biological and Environmental Sciences, University of Helsinki; Pedro L. Valverde, Department of Biology, Metropolitan Autonomous University Unit Iztapalapa; César Mateo Flores-Ortiz, UBIPRO, Facultad de Estudios Superiores Iztacala, UNAM; Juan Núñez-Farfán, Institute of Ecology, National Autonomous University of Mexico

Modelling Gene Drive Spillovers In Multi-population Networks (757)



Yonatan Chamudot, Hebrew University of Jerusalem

Identifying horizontal gene transfer in parasitic blowflies (1203)



Jennifer Kovacs, Agnes Scott College; Erica Harris, Agnes Scott College

Ecology



On-demand

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Matthew McCoy Waller, PhD Student, University of Utah; Tim Mousseau, University of South Carolina

High phenotypic similarity despite low climatic niche overlap between groups of population of *Epidendrum fulgens* Brongn. (Orchidaceae: Epidendroideae) (27)



Thales Moreira de Lima, University of Campinas; Fabio Pinheiro, Universidade Estadual de Campinas


No water, no eggs: insights from a warming outdoor mesocosm experiment (1291)



Rupesh Maurya, Ahmedabad University; Krishna Swamy, Ahmedabad University; Volker Loeschcke, Aarhus University; Subhash Rajpurohit, Ahmedabad University

Education



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Presentations

Essential Biodiversity, a new open educational resource (OER) for biodiversity courses (368)



Neil C. Aschliman, St. Ambrose University

PCI Evol Biol: a free alternative to evaluate, validate (and publish?) articles in evolutionary biology (1289)



Denis BOURGUET, INRAE; Benoit Facon, INRAE, UMR Peuplements Végétaux et Bio-agresseurs en Milieu Tropical, La Réunion, France; Thomas Guillemaud, Peer Community In; Marjolaine Hamelin, INRAE

Evolutionary ecology



 On-demand

Presentations

Evolution of local adaptation and dispersal under climate change: consequences for the dynamics of biodiversity (1175)



Natalie Katrina Lewis, University of Montpellier; Patrick Thompson, Fisheries and Oceans Canada; Emanuel A. Fronhofer, ISEM, Montpellier

Interpopulation variation in sexual dichromatism in the Neotropical grasshopper *Sphenarium purpurascens* (Orthoptera: Pyrgomorphidae). (177)

Raul Cueva del Castillo, PhD., Doctor in Ecology, Universidad Nacional Autónoma de México, Campus Iztacala; Miguel González Zertuche, Universidad Nacional Autónoma de México, Campus Iztacala; Víctor Hugo Ramírez-Delgado, Universidad Nacional Autónoma de México, Campus Iztacala

Population differentiation in antipredatory strategies along a Pleistocene range expansion route in the cryptic treefrog *Hyla sarda* (1208)

Roberta Bisconti, Università della Tuscia; Andrea Chiocchio, Università della Tuscia; Giada Spadavecchia, Università degli Studi della Tuscia; Daniele Canestrelli, Università degli Studi della Tuscia

Phenotypic underpinnings of a rampant mitochondrial introgression in the fire salamander *Salamandra salamandra* (1249)

Andrea Chiocchio, Università della Tuscia; Roberta Bisconti, Università della Tuscia; Erica de Rysky, Università della Tuscia; Claudio Carere, Università della Tuscia; Daniele Canestrelli, Università degli Studi della Tuscia

Inter-individual variation in antipredatory behaviour in the aposematic yellow-bellied toad *Bombina pachypus* (1260)

Giuseppe Martino, Università della Tuscia; Andrea Chiocchio, Università della Tuscia; Roberta Bisconti, Università della Tuscia; Claudio Carere, Università della Tuscia; Daniele Canestrelli, Università degli Studi della Tuscia

Artificial selection for predatory behavior is linked to dietary niche differentiation in an omnivore (1278)

Anni Marjukka Hämäläinen, PhD, Jagiellonian University; Mikko Kiljunen, University of Jyväskylä; Esa Koskela, University of Jyväskylä; Pawel Koteja, Jagiellonian University; Tapio Mappes, University of Jyväskylä; Milla Rajala, University of Jyväskylä; Katariina Tiainen, University of Jyväskylä; Phillip Watts, University of Jyväskylä

Soil and climate conditions promoted the evolution of *Epithelantha* in the Chihuahuan desert (1229)

Alejandra Moreno-Letelier, UNAM; Salvador Arias, Jardín Botánico del Instituto de Biología UNAM; David Aquino, Universidad Nacional Autónoma de México; Miguel A. González-Botello, Sociedad de Cactáceas y Suculentas del Estado de Nuevo León

Tale of whales: Divergence, isolation and whaling of fin whale populations in the North Pacific (1271)

Paulina Gabriell Nuñez Valencia, Center for Genomic Sciences / National Laboratory of Genomics for Biodiversity

Differential gene expression as an alternative mechanism of speciation - The June and Utah sucker (736)

Peter Searle, Brigham Young University; Mark Belk, Brigham Young University; Dennis K. Shiozawa, Brigham Young University; R. Paul Evans, Brigham Young University; Arminda Suli, Brigham Young University; Michael Stark, Brigham Young University

Nutritional complexity drives the evolution of antagonism in *Pseudomonas aeruginosa* (671)

Noah Simon Baruch Haupt (He/Him), University of Ottawa; Rees Kassen, University of Ottawa

Evaluation of the Influence of Climate on Species Richness Patterns in the Hyper-diverse Neotropical Snake Family Dipsadidae (1180)

Juan Ramirez Ramirez, San Diego State University/ University of California, Riverside; Tod W. Reeder, San Diego State University

Amazonian riverscape genomics: water color effects on the distribution and evolution of biodiversity (1236)

Abbie Hay, Flinders University; Jonathan B. Sandoval-Castillo, Flinders University; Georgina Schlub; Ning L. Chao; Luciano B. Beheregaray, Flinders University

The role of climate and soil in the geographic structuring of population sex ratios (100)

Tony Miller (he/him), Kent State University Department of Biological Sciences; Andrea Case, Kent State University

Sex Ratio variation and the distribution of sex determining haplotypes of octoploid *Fragaria* in the PNW (273)

Sebastian M. E. Mortimer, Oregon State University; Aaron Liston, Oregon State University

Subterranean biodiversity and foodweb complexity on the Island of Hawai'i: Insights into the evolution and diversification of cave-adapted arthropods (1162)

Becky Chong, University of Hawaii

Large chromosomal inversion creates two morphological and migratory types of coexisting common quails (1239)

Ines Sanchez-Donoso, Estación Biológica de Doñana (EBD-CSIC) - CIF: Q-2818002-D; Sara Ravagni, Estación Biológica de Doñana (EBD-CSIC) - CIF: Q-2818002-D; José Domingo Rodríguez-Teijeiro, Universitat de Barcelona; Yan Huang, Universitat Autònoma de Barcelona; Andros Maldonado-Linares, Universitat Autònoma de Barcelona; Manel Puigcerver, Universitat de Barcelona; Irene Jiménez-Blasco, Universitat de Barcelona; Pedro Andrade, CIBIO - Universidade do Porto; David Gonçalves, Universidade do Porto; Guillermo Friis, New York University - Abu Dhabi; Ignasi Roig, Universitat Autònoma de Barcelona; Carles Vilà, Estación Biológica de Doñana

Local adaptation within a panmictic population of tree squirrels across an ecological gradient (1090)

Rachael Marie Giglio, Ohio State University; Michael Nachman, UC Berkeley; Andreas Chavez, The Ohio State University

Local adaptation of *Henosepilachna niponica* (Coleoptera: Coccinellidae) to its host plants *Cirsium* spp. as allopatric development of ecological isolation - II. Adult preference (380)

Daiki Nakasone, Graduate School of Science and Engineering, Yamagata university; Kei W. Matsubayashi, Faculty of Arts and Science, Kyushu University; Jun Yokoyama, Faculty of Science, Yamagata University; Naoyuki Fujiyama (he/his), Faculty of Science, Yamagata University

Local adaptation of *Henosepilachna niponica* (Coleoptera: Coccinellidae) to its host plants *Cirsium* spp. as allopatric development of ecological isolation - I. Larval development (381)

Naoyuki Fujiyama (he/his), Faculty of Science, Yamagata University; Daiki Nakasone, Graduate School of Science and Engineering, Yamagata university; Kei W. Matsubayashi, Faculty of Arts and Science, Kyushu University; Jun Yokoyama, Faculty of Science, Yamagata University

The role of epigenetic mechanisms in the regulation of division of labor in the ant *Temnothorax longispinosus* (1238)

Marcel Adrian Caminer, Johannes Gutenberg University Mainz; Susanne Foitzik, Johannes Gutenberg University Mainz

The impact of mutation accumulation on *Daphnia pulex* assessed in two resource environments (802)

Matt Randall Bruner, University of South Carolina; Jeff Dudycha, Professor, University of South Carolina

Subtle but enough environmental variation affects phenotypic differentiation of shallow divergent treefrog lineages in Amazonia (1212)

Raíssa do Nascimento Rainha, PhD candidate, National Institute of Amazonian Research (INPA); Pablo Ariel Martinez, Universidade Federal de Sergipe; Leandro J.C.L. Moraes, Universidade de São Paulo (USP); Kathleen Castro, Universidade Federal de Sergipe; Alexandre Réjaud, Université Paul Sabatier; Antoine Fouquet, Universidade de São Paulo; Université Paul Sabatier; Rafael do Nascimento Leite, Instituto Nacional de Pesquisa da Amazônia; Miguel T. Rodrigues, Universidade de São Paulo; Fernanda P. Werneck, PhD Integrative Biology, National Institute of Amazonian Research-INPA

The role of the gut microbiome in the relationship between *Eumaeus childrenae* and the cycads (1170)

Maria Fernanda Contreras Gonzalez, CINVESTAV; Angélica Cibrián-Jaramillo, CINVESTAV

The evolutionary ecology of *Mimulus moschatus* (152)

Simon Innes, University of Louisiana, Lafayette

All brains bright and beautiful: how mimicry explains them all (800)

Benito Wainwright, University of Bristol; Stephen Montgomery, University of Bristol

Competition among juveniles hinders speciation despite ecological opportunity (1182)

Hanna ten ten Brink, Eawag

Evolutionary theory



On-demand

Presentations

Who is afraid of teleology? (870)

David Suarez Pascal, Universidad Nacional Autónoma de México

Variable coevolution of a woodpecker drum module within and between species (1202)

Nicole Moody, Brown University; Matthew J. Fuxjager, Brown University

[Transcriptome network analysis of genomic evolution in a seed beetle \(659\)](#) >

Brian Arthur Kissmer, Utah State University

[Vulnerability to Fishing and Life History Traits Correlate with the Load of Deleterious Mutations in Teleosts \(641\)](#) >

Jonathan Rolland, CNRS - University of Toulouse III; Dolph Schluter, University of British Columbia; Jonathan Romiguier, CNRS, UMR 5554 Institut des Sciences de l'Evolution, Université de Montpellier, France

Experimental evolution



On-demand

Presentations

[How do temperature niches evolve when temperatures change? A review. \(87\)](#) >

Sarthak Pravin Malusare, ISEM, University of Montpellier; Emanuel A. Fronhofer, ISEM, Montpellier

[Investigating streptococcus mutans genotypic and phenotypic adaptation to microgravity using experimental evolution. \(770\)](#) >

Mizpha C. Fernander, MS, North Carolina A&T State University; Paris Parsons, North Carolina A&T State University; Billal Khaled, North Carolina A&T State University; Amina Bradley, North Carolina A&T State University; Joseph L. Graves, Department of Biology, North Carolina Agricultural & Technical State University; Misty Thomas, Department of Biology, North Carolina Agricultural & Technical State University

[Evolutionary breeding as an option to recover diversity and local adaptation \(1091\)](#) >

Mónica Duhyadi Oliva García, Universidad Nacional Autónoma de México; Alicia Mastretta Yanes, CONABIO; Ana Wegier Brioulo, Jardín Botánico, Instituto de Biología. Universidad Nacional Autónoma de México.; Bulmaro Coutiño Estrada, Campo Experimental Centro de Chiapas-INIFAP; Daniel Piñero Dalmau, Instituto de Ecología, UNAM; Hugo Perales Rivera, El Colegio de la Frontera Sur, Departamento de Agricultura. Sociedad y Ambiente, Grupo de Agroecología.

Experimental evolution of the temperature niche (1146)

Iain R. Moodie (he/him), Institut des Sciences de l'Évolution de Montpellier (ISEM); Sarthak Pravin Malusare, ISEM, University of Montpellier; Marie-Ange Devillez; Claire Gougat-Barbera, University of Montpellier; Emanuel A. Fronhofer, ISEM, Montpellier



Assessing the Evolution of Streptococcus mutans Biofilms in Microgravity (1072)

Kelyah Spurgeon, North Carolina A&T State University; Misty Thomas, Department of Biology, North Carolina Agricultural & Technical State University; Mizpha C. Fernander, MS, North Carolina A&T State University



Evidence for geographical variation during evolution under dynamic thermal environments (1005)

Pedro Simões, Faculdade de Ciências, Universidade de Lisboa; Marta A. Santos, MSc, PhD, cE3c – Centre for Ecology, Evolution and Environmental Changes, Universidade de Lisboa, Portugal; Marta Antunes, Faculty of Sciences of the University of Lisbon; Ana S. Carromeu-Santos, CESAM – Centre for Environmental and Marine Studies, Universidade de Aveiro & Faculdade de Ciências, Universidade de Lisboa, Portugal.; Ana S. Quina, CESAM – Centre for Environmental and Marine Studies, Universidade de Aveiro & Faculdade de Ciências, Universidade de Lisboa, Portugal.; Margarida Matos, FCUL



Are you gonna eat that? Recurrent convergent diet shifts drove diversification of Dysdera spiders (Araneae: Dysderidae) in the Canary Islands (251)

Adrià Bellvert, University of Barcelona; Nuria Macías-Hernández, University of Laguna; Silvia Adrián, University of Barcelona; Cristina Arenas, University of Barcelona; Alba Enguídanos, University of Barcelona; Vanina Tonzo, Institute of evolutionary Biology; Antigoni Kaliantzopoulou, University of Barcelona; Søren Toft, Aarhus University; Miquel A. Arnedo, Universitat de Barcelona



Expression studies/transcriptomics



On-demand

Presentations

Exploring the relationship between gene expression and mutation rate in Arabidopsis thaliana (1248)

Mariele Elizabeth Lensink, UC Davis



[Temperature-dependent small RNA expression depends on wild genetic backgrounds of *Caenorhabditis briggsae* \(279\)](#)

Daniel Fusca, University of Toronto; Julie Claycomb, University of Toronto; Asher Cutter, University of Toronto



[Molecular and physiological responses of the pinfish to heat stress \(1228\)](#)

Katherine Mary Eaton, Department of Biological Sciences, Auburn University; Jim Stoeckel, Department of Fisheries, Aquaculture, and Aquatic Sciences, Auburn University; Adam Hallaj, Department of Biological Sciences, Auburn University; Moises A. Bernal, Auburn University



[Gene regulatory divergence in post zygotic reproductive isolation \(155\)](#)

Athmaja D. Viswanath, University of Toronto; Asher Cutter, University of Toronto



Gene flow



On-demand

Presentations

[Leveraging full genomic data to infer species trees from highly discordant signals \(477\)](#)

Rebecca Stubbs, University of Zurich; Elena Conti, University of Zurich



[Simulating micro-geographic differentiation to quantify the relative importance of local adaptation and within-generation selection \(980\)](#)

Avi M. Simon, Cornell University; Honggang Zhao, Cornell University; Matthew Hare, Cornell University



[Differential patterns of hybridization between avian color morphs at three contact zones \(1201\)](#)

Diego Ocampo, University of Miami; Kevin Winker, University of Alaska Museum of the North; Matthew J. Miller; Luis Sandoval, Universidad de Costa Rica; J. Albert C. Uy, Biology, University of Rochester



Genomics



On-demand

Presentations

[Vouchers are critical \(but often overlooked\) in studies of genome biology \(672\)](#) >

Janet C. Buckner, PhD, Postdoctoral Researcher, Louisiana State University; Robert Sanders, Louisiana State University; Brant Faircloth, Louisiana State University; Prosanta Chakrabarty, Ph.D., Professor/Curator of Fishes, Louisiana State University, Museum of Natural Science

[The evolutionary significance of loss-of-function alleles in Arabidopsis thaliana transcription factors \(1205\)](#) >

Kehan Zhao, University of California, Davis

[The genome of Phrynosoma platyrhinos \(304\)](#) >

Nazila Koochekian, Miami University; Alfredo Ascanio, Miami University; Keaka Farleigh, Miami University; Daren Card, PhD, NSF Postdoctoral Research Fellow in Biology, Harvard University; Drew R. Schield, University of Colorado; Todd Castoe, University of Texas, Arlington; Tereza Jezkova, Miami University

[The Chromosome-level genome assembly and high-density genetic map of Daphnia pulex reveals the sex-specific recombination landscape of a cyclical parthenogen \(151\)](#) >

Matthew J. Wersebe (he/him), University of Oklahoma; Lawrence J. Weider, University of Oklahoma; Punidan Jeyasingh, Oklahoma State University

[Investigating the Genomic Components Associated with the Evolution of Eusociality in the Order Hymenoptera \(1221\)](#) >

Maycon Douglas de Oliveira, Universidade Federal de Minas Gerais; José Eustáquio dos Santos Jr., Universidade Federal de Minas Gerais; Francisco Pereira Lobo, Universidade Federal de Minas Gerais

[Genome annotations and analyses of two recently diverged brittlebush species, Encelia farinosa and Encelia californica \(423\)](#) >

Sarah Marie Baty, Arizona State University; Sonal Singhal, CSU Dominguez Hills; Joseph Orton, Arizona State University; Shannon D. Fehlberg, Desert Botanical Garden; Adrian

Munguía-Vega, University of Arizona; Benjamin T. Wilder, University of Arizona; Kenro Kusumi, Arizona State University; Greer A. Dolby, Arizona State University

The ecology and evolution of color polymorphism in hawkfishes of the genus *Paracirrhites* (1196)



Samuel Greaves, Department of Biology, University of Central Florida; Darren Coker, King Abdullah University of Science and Technology; Fatih Sarigoel, Ludwig Maximilian University of Munich; Samuel Payet, James Cook University; Joseph D. DiBattista, Australian Museum Research Institute; Michael Berumen, King Abdullah University of Science and Technology; Michelle Gaither, University of Central Florida

Large supergene leads to two divergent phenotypes in common quails (1274)



Sara Ravagni, Estación Biológica de Doñana (EBD-CSIC) - CIF: Q-2818002-D; Ines Sanchez-Donoso, Estación Biológica de Doñana (EBD-CSIC) - CIF: Q-2818002-D; José Domingo Rodríguez-Teijeiro, Universitat de Barcelona; Matthew J. Christmas, Department of Medical Biochemistry and Microbiology, Uppsala University; Manel Puigcerver, Universitat de Barcelona; Pedro Andrade, CIBIO - Universidade do Porto; David Gonçalves, CIBIO, Centro de Investigação em Biodiversidade e Recursos Genéticos, InBIO Laboratório Associado, Universidade do Porto; Matthew T. Webster, Department of Medical Biochemistry and Microbiology, Uppsala University; Jennifer A. Leonard, Conservation and Evolutionary Genetics Group, Estación Biológica de Doñana (EBD-CSIC); Carles Vilà, Estación Biológica de Doñana

Parallel evolution of mutualism in cicada-infecting *Ophiocordyceps* (1222)



Jason Vailionis, University of Connecticut; Eric R. Gordon, University of Connecticut; Chris Simon, University of Connecticut

The genomic effects of migration in two North American passerine species (498)



Danika Schramm, University of Lethbridge; Theresa M. Burg, University of Lethbridge

Early Na/K-ATPase gene duplications may have helped gastropods adapt to freshwater (1270)



Kevin Horn, Southern Illinois University

Comparative Evolution of Retrotransposon Families in Cricetid Rodents (715)



David Kass, Eastern Michigan University

[Drivers of copy number variation in adaptive immune receptor V gene families of the great apes \(1136\)](#)

Hao Yiu, University of Maryland, College Park; Philip L. F. Johnson, University of Maryland



[Evolutionary History of the Piwi gene family \(307\)](#)

Javier Gutierrez, Eastern New Mexico University - Biology Department; David A. Ray, Texas Tech University - Department of Biological Sciences; Juan C. Opazo, Universidad Austral de Chile - Instituto de Ciencias Ambientales & Evolutivas Facultad de Ciencias; Federico G. Hoffman, Mississippi State University - Department of Biochemistry, Molecular Biology, Entomology, and Plant Pathology; Michael Vandewege, Eastern New Mexico University; Roy Neal Platt, Texas Biomedical Research Institute



[The evolution of pigment loss in troglomorphic fishes \(579\)](#)

Michael Everton, California State University Monterey Bay; Liz Alter, CSUMB



[Cryptic suppression of Sex Ratio system reveals intragenomic conflict in *Drosophila pseudoobscura* \(1117\)](#)

Graham Taggart, University of Utah; Spencer Arran Koury, PhD, Stowers Institute for Medical Research



[Genomic and acoustic differences separate Lilian's Meadowlark \(*Sturnella magna lilianae*\) from Eastern \(*S. magna*\) and Western \(*S. neglecta*\) meadowlarks \(1220\)](#)

Johanna K. Beam, University of Colorado Boulder; Erik Funk, University of Colorado Boulder; Scott Taylor (he/him), University of Colorado Boulder



[Landscape genomics and niche expansion of tetraploid *A. arenosa* \(1240\)](#)

Nelida Padilla Garcia, Prague Charles University; Gabriela Sramkova, Faculty of Science, Charles University; Filip Kolář; Karol Marhold, Prague Charles University



Geographic variation



On-demand

Info

Will you be presenting your talk in English or Spanish?:

English

Keyword 1:

Geographic variation

Keyword 2:

Diversification

Keyword 3:

Adaptation

Taxonomic Group:

Arthropods

Authors

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Inst. Biology, University of Campinas

Host-parasite



On-demand

Info

Will you be presenting your talk in English or Spanish?:

English

Keyword 1:

Host-parasite

Keyword 2:

Species interactions

Keyword 3:

Phylogeography

Taxonomic Group:

Invertebrates

Authors

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Gerardo Pérez-Ponce de León

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Hybridization



On-demand

Presentations

Patterns of variation in cricket song hint at a putative hybrid zone (1273)

Raunak Sen, Cornell University; KERRY SHAW, Cornell University



How Does Behavior Mediate Hybridization Dynamics in Systems Lacking Prezygotic Isolating Mechanisms? A Preliminary Report (450)

Dylan Maag, San Diego State University; Kathleen Ivey, University of Texas, Arlington; Zach Nikolakis, University of Texas, Arlington; Todd Castoe, University of Texas, Arlington; Rulon Clark, San Diego State University



Genomic evidence of hybridisation in Norfolk Island Zosterops (2)

Ashley Sendell-Price, University of Oxford



Using historical specimens to detect anthropogenic hybridization between two Amazona parrot sister-species introduced to Southern California (758)

John McCormack, Occidental College; James Maley; Rowdy Freeland; Devon DeRaad, PhD candidate, University of Kansas; Amanda Zellmer; Margaret Schedl; Brooke Durham; Whitney Tsai Nakashima, UCLA & Moore Laboratory of Zoology; Ryan Terrill; Siddharth Sannapareddy; Kimball Garrett



Reproductive barriers and fertility of two neotropical orchid species and their natural hybrid (46)

Beatriz Lucas Arida, Universidade Estadual de Campinas; Giovanni Scopece, Department of Biology, Complesso University Federico II of Naples, Universitario Monte Sant'Angelo, via Cinthia, 80126 Naples, Italy; Raquel Moura Machado, Universidade Estadual de Campinas; Ana Paula Moraes, Universidade Federal do ABC; Eliana Regina Forni-Martins, Universidade Estadual de Campinas; Fabio Pinheiro, Universidade Estadual de Campinas



Drivers and consequences of post-zygotic barriers raised by whole genome duplication (1276)

Susnata Salony, Charles University; Filip Kolář; Clément Lafon Placette, Department of Botany, Charles University



Multiple evolutionary origins of the recent allotetraploid *M. sookensis* (1160)

Makenzie R. Whitener (she/her), Ph.D Candidate, University of Georgia; Andrea Sweigart (she/her), University of Georgia



Investigating Factors Promoting Speciation Through Comparing Frog Hybrid Zones (1296)

Kylee Rayne Hillman, Florida State University



Inbreeding



On-demand

Info

Will you be presenting your talk in English or Spanish?:

English

Abstract:

The deleterious effects of mutational load during inbreeding have been of extreme importance to evolutionary biology, but it has been difficult to characterize the complex interactions between genetic constraints and selection that lead to fitness loss and recovery after inbreeding. Viruses, bacteria, and the selfing nematode *Caenorhabditis elegans* have been shown to be capable of rapid recovery from mutational load, however the potential for fitness recovery from fixation of segregating variation under inbreeding in outcrossing organisms is poorly understood. *C. remanei* is an outcrossing relative of *C. elegans* with high polymorphic variation and extreme inbreeding depression. Here we sought to characterize changes in patterns of genomic diversity in *C. remanei* after ~30 generations of inbreeding via brother-sister mating followed by several hundred generations of recovery at large population size. As expected, inbreeding led to a large decline in reproductive fitness, but unlike results from mutation accumulation experiments, recovery from inbreeding at large population sizes generated only very moderate recovery in fitness after 300 generations. At the genomic level, we found that while 65% of ancestral segregating SNPs were fixed in the inbred population, this was far fewer than expected under neutral processes. Under recovery, 36 SNPs across 30 genes involved in alimentary, muscular, nervous and reproductive systems changed reproducibly across all replicates, indicating that strong selection for fitness recovery does exist but is likely mutationally limited due to high genetic load. Our results indicate that recovery from inbreeding depression via new compensatory mutations is likely to be constrained by the large number of segregating deleterious variants present in natural populations, limiting the capacity for rapid evolutionary rescue of small populations.

Keyword 1:

Inbreeding

Keyword 2:

Experimental evolution

Keyword 3:

Bioinformatics

Taxonomic Group:

Nematodes

Authors

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University of Alabama

Janna Fierst

University of Alabama

Patrick Phillips

University of Oregon

Invasive/invasion



On-demand

Presentations

Evidence of selection during range expansion in the newly invasive grass *Brachypodium sylvaticum* (650)

Danielle Elaine Holt, Portland State; Mitch Cruzan He/Him, Portland State University; Elizabeth C. Scott (Hendrickson), Portland State University



Rapid evolution associated with invasiveness suggests an important role for selection. (954)

Adrian Christopher Brennan, Durham University



Changes in environmental predictors of flowering onset for Shepherd's Purse (824)

Maya Wilson Brown (she/her), Michigan State University



Extensive genetic diversity among invasive knotweeds (*Reynoutria*) revealed using plastid and nuclear sequence data (1235)



Nic Tippery, Ph.D., University of Wisconsin - Whitewater; Alyssa L. Olson, University of Wisconsin - Whitewater; Jenni L. Wendtlandt, University of Wisconsin - Whitewater

Nest structures present specific hydrocarbon profiles: an overview into the chemical ecology of the invasive Asian hornet *Vespa velutina nigrithorax* (766)



Mélissa Haouzi, Institut de Recherche sur la Biologie de l'Insecte UMR 7261 CNRS; Jérémy Gévar, Inrae; Alix Khalil; Eric Darrouzet, Institut de Recherche sur la Biologie de l'Insecte UMR 7261 CNRS

Life history



 On-demand

Presentations

Size increase with altitude in the Rufous-collared Sparrow (*Zonotrichia capensis*) (398)



Kyle McKay Davis, University of Utah

Planting long-lived trees in a warming climate: best provenance when climate changes across the life of organisms. (430)



Adèle Erlichman, Institute of Evolutionary Science of Montpellier; Ophelie Sarah Ronce, CNRS University of Montpellier; Linnea Sandell, Department of Zoology, University of British Columbia, Vancouver, British Columbia, Canada; Sarah (Sally) Otto, UBC

Connecting neuromodulation, brain development, and life history adaptation underlying ongoing ecological speciation in *Rhagoletis pomonella* (1269)



Hinal Kharva, PhD student, connecting neuromodulators, brain development and life history adaptation underlying ongoing ecological speciation in *Rhagoletis pomonella*, National Centre for Biological Sciences; Shannon B. Olsson, Naturalist-Inspired Chemical Ecology, National Centre for Biological Sciences, Bangalore, India; Dan Hahn, University of Florida

Macroevolution



On-demand

Presentations

Identifying genes underlying convergent shifts in dietary phenotypes (1277) >

Kathleen Foley, Lehigh University

Emerging Macroecological and Macroevolutionary Patterns of Plant Radiations on Oceanic Islands (476) >

Baptiste Brée, Université de Pau et des Pays de l'Adour (UPPA)

Global drivers of language endangerment and the future of linguistic diversity (63) >

Lindell Bromham, Australian National University

Relaxing diversification on islands (664) >

Joshua Lambert, University of Groningen; Rampal Etienne, University of Groningen; Luis Valente, Naturalis Biodiversity Center

Jordan's Rule, Pleomerism, and Variation of Vertebral Number in Fishes (583) >

Lisa Byrne, University of Toronto

Complex evolutionary dynamics of a "simple" structure: diversification of jaw shape in ground squirrels (1011) >

Donald Swiderski, University of Michigan Museum of Zoology; Miriam Leah Zelditch, University of Michigan

Adaptive divergence of trophic morphology within a granivore niche (1017) >

Miriam Leah Zelditch, University of Michigan; Donald Swiderski, University of Michigan Museum of Zoology

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



On-demand

Presentations

To self or not to self? Mating decisions in fungi with *Podospora anserina* (801) >

Ivain Martinossi, Uppsala University; Hanna Johannesson, Uppsala University; Sven Saupe

Evolution of complex reproductive investment strategies in response to aging under different intensities of sperm competition in *Drosophila melanogaster* (943) >

Abhishek Meena, University of Zurich; Manas Geeta Arun, IISER Mohali; Tejinder Singh Chechi, Indian Institute of Science Education and Research (IISER), Mohali; Neeraj Meena, Indian Institute of Science Education and Research (IISER), Mohali; Nagraj Guru Prasad, IISER Mohali; Zeeshan Ali Syed, Syracuse University; Komal Maggu, IISER Mohali; Cheshta Bhatia, IISER Mohali; Kimaya Nitin Tekade, IISER Mohali

Methods/techniques



On-demand

Presentations

Behind the scenes of phylogenetic reconstruction with SNaQ (217) >

Claudia Solis-Lemus, University of Wisconsin-Madison

Simulations show that anatomic partitioning of morphological data in a Bayesian framework has little impact on topological accuracy and precision (310) >

Daniel de Melo Casali, Universidade Federal de Minas Gerais; Felipe Vieira Freitas, Faculdade de Filosofia Ciências e Letras - Universidade de São Paulo; Fernando Araujo Perini, Universidade Federal de Minas Gerais

Mitochondrial



On-demand

Info

Will you be presenting your talk in English or Spanish?:

English

Abstract:

Use of the Oxford Nanopore Flongle in assembling the mitochondrial genome of a cryptobenthic species.

Keyword 1:

Mitochondrial

Keyword 2:

Genomics

Keyword 3:

Methods/techniques

Taxonomic Group:

Fishes

Author

Logan Forrest Turner

Auburn University

Modeling



On-demand

Presentations

[Habitat Loss in Presence of Multi-Scale Density Effects and Trait Variations: a Two Patch Model \(1245\)](#) >

Rishabh Bagawade (he/him), Bielefeld University; Koen van Benthem, Bielefeld University; Meike Wittmann, Bielefeld University

[Geonomics: forward-time, spatially explicit, and arbitrarily complex landscape genomic simulation in Python \(744\)](#) >

Drew Ellison Terasaki Hart, UC Berkeley; Ian Wang, University of California, Berkeley

[Climate change resilience of Native American Vaccinium species \(840\)](#) >

Kaede Hirabayashi, University of British Columbia Okanagan; Lauren A E Erland, University of British Columbia Okanagan; Susan J. Murch, University of British Columbia Okanagan

Molecular evolution



On-demand

Presentations

[Evolutionary processes that drive fur color in Chinchilla lanigera and other rodents \(1184\)](#) >

Chenelle Guevarra, California State University, Monterey Bay

[Fluctuating environments result in variable trajectories of copy number variant evolution \(1174\)](#) >

Farah Abdul-Rahman, New York University

[Functional characterization of sulfate transport proteins from selenium hyperaccumulator Stanleya pinnata \(1218\)](#) >

Richard Croxall Trippe III, Colorado State University; Elizabeth Pilon-Smits, Colorado State University

[Molecular evolution of genes related to antioxidant response in cetaceans. \(416\)](#) >

Giovanna Selleghin Veiga (she/her), University of Campinas - UNICAMP; Lucas Freitas, State University of Campinas; Érica Martinha Silva de Souza, UNICAMP; Felipe André Silva, State University of Campinas; Letícia Magpali, Universidade Estadual de Campinas (UNICAMP); Mariana Nery, PhD, Associate Professor, University of Campinas

Experimental and bioinformatic analyses of coevolution of primate seminal proteins and HIV/SIV (1197)



Emine Feride Kahveci, Duquesne University; Feng Hsiao, University of California; Thomas Mack, Ulm University; Ludger Ständker, Ulm University; Jan Münch, Ulm University; Nadia R. Roan, University of California; Michael Jensen-Seaman, Associate Professor, Duquesne University

Molecular early burst associated with the diversification of birds at the K-Pg boundary (1281)



Jacob S. Berv, Ph.D., Life Sciences Fellow, University of Michigan; Sonal Singhal, CSU Dominguez Hills; Daniel J. Field, University of Cambridge; Alex Dornburg, University of North Carolina, Charlotte; Nathanael Walker-Hale, University of Cambridge; Caroline Parins-Fukuchi, University of Michigan; Jeremy Ryan Shipley, Max-Planck-Institut für Verhaltensbiologie; Eliot Miller, Cornell Laboratory of Ornithology; Edward L. Braun, University of Florida; Richard Prum, Yale University; Matt Friedman, University of Michigan; Benjamin M. Winger, University of Michigan; Stephen A. Smith, University of Michigan

Accurate detection of interspecific positive selection using convolutional neural networks (1189)



Conor Walker, PhD Student, EMBL - European Bioinformatics Institute; Nicola De Maio, EMBL - European Bioinformatics Institute; Nick Goldman, EMBL - European Bioinformatics Institute

Positively selected genes associated with color development in poison frogs (Dendrobatidae) (548)



Andrew Otto Rubio, East Carolina University; Kyle Summers, PhD, Professor of Biology, Department of Biology, East Carolina University

The Presence of TRPC2 in Squamates and its Potential Role in Chemical Signaling (1227)



María Juana Juana Parada Sierra, The Presence of TRPC2 in Squamates and its Potential Role in Chemical Signaling, Universidad Pedagógica y Tecnológica de Colombia; Laurel Yohe, Yale University

Investigating Toxin Resistance in Deuterostome Sodium Channels (1230)



Kait Malewicz (she/her), Virginia Tech; Joel McGlothlin, Virginia Tech

No evidence for a role of histone acetylation in regulating reproductive activity in the clonal raider ant (1199)

Martin Coulm, Johannes Gutenberg-University Mainz; Romain Libbrecht, Dr., Johannes Gutenberg University of Mainz



Mutation



On-demand

Info

Will you be presenting your talk in English or Spanish?:

English

Keyword 1:

Mutation

Keyword 2:

Genomics

Keyword 3:

Molecular evolution

Taxonomic Group:

Fishes

Authors

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Paleobiology



On-demand

Info

Will you be presenting your talk in English or Spanish?:

English

Abstract:

Using the fossil plants and sediments available at Brymbo, a geochemical study has the potential to add important data to the palaeoecological record of the Carboniferous coal swamps. Carbon isotope comparisons can be made between the different plant groups to inform about their modes of photosynthesis and preferred environments. The opportunity of recording this data from *in situ* fossils also adds a spatial and temporal element unseen before in the literature and may lead to interesting evidence for climate change or changes in plant community through the succession. Initial carbon isotope data from the lycopod fossils suggests that they may have used photosynthetic pathways that were previously thought to have evolved much later in geological time. It has also been found that isotopic values from siderite concretions from the site can tell us about the fresh or marine water sources at the time.

Keyword 1:

Paleobiology

Keyword 2:

Methods/techniques

Keyword 3:

Paleontology

Taxonomic Group:

Plants

Author

Tom Hughes

Bangor University

Parallel/convergent evolution



On-demand

Presentations

[Limbs, shoulders, necks and trunks: a search for the snake neck-trunk boundary using a comparative study of legless lizard anatomy \(1122\)](#) >

Krista Koeller, MS Paleobiology from Virginia Tech, University of Florida

[Divers' dilemma: Investigating the how and why of repeated PON1 functional loss in semi-aquatic mammals \(1253\)](#) >

Wynn K. Meyer, Assistant Professor, Lehigh University; Jerrica Jamison, University of Toronto, Scarborough; Allie M. Graham, Oregon State University; Charlotte Cournoyer, University of Florida; Irene Kaplow, Carnegie Mellon University; Alexa Carolyn Michaels, Duquesne University; Jiaxuan Yang, Tsinghua University; Rebecca Richter, University of Washington; Clement Furlong, University of Washington; Nathan Clark, University of Pittsburgh

Phenotypic plasticity/GxE



On-demand

Presentations

[Ecological and evolutionary implications of genotypic variation in morphological plasticity for reef-building corals \(1286\)](#) >

Wyatt C. Million, University of Southern California; Maria C. Ruggeri, University of Southern California; Sibelle C. O'Donnell, University of Southern California; Cory J. Krediet, Eckerd College; Erich Bartels, Elizabeth Moore International Center for Coral Reef Research & Restoration, Mote Marine Lab; Carly D. Kenkel, University of Southern California

[The genetic architecture of morphological scaling relationships in *Drosophila melanogaster* \(1268\)](#) >

Austin Wilcox, University of Illinois at Chicago; Isabelle M. Veà (she/her), PhD, Visiting Research Assistant Professor, University of Illinois at Chicago; William Anthony Frankino, University of Houston; Alexander W. Shingleton, University of Illinois at Chicago

Mimulus laciniatus morphology and flowering phenology show a phenotypically plastic response to day length (1209)

Jill Syrotchen, Tulane University; Kathleen Ferris, Tulane University



Genetic basis of phenotypic plasticity in Tibetan Partridge (387)

Megan Brown, Kent State University; Sangeet Lamichhaney, Assistant Professor, Kent State University; Pengcheng Wang, Chinese Academy of Sciences; Nan Wang, Beijing Forestry University



Phylogenetic comparative methods



On-demand

Presentations

Correlated and decoupled evolution of adult and larval body size in frogs (1193)

Tung X. Phung, University of Arizona



Phylogenetics, biogeography, and life history evolution in the tropical treefrog genus *Dendropsophus* (340)

Courtney Witcher, Florida State University; Victor Dill-Orrico, Universidade Estadual de Santa Cruz; Santiago R. Ron, Pontificia Universidad Católica del Ecuador; Taran Grant, Universidad de São Paulo, Departamento de Zoologia; Julian Faivovich, Museo Argentino de Ciencias Naturales, Herpetología; Alan Lemmon, Florida State University, Department of Scientific Computing, Center for Anchored Phylogenomics; Emily C. Moriarty Lemmon, Florida State University, Department of Biological Science



A phylogenetic analysis of cell types (234)

Jasmine Lianne Mah (she/her), Yale University; Casey W. Dunn, Yale University, Department of Ecology & Evolutionary Biology



Protein domains associated with the increase of cortical neuronal count in Primates (1225)

Zandora Celeste Hastenreiter, Universidade Federal de Minas Gerais; Francisco Pereira Lobo, Universidade Federal de Minas Gerais



Revisiting the Phylogenetics of “Rosinweeds” (Genus-Silphium; Family: Asteraceae) (1293)

Jacob Loyd Lewis, Missouri Western State University



Parity mode is linked to color pattern evolution in a vertebrate (1264)

John Cavagnaro, Arizona State University; Alison Ossip-Drahos, Marian University; Emilia P. Martins, Arizona State University



Acoustic signal evolution in the speciose tropical frog genus Dendropsophus (544)

Emily Rachel Rothman, Florida State University; Courtney Witcher, Florida State University; Emily C. Moriarty Lemmon, Florida State University, Department of Biological Science



Phylogenetic methods development



On-demand

Presentations

What to do with thousands of genomes: a lesson from taxon sampling (895)

Fabia Ursula Ursula Battistuzzi, Oakland University; Christopher L. E. Powell, Oakland University



Finite Mixture Models in Bayesian Phylogenetics (1257)

Killian Smith, Ludwig-Maximilians-University Munich Department of Earth and Environmental Sciences Palaeontology & Geobiology; Sebastian Höhna, LMU Munich



Phylogenetic theory



On-demand

Info

Will you be presenting your talk in English or Spanish?:

English

Keyword 1:

Phylogenetic theory

Keyword 2:

Phylogenetic methods development

Keyword 3:

Phylogenomics

Taxonomic Group:

No specific taxon

Author

Benjamin Steven Touns

PhD Candidate

Louisiana State University

Phylogenomics



On-demand

Presentations

[A new tool for measuring phylogenetic distance metrics for investigating genealogical variation \(543\)](#)

Scarlet Au, Columbia University; Patrick McKenzie, Columbia University; Deren A. R. Eaton, Columbia University



[Using genomics to untangle marine mimicry systems \(642\)](#)

Kara Layton, University of Aberdeen



[The evolution of ectomycorrhizal symbiosis in Inocybaceae \(427\)](#)

Faheema Kalsoom Khan, Uppsala University



Genome diversity and divergence in speciation of cyanobacterium *Laspinema thermale* (511)

Aleksandar Stanojković, Palacký University Olomouc



Concordance and discordance in the phylogenomics of the wrasses and parrotfishes (Family Labridae) (1226)

Lily Hughes, University of Chicago; Mark W. Westneat, University of Chicago



Understanding the systematics and evolutionary history of the genus *Packera* (Asteraceae: Senecioneae) (321)

Erika Moore (she/her), PhD Student, University of Memphis



A novel statistical method for assessing genotype-by-phenotype associations (964)

Rachel Cohen (she/her), Columbia University



Effects of GC nucleotide bias on New Zealand Cicada *Maoricicada* Phylogenomics (1314)

Alexandra Eva Porczak, University of Connecticut Ecology and Evolutionary Biology Simon Lab; Mark Stukel, University of Connecticut; Chris Simon, University of Connecticut



Phylogeography



On-demand

Presentations

Phylogatr: Tools for accessibility & repurposing of first generation phylogeographic data. (716)

Bryan Charles Carstens (he/him), The Ohio State University; Tara Anne Pelletier, Radford University



Historical population structure in African leopards (*Panthera pardus*) across sub-Saharan Africa (407)

Danielle Lema, Fordham University



One species or many? Testing species boundaries in a widespread anole (*Anolis distichus*) (678) >

Tanner Clarkson Myers (he/him), Auburn University; Pietro Longo Hollanda de Mello, University of Kansas; Paul M. Hime, University of Kansas Biodiversity Institute; Richard E. Glor, University of Kansas

Population genomics reveals two different histories for host-specific pine fungal endophytes on the Pacific Northwest (325) >

Rodolfo Salas-Lizana, PhD, Facultad de Ciencias, Universidad Nacional Autónoma de México; laura figueroa corona, Universidad Nacional Autonoma de Mexico; Ryoko Oono, Ecology, Evolution and Marine Biology, University of California-Santa Barbara

Pollination



On-demand

Info

Will you be presenting your talk in English or Spanish?:

English

Keyword 1:

Pollination

Keyword 2:

Evolutionary ecology

Keyword 3:

Floral

Taxonomic Group:

Plants

Authors

Grace Burgin

Harvard University

Heather Briggs
University of California, Irvine

Robin Hopkins
Harvard University

Population genetics: inference of selection



On-demand

Presentations

Surviving in an urban salt marsh: the effects of soil contamination on halophyte *Salicornia depressa* (1280) >

Alice Palmer, University of Massachusetts, Boston

Assessing signatures of selection on transposable elements by accounting for non-uniform transposition rate (738) >

Mitra Menon, UC Davis; Jeffrey Ross-Ibarra, UC Davis

Is there genome-wide balancing selection due to antagonistic pleiotropy between life-stages? (165) >

Meng Yuan, University of Toronto; Joanna Rifkin, University of Toronto; Spencer Charles Barrett, University of Toronto; Stephen I. Wright, Department of EEB, U. Toronto; John R. Stinchcombe, University of Toronto

Seaweed association favors the connectivity among amphipod populations from the Caribbean to Brazilian oceanic islands (278) >

Tammy Iwasa Arai, Universidade Estadual de Campinas; Fosca Pedini Pereira Leite, Universidade Estadual de Campinas; Silvana Gomes Leite Siqueira, Universidade Estadual de Campinas; Sônia Cristina da Silva Andrade, Institute of Biosciences, University of São Paulo

Climate change and evolutionary history shape population structure in three coastal songbirds (442) >

Jonathan Clark, University of New Hampshire

Persistence of genetic diversity in a partially-clonal terrestrial orchid (1210)

Roberta Gargiulo, Royal Botanic Gardens, Kew



Genomic diversity of the Luiz de Queiroz College of Agriculture germplasm bank of Brazilian manioc (Manihot esculenta Crantz) landraces (294)

Alessandro Alves-Pereira, State University of Campinas; Maria Imaculada Zucchi, São Paulo Agency for Agribusiness Technology (APTA); Charles R. Clement, National Research Institute for Amazonia (INPA); Elizabeth Ann Veasey, Luiz de Queiroz College of Agriculture, University of São Paulo (ESALQ/USP); José Baldin Pinheiro, Luiz de Queiroz College of Agriculture, University of São Paulo (ESALQ/USP); Anete Pereira Souza, State University of Campinas



Small-scale population structure of a hatchery-influenced population of Coho salmon in British Columbia, Canada (767)

James K. Bull, University of Calgary; Matthew P. Josephson, University of Calgary; Sean M. Rogers, University of Calgary



Defining dispersal neighborhoods in *Mytilus californianus* using coalescent methods. (1282)

Vanessa Garcia, California State University Monterey Bay; Eric Darvish Crandall, Pennsylvania State University; Nathaniel K. Jue, California State University, Monterey Bay



Estimating dispersal and locating genetic ancestors with genome-wide genealogies (317)

Matthew Osmond (he/him), University of Toronto; Graham Coop, University of California - Davis



Diffusion Bayesian Skyline Plot (DBSP): A novel approach for inferring demographic histories from SNP data (654)

Ronja Jessica Billenstein, Ludwig-Maximilians-Universität München, Department of Earth and Environmental Sciences, Palaeontology & Geobiology; Sebastian Höhna, LMU Munich



The effect of selection and genome heterogeneity on the estimation of historical effective population size (32)

Irene Novo, Universidade de Vigo; Enrique Santiago, Universidad de Oviedo; Armando Caballero, Universidade de Vigo



Predation





On-demand

Info

Will you be presenting your talk in English or Spanish?:

English

Abstract:

Animals that use venom to feed on a wide diversity of prey may evolve a complex mixture of toxins to target a variety of physiological processes and prey-defense mechanisms. *Blarina brevicauda*, the northern short-tailed shrew, is one of few venomous mammals, and is also known to eat evolutionarily divergent prey. Despite their complex diet, earlier proteomic and transcriptomic studies of this shrew's venom have only identified two venom proteins. Here, we investigated with comprehensive molecular approaches whether *B. brevicauda* venom is more complex than previously understood. We generated *de novo* assemblies of a *B. brevicauda* genome and submaxillary-gland transcriptome, as well as sequenced the salivary proteome. Our findings show that *B. brevicauda*'s venom composition is simple relative to their broad diet and is likely limited to seven proteins from six gene families. Additionally, we explored expression levels and rate of evolution of these venom genes and the origins of key duplications that led to toxin neofunctionalization. We also found three proteins that may be involved in endogenous self-defense. The possible synergism of the toxins suggests that vertebrate prey may be the main target of the venom. Further functional assays for all venom proteins on both vertebrate and invertebrate prey would provide further insight into the ecological relevance of venom in this species.

Keyword 1:

Predation

Keyword 2:

Genomics

Keyword 3:

Molecular evolution

Taxonomic Group:

Mammals

Authors

Andreas Chavez

The Ohio State University

Zachery Hanf
Daicel Arbor Biosciences

Quantitative genetics



On-demand

Presentations

[The evolution of G over 33 million years \(624\)](#)

Kevin Doheny, EEB UofT; Jacqueline Sztepanacz, University of Toronto



[Comparative QTL Mapping of Predation Resistance in a Microbial Predator-Prey System \(1294\)](#)

Thomas John Sauters, Duke University; Cullen Roth, Duke University; Paul Magwene, Duke University; Sheng Sun, Duke University



[Statistics of eigenvalue dispersion: quantifying integration in multivariate characters \(644\)](#)

Junya Watanabe, PhD, JSPS Research Fellow, University of Cambridge



[The role of genetic correlations and polygenicity in GxE interactions in a maize population \(1255\)](#)

Asher Hudson, UC Davis



Reproductive biology



On-demand

Presentations

[3-D examination of the genital morphology of male and female diamondback watersnake *Nerodia rhombifer* \(290\)](#)



Genesis Lara Granados, Mount Holyoke College; Patricia Brennan, Mount Holyoke College; Juliet Greenwood, Mount Holyoke College; Brandon Hedrick, LSUHSC School of Medicine; Stephen Secor, University of Alabama

The evolution of nutrient provisioning in rotifers and the exceptional case of Asplanchna (1156) >

Rick Hochberg, University of Massachusetts Lowell; Robert L. Wallace, Ripon College, WI; Elizabeth J. Walsh, University of Texas El Paso; Jonathon Mohl, University of Texas El Paso

Evolution of nuptial gifts and females' preferences in the spider genus Trechaleoides (Trechaleidae) (1252) >

Mauro Martínez Villar, Facultad de Ciencias; Mariana Germil, Facultad de Ciencias, UdelaR; Camila Pavón-Peláez, Facultad de Ciencias, UdelaR; Ivanna Haydee Tomasco, Facultad de Ciencias, Universidad de la República; Søren Toft, Aarhus University; Trine Bilde, Aarhus University; Maria J Albo, Facultad de Ciencias, UdelaR

Reproductive systems (e.g., selfing, asexuality, etc.)



📁 On-demand

Presentations

Evolution of selected lifestyle traits in gnesiotrochans rotifers (1198) >

Elizabeth J. Walsh, University of Texas El Paso; Javier Ordonez, The University of Texas at El Paso; Robert L. Wallace, Ripon College, WI; Rick Hochberg, University of Massachusetts Lowell

Differences in rates of self-fertilization with distinct life histories in the plant genus Calyptidium (1118) >

Anri Chomentowska, Yale University

A single QTL with large effect is associated with female functional virginity in an asexual parasitoid wasp (1224) >

Wen-Juan Ma, University of Kansas; Bart A. Pannebakker, Wageningen University and Research; Xuan Li, University of Groningen, The Netherlands; Elzemies Geuverink, University of Groningen, The Netherlands; Seyed Yahya Anvar, Leiden University Medical Center, The Netherlands; Paris Veltsos, Indiana University; Tanja Schwander, University of Lausanne,

Switzerland; Louis van de Zande, University of Groningen, The Netherlands; Leo W. Beukeboom, University of Groningen, The Netherlands


Revisiting self-incompatibility in Phlox (1172)

Antonio Serrato-Capuchina, Harvard University; Robin Hopkins, Harvard University



Sensory systems



 On-demand

Info

Will you be presenting your talk in English or Spanish?:

English

Keyword 1:

Sensory systems

Keyword 2:

Phenotypic plasticity/GxE

Taxonomic Group:

Invertebrates

Authors

Brandon Williams

Florida Southern College

Chris Brandon (he/him)

Florida Southern College

Sex/recombination





On-demand

Presentations

Sex determination in deep-sea hydrothermal vent gastropods (938)

jade castel, Sorbonne University; Florence Pradillon, Ifremer; Valerie Cueff-Gauchard, Ifremer; Didier Jollivet, CNRS; Thomas Broquet, CNRS



The Dryas iulia genome supports multiple gains of a W chromosome from a B chromosome in butterflies (1265)

James Joseph Lewis, University of British Columbia



Evolution of the recombination landscape in Gough Island mice (1287)

Michael Kartje, University of Wisconsin - Madison; Bret Payseur, Ph.D., Professor, University of Wisconsin-Madison; Peicheng Jing, University of Wisconsin-Madison



Widespread cryptic variation in genetic architecture between the sexes (1187)

Wouter van der Bijl, University of British Columbia; Judith Mank, University of British Columbia



Birds vs. Mammals: Who actually recombines more? (1256)

Amy L. Dapper, PhD, Assistant Professor, Mississippi State University; Taylor Szasz, Mississippi State University; Federico Hoffmann, Mississippi State University



Variation in Intra-Chromosomal Patterns of Recombination Rate between Wild-Derived Populations of *Caenorhabditis elegans* (1266)

Dharani Matharage, Mississippi State University; Amy L. Dapper, PhD, Assistant Professor, Mississippi State University



Sexual conflict



On-demand

Presentations

Kissing and cuddling: Mate guarding behaviors in the nudibranch *Berghia stephanieae* (1234)

Cheyenne C. Tait, University of Massachusetts Amherst; Kristina S. Nedeljkovic, University of Massachusetts Amherst; Meagan N. Olson, University of Massachusetts Amherst; Paul S. Katz, University of Massachusetts Amherst



Dispersal alters the nature and scope of sexually antagonistic variation (1241)

Ewan Flinham, Imperial College London; Charles Mullon, University of Lausanne; Vincent Savolainen, Imperial College London



Sexual selection



On-demand

Presentations

Does sexual selection promote a trade-off between color and song investment in Fringillidae, a passerine family with complex signals? (1243)

Agustín Iván Casale, Museo Argentino de Ciencias Naturales in Buenos Aires, Argentina.



Reducing genome-wide mutation load with sexual selection: efficacy of selection versus drift in small populations (377)

Maximilian Tschol, University of Aberdeen; Greta Bocedi, University of Aberdeen, School of Biological Sciences; Jane M. Reid, Centre for Biodiversity Dynamics, Trondheim



Functional Evolution of Prostatic Acid Phosphatase in Hominids (158)

Brandon Lee Dimick, Duquesne University; Michael Jensen-Seaman, Associate Professor, Duquesne University; Amanda Colvin, Magee-Womens Research Institute



Speciation



On-demand

Presentations

Divergence in dimorphic visual signals influences mate-recognition in a Caribbean gecko (629)

Emily A. Powell, BS in Biology, PhD Candidate, University of Miami; J. Albert C. Uy, Biology, University of Rochester



Adaptive radiation and its relationship to ecological and non-ecological speciation (362)

jeffrey Lee feder, University of Notre Dame; Maary Glover; Meredith M. Doellman, University of Notre Dame; Glen R. Hood, Wayne State University; Daniel Bruzzese, University of Notre Dame; Juan Rull; Martin Aluja, Insituto de Ecología A. C., Xalapa, Mexico; Monte Mattsson; Cheyenne Tait, University of Massachusetts Amherst; Seth Van Dexter, M.S., University of Notre Dame



Genome-wide patterns of divergence in an avian species complex (395)

Kenneth Askelson, University of British Columbia; Garth M. Spellman, Denver Museum of Nature and Science; Darren Irwin, Ph.D., Professor, University of British Columbia



Interspecific genital shape variation in watersnakes of the Genus Nerodia and the potential for female-driven species divergence (293)

Juliet Greenwood, Mount Holyoke College; Patricia Brennan, Mount Holyoke College; Genesis Lara Granados, Mount Holyoke College; Brandon Hedrick, LSUHSC School of Medicine; Stephen Secor, University of Alabama; Brian Todd, Department of Wildlife, Fish, and Conservation Biology, University of California, Davis



Species delimitation



 On-demand

Presentations

Molecular investigation of species origins and delimitation in the *Mentzelia albicaulis* complex (Loasaceae). (418)

Megan R. Howard, Abilene Christian University; Katelynn E. Shupe, Abilene Christian University; Shelbi P. Stephenson, Abilene Christian University; Hongjian Chang, Abilene Christian University; Joshua Michael Brokaw, Abilene Christian University



Uncovering cryptic diversity in a cosmopolitan freshwater rotifer, *Testudinella patina* (1217)



Javier Ordonez, The University of Texas at El Paso; Elizabeth J. Walsh, University of Texas El Paso; Rick Hochberg, University of Massachusetts Lowell; Robert L. Wallace, Ripon College, WI

The Leipzig Barcode of Coleoptera (LBoC): unravelling the hidden beetle diversity in a german floodplain forest using a metabarcoding approach (614)



Lisa Hahn, Leipzig University; Sebastian Steinfartz, Leipzig University

Species interactions



On-demand

Presentations

Investigating the Relationship Between the Gut Microbiome and Host Thermal Tolerance in the Economically Important Red Abalone *Haliotis rufescens* (457)



Emalee Jean Hebern Ousley, California State University Sacramento

LANDRACE AND HYBRID MAIZE FUNGUS DIVERSITY ASSESSED THROUGH METABARCODING (1028)



Olivia Rojo Nava, INSTITUTE OF BIOLOGY UNAM; Camille Truong, INSTITUTE OF BIOLOGY UNAM; Eneas Aguirre Von Wobeser, CIAD; Ana Laura Wegier Briuolo, Botanical Garden UNAM; Rocío Jetzabel Alcántara-Hernández, Institute of Geology UNAM; Alicia Mastretta Yanes, CONABIO

Drought stress and plant genotype influences *Corythucha marmorata* herbivory on *Solidago altissima* by altering leaf nitrogen content (647)



Lilhac Medina, University of Minnesota

Modelling endosymbiont coinfections within insect hosts. (28)



Elisha Ho Freedman, The University of Queensland; Jan Engelstaedter, The University of Queensland

Switchgrass Genotype Influences Core Bacterial Families in the Rhizosphere (1315)

Jeremy Sutherland, Penn State University



NSF Proposal Writing Workshop Part 1

 Thu, June 17

 10:00 AM - 11:30 AM

 Workshops/Discussion Sessions

Author

Matthew D. Herron

Georgia Institute of Technology

NSF Proposal Writing Workshop Part 2

 Thu, June 17

 11:30 AM - 1:30 PM

 Workshops/Discussion Sessions

Author

Matthew D. Herron

Georgia Institute of Technology

Decolonizing Evolution: A conversation about how language barriers affect science and what to do about it

 Thu, June 17

 12:00 PM - 1:00 PM

 Workshops/Discussion Sessions

Author

Henry Arenas-Castro
University of Queensland

Fireside Chat: Finding a Postdoc

📅 Fri, June 18

🕒 7:00 AM - 8:00 AM

📁 Workshops/Discussion Sessions

Author

Kelsey Lyberger
UC Davis, Population Biology

Primer on Peer Review and Meet the Editors

📅 Fri, June 18

🕒 10:00 AM - 11:30 AM

📁 Workshops/Discussion Sessions

Author

Elizabeth Carlen
Fordham University

Science Communication Workshop

📅 Fri, June 18

🕒 10:00 AM - 1:00 PM

📁 Workshops/Discussion Sessions

Author

Butch Brodie
University of Virginia

Gould Prize Plenary

📅 Mon, June 21

🕒 9:30 AM - 10:30 AM

📁 LS Plenary

Session Chairs

Chair

Andrea Case, Kent State University

Mohamed Noor (he/him/his), Professor, Duke University

Info

Will you be presenting your talk in English or Spanish?:

English

Keyword 1:

Communication/outreach

Keyword 3:

Education

Taxonomic Group:

No specific taxon

Author

Leslie J. Rissler

National Science Foundation

Adaptation/Plants

📅 Mon, June 21

🕒 11:00 AM - 12:30 PM

📁 Faux-Live

Session Chairs

Chair

Diana Gamba, Pennsylvania State University

Presentations

2:00 PM

The gene regulatory landscape of inland annual and coastal perennial populations of the yellow monkeyflower, *Mimulus guttatus* (719)



2:10 PM

Leslie Marie Kollar, Michigan State University; David Bryant Lowry, Michigan State University; Chad Niederhuth, Michigan State University

2:10 PM

Context dependence of a genetic tradeoff (295)



2:20 PM

Christopher G. Oakley (he/him), Assistant Professor, Purdue University

2:20 PM

Genomics and physiology of local adaptation to elevation in *Arabidopsis thaliana* (405)



2:30 PM

Diana Gamba, Pennsylvania State University; Claire Lorts, Penn State University; Sahay Seema, University of Nebraska-Lincoln; Lua Lopez, California State San Bernardino; Tian Xia, Penn State University; Evelyn Kuleza, Penn State University; Katerzyna Glowaka, University of Nebraska-Lincoln; Jesse Lasky, Pennsylvania State University

2:30 PM

Contribution of genetics, environment, and local adaptation to floral color variation (522)



2:40 PM

Andrea E. Berardi, HUH Research Fellow, Harvard University

2:40 PM

Investigating the genetic basis of divergent drought response between sympatric *Mimulus* species (531)



2:50 PM

Samuel J. Mantel, University of Georgia; Andrea Sweigart (she/her), University of Georgia

2:50 PM

Root trait plasticity in response to contrasting phosphorus environments and its consequences for plant performance (338)



3:00 PM

Jianfei Shao, Department of Integrative Biology, University of Guelph (shaoj@uoguelph.ca); Hafiz Maherali, Department of Integrative Biology, University of Guelph

3:00 PM

Evidence of local adaptation of *Capsella bursa-pastoris* in New York City (161)



3:10 PM

Rebecca Panko, Michigan State University; Daniel E. Bunker, NJIT; Lucia Rodríguez-Freire, NJIT; Maedeh Soleimanifar, NJIT

Comparative Phylogeography

Mon, June 21

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Camila Duarte Ritter, Ph.D., Sister species, different histories: comparative phylogeography of two bird species associated with Amazonian open vegetation, University of Duisburg-Essen, Faculty of Biology

Presentations

2:00 PM

Assessing the importance of paleo-island collision on the shared phylogeographic and demographic histories of codistributed island-endemic lineages of snakes (392)



2:10 PM

Jeffrey Weinell, University of Kansas; Rafe Brown, Biodiversity Institute and Department of Ecology and Evolutionary Biology, University of Kansas

2:10 PM

Comparative phylogeography of three *Pachyrhynchus* weevils in the Taiwan-Luzon volcanic belt (665)



2:20 PM

Yan-Jhih Ye, Department of Entomology, National Taiwan University; Jen-Pan Huang, Academia Sinica; Hung Ngoc Nguyen, Department of Biological Science and Technology, Tokyo University of Science; Reagan Joseph Torayno Villanueva, College of Arts and Sciences Education, University of Mindanao; Ace Kevin S. Amarga,

Biodiversity Program, Taiwan International Graduate Program,
Biodiversity Research Center, Academia Sinica; Hui-Yun Tseng,
Department of Entomology, National Taiwan University

2:30 PM

2:40 PM

Does ecological specificity impact differentiation across a barrier? Insights from an avian pine-oak assemblage (538)

Jack Peter Hruska, PhD Student, Texas Tech University; Joseph Manthey, Texas Tech University



2:40 PM

2:50 PM

Community Biodiversity Genomics (125)

Isaac Overcast, Institut de Biologie de l'Ecole Normale Supérieure



2:50 PM

3:00 PM

Evolution of aquatic plants in rivers and wetlands of northern South America: what have we learned from getting our feet wet? (505)

Ana M. Bedoya, University of Washington; Adam Leache, University of Washington; Richard Olmstead, University of Washington



3:00 PM

3:10 PM

Sister species, different histories: comparative phylogeography of two bird species associated with Amazonian open vegetation (431)

Camila Duarte Ritter, Ph.D., Sister species, different histories: comparative phylogeography of two bird species associated with Amazonian open vegetation, University of Duisburg-Essen, Faculty of Biology; Laís Araújo Coelho, Department of Ecology, Evolution and Environmental Biology, Columbia University; João Capurro, Department of Biological Sciences, University of Illinois at Chicago; Sérgio Henrique Borges, Universidade Federal do Amazonas; Cintia Cornelius, Universidade Federal do Amazonas; Camila Cherem Ribas, Coordenação de Biodiversidade e Coleções Zoológicas, Instituto Nacional de Pesquisas da Amazônia



Convergent Evolution

Mon, June 21

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Andreas Haerer, University of California, San Diego

Presentations

2:00 PM

Testing the occurrence of convergence in the cranio-mandibular shape evolution of living carnivorans (271)



2:10 PM

Davide Tamagnini, University of Rome "La Sapienza"; Carlo Meloro, Liverpool John Moores University; Pasquale Raia, University of Naples "Federico II"; Luigi Maiorano, University of Rome "La Sapienza"

2:10 PM

Mammalian forelimb skeletons reveal increased potential for convergence among morphological specialists (1119)



2:20 PM

David Grossnickle, University of Washington; William Brightly, University of Washington; Chris Law, American Museum of Natural History / University of Washington; Spencer Pevsner, University of Bristol; Rachel Roston, University of Washington; Kathryn Stanchak, University of Washington; Lucas Weaver, University of Washington; P. David Polly, Indiana University

2:20 PM

Sensory-based quantification of male colour patterns in Trinidadian guppies reveals no support for parallel phenotypic evolution in multivariate trait space (250)



2:30 PM

Lengxob (Lenny) Yong, Ph.D., University of Exeter (Cornwall); Alastair J. Wilson, University of Exeter; Darren croft; Indar Ramnarine, University of West Indies; Jolyon Troscianko, University of Exeter

2:30 PM

Transient wing polymorphisms in aphid males (119)



2:40 PM

Omid Saleh Ziabari, University of Rochester; Binshuang Li; Nate B. Hardy, Auburn University; Jenn Brisson, University of Rochester

2:40 PM

Is parallel ecological divergence across vertebrate hosts reflected by parallel changes of their gut microbiota? (13)



2:50 PM

Andreas Haerer, University of California, San Diego; Diana J. Rennison, University of California, San Diego

2:50 PM

3:00 PM

Rampant tooth loss across 200 million years of frog evolution (519)

Daniel J. Paluh, PhD Candidate, Florida Museum of Natural History



3:00 PM

3:10 PM

Evolutionary determinism and convergence associated with water-column transitions in marine fishes (868)

Emanuel Duarte-Ribeiro, University of Oklahoma; Ricardo Betancur-R., University of Oklahoma; Melissa Rincon-Sandoval, University of Oklahoma



Disease/Host-Parasite Interactions

Mon, June 21

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Lauren Fuess (she/her), Assistant Professor, Texas State University

Presentations

2:00 PM

2:10 PM

National Ecological Observatory Network (NEON) specimens, samples, and data to enable evolutionary biology research (684)

Kelsey Yule, PhD, Ecology & Evolutionary Biology, University of Arizona, Arizona State University



2:10 PM

2:20 PM

Single cell transcriptomics reveal microevolution of immune cells across populations of three-spined stickleback (*Gasterosteus aculeatus*) (159)

Lauren Elizabeth Fuess (she/her), Assistant Professor, Texas State University; Daniel Bolnick, University of Connecticut



2:30 PM

2:40 PM

Batrachochytrium dendrobatidis at 5400masl: the genetics and dynamics of amphibian disease among melting glaciers (1015)

Emma Cathleen Steigerwald, The University of California, Berkeley; Cassandra Cathleen Gendron, The University of California, Berkeley; Rasmus Nielsen, University of California Berkeley & Natural History Museum of Denmark; Rosemary G. Gillespie, University of California Berkeley; Juan Carlos Chaparro, Museo de Biodiversidad del Peru; Allie Quinn Byrne, University of California, Berkeley; Erica Bree Rosenblum, UC Berkeley



2:40 PM

2:50 PM

Does the keystone species, Pisaster ochraceus, show genetic variation for reduced susceptibility to sea star wasting syndrome? (239)

Andrea R. Burton, Oregon State University; Sarah Gravem, Oregon State University; Felipe Barreto, Oregon State University



2:50 PM

3:00 PM

A review of studies about the Thymic Stromal Lymphopoyetin Protein (TSLP) and its possible adapted development in COVID-19 disease and allergic patterns as fitness motor (124)

Darien Andres Castro, PUCE University



3:00 PM

3:10 PM

An antigenic diversification threshold for infectious diseases by combining population genetic and epidemiological processes (977)

Qixin He, Assistant Professor, Purdue University; Mercedes Pascual, University of Chicago



3:10 PM

3:20 PM

Host–parasite dynamics set the ecological theatre for the evolution of state- and context-dependent dispersal in hosts (42)

Jhelam Nitin Deshpande, Indian Institute of Science Education and Research (IISER), Pune; Emanuel A. Fronhofer, ISEM, Montpellier; Oliver Kaltz, University of Montpellier, CNRS



Ecological Genetics

Mon, June 21

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Vitor Pavinato, The Ohio State University

Presentations

2:00 PM

Searching for aphid adaptation to a resistant plant with population genomic scans (768)



2:10 PM

Vitor Pavinato, The Ohio State University; Jacob Wenger, California State University, Department of Plant Science; Andrew P. Michel, The Ohio State University, Department of Entomology

2:10 PM

The genetic architecture of a female mimicry trait in male swordtail fish (213)



2:20 PM

Tristram Dodge, Stanford University; Molly Schumer, Stanford University

2:20 PM

The evolution of cytochrome P450s in bees (685)



2:30 PM

Kathy Darragh, UC Davis; David Nelson, University of Tennessee; Santiago Ramirez, University of California, Davis

2:30 PM

Dispersal limitations and long-term persistence drive differentiation from haplotypes to communities within a tropical sky-island: evidence from community metabarcoding (787)



2:40 PM

Nancy Gálvez-Reyes, Instituto de Ecología, UNAM; Paula Arribas, Island Ecology and Evolution Research Group, Instituto de Productos Naturales y Agrobiología (IPNA-CSIC).; Carmelo Andújar, Island Ecology and Evolution Research Group, Instituto de Productos Naturales y Agrobiología (IPNA-CSIC).; Brent Charles Emerson, Island Ecology and Evolution Research Group, IPNA-CSIC.; Daniel Piñero, IE-UNAM; Alicia Mastretta-Yanes (she/her/ella), PhD., CONABIO

2:40 PM

Rapid evolution alters metacommunity dynamics: Nectar yeast evolve to resist priority effects (1134)



2:50 PM

Callie R. Chappell, Stanford University; Mark Christopher Bitter, Stanford University; Manpreet Dhama, Manaaki Whenua Landcare Research; Sur Herrera Parades, Stanford University; Lucas Czech,

Carnegie Institution for Science; Tadashi Fukami, Stanford University

2:50 PM

3:00 PM

Temperate zone climate and population genetic structure: an extension of Janzen's 1967 hypothesis (117)

Van Wishingrad, University of Hawaii; Robert Thomson, University of Hawaii



3:00 PM

3:10 PM

Gene duplication and the evolution of aphid wing dimorphisms (106)

Jenn Brisson (she/her), University of Rochester; Fangzhou Liu, Cornell university; Omid Saleh Ziabari, University of Rochester; Lauren Gregory, University of Rochester



3:10 PM

3:20 PM

Variable population structure within multiple sympatric, hybridizing *Catostomus* fish species (739)

Elizabeth Mandeville, Assistant Professor, University of Guelph



Evolutionary Ecology/Theory

Mon, June 21

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Session Chairs

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Jeremy Van Cleve, Ph.D., Assistant Professor, University of Kentucky

Presentations

2:00 PM

2:10 PM

Fast environmental change and eco-evolutionary feedbacks can drive regime shifts in ecosystems before tipping points are crossed (199)

Catalina Chaparro, EAWAG



2:10 PM	Kin discrimination and demography modulate patterns of sexual conflict (352) Gonçalo Silva Faria, Institute for Advanced Study in Toulouse; Andy Gardner, University of St Andrews; Pau Carazo, Cavanilles Institute of Biodiversity and Evolutionary Biology	>
2:20 PM		
2:20 PM	Competition for locally and spatially varying resources under limited dispersal: Where kin, divergent and disruptive selection meet (472) Max Schmid, University of Lausanne; Laurent Lehmann, University of Lausanne; Claus Rueffler, Uppsala University; Charles Mullon, University of Lausanne	>
2:30 PM		
2:30 PM	Synonymous codon usage as a lens into the metabolic ecology of budding yeasts (337) Abigail Leavitt LaBella (She/Her), Vanderbilt University; Dana Opulente, Department of Biology, Villanova University; Chris Hittinger, University of Wisconsin-Madison; Antonis Rokas, Vanderbilt University	>
2:40 PM		
2:40 PM	Are ecological communities the seat of endosymbiont horizontal transfer and diversification? A case study with soil arthropod community. (708) Manisha Gupta, Indian Institute of Science Education and Research	>
2:50 PM		
2:50 PM	Individual variation in parental care drives divergence of sex roles (827) Xiaoyan Long, University of Groningen; Franz J. Weissing, University of Groningen	>
3:00 PM		
3:00 PM	Applying an age-structured model to a nematode with a female-biased sex ratio reveals dynamics of population growth. (1079) Solomon Sloat, New York University; Matthew Rockman, NYU Biology	>
3:10 PM		
3:10 PM	Eco-evolutionary dynamics in a model of resource exchange (1056) Jeremy Van Cleve, Ph.D., Assistant Professor, University of Kentucky; James O'Dwyer, University of Illinois Urbana-Champaign	>
3:20 PM		

Experimental Evolution

📅 Mon, June 21

🕒 11:00 AM - 12:30 PM

📁 Faux-Live

Session Chairs

Chair

Kyle Card, Cleveland Clinic

Presentations

2:00 PM

Eco-evo feedback of a key innovation - multicellularity (164)



2:10 PM

Pu WANG, University of Minnesota; Michael Travisano, University of Minnesota; William Driscoll, Penn State Harrisburg

2:10 PM

Reversion and compensatory evolution in phage-resistant bacteria (195)



2:20 PM

Reena Debray, University of California, Berkeley; Britt Koskella, University of California, Berkeley

2:20 PM

Cheap immunity: Fly populations evolved for improved immunity retain evolved features even after prolonged withdrawal of selection pressure (540)



2:30 PM

Aparajita Aparajita, IISER Mohali; Tejashwini Hegde, IISER Mohali; Aabeer Kumar Basu, IISER Mohali; Biswajit Shit, IISER Mohali; Nitin Bansal, IISER Mohali; Ankita Chauhan, IISER Mohali; Pareshnath Das, IISER Mohali; Nagraj Guru Prasad, IISER Mohali

2:40 PM

Evolutionary responses of nematode populations (Caenorhabditis elegans) exposed to ionising radiation (601)



2:50 PM

Loïc Quevarec, IRSN (French Institute of radioprotection and Nuclear Safety); Jean-Marc Bonzom, IRSN; Olivier Armant, IRSN; Christelle Adam-Guillermin, IRSN; Denis Réale, UQAM

2:50 PM

The multifaceted nature of antibiotic resistance evolution (1050)



3:00 PM

Kyle Card, Cleveland Clinic; Jeff Maltas, Cleveland Clinic; Jacob Scott, Cleveland Clinic

3:00 PM

Isolating a mechanism for microbial-host local adaptation (226)



3:10 PM

Jimiane Lee Ashe, CUNY Graduate Center & Brooklyn College; Tony Wilson, CUNY Graduate Center & Brooklyn College

3:10 PM

Selection on growth rate and local adaptation drive genomic adaptation during experimental range expansions in the protist *Tetrahymena thermophila* (11)



3:20 PM

Felix Moerman, University of Zürich; Eawag; Swiss Institute of Bioinformatics; ISEM Montpellier; Emanuel A. Fronhofer, ISEM, Montpellier; Florian Altermatt, University of Zürich; Eawag; Andreas Wagner, University of Zürich; Swiss Institute of Bioinformatics; Santa Fé Institute

Genomics/Ecology

Mon, June 21

11:00 AM - 12:30 PM

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Session Chairs

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Liz Alter, CSUMB

Presentations

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Fine-mapping of color pattern variation in a group of reef fishes provides insights into the genomic bases of phenotypic diversification (478)



2:10 PM

Floriane Coulmance, Leibniz Centre for Tropical Marine Research (ZMT); Oscar Puebla, Leibniz Centre for Tropical Marine Research (ZMT); Owen McMillan, Smithsonian Tropical Research Institute; Yann Le Poul; Derya Akkaynak

2:10 PM

2:20 PM

Chromosome size affects sequence divergence between species through the interplay of recombination and selection (39)

Anna Tigano, University of New Hampshire; Ruqayya Khan, Baylor College of Medicine, USA; Arina D. Omer, Baylor College of Medicine, USA; David Weisz, Baylor College of Medicine, USA; Olga Dudchenko; Asha Multani, M.D. Anderson Cancer Center; Sen Pathak, M.D. Anderson Cancer Center; Richard Behringer, M.D. Anderson Cancer Center; Erez Lieberman Aiden; Heidi Fisher, University of Maryland; Matthew MacManes, Molecular, Cellular, and Biomedical Sciences, University of New Hampshire



2:20 PM

2:30 PM

Ancestral variation, hybridization and modularity fuel a marine radiation (428)

Oscar Puebla, Leibniz Centre for Tropical Marine Research (ZMT); Kosmas Hench, Max Planck Institute of Animal Behavior; Martin Helmkampf, Leibniz Centre for Tropical Marine Research (ZMT); Owen McMillan, Smithsonian Tropical Research Institute



2:30 PM

2:40 PM

Evolution of an extreme phenotype in Lamprologus lethops, the only known blind cichlid (110)

Liz Alter, CSUMB



2:40 PM

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Chromosome-level reference genome assembly for the American pika (Ochotona princeps) (570)

Bryson Sjodin, University of British Columbia Okanagan; Kurt Galbreath; Hayley Lanier; Michael Russello, University of British Columbia Okanagan



2:50 PM

3:00 PM

Genetic mechanisms of colour divergence in common lizards (778)

Henrique G. Leitão, Department of Biology, University of Antwerp, Antwerp, Belgium; Hans Recknagel, Institute of Biodiversity, Animal Health & Comparative Medicine, University of Glasgow, Glasgow, UK; Kathryn R. Elmer, Institute of Biodiversity, Animal Health & Comparative Medicine, University of Glasgow, Glasgow, UK



3:00 PM

3:10 PM

Inversion Invasions: when the genetic basis of local adaptation is concentrated within inversions in the face of gene flow (144)

Sara Michele Schaal, Northeastern University Marine Science Center; Benjamin C. Haller, Cornell University; Jonathan Puritz, University of Rhode Island; Jonathan Grabowskii, Northeastern University Marine Science Center; Graham Sherwood, Gulf of Maine Research Institute; Kathleen E. Lotterhos, Northeastern University Marine Science Center

3:10 PM

3:20 PM

The First Draft Genome of a Brood Parasitic Bee, *Holcopasites calliopsidis* (822)

Trevor Sless, Cornell University; Bryan Danforth, Cornell University; Jeremy Searle, Cornell University



Hybridization/Reproductive Isolation

Mon, June 21

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Faux-Live

Session Chairs

Chair

Darren Irwin, Ph.D., Professor, University of British Columbia

Presentations

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Uncovering the effects of environment on mating behaviors (393)

Mysia L. Dye, Florida State University- Department of Biological Sciences; Emily C. Moriarty Lemmon, Florida State University, Department of Biological Science; Alan Lemmon, Florida State University, Department of Scientific Computing, Center for Anchored Phylogenomics



2:10 PM

2:20 PM

Diversification, introgression, and rampant cytonuclear discordance in rocky mountains chipmunks (*Sciuridae: Tamias*) (911)

David Sneddon (he/him), University of Idaho; Brice A. J. Sarver, University of Montana; Nathanael David Herrera, The University of Montana; John R. Demboski, Denver Museum of Nature and



Science; Jeffrey M. Good, Division of Biological Sciences, University of Montana; Jack Sullivan, University of Idaho

2:20 PM

2:30 PM

Predictability and parallelism in the evolution of recent hybrid genomes (785)

Quinn Langdon, Stanford University; Molly Schumer, Stanford University; Daniel Powell, Stanford University; Bernard Kim, Stanford University; Tristram Dodge, Stanford University; Shreya Banerjee, Stanford University; Benjamin Michael Moran, Stanford University



2:30 PM

2:40 PM

Abnormal placenta growth suggests disrupted imprinting in naturally hybridising mice (335)

Paigan Jade Aspinall, University of Bath; Leslie Turner, University of Bath



2:40 PM

2:50 PM

Against the odds: hybrid zones between mangrove killifish species with different mating systems (862)

Waldir M. Berbel-Filho, University of Oklahoma; Andrey Tatarenkov, University of California Irvine; George Pacheco, Technical University of Denmark; Helder M.V. Espírito-Santo, Universidade Federal do Pará; Mateus G. Lira, Universidade Federal do Rio Grande do Norte; Carlos Garcia de Leaniz, Swansea University; John C. Avise, University of California Irvine; Sergio Maia Queiroz de Lima, Laboratory of Evolutionary and Systematic Ichthyology, Department of Botany and Zoology, Center of Biosciences, Federal University of Rio Grande do Norte; Carlos Rodriguez Lopez, Environmental Epigenetics and Genetics Group, Department of Horticulture. College of Agriculture Food and Environment ,University of Kentucky; Sofia Consuegra, Swansea University



2:50 PM

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The evolutionary consequences of hybridisation for grey wolves and free-ranging domestic dogs (459)

Malgorzata Pilot, PhD, Museum and Institute of Zoology, Polish Academy of Sciences; Andre E. Moura, Museum and Institute of Zoology, Polish Academy of Sciences; Innokentiy M. Okhlopkov, Institute of Biological Problems of Cryolithozone, Siberian Branch of Russian Academy of Sciences; Nikolay V. Mamaev, Institute of Biological Problems of Cryolithozone, Siberian Branch of Russian Academy of Sciences; Ninna H. Manaseryan, Scientific Center of Zoology and Hydroecology, National Academy of Sciences of Armenia; Vahram Hayrapetyan, Green Artsakh Biosphere Complex SNCO, Artsakh, Armenia; Natia Kopaliani, Institute of Ecology, Ilia



State University, Tbilisi, Georgia; Elena Tsingarska, BALKANI Wildlife Society, Sofia, Bulgaria; Abdulaziz N. Alagaili, KSU Mammals Research Chair, Department of Zoology, King Saud University, Saudi Arabia; Osama B. Mohammed, KSU Mammals Research Chair, Department of Zoology, King Saud University, Saudi Arabia; Elaine A. Ostrander, Cancer Genetics and Comparative Genomics Branch, National Human Genome Research Institute, National Institutes of Health, USA; Wiesław Bogdanowicz, Museum and Institute of Zoology, Polish Academy of Sciences

3:00 PM

3:10 PM

Detecting disrupted gene expression across complex tissues in hybrid house mice (275)

Kelsie E. Hunnicutt (she/her), University of Denver; Jeffrey M. Good, Division of Biological Sciences, University of Montana; Erica Larson, University of Denver



3:10 PM

3:20 PM

Hybridization and the coexistence of species (1060)

Darren Irwin, Ph.D., Professor, University of British Columbia; Dolph Schluter, University of British Columbia



Hybridization/Speciation

Mon, June 21

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Benjamin Moran, Stanford University

Presentations

2:00 PM

2:10 PM

The genomic scale of introgressed ancestry (1109)

Jeffrey Groh, B.Sc. Plant Biology, graduate student, UC Davis; Graham Coop, University of California - Davis



2:10 PM

2:20 PM	Evaluating mitochondrial and nuclear genome introgression between two sister species of European leaf beetles (<i>Gonioctena quinquepunctata</i> and <i>G. intermedia</i>) inside a hybrid zone (553) Patrick Mardulyn, Université Libre de Bruxelles; Svitlana Lukicheva, Université libre de Bruxelles	>
2:20 PM 2:30 PM	Inferring nuclear introgression between two sister species of leaf beetles from whole genome sequence data (554) Svitlana Lukicheva, Université libre de Bruxelles; Patrick Mardulyn, Université Libre de Bruxelles	>
2:30 PM 2:40 PM	Dynamics of three-species hybridization among sapsuckers: a whirligig of introgression in eastern British Columbia (490) Libby Natola, PhD candidate, University of British Columbia; Darren Irwin, Ph.D., Professor, University of British Columbia	>
2:40 PM 2:50 PM	Variable hybridization between two cichlid fish species in recent secondary contact (299) Alexander Leo Lewanski, University of Wyoming; Jimena Golcher-Benavides, University of Wyoming; Catherine E. Wagner, University of Wyoming	>
2:50 PM 3:00 PM	A lethal hybrid incompatibility in <i>Xiphophorus</i> mitochondrial Complex I (243) Benjamin Michael Moran, Stanford University; Cheyenne Payne, Stanford University; Daniel Powell, Stanford University; Russell Corbett-Detig, UC Santa Cruz; Shreya Banerjee, Stanford University; Quinn Langdon, Stanford University; Erik Nelson Kortadler Iverson he/him/his, University of Texas at Austin; Justin Chase Havird, University of Texas at Austin; Manfred Schartl, University of Würzburg; Molly Schumer, Stanford University	>
3:00 PM 3:10 PM	Mate choice enhances post-zygotic barriers to gene flow (1030) Pavitra Muralidhar, University of California, Davis; Carl Veller, University of California, Davis; Graham Coop, University of California - Davis	>

3:10 PM

3:20 PM

A young adaptive radiation assembled from an ancient and disjunct landscape of genetic variation (367)

Emilie Richards, University of California Berkeley; Christopher Martin, University of California, Berkeley



Mitochondrial Evolution

Mon, June 21

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Ahmed Elbassiouny, University of Toronto

Presentations

2:00 PM

2:10 PM

A tale of two pumps: Molecular evolution of mitochondrial oxidative phosphorylation in electric fishes (967)

Ahmed A. Elbassiouny, University of Toronto; Nathan R. Lovejoy, University of Toronto Scarborough; Belinda Chang, University of Toronto



2:10 PM

2:20 PM

Extreme mitonuclear discordance in Baird's pocket gopher, *Geomys breviceps* (145)

Shady A. Kuster, Bachelor of Science in Biomedical Science, Tarleton State University; Russell Pfau, Tarleton State University; Sam R. Kieschnick, Texas Parks and Wildlife



2:20 PM

2:30 PM

The effects of mitochondria on sex-specific transcriptomic responses to aging in the copepod *Tigriopus californicus* (224)

Ning Li, University of Southern California; Ben A. Flanagan (he/him), University of Southern California; Suzanne Edmands, University of Southern California



2:30 PM

2:40 PM

Mitonuclear interactions reverse sex-specific longevity in a species without sex chromosomes (1008)

Ben A. Flanagan (he/him), University of Southern California; Ning Li, University of Southern California; Suzanne Edmands, University of Southern California



2:40 PM

2:50 PM

The missing mtDNA of Amoebohya sp. (Syndiniales, Alveolata) (516)

Ehsan Kayal, Ph.D., Evolutionary Biologist, Station Biologique de Roscoff; David Roy Smith, University of Western Ontario



2:50 PM

3:00 PM

Single-molecule sequencing of animal mitochondrial genomes reveals chloroplast-like architecture and repeat-mediated recombination (363)

Joel Sharbrough (he/him), New Mexico Institute of Mining and Technology; Laura Bankers, University of Colorado Denver; Emily Cook, New Mexico Tech; Peter Fields, University of Basel; Joseph Jalinsky, University of Iowa; Kyle E. McElroy, Iowa State University; Peter Wilton, University of California-Berkeley.; John Logsdon, University of Iowa; Maurine Neiman, University of Iowa; Jeffrey Boore, Providence St. Joseph Health & Institute for Systems Biology



3:00 PM

3:10 PM

Effects of mitochondrial haplotype on pre-copulatory reproductive success in male fruit flies (Drosophila melanogaster) (925)

Rebecca Koch, Monash University; Damian Dowling, Monash University



Mutualism

Mon, June 21

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Will Harcombe, University of Minnesota

Presentations

2:00 PM 2:10 PM	Musical calling as a signal of motive landing ability in diasporic tetrapods inhabiting upper trophic levels (229) David M. Schruth, UW	>
2:10 PM 2:20 PM	Thermal adaptation in a holobiont accompanied by phenotypic changes in an endosymbiont (709) Miranda Salsbery, University of Nebraska-Lincoln; John DeLong, University of Nebraska-Lincoln	>
2:20 PM 2:30 PM	Evaluating the role of coevolution in a horizontally transmitted mutualism (389) Kayla S. Stoy, Emory University	>
2:40 PM 2:50 PM	Mutualism alters the rate and mechanisms of adaptation (1082) Will Harcombe, University of Minnesota	>
2:50 PM 3:00 PM	The Evolution of Partner Specificity in Mutualisms (515) Christopher Ian Carlson (he/him), University of Pennsylvania; Erol Akcay, University of Pennsylvania; Bryce Morsky, University of Pennsylvania	>
3:00 PM 3:10 PM	Cryptic community structure and within-host ecology of heritable pea aphid microbiomes (829) Linyao Peng, Drexel University; Jessica Hoban, Drexel University; Andrew Smith, Drexel University; Jonah Joffe, Drexel University; Kerry Oliver, University of Georgia; Jacob Russell, Drexel University; Danielle Rock	>
3:10 PM 3:20 PM	Diverse evolutionary histories in the diverse yet conserved turtle ant gut microbiome (542) Christian Cabuslay, Drexel University; Yi Hu, Drexel University; John Wertz, Calvin College; Shreyansh Pradhan, Drexel University; Jacob Russell, Drexel University	>

Phylogenomics/Adaptation

📅 Mon, June 21

🕒 11:00 AM - 12:30 PM

📁 Faux-Live

Session Chairs

Chair

Gregory Owens, University of Victoria

Presentations

2:00 PM

Phylogenetics and Phylogeography of the Indo-Pacific coral family Agariciidae (115)

2:10 PM

Claire Lewis (she/her), University of Hawaii at Manoa; Peter Marko, University of Hawai'i at Mānoa



2:10 PM

The evolutionary consequences of rapid range expansion for a crop-specialized pollinator (1108)

2:20 PM

Nathaniel Pope, Pennsylvania State University; Margarita M. Lopez-Urbe, Penn State University



2:20 PM

Unraveling the genomic basis of adaptation to life in caves in subterranean beetles (813)

2:30 PM

Pau Balart-Garcia, Institute of Evolutionary Biology (CSIC - Universitat Pompeu Fabra); Alexandra Cieslak, Institute of Evolutionary Biology (CSIC - Universitat Pompeu Fabra); Paula Escuer, University of Barcelona; Julio Rozas, University of Barcelona; Ignacio Ribera, Institute of Evolutionary Biology (CSIC - Universitat Pompeu Fabra); Rosa Fernández, Institute of Evolutionary Biology (CSIC - Universitat Pompeu Fabra)



2:30 PM

Untangling the phylogenetic history of a marine radiation obscured by hybridization and rapid divergence (555)

2:40 PM

Martin Helmkampf, Leibniz Centre for Tropical Marine Research (ZMT); Kosmas Hench, Max Planck Institute of Animal Behavior; Oscar Puebla, Leibniz Centre for Tropical Marine Research (ZMT)



2:40 PM

Phylogenomics and hybridization in the annual sunflowers. (781)

2:50 PM

Gregory L. Owens, University of Victoria; Kaichi Huang, University of British Columbia; Marco Todesco, University of British Columbia; Natalia Bercovich, University of British Columbia; Loren Rieseberg, University of British Columbia

2:50 PM

Gars reveal the signatures of extreme evolutionary stasis (334)

3:00 PM

Chase Doran Brownstein, Yale University; Daniel MacGuigan, University at Buffalo; Dae-Min Kim, Yale University; Oliver Orr, Yale University; Liandong Yang, State Key Laboratory of Freshwater Ecology and Biotechnology, Institute of Hydrobiology, Chinese Academy of Sciences; Thomas Near, Yale University

3:00 PM

Phylogenomics and the evolution of hypertrophied lips in Lake Malawi cichlid fishes (944)

3:10 PM

Paul Masonick, University of Konstanz; Axel Meyer, Dept. of Biology; Darrin Hulsey, University College Dublin

Plant Reproduction/Pollination

Mon, June 21

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Agnes Dellinger, University of Vienna

Presentations

2:00 PM


Pollen competition and selective embryo abortion in *Mimulus guttatus* (189)

2:10 PM

Karla de Lima Berg, Portland State University; Jaime A. Schwoch, BS, PhD Student, Portland State University; Mitch Cruzan He/Him, Portland State University

2:10 PM 2:20 PM	<p>Evolution of flowering integrators in neotropical orchids (500)</p> <p>Yesenia Madrigal, Universidad de Antioquia; Juan Fernando Alzate, Universidad de Antioquia, Centro Nacional de Secuenciación Genómica, Colombia; Natalia Pabon-Mora, Universidad de Antioquia, Colombia</p>	>
2:20 PM 2:30 PM	<p>Individual flowering schedules and floral display size in monkeyflower: a common garden study (30)</p> <p>Wendy Semski (she/her), University of Wisconsin-Milwaukee; Randall Joseph Mitchell, University of Akron; Jeffrey David Karron, University of Wisconsin-Milwaukee</p>	>
2:30 PM 2:40 PM	<p>Widespread evolution of poricidal flowers: A striking example of morphological convergence across flowering plants (703)</p> <p>Mario Vallejo-Marin, University of Stirling; Avery Russell, Missouri State University; Stephen L. Buchmann, University of Arizona; Rosana Zenil-Ferguson (she/ella), Assistant Professor, University of Hawai'i Mānoa; Diana D. Jolles, Plymouth State University; Ricardo Kriebel, University of Wisconsin-Madison</p>	>
2:40 PM 2:50 PM	<p>Pollination, paternity, and Bateman's principle in a hermaphroditic plant (70)</p> <p>Dorothy Christopher, University of Wisconsin-Milwaukee; Jeffrey David Karron, University of Wisconsin-Milwaukee; Dorset Trapnell, University of Georgia; Randall Joseph Mitchell, University of Akron</p>	>
2:50 PM 3:00 PM	<p>Consumer-resource models predict ecological feedbacks mediating the evolution of plant-pollinator-herbivore communities (567)</p> <p>Sarah McPeck, University of Virginia; Mark McPeck, Dartmouth College; Judie Bronstein, University of Arizona</p>	>
3:00 PM 3:10 PM	<p>Stamen dimorphism in bird-pollinated flowers – investigating alternative hypotheses on the evolution of heteranthy (479)</p> <p>Agnes Dellinger, University of Vienna; Silvia Artuso, University of Salzburg; Diana Margoth Fernández-Fernández, Instituto Nacional de Biodiversidad; Jürg Schönenberger, University of Vienna</p>	>

International Mixer

 Mon, June 21

 12:30 PM - 1:30 PM


 Social Events

Author


Ana Paula Assis (she/her)

University of Sao Paulo

NSF Information Session

 Mon, June 21

 12:30 PM - 1:30 PM


 Workshops/Discussion Sessions

Author

Matthew D. Herron

Georgia Institute of Technology

Adaptation/Plants

 Mon, June 21

 1:30 PM - 3:00 PM

 Faux-Live

Session Chairs

Chair

Elena Hamann, University of Georgia

Presentations

4:30 PM

4:40 PM	<p>The genetic basis of adaptation through the evolution of self-fertilization (517)</p>	>
Kuangyi Xu, University of North Carolina at Chapel Hill		
4:40 PM	<p>Costs of reproduction under experimental climate change across elevations in the perennial forb <i>Boechera stricta</i> (203)</p>	>
4:50 PM	Elena Hamann, University of Georgia; Susana Wadgymar (she/her), Davidson College; Jill T. Anderson, Department of Genetics, University of Georgia, Athens	
4:50 PM	<p>Parallel adaptation in autopolyploid <i>Arabidopsis arenosa</i> is dominated by repeated recruitment of shared alleles (17)</p>	>
5:00 PM	Veronika Konecna, Charles University; sian.m.bray@gmail.com; Jakub Vlček; Magdalena Bohutínská, Charles University; Doubravka Požárová; Rimjhim Roy Choudhury; Anita Bollmann-Giolai; Paulina Flis; David Salt; Christian Parisod; Levi Yant; Filip Kolář	
5:00 PM	<p>Assortative mating can help adaptation of flowering time to a changing climate: insights from a polygenic model (31)</p>	>
5:10 PM	Claire Godineau, Institut des Sciences de l'Evolution de Montpellier; Ophelie Sarah Ronce, CNRS University of Montpellier; Celine Devaux, Universite de Montpellier	
5:10 PM	<p>Inter-chromosomal linkage disequilibrium and linked fitness cost loci associated with selection for herbicide resistance (230)</p>	>
5:20 PM	Sonal Gupta, University of Michigan; Alex Harkess, HudsonAlpha Institute for Biotechnology; Megan Van Etten, Penn State Worthington Scranton; James H. Leebens-Mack, University of Georgia; Regina Baucom, University of Michigan	
5:20 PM	<p>Population Structure and Trait Loss along an Elevation Gradient in the Spanish Pyrenees (280)</p>	>
5:30 PM	Sophia F. Buysse (she/her), Michigan State University; Emily Josephs, Michigan State University; Jeffrey Conner, Kellogg Biological Station	

5:30 PM

5:40 PM

Evolution of floral traits in the common morning glory, *Ipomoea purpurea*, in response to anthropogenic climate change (227)

Sasha Bishop, University of Michigan; Regina Baucom, University of Michigan; Diego F. Alvarado-Serrano, Ohio University



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Recombination landscapes and genome evolution in angiosperms (33)

Thomas Brazier, University Rennes 1; Sylvain Glémin, Université de Rennes



Comparative Biology

Mon, June 21

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Session Chairs

Chair

Zachary Compton, PhD Student, Evolutionary Biology, Arizona Cancer Evolution Center

Presentations

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AniProtDB: A publicly available collection of metazoan proteomes for comparative studies (136)

Sofia Barreira, National Human Genome Research Institute, NIH; Anh-Dao Nguyen, National Human Genome Research Institute, NIH; Tyra Wolfsberg, National Human Genome Research Institute, NIH; Travis Moreland, National Human Genome Research Institute, NIH; Andy Baxevanis, National Human Genome Research Institute, NIH; Mark Fredriksen, NHGRI/NIH



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The piRNA ping-pong cycle is relaxed in the 13-lined ground squirrel (315)

Michael Vandewege, Eastern New Mexico University; Roy N. Platt, Texas Biomedical Research Institute; Dana K. Merriman; David A. Ray, Texas Tech University - Department of Biological Sciences; Federico G. Hoffman, Mississippi State University - Department of Biochemistry, Molecular Biology, Entomology, and Plant Pathology



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An evolutionary perspective on cancer prevalence in non-human primates (1120)



5:00 PM

Zachary Compton, PhD Student, Evolutionary Biology, Arizona Cancer Evolution Center; Carlo C. Maley, Arizona State University; Valerie Harris, Arizona State University; Amy Boddy, UC Santa Barbara; Athena Aktipis, Arizona State University

5:00 PM

Scale dependent effects of niche specialization: the disconnect between individual and species ranges (939)



5:10 PM

Shan Huang, Senckenberg Biodiversity & Climate Research Centre (SBIK-F); Marlee A. Tucker, Department of Environmental Science, Radboud University, Nijmegen, Netherlands; Anne G. Hertel, Behavioural Ecology, Department of Biology, Ludwig-Maximilians University of Munich, Planegg-Martinsried, Germany; Alison Eyres, RSPB; Jörg Albrecht, Senckenberg Biodiversity and Climate Research Centre (SBIK-F), Frankfurt, Germany

5:10 PM

Predicting avian dispersal ability from genomes (1112)



5:20 PM

Santiago Claramunt, Royal Ontario Museum; Oliver Haddrath, Royal Ontario Museum

5:20 PM

Comparison of morphological and genetic characteristics between cave and surface populations of *Kaolinonychus coreanus* (Opiliones: Paranonychidae) in South Korea (861)



5:30 PM

Dongyoung Kim, Ajou University; Noori Choi, University of Nebraska-Lincoln, USA; Yong-gun Choi, The Korean Institute of Biospeleology; Sangkyu Park, Department of Biological Sciences, Ajou University

5:30 PM

Comparative Nasal Anatomy and Goblet Cell Distribution in Bats Reveal Possible Adaptations to Viruses (885)



5:40 PM

Laurel Yohe, Yale University; Sushmeta Peters, John Jay College of Criminal Justice; Francesca Yalong, John Jay Collage of Criminal Justice; Mateo Saenz (he/him), John Jay College of Criminal Justice, City University of New York; Tyler Polakovich, John Jay College of Criminal Justice; Penny Lee, John Jay College of Criminal Justice; Rintaro Kato, John Jay College of Criminal Justice;

Liliana M. Davalos, Stony Brook University; Angelique Corthals,
John Jay College of Criminal Justice

Competition

📅 Mon, June 21

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Alexandru Strugariu, PhD, Senior Researcher III, Alexandru Ioan Cuza University of Iasi
- Institute of Interdisciplinary Research, Romania

Presentations

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**Factor in fear? Disentangling the roles of
exploitative versus interference competition in
disruptive selection (893)**



4:40 PM

Alexandru Strugariu, PhD, Senior Researcher III, Alexandru Ioan
Cuza University of Iasi - Institute of Interdisciplinary Research,
Romania; Ryan Martin, Case Western Reserve University

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The evolution of competitive ability (408)



4:50 PM

Jawad Sakarchi, The University of British Columbia; Rachel
Germain, The University of British Columbia

4:50 PM

The evolutionary logic of tumour containment (297)



5:00 PM

Yannick Viossat, Ceremade, Université Paris-Dauphine; Robert
John Noble, City, University of London

5:00 PM

**Impact of microbial competitiveness on their
pathogenicity (1009)**



5:10 PM

Devshuvam Banerji, Ashoka University; Imroze Khan, Ashoka
University; Srijan Seal, Ashoka University

5:10 PM

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CARCASS SCAVENGING RELAXES THE CHEMICAL-DRIVEN FEMALE INTERFERENCE COMPETITION IN FLOUR BEETLES (886)

Imroze Khan, Ashoka University; Basabi Bagchi, Ashoka University; Srijan Seal, Ashoka University; Manasven Raina, Ashoka University; Dipendra Nath Basu, NCBS



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A comparison of sexual dimorphism across competitive environments in the threespine stickleback (621)

Stephanie Blain, UBC Zoology; Marius Roesti, University of Bern Switzerland; Dolph Schluter, University of British Columbia



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Distinct mechanisms explain diverse forms of density dependence (595)

Shyamsunder Buddh, National Centre for Biological Sciences; Deepa Agashe, National Centre for Biological Sciences; Sandeep Krishna, National Centre for Biological Sciences



Convergent Evolution/Plants

Mon, June 21

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Session Chairs

Chair

Alexander Papadopoulos, Bangor University

Presentations

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Use crop x weed crosses to find evolutionary relevant weediness QTLs (1121)

Xiang Li, University of Massachusetts Amherst; Ana Caicedo, University of Massachusetts



4:40 PM

Parallel adaptation to anthropogenic heavy metal contamination in *Silene uniflora* (796)



4:50 PM	Alexander Papadopoulos, Bangor University	
4:50 PM 5:00 PM	How predictable is genome evolution? Insights from parallel adaptations across Brassicaceae. (12) Magdalena Bohutínská, Charles University; Filip Kolář	>
5:00 PM 5:10 PM	Parallel gene expression shifts characterise the repeated evolution of zinc tolerance (941) Daniel P. Wood, Bangor University; Jon A. Holmberg, Bangor University; Owen Osborne, Bangor University; Andrew James Helmstetter, French Foundation for Biodiversity Research; Luke Dunning, University of Sheffield; Amy R. Ellison, Bangor University; Rhian J. Smith, Royal Botanic Gardens Kew; Jackie Lighten, University of Exeter; Alexander Papadopoulos, Bangor University	>
5:10 PM 5:20 PM	Climate niche, not phylogeny, explains differences among oak species in gene expression response to drought (1171) Alayna Mead, UCLA; Camila D. Medeiros, UCLA; Lawren Sack, UCLA; Victoria Sork, Department of Ecology & Evolutionary Biology, University of California, Los Angeles	>
5:20 PM 5:30 PM	Repeated loss and the diversification of floral pigmentation patterns in Clarkia (331) Kimmy Stanton, Duke University; Mark D. Rausher, Duke University	>
5:30 PM 5:40 PM	Reconstructing the history and biological consequences of a plant invasion on the Galápagos islands (256) Matthew Gibson, Indiana University; Maria de Lourdes Torres, Universidad San Francisco de Quito; Yaniv Brandvain, University of Minnesota; Leonie Moyle, Indiana University	>
5:40 PM 5:50 PM	Multiple origins of selenium hyperaccumulation in Neo-Astragalus (Fabaceae) (575) Joseph Charboneau, University of Arizona; Richard Cronn, US Forest Service Pacific Northwest Research Station; Aaron Liston, Oregon State University; Elizabeth Pilon-Smits, Colorado State University; Jason Reynolds, Colorado State University; Martin Wojciechowski, Arizona State University; Michael J. Sanderson, University of Arizona	>

Evolutionary Ecology

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Chair

Jhan Salazar, Washington University in St. Louis

Presentations

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Rapid phenotypic change in a polymorphic salamander over 43 years (518)

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Maggie M. Hantak, Dr., Florida Museum of Natural History



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Exploring the ecology and evolution of the thermal physiology in the tropics (884)

4:50 PM

Jhan C. Salazar, Washington University in St. Louis; Martha Munoz, Yale University; Rosario Castañeda, Universidad Icesi; Gustavo Londoño, Universidad Icesi; Brooke L. Bodensteiner, Yale University



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Untangling the ecology and evolution of turtle ants and their microbial communities (486)

5:00 PM

Manuela de Oliveira Ramalho, Cornell University; Corrie S. Moreau, Cornell University



5:00 PM

Evolution of life history and dispersal traits during a wild range expansion (1012)

5:10 PM

Eliza Clark, Colorado State University; Ellyn Bitume, USDA Forest Service; Dan Bean, Colorado Dept. of Agriculture Insectary; Amanda R. Stahlke, University of Idaho; Paul A. Hohenlohe, University of Idaho; Ruth A. Hufbauer, Colorado State University



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Feedbacks between local density dependence and the evolution of density-determining and density

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response traits (282)

Jessie Mutz, Florida State University; Brian Inouye, Florida State University

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Stabilizing selection on body size in short-tailed bats: a tradeoff between survival and reproduction. (581)

Breno Mellado, Universidade Estadual do Norte Fluminense; Lucas de Oliveira Carneiro, Universidade Estadual do Norte Fluminense Darcy Ribeiro; Marcelo Nogueira, Universidade Estadual do Norte Fluminense; Leandro Rabello Monteiro, Universidade Estadual do Norte Fluminense



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Is species richness mediated by functional and genetic divergence? A global analysis in birds (138)

Nick Crouch, The University of Chicago; David Jablonski, The University of Chicago



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Ecological diversification in a continental scale: the case of Ctenostryx rodents (657)

Luiza Flores Gasparetto, Universidade Federal do Rio Grande do Sul; Renan Maestri, Universidade Federal do Rio Grande do Sul; Thales Freitas, Universidade Federal do Rio Grande do Sul



Evolutionary Ecology/Modeling

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Meike Wittmann, Bielefeld University

Presentations

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Visualizing animal dispersal patterns: Mechanisms behind the shape of dispersal kernels (448)

4:40 PM Nathalie Jreidini, McGill University; David Martin Green, Redpath Museum, McGill University

4:40 PM **Disruptive selection of body size for specialists: synthesizing empirical patterns and a mechanistic model (909)** >

4:50 PM

Alison Eyres, RSPB; Shan Huang, Senckenberg Biodiversity & Climate Research Centre (SBIK-F); Xiangyi Li, University of Neuchâtel; Andrew Morozov, University of Leicester

4:50 PM **How analyses of biotic interactions obscure information on biotic interactions (926)** >

5:00 PM

William Godsoe, Lincoln University; Ryosuke Iritani, RIKEN iTHEMS; Rua Murray, University of Canterbury

5:00 PM **The effect of habitat choice on evolutionary rescue (797)** >

5:10 PM

Pete Czappon (he/him), Institute for Evolution and Biodiversity, University of Münster; Florence Débarre, CNRS Paris; François Blanquart, Collège de France; Hildegard Uecker, Max Planck Institute for Evolutionary Biology

5:10 PM **Potential for adaptive diversification in stage-structured populations (8)** >

5:20 PM

Marco Saltini, Uppsala University

5:20 PM **Nonlinear averaging in 2D: intraspecific variation in two interacting species and consequences for population dynamics (219)** >

5:30 PM

Koen van Benthem, Bielefeld University; Rishabh Bagawade (he/him), Bielefeld University; Chantal Blüml, Bi; Peter Nabutanyi, Bielefeld University; Frans Thon, Bielefeld University; Meike Wittmann, Bielefeld University

5:30 PM **Viral transduction and the dynamics of bacterial adaptation (714)** >

5:40 PM

Philippe Cherabier, Institut de Biologie de l'Ecole Normale Supérieure (IBENS); Sylvie Méléard, CMAP -- Centre de Mathématiques Appliquées de Polytechnique; Régis Ferrière, CNRS UMR 8197 IBENS

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Phenotypic evolution in a mutualistic system: the role of conflicting selective pressure (722)

Amanda Santana Oliveira, Universidade Federal da Paraíba; Ana Paula Assis (she/her), University of Sao Paulo; Rafael Luis Galdini Raimundo, Universidade Federal da Paraíba



Experimental Evolution/Selection

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Chiann-Ling Yeh, Ph.D. student, University of Washington

Presentations

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High-throughput functional analysis of natural variants in yeast (830)

Chiann-Ling Cindy Yeh, Ph.D. student, University of Washington; Maitreya Dunham, University of Washington; Andreas Tsouris, University of Strasbourg; Joseph Schacherer, University of Strasbourg



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Experimental evolution of Roundup resistance in outcrossing yeast (1092)

Chloe Hanson, Oregon State University; Molly K. Burke, Oregon State University



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Breaking the chain: The role of intersexual genetic correlations in sexual dimorphism and the consequences and limits of their evolution (831)

Matthew M.A. Maoloni, Wilfrid Laurier University; Tara Newman, Wilfrid Laurier University; Tristan A.F. Long, Wilfrid Laurier University



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Parasite-driven evolution of dispersal syndromes during experimental range expansion (35)

Giacomo Zilio, University of Montpellier, CNRS; Louise S. Nørgaard, Monash University; Claire Gougat-Barbera, University of Montpellier; Matthew Hall, Monash University; Emanuel A. Fronhofer, ISEM, Montpellier; Oliver Kaltz, University of Montpellier, CNRS



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Hybridization as an evolutionary stimulus in a novel environment (686)

5:20 PM

Mackenzie Kinney, University of British Columbia; Dolph Schluter, University of British Columbia



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Efficient analysis of allele frequency variation from whole-genome pool-sequencing data (1045)

5:30 PM

Lucas Czech, Carnegie Institution for Science; Moises Exposito-Alonso, Carnegie Institution for Science & Stanford University



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Laboratory natural selection reveals parallel polygenic adaptation to low salinity driven by epistasis (287)

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David Ben Stern, Ph.D., University of Wisconsin - Madison; Carol Eunmi Lee, University of Wisconsin, Madison



Genomics

 Mon, June 21

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Sangeet Lamichhaney, Assistant Professor, Kent State University

Presentations

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Introgression of genomic variation between three glacial lineages at a secondary contact zone in

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populations of Labrador Arctic charr (*Salvelinus alpinus*) (1104)

Matt Brachmann, Postdoctoral fellow, Fisheries and Oceans Canada; Kara Layton, University of Aberdeen; Mallory Van Wyngaarden, Dalhousie University; Paul Snelgrove, Fisheries and Oceans Canada; Brian Dempson, Fisheries and Oceans Canada; Tony Kess, Fisheries and Oceans Canada; Sarah Lehnert, Fisheries and Oceans Canada; Paul Bentzen, Dalhousie University; Sarah Salisbury, Dalhousie University; Steven Duffy, Fisheries and Oceans Canada; Amber Messmer, Fisheries and Oceans Canada; Daniel Ruzzante, Dalhousie University; Ryan Stanley, Fisheries and Oceans Canada; Nick Jeffert, Fisheries and Oceans Canada; Claudio DiBacco, Fisheries and Oceans Canada; Cameron Nugent, University of Guelph; Moira Ferguson, University of Guelph; Ben Koop, University of Victoria; Ian R. Bradbury, Department of Fisheries and Oceans, St John's, NL, Canada

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The genetic basis of sex determination in *Catostomus* fishes and their hybrids (443)

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Cassandra Pyne, University of Guelph; Elizabeth Mandeville, Assistant Professor, University of Guelph

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The genome sequence of the avian vampire fly (*Philornis downsi*), an invasive nest parasite of Darwin's finches (332)

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Sangeet Lamichhaney, Assistant Professor, Kent State University; Melia Romine, Kent State University; Sarah Knutie, University of Connecticut; Carly M. Crow, Northern Illinois University; Jennifer AH Koop, Northern Illinois University

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The genome of the bi-annual Rio Pearlfish (*Nematolebias whitei*) informs the genetic regulation of diapause and environmentally-cued hatching in extreme environments. (1164)

5:10 PM

Andrew W. Thompson, Michigan State University; Harrison Wojtas, Michigan State University; Myles Davoll, Clemson University; Ingo Braasch, Michigan State University

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Bats and their unique immunity and metabolic adaptations (268)

5:20 PM

Diana Moreno Moreno-Santillan, PhD, Texas Tech University; David A. Ray, Texas Tech University; Liliana M. Davalos, Stony Brook University; Tanya Lama, Stony Brook University; Angelique

Corthals, John Jay College of Criminal Justice; Alexis M. Brown, American Museum of Natural History/Columbia University; Laurel Yohe, Yale University; Joshua Potter, Queen Mary University of London; Yocelyn Gutierrez, UNAM; Paul Donat; Huabin Zhao; Stephen Rossiter; Emma Teeling; Sonja Vernes; Graham Hughes; Federico Hoffman; Kalina Davies

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Negative linkage disequilibrium between amino acid changing variants reveals interference among deleterious mutations in the human genome (305)

Jesse A. Garcia, UCLA; Kirk Lohmueller, UCLA



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The genetic architecture and population genomic signatures of glyphosate resistance in *Amaranthus tuberculatus* (699)

Julia M. Kreiner, Ph.D., Dr., University of British Columbia; Patrick J. Tranel, Department of Crop Sciences, University of Illinois at Urbana–Champaign; Detlef Weigel, Max Planck Institute for Developmental Biology; John R. Stinchcombe, University of Toronto; Stephen I. Wright, Department of EEB, U. Toronto



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A supergene underlies phenotypic variation in a widespread Holarctic songbird (339)

Erik Funk, University of Colorado Boulder; Nicholas A. Mason, Louisiana State University; Snæbjörn Pálsson, University of Iceland; Tomáš Albrecht, Charles University in Prague; Jeff Johnson, Wolf Creek Operating Foundation; Scott Taylor (he/him), University of Colorado Boulder



Mutualism/Genetics

Mon, June 21

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Session Chairs

Chair

Anya Vostinar (she/they), PhD, Assistant Professor, Carleton College

Presentations

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Symbiont-assisted pollen digestion in an herbivorous ant lineage (720)



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Benoit Bechade, Russell Lab, Drexel University; Yi Hu, Drexel University; Dharman Anandarajan, Russell Lab, Drexel University; Richard Lu, Russell Lab, Drexel University; Christian Cabuslay, Drexel University; Benjamin Rubin, Princeton University; Corrie S. Moreau, Cornell University; Jacob Russell, Drexel University

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Pre- and post-association barriers to host switching in a mutualism (596)



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Zoe Dinges, Indiana University; Curt Lively, Indiana University

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Diversification patterns of mutualism across a collection of phylogenetic trees (314)



5:00 PM

Katrina Kaur, University of British Columbia; Matthew W. Pennell, University of British Columbia

5:00 PM

Dirty Transmission: High Horizontal Transmission Mutation Rates Can Alter Endosymbiotic Co-Evolution (104)



5:10 PM

Claire E. Schregardus, Carleton College; Anya E. Vostinar (she/they), PhD, Assistant Professor, Carleton College

5:10 PM

Genome fragmentation ratchet in cicada endosymbionts: A population genetic model (1084)



5:20 PM

Kenzie Givens, Indiana University Bloomington; John P. McCutcheon, Division of Biological Sciences, University of Montana; Matthew Hahn, Indiana University

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Nested complexity: diversity of an endosymbiont and bacteriophage and the potential for antagonistic coevolution (1111)



5:30 PM

Melissa Carpenter, Drexel University; Stephanie Weldon, University of Montana; Andrew Smith, Drexel University; Linyao Peng, Drexel University; Jonah Joffe, Drexel University; Kerry Oliver, University of Georgia; Jacob Russell, Drexel University

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At the gate of mutualism: identification of genomic traits predisposing to insect-bacterial symbiosis in pathogenic strains of the aphid symbiont *Serratia symbiotica* (721)

François Renoz, Université catholique de Louvain (UCLouvain)



Phylogenetic Methods

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Chair

Sandra Hoffberg, Columbia University

Presentations

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Determining the age of diversification of *Amaranthus* using the new tool, superBPP (903)

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Sandra Hoffberg, Columbia University; Carlos A. Maya Lastra, Columbia University; Deren A. R. Eaton, Columbia University



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Building large phylogenetic trees by placing DNA barcode sequences: example from ray-finned fishes (494)

4:50 PM

Thanuja Madushani Fernando, University of Guelph; Sarah J Adamowicz, University of Guelph, Canada



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Expanding the space of phylogenetic trees to infer patterns predicted by shared processes of diversification (364)

5:00 PM

Jamie Oaks (he/him), Assistant Professor, Auburn University; Perry Wood, Jr., Auburn University



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Simcat: a machine learning method for inferring historical introgression events from genomic data. (1048)

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Patrick McKenzie, Columbia University; Deren A. R. Eaton,
Columbia University

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A Likelihood Ratio Test for Hybridization Under the Multispecies Coalescent (160)

Jing Peng, The Ohio State University; Laura Kubatko (she/her), Professor, The Ohio State University; Sungsik (Kevin) Kong, The Ohio State University



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A phylogenetic framework for estimating speciation and extinction rates through time using stratigraphic data (1019)

Walker Pett, Iowa State University; Rachel CM Warnock; Alexandra Gavryushkina; Tanja Stadler, ETH Zürich, Zürich, Switzerland; Tracy Heath (she/her), Iowa State University



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Estimating the age of poorly dated fossil specimens and deposits using a total-evidence approach and the fossilized birth-death process (216)

Joelle Barido-Sottani, Iowa State University; Dagmara Maria Zyla, Iowa State University; Tracy Heath (she/her), Iowa State University



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SiPhyNetwork: simulating and classifying phylogenetic networks under complex birth-death-hybridization models (458)

Joshua Justison, Iowa State University; Claudia Solis-Lemus, University of Wisconsin-Madison; Tracy Heath (she/her), Iowa State University



Phylogenomics

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Xianfa Xie, Virginia State University

Presentations

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Ditch the tree, build the network: Paradigm shift in phylogenetic analysis and evolutionary thinking (935)

Xianfa Xie, Virginia State University



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Phylogenomic relationships in *Nicotiana benthamiana*: insights into the origin of the *N. benthamiana* lab variant. (707)

Luiz Augusto Cauz-Santos, University of Vienna, Department of Botany and Biodiversity Research; Steven Dodsworth, University of Bedfordshire; Aljaž Jakob, Department of Botany and Biodiversity Research, University of Vienna; Rose Samuel, University of Vienna, Department of Botany and Biodiversity Research; Ovidiu Paun, University of Vienna; Mark Chase, Royal Botanic Gardens, Kew



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Sources of conflict in the phylogenetic placement of treeshrews investigated using whole genome data (565)

Alexander Knyshev, University of Rhode Island; Yana Rhode Hrytsenko, University of Rhode Island; Rachel S. Schwartz, University of Rhode Island



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Vetted calibrations and comprehensive taxon sampling clarify the timescale of shorebird evolution (931)

David Černý, University of Chicago; Rossy Natale, University of Chicago



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Phylogenomics and biogeographic history of the Middle American species of the genus *Hyphessobrycon* (Characidae: Characiformes) (309)

Diego Elias, LSU Museum of Natural Science, Louisiana State University; Caleb D. McMahan, Field Museum of Natural History; Fernando Alda, Department of Biology, Geology and Environmental Science, University of Tennessee at Chattanooga; Carlos A. García-Alzate, Programa de Biología, Universidad del Atlántico, Colombia; Pamela B. Hart, LSU Museum of Natural Science, Louisiana State University; Prosanta Chakrabarty, Ph.D., Professor/Curator of Fishes, Louisiana State University, Museum of Natural Science



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Ancient Enemies: Phylogenomics and Host Specialization in Mosquitoes (403)

John Soghigian, University of Calgary; Silvia Justí, Walter Reed Biosystematics Unit, Smithsonian Institution; Charles Sither, North Carolina State University; Gen Morinaga, Oklahoma State University; Yvonne Linton, Walter Reed Biosystematics Unit, Smithsonian Institution; Michael Reiskind, North Carolina State University; Brian M. Wiegmann, North Carolina State University



Population Genetics/Inference of Selection

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Chair

Malin Pinsky, Rutgers University

Presentations

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Inferring genome-wide correlations of mutation fitness effects between populations (65)

Xin Huang, University of Arizona; Alyssa Lyn Fortier; Alec Coffman; Travis Struck; Megan Irby; Jennifer James; Jose Leon-Burquete; Aaron Ragsdale, McGill University; Ryan Gutenkunst, University of Arizona



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Inferring selection against deleterious alleles using the magic of haplodiploidy (763)

Sara Miller, Postdoc, Cornell University; Michael J. Sheehan, Cornell University



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Genomic time-series data show that gene flow maintains high genetic diversity despite substantial genetic drift in a butterfly species (607)

Zachariah Gompert, Utah State University; Amy Springer, Utah State University; Samridhi Chaturvedi, Postdoctoral Fellow,



University of California, Berkeley; Lauren Lucas, Utah State University

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Persistence of an alpine-obligate species across a climate-threatened alpine archipelago (394)

Matt DeSaix, Colorado State University; Luke George, Colorado State University; Amy Seglund, Colorado Parks and Wildlife; Garth M. Spellman, Denver Museum of Nature and Science; Erika Zavaleta, University of California Santa Cruz; Kristen C. Ruegg, Colorado State University



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Genomic stability through time despite decades of exploitation in cod on both sides of the Atlantic (78)

Malin Pinsky, Rutgers University; Anne Maria Eikeset, University of Oslo; Cecilia Helmerson, University of Oslo; Ian R. Bradbury, Department of Fisheries and Oceans, St John's, NL, Canada; Paul Bentzen, Dalhousie University; Corey Morris, Science Branch, Fisheries and Oceans Canada; Agata T. Gondek-Wyrozemska, University of Oslo; Helle Tessand Baalsrud, University of Oslo; Marine Servane Ono Briec, University of Oslo; Olav Sigurd Kjesbu, Institute of Marine Research; Jane A. Godiksen, Institute of Marine Research; Julia M. I. Barth, University of Basel; Michael Matschiner, University of Zurich; Nils Chr. Stenseth, University of Oslo; Kjetill Jakobsen, University of Oslo; Sissel Jentoft, University of Oslo; Bastiaan Star, University of Oslo



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Summer Suckers, some are not: Species delineation and the genomic basis of trait variation in a long-lived fish with extreme life history morphs (1101)

Carl St John, Cornell University; Douglas Carlson, SUNY Potsdam; Lisa Holst, New York Department of Environmental Conservation; Nina Overgaard Therkildsen, Cornell University; Peter B. McIntyre, Department of Natural Resources, Cornell University, Ithaca NY



Population Genetics/Molecular Ecology

Mon, June 21

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Session Chairs

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Thomas Haaland, University of Zurich**Presentations**

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Dissecting genomic determinants of positive selection with an evolution-guided regression model (18)

Yi-Fei Huang, Pennsylvania State University



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On genealogy branch lengths and the i-ton density score (1145)

Benjamin Wöflf, University of Vienna



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The role of rapids in genetic divergence in cichlids from the lower Congo River (98)

Naoko P. Kurata, American Museum of Natural History/City University of New York; Liz Alter, California State University Monterey Bay; Michael J. Hickerson, The City College of New York; Melanie Stiassny, American Museum of Natural History



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A hundred years of conservation: the genetic history of the Atlantic salmon (*Salmo salar*) in Denmark (698)

Belen Jimenez-Mena, DTU; Samuele Soraggi, Aarhus University; Alice Manuzzi, DTU; Romina Henriques, DTU; Dorte Meldrup, DTU; Jakob Hemmer-Hansen, DTU; Dorte Bekkevold, DTU; Einar Eg Nielsen, DTU



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Repetitive genomic regions and the inference of demographic history (613)

Ajinkya Bharatraj Patil, Mr., IISER, Bhopal; Nagarjun Vijay, Indian Institute of Science Education and Research, Bhopal



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When do opposites attract? A model uncovering the evolution of disassortative mating (126)

Ludovic Maisonneuve, National Museum of Natural History



5:40 PM

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Sex differences in selection under facultative sex (764)

Thomas Ray Haaland, University of Zurich; Dieter Ebert, University of Basel; Hanna Kokko, University of Zurich



Speciation/Genetics

📅 Mon, June 21

🕒 1:30 PM - 3:00 PM

📁 Faux-Live

Session Chairs

Chair

Henry Kunerth (he/him), Cornell University

Presentations

4:30 PM

4:40 PM

Parallel evolution of phenological isolation across the speciation continuum in serpentine-adapted annual wildflowers (288)

Shelley Sianta, University of Minnesota; Kathleen Marie Kay, UC Santa Cruz



4:50 PM

5:00 PM

i. The number of barrier traits shapes the early stages of speciation in European Corn Borer moths (905)

Henry Kunerth (he/him), Cornell University; Erik Dopman, Tufts University; Genevieve M. Kozak, University of Massachusetts-Dartmouth; Jeremy Searle, Cornell University; Steve Bogdanowicz, Cornell University



5:00 PM

5:10 PM

Long-term cloud forest response to climate warming revealed by insect speciation history (798)

Brent Charles Emerson, Island Ecology and Evolution Research Group, IPNA-CSIC.; Antonia Salces-Castellano, IPNA-CSIC; Sean Stankowski, Institute of Science and Technology, Klosterneuburg 3400, Austria; Paula Arribas, Island Ecology and Evolution Research Group, Instituto de Productos Naturales y Agrobiología (IPNA-CSIC).; Jairo Patiño, IPNA-CSIC; Dirk Karger, Swiss Federal



Research Institute WSL; Roger Butlin, Universities of Sheffield and Gothenburg

5:10 PM

5:20 PM

The selection response of a multicomponent sexual signal: change in phenotypic means and genetic (co)variances (133)

Thomas Blankers, University of Amsterdam; Elise Fruitet, University of Amsterdam; Emily Burdfield-Steel, University of Amsterdam; Astrid T. Groot, University of Amsterdam



5:20 PM

5:30 PM

Sexual imprinting, local adaptation and speciation (34)

Richard Sibly, University of Reading; Robert N. Curnow, University of Reading



5:30 PM

5:40 PM

Sex-linked inversion underlies divergence between the Golden-Crowned Sparrow (*Zonotrichia atricapilla*) and the White-Crowned Sparrow (*Zonotrichia leucophrys*) (1049)

Quinn McCallum, University of British Columbia; Kenneth Askelson, University of British Columbia; Finola Fogarty, University of British Columbia; Libby Natola, PhD candidate, University of British Columbia; Darren Irwin, Ph.D., Professor, University of British Columbia



5:40 PM

5:50 PM

Evolutionary history, connectivity, and introgression of *Holacanthus* angelfishes in the Tropical Eastern Pacific (1176)

Remy Gatins, University of California Santa Cruz; Carlos Armando Sánchez-Órtiz, Universidad de Baja California Sur; Harilaos Lessios, Smithsonian Tropical Research Institute; Giacomo Bernardi, University of California Santa Cruz



Speciation/Hybridization

Mon, June 21

1:30 PM - 3:00 PM

Faux-Live

Session Chairs

Chair

Sungsik (Kevin) Kong, The Ohio State University**Presentations**

4:30 PM

Comparative Performance of popular methods for hybrid detection using genomic data (361)

4:40 PM

Sungsik (Kevin) Kong, The Ohio State University; Laura Kubatko (she/her), Professor, The Ohio State University



4:40 PM

Methods for reticulate evolution: testing and using a network (122)

4:50 PM

Cecile Ane (she/her), University of Wisconsin - Madison



4:50 PM

Genetic incompatibilities do not snowball in a demographic model of speciation (891)

5:00 PM

Carlos A. Maya Lastra, Columbia University; Deren A. R. Eaton, Columbia University



5:00 PM

The evolution of birdsong (733)

5:10 PM

Benjamin Freeman, University of British Columbia; Jonathan Rolland, CNRS - University of Toulouse III; Graham Montgomery; Dolph Schluter, University of British Columbia



5:10 PM

The ABBA-BABA test reveals asymmetric introgression throughout speciation in hummingbirds (970)

5:20 PM

Elisa Henderson, University of California, Riverside; Alan Brelsford, University of California, Riverside; Ricardo Rodríguez-Estrella, Centro de Investigaciones Biológicas del Noroeste



5:20 PM

The complex evolutionary history of a cryptic chipmunk species (975)

5:30 PM

Nathanael David Herrera, The University of Montana; Brice A. J. Sarver, University of Montana; Colin Callahan; Kayce C. Bell, Natural History Museum of LA county; Jack Sullivan, University of Idaho; John R. Demboski, Denver Museum of Nature and Science; Jeffrey M. Good, Division of Biological Sciences, University of Montana



5:30 PM

5:40 PM

bric à brac controls sex pheromone choice by male European corn borer moths (609)

Melanie Unbehend,, Max Planck Institute for Chemical Ecology; Genevieve M. Kozak, University of Massachusetts-Dartmouth; Fotini Koutroumpa, INRAE, Sorbonne Université, CNRS, IRD, UPEC, Université Paris Diderot, Institute of Ecology and Environmental Sciences of Paris, Route de Saint-Cyr, 78026 Versailles Cedex, France; Brad S. Coates, USDA-ARS; Teun Dekker, Swedish University of Agricultural Sciences; Astrid T. Groot, University of Amsterdam; David Heckel, Max Planck Institute for Chemical Ecology; Erik Dopman, Tufts University



Adaptation/Quantitative Genetics

Tue, June 22

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Luis Castañeda, Universidad de Chile

Presentations

10:00 AM

10:10 AM

Genetic basis of the thermal tolerance landscape of *Drosophila melanogaster* (863)

Juan Andrés Soto, Universidad de Chile; Patricio E. Olguín, Universidad de Chile; Luis E. Castañeda, Universidad de Chile



10:10 AM

10:20 AM

The genetic basis of adaptation following plastic changes in coloration in a novel environment (539)

Ammon Corl, University of California Berkeley; Ke Bi, Ancestry.com; Claudia Luke, Sonoma State University; Akshara Sree Challa, UC Berkeley; Aaron J. Stern, UC Berkeley; Barry Sinervo, University of California, Santa Cruz; Rasmus Nielsen, University of California Berkeley & Natural History Museum of Denmark



10:20 AM

Global patterns in the evolution of copepod thermal tolerance plasticity (702)



10:30 AM

Matthew Sasaki, University of Connecticut; Hans Dam, University of Connecticut

10:30 AM

10:40 AM

Adaptation in tropical rainforest and savannah biomes: genotype-phenotype-environment interactions highlight hydroclimate as a driver of diversity (841)

Katie Gates, Flinders University; Jonathan B. Sandoval-Castillo, Flinders University; Chris Brauer, Flinders University; Peter J. Unmack, University of Canberra; Martin Laporte, Université Laval - Institut de Biologie Intégrative des systèmes; Louis Bernatchez, Université Laval - Institut de Biologie Intégrative des systèmes; Luciano B. Beheregaray, Flinders University



10:40 AM

10:50 AM

Temperature dependent phenotypic effects of house fly proto-Y chromosomes explain the maintenance of polygenic sex determination in natural populations (175)

Kiran Adhikari, University of Houston; Richard Meisel (he/him), University of Houston



10:50 AM

11:00 AM

A chromosomal inversion is associated with multiple adaptive traits in deer mice (1057)

Emily Hager, Boston University; Olivia S. Harringmeyer, Harvard University; Tyler Brock Wooldridge, Harvard; Jeffrey D. Jensen, Arizona State University; Hopi Hoekstra, Harvard University



11:00 AM

11:10 AM

Cis-regulatory divergence between highland and lowland deer mice populations highlight the essential role of pleiotropic genes for high-altitude adaptation (128)

Nicolas C. Rochette, UCLA; Shane Cornell Campbell-Staton, University of California, Los Angeles; Jonathan P. Velotta, University of Montana; Rena M. Schweizer, University of Montana; Zachary Cheviron, University of Montana



11:10 AM

11:20 AM

Elevated transposable element copy number is associated with reduced fitness in maize (29)

Michelle Stitzer, Cornell University



Biogeography/Plants

📅 Tue, June 22

🕒 7:00 AM - 8:30 AM

📁 Faux-Live

Session Chairs

Chair

Thomas Couvreur, IRD / Pontificia Universidad Católica del Ecuador

Presentations

10:00 AM

10:10 AM

Uplift-driven diversification, dispersal, and niche evolution in New Zealand Veronica (942)

Anne Thomas, University of Cambridge; Javier Igea; Heidi Meudt, Museum of New Zealand Te Papa Tongarewa; Dirk C. Albach, Carl von Ossietzky-University; William G. Lee, Manaaki Whenua – Landcare Research Otago; Andrew Tanentzap, University of Cambridge Department of Plant Sciences



10:10 AM

10:20 AM

Demographic history of Araucaria in the Brazilian Atlantic Forest: merging population genomics, fossil data, and distribution models to evaluate the impact of historical climate and humans (779)

Mariana Mira Vasconcellos, Universidade Federal do Rio de Janeiro; Sara Varela, Museum für Naturkunde, Berlin, Germany; Marcelo Gehara, American Museum of Natural History; Marcelo Reginato, Universidade Federal do Rio Grande do Sul, Porto Alegre-RS, Brazil; Ana C. Carnaval, City Collegue of New York; Fabian A. Michelangeli, The New York Botanical Garden



10:20 AM

10:30 AM

Ferns beyond binaries: Patterns in spores, reproductive mode, and range in the xeric-adapted Australasian species Cheilanthes distans (Pteridaceae) (551)

Karla Sosa, Duke University



10:30 AM

10:40 AM

What can the cold-induced transcriptomes of Arctic Brassicaceae tell us about the evolution of cold



tolerance? (130)

Siri Birkeland, University of Oslo / Norwegian University of Life Sciences; Tanja Slotte, Stockholm university; Christian Brochmann, Natural History Museum, University of Oslo; Anne Krag Brysting, Centre for Ecological and Evolutionary Synthesis, Department of Biosciences, University of Oslo; Anna Lovisa Sofia Gustafsson, Natural History Museum, University of Oslo; Michael Dennis Nowak, Natural History Museum, University of Oslo

10:40 AM

10:50 AM

Resolving the regulatory innovation paradox in eudicots with curated RNA-seq data sets (1110)

Keffy Kehrlí, Stony Brook University; Joshua S. Rest, Stony Brook University



10:50 AM

11:00 AM

Unearthing modes of evolution of hierarchical morphological traits: differences in root morphology underlie climatic adaptation in the Liliales (742)

Carrie M. Tribble, University of Hawaii at Manoa; Michael Ryan May, UC Berkeley; Rosana Zenil-Ferguson (she/ella), Assistant Professor, University of Hawai'i Mānoa; Chelsea Specht, Cornell University; Carl Rothfels, UC Berkeley



11:00 AM

11:10 AM

Same glaciers, same bedrock, different responses: comparative phylogeography of three endemic mountain plants in the Pyrenees (232)

Pau Carnicero, Assistant Professor, PhD, University of Innsbruck; Stefan Dullinger, University of Vienna; Peter Schönswetter, University of Innsbruck



11:10 AM

11:20 AM

Central african rain forest plants responded individually to past climate change (948)

Thomas Couvreur, IRD / Pontificia Universidad Católica del Ecuador; Andrew James Helmstetter, French Foundation for Biodiversity Research; Narcisse Guy Kamdem, Université de Yaoundé I; Kevin Bethune, CNRS; Bonaventure Sonké, Université de Yaoundé I



Development/Adaptation

 Tue, June 22

 7:00 AM - 8:30 AM

 Faux-Live

Session Chairs

Chair

Arkhat Abzhanov, Imperial College London

Presentations

10:00 AM 10:10 AM	<p>The many faces of Evolution: developmental mechanisms for adaptive radiations (976)</p> <p>Arkhat Abzhanov, Imperial College London</p>	>
10:10 AM 10:20 AM	<p>Plasticity and Adaptation in the Copepod Climate Response (356)</p> <p>Lauren Ashlock, University of Vermont; Chelsea Darwin, University of Vermont; Jessica Crooker, University of Vermont; Melissa Pespeni, University of Vermont</p>	>
10:20 AM 10:30 AM	<p>Tradeoffs associated with autotomy and regeneration and their potential role in the evolution of regenerative capacities (205)</p> <p>Tara Prestholdt, The University of Portland</p>	>
10:30 AM 10:40 AM	<p>The evolution of cellular restraint in multicellular organisms (112)</p> <p>Katherine Skocelas, Michigan State University; Austin J. Ferguson, Michigan State University; Clifford Bohm, Michigan State University; Katherine Perry, Michigan State University; Rosemary Adaji, Michigan State University; Charles Ofria, Michigan State University</p>	>
10:40 AM 10:50 AM	<p>Effects of temperature on vertebral number, body shape, and burst swimming in surface-dwelling <i>Astyanax mexicanus</i> (934)</p> <p>Winer Daniel Reyes Corral, McGill University; Aisha Owens, DePaul University; Windsor E. Aguirre, DePaul University</p>	>
10:50 AM 11:00 AM	<p>Telomere dynamics and developmental transitions: does metamorphosis have an effect? (353)</p>	>

Pablo Burraco, University of Glasgow

11:00 AM

11:10 AM

Leveraging ecotoxicology to understand evolution and development of sex determination (786)

Maryna Lesoway, PhD, University of California, San Diego;

Jonathan Henry, University of Illinois Urbana Champaign



11:10 AM

11:20 AM

Metatheria versus Eutheria: a trophic and morphological comparison (169)

Jamile Bubadu e, PhD, Universidade Estadual do Norte Fluminense

Darcy Ribeiro



Evolutionary Ecology/Genomics

Tue, June 22

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Kelley Van Vaerenberghe, University of Montana

Presentations

10:00 AM

10:10 AM

What makes blue jellyfish, blue? Using molecular tools to understand variation and how it relates to environmental changes (173)

Jonathan W. Lawley, Griffith University; Carmel McDougall, Griffith University; Kylie A. Pitt, Griffith University; Anthony R. Carroll, Griffith University



10:10 AM

10:20 AM

Little islands of genomic divergence in phenotypically distinct beetle populations (623)




Shivansh Singhal, National Centre for Biological Sciences; Deepa Agashe, National Centre for Biological Sciences



10:20 AM

10:30 AM	<p>Cryptic speciation of 3 intertidal fishes (Family Clinidae) in California and Southern Africa (327)</p> <p>Daniel Wright, University of California, Santa Cruz</p>	>
10:30 AM 10:40 AM	<p>Testing the interaction effect of dietary phosphorus and arsenic toxicity on <i>Daphnia</i> metabolome (210)</p> <p>Emilyann Ashford, B.S. Biology (Dec 2021), Undergraduate Researcher, Keene State College; Priyanka Roy Chowdhury, Keene State College</p>	>
10:40 AM 10:50 AM	<p>Genomic and phenotypic evolution of targeted gene networks in divergent garter snake ecotypes (1069)</p> <p>Randy Klabacka, Auburn University; Anne Bronikowski, Iowa State University Department of Ecology, Evolution, and Organismal Biology; Suzanne McGaugh, University of Minnesota; Dawn M. Reding, Luther College; Daniel Nettleton, Iowa State University; Andrew Lithio, Iowa State University; Laurie Stevison, Auburn University; Jessica Judson, Iowa State University; Tonia Schwartz, Auburn University</p>	>
10:50 AM 11:00 AM	<p>Histone acetylation regulates the expression of genes involved in worker reproduction and lifespan in the ant <i>Temnothorax rugatulus</i> (355)</p> <p>Marina Choppin, Johannes Gutenberg University; Barbara Feldmeyer, Senckenberg Biodiversity and Climate Research Centre (Frankfurt, Germany); Susanne Foitzik, Johannes Gutenberg University Mainz</p>	>
11:00 AM 11:10 AM	<p>A single mutation reduces the strength of symbiont-induced cytoplasmic incompatibility (765)</p> <p>John F. Beckmann, University of Auburn; Kelley Van Vaerenberghe, University of Montana; Daniel E. Akwa, Auburn University; Brandon S. Cooper, University of Montana</p>	>
11:10 AM 11:20 AM	<p>Genetic load has potential in large populations but is realized in small inbred populations (439)</p> <p>Samarth Mathur (He/Him), Ohio State University; J. Andrew DeWoody, Purdue University</p>	>

Evolutionary Theory

 Tue, June 22
 7:00 AM - 8:30 AM
 Faux-Live

Session Chairs

Chair

Zhen Peng, Wisconsin Institute for Discovery, University of Wisconsin-Madison

Presentations

10:00 AM

10:10 AM

Uumarry: Agent Based Simulation Model of Predator Prey Interactions in a Game Theoretical Framework. (821)

Michael Remington, San Diego State University; Tim Higham, University of California Riverside; Rulon Clark, San Diego State University; Jeet Sukumaran, San Diego State University



10:10 AM

10:20 AM

A New Shape-Based Method for Bioacoustic Analysis with Systematic Applications (997)

Stephen Alex Townsend, Florida State University; Peter Beerli, Florida State University; Anke Meyer-Baese, Florida State University



10:20 AM

10:30 AM

Multilevel selection helps explain the origin of catalytic polymers and template-mediated polymerization in prebiotic chemical ecosystems (1154)

David Baum (he/him), University of Wisconsin - Madison; Zhen Peng, Wisconsin Institute for Discovery, University of Wisconsin-Madison; Alex M. Plum, Wisconsin Institute for Discovery, University of Wisconsin-Madison; Emily Jacobson, Wisconsin Institute for Discovery, University of Wisconsin-Madison; Rahul Kartha, Wisconsin Institute for Discovery, University of Wisconsin-Madison



10:30 AM

10:40 AM

Non-Equilibrium Dynamics in Under-Saturated Communities (452)

Abdel H. Hallway (he/him), University of Illinois at Urbana-Champaign; Katerina Stankova, Maastricht University; Joel S. Brown, Moffitt Cancer Center, University of Illinois at Chicago



10:40 AM	Revisiting the Role of Hyperparasitism in Evolution of Virulence (483) Simran Kaur Sandhu, University of Leicester	>
10:50 AM		
10:50 AM	Controlling the speed and trajectory of evolution with counterdiabatic driving (1126) Emily Dolson (she/her), Assistant Professor, Michigan State University; Jacob Scott, Cleveland Clinic	>
11:00 AM		
11:00 AM	The Free For All Effect: a possible explanation for periods of rapid evolution (127) Clifford Bohm, Michigan State University	>
11:10 AM		
11:10 AM	Positive niche construction as an evolutionary rescue mechanism (68) Alex Longcamp, Virginia Tech; Jeremy Draghi, Virginia Tech	>
11:20 AM		

Genomics/Molecular Evolution

📅 Tue, June 22

🕒 7:00 AM - 8:30 AM

📁 Faux-Live

Session Chairs

Chair

James Baldwin-Brown, University of Utah

Presentations

10:00 AM	Lineage-specific evolution in the brood parasitic black-headed duck (878) Sara JS Wuitchik, Ph.D., Postdoctoral fellow, Harvard University & Boston University; LaDeana W. Hillier, University of Missouri; Christopher Balakrishnan, East Carolina University; Jeffrey DaCosta, Boston College; Wesley C. Warren, University of Missouri; Michael Sorenson, Boston University; Timothy B. Sackton, Harvard University	>
10:10 AM		

10:10 AM 10:20 AM	<p>Population Genomics of Kokanee (<i>Oncorhynchus nerka</i>) at their Northern Range Periphery (489)</p> <p>Christopher Setzke, University of British Columbia Okanagan; Carmen Wong, Parks Canada; Michael Russello, University of British Columbia Okanagan</p>	>
10:20 AM 10:30 AM	<p>Single cell sequencing reveals that socially responsive cell types are targets of recent positive selection in the paper wasp <i>Polistes fuscatus</i> (771)</p> <p>Michael J. Sheehan, Cornell University; Martik Chatterjee, Cornell University; Christopher Jernigan, Cornell University; Floria Uy, Cornell University; Sara Miller, Postdoc, Cornell University; Robert Reed, Cornell University; Amy Toth, Iowa State University</p>	>
10:30 AM 10:40 AM	<p>The Recombination Landscapes of Spiny Lizards (genus <i>Sceloporus</i>) (121)</p> <p>Cyril Joseph Versoza, Arizona State University</p>	>
10:40 AM 10:50 AM	<p>Somatic pairing loss in interspecies <i>Drosophila</i> hybrids reveals genome features driving pairing (1169)</p> <p>James Guy Baldwin-Brown, University of Utah; Nitin Phadnis, University of Utah</p>	>
10:50 AM 11:00 AM	<p>Variation in sexual investment across an ephemerality gradient in <i>Daphnia pulex</i>. (745)</p> <p>Karen Barnard-Kubow, PhD, Assistant Professor, James Madison University; Alan Bergland, University of Virginia; Dörthe Becker; Andrew Beckerman, University of Sheffield</p>	>
11:00 AM 11:10 AM	<p>Sex chromosome turnover and genome evolution in treehoppers (<i>Membracidae</i>) (360)</p> <p>Daniela Palmer, University of Sheffield; Micah Fletcher, Princeton University; Diogo Cabral de Mello, Universidade Estadual Paulista - UNESP; Olívia Evangelista, CSIRO, Australian National Insect Collection; Sarah Kocher, Princeton University; Alison E. Wright, University of Sheffield</p>	>
11:10 AM 11:20 AM	<p>Dynamics of transposable element accumulation on mating-type chromosomes of <i>Microbotryum anther-</i></p>	>

smut fungi (602)

Marine Duhamel, Ecology Systematic Evolution laboratory, Paris-Saclay University; Fantin Carpentier, Paris-Sud University; Dominik Begerow, Bochum University; Michael Hood, Amherst College; Ricardo Rodríguez de la Vega, Paris Su; Tatiana Giraud, Paris-Sud University

Inbreeding

📅 Tue, June 22

🕒 7:00 AM - 8:30 AM

📁 Faux-Live

Session Chairs

Chair

Emiliano Mora-Carrera, Institute of Systematic and Evolutionary Botany, University of Zurich

Presentations

10:00 AM

Female chimpanzees avoid inbreeding by reducing associations with male relatives (84)



10:10 AM

Lauren Christine White, Max Planck Institute for Evolutionary Anthropology; Veronika Städele, School of Human Evolution and Social Change, Arizona State University; Kevin Langergraber, School of Human Evolution and Social Change, Arizona State University; Linda Vigilant, Max Planck Institute for Evolutionary Anthropology

10:10 AM

Inbreeding depression across competitive environments in a mixed mating plant (809)



10:20 AM

Mark James Walker, Temple University; Rachel Spigler, Temple University

10:20 AM

Long-term exhaustion of the inbreeding load in *Drosophila melanogaster* (181)



10:30 AM

Noelia Pérez Pereira, Universidade de Vigo; Ramón Pouso, Universidade de Vigo; Ana Rus, Universidade de Vigo; Ana Vilas, Universidade de Vigo; Eugenio López-Cortegano, University of

Edinburgh; Aurora García-Dorado, Universidad Complutense de Madrid; Humberto Quesada, Universidade de Vigo; Armando Caballero, Universidade de Vigo

10:30 AM

10:40 AM

Severe inbreeding and loss-of-function variants in reproduction and hypoxia genes predate recent population decline in the critically endangered Devils Hole Pupfish (196)

David Tian, UC Berkeley Dept. of Integrative Biology & Museum of Vertebrate Zoology; Christopher Martin, University of California, Berkeley



10:40 AM

10:50 AM

Origins and consequences of independent losses of heterostyly within species (1)

Emiliano Mora-Carrera, Institute of Systematic and Evolutionary Botany, University of Zurich



10:50 AM

11:00 AM

SLiM margins: Modeling inbreeding depression and recovery potential in the critically endangered vaquita (341)

Jacqueline Robinson, University of California San Francisco; Chris C. Kyriazis, UCLA Department of Ecology and Evolutionary Biology; Sergio Nigenda, LANGEBIO; Annabel Beichman, University of Washington; Kirk Lohmueller, UCLA; Lorenzo Rojas-Bracho, Comisión Nacional de Áreas Naturales Protegidas; Barbara Taylor, NOAA; Robert Wayne, UCLA; Phillip Morin, NOAA



11:00 AM

11:10 AM

Joint evolution of dispersal, polyandry and inbreeding depression (379)

Greta Bocedi, University of Aberdeen, School of Biological Sciences



Macroevolution/Diversification

Tue, June 22

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Diego Beltran, Universidad de Antioquia

Presentations

10:00 AM

10:10 AM

Hidden-state-only models provide accurate tip-estimates of diversification rates (681)

Thais Vasconcelos (she/her), University of Arkansas; Brian O'Meara (he/him), University of Tennessee, Knoxville; Jeremy Beaulieu, University of Arkansas



10:10 AM

10:20 AM

Diatoms diversification in light of their ecological niche space (460)

Sophia Lambert, Institute of Biology of the Ecole Normale Supérieure (IBENS), Paris; Chris Bowler, Institute of Biology of the Ecole Normale Supérieure (IBENS), Paris; Hélène Morlon, IBENS, Université PLS, CNRS



10:20 AM

10:30 AM

Conquest of new environments affects morphological diversification rates in tree frogs (639)

Kathleen Castro, Universidade Federal de Sergipe; Pablo Ariel Martinez, Universidade Federal de Sergipe; Miguel Á. Olalla-Tárraga, Universidad Rey Juan Carlos; Sidney F. Gouveia, Universidade Federal de Sergipe; Tuany Siqueira-Silva, Universidade Federal de Sergipe; Luiz Antonio Lima, Universidade Federal de Sergipe; Jonatas Chaves-Silveira, Universidade Federal de Sergipe; Talita Ferreira Amado, Universidad Rey Juan Carlos



10:30 AM

10:40 AM

Hummingbirds: speciation and the evolution of beautiful colors (740)

Diego Beltran, Universidad de Antioquia; Allison Shultz, Natural History Museum of Los Angeles; Juan Luis Parra, Universidad de Antioquia



10:50 AM

11:00 AM

The state of state-dependent speciation and extinction models: patterns in angiosperm macroevolution (67)

Andrew James Helmstetter, French Foundation for Biodiversity Research; Sylvain Glémin, Université de Rennes; Jos Käfer, UCB Lyon 1; Hervé Sauquet (he/him), Royal Botanic Gardens and



Domain Trust; Sarah (Sally) Otto, UBC; Rosana Zenil-Ferguson (she/ella), Assistant Professor, University of Hawai'i Mānoa; Jürg Schönenberger, University of Vienna; Concetta Burgarella, Uppsala University; Daniel J. Schoen, McGill University; Bruce Anderson, Stellenbosch University; Mario Vallejo-Marin, University of Stirling; Mathilde Dufay; Sylvain Billiard, Univ. Lille 1; Hugo De Boer; Marcos Mendez; Denis Roze, Station Biologique de Roscoff (CNRS); John R. Pannell, University of Lausanne

11:00 AM

11:10 AM

Morphological phylogeny of bedbugs and their relatives, with an emphasis on their evolution of traumatic insemination (333)

Ifeoma KOSISOCHUKWU Ugwuanyi, University of New South Wales; Nikolai Tatarnic, Western Australian Museum, Welshpool, Perth, Australia; Gerry Cassis, University of New South Wales



11:10 AM

11:20 AM

Climate niche evolution in C4+CAM Portulaca and related C3+CAM lineages (501)

Nora Marie Heaphy, Research Assistant, Yale University; erika j. edwards (she/her), yale university



Molecular Evolution

Tue, June 22

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Emily Lau, University of California, Santa Barbara

Presentations

10:00 AM

10:10 AM

Leech anticoagulants are ancestral and multifunctional (1043)

Rafael Eiji Iwama, University of Toronto; Michael Tessler, American Museum of Natural History; Sebastian Kvist, University of Toronto, Royal Ontario Museum



10:10 AM

10:20 AM

Diversifying selection in dolphin hearing genes: different pathways for echolocation evolution in marine and freshwater environments? (214)

Letícia Magpali, Universidade Estadual de Campinas (UNICAMP); Mariana Nery, PhD, Associate Professor, University of Campinas; Érica Martinha Silva de Souza, UNICAMP; Elisa Karen da Silva Ramos, State University of Campinas; Lucas Freitas, State University of Campinas



10:20 AM

10:30 AM

Not all centromeres are equal, or are they? (176)

Michelle M. Jonika, Texas A&M University; Sarah N. Ruckman, Florida State University; Claudio Casola, Department of Ecology and Conservation Biology, Texas A&M University; Heath L. Blackmon, Texas A&M University



10:30 AM

10:40 AM

Hemichordates inform the evolution of deuterostome immunity (728)

Michael G. Tassia, Auburn University; Kenneth M. Halanych, Auburn University



10:40 AM

10:50 AM

Evolution of a Novel Crystallin in the Luminous Organs of Midshipman Fishes (359)

Emily S. Lau, University of California, Santa Barbara; Darrin Schultz, University of California, Santa Cruz and Monterey Bay Aquarium Research Institute; Rebecca M. Varney, University of California, Santa Barbara; Todd H. Oakley, University of California, Santa Barbara; DAHIANA ARCILA, University of Oklahoma; Guillermo Orti, George Washington University



10:50 AM

11:00 AM

Pooling-based phylogenetic analysis elucidates transcription factor binding sites under weakly accelerated evolution in primates (123)

Xinru Zhang, Pennsylvania State University; Yi-Fei Huang, Pennsylvania State University



11:00 AM

11:10 AM

Transcriptome-wide patterns of natural selection in lungfishes shed light on the evolution of giant genomes (1158)

Silvia Fuselli, Department of Life Sciences and Biotechnology, University of Ferrara, Italy; Samuele Greco, Department of Life Sciences, University of Trieste, Italy; Carmel McDougall, Griffith University; Marta Lago, Department of Life Sciences and



Biotechnology, University of Ferrara, Italy; Corrado Meneghetti, Department of Life Sciences and Biotechnology, University of Ferrara, Italy; Marco Gerdol, Department of Life Sciences, University of Trieste, Italy; Giorgio Bertorelle, Department of Life Sciences and Biotechnology, University of Ferrara, Ferrara, Italy.

11:10 AM

11:20 AM

Evolution of the passerine superradiation growth hormone duplication (606)

Shauna Rasband, University of Maryland; Peri E. Bolton, Smithsonian Institution; Qi Fang, BGI Shenzhen; Rebecca Dikow, Smithsonian Institution; Philip L. F. Johnson, University of Maryland; Michael J. Braun, Smithsonian Institution



Phenotypic Plasticity

Tue, June 22

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Omera Matoo, Research Assistant Professor, University of Nebraska-Lincoln

Presentations

10:00 AM

10:10 AM

Local adaptation of craniofacial shape in Trinidadian guppies (388)

Dave Matthews, Harvard University; Terry R. Dial, PhD, Instructor, Utah State University; David Norman Reznick, University of California



10:10 AM

10:20 AM

Wing plasticity and associated gene expression varies across the pea aphid biotype complex (174)

Benjamin Parker, University of Tennessee; Rose Driscoll, PhD student, University of Rochester; Mary Grantham, University of Rochester; Jan Hrcek, University of Oxford; Jenn Brisson (she/her), University of Rochester



10:20 AM

10:30 AM

Coarse-grained spatial heterogeneity can promote evolution of a plastic generalist during range expansion (263)

Caitlin Marie Miller, Virginia Tech; Jeremy Draghi, Virginia Tech



10:30 AM

10:40 AM

Migrating marsh grasses show trait plasticity mediated by genetic identity: a mesocosm experiment (952)

Ezra Jay Kottler, George Washington University; Jonah Morreale, University of Virginia Coastal Research Center; Keryn Gedan, The George Washington University



10:40 AM

10:50 AM

Genetic variation for transgenerational plasticity to CO2 levels in *Arabidopsis thaliana* (1076)

Guillaume J. J. Dury, Indiana University; Jennifer Ann Lau, Indiana University Bloomington



11:00 AM

11:10 AM

Climate-change associated evolution of photoperiodic reaction norms for diapause (667)

Matthew Nielsen, Department of Zoology, Stockholm University; Christer Wiklund, Department of Zoology, Stockholm University; Karl Gotthard, Department of Zoology, Stockholm University



11:10 AM

11:20 AM

Sexual Size Dimorphism covaries with Sex Specific Plasticity among isogenic lineages of *Drosophila melanogaster* (445)

Isabelle M. Veà (she/her), PhD, Visiting Research Assistant Professor, University of Illinois at Chicago; Austin Wilcox, University of Illinois at Chicago; William Anthony Frankino, University of Houston; Alexander W. Shingleton, University of Illinois at Chicago



Phylogenetic Methods/Theory

Tue, June 22

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Kevin Liu, Michigan State University

Presentations

10:00 AM

10:10 AM

Build a Better Bootstrap and the RAWR Shall Beat a Random Path to Your Door: Phylogenetic Support Estimation Revisited (308)

Kevin J. Liu, Michigan State University



10:10 AM

10:20 AM

PickMe! Taxa selection and species tree reconstruction using coalescent weighted quartets (547)

Joseph Rusinko, Hobart and William Smith Colleges; Yu Cai, Allison Doherty, SRC Inc.; Katherine Thompson, University of Kentucky; Julien Boutte; Mark Fishbein, Oklahoma State University; Shannon Straub, Hobart and William Smith Colleges



10:30 AM

10:40 AM

Phylogenetic information content of anatomy ontologies (545)

Diego Sasso Porto, Virginia Tech; Wasila Dahdul, University of California; Hilmar Lapp, Duke University; James Balhoff, RENCI, Chapel Hill NC; Todd Vision, University of North Carolina; Paula Mabee, National Ecological Observatory Network; Josef C. Uyeda, Virginia Tech



10:40 AM

10:50 AM

Freeing islands of trees from the shackles of branch rearrangement metrics (871)

Ana Serra Silva, Natural History Museum, London; Mark Wilkinson, Natural History Museum, London UK



10:50 AM

11:00 AM

Effects of discordance between species and gene trees on phylogenetic diversity conservation (525)

Kristina Wicke, The Ohio State University; Laura Kubatko (she/her), Professor, The Ohio State University; Mareike Fischer, University of Greifswald



11:00 AM

11:10 AM

Investigation of genetic and trait variability of *Gyrinicola batrachiensis* (Nematoda: Oxyurina) across North America (815)



Matthew Walker, Southern Illinois University Carbondale; Agustín Agustin Jiménez, Southern Illinois University

11:10 AM

11:20 AM

Fresh insights into the new world members of the family Nippostrongylinae (873)

Guinevere O. Drabik, Southern Illinois University; Agustín Agustin Jiménez, Southern Illinois University



Phylogeography

Tue, June 22

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Emily Puckett, PhD, Assistant Professor, University of Memphis

Presentations

10:00 AM

10:10 AM

Demographic History of the American Black Bear (*Ursus americanus*) (185)

Emily Puckett, PhD, Assistant Professor, University of Memphis



10:10 AM

10:20 AM

Demography and evolutionary history of grey wolf populations around the Bering Strait (849)

Carolina Pacheco, CIBIO/InBio; Astrid Vik Stronen, University of Ljubljana; Bogumila Jedrzejewska, Mammal Research Institute, Polish Academy of Sciences; Raquel Godinho, CIBIO/InBio



10:20 AM

10:30 AM

The story behind the strains: Examining the phylogeography of wild yeast from woodlands (3)

Jacqueline Peña, PhD Student, University of Georgia; Douda Bensasson, University of Georgia



10:40 AM

The importance of gene flow in archipelago diversification: case study in a Pacific island



10:50 AM

flycatcher (503)

Ethan Fisher Gyllenhaal, University of New Mexico; Luke B. Klicka, Peru State College; Lucas H. DeCicco, University of Kansas; Robert Moyle, University of Kansas; Michael J. Andersen, University of New Mexico

10:50 AM

11:00 AM

Reassessment of the mountain voles (genus *Alticola*) in Northern Pakistan through molecular systematics and morphology (1080)

Shivani Bhatt, The Ohio State University; Eve Rowland, University of New Mexico; C. William Kilpatrick, Department of Biology, University of Vermont, Burlington VT, USA; Charles A. Woods, University of Vermont; Ryan W. Norris, The Ohio State University

11:00 AM

11:10 AM

Genomic data from historical specimens reveal the complex origin of a sedentary quail on Cuba (876)

Jessie Salter, Louisiana State University; Robb Brumfield, Louisiana State University; Brant C. Faircloth, Louisiana State University

Population Genetics/Selection

 Tue, June 22

 7:00 AM - 8:30 AM

 Faux-Live

Session Chairs

Chair

Stephanie Marciniak, Pennsylvania State University

Presentations

10:00 AM

10:10 AM

The impact of stabilizing selection on the prediction accuracy of polygenic scores (536)

Sivan Yair, UC Davis; Graham Coop, University of California - Davis

10:10 AM

10:20 AM

Genome-wide analysis reveals associations between climate and regional patterns of adaptive divergence and dispersal in American pika (497)

Danielle Schmidt (she/her), The University of British Columbia Okanagan; Matthew Waterhouse; Bryson Sjodin, University of British Columbia Okanagan; Michael Russello, University of British Columbia Okanagan

10:20 AM

10:30 AM

Disease-driven selection in free-ranging wildlife as revealed by spatiotemporal analyses (129)

Melanie LaCava, University of Wyoming; Jennifer L. Malmberg, University of Wyoming; William H. Edwards, Wyoming Game and Fish Department; Laura N.L. Johnson, University of Wyoming; Samantha E. Allen, Wyoming Game and Fish Department; Holly B. Ernest, University of Wyoming



10:30 AM

10:40 AM

Positive selection on coding sequence in the hoary bat (*Lasiurus cinereus*) (303)

Robert Cornman, U.S. Geological Survey



10:40 AM

10:50 AM

Finding hybrid incompatibilities using genome sequences from hybrid populations (182)

Alexandre Blanckaert, University of Wisconsin-Madison Laboratory of Genetics; Bret Payseur, Ph.D., Professor, University of Wisconsin-Madison



10:50 AM

11:00 AM

Epigenetic variation associated with ecotype differentiation in *Timema cristinae* stick insects (713)

Clarissa de Carvalho (she/ella), Federal University of São Paulo; Patrik Nosil, University Paul Valéry Montpellier



11:00 AM

11:10 AM

Evolution in the Chernobyl Exclusion Zone (612)

Clément Car, Institute for Radioprotection and Nuclear Safety (IRSN) - Research laboratory on the effects of radionuclides on ecosystems (LECO); André Gilles, Aix-Marseille Université (AMU) - UMR Risks, Ecosystems, Vulnerability, Environment, Resilience (RECOVER); Olivier Armant, IRSN; Jean-Marc Bonzom, IRSN



Speciation

Tue, June 22

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Christopher Martin, University of California, Berkeley

Presentations

10:10 AM 10:20 AM	<p>Six common assumptions about the origins of novelty: all busted after a decade of research on the San Salvador Island pupfish adaptive radiation (1096)</p> <p>Christopher Martin, University of California, Berkeley</p>	>
10:20 AM 10:30 AM	<p>Historic and ecogeographic processes in speciation: glacial cycles, dynamic reproductive barriers, and diversification of mid-latitude mammals from a paleontological perspective (1138)</p> <p>P. David Polly, Indiana University</p>	>
10:30 AM 10:40 AM	<p>Giant genomes uncover ecological speciation in the deep ocean (844)</p> <p>Alexandra Anh-Thu Weber, Ifremer</p>	>
10:40 AM 10:50 AM	<p>Dynamics of speciation under metabolic stress in <i>Saccharomyces cerevisiae</i>. (755)</p> <p>Anjali Mahilkar, Indian Institute of Technology Bombay; Supreet Saini, Indian Institute of Technology Bombay</p>	>
10:50 AM 11:00 AM	<p>Genetic variation for adaptive traits is associated with polymorphic inversions in <i>Littorina saxatilis</i> (38)</p> <p>Eva Koch, University of Sheffield; Hernán Morales, Centre for Marine Evolutionary Biology, Department of Marine Sciences, University of Gothenburg, Gothenburg, Sweden; Jenny Larsson, University of Sheffield; Rui Faria, Universidade do Porto and University of Sheffield; Anja Westram, IST Austria; Roger Butlin, Universities of Sheffield and Gothenburg; Kerstin Johannesson, University of Gothenburg</p>	>

11:00 AM

11:10 AM

Recombination rate repatterning and accumulation of reproductive barriers by chromosome-wide translocation during speciation of nematodes (843)

Kohta Yoshida, PhD (Biology), Dr., Max Planck Institute for Developmental Biology; Christian Rödelsperger; Ralf J. Sommer



11:10 AM

11:20 AM

Mating system and speciation – accumulation of genetic incompatibilities in allopatry. (89)

Lucas Marie-Orleach, Natural History Museum; Christian Brochmann, Natural History Museum, University of Oslo; Sylvain Glémin, Université de Rennes



Transcriptomics

Tue, June 22

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Megha Majoe, Johannes Gutenberg University Mainz

Presentations

10:00 AM

10:10 AM

Sex-specific selection drives the evolution of alternative splicing in birds (235)

Thea Rogers, The University of Sheffield; Daniela Palmer, University of Sheffield; Alison E. Wright, University of Sheffield



10:10 AM

10:20 AM

Rapid evolution of complete dosage compensation in *Poecilia* (108)

David Metzger, University of British Columbia; Benjamin A. Sandkam, University of British Columbia; Iulia Darolti, Postdoctoral Fellow, University of British Columbia; Judith Mank, University of British Columbia



10:20 AM

10:30 AM

Transcriptome-wide gene and protein expression differences in the intertidal mussel *Mytilus californianus* exposed to field and lab treatments (1085)

Lani Gleason (she/her), Assistant Professor, California State University Sacramento; Florian Fekete; Richelle Tanner; Wes Dowd



10:30 AM

10:40 AM

Evolution vs pollution: a natural experiment in sacred fir (*Abies religiosa*) peri-urban forests affected by tropospheric ozone in Mexico City (782)

Verónica Reyes-Galindo, PhD Student, Instituto de Ecología, Universidad Nacional Autónoma de México; Alicia Mastretta-Yanes (she/her/ella), PhD., CONABIO; Juan Pablo Jaramillo-Correa, Instituto de Ecología, UNAM; Ricardo Torres-Jardón, Centro de Ciencias de la Atmósfera, UNAM; Estela Sandoval-Zapotitla, Jardín Botánico, Instituto de Biología, UNAM; César Mateo Flores-Ortiz, UBIPRO, Facultad de Estudios Superiores Iztacala, UNAM; Lewis Spurgin, School of Biological Sciences, University of East Anglia; claudio Zamora-Callejas, Bienes Comunes, Santa Rosa Xochiac; Billy Emmanuel Ramírez-Morales, Bienes Comunes, Santa Rosa Xochiac; Alejandra Elizabeth De la Rosa-González, Bienes Comunes, Santa Rosa Xochiac; Miguel Angel Morelos-Zamora, Bienes Comunes, Santa Rosa Xochiac; Maurilio Salazar-Zamora, Bienes Comunes, Santa Rosa Xochiac; Karina Carrasco-Nava, Bienes Comunes, Santa Rosa Xochiac; Luis Alberto Monroy-De la Rosa, Bienes Comunes, Santa Rosa Xochiac; Rafael Zamora-Callejas, Bienes Comunes, Santa Rosa Xochiac; Mauricio Martínez, Bienes Comunes, Santa Rosa Xochiac; César Zamora, Bienes Comunes, Santa Rosa Xochiac; María del Pilar Rodríguez, Bienes Comunes, Santa Rosa Xochiac; David Flores-Flores, Bienes Comunes, Santa Rosa Xochiac; Oliver Tanui Ramírez-Morales, Bienes Comunes, Santa Rosa Xochiac; Tonatiuh Zamora, Bienes Comunes, Santa Rosa Xochiac



10:40 AM

10:50 AM

Evolution of gene expression in a warming environment (988)

Marta Antunes, Faculty of Sciences of the University of Lisbon; Marta A. Santos, MSc, PhD, cE3c – Centre for Ecology, Evolution and Environmental Changes, Universidade de Lisboa, Portugal; Margarida Matos, FCUL; Pedro Simões, Faculdade de Ciências, Universidade de Lisboa



10:50 AM

11:00 AM

Dissecting royalty: ovaries of leafcutter ant queens show fewer transcriptomic changes with age than



the brains and fatbodies do (1054)

Megha Majoe, Johannes Gutenberg University Mainz; Morten Schiott, National Institute of Aquatic Resources, Technical University of Denmark, Kongens Lyngby, Denmark; Joanito Liberti, Department of Fundamental Microbiology (DMF) ,University of Lausanne , Lausanne, Switzerland,; Jacobus Boomsma, Centre for Social Evolution, Department of Biology, University of Copenhagen, Denmark; Guojie Zhang, Centre for Social Evolution, Department of Biology, University of Copenhagen, Denmark; Romain Libbrecht, Dr., Johannes Gutenberg University of Mainz; Susanne Foitzik, Johannes Gutenberg University Mainz; Volker Nehring, Department of Evolutionary Biology and Ecology, Albert Ludwig University of Freiburg, Germany

11:00 AM

11:10 AM

Are genomic responses to hydrogen sulfide exposure shared between two evolutionary divergent taxa? (54)

Alexandra Fraik (she/her), Washington State University; Courtney Passow; Michael Tobler, Kansas State University; Joanna Kelley, Washington State University



11:10 AM

11:20 AM

Genomewide association mapping of transcriptome variation in *Mimulus guttatus* indicates differing patterns of selection on cis- versus trans- acting mutations (187)

Keely Brown, University of California, Riverside; John Kelly, University of Kansas



SSB President Plenary - Rediscovering the organism in phylogenetic biology

Tue, June 22

9:30 AM - 10:30 AM

LS Plenary

Session Chairs

Chair

Laura Kubatko (she/her), Professor, The Ohio State University

Chris Simon, University of Connecticut

Info

Will you be presenting your talk in English or Spanish?:

English

Keyword 1:

Macroevolution

Keyword 2:

Adaptation

Keyword 3:

Systematics

Taxonomic Group:


Plants

Author

erika j. edwards (she/her)

yale university

John Edmonstone coffee social for BIPOC scientists and allies

 Tue, June 22

 11:00 AM - 12:00 PM

 Social Events

Author

Brandon Ogbunu

Yale University

ASN Vice-Presidential Symposium: The Power of Sexual Selection

 Tue, June 22

 12:00 PM - 3:00 PM

 LS Symposium

Session Chairs

Chair

Suzanne Alonzo, Univ. of California

Presentations

3:00 PM

The Power (and Future) of Sexual Selection (784)

Suzanne H. Alonzo, Univ. of California



3:20 PM

3:20 PM

Mate choice based on kinship: a meta-analytical view (869)

Regina Vega-Trejo, Stockholm University; Raissa de Boer, Stockholm University; Alexander Kotrschal, Stockholm University/Wageningen University; John L. Fitzpatrick, Stockholm University



3:40 PM

3:40 PM

Postmating sexual selection through female reproductive fluid: what do we know? (1144)

Clelia Gasparini, University of Padova; Livia Pinzoni, University of Padova



4:00 PM

4:00 PM

Size and sexual selection in a salticid spider (1007)

Rowan McGinley, Saint Louis University



4:20 PM

4:20 PM

Male Mate Choice and Female Indicator Traits Through the Lens of "Good Genes". (867)

Courtney Lyn Fitzpatrick, Texas A&M University



4:40 PM

4:40 PM

5:00 PM

Sexual selection and the brain: neural mechanisms of mate preferences in the guppy (281)

Alberto Corral-Lopez, University of British Columbia



5:00 PM

The geography of sexual conflict (532)

Mercedes Burns, UMBC



5:20 PM

5:20 PM

Do proximate mechanisms matter for sexual selection? (1131)

Sara E. Lipshutz, Indiana University; Kimberly A. Rosvall, Indiana University



5:40 PM

SSE Symposium: SSE at 75 years - Continuity and Change in Evolutionary Research

Tue, June 22

12:00 PM - 3:30 PM

FL Symposium

Session Chairs

Chair

Maria Rebolleda-Gomez, University of California, Irvine**Ruth Shaw (she/her)**, University of Minnesota

Presentations

3:00 PM

Introduction (1316)

Maria Rebolleda-Gomez, University of California, Irvine



3:05 PM

3:05 PM

The evolutionary synthesis and the 'two steps' of evolution by natural selection (1147)

John Beatty, University of British Columbia



3:30 PM

3:30 PM

3:55 PM	Towards a post-pandemic evolutionary synthesis (1026) Brandon Ogbunu, Yale University	>
3:55 PM 4:20 PM	Genetic diversity and disease: the past, present and future of an old idea (960) Amanda Kyle Gibson, PhD, University of Virginia	>
4:20 PM 4:45 PM	The evolution of novelty by small steps and giant leaps: A tale of two toxins (1040) Noah K. Whiteman, UC-Berkeley	>
4:45 PM 5:10 PM	A multidimensional perspective on the role of behavior in evolution. (894) Martha Munoz, Yale University	>
5:10 PM 5:35 PM	The current insights and future promises of evolutionary climate change research (559) Susana Wadgyman (she/her), Davidson College	>

LGBTQ+ and allies super-awesome trivia treasure hunt

 Tue, June 22

 4:00 PM - 6:00 PM

 Social Events


Author

Jenn Marie Coughlan

University of North Carolina, Chapel Hill

Adaptation/Convergent Evolution

 Wed, June 23

 7:00 AM - 8:30 AM

 Faux-Live

Session Chairs

Chair

Samridhi Chaturvedi, Postdoctoral Fellow, University of California, Berkeley

Presentations

10:00 AM

10:10 AM

Ecology and genomic background shape the probability of parallel adaptation to climate in *Timema* stick insects (638)

Samridhi Chaturvedi, Postdoctoral Fellow, University of California, Berkeley; Zachariah Gompert, Utah State University; Jeffrey R. Feder, University of Notre Dame; Moritz Muschick, 1. University of Bern, 2.EAWAG Center for Ecology, Evolution & Biogeochemistry; Owen Osborne, Bangor University; Patrik Nosil, University Paul Valéry Montpellier



10:10 AM

10:20 AM

A spectrum of evolutionary novelty in mushroom-feeding *Drosophila* (192)

Lauren Haynes, University of Alabama; Olivia Fish, University of Alabama; Jordan Beveridge, University of Alabama; Eunice Bingolo, Appalachian State University; Kerri Durkan, Appalachian State University; Sarah-Ashley Giambrone, University of Alabama; Grace Kropelin, Appalachian State University; Stephanie Rudisill, Appalachian State University; Pablo Chialvo, Lander University; Laura K Reed, University of Alabama; Clare Scott Chialvo (she/her), Appalachian State University



10:20 AM

10:30 AM

Parallel genetic changes underlie adaptation to novel trophic niches in a radiation of *Cyprinodon* pupfish. (825)

Michelle E. St John, M.S., University of California, Berkeley; Christopher Martin, University of California, Berkeley



10:30 AM

10:40 AM

Evolutionary constraints and the distribution of beneficial mutational effects in *Saccharomyces* vineyard adaptation (1149)

Emery Longan, University of Rochester; Justin Fay, University of Rochester



10:40 AM

10:50 AM

The Finer Points of Urban Adaptation: Intraspecific Variation in Anolis Lizard Claws (1135)

Cleo Falvey, UMass Boston; Kristin Marie Winchell (she/her), Washington University; Travis Hagey, Mississippi University for Women; Kevin AvilesRodriguez, University of Massachusetts Boston



10:50 AM

11:00 AM

Parallel genomic signatures of local adaptation across a continental-scale environmental gradient (640)

Lucas Rocha Moreira, PhD, Department of Ecology, Evolution and Environmental Biology, Columbia University; Brian Tilston Smith, American Museum of Natural History



11:00 AM

11:10 AM

Comparative genomics of the first skink genomes supports multiple mechanisms of limb reduction in squamate reptiles (495)

Daren Card, PhD, NSF Postdoctoral Research Fellow in Biology, Harvard University; Mark Hutchinson, Flinders University; Steve Donnellan, South Australian Museum; Michael Lee, South Australian Museum & Flinders University; Scott Vernon Edwards, Harvard University



Biogeography

Wed, June 23

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Cecilia Vieira (she/her), Utah State University

Presentations

10:00 AM

10:10 AM

How to Get High: Positive Selection on Mitochondrial Genes at High Elevation (326)

Erik Nelson Kortadler Iverson he/him/his, University of Texas at Austin; Justin Chase Havird, University of Texas at Austin



10:10 AM

10:20 AM

Using genetic simulations and climatic niches to test plant and animal population divergence on the Baja California peninsula (311)

Raúl Ignacio Araya-Donoso, Arizona State University; Adrian Munguía-Vega, University of Arizona; Sarah Marie Baty, Arizona State University; Pedro Alonso-Alonso, University of Arizona; Benjamin T. Wilder, University of Arizona; Andrés Lira-Noriega, Instituto de Ecología, CONACyT; Kenro Kusumi, Arizona State University; Greer A. Dolby, Arizona State University



10:20 AM

10:30 AM

A comparative genomics approach to understand historical connections among Neotropical savannas (1165)

Cássia Lima-Rezende, Museo Argentino de Ciencias Naturales; Gustavo Sebastián Cabanne, Museo Argentino de Ciencias Naturales; Amanda Vaz Rocha, Universidade de Brasília, Brasília, Brazil.; Martin Carboni, Museo Argentino de Ciencias Naturales, Buenos Aires, Argentina.; Renato Caparroz, University of Brasília - UnB; Robert M. Zink, University of Nebraska-Lincoln, Lincoln, United States.



10:30 AM

10:40 AM

The impact of Pleistocene sea-level fluctuations on the evolution of Galapagos lizards (183)

Omar Torres-Carvajal, Ph.D., Full Professor, Pontificia Universidad Católica del Ecuador; Paula A. Castaño, Island Conservation



10:40 AM

10:50 AM

Origin, diversification and biogeography of a species-rich genus of Neotropical macro-moths (274)

Eliette Reboud, CNRS



10:50 AM

11:00 AM

A definitive rejection of the Out of the Tropics model in marine fishes (819)

Pascal Title, Stony Brook University; Michael C. Grundler, University of Michigan, Museum of Zoology and Department of Ecology & Evolutionary Biology; Daniel L. Rabosky, University of Michigan, Museum of Zoology and Department of Ecology & Evolutionary Biology



11:00 AM

11:10 AM

Patterns of diversity in velvet ants (Hymenoptera: Mutillidae) from the South American Cerrado (1116)



Cecília R. Vieira (she/her), Utah State University

11:10 AM

11:20 AM

Natural and Anthropogenic Effects on Pacific swallow (*Hirundo tahitica*) Populations (491)

Brenda Ramirez, California State Polytechnic University, Pomona; Amanda Kathryn Hund (she/her), University of Minnesota; Amanda Zellmer, Occidental College; Elizabeth Scordato, Assistant Professor, Cal Poly Pomona



Conservation Biology

Wed, June 23

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Keith Harris, Hebrew University of Jerusalem

Presentations

10:00 AM

10:10 AM

Explaining patterns of genetic structure in a narrowly endemic butterfly (658)

Amy Springer, Utah State University; Zachariah Gompert, Utah State University



10:10 AM

10:20 AM

Use of DNA Methylation to Study Elusive Marine Predators (470)

Andria P. Beal, M.S., PhD Candidate, Florida International University; Jose M. Eirin-Lopez, Florida International University



10:20 AM

10:30 AM

Rescue by gene swamping as a fail-safe strategy in gene drive deployment (598)

Keith Daniel Harris, Hebrew University of Jerusalem; Gili Greenbaum, Hebrew University of Jerusalem



10:30 AM

10:40 AM

Genotyping-in-Thousands by sequencing (GT-seq) panel development and application to inform kokanee salmon (*Oncorhynchus nerka*) fisheries management at multiple scales (502)

Sarah Lu Chang, Bachelor of Science, Master of Science, University of British Columbia Okanagan; Michael Russello, University of British Columbia Okanagan



10:40 AM

10:50 AM

Models for eco-evolutionary extinction vortices under balancing selection (253)

Peter Nabutanyi, Bielefeld University; Meike Wittmann, Bielefeld University



10:50 AM

11:00 AM

Sourcing Elephant Ivory from a Sixteenth-Century Portuguese Shipwreck (655)

Alida de Flamingh (she/her), Carl R. Woese Institute for Genomic Biology, University of Illinois; Ashely Coutu, Pitt Rivers Museum, University of Oxford, Oxford OX1 3PP, UK; Judith Sealy, University of Cape Town, Cape Town, South Africa; Shadreck Chirikure, University of Cape Town, Cape Town, South Africa; Armanda Bastos, University of Pretoria, Pretoria, South Africa; Nzila Libanda-Mubusisi, National Museum of Namibia, Windhoek, Namibia; Ripan S. Malhi, University of Illinois Urbana-Champaign; Alfred Roca, University of Illinois at Urbana-Champaign, IL, USA



11:00 AM

11:10 AM

Un enfoque filogenético para la conservación de las ranas arborícolas Neotropicales. (153)

Itzue Caviedes-Solis, Lingnan University; Adam Leache, University of Washington



11:10 AM

11:20 AM

Staying Stable with Fluctuations: How Environmental Cycles and Demography Influence a Florida Scrub-Jay Population (223)

Jeremy Summers (he/him/his), University of Rochester; Elissa J. Cosgrove, Cornell University; Reed Bowman, Archbold Biological Station; John Fitzpatrick, Cornell Lab of Ornithology; Nancy Chen (she/her), Assistant Professor, University of Rochester



Evolutionary Ecology

Wed, June 23

7:00 AM - 8:30 AM

Session Chairs

Chair

Elsie Shogren (she/her), University of Rochester

Presentations

10:00 AM

On the evolution of trophic position (864)

10:10 AM

Marvin Moosmann, Swiss Federal Institute of Aquatic Science and Technology - Eawag; Maria Cuenca-Cambronero; Ryan Greenway; Cameron M. Hudson, PhD Evolutionary Biology, EAWAG; Moritz Lürig; Blake Matthews



10:10 AM

Thermal evolution of life history and physiology in a southward expanding damselfly (958)

10:20 AM

Janne Swaegers, KU Leuven; Rosa Ana Sánchez Guillen, Instituto de Ecología A.C., Xalapa, Veracruz, Mexico; José Antonio Carbonell, Department of Wetland Ecology, Doñana Biological Station, Seville, Spain.; Robby Stoks, Evolutionary Stress Ecology and Ecotoxicology, KU Leuven, Leuven, Belgium



10:20 AM

Stay tuned! Visual sensitivity of Nicaraguan crater lake cichlids correlates with photic environment (972)

10:30 AM

Cesar Bertinetti, University of Konstanz; Andreas Haerer, University of California, San Diego; Axel Meyer, Dept. of Biology; Julián Torres-Dowdall, University of Konstanz



10:30 AM

Adaptive plasticity as a fitness benefit of mate choice (605)

10:40 AM

Patrick Kelly, UNC Chapel Hill Department of Biology; David Pfennig, University of North Carolina; Karin Pfennig, University of North Carolina



10:40 AM

Detecting genomic signatures of constraints on sexual selection mediated by natural selection (687)

10:50 AM



Elsie H. Shogren (she/her), University of Rochester; Alice Boyle, Kansas State University

10:50 AM

11:00 AM

Phylogenomic systematics, bioacoustics, and morphology of frogs from Madagascar reveals that background noise drives the evolution of high frequency acoustic signaling (446)

Carl R. Hutter (he/him), Louisiana State University; Daniel J. Paluh, PhD Candidate, Florida Museum of Natural History; Zo Andriampenanomana, University of Antananarivo; Frank Glaw; Miguel Vences



11:00 AM

11:10 AM

Multiple solutions to a common problem: Witnessing the earliest stages of sexual signal diversification (417)

James Hayden Gallagher, University of Denver; David Michael Zonana, University of Denver; Dale Broder, St Ambrose University; Robin Tinghitella, University of Denver



11:10 AM

11:20 AM

Evolution of sexual dimorphism in brain size and brain region volumes across wild guppy populations (552)

Angie Sofia Reyes, Biologist, BSc., Universidad de Los Andes; Amaury Fernando Bittar, Universidad de Los Andes; Natalia Paola Esmeral, Universidad De Los Andes; Natasha Bloch, Universidad de los Andes



Evolutionary Theory

Wed, June 23

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Ludovic Dutoit, University of Otago

Presentations

10:00 AM 10:10 AM	Phylogenetic Regionalization of Middle American Herpetofauna: Preliminary Results (438) Dillon Jones, San Diego State University	>
10:10 AM 10:20 AM	Modeling pulsed evolution and time-independent variation improves the confidence level of ancestral and hidden state predictions in continuous traits (99) Yingnan Gao, Ph.D. Candidate, University of Virginia; Martin Wu, Associate Professor, University of Virginia	>
10:30 AM 10:40 AM	Asymmetric evolvability leads to specialization without trade-offs (807) Jeremy Draghi, Virginia Tech	>
10:40 AM 10:50 AM	Exploring the evolution of regulatory diversity (432) Peter Price, University of Sheffield	>
10:50 AM 11:00 AM	Estimating contemporary effective population size in an island population of collared flycatchers (<i>Ficedula albicollis</i>) (194) Krystyna Nadachowska-Brzyska, Uppsala University; Ludovic Dutoit, University of Otago; Linnéa Smeds, Uppsala University; Martin Kardos, National Oceanic and Atmospheric Administration; Lars Gustafsson, Uppsala University; Hans Ellegren, Uppsala University	>
11:00 AM 11:10 AM	Recurrent speciation rates on islands decline with species number (635) Ryo Yamaguchi, Hokkaido University; Yoh Iwasa, Kyushu University; Yuuya Tachiki, Tokyo Metropolitan University	>
11:10 AM 11:20 AM	The information signature of diverging populations: Using partial information decomposition to study speciation (77) Douglas G. Moore, Arizona State University; Matheo Morales, Yale University; Sara Imari Walker, Arizona State University; Greer Dolby, PhD, Arizona State University	>

Gene Flow/Bioinformatics/Plants

📅 Wed, June 23

🕒 7:00 AM - 8:30 AM

📁 Faux-Live

Session Chairs

Chair

Laura Mendez, She/Her, German Centre for Integrative Biodiversity Research (iDiv)
Halle-Jena-Leipzig

Presentations

10:00 AM

10:10 AM

Analyzing the population genetic structure of two cryptic duckweed species *Lemna minor* and *L. turionifera* in Alberta using a genotyping by sequencing approach (434)

Kanishka Kanishka Senevirathna, University of Lethbridge; Robert A. Laird, University of Lethbridge; Theresa M. Burg, University of Lethbridge



10:10 AM

10:20 AM

Presence of 7 cellulose synthase (CesA) genes within mosses suggests early diversification (837)

Aly Marie Hartmann, University of Rhode Island; Rachel S. Schwartz, University of Rhode Island; Allison Roberts, University of Rhode Island



10:20 AM

10:30 AM

Widespread lateral gene transfer among grasses (704)

Samuel Hibdige, University of Sheffield; Luke Dunning, University of Sheffield; Pascal-Antoine Christin, University of Sheffield; Pauline Raimondeau, University of Toulouse



10:30 AM

10:40 AM

Outcrossing distance in space and time affect fitness in a long-lived perennial (882)

Amy Waananen, University of Minnesota; Ruth Geyer Shaw (she/her), University of Minnesota; Stuart Wagenius, Chicago Botanic Garden; Jennifer L. Ison, College of Wooster



10:40 AM

10:50 AM

The impact of recurrent origins and gene flow on the genetic structure of allopolyploid marsh orchids (*Dactylorhiza*, Orchidaceae) (792)

Anna-Sophie Hawranek, University of Vienna, Department of Botany and Biodiversity Research; Marie Kristine Brandrud, University of Vienna; Thibault Leroy, University of Vienna, Department of Botany and Biodiversity Research; Paul Blischak, Department of Ecology & Evolutionary Biology and Department of Molecular & Cellular Biology, University of Arizona, Tucson, USA; Mikael Hedrén, Lund University; Ovidiu Paun, University of Vienna



10:50 AM

11:00 AM

Megafrugivores as fading shadows of the past: extant frugivores and the abiotic environment as the most important determinants of the distribution of palms on Madagascar (712)

Laura Mendez, She/Her, German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig; Duarte S. Viana, German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig; Adriana Alzate, German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig; W. Daniel Kissling, Institute for Biodiversity and Ecosystem Dynamics (IBED), University of Amsterdam; Wolf Eiserhardt, Aarhus University; Roberto Rozzi, German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig; Mijoro Rakotoarinivo, Département de Biologie et Ecologie Végétales, Faculté des Sciences, Université d'Antananarivo; Renske E. Onstein, iDiv, Germany



11:00 AM

11:10 AM

Flowering time variation across a microgeographic mosaic in yellow monkeyflowers (908)

Colette Berg, University of Montana; Lila Fishman, University of Montana



11:10 AM

11:20 AM

Using pan-genomes to understand the dynamics of lateral gene transfer in plants (82)

Luke Dunning, University of Sheffield; Pauline Raimondeau, University of Toulouse; Matheus Bianconi, University of Sheffield; Pascal-Antoine Christin, University of Sheffield



Genomics/Adaptation

Wed, June 23

7:00 AM - 8:30 AM

Session Chairs

Chair

Erik Enbody, Uppsala University

Presentations

10:00 AM

10:10 AM

The evolution of Darwin's finches - whole genome sequencing of an entire community of finches on Daphne island (242)

Erik Enbody, Uppsala University; Charlotte Grace Sprehn, Uppsala University; Ashley T. Sendell-Price, Uppsala University; B Rosemary Grant, Princeton University; Peter R. Grant, Princeton University; Leif Andersson, Uppsala University



10:10 AM

10:20 AM

Genetic basis of antbird adaptation to South American dry environments: Insights from phenotypic and comparative genomic analyses (689)

Gustavo A. Bravo, Harvard University; Scott Vernon Edwards, Harvard University



10:20 AM

10:30 AM

The evolution of adaptive seasonal colour polymorphism in long-tailed weasels (111)

João Pimenta, CIBIO-InBIO, University of Porto; Inês Miranda (she/her), CIBIO-InBIO, University of Porto; Liliana Farelo, CIBIO-InBIO, University of Porto; L. Scott Mills, University of Montana; José Melo-Ferreira, CIBIO-InBIO, University of Porto



10:30 AM

10:40 AM

Insights from the nuclear genome of an extinct, giant lemur *Megaladapis edwardsi* (652)

Stephanie Marciniak, Pennsylvania State University; Mehreen Mughal, Pennsylvania State University; Laurie Godfrey, University of Massachusetts, Amherst; Richard Bankoff, Pennsylvania State University; Heritiana Randrianatoandro, Pennsylvania State University/Universite d'Antananarivo; Brooke Crowley, University of Cincinnati; Christina Marie Bergey, Pennsylvania State University / Rutgers University; Kathleen Muldoon, Midwestern University; Jeannot Randrianasy, Universite d'Antananarivo; Brigitte Marie



Raharivololona, Universite d'Antananarivo; Stephan Schuster, Nanyang Technological University; Ripan S. Malhi, University of Illinois Urbana-Champaign; Anne Yoder, Duke University; Edward E. Louis Jr., Omaha's Henry Doorly Zoo and Aquarium; Logan Kistler, National Museum of Natural History, Smithsonian Institution; George Perry, Pennsylvania State University

10:40 AM

10:50 AM

Evolution of seasonal colour polymorphism in the least weasel: a museum genomics approach (156)

Inês Miranda (she/her), CIBIO-InBIO, University of Porto; Iwona Giska, CIBIO-InBIO, University of Porto; Liliana Farelo, CIBIO-InBIO, University of Porto; João Pimenta, CIBIO-InBIO, University of Porto; Marketa Zimova; Jarosław Bryk; Love Dalén, Swedish Museum of Natural History; L. Scott Mills, University of Montana; Karol Zub, Polish Academy of Sciences; José Melo-Ferreira, CIBIO-InBIO, University of Porto



10:50 AM

11:00 AM

Looking under the hood: Identifying Candidate Genes for Squamate Color and Color Pattern (347)

Pietro Longo Hollanda de Mello, University of Kansas; John Kelly, University of Kansas; Richard E. Glor, University of Kansas



11:00 AM

11:10 AM

Population genomics of 'apapane, a Hawaiian honeycreeper (118)

Luke Campillo (he/him), University of Hawaii



11:10 AM

11:20 AM

Comparative genomic analysis of chelonians using a new de novo genome for the Sonoran desert tortoise, *Gopherus morafkai* (209)

Joseph Orton, Arizona State University; Brianah M. McCoy, Arizona State University; Sarah Marie Baty, Arizona State University; Raúl Araya-Donoso, Arizona State University; Alexandra Cuddy, Arizona State University; Yash Sharma, Arizona State University; Dylan P. Wang, Arizona State University; Dale DeNardo, Arizona State University; Kenro Kusumi, Arizona State University; Greer A. Dolby, Arizona State University



Genomics/Reproduction/Plants

Wed, June 23

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Narjes Yousefi, University of Zurich

Presentations

10:00 AM 10:10 AM	<p>Sex determination and sex chromosome evolution in dioecious nightshades (916)</p> <p>Rafael Guerrero, North Carolina State University</p>	>
10:10 AM 10:20 AM	<p>Stepwise origin of a supergene controlling floral dimorphism (946)</p> <p>Giacomo Potente, Department of Systematic and Evolutionary Botany, University of Zurich</p>	>
10:20 AM 10:30 AM	<p>Loss of heterostyly in <i>Primula</i>: demise of a supergene? (810)</p> <p>Narjes Yousefi, University of Zurich; Barbara Keller, University of Zurich; Elena Conti, University of Zurich</p>	>
10:30 AM 10:40 AM	<p>RNase-based Self-Incompatibility in <i>Lysimachia monelli</i> (Primulaceae) (444)</p> <p>Karolis Ramanauskas (he/him), Graduate Student, University of Illinois at Chicago; Boris Igic, University of Illinois at Chicago</p>	>
10:40 AM 10:50 AM	<p>Genomic evidence for large structural variations underlying the tristylous floral polymorphism (913)</p> <p>Haoran Xue, University of Toronto; Spencer Charles Barrett, University of Toronto; Stephen I. Wright, Department of EEB, U. Toronto</p>	>
10:50 AM 11:00 AM	<p>Consequences of secondary contact in reproductively isolated <i>Mimulus</i> species (225)</p> <p>Jenn Marie Coughlan, University of North Carolina, Chapel Hill</p>	>

11:00 AM

11:10 AM

Investigating differences in endosperm balance number among *Mimulus* species and its involvement in hybrid seed inviability (1003)

Gabrielle Dianne Sandstedt (she/her), University of Georgia;
Andrea Sweigart (she/her), University of Georgia



11:10 AM

11:20 AM

New genomic resources and comparative analyses reveal differences in floral gene expression in selfing and outcrossing *Collinsia* sister species (1074)

Lauren Frazee, Temple University; Joanna Rifkin, University of Toronto; Dinusha C. Maheepala, University of Arizona Health Sciences; Alannie-Grace Grant, University of Tennessee; Stephen I. Wright, Department of EEB, U. Toronto; Susan Kalisz, University of Tennessee, Knoxville; Amy Litt, University of California Riverside; Rachel Spigler, Temple University



Life History Evolution

Wed, June 23

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Serena Caplins, PhD, BS, AS, University of California, Davis

Presentations

10:00 AM

10:10 AM

Revisiting the role of environmental temperature on the evolution of reproductive tactics: a phylogenetic comparative analysis of lizards (534)

Dylan J. Padilla, Arizona State University; Michael J. Angilletta, Arizona State University



10:10 AM

10:20 AM

Life-history and metabolic rates in a sea slug with striking life history plasticity (928)

Serena Caplins, PhD, BS, AS, University of California, Davis;
Caroline Williams; Rachael Bay, University of California, Davis



10:20 AM 10:30 AM	Learning from your elders: lessons from aging bacteria (465) Audrey Menegaz Proenca, Pontifical Catholic University of Rio Grande do Sul; Camilla Ulla Rang, University of California, San Diego; Lin Chao, University of California, San Diego	>
10:30 AM 10:40 AM	Cancer risk and sexual conflict as constraints to body size evolution (947) E. Yagmur Erten, University of Zurich; Hanna Kokko, University of Zurich	>
10:40 AM 10:50 AM	Long live the queen! The evolution of senescence in eusocial species. (847) Charlotte de Vries, University of Zurich, Department of Evolutionary Biology and Environmental Studies; Robert Noble, City, University of London; Hanna Kokko, University of Zurich	>
10:50 AM 11:00 AM	Resources and development jointly shape life history evolution in plants. (557) Gregor Siegmund (he/him), Department of Ecology and Evolutionary Biology, Cornell University; Monica Geber, Department of Ecology and Evolutionary Biology, Cornell University; Stephen Ellner, Department of Ecology and Evolutionary Biology, Cornell University	>
11:00 AM 11:10 AM	The influence of seasonal migration on molecular evolution in North American boreal birds (541) Teresa Pegan (she/her), University of Michigan; Jacob S. Berv, Ph.D., Life Sciences Fellow, University of Michigan; Eric R. Gulson-Castillo, University of Michigan; Benjamin M. Winger, University of Michigan	>
11:10 AM 11:20 AM	Life histories as mosaics: plastic and genetic components differ among traits that underpin life-history strategies (572) Anja Felmy, Dr, University of Oxford; David Norman Reznick, University of California; Joseph Travis, Florida State University; Tomos Potter, University of Oxford; Tim Coulson, University of Oxford	>

Macroevolution

📅 Wed, June 23

🕒 7:00 AM - 8:30 AM

📁 Faux-Live

Session Chairs

Chair

Yichao Zeng, University of Arizona

Presentations

10:00 AM

10:10 AM

From drab tyrants to colorful cotingas: Sexual and natural selection shape conspicuousness in a neotropical bird clade (741)

Carlos David Arcila, Pontificia Universidad Javeriana; Laura Cespedes; Oscar Laverde



10:10 AM

10:20 AM

Species interactions have predictable impacts on diversification (372)

Yichao Zeng, University of Arizona; John Wiens, University of Arizona



10:20 AM

10:30 AM

Unraveling a web of uncertainty (636)

Pedro Santos Neves, University of Groningen; Luis Valente, Naturalis Biodiversity Center; Jun Ying Lim, Nanyang Technological University, Singapore; Jairo Patiño, IPNA-CSIC; Rosemary G. Gillespie, University of California Berkeley; Rampal Etienne, University of Groningen



10:30 AM

10:40 AM

Plumage coloration and drum acoustics trade-off in Woodpeckers (1107)

Ghislaine Cárdenas-Posada (She, Her, Sumercé), Wake forest University; Hannah I. Weller, Brown University; Matthew J. Fuxjager, Brown University



10:40 AM

10:50 AM

Microbial trait evolution is dominated by frequent and rare pulsed evolution (93)



Martin Wu, Associate Professor, University of Virginia; Yingnan Gao, Ph.D. Candidate, University of Virginia

10:50 AM

11:00 AM

Total evidence phylogenetic analysis reveals polyphyly of *Anostomoides* and uncovers an unexpectedly ancient genus of anostomid fishes (777)

Brian Sidlauskas, Oregon State University; Fernando M. Assega, Universidade Estadual de Londrina; Bruno F. Melo, Universidade Estadual Paulista; Claudio Oliveira, Universidade Estadual Paulista - UNESP; José L.O. Birindelli, Universidade Estadual de Londrina



11:00 AM

11:10 AM

Inferring the total-evidence timescale of Marattialean fern evolution in the face of model sensitivity (1053)

Michael Ryan May, UC Berkeley; Dori L. Contreras, Perot Museum of Nature and Science; Michael A. Sundue, The University of Vermont; Nathalie S. Nagalingum, California Academy of Sciences; Cindy V. Looy, UC Berkeley; Carl Rothfels, UC Berkeley



11:10 AM

11:20 AM

The power and promise of performance surface-based evolutionary analyses (1016)

C. Tristan Stayton, Bucknell University



Molecular Evolution

Wed, June 23

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Steven Chen, University of Toronto

Presentations

10:00 AM

10:10 AM

Examining the role of photoreceptor development genes in the evolution of transmuted squamate photoreceptors (900)



Emily Dong, University of Toronto; Belinda Chang, University of Toronto

10:10 AM

10:20 AM

Evolution and impact of mutation biases (592)

Mrudula Sane, National Centre for Biological Sciences (NCBS-TIFR), Bangalore, India; Bhoomika Bhat, Indian Institute of Science, Bangalore, India; Gaurav D. Diwan, National Centre for Biological Sciences (NCBS-TIFR), Bangalore, India; Lindi M. Wahl, Western University, London, Ontario, Canada; Deepa Agashe, National Centre for Biological Sciences



10:20 AM

10:30 AM

Functional constraints on a transmembrane protein revealed by deep scanning mutagenesis (896)

Steven Chen, University of Toronto



10:30 AM

10:40 AM

Dosage compensation and the Faster-X effect: A comparative study across poeciliids (910)

Iulia Darolti, Postdoctoral Fellow, University of British Columbia; Lydia Jing Mein Fong, University of British Columbia; Judith Mank, University of British Columbia



10:40 AM

10:50 AM

Gene family changes associated with the recurrent emergence of the wood-boring habit in distantly related lineages of beetles (1073)

Claudio Casola, Department of Ecology and Conservation Biology, Texas A&M University; Shelby Landa, Department of Ecology and Conservation Biology, Texas A&M University; Jingjia Li, Department of Ecology and Conservation Biology, Texas A&M University



10:50 AM

11:00 AM

Genomic data suggest parallel dental vestigialization within the xenarthran radiation (64)

Christopher Emerling, Reedley College; Gillian C. Gibb, Institute of Agriculture and Environment, Massey University, Palmerston North, New Zealand; Marie-Ka Tilak, Institut des Sciences de l'Evolution de Montpellier (ISEM), CNRS, IRD, EPHE, Université de Montpellier; Melanie Kuch, McMaster University; Jonathan Hughes, Cornell University; Hendik Poinar, McMaster University; Michael Nachman, UC Berkeley; Frederic Delsuc, CNRS - Université de Montpellier



11:00 AM

11:10 AM

The likely subfunctionalization and expansion of a GATA factor paralog in the ancestral *Elegans* supergroup endoderm developmental gene regulatory network (475)

Antonia C. Darragh (she/her), PhD student, University of California San Diego; Scott Rifkin, University of California San Diego



Phylogenetics/Macroevoolution

Wed, June 23

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Liam Revell, UMass-Boston & UCSC-Chile

Presentations

10:00 AM

Evolution of fruit type in Oleaceae (706)

10:10 AM

Julia Dupin (she/her), PhD, Universite Paul Sabatier; Guillaume Besnard, Universite Paul Sabatier



10:10 AM

Ecological and biogeographic processes drive the proteome evolution of snake venom (632)

10:20 AM

Tuany Siqueira-Silva, Universidade Federal de Sergipe; Luiz Antonio Lima, Universidade Federal de Sergipe; Jonatas Chaves-Silveira, Universidade Federal de Sergipe; Talita Ferreira Amado, Universidad Rey Juan Carlos; Julian Naipauer, University of Miami; Pablo Riul, Universidade Federal da Paraiba; Pablo Ariel Martinez, Universidade Federal de Sergipe



10:20 AM

Phylogenetic Niche Modeling (172)

10:30 AM

Sean W. McHugh, Virginia Tech; Josef C. Uyeda, Virginia Tech; Anahi Espindola (she/her), University of Maryland, College Park



10:30 AM

Novel Tests of the Key Innovation Hypothesis: Adhesive Toepads in Arboreal Lizards (238)



10:40 AM

Aryeh Miller, Washington University in St. Louis; James T. Stroud, Washington University in St. Louis

10:40 AM

10:50 AM

Phylogenetic comparative methods using leaf reflectance spectra (366)

Eric Goolsby, University of Central Florida; David Basler, Swiss Federal Institute WSL, Birmensdorf, Switzerland; Andrew D. Richardson, Center for Ecosystem Science and Society, Northern Arizona University

10:50 AM

11:00 AM

Modeling (the evolution of) rates of evolution (267)

Bruce Stagg Martin, Michigan State University; Luke Harmon, University of Idaho; Gideon Bradburd, Michigan State University; Marjorie Weber, Michigan State University

11:00 AM

11:10 AM

A variable-rate quantitative trait evolution model using penalized-likelihood (746)

Liam James Revell, UMass-Boston & UCSC-Chile

11:10 AM

11:20 AM

The effects of fossil taxa, hypothetical predicted ancestors, and a molecular scaffold on pseudoextinction analyses of extant placental orders (20)

Peggy L. Brady (she/her), University of California, Riverside; Mark S. Springer, University of California, Riverside

Reproductive Isolation

 Wed, June 23

 7:00 AM - 8:30 AM

 Faux-Live

Session Chairs

Chair

Caiti Smukowski Heil, North Carolina State University

Presentations

10:00 AM

10:10 AM

Repeated reinforcement of mating behaviors in phylogenetically-independent chorus frog contact zones (91)

Emily C. Moriarty Lemmon, Florida State University, Department of Biological Science; Alan Lemmon, Florida State University; William Booker, Florida State University; Oscar Ospina, Florida State University; Michelle Kortyna, Florida State University



10:10 AM

10:20 AM

Examining reinforcement in macaques using genome data (410)

Nick Bailey, Auburn University; Laurie Stevison, Auburn University; Isaac Niedzwiecki, Auburn University



10:20 AM

10:30 AM

Why is sympatric speciation rare in birds? (139)

Cody Porter, Lees-McRae College; Craig Benkman, University of Wyoming



10:30 AM

10:40 AM

The long and short of it: pheromone length divergence and reproductive isolation (461)

Jeremy S. Davis, University of Kentucky; Leonie Moyle, Indiana University; Joanne Yew, University of Hawai'i



10:40 AM

10:50 AM

Global DNA hypomethylation in malformed Lake whitefish backcross support the role of DNA methylation as a strong post-zygotic barrier in nascent species (204)

Martin Laporte, Université Laval - Institut de Biologie Intégrative des systèmes; Maeva Leitwein, Université Laval; Hugo Cayuela, Université Laval; Claire MÉROT, Université Laval - Institut de Biologie Intégrative des systèmes; Eric Normandeau, Université Laval - Institut de Biologie Intégrative des systèmes; Louis Bernatchez, Université Laval - Institut de Biologie Intégrative des systèmes



11:00 AM

11:10 AM

Wolbachia-induced cytoplasmic incompatibility and its coupling with non-endosymbiont based reproductive isolation during speciation (462)

Daniel Bruzzese, University of Notre Dame; Hannes Schuler, Free University of Bozen-Bolzano; Thomas Wolfe, University of Vienna; Maary Glover; Joseph Mastroni, University of Notre Dame; Meredith M. Doellman, University of Notre Dame; Cheyenne Tait, University of Massachusetts Amherst; Wee L. Yee, USDA; Juan Rull; Martin



Aluja, Insituto de Ecología A. C., Xalapa, Mexico; Glen R. Hood, Wayne State University; Robert Goughnour⁹, Washington State University Extension; Christian Stauffer, University of Natural Resources and Life Sciences, Vienna; Patrik Nosil, University Paul Valéry Montpellier; jeffrey Lee feder, University of Notre Dame

Speciation/Delimitation

📅 Wed, June 23

🕒 7:00 AM - 8:30 AM

📁 Faux-Live

Session Chairs

Chair

Catherine Rushworth (she/her), University of California, Davis

Presentations

10:00 AM

The role of competition for mates in speciation and divergence: a systematic review (88)



10:10 AM

Alycia Lackey (she/her), Assistant Professor, University of Louisville; Elizabeth Scordato, Assistant Professor, Cal Poly Pomona; Robin Tinghitella, University of Denver; Jason Keagy, Penn State University; Robert Heathcote, University of Bristol

10:20 AM

Conflict over fertilization underlies the transient evolution of reinforcement (888)



10:30 AM

Catherine Rushworth (she/her), University of California, Davis; Alison Wardlaw, University of Minnesota; Jeffrey Ross-Ibarra, UC Davis; Yaniv Brandvain, University of Minnesota

10:30 AM

The diversification of cyanobacterium *Microcoleus* is recent and driven by geographical distance (231)



10:40 AM

Petr Dvorak, Palacky University Olomouc; Aleksandar Stanojković, Palacký University Olomouc; Svatopluk Skoupy, Palacky University Olomouc; Aloisie Poulickova, Palacky University Olomouc

10:40 AM

10:50 AM

Exploring the species boundary of Putnam scale (*Diaspidiotus ancyclus*) (1059)

Mayrolin Garcia, UMass Amherst; Ben Normark, University of Massachusetts Amherst



10:50 AM

11:00 AM

Morphometric and genetic evidence for four species of gentoo penguin (805)

Josh Tyler (He/Him), University of Bath; Matthew Bonfitto, Department of Biology, Loyola University Chicago, Chicago, IL, USA; Gemma Clucas, Cornell Lab of Ornithology, Cornell University, Ithaca, NY, USA; Sushma Reddy, University of Minnesota; Jane Younger, Loyola University Chicago



11:00 AM

11:10 AM

Phylogenomic species delimitation dramatically reduces species diversity in an Antarctic adaptive radiation (276)

Elyse Parker, Yale University; Alex Dornburg, University of North Carolina, Charlotte; Carl D. Struthers, Museum of New Zealand Te Papa Tongarewa; Christopher D. Jones, NOAA Southwest Fisheries Science Center; Thomas Near, Yale University



11:10 AM

11:20 AM

Phylogenetic placement of the spider genus *Taczanowskia* (Araneae : Araneidae) and description of a new species from Ecuador (865)

Juan Pablo Pablo Jordan, Universidad San Francisco de Quito; Mariela Domínguez-Trujillo, Universidad San Francisco de Quito; Diego Francisco Cisneros-Heredia, Universidad San Francisco de Quito



Transcriptomics

Wed, June 23

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Amanda Hund (she/her), University of Minnesota

Presentations

10:00 AM

10:10 AM

Gene co-expression reveals evolutionarily conserved and distinct photosynthetic networks in C4+CAM Portulaca (437)

Ian Gilman, Yale University Dept. Ecology & Evolution; Jose J. Moreno-Villena, Yale University; Zachary R. Lewis; Eric Goolsby, University of Central Florida; erika j. edwards (she/her), yale university



10:10 AM

10:20 AM

Evolution of a novel photosynthetic metabolism: spatial resolution of an integrated C4+CAM system in Portulaca (853)

Jose J. Moreno-Villena, Yale University; Haoran Zhou, Yale University; S. Lorraine Tausta, Yale University; Ian Gilman, Yale University Dept. Ecology & Evolution; erika j. edwards (she/her), yale university



10:20 AM

10:30 AM

Transcriptome profiling of Borrelia burgdorferi pleomorphic variants (940)

Nina Čorak, Ruđer Bošković Institute; Christina Daschkin, BCA-research, BCA-clinic Betriebs GmbH & Co. KG; Viktoria Krey, BCA-research, BCA-clinic Betriebs GmbH & Co. KG; Sara Koska, Ruđer Bošković Institute; Momir Futo, Ruđer Bošković Institute; Tin Široki, University of Zagreb; Sirli Anniko, BCA-research, BCA-clinic Betriebs GmbH & Co. KG; Innokenty Woichansky, BCA-research, BCA-clinic Betriebs GmbH & Co. KG; Luka Opašić, Max Planck Institute for Evolutionary Biology; Domagoj Kifer, University of Zagreb; Kristian Vlahoviček, University of Zagreb; Horst-Günter Maxeiner, Department of Laboratory Medicine, St. Gertrauden Khs, Teaching Hospital of the Charite; Mirjana Domazet-Lošo, University of Zagreb; Carsten Nicolaus, BCA-research, BCA-clinic Betriebs GmbH & Co. KG; Tomislav Domazet-Lošo, Ruđer Bošković Institute; Catholic University of Croatia



10:30 AM

10:40 AM

Variance Component Analysis of MOA-seq identified transcription factor binding sites for 143 maize traits (902)

Samantha Snodgrass, Iowa State University; Julia Engelhorn, Max Planck Institute for Plant Breeding Research, Cologne, Germany and Heinrich Heine University, Dusseldorf, Germany; Arun Seetharam, Iowa State University; Merritt Khaipho-Burch, Section of Plant Breeding and Genetics, Cornell University, Ithaca, NY; Jeffrey



Ross-Ibarra, UC Davis; Thomas Hartwig, Max Planck Institute for Plant Breeding Research, Cologne, Germany and Heinrich Heine University, Dusseldorf, Germany; Matthew Hufford, Iowa State

10:40 AM

10:50 AM

Sex and age variation and heritability of cone ratios in a free-ranging population of Rhesus macaques (*Macaca mulatta*). (727)



Rachel A. Munds, Department of Anthropology and Archaeology, University of Calgary; Eve Cooper, Department of Anthropology, New York University & New York Consortium in Evolutionary Primatology; Mareike C. Janiak, Department of Anthropology and Archaeology, University of Calgary & School of Science, Engineering & Environment, University of Salford; Linh G. Lam, Department of Anthropology and Archaeology, University of Calgary; Alex DeCasien, Department of Anthropology, New York University & New York Consortium in Evolutionary Primatology; Sam Bauman, Caribbean Primate Research Center, University of Puerto Rico; Michael J. Montague, Department of Neuroscience, University of Pennsylvania; Melween Martinez, Caribbean Primate Research Center, University of Puerto Rico; Shoji Kawamura, University of Tokyo; James P. Higham, Department of Anthropology, New York University, New York Consortium in Evolutionary Primatology, & Caribbean Primate Research Center, University of Puerto Rico; Amanda D. Melin, Department of Anthropology and Archaeology & Department of Medical Genetics, University of Calgary, Alberta Children's Hospital Research Institute, University of Calgary

10:50 AM

11:00 AM

Similar genes underlie the honesty of different sexually selected ornaments in two populations of a warbler (889)



Nicholas D. Sly, University of Wisconsin-Milwaukee; Amberleigh Henschen, University of Memphis; Corey R. Freeman-Gallant, Skidmore College; Linda A. Whittingham, University of Wisconsin-Milwaukee; Peter O. Dunn, University of Wisconsin-Milwaukee

11:00 AM

11:10 AM

Exploring the evolution of parasite resistance and coinfection in stickleback using gene expression. (48)



Amanda Kathryn Hund (she/her), University of Minnesota; Lauren Elizabeth Fuess (she/her), Assistant Professor, Texas State University; Daniel Bolnick, University of Connecticut

11:10 AM

11:20 AM


Cancer genome evolution after whole genome duplication (852)

Elle Loughran, Trinity College Dublin; Aoife McLysaght, Trinity College Dublin



ASN President Plenary: In defense of pre-hypothesis science

 Wed, June 23

 9:30 AM - 10:30 AM

 LS Plenary

Session Chairs

Chair

Michael Whitlock (he/him), UBC

Info

Will you be presenting your talk in English or Spanish?:

English

Author

Butch Brodie

University of Virginia

Adaptation/Experimental Evolution

 Wed, June 23

 11:00 AM - 12:30 PM

 Faux-Live

Session Chairs

Chair

Misty Thomas, Department of Biology, North Carolina Agricultural & Technical State University

Presentations

2:10 PM

Artificial selection for early flowering in an agricultural weed relative (1031)



2:20 PM

Ava Jane Garrison, Michigan State University; Jeffrey Conner, Kellogg Biological Station

2:20 PM

Understanding adaptation and correlated fitness responses across environments in *Drosophila suzukii* using fitness landscape theory (965)



2:30 PM

Laure Olazcuaga, Colorado State University; Julien Foucaud, CBGP, INRAE, CIRAD, IRD, Institut Agro, Université Montpellier, Montpellier, France; Mathieu Gautier, CBGP, INRAE, CIRAD, IRD, Institut Agro, Université Montpellier, Montpellier, France; Candice Deschamps, CBGP, INRAE, CIRAD, IRD, Institut Agro, Université Montpellier, Montpellier, France; Anne Loiseau, CBGP, INRAE, CIRAD, IRD, Institut Agro, Université Montpellier, Montpellier, France; Nicolas Lemenager, CBGP, INRAE, CIRAD, IRD, Institut Agro, Université Montpellier, Montpellier, France; Benoit Facon, INRAE, UMR Peuplements Végétaux et Bio-agresseurs en Milieu Tropical, La Réunion, France; Virginie Ravigné, UMR PVBMT, CIRAD, St Pierre, La Réunion, France; Ruth A. Hufbauer, Colorado State University; Arnaud Estoup, CBGP, INRAE, CIRAD, IRD, Institut Agro, Université Montpellier, Montpellier, France; Nicolas O. Rode, CBGP, INRAE, CIRAD, IRD, Institut Agro, Université Montpellier, Montpellier, France

2:30 PM

Fitness effects for Ace insecticide resistance mutations are determined by ambient temperature (10)



2:40 PM

Anna Maria Langmüller (she/her), Institute of Population Genetics, Vetmeduni Vienna; Viola Nolte, Institute of Population Genetics, Vetmeduni Vienna; Ruwansha Galagedara, Institute of Population Genetics, Vetmeduni Vienna; Rodolphe Poupardin, Paracelsus Medical University Salzburg; Marlies Dolezal, Plattform Bioinformatik und Biostatistik, Vetmeduni Vienna; Christian Schlötterer, Institute of Population Genetics, Vetmeduni Vienna

2:40 PM

Experimental Evolution of an Adaptive Inversion Polymorphism (384)



2:50 PM

Esra Durmaz, University of Fribourg; Envel Kerdaffrec, University of Fribourg; Thomas Flatt, University of Fribourg

2:50 PM

The Rapid Adaptive Effects of Migration in Natural Populations of *Drosophila melanogaster* (1100)



3:00 PM

Ozan Kiratli, PhD Candidate, University of Pennsylvania; Paul Schmidt, University of Pennsylvania

3:00 PM

Multigenerational effects in *Neurospora crassa* (421)



3:10 PM

Mariana Villalba, University of Jyväskylä; Ilkka Kronholm, University of Jyväskylä; Pauliina Summanen, University of Jyväskylä; Neda Nasiri Moghadam, University of Jyväskylä

3:10 PM

In-host evolution of opportunistic pathogenic yeast probiotics (411)



3:20 PM

Alexandra Imre, University of Debrecen; Renato Kovacs, University of Debrecen; Fruzsina Nagy, University of Debrecen; Zsigmond Benko, University of Debrecen; Istvan Pocsi, University of Debrecen; Walter P. Pfliegler, University of Debrecen

Biogeography

Wed, June 23

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Flavia Petean, Instituto Tecnológico de Chascomús (CONICET - UNSAM)

Presentations

2:10 PM

Comparative bird demography uncovers new perspectives on the connections between Amazonia and Atlantic Forest (561)



2:20 PM

Fernanda Bocalini, PhD, Museu de Zoologia da Universidade de São Paulo; Luís Fábio Silveira, MZUSP; Gustavo A. Bravo, Harvard University

2:20 PM

2:30 PM

Contrasting trends of population size change over the late Quaternary for three Owlet species from South Asia (413)

Meghana Natesh, Indian Institute of Science Education and Research, Tirupati; K. L. Vinay, Indian Institute of Science Education and Research, Tirupati, India; Samriddha Ghosh, IISER Tirupati; Rajah Jayapal; Shomita Mukherjee, Salim Ali Centre for Ornithology and Natural History; Nagarjun Vijay, Indian Institute of Science Education and Research, Bhopal; V. V. Robin



2:30 PM

2:40 PM

Testing the presence of abiotic biogeographic drivers using only phylogeny: subtropical aridity as a barrier for early dinosaur dispersal (603)

Brenen Wynd, Virginia Tech; Christopher Griffin, Yale University; Sterling Nesbitt, Virginia Tech



2:40 PM

2:50 PM

Climate and habitat specilization in the tropical Andes: the soft grass mouse as a case study (1002)

Diego F. Alvarado-Serrano, Ohio University



2:50 PM

3:00 PM

The role of the American continent on the diversification of the stingrays' genus *Hypanus Rafinesque, 1818 (Myliobatiformes: Dasyatidae) (608)*

Flavia de Figueiredo Petean, Instituto Tecnológico de Chascomús (CONICET - UNSAM); Lei Yang, Florida Program for Shark Research (FPSR), Florida Museum of Natural History, University of Florida; Shannon Corrigan, Florida Program for Shark Research (FPSR), Florida Museum of Natural History, University of Florida; Sergio Maia Queiroz de Lima, Laboratory of Evolutionary and Systematic Ichthyology, Department of Botany and Zoology, Center of Biosciences, Federal University of Rio Grande do Norte; Gavin J.P. Naylor, Florida Program for Shark Research (FPSR), Florida Museum of Natural History, University of Florida



3:00 PM

3:10 PM

Neotropical origin of free-tailed bats: An integrative paleontological and molecular approach to re-evaluate a classic hypothesis. (264)



Kateryn Pino, MSc, Universidad de Concepción; Enrique Rodríguez-Serrano, Universidad de Concepción

3:10 PM

3:20 PM

La Cordillera Oriental de los Andes un Refugio para el Mantenimiento y la Diversificación de las Salamandras Neotropicales (Plethodontidae: Bolitoglossa) (955)


Nicolás Stiven Arias-Bermúdez, Universidad Militar Nueva Granada; David B. Wake, UC Berkeley; Nelsy Rocio Pinto-Sánchez, Programa de Biología Aplicada, Universidad Militar Nueva Granada



Coevolution

 Wed, June 23

 11:00 AM - 12:30 PM

 Faux-Live

Session Chairs

Chair

Krzysztof Kozak (he/him), he/him, Smithsonian Tropical Research Institute

Presentations

Modular Evolution of the Drosophila Metabolome (1066)

Benjamin R. Harrison, University of Washington; Jessica M. Hoffman, University of Alabama; Daniel Raftery, University of Washington; Daniel E L Promislow, University of Washington



Temporally and spatially decoupled evolution of mimicry (683)

Krzysztof Kozak (he/him), he/him, Smithsonian Tropical Research Institute; Owen McMillan, Smithsonian Tropical Research Institute



Mitochondrial genotype interactions with temperature and diet affect trait expression in a single-celled slime mould (510)

Venkatesh Nagarajan Radha, The University of Sydney; Natalie Cordina, University of Sydney; Madeleine Beekman, University of Sydney



Evolution of immune response genes in New Zealand freshwater snails (560)

Chelsea Higgins, University of Iowa; Laura Bankers, University of Colorado; Maurine Neiman, University of Iowa



Signatures of mitonuclear coevolution in mammals (666)

Ryan Weaver, Iowa State University; Justin Chase Havird, University of Texas at Austin



Genomic and environmental interactions underlie symbiont transmission and variable infection frequencies (859)

Mike Hague, University of Montana; Dylan Shropshire; Chelsey Caldwell; John Statz; Brandon Cooper



A cophylogenetic analysis of specificity between fungus-gardening ants and their symbiotic fungi (1086)

Katherine Beigel, The University of Texas at Tyler; Alix Matthews; Katrin Kellner; Christine V. Pawlik; Matthew Greenwold, University of Texas at Tyler; Jon Seal



Is there evidence of evolved resistance to cheating in natural populations of a social amoeba? (197)

Cathleen Marquerithe Eleonora Broersma, Massey University Auckland



Evolutionary Ecology/Adaptation

Wed, June 23

11:00 AM - 12:30 PM

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Session Chairs

Chair

Ruth Percino-Daniel, Universidad Nacional Autonoma de Mexico

Presentations

2:00 PM

2:10 PM

Adaptive population divergence and reproductive isolation in a sympatric setting due to Matching Habitat Choice by captive Zebra Finches (318)



Gabriel Munar Delgado, Universidad Complutense de Madrid; Paula Hidalgo-Rodríguez, University of Pablo de Olavide; Estrella Barreiro Perez; Graciela Escudero; Pim Edelaar, University Pablo de Olavide

2:10 PM

2:20 PM

The tempo of ecological and evolutionary change: Response to predator introduction in alpine lakes of the Wind River Range (148)

Lucia Combrink, University of Wyoming; Catherine E. Wagner, University of Wyoming



2:20 PM

2:30 PM

Genomic signatures of spatially divergent selection at clownfish range margins (521)

Rene Delight Clark, Rutgers University



2:30 PM

2:40 PM

Populations of white-crowned sparrow found in different forest habitats may have different genetic backgrounds (828)

Bukola Oguntuase-Osagie, University of Lethbridge; Theresa M. Burg, University of Lethbridge



2:40 PM

2:50 PM

Flight performance and wing morphology in the bat *Carollia perspicillata*: biophysical models and energetics (897)

Lucas de Oliveira Carneiro, Universidade Estadual do Norte Fluminense Darcy Ribeiro; Breno Mellado, Universidade Estadual do Norte Fluminense; Marcelo Nogueira, Universidade Estadual do Norte Fluminense; Ariovaldo Pereira da Cruz-Neto, Universidade Estadual Paulista Júlio de Mesquita Filho; Leandro Rabello Monteiro, Universidade Estadual do Norte Fluminense



2:50 PM

3:00 PM

Fluctuating environmental conditions and experimental feeding impact selection on growth in black-legged kittiwakes (424)

Drew Sauve (he/him), Queen's University; Vicki L. Friesen, Department of Biology, Queen's University, Kingston, Ontario K7L 3N6, Canada; Céline Teplitsky, CEFE UMR 5175, Université de Montpellier, CNRS, EPHE, IRD, Université Paul-Valéry Montpellier 3, Montpellier, France; Scott A. Hatch, Institute for Seabird Research and Conservation, 12850 Mountain Place, Anchorage, Alaska 99516; Anne Charmantier, CNRS



3:00 PM

3:10 PM

Environmental heterogeneity shapes physiological traits in tropical direct-developing frogs (937)Ruth Percino-Daniel, Universidad Nacional Autonoma de Mexico;
Daniel Piñero Dalmau, Instituto de Ecología, UNAM

Evolutionary Theory

Wed, June 23

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Timo van Eldijk, University of Groningen

Presentations

2:00 PM

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The gene's-eye view of evolution (254)

J. Arvid Ågren, Harvard University and Uppsala University



2:10 PM

2:20 PM

The mechanical design of woodpeckers tails as an adaptation to scansorial habits (858)

Brenda Lorena Poledri, Museo nacional de ciencias naturales Bernardino Rivadavia; Pablo L. Tubaro, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN-CONICET); Dario A. Lijtmaer, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN-CONICET)



2:20 PM

2:30 PM

Towards a generalised theory on adaptive evolution (284)

Pim Edelaar, University Pablo de Olavide; Jun Otsuka, University of Kyoto, Japan; Victor Luque, University of Valencia, Spain



2:30 PM

2:40 PM

Evolution of cooperation in the chemostat (109)

Bryan Kade Thomas Lynn, Oregon State University



2:40 PM

Group Selection of Handicap Signaling (149)

2:50 PM

Ethan A. Holdahl, University of Oregon; Jiabin Wu, University of Oregon



2:50 PM

Uniting Community Ecology and Evolutionary Rescue Theory: Community-Wide Rescue Leads to a Rapid Loss of Rare Species (645)

3:00 PM

Timo van Eldijk, University of Groningen; Karen Bisschop, University of Amsterdam; Rampal Etienne, University of Groningen



3:00 PM

Evolution of senescence in age and parental-age structured populations (566)

3:10 PM

Patrick Barks; Suzanne L. Chmilar, University of Lethbridge; Eric Ankutowicz; Robert A. Laird, University of Lethbridge



3:10 PM

Cheilostome bryozoans and the Evolution of Division of Labor (257)

3:20 PM

Sarah Leventhal, University of Colorado



Life History Evolution

Wed, June 23

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Walid Mawass (he/him/هو), Université du Québec à Trois-Rivières

Presentations

2:00 PM

Lung evolution in anuran tadpoles (537)

2:10 PM

Jack R. Phillips, MSc, Utah State University Department of Biology; Molly C. Womack, National Museum of Natural History; Pedro Henrique Dias, Universidade Federal do Paraná, Departamento de Zoologia



2:10 PM

2:20 PM

Predation risk accelerates the life history of a freshwater snail by decreasing the interval between successive clutches (732)

Josh R. Auld, West Chester University; Ryan A. Bacon; Jeremy Budgeon, West Chester University; Christopher M. McAllister; Allison Kolpas, West Chester University



2:20 PM

2:30 PM

Age as social environment in experimental populations of forked fungus beetles (496)

Phoebe Cook, University of Virginia; Robin Costello, University of Virginia; Vincent Formica, Swarthmore College; Butch Brodie, University of Virginia



2:30 PM

2:40 PM

Novel mother-offspring fitness links in primates: Implications for the evolution of slow life histories (429)

Matthew Newton Zipple, Duke University; James Peniston, University of Florida; Jenny Tung, Duke University; Beth Archie, University of Notre Dame; Susan Claire Alberts, Duke University



2:40 PM

2:50 PM

Molecular evolution and the decline of purifying selection with age (374)

Changde Cheng, St. Jude Children's Research Hospital; Mark Kirkpatrick, University of Texas



2:50 PM

3:00 PM

Quantitative genetics for studying life history evolution in preindustrial human populations (981)

Walid Mawass (he/him/هو), Université du Québec à Trois-Rivières; Emmanuel Milot, Université du Québec à Trois-Rivières



3:00 PM




3:10 PM

Complex interactions among quantitative trait loci explain natural variation in *C. elegans* germ stem cell niche activity (96)

Sarah Fausett, B.S., PhD, Lecturer, University of North Carolina Wilmington; Asma Sandjak, Université Côte d'Azur, CNRS, Inserm, iBV, France; Bénédicte Billiard, Université Côte d'Azur, CNRS, Inserm, iBV, France; Christian Braendle, Université Côte d'Azur, CNRS, Inserm, iBV, France



Life History/Development

 Wed, June 23
 11:00 AM - 12:30 PM
 Faux-Live

Session Chairs

Chair

Dinah Davison (she/her), PhD candidate, University of Arizona

Presentations

2:00 PM

Embryo-like features in developing *Bacillus subtilis* biofilms (848)



2:10 PM

Momir Futo, Ruđer Bošković Institute; Luka Opašić, Max Planck Institute for Evolutionary Biology; Sara Koska, Ruđer Bošković Institute; Nina Čorak, Ruđer Bošković Institute; Tin Široki, University of Zagreb; Vaishnavi Ravikumar, Technical University of Denmark; Annika Thorsell, Technical University of Denmark; Maša Lenuzzi, Max Planck Institute for Developmental Biology; Domagoj Kifer, University of Zagreb; Mirjana Domazet-Lošo, University of Zagreb; Kristian Vlahoviček, University of Zagreb; Ivan Mijaković, Technical University of Denmark; Chalmers University of Technology; Tomislav Domazet-Lošo, Ruđer Bošković Institute; Catholic University of Croatia

2:10 PM

Plasticity-led evolution of cellular differentiation in the volvocine green algae (73)



2:20 PM

Dinah Davison (she/her), PhD candidate, University of Arizona; Richard Michod, University of Arizona

2:20 PM

Stomata-related climate change-adaptation using herbaria (24)



2:30 PM

Patricia L M Lang (she/her), Department of Biology, Stanford University; Moises Exposito-Alonso, Department of Plant Biology, Carnegie Institution for Science; Lua Lopez, California State San Bernardino; Jesse Lasky, Pennsylvania State University; Sergio M. Latorre, Centre for Life's Origins & Evolution, Department of Genetics, Evolution & Environment, University College London; Hernán A. Burbano, Centre for Life's Origins & Evolution, Department of Genetics, Evolution & Environment, University College London; Dominique Bergmann, Stanford University, HHMI

2:30 PM

Causes and consequences of variation in development time in a field cricket (986)

2:40 PM

Susan Gershman, The Ohio State University at Marion; Ian M. Hamilton, The Ohio State University

2:40 PM

Revisiting an exception to the temperature size rule: disentangling temperature, body size, and fecundity in the nematode *Caenorhabditis elegans* (171)

2:50 PM

Joanna Bundus, University of Wisconsin - Madison; Scott Rifkin, University of California San Diego; Michael Cradeur, University of California San Diego

2:50 PM

Evolutionary consequences of landlocking by a diadromous New Zealand fish on Rēkohu/Chatham Island (790)

3:00 PM

Travis Ingram, University of Otago

3:00 PM

Uncovering the contributions of regulatory vs coding elements in a latitudinal cline of trait correlations (688)

3:10 PM

Miles David Roberts, Michigan State University; Emily Josephs, Michigan State University

Macroevolution

Wed, June 23

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Session Chairs

Chair

Julio Rivera, Arizona State University

Presentations

2:00 PM

Sex pheromones as drivers of diversification in a tribe of neotropical butterflies. (19)

2:10 PM
 Bruna Cama, University of York; Kanchon Dasmahapatra, York University; Owen McMillan, Smithsonian Tropical Research Institute; Stefan Schulz, Technische Universität Braunschweig; Jane Thomas-Oates, University of York

2:10 PM
 2:20 PM
Evolution of a complex structure: modularity of the wrasse skull and its effect on phenotypic rates (451)
 Olivier Larouche, Rice University; Samantha M. Gartner; Mark W. Westneat, University of Chicago; Kory M. Evans, Rice University

2:20 PM
 2:30 PM
Geographic range size and speciation in honeyeaters (61)
 Eleanor Hay, Monash University; Matthew D. McGee, Monash University; Steven L. Chown, Monash University

2:30 PM
 2:40 PM
Is the brain an environmental variable? A study of brain evolution in carnivoran mammals (248)
 Margot Michaud, PhD, Postdoctoral researcher, Royal Museum for Central Africa, Department of African Zoology; Séverine Toussaint, Humboldt-Universität zu Berlin, Institut für Biologie, Germany; Emmanuel Gilissen, Royal Museum for Central Africa

2:40 PM
 2:50 PM
Evolution of skull size and shape is linked to body size, sexual signals, and interspecies interactions in male Sceloporus lizards (656)
 Julio A. Rivera, Arizona State University; Jesualdo Fuentes-G., University of Alabama; Emilia P. Martins, Arizona State University

2:50 PM
 3:00 PM
Cephalopod photophores: Estimating the origins of complex convergent traits (726)
 Bridget A. Vincent, Ph.D. Student, University of California, Santa Barbara; Emily S. Lau, University of California, Santa Barbara; Sriram Ramamurthy, University of California, Santa Barbara; Clara Bourguignon, University of California, Santa Barbara; Todd H. Oakley, University of California, Santa Barbara

3:00 PM
 3:10 PM
The role of trait integration and timing in lineage diversification in a perennial herb (580)
 Verónica S. Di Stilio, University of Washington; Simra Zahid, University of Washington; Rosana Zenil-Ferguson (she/ella), Assistant Professor, University of Hawai'i Mānoa

3:10 PM

Priority effects and the macroevolutionary dynamics of biodiversity (512)

3:20 PM

Bouwe Reijenga, University College London; David Murrell, University College London; Alex Pigot, University College London

Molecular Evolution

Wed, June 23

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Faux-Live

Session Chairs

Chair

Brock Wooldridge, PhD Candidate, Harvard

Presentations

2:00 PM

Detecting Darwinian positive selection in phylogenomic datasets using the branch-site test and FDR approach (383)

2:10 PM

Muthukumaran Panchaksaram, Queen Mary University of London; Mario dos Reis, School of Biological and Chemical Sciences, Queen Mary University of London; Stephen Rossiter

2:10 PM

Global and regional genetic diversity of weedy dandelions (322)

2:20 PM

Lisa Mazumder, University of Massachusetts-Boston

2:20 PM

An adaptive walk through time (514)

2:30 PM

Ana Filipa Moutinho, University of Sussex; Adam Eyre-Walker, University of Sussex; Julien Yann Dutheil, Max Planck Institute for Evolutionary Biology

2:30 PM

Is male-biased gene flow a convincing explanation for cytonuclear discordance in mammals? (26)

2:40 PM

Xueling Yi, University of Wisconsin-Milwaukee; Emily K. Latch, University of Wisconsin-Milwaukee

2:40 PM

2:50 PM

A shared regulatory allele of Agouti contributes to parallel evolution of cryptically colored beach mice (1102)

Brock Wooldridge, PhD Candidate, Harvard; Andreas F. Kautt, Harvard University; Hopi Hoekstra, Harvard University; Sade McFadden, Harvard University



2:50 PM

3:00 PM

Comparative transcriptomics reveals divergent paths of chitinase evolution underlying dietary convergence in ant-eating mammals (86)

Remi Allio, CNRS - Universite de Montpellier; Sophie Teullet, CNRS - Universite de Montpellier; Dave Lutgen, CNRS - Universite de Montpellier; Amandine Magdeleine, CNRS - Universite de Montpellier; Rachid Koual, CNRS - Universite de Montpellier; Marie-Ka Tilak, Institut des Sciences de l'Evolution de Montpellier (ISEM), CNRS, IRD, EPHE, Université de Montpellier; Christopher Emerling, Reedley College; Tristan Lefebure, Universite de Lyon; Frederic Delsuc, CNRS - Universite de Montpellier



3:00 PM

3:10 PM

Recurrent duplication and diversification of acrosomal fertilization proteins in abalone (409)

Jolie Anna Carlisle, University of Washington; Megan Glenski, Gonzaga University; Willie Swanson, University of Washington



Phylogenetic Comparative Methods

Wed, June 23

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Michael Landis (he/him), Assistant professor, Washington University in St. Louis

Presentations

2:00 PM

Ecology and behavior predict an evolutionary trade-off between song complexity and elaborate



2:10 PM	<p>plumages in antwrens (Aves, Thamnophilidae) (1052)</p> <p>Renata Beco, Museu de Zoologia da Universidade de São Paulo; Luís Fábio Silveira, MZUSP; Elizabeth P. Derryberry, University of Tennessee; Gustavo A. Bravo, Harvard University</p>	
2:10 PM 2:20 PM	<p>Chew on this: Oral jaw shape is not correlated with diet type in Loricariid catfishes (21)</p> <p>Corinthia Ray Black, Auburn University; Jonathan W. Armbruster, Auburn University</p>	>
2:20 PM 2:30 PM	<p>Causes and Consequences of Color Polymorphism: from Micro to Macroevolution (550)</p> <p>Kinsey M. Brock, University of California, Merced</p>	>
2:30 PM 2:40 PM	<p>Testing the effectiveness of structured hidden Markov models (57)</p> <p>Nic Bone, Virginia Tech; Josef C. Uyeda, Virginia Tech</p>	>
2:40 PM 2:50 PM	<p>A tale of two paths: The evolution of mitochondrial recombination in bivalves with doubly uniparental inheritance (240)</p> <p>Chase H. Smith, University of Texas at Austin; Brendan J. Pinto, Marquette University; Mark Kirkpatrick, University of Texas; David Hillis, University of Texas at Austin; Justin Chase Havird, University of Texas at Austin; John M. Pfeiffer</p>	>
2:50 PM 3:00 PM	<p>Inferring how regional features influence biogeographical diversification (643)</p> <p>Michael Landis (he/him), Assistant professor, Washington University in St. Louis; Ignacio Quintero; Michael Donoghue, Yale University</p>	>
3:00 PM 3:10 PM	<p>Assessment of phylogenetic signal in aquatic toxicity data (50)</p> <p>Alice Coleman, University of Southern California; Suzanne Edmonds, University of Southern California</p>	>

Plant Reproduction

 Wed, June 23

🕒 11:00 AM - 12:30 PM

📁 Faux-Live

Session Chairs

Chair

Amy L. Parachnowitsch (she/her), University of New Brunswick

Presentations

2:00 PM

Ancient duplications of R2R3-MYB genes facilitate diversification of petal pigmentation patterns in an allotetraploid *Clarkia gracilis* (Onagraceae) (513)

Rong-Chien Lin, Academia Sinica, Taiwan; Mark D. Rausher, Duke University



2:10 PM

2:10 PM


Flower-like inflorescences do not increase diversification rates but evolve in response to constraints on floral display (568)

Jakub Baczyński, Univeristy of Warsaw Biological and Chemical Research Centre; Hervé Sauquet (he/him), Royal Botanic Gardens and Domain Trust; Krzysztof Spalik, Univeristy of Warsaw Biological and Chemical Research Centre



2:20 PM

2:20 PM

Studying flowers in three dimensions using photogrammetry  (743)

Marion Leménager, Institut recherche en biologie végétale; Jérôme Burkiewicz, Institut de Recherche en Biologie Végétale; Daniel J. Schoen, McGill University; Simon Joly, Montreal Botanical Garden



2:30 PM

2:30 PM

Floral scent across the genus *Penstemon*: not what we would expect (1029)

Amy L. Parachnowitsch (she/her), University of New Brunswick; Kaushalya Kaushalya Rathnayake, University of New Brunswick, Department of Biology; Yedra García, University of New Brunswick; Joseph John Anderson, Uppsala University



2:40 PM

2:40 PM

Spatial variation in scent emission within flowers (949)

2:50 PM



Yedra García, University of New Brunswick; Magne Friberg, Lund university; Amy L. Parachnowitsch (she/her), University of New Brunswick

2:50 PM

3:00 PM

Pollination syndrome divergence despite genetic intermingling in a *Penstemon* species complex (221)

Carrie Wessinger, University of South Carolina; John Kelly, University of Kansas; Lena Hileman, University of Kansas



3:00 PM

3:10 PM

Identifying candidate genes contributing to nectar trait divergence in the selfing syndrome (467)

Irene Liao, NSF Postdoctoral Research Fellow, Duke University; Joanna Rifkin, University of Toronto; Gongyuan Cao, Duke University; Mark D. Rausher, Duke University



3:10 PM

3:20 PM

The molecular basis of continuous flower colour variation in *Oncoclytus* irises. (593)

Esther Senden, Botanic Garden Tel Aviv University; Yuval Sapir, Botanic Garden Tel Aviv University; Yamit Bar-Lev, PhD, Tel Aviv University; Joachim Surm, The Hebrew University of Jerusalem



Population Genetics/Selection/Plants

Wed, June 23

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Kenneth Olsen, Washington University in St. Louis

Presentations

2:00 PM

2:10 PM

Inferring the demographic history of sunflower domestication (887)

Peter Stokes, University of California, Berkeley; Melis Akman (she/her), UC Berkeley/CSU East Bay; Nathan Wales, University of



York; Benjamin Blackman (he/him), Associate Professor, UC Berkeley

2:10 PM

2:20 PM

Selection on accessible chromatin regions in *Capsella grandiflora* (860)

Robert Horvath, Stockholm university; Emily Josephs, Michigan State University; Edouard Pesquet, Stockholm University; John R. Stinchcombe, University of Toronto; Stephen I. Wright, Department of EEB, U. Toronto; Douglas Scofield, Uppsala University; Tanja Slotte, Stockholm university



2:20 PM

2:30 PM

Genomic Signatures of Sexual Selection on Pollen-Expressed Genes in *Arabis alpina* (53)

Juanita Gutierrez-Valencia, Stockholm university; Robert Horvath, Stockholm university; Marco Fracassetti Fracassetti, Stockholm university; Benjamin Laenen, Stockholm university; Aurélie Désamore, Stockholm university; Andreas Drouzas, Aristotle University of Thessaloniki; Magne Friberg, Lund university; Filip Kolář; Tanja Slotte, Stockholm university



2:30 PM

2:40 PM

Chemical defense evolution by allopolyploid speciation: dual-species origin of white clover cyanogenesis (582)

Kenneth M. Olsen, Washington University in St. Louis; David M. Goad, Washington University in St. Louis; Sara J. Wright, Washington University in St. Louis; Maya L. Dutta, Washington University in St. Louis; Samantha R. Myers, Washington University in St. Louis; Lin-Feng Li, Fudan University



2:40 PM

2:50 PM

Understanding the population genomic structure of rare desert species is vital in low-impact solar energy planning (150)

Miranda Wade [she/her], PhD Candidate, Michigan State University; Kara Moore-O'Leary, U.S. Fish and Wildlife Service; Steve Grodsky, Cornell University; Mariah Meek, Michigan State University



2:50 PM

3:00 PM

Landscape genetics and hybridization within the rubber rabbitbrush (*Ericameria nauseosa*) complex (291)

Trevor M. Faske (he/him), University of Nevada - Reno; Alison C. Agneray, University of Nevada - Reno; Josh Jahner, University of Nevada, Reno; Bryce Richardson, US Forest Service; Elizabeth A.



Leger, University of Nevada - Reno; Thomas L. Parchman,
University of Nevada - Reno

3:00 PM

3:10 PM

Digging up the past: tracking the domestication syndrome in sunflowers using extant and ancient DNA (892)

Melis Akman (she/her), UC Berkeley/CSU East Bay; Benjamin Blackman (he/him), Associate Professor, UC Berkeley; Nathan Wales, University of York; Peter Stokes, University of California, Berkeley



3:10 PM

3:20 PM

Recombination suppression and haploid selection in plant sex chromosome evolution (480)

Felix Beaudry he/him, University of Rochester; Georgy Sandler, University of Toronto; Spencer Charles Barrett, University of Toronto; Stephen I. Wright, Department of EEB, U. Toronto; Joanna Rifkin, University of Toronto; Zoe Humphries, University of Toronto; Baharul Choudhury, University of Toronto



Reproductive Biology

Wed, June 23

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Dakota McCoy, Harvard University

Presentations

2:00 PM

2:10 PM

Resource availability interacts with elevated temperature to alter reproductive investment in the European corn borer moth (584)

Genevieve M. Kozak, University of Massachusetts-Dartmouth;
Arielle N. Enos, University of Massachusetts-Dartmouth



2:10 PM

2:20 PM

When the uterus is a vagina: Intra-horn penile intromission in the alpaca and consequences to genital morphology (141)

Patricia Brennan, Mount Holyoke College; Maya Sterett; Mary DiBuono; Genesis Lara Granados, Mount Holyoke College; Kay Klo; Rebecca Marsden; Pearl Schleinig, Mount Holyoke College; Louise Tanner, Mount Holyoke College; Stephen Purdy, Nunoa Project, North American Camelid Program



2:20 PM

Pregnancy is an arms race: primates, horses, and health consequences (576)

2:30 PM

Dakota McCoy, Harvard University; Daniel R. Utter, Harvard University; David Haig, Harvard University



2:30 PM

Exploring the mechanisms of MSS-mediated sperm competition in *C. briggsae* (277)

2:40 PM

Justin M. Van Goor, University of Maryland College Park; Eric Haag, University of Maryland College Park



2:40 PM

Evolution of recombination under partial selfing (957)

2:50 PM

Roman Stetsenko, Station Biologique de Roscoff (Sorbonne Université / CNRS); Denis Roze, Station Biologique de Roscoff (CNRS)



2:50 PM

Gene expression profiling of *Daphnia* reproductive modes reveal conserved transcriptional differences between sexual and asexual cycles (1095)

3:00 PM

Trung V. Huynh, University of Texas at Arlington; Alexander S. Hall, Thermo Fisher Scientific; Sen Xu, University of Texas at Arlington



3:00 PM

Variation in clonality shapes, and is shaped by, patterns of global invasion (283)

3:10 PM

Will Ryan, University of Alabama at Birmingham; Stacy A. Krueger-Hadfield, University of Alabama at Birmingham



Speciation/Genomics

Wed, June 23

11:00 AM - 12:30 PM

Faux-Live

Session Chairs

Chair

Claire MÉROT, Université Laval - Institut de Biologie Intégrative des systèmes

Presentations

2:00 PM

Genomic architecture of lacustrine speciation and gene flow in the Waccamaw Darter (*Etheostoma perlongum*) (370)

Daniel MacGuigan, University at Buffalo; Trevor Krabbenhoft, University at Buffalo; Nathan Backenstose, University at Buffalo; Tianying Lan, University at Buffalo; Thomas Near, Yale University



2:10 PM

2:10 PM

The genetic architecture of ecological speciation in Whitefish (*Coregonus clupeaformis*): assessing the dual role of point mutations and structural variants (9)

Claire MÉROT, Université Laval - Institut de Biologie Intégrative des systèmes; Clément Rougeux; Kristina SR Stenløkk, NMBU, Norway; Eric Normandeau, Université Laval - Institut de Biologie Intégrative des systèmes; Clare Venney, Université Laval - Institut de Biologie Intégrative des systèmes; Kyle Wellband, Université Laval - Institut de Biologie Intégrative des systèmes; Martin Laporte, Université Laval - Institut de Biologie Intégrative des systèmes; Mariann Arnyasi, NMBU, Norway; Michel Moser, NMBU, Norway; Sigbjørn Lien, NMBU, Norway; Louis Bernatchez, Université Laval - Institut de Biologie Intégrative des systèmes



2:20 PM

2:20 PM

Comparative population genomics of cryptic speciation and adaptive divergence in Bicknell's and Gray-cheeked Thrushes (694)

Flavia Termignoni Garcia, Harvard University; Jonathan Clark, Harvard University; Jeremy Kirchman, New York State Museum; Scott Vernon Edwards, Harvard University



2:30 PM

2:30 PM

Genomic species delimitation of the Scrub-Jays (619)

2:40 PM



Devon DeRaad, PhD candidate, University of Kansas; A. Townsend Peterson, University of Kansas; Robert Moyle, University of Kansas

2:40 PM

2:50 PM

Adaptive introgression and de novo mutation increase evolutionary accessibility on the fitness landscape (817)

Austin H. Patton (he/him), Ph.D., Dr., University of California, Berkeley; Christopher Martin, University of California, Berkeley; Emilie Richards, University of California Berkeley



2:50 PM

3:00 PM

Contemporary speciation of triploid Cardamine insueta in the Swiss Alps by combining gene expression patterns underlying parental adaptive traits (1062)

Kentaro K. Shimizu, University of Zurich; Jianqiang Sun, NARO, Japan; Rie Shimizu-Inatsugi, University of Zurich; Hugo Hofhuis, Max Planck Institute for Plant Breeding Research; Kentaro Shimizu, University of Tokyo; Angela Hay, Max Planck Institute for Plant Breeding Research; Jun Sese, Humanome laboratory



3:00 PM

3:10 PM

Reproductive isolation among lineages of *Silene nutans*: a potential involvement of plastid-nuclear incompatibilities (653)

Zoe Postel, Univ. Lille, CNRS, UMR 8198 - Evo-Eco-Paleo, F-59000 Lille, France; Céline Poux, Univ. Lille, CNRS, UMR 8198 - Evo-Eco-Paleo, F-59000 Lille, France; Sophie Gallina, Univ. Lille, CNRS, UMR 8198 - Evo-Eco-Paleo, F-59000 Lille, France; Jean-Stéphane Varré, Univ. Lille, Inria, UMR CNRS 9189 - CRISAL F-59000 Lille, France; Cécile Godé, Univ. Lille, CNRS, UMR 8198 - Evo-Eco-Paleo, F-59000 Lille, France; Eric Schmitt, Univ. Lille, CNRS, UMR 8198 - Evo-Eco-Paleo, F-59000 Lille, France; Fabienne Van Rossum, Meise Botanic Garden; Pascal Touzet, Univ. Lille, CNRS, UMR 8198 - Evo-Eco-Paleo, F-59000 Lille, France



3:10 PM




3:20 PM

A selective sweep on a pigmentation gene differentiates two incipient species of an island bird (131)

J. Albert C. Uy, Biology, University of Rochester; Leonardo Campagna, Cornell University



Species Interactions

 Wed, June 23
 11:00 AM - 12:30 PM
 Faux-Live

Session Chairs

Chair

Romain Libbrecht, Dr., Johannes Gutenberg University of Mainz

Presentations

2:00 PM

Reconstructing the evolution of a butterfly-plant network (695)

2:10 PM

Mariana P Braga (she/her), Washington University in St. Louis; Michael Landis (he/him), Assistant professor, Washington University in St. Louis



2:10 PM

The effect of neopolyploidy on preference and performance of generalist and specialist insect herbivores (300)

2:20 PM

Anne Curé, Syracuse University; Gwen Bode, B.S. (she/her/hers), PhD Student, Syracuse University; Christopher V. Johnston, State University of New York College of Environmental Science and Forestry; Thomas W. Johnson, Syracuse University; Kari A. Segraves, Syracuse University



2:20 PM

Modeling host-microbiota evolution for detecting transmitted symbionts in DNA metabarcoding datasets (211)

2:30 PM

Benoît Perez-Lamarque, IBENS; Hélène Morlon, IBENS, Université PLS, CNRS



2:30 PM

Assortative mating and the potential for sperm-mediated reproductive interference in co-occurring nematodes *C. macrosperma* and *C. nouraguensis* (41)

2:40 PM

Rebecca Schalkowski (she/her), University of Toronto; Katja Kasimatis (she/her), University of Toronto; Megan A. Greischar, Cornell University; Asher Cutter, University of Toronto



2:40 PM

2:50 PM

Environmental drivers of bacterial symbiont dynamics within *Dictyostelia* social amoebae populations (998)

Mackenzie Hoogshagen (she/her), University of Central Arkansas;
Tamara Haselkorn, University of Central Arkansas



2:50 PM

3:00 PM

The transmission and diversity of *Paraburkholderia* in natural *D. discoideum* populations and its impact on the *D. discoideum* microbiome (994)

James Gabe DuBose, University of Central Arkansas; Tamara Haselkorn, University of Central Arkansas; Michael Robseon, University of Arkansas for Medical Sciences



3:00 PM

3:10 PM

Queens are not queens unless they have workers: The social environment controls queen behavior in ants (4)

Romain Libbrecht, Dr., Johannes Gutenberg University of Mainz



3:10 PM

3:20 PM

A W-like supergene underlies colony sex ratio in a socially polymorphic ant (571)

German Lagunas-Robles, University of California, Riverside;
Jessica Purcell, University of California, Riverside; Alan Brelsford, University of California, Riverside



Primarily undergraduate institutions (PUI) mixer

Wed, June 23

12:30 PM - 1:30 PM

Social Events

Author

Anne M. Royer
University of Scranton

Adaptation/Evolutionary Ecology

Wed, June 23

1:30 PM - 3:00 PM

Session Chairs

Chair

Áki Jarl Láruson, PhD, Cornell University

Presentations

4:30 PM

Species' range dynamics in temporally varying environments (533)



4:40 PM

John William Benning, University of Wyoming; Christopher Weiss-Lehman, University of Wyoming; Ruth A. Hufbauer, Colorado State University

4:40 PM

How to resist dry soil: transcriptional changes in a Mediterranean earthworm during aestivation (313)



4:50 PM

Natasha Tilikj, Complutense University of Madrid; Marta Novo, Complutense University of Madrid

5:00 PM

Assessing genetic offset predictions with Gradient Forest (956)



5:10 PM

Áki Jarl Láruson, PhD, Cornell University; Matthew C. Fitzpatrick, University of Maryland; Stephen Keller, University of Vermont; Benjamin C. Haller, Cornell University; Kathleen E. Lotterhos, Northeastern University Marine Science Center

5:10 PM

Genomic signatures of parallel polygenic adaptation during independent invasions by a copepod (585)



5:20 PM

Carol Eunmi Lee, University of Wisconsin, Madison; David Ben Stern, Ph.D., University of Wisconsin - Madison

5:20 PM

Evolution by pesticides: Evidence of evolution in American alligators (*Alligator mississippiensis*) affected by endocrine disrupting chemicals (441)



5:30 PM

Yeraldi Loera, UCLA; Shane Cornell Campbell-Staton, University of California, Los Angeles

5:30 PM

5:40 PM

A novel analytical framework to quantify co-gradient and countergradient variation (71)

Molly Ann Albecker, Northeastern University; Geoff Trussell, Northeastern University; Kathleen E. Lotterhos, Northeastern University Marine Science Center



Biogeography/Geographic Variation

Wed, June 23

1:30 PM - 3:00 PM

Faux-Live

Session Chairs

Chair

Le Qin Choo (she/her), Naturalis Biodiversity Center

Presentations

4:30 PM

4:40 PM

Effects of selection on wing colour variation in butterflies (845)

Bhavya Dharmaraaj, National Centre for Biological Sciences; Krushnamegh Jagannath Kunte, National Centre for Biological Sciences



4:40 PM

4:50 PM

Demographic inference of commensal swallows in southeast Asia and Oceania (433)

Brian Myers, California Polytechnic University Pomona; Amanda Kathryn Hund (she/her), University of Minnesota; Elizabeth Scordato, Assistant Professor, Cal Poly Pomona; Sampath Seneviratne; Thilini Thakshila, University of Colombo; Nicholas Friedman; Chamalka DaSilva; Dency Flenny Gawin, Fakulti Sains dan Teknologi Sumber (FSTS), Universiti Malaysia Sarawak



4:50 PM

5:00 PM

Is there a latitudinal diversity gradient for mutualistic microbes? A case study with partridge peas (343)

Tia Lene Harrison (she/her), University of Toronto; Zoe Parshuram, University of Toronto; Megan E. Frederickson, University of Toronto; John R. Stinchcombe, University of Toronto



5:10 PM

5:20 PM

Müllerian mimicry shapes species assemblages and climatic niche evolution in Ithomiine butterflies (877)

Maël DORÉ, Muséum national d'Histoire naturelle, Paris, FR; Keith R. Willmott, Florida Museum of Natural History; Colin Fontaine, CNRS, CESCO; Marianne Elias, CNRS, ISYEB



5:30 PM

5:40 PM

Not just going with the flow: Genome-wide phylogeography reveals cryptic speciation in a circumglobal planktonic calcifier (803)

Le Qin Choo (she/her), Naturalis Biodiversity Center; Giada Spaggiardi, Naturalis Biodiversity Center; Marvin Choquet, Nord University; Erica Goetze, University of Hawai'i at Mānoa; Galice Hoarau, Nord University; Katja T.C.A. Peijnenburg, Naturalis Biodiversity Center



Biogeography/Phylogeography

Wed, June 23

1:30 PM - 3:00 PM

Faux-Live

Session Chairs

Chair

Jan Hackel, Royal Botanic Gardens, Kew

Presentations

4:30 PM

4:40 PM

Modelling the tempo and mode of lineage dispersal (637)

Jan Hackel, Royal Botanic Gardens, Kew; Isabel Sanmartín, Real Jardín Botánico, Madrid



4:40 PM

4:50 PM

The role of historical legacies in shaping spider communities across two mountain ranges in Sulawesi, Indonesia (1123)

Anna J. Holmquist, University of California, Berkeley; Rosemary G. Gillespie, University of California Berkeley



4:50 PM

Climatic niche conservatism in a clade of potential disease vectors (Diptera: Phlebotominae) (872)



5:00 PM

Emmanuel Raffaello Robinson D'Agostino, University of North Carolina at Chapel Hill; Daniel R. Matute, University of North Carolina, Chapel Hill; Allen Hurlbert, University of North Carolina at Chapel Hill

5:00 PM

Palau schizomids: cycle, progression, or chaos? (692)



5:10 PM

Tahnee Ames, SUNY College of Environmental Science and Forestry; Jesse Czekanski-Moir, SUNY College of Environmental Science and Forestry

5:10 PM

Evaluating species origins within tropical sky-islands arthropod communities (730)



5:20 PM

Adriana Uscanga, University of Oregon; Heriberto Lopez, CSIC; Daniel Piñero, IE-UNAM; Brent Charles Emerson, Island Ecology and Evolution Research Group, IPNA-CSIC.; Alicia Mastretta-Yanes (she/her/ella), PhD., CONABIO

5:20 PM

Gene flow through geographical barriers shaped the diversification of a widespread spider (985)



5:30 PM

Fabian C. Camilo Salgado-Roa, University of Melbourne; Carolina Pardo-Díaz, Universidad del Rosario; Camilo Salazar, Universidad del Rosario; Eloisa Lasso, Universidad de las Andes

5:30 PM

Multilocus phylogeography of the endemic and endangered angular angelshark (*Squatina guggenheim*) in the Southwest Atlantic Ocean (414)



5:40 PM

Ingrid Vasconcellos Bunholi, Indiana State University; Bruno Lopes da Silva Ferrette, Universidade Santa Cecília - UNISANTA; Rodrigo Rodrigues Domingues, Universidade Federal de São Paulo - UNIFESP; Matheus Marcos Rotundo, Universidade Santa Cecília - UNISANTA; Juan Martín Cuevas, Universidad Nacional de La Plata; Mirta García, Universidad Nacional de La Plata; Sebastián Gómez, Universidad Nacional de La Plata; Renato Hajenius Aché de Freitas, Universidade Federal de Santa Catarina - UFSC; Claudio Oliveira, Universidade Estadual Paulista - UNESP; Fausto Foresti, Universidade Estadual Paulista - UNESP; Fernando Fernandes Mendonça, Universidade Federal de São Paulo - UNIFESP

5:40 PM

5:50 PM

Little Sharks in a Big World: Unprecedented Population Genetic Structure in the California Horn Shark (*Heterodontus francisci*) (193)

Sean Canfield, University of Hawaii at Manoa



Contemporary Evolution

Wed, June 23

1:30 PM - 3:00 PM

Faux-Live

Session Chairs

Chair

Kristin Winchell (she/her), Washington University

Presentations

4:30 PM

From Phenotype to Genotype in Urban Anoles (22)

4:40 PM

Kristin Marie Winchell (she/her), Washington University



4:40 PM

Rethinking the Paleolithic mind (163)

4:50 PM

Bernie Taylor, Community Member



4:50 PM

The Pace of Modern Life, Revisited (328)

5:00 PM

Kiyoko Gotanda she/her, Université de Sherbrooke



5:00 PM

Evidence for the evolution of thermal tolerance, but not desiccation tolerance, in response to hotter, drier city conditions in a cosmopolitan, terrestrial isopod (978)

5:10 PM

Aaron Richard Yilmaz, Case Western Reserve University; Sarah Diamond, Case Western Reserve University; Ryan Martin, Case Western Reserve University



5:10 PM

5:20 PM

Plasticity and evolution change wing melanization of the cabbage white butterfly along an urbanization gradient (1023)

Angie Lenard (she/they), Case Western Reserve University; Sarah Diamond, Case Western Reserve University



5:20 PM

5:30 PM

Unifying theoretical and molecular approaches to non-genetic inheritance (615)

Irene Bern Adrian-Kalchhauser, University of Bern; Sonia E. Sultan; Lisa Shama; Helen Spence-Jones; Stefano Tiso, University of Groningen; Claudia Isabelle Keller Valsecchi; Franz J. Weissing, University of Groningen



5:30 PM

5:40 PM

Decomposing the effects of demographic stochasticity and genetic drift on extinction risk during evolutionary rescue (269)

Dale Clement, PhD Student, University of California, Davis



5:40 PM

5:50 PM

Linking invertebrate biodiversity and epigenetics in urban aquatic environments (917)

Chaz Hyseni, Postdoctoral Researcher, Uppsala University; Frank Johansson, Uppsala University; Jacob Hoglund, Uppsala University



Evolutionary Ecology/Plants

Wed, June 23

1:30 PM - 3:00 PM

Faux-Live

Session Chairs

Chair

Rafael Rubio de Casas, Universidad de Granada

Presentations

4:30 PM

4:40 PM

Biotic and abiotic selection on antiherbivore defense in white clover (375)



Lucas Jacob Albano, University of Toronto - Mississauga; Marc Johnson, University of Toronto Mississauga

4:40 PM

4:50 PM

Multivariate trait evolution in response to severe drought (620)

Haley Branch (she/her), MSc, PhD Candidate, University of British Columbia, Botany Department; Daniel Anstett, Postdoctoral Fellow, University of British Columbia, Botany Department; Jonathan Zajonc, McGill University, Plant Science; Amy Angert, University of British Columbia



4:50 PM

5:00 PM

Temperature tolerance adaptation: a comparison of gametophytic and sporophytic selection in *Solanum carolinense* (507)

Emma Katharine Chandler, North Dakota State University; STEVE TRAVERS, North Dakota State University



5:00 PM

5:10 PM

A bitter taste of freedom: Rapid selection for toxicity during the naturalization of almond (*Prunus dulcis* (Mill.) D. A. Webb.) (875)

Rafael Rubio de Casas, Universidad de Granada; Francisco Javier Ocaña-Calahorro, University of Granada; Joanna Zhou Zhang, ONDA; Andrés Barea-Márquez, Biology, UGR; Rodrigo Balaguer-Romano, UNED; Eugene W. Schupp, USU



5:10 PM

5:20 PM

Causes of species' range limits: Expressed mutational load increases toward the edge of a species' geographic range (675)

Antoine PERRIER, Dr., University of Virginia, Dept. of Biology; Dario Sanchez-Castro, University of Basel, Basel, Switzerland; Yvonne Willi, University of Basel, Basel, Switzerland



5:20 PM

5:30 PM

History's influence on population divergence via ecological persistence (140)

Mia Tayler Waters, University of British Columbia; Rachel Germain, The University of British Columbia



5:40 PM

5:50 PM

Investigating the interactive effects of ancestral and immediate salt stress in duckweed (630)

Suzanne L. Chmilar, University of Lethbridge; Robert A. Laird, University of Lethbridge



Evolutionary Theory

📅 Wed, June 23

🕒 1:30 PM - 3:00 PM

📁 Faux-Live

Session Chairs

Chair

Joel McGlothlin, Virginia Tech

Presentations

4:30 PM

Evolution of the indirect genetic effects coefficient ψ in response to phenotypic selection (974)



4:40 PM

Joel McGlothlin, Virginia Tech; Erol Akcay, University of Pennsylvania; Butch Brodie, University of Virginia; Allen J. Moore, University of Georgia; Jeremy Van Cleve, Ph.D., Assistant Professor, University of Kentucky

4:40 PM

Concerted variation in melanogenesis genes underlies plumage patterning in capuchino seedeaters (971)



4:50 PM

Cecilia Estalles, Museo Argentino de Ciencias Naturales; Sheela Turbek, University of Colorado at Boulder; María José Rodríguez-Cajarville, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia"; Luís Fábio Silveira, MZUSP; Kazumasa Wakamatsu, Kazumasa Wakamatsu; irby J. Lovette, Cornell University; Pablo L. Tubaro, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN-CONICET); Dario A. Lijtmaer, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN-CONICET); Leonardo Campagna, Cornell University

4:50 PM

Local extinctions reduce the risk of global extinctions – how metapopulation dynamics and dispersal evolution can increase the viability of highly inbred populations. (252)



5:00 PM

Anders P. Charmouh, Mr, University of Aberdeen; Jane M. Reid, Centre for Biodiversity Dynamics, Trondheim; Greta Bocedi, University of Aberdeen, School of Biological Sciences

5:00 PM

The evolution of cooperation via public institutions (1036)



5:10 PM

Taylor Austin Kessinger, Dr.Rer.Nat., Postdoc, University of Pennsylvania; Joshua Plotkin, University of Pennsylvania

5:10 PM

Optimal maternal allocation across the lifespan in tsetse predicted by energy intake and physiological costs (83)



5:20 PM

Antoine Barreaux, Research Associate, University of Bristol; Andy Higginson, University of Exeter; Michael Bonsall, University of Oxford; Sinead English, University of Bristol

5:20 PM

The intuition-breaking genetics of Medea elements under partial selfing (1037)



5:30 PM

Matthew Rockman, NYU Biology

5:30 PM

The Ancestral Modulation Hypothesis: using evolutionary history to predict mechanisms underlying sex-biased trait expression (823)



5:40 PM

Andrew Patrick Anderson, Reed College; Suzy CP Renn, Reed College

5:40 PM

The coevolutionary dynamics of non-directional cryptic female choice (329)



5:50 PM

Matthew Kustra, University of California, Santa Cruz; Suzanne H. Alonzo, Univ. of California

Gene Flow

Wed, June 23

1:30 PM - 3:00 PM

Faux-Live

Session Chairs

Chair

Mariana Pascual-Robles (she/ella), University of British Columbia

Presentations

4:30 PM

Contemporary gene flow in *Cornus florida* across an urban landscape (233)

4:40 PM

Jane Remfert, Virginia Commonwealth University; Rodney J. Dyer, Virginia Commonwealth University



4:40 PM

Recombination rate controls biogeographic structuring in eastern Amazonian birds (677)

4:50 PM

Gregory Thom, American Museum of Natural History; Lucas Rocha Moreira, PhD, Department of Ecology, Evolution and Environmental Biology, Columbia University; Romina Batista; Alexandre Aleixo, Finnish Museum of Natural History / University of Helsinki; Brian Tilston Smith, American Museum of Natural History



4:50 PM

Analyzing the Populations Structure Of Oceanic Swallows (493)

5:00 PM

Grant Broyles, California State Polytechnic university Pomona.; Elizabeth Scordato, Assistant Professor, Cal Poly Pomona



5:00 PM

Introgression biases incomplete lineage sorting at linked loci (351)

5:10 PM

Mia Miyagi, Harvard University; Nick J. Patterson, Harvard University; Andrew J. Blumberg, The University of Texas at Austin; John Wakeley, Harvard University



5:10 PM

Extensive admixture in the history of Lake Tanganyika's predatory species flock (37)

5:20 PM

Jessica Rick (she/her), University of Wyoming; Catherine E. Wagner, University of Wyoming



5:30 PM

En el mar la vida es más sabrosa: assortative mating between ecotypes of the silverleaf sunflower, *Helianthus argophyllus*. (524)

5:40 PM

Mariana Alicia Pascual-Robles (she/ella), University of British Columbia; Loren Rieseberg, University of British Columbia



Macroevolution

Wed, June 23

🕒 1:30 PM - 3:00 PM

📁 Faux-Live

Session Chairs

Chair

Francisco Henao Diaz, University of British Columbia

Presentations

4:30 PM

The Major Features of Macroevolution (1106)

4:40 PM

Francisco Francisco Henao Diaz, University of British Columbia; Matthew W. Pennell, University of British Columbia; Luke Harmon, University of Idaho



4:40 PM

Jointly modeling discrete and continuous traits as a means of discovering hidden variation (1071)

4:50 PM

James Boyko, University of Arkansas; Brian O'Meara (he/him), University of Tennessee, Knoxville; Jeremy Beaulieu, University of Arkansas



4:50 PM

The first leech body fossil sheds light on early clitellate evolution (564)

5:00 PM

Danielle de Carle, University of Toronto; Rafael Eiji Iwama, University of Toronto; Andrew J. Wendruff, Otterbein University; Loren E. Babcock, Ohio State University; Karma Nanglu, Harvard University



5:00 PM

Ecological drivers of carnivoran body shape evolution (107)

5:10 PM

Chris Law, American Museum of Natural History / University of Washington



5:10 PM

Testing the link between rates of morphological and molecular evolution in flowering plants (206)

5:20 PM

Yasmin Asar, The University of Sydney; Hervé Sauquet (he/him), Royal Botanic Gardens and Domain Trust; Simon Y.W. Ho, University of Sydney



5:20 PM

5:30 PM

Estimating the distribution of carotenoid coloration in skin and integumentary structures of birds and extinct dinosaurs (266)

Sarah N. Davis, University of Texas at Austin; Julia A. Clarke, University of Texas at Austin



5:30 PM

5:40 PM

Simulation-based inference in evolutionary biology: potential pitfalls and comments on phylogenetic ANOVA (92)

Dean Adams, Iowa State University; Michael Collyer (he/him), Chatham University



Modeling

Wed, June 23

1:30 PM - 3:00 PM

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Session Chairs

Chair

Alexander Whitlock, University of Toronto

Presentations

4:30 PM

4:40 PM

Can nonevolutionary models explain the spread of the cabbage white butterfly *Pieris rapae* across a latitudinal gradient? (578)

Jackson Woods Foran, Georgetown University; Judith Miller, Georgetown University; Leslie Ries, Georgetown University; Naresh Neupane, Georgetown University; Mariana Abarca, Georgetown University



4:40 PM

4:50 PM

Immune selection suppresses the emergence of drug resistance in a multi-scale model of malaria (298)

Alexander Whitlock, University of Toronto; Nicole Mideo, University of Toronto



4:50 PM

5:00 PM

Host plant selection in closely related butterfly species due to reproductive interference: Modelling a tri-trophic system with explicit parasite dynamics (901)

Alexandros Bantounas, Uppsala University; Claus Rueffler, Uppsala University



5:10 PM

5:20 PM

The effect of demography on the evolutionary dynamics of social behavior (1099)

Daniel Alejandro Priego Espinosa, PhD, Postdoc, University of Kentucky; Jeremy Van Cleve, Ph.D., Assistant Professor, University of Kentucky



5:30 PM

5:40 PM

False beliefs can bootstrap cooperative communities through social norms (973)

Bryce Morsky, University of Pennsylvania; Erol Akcay, University of Pennsylvania



5:40 PM

5:50 PM

Early life environments and survival: mediating and moderating effects of adult social bonds (485)

Liz Lange, Duke University; Shuxi Zeng, Duke University; Fernando A. Campos; Fan Li, Duke University; Beth Archie, University of Notre Dame; Susan Claire Alberts, Duke University



Phylogenetic Comparative Methods

Wed, June 23

1:30 PM - 3:00 PM

Faux-Live

Session Chairs

Chair

Ariadna Morales, American Museum of Natural History

Presentations

4:40 PM

Identifying Atypical Modes of Continuous Trait Evolution (769)



4:50 PM

Teisha King, Louisiana State University; Jeremy M. Brown (he/him), Louisiana State University

4:50 PM

5:00 PM

Detection of homologous regions and biological functions correlated with the evolution of the complexity of the transport system in plants (Viridiplantae) (527)

Alison Pelri Albuquerque Menezes, Universidade Federal de Minas Gerais; Agnello Picorelli, Universidade Federal de Minas Gerais; Anderson Vieira Chaves, Universidade Federal de Minas Gerais; Luiz Eduardo Del-Bem, Universidade Federal de Minas Gerais; Francisco Pereira Lobo, Universidade Federal de Minas Gerais



5:00 PM

5:10 PM

Evolutionary sample size and consilience in phylogenetic comparative analysis (856)

Jacob D. Gardner, Montana State University; Chris Organ, Montana State University



5:10 PM

5:20 PM

Estimating the divergence of dire wolves from their common ancestor with living canids using a Bayesian dating approach (969)

Sandra Alvarez-Carretero, University College London; Angela Perri; Kieren Mitchell; Alice Mouton; Laurent Frantz; Mario dos Reis, School of Biological and Chemical Sciences, Queen Mary University of London



5:20 PM

5:30 PM

A standardized effect size for measuring and comparing phylogenetic signals (855)

Michael Collyer (he/him), Chatham University; Dean Adams, Iowa State University; Erica Karin Baken, Chatham University



Population Genetics/Molecular Ecology

Wed, June 23

1:30 PM - 3:00 PM

Faux-Live

Session Chairs

Chair

Cecili Mendes, Institute of Biosciences - University of São Paulo

Presentations

4:30 PM

4:40 PM

Population genomics of variegated toad-headed lizard *Phrynocephalus versicolor* and its adaptation to the colorful sand of the Gobi Desert (1083)

Diana Aguilar Gómez, University of California, Berkeley; Yuanting Jin, College of Life Sciences, China Jiliang University; Debora YC Brandt, University of California Berkeley; Peter H Sudmant, UC Berkeley; Rasmus Nielsen, University of California Berkeley & Natural History Museum of Denmark



4:40 PM

4:50 PM

Seascape genetics and connectivity in a polychaete worm: disentangling the roles of a biogeographic barrier and environmental factors (103)

Cecili Barrozo Mendes, Institute of Biosciences - University of São Paulo; Cinthya Simone Gomes Santos, Biology Institute, Federal Fluminense University; Thadeu Sobral-Souza, Federal University of Mato Grosso; Sônia Cristina da Silva Andrade, Institute of Biosciences, University of São Paulo



4:50 PM

5:00 PM

Genomic signatures of selection on oysters within a single estuary (932)

Honggang Zhao, Cornell University; Emily Manuel, Rutgers University; Hannah Hartung, Cornell University; Avi M. Simon, Cornell University; Archi Howlader, University of Maryland; Harmony Borchartd-Wier, Cornell University; Daphne Munroe, Rutgers University; Elizabeth North, University of Maryland; Matthew Hare, Cornell University



5:00 PM

5:10 PM

Vertebrate genetic diversity within and across North American cities (587)

Chloé Schmidt (she/her), University of Manitoba; Colin J. Garroway (he/him), Department of Biological Sciences, University of Manitoba



5:10 PM

5:20 PM

A genetic mechanism for sexual dichromatism in birds. (59)

Małgorzata Anna Gazda, IBENS



5:20 PM

Demographic history and genomic consequences of 10,000 generations of isolation of Orkney voles (793)

5:30 PM

Xuejing Wang, University of Bern; Gerald Heckel, Computational and Molecular Population Genetics (CMPG), Institute of Ecology and Evolution, University of Bern

5:30 PM

Intraspecific genetic divergence of a highly mobile seabird group (573)

5:40 PM

Dilini Abeyrama, University of Lethbridge; Theresa M. Burg, University of Lethbridge; Peter G. Ryan, FitzPatrick Institute of African Ornithology, DST-NRF Centre of Excellence, University of Cape Town

Population Genetics/Theory and Methods

Wed, June 23

1:30 PM - 3:00 PM

Faux-Live

Session Chairs

Chair

Arun Sethuraman, Assistant Professor, California State University San Marcos

Presentations

4:30 PM

Testing evolutionary forces maintaining a clinal inversion polymorphism (436)

4:40 PM

Envel Kerdaffrec, University of Fribourg; Esra Durmaz, University of Fribourg; Thomas Flatt, University of Fribourg

4:40 PM

Impacts of sex-biased transmission and demography on allele frequency dynamics (241)

4:50 PM

Rose Driscoll, PhD student, University of Rochester; Felix Beaudry he/him, University of Rochester; Reed Bowman, Archbold Biological Station; John Fitzpatrick, Cornell Lab of Ornithology; Nancy Chen (she/her), Assistant Professor, University of Rochester

4:50 PM

5:00 PM	<p>Contrasting evolutionary histories and population genomics of two species of lady beetles used in augmentative biological control (604)</p> <p>Arun Sethuraman, Assistant Professor, California State University San Marcos</p>	>
5:00 PM 5:10 PM	<p>A comparative analysis of genotype based introgression statistics. (611)</p> <p>David Peede, Brown University; Emilia Huerta-Sánchez, Brown University</p>	>
5:10 PM 5:20 PM	<p>Germline stem cell mitotic exchange causes rare recombinant Sex Ratio chromosomes in <i>Drosophila pseudoobscura</i> and alters inference of natural selection against recombinants (936)</p> <p>Spencer Arran Koury, PhD, Stowers Institute for Medical Research; Nitin Phadnis, University of Utah</p>	>
5:20 PM 5:30 PM	<p>The maintenance of polygenic sex determination by natural selection depends on the dominance of fitness effects which are predictive of the role of sexual antagonism (62)</p> <p>Richard Meisel (he/him), University of Houston</p>	>
5:30 PM 5:40 PM	<p>The evolution of genetic co-localization during speciation (923)</p> <p>Thomas G. Aubier, UNC at Chapel Hill; Maria Servedio, University of North Carolina; Reinhard Bürger, University of Vienna</p>	>

Sensory Systems

 Wed, June 23

 1:30 PM - 3:00 PM

 Faux-Live

Session Chairs

Chair

Noor White, PhD, National Institutes of Health

Presentations

4:30 PM

Extrinsic drivers of insect pheromone diversity (270)

4:40 PM

Rowan French, PhD student, University of Toronto; Sarah Ravoth, University of Toronto; Luke Mahler, University of Toronto; Locke Rowe, University of Toronto



4:40 PM

Mammalian maxillo-turbinal evolution highlighted unique loss in the naked mole-rat, the mammal with the lowest heat and moisture conservation capacities (220)

4:50 PM

Quentin Martinez, Montpellier University - ISEM lab - France; Plerre-Henri Fabre, ISEM lab Montpellier University



4:50 PM

Visual gene expression reveals a cone to rod developmental progression in deep-sea fishes (492)

5:00 PM

Nik Lupše, Charles University; Fabio Cortesi, Queensland Brain Institute, University of Queensland, Brisbane 4072 QLD, Australia; Marko Freese, Thünen Institute of Fisheries Ecology, Herwigstraße 31, 27572, Bremerhaven, Germany; Lasse Marohn, Thünen Institute of Fisheries Ecology, Herwigstraße 31, 27572, Bremerhaven, Germany; Jan-Dag Pohlmann, Thünen Institute of Fisheries Ecology, Herwigstraße 31, 27572, Bremerhaven, Germany; Klaus Wysujack, Thünen Institute of Fisheries Ecology, Herwigstraße 31, 27572, Bremerhaven, Germany; Reinhold Hanel, Thünen Institute of Fisheries Ecology, Herwigstraße 31, 27572, Bremerhaven, Germany; Zuzana Musilova, Department of Zoology, Faculty of Science, Charles University, Vinicna 7, 12844 Prague, Czech Republic



5:00 PM

Hyperspectral Imaging and the Measurement of Complex Courtship Displays in Habronattus Jumping Spiders (464)

5:10 PM

Sarah M. Lynch, University of Cincinnati; David James Morris, University of Cincinnati; Nathan I. Morehouse, University of Cincinnati



5:10 PM

A Novel Exonic Probe Set for Studying Avian Vision Evolution (759)

5:20 PM

Noor D. White, PhD, National Institutes of Health; Zachary A. Batz, National Institutes of Health; Edward L. Braun, University of Florida; Michael J. Braun, Smithsonian Institution; Karen Carleton,



University of Maryland; Rebecca Kimball, University of Florida;
Anand Swaroop, National Institutes of Health

5:20 PM

Sensory adaptation to glacial environments in Icelandic threespine stickleback (1063)



5:30 PM

Whitley Lehto, Michigan State University; Janette W. Boughman, Michigan State University; Murielle Alund, Uppsala University; McKenzie Mazur

5:30 PM

Evolution of molluscan opsin repertoire (979)



5:40 PM

Kyle E. McElroy, Iowa State University; Jeanne Serb, Iowa State University

5:40 PM

Comparative genomics of diverse signaling ecologies in South American electric fishes (116)



5:50 PM

Frances Elisabeth Hauser (she/her), University of Toronto Scarborough; Ahmed A. Elbassiouny, University of Toronto; William G.R. Crampton, University of Central Florida; Nathan R. Lovejoy, University of Toronto Scarborough

Sexual Conflict

Wed, June 23

1:30 PM - 3:00 PM

Faux-Live

Session Chairs

Chair

Howard Rundle (he/him), University of Ottawa

Presentations

4:30 PM

Peak shifts and extinction under sex specific selection (66)



4:40 PM

Stephen De Lisle, Lund University

4:50 PM

5:00 PM

Developmental underpinnings of sexual dimorphism, sex-specific plasticity, and the resolution of conflict in dung beetles (137)

Patrick Rohner (he/him), Indiana University; David Linz, Indiana University; Armin Moczek, Indiana University



5:00 PM

5:10 PM

Investigating the interaction between inter-locus and intra-locus sexual conflict using hemiclinal analysis in *Drosophila melanogaster* (880)

Manas Geeta Arun, IISER Mohali; Tejinder Singh Chechi, Indian Institute of Science Education and Research (IISER), Mohali; Rakesh Meena, Indian Institute of Science Education and Research (IISER), Mohali; Shradha Dattaraya Bhosle, Dr. Babasaheb Ambedkar Marathwada University; Srishti, Indian Institute of Science Education and Research (IISER), Mohali; Amisha Agarwala, Indian Institute of Science Education and Research (IISER), Mohali; Neeraj Meena, Indian Institute of Science Education and Research (IISER), Mohali; Broti Biswas, Indian Institute of Science Education and Research (IISER), Mohali; Abhishek Meena, University of Zurich; Nagraj Guru Prasad, IISER Mohali



5:10 PM

5:20 PM

Footprint of intra-locus sexual conflict in the three-spine stickleback genome (212)

Florent Sylvestre, Université Laval - Institut de Biologie Intégrative et des Systèmes; Claire MÉROT, Université Laval - Institut de Biologie Intégrative des systèmes; Eric Normandeau, Université Laval - Institut de Biologie Intégrative des systèmes; Nadia Aubin-Horth, Université Laval - Institut de Biologie Intégrative et des Systèmes; Louis Bernatchez, Université Laval - Institut de Biologie Intégrative des systèmes



5:20 PM

5:30 PM

The role of intralocus sexual conflict in maintaining alternative reproductive tactics (179)

Madilyn Gamble, Dartmouth College; Ryan Calsbeek, Dartmouth College



5:30 PM

5:40 PM

Sexual antagonism in haplodiploids (851)

Thomas James Hitchcock (he/him), School of Biology, University of St Andrews; Andy Gardner, University of St Andrews; Laura Ross, University of Edinburgh



5:40 PM

5:50 PM

Sexually-selected male weapon causes gender load and increases the risk of extinction (799)

Jacek Radwan, Adam Mickiewicz University in Poznan; Malgorzata Niskiewicz, Adam Mickiewicz University in Poznan; Aleksandra Lukasiewicz, Adam Mickiewicz University in Poznan



Systematics/Phylogenomics

Wed, June 23

1:30 PM - 3:00 PM

Faux-Live

Session Chairs

Chair

Alejandra Fabres (she/her), Universidad de Chile

Presentations

4:30 PM

4:40 PM

Taxonomic delimitation of *Trigonella* and *Medicago* by integrating phylogeny biogeography and morphology (320)

Shira Penner Rosenvasser, PhD, Steinhardt Museum of Natural History, Tel Aviv University



4:40 PM

4:50 PM

Redefining *Anolis tolimensis* the first step for delimitating a Colombian endemic species (929)

Maria Carolina Acevedo, Univerisdad Militar Nueva Granada; Nelsy Rocio Pinto-Sánchez, Programa de Biología Aplicada, Universidad Militar Nueva Granada



4:50 PM

5:00 PM

Phylogeny of the Madagascan shorttailed whipscorpions (*Schizomida*) (255)

Gustavo de Miranda, Smithsonian; Rowan French, University of Toronto; Bob Kallal, Ph.D., Postdoctoral Fellow, National Museum of Natural History; Hannah Wood, Smithsonian Institution



5:00 PM

Unraveling the systematic enigma of *Orestias agassii* (Cyprinodontinae: Orestiini) from Chile (661)



5:10 PM

Alejandra Fabres (she/her), Universidad de Chile; Franco Cruz-Jofré, Universidad de Chile; Viviana Araya, Universidad de Chile; Marco Méndez, Universidad de Chile

5:10 PM

5:20 PM

Diversification of foliage-roosting fruit bat *Uroderma* spp. (Chiroptera: Phyllostomidae) through the Neotropical region (1089)

Érica Martinha Silva de Souza, UNICAMP; Valeria da Cunha Tavares, Instituto Tecnológico Vale



5:20 PM

5:30 PM

Disentangling species relationships in *Tricalysia* (Rubiaceae): Systematic and Biogeographical Implications (345)

Malia A. Santos (she/her), University of Idaho; Elmar Robbrecht, Botanic Garden Meise; David Tank, University of Idaho



5:30 PM

5:40 PM

A new method for inferring large-scale time-calibrated species trees (992)

Deren A. R. Eaton, Columbia University; Carlos A. Maya Lastra, Columbia University; Henry Landis, Columbia University; Michael Landis (he/him), Assistant professor, Washington University in St. Louis; Sandra Hoffberg, Columbia University



5:40 PM

5:50 PM

Origin and evolutionary history of the endemic Galapagos Rail: museum specimens, genomes, and conservation (426)

Jaime A. Chaves, San Francisco State University; Pedro Martinez-Torres, Universidad San Francisco de Quito; Emiliano Depino, Laboratorio de Ecología, Comportamiento y Sonidos Naturales (ECOSON); Espinoza-Ulloa Sebastian, University of Saskatchewan; Annabel Beichman, University of Washington; Jefferson Garcia-Loor, Universidad San Francisco de Quito; Martin Stervander, Natural History Museum - London/Tring; Daniel Chavez, UCLA



SSE Business Meeting

Wed, June 23

3:00 PM - 3:30 PM

Satellite Events

Adaptation/Genomics

📅 Thu, June 24

🕒 7:00 AM - 8:30 AM

📁 Faux-Live

Session Chairs

Chair

Julián Torres-Dowdall, University of Konstanz

Presentations

10:10 AM

10:20 AM

Gene candidates for mediating molecular physiology in aposematic and cryptic *Epipedobates* poison frogs (312)

Jeffrey L. Coleman, University of Texas at Austin; Rebecca D. Tarvin, University of California Berkeley; Santiago R. Ron, Pontificia Universidad Católica del Ecuador; David Cannatella, University of Texas



10:20 AM

10:30 AM

Changing photoperiods reveal divergent phenotypic and transcriptional responses in allopatric populations of *Tigriopus californicus*. (400)

Daniel Schneck, Oregon State University; Felipe Barreto, Oregon State University



10:30 AM

10:40 AM

Assessing the past and predicting the future: identifying adaptive variation within and among populations in changing environments (386)

Avril Harder (she/her), Auburn University; Janna Willoughby, Auburn University; William Ardren, U.S. Fish and Wildlife Service; Mark Christie, Purdue University



10:40 AM

10:50 AM

Identifying regulatory mechanisms affected by hydrogen sulfide in an extremophile poeciliid fish (52)

Kerry Leigh McGowan, Washington State University; Joanna Kelley, Washington State University



10:50 AM

The role of plasticity and ontogeny in the evolution of visual sensitivity (945)



11:00 AM

Julián Torres-Dowdall, University of Konstanz; Nidal Karagic, University of Konstanz; Femina Prabhukumar; Axel Meyer, Dept. of Biology

11:00 AM

The genomics of environmental adaptation in a broadly distributed montane bumble bee, *Bombus vancouverensis* (700)



11:10 AM

Sam Daniel Heraghty, University of Alabama; Jeffrey Dean Lozier, University of Alabama

11:10 AM

North-African fox genomes reveal signatures of ancient introgression and adaptation to life in extreme desert conditions. (1046)



11:20 AM

Joana Laranjeira Rocha, University of Porto, CIBIO-InBIO; Raquel Godinho, CIBIO/InBio; Rasmus Nielsen, University of California Berkeley & Natural History Museum of Denmark

Adaptation/Macroeolution

Thu, June 24

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Leonie Moyle, Indiana University

Presentations

10:00 AM

Evolutionary changes in a fatty acyl-CoA elongase gene underlie high levels of desiccation resistance in a desert *Drosophila* species (47)



10:10 AM

Zinan Wang, Michigan State University; Jian Pu, Michigan State University; Haosu Cong, Michigan State University; Henry Chung, Michigan State University

10:10 AM

10:20 AM

Evolution of Cichlid Fishes Across Two Continents: Ecological Opportunity, Contingency and Non-Adaptive Diversification (991)

Viviana Astudillo-Clavijo, University of Michigan; Hernan Lopez-Fernandez, University of Michigan



10:20 AM

10:30 AM

Ecomorphology of the sternum and locomotion in birds (577)

Talia Lowi-Merri (she/her), University of Toronto, Royal Ontario Museum; Roger Benson, University of Oxford; Santiago Claramunt, Royal Ontario Museum; David Evans, University of Toronto, Royal Ontario Museum



10:30 AM

10:40 AM

Testing for modularity in the spider feeding apparatus using high-density three-dimensional morphometrics (202)

Bob Kallal, Ph.D., Postdoctoral Fellow, National Museum of Natural History; Hannah Wood, Smithsonian Institution



10:50 AM

11:00 AM

The evolution of mammalian vertebral counts (120)

Sam Kubica (she/her), University of California, Riverside; Mark S. Springer, University of California, Riverside



11:00 AM

11:10 AM

Testing for genetic assimilation in comparative phylogenetic analyses and the problem of regression to the mean (1078)

Alex Gunderson, Tulane University; Liam James Revell, UMass-Boston & UCSC-Chile



11:10 AM

11:20 AM

Hormonal regulation of pea aphid wing plasticity (215)

Lauren Gregory, University of Rochester; Jenn Brisson, University of Rochester



Behavioral Ecology

Thu, June 24

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Garima Prazapati, Indian Institute of Science Education and Research, Mohali

Presentations

10:00 AM	<p>Interaction of developmental and performance temperature on mating success (1006)</p> <p>Harrison F. Jones, University of Kansas; Jennifer M. Gleason, University of Kansas; Preston W. Simpson, University of Kansas</p>	>
10:10 AM		
10:10 AM	<p>What a female wants? Parameters for male acceptance (789)</p> <p>Babita Choudhary, IISER</p>	>
10:20 AM		
10:20 AM	<p>The males of the parasitoid wasp, <i>Nasonia vitripennis</i>, can identify which fly hosts contain females. (80)</p> <p>Garima Prazapati, Indian Institute of Science Education and Research, Mohali; Ankit Yadav, IISER Mohali; Anoop Ambili, Indian Institute of Science Education and Research, Mohali; Abhilasha Sharma, Indian Institute of Science Education and Research, Mohali; Rhitoban Raychoudhury, Indian Institute of Science Education and Research, Mohali</p>	>
10:30 AM		
10:30 AM	<p>Eusociality through conflict dissolution (354)</p> <p>Mauricio González-Forero, University of St Andrews; Jorge Peña (he/him), PhD, Institute for Advanced Study in Toulouse, France</p>	>
10:40 AM		
10:40 AM	<p>Frequency-dependent selection and selection on social network structure also depends on indirect genetic effects (1167)</p> <p>Eric Wice, Rice University; Julia Saltz, Rice University</p>	>
10:50 AM		
10:50 AM	<p>Butterfly wing tails evolution: testing the hypothesis of bird attacks deflection (616)</p> <p>Ariane Chotard, Muséum National d'Histoire Naturelle; Alexis Chaine, Université Toulouse 1 (CNRS); Thomas Crouchet,</p>	>
11:00 AM		

Université Toulouse 3; Violaine Llaurens, Muséum National d'Histoire Naturelle; Vincent Debat, Muséum National d'Histoire Naturelle

11:00 AM

11:10 AM

Does mimicry extend to flight in a mimetic damselfly? (358)

David Outomuro, University of Cincinnati, USA, and Uppsala University, Sweden; Haylie Kinman, University of Cincinnati; Alberto Corral-Lopez, Stockholm University, Sweden, and University of British Columbia, Canada; Nathan I. Morehouse, University of Cincinnati



11:10 AM

11:20 AM

A skunk, not a fox: the bacterium *Myxococcus xanthus* is an unpalatable prey item for *Caenorhabditis elegans* (791)

Nicola Mayrhofer, ETH Zurich; Gregory J. Velicer, ETH Zurich; Kaitlin Schaal, ETH Zurich; Marie Vasse, PhD, CNRS



Coevolution

Thu, June 24

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Jeremy Yoder, California State University Northridge

Presentations

10:00 AM

10:10 AM

Codiversification of the gut microbiota with humans (482)

Taichi A. Suzuki, Max Planck Institute for Developmental Biology; Liam Fitzstevens, Max Planck Institute for Developmental Biology; Hagay Enav, Max Planck Institute for Developmental Biology; Victor Schmidt, Max Planck Institute for Developmental Biology; Nicholas Youngblut, Max Planck Institute for Developmental Biology; Mirabeau Mbong, Max Planck Institute for Developmental Biology; Ruth E. Ley, Max Planck Institute for Developmental Biology



10:10 AM	Using a historical biogeography model to estimate parameters of the cophylogenetic birth-death process (466) Wade Dismukes (he/him), Iowa State University; Tracy Heath (she/her), Iowa State University; Michael Landis (he/him), Assistant professor, Washington University in St. Louis	>
10:20 AM		
10:20 AM	Plant-associate interactions and population genetic structure across trophic levels (412) Jeremy B. Yoder, California State University Northridge	>
10:30 AM		
10:30 AM	Historical isolation and connectivity influence coevolutionary patterns of toxin resistance in the aquatic garter snake (<i>Thamnophis atratus</i>) (1113) Joshua Mark Hallas, University of Nevada Reno; Thomas L. Parchman, University of Nevada - Reno; Edmund D. Brodie; Michael E. Pfrender; Butch Brodie, Jr., Utah State University; Chris Feldman, University of Nevada, Reno	>
10:40 AM		
10:40 AM	Detecting genetic interactions in a large bacterial dataset (349) Rohan S. Mehta, Emory University; Robert A. Petit, Emory University; Timothy D. Read, Emory University; Daniel B. Weissman, Emory University	>
10:50 AM		
10:50 AM	Whose trait is it anyways? Co-evolution of traits with a joint genomic basis (468) Anna O'Brien, University of Toronto St. George; Chandra N. Jack, Washington State University; Maren L. Friesen, Washington State University; Megan E. Frederickson, University of Toronto	>
11:00 AM		
11:00 AM	Weber's Law and coevolution: a perspective. (705) Tanmay Dixit, University of Cambridge; Claire N. Spottiswoode, University of Cambridge and University of Cape Town; Eleanor M. Caves, University of Exeter; Nicholas P. C. Horrocks, University of Cambridge	>
11:10 AM		
11:10 AM	Comparative genomics of three nutritional endosymbionts isolated from a Hawaiian, cave-adapted planthopper (191)	>
11:20 AM		

Jordan Marisa Gossett, University of Hawaii Manoa

Diversification

📅 Thu, June 24

🕒 7:00 AM - 8:30 AM

📁 Faux-Live

Session Chairs

Chair

Orlando Schwery, New Mexico Consortium

Presentations

10:00 AM

10:10 AM

Molecules and fossils tell distinct yet complementary stories of mammal diversification (753)

Nathan S. Upham, Arizona State University; Jacob A. Esselstyn, Museum of Natural Science, Louisiana State University; Department of Biological Sciences, Louisiana State University; Walter Jetz, Yale University



10:10 AM

10:20 AM

Adequate for What? - Exploring Diversification Using Model Adequacy (401)

Orlando Schwery, New Mexico Consortium; Will Freyman, 23andMe; Emma Goldberg, University of Minnesota



10:20 AM

10:30 AM

Evolution of degrees of carnivory and dietary specialization across Mammalia and their effects on diversification rate at different taxonomic levels (60)

Matthew Pollard, PhD Student, University of Memphis; Emily Puckett, PhD, Assistant Professor, University of Memphis



10:30 AM

10:40 AM

Why extinction estimates from extant phylogenies are so often zero (626)

Matthew W. Pennell, University of British Columbia



10:40 AM

10:50 AM

Understanding diversification models in light of Louca & Pennell (2020) and Kubo & Iwasa (1995) (907)

Brian O'Meara (he/him), University of Tennessee, Knoxville; Jeremy Beaulieu, University of Arkansas



10:50 AM

11:00 AM

Combining iNaturalist and museum data to disentangle cryptic taxa (1143)

Adam Schneider, Hendrix College



11:00 AM

11:10 AM

Evolving towards a specialized state is rare: A case study of passerine nest type (625)

Rosana Zenil-Ferguson (she/ella), Assistant Professor, University of Hawai'i Mānoa; Jay McEntee, University of Florida/Missouri State University; John Gordon Burleigh, University of Florida; Renee A. Duckworth, University of Arizona



11:10 AM

11:20 AM

Systematics of Thraupis (Aves: Passeriformes) reveals hybridization of Thraupis episcopus (Blue-gray Tanager) at different levels (697)

Diego A. Cueva, Louisiana State University; Gustavo A. Bravo, Harvard University; Luís Fábio Silveira, MZUSP



Ecological Genetics/Plants

Thu, June 24

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Benjamin Blackman (he/him), Associate Professor, UC Berkeley

Presentations

10:00 AM

10:10 AM

Adaptive and non-adaptive causes of heterogeneity in genetic differentiation across the Mimulus guttatus genome (422)



Jack Colicchio, UC Berkeley; Lauren Hamm, UNIVERSITY OF CALIFORNIA; Hannah Verdonk, UC Berkeley; Nicholas John Kooyers, University of Louisiana, Lafayette; Benjamin Blackman (he/him), Associate Professor, UC Berkeley

10:10 AM

10:20 AM

Defense by duplication: The relation between phenotypic resistance and gene copy number variation (CNV) (1024)

Sarah Yakimowski, Queen's University; Zachary Teitel, University of Guelph; Christina Caruso, Department of Integrative Biology, University of Guelph



10:20 AM

10:30 AM

Tracing the evolutionary origin of abiotic stress responsive genes in grass by phylotranscriptomics (74)

Li Lei, DOE Joint Genome Institute



10:30 AM

10:40 AM

Morphological and ecological shifts following polyploidization in mints (600)

Jill Katharina Olofsson, Globe Institute, University of Copenhagen



10:40 AM

10:50 AM

Selection on gene expression and expression plasticity in rice (162)

Steven J. Franks, PhD, Professor, Fordham University; Simon Cornelis Groen, New York University; Elena Hamann, University of Georgia; Irina Calic, Fordham University; Michael Purugganan, Center for Genomics and Systems Biology, Department of Biology, 12 Waverly Place, New York University, New York, NY USA



10:50 AM

11:00 AM

Fine-scale comparison of pollen- and seed-mediated gene flow in the patchy annual, *Lasthenia californica* (222)

Elizabeth C. Scott (Hendrickson), Portland State University; Pamela G. Thompson, Portland State University; Tina Arredondo; Mitch Cruzan He/Him, Portland State University



11:00 AM

11:10 AM

Influence of multiple resource limitation of plants on herbivores (301)

Neha Mohanbabu, Syracuse University; Mark Ritchie, Syracuse University



11:10 AM

11:20 AM

Indirect effects of above-ground herbivory modify a below-ground mutualism but not a root parasitism (751)

Steven Thomas Cassidy, University of Florida; Shaniya Markalanda, University of Pittsburgh; Connor McFadden, University of Pittsburgh; Corlett Wolfe Wood, University of Pennsylvania



Evolutionary Ecology

Thu, June 24

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Howard Rundle (he/him), University of Ottawa

Presentations

10:00 AM

10:10 AM

Ecological and evolutionary processes during community assembly evaluated using DNA metabarcoding of arthropods on islands (883)

Natalie Graham, UC Berkeley; Rosemary G. Gillespie, University of California Berkeley; Henrik Krehenwinkel, Universität Trier; George Roderick, UC Berkeley



10:10 AM

10:20 AM

Allopolyploidization catalyzes niche evolution in African clawed frogs (*Xenopus*) (56)

Kaitlin Allen, University of Kansas; Ben Evans, McMaster University; Cecile Ane (she/her), University of Wisconsin - Madison; Walter Paulin Taponjoui, University of Kansas; Rafe Brown, Biodiversity Institute and Department of Ecology and Evolutionary Biology, University of Kansas; A. Townsend Peterson, University of Kansas



10:20 AM

10:30 AM

Effects of the closure of the Isthmus of Panama on marine host-associated microbiomes (25)

Alexander T. Neu, University of California San Diego; Mark E. Torchin, Smithsonian Tropical Research Institute; Eric E. Allen,



University of California San Diego; Kaustuv Roy, University of California San Diego

10:30 AM

10:40 AM

How do trade-offs affect niche shifts and range limits in novel and changing environments? (1033)

Robert I. Colautti (he/him), Queen's University, Kingston; Jake M. Alexander, ETH Zurich; Anna Hargreaves, McGill University; Dan Atwater, Earlham College



10:40 AM

10:50 AM

Phylogenetic signal of within-clade competitive dynamics (373)

Mauro Toshio Caiuby Sugawara, University of British Columbia; Matthew W. Pennell, University of British Columbia



10:50 AM

11:00 AM

Urbanization alters ecological and evolutionary interactions between Darwin's finches and Tribulus cistoides on the Galápagos Islands (14)

Ruth Rivkin, University of Toronto; Marc Johnson, University of Toronto Mississauga



11:00 AM

11:10 AM

CHC composition of insect prey cuticle influences predator success (402)

Lucas Jäger, RWTH Aachen University; Florian Menzel, JGU Mainz; Anna-Christin Joel, RWTH Aachen University; Dorothea Schmitt, JGU Mainz



11:10 AM

11:20 AM

Microbial communities in a changing environment: insights from mini communities (794)

Marie Vasse, PhD, CNRS; Kaitlin Schaal, ETH Zurich; Nicola Mayrhofer, ETH Zurich; August Paula, ETH Zurich; Ramith Nair, Uppsala University; Gregory J. Velicer, ETH Zurich



Experimental Evolution/Adaptation

Thu, June 24

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Beatriz Baselga Cervera, Ph.D., DVM, University of Minnesota**Presentations**

10:00 AM

Rapid, parallel evolution of reproductive isolation during dietary niche shifts (993)

10:10 AM

Rittik Deb, Visva-Bharati University; Soumya Panyam, IISER Mohali; Jean Francois Ferveur, University of Burgundy, Dijon, France; Deepa Agashe, National Centre for Biological Sciences



10:10 AM

Contemporary change of trophic morphology and integration in threespine stickleback, following introduction to a novel environment (549)

10:20 AM

Grant Haines (he/him), MSc, McGill University; Andrew Hendry, McGill University; Thomas E. Reimchen, University of Victoria



10:20 AM

Crossing fitness valleys towards multicellularity (617)

10:30 AM

Beatriz Baselga Cervera, Ph.D., DVM, University of Minnesota; Noah Gettle, University of Minnesota; Michael Travisano, University of Minnesota



10:40 AM

Evolution of lifespan and ageing in response to dietary regimes in male and female decorated crickets (920)

10:50 AM

Alejandro Rios-Villamil, HIE; Corinne Letendre; Alexandria Williams; Scott Sakaluk, Illinois State University; Clarissa House; John Hunt



10:50 AM

Genomic mechanisms of zooplankton adaptation to experimental warming and acidification (135)

11:00 AM

Reid Brennan (he/him), University of Vermont; James deMayo, University of Connecticut; Hans Dam, University of Connecticut; Michael Finiguerra, University of Connecticut; Hannes Baumann, University of Connecticut; Vince Buffalo, UC Davis; Melissa Pespeni, University of Vermont



11:00 AM

Rapid, but limited, zooplankton adaptation to simultaneous warming and acidification (1173)

11:10 AM



Jimmy deMayo (he/him), University of Connecticut; Hans Dam, University of Connecticut; Gihong Park, University of Connecticut; Lydia A. Norton, University of Connecticut; Xuejia He, Jinan University; Michael Finiguerra, University of Connecticut; Hannes Baumann, University of Connecticut; Reid Brennan (he/him), University of Vermont; Melissa Pespeni, University of Vermont

11:10 AM

11:20 AM

Impacts Of Spatial Structure On The Evolution Of Antibiotic Resistance (526)

Mahfuza Akter, Clarkson University; Susan Bailey, Clarkson University



Genomics/Adaptation/Fishes

Thu, June 24

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Jon Mee (he/him), Mount Royal University

Presentations

10:00 AM

10:10 AM

Parallel and non-parallel spine polymorphisms in brook stickleback populations (1025)

Jon Mee (he/him), Mount Royal University



10:10 AM

10:20 AM

Convergent molecular evolution in visual systems of deepwater lake fishes (914)

Alexander Van Nynatten, University of Toronto Scarborough; Belinda Chang, University of Toronto; Nathan R. Lovejoy, University of Toronto Scarborough; Nicholas E. Mandrak, University of Toronto Scarborough



10:20 AM

10:30 AM

Responses of a tropical marine fish to global warming: acute reactions vs. long-term effects (1021)



Moises A. Bernal, Auburn University; Philip L. Munday, James Cook University, Australia; Timothy Ravasi, Okinawa Institute of Science and Technology Graduate University; Jennifer Donelson, ARC Centre of Excellence for Coral Reef Studies

10:30 AM

10:40 AM

Demographic analyses set the evolutionary timeline and environmental context for an adaptive radiation (528)

Nathan Backenstose, University at Buffalo; Daniel MacGuigan, University at Buffalo; Moises A. Bernal, Auburn University; Wendylee Stott, USGS Great Lakes Science Center; Daniel L. Yule, USGS Great Lakes Science Center; Trevor Krabbenhoft, University at Buffalo



10:40 AM

10:50 AM

The role of DNA methylation in shaping genome evolution following whole genome duplication: insight from catostomid fishes (879)

Hannah Waterman (She/They), Master in Science, PhD candidate, University at Buffalo; Tianying Lan, University at Buffalo; Thomas E. Dowling, Wayne State University; Trevor Krabbenhoft, University at Buffalo



10:50 AM

11:00 AM

Differential alternative splicing in gulf pipefish brains during male pregnancy (899)

Brooke Weinstein, University of California Merced



11:00 AM

11:10 AM

Genomic Journeys into a Lost World: Investigating Holostean Fish Genomes and Development to Illuminate Vertebrate Evolution (1163)

Ingo Braasch, Michigan State University; Andrew W. Thompson, Michigan State University



Host-Parasite Interactions

Thu, June 24

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Joanne Odden, Pacific University**Presentations**

10:00 AM

10:10 AM

Effect of environmental fluctuation on evolution of induced and constitutive defensive strategies (834)

daniel Asgari, University of Houston



10:10 AM

10:20 AM

Angry birds: does it pay to parasitize an aggressive host? (336)

Mairenn Attwood (she/her), University of Cambridge; Jess Lund, University of Cambridge; Tanmay Dixit, University of Cambridge; Claire N. Spottiswoode, University of Cambridge and University of Cape Town



10:20 AM

10:30 AM

Phylogenetic Analyses of Wolbachia Bacteria within Bembidion Beetle Hosts (23)

Joanne P. Odden, Pacific University; Keri P. Togami, Pacific University; Dinwoodey P. Greer, Pacific University



10:30 AM

10:40 AM

Robust Genotype-by-Genotype Effects between Aphid Endosymbionts and Parasitoids on Variable Host Plants (806)

Elena Gimmi, Eawag / ETH Zurich; Christoph Vorburger, EAWAG



10:40 AM

10:50 AM

Genetic variation for plant immunosuppression by herbivorous spider-mites (249)

Jéssica Teodoro-Paulo, Institut des Sciences de l'Évolution (ISEM); Steven Charlesworth; Merijn Kant, Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam; Sara Magalhães, Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências, Universidade de Lisboa; Alison Duncan, Institut des Sciences de l'Évolution, University of Montpellier



10:50 AM

11:00 AM

Molecular regulation of the extreme lifespan extension in tapeworm-infected ants (302)

Susanne Foitzik, Johannes Gutenberg University Mainz; Sara Beron, jo; Marah Stoldt, Johannes Gutenberg University Mainz;



Anna Lenhart, Institute of Organismic and Molecular Evolutionary
Biology Johannes Gutenberg University Mainz

11:00 AM

11:10 AM

Developmental costs of ectoparasite resistance modulated by environmental toxin (292)

Olivia Kelleher, University of Cincinnati, Department of Biological Sciences; Michal Polak, University of Cincinnati, Department of Biological Sciences; Joy Bose, University of Cincinnati, Department of Biological Sciences



11:10 AM

11:20 AM

Pick Your Poison: Dietary Preference in Neotropical Poison Frogs (English), Predadores tóxicos: Evaluando las preferencias dietéticas de las ranas venenosas (Spanish) (504)

Nora Asher Moskowitz, PhD Candidate, Stanford University



Hybridization/Plants

Thu, June 24

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Mitch Cruzan He/Him, Portland State University

Presentations

10:00 AM

10:10 AM

Reproductive interference presents a cryptic threat of extinction to island biodiversity (506)

Bryan Reatini, University of North Carolina at Chapel Hill; Todd Vision, University of North Carolina; Maria de Lourdes Torres, Universidad San Francisco de Quito; Hugo Valdebenito, Universidad San Francisco de Quito



10:10 AM

10:20 AM

Polyploid hybrids - combining two ways to survive in post-glacial habitats. (261)



Jakub Hojka, Department of Botany, Faculty of Sciences, Charles University; Gabriela Sramkova, Faculty of Science, Charles University

10:20 AM

10:30 AM

Weak coupling among barrier loci and waves of neutral and adaptive introgression across an expanding hybrid zone (1093)

Mitch Cruzan He/Him, Portland State University; Pamela G. Thompson, Portland State University; Nicolas A. Diaz, Portland State University; Katie R. Gerloff, Portland State University; Katie A. Kline, Portland State University; Hannah Machiorlette, Portland State University; Jessica Persinger, Portland State University



10:30 AM

10:40 AM

A probabilistic model for inferring hybridization across large taxonomic groups, with applications to Quercus. (933)

Henry Landis, Columbia University; Deren A. R. Eaton, Columbia University



10:40 AM

10:50 AM

Pollinators and visitors to *Gymnadenia* orchids: historical and modern data reveal associations between insect proboscis and floral nectar spur length (5)

Kelsey Jaye Ruth Paularena Byers (mainly she/her), John Innes Centre



10:50 AM

11:00 AM

Evidence for the evolutionary importance of hybridisation in eucalypts (81)

Thais Ribeiro Pfeilsticker, University of Tasmania; Rebecca C. Jones, University of Tasmania; Dorothy A. Steane, University of Tasmania; René E. Vaillancourt, University of Tasmania; Peter A. Harrison, University of Tasmania; Brad M. Potts, University of Tasmania



11:00 AM

11:10 AM

A convoluted tale of hybridization between two *Petunia* species (289)

Pedro Henrique Henrique Pezzi (he/him), Universidade Federal do Rio Grande do Sul; Sebastián Guzmán-Rodríguez, Universidade Federal do Rio Grande do Sul; Giovanna Câmara Giudicelli, UFRGS; Caroline Turchetto, Federal University of Rio Grande do Sul (UFRGS), Brazil; Aureliano Bombarely, University of Milan;



Loreta B. Freitas, Federal University of Rio Grande do Sul
(UFRGS), Brazil

11:10 AM

11:20 AM

The genomic architecture of *Saccharomyces* yeast hybrids (961)

Devin P. Bendixsen, PhD, Stockholm University; Rike Stelkens, Stockholm University



Mutation

Thu, June 24

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Jaime Schwoch, BS, PhD Student, Portland State University

Presentations

10:00 AM

10:10 AM

Targeted mutagenesis in *Drosophila grimshawi* using CRISPR/Cas9 (762)

Bronwyn Miller, University of New Orleans; Kristen Latour, University of New Orleans; Joan Kim, University of New Orleans; Joel Atallah, University of New Orleans



10:10 AM

10:20 AM

Identifying signatures of selection on somatic mutations occurring during vegetative growth in *Mimulus guttatus* (924)

Jaime A. Schwoch, BS, PhD Student, Portland State University; Mitch Cruzan He/Him, Portland State University



10:20 AM

10:30 AM

A challenge to the concept of "the mutation rate": rates among different types of mutation do not correlate across genotypes of *Daphnia magna* (724)

Sarah Schaack (she/they), Reed College; Eddie K. H. Ho, Reed College



10:30 AM 10:40 AM	<p>The genome-wide rate and spectrum of EMS-induced heritable mutations in the microcrustacean <i>Daphnia</i>: on the prospect of forward genetics (773)</p> <p>Marelize Snyman, University of Texas at Arlington; Sen Xu, University of Texas at Arlington; Trung V. Huynh, University of Texas at Arlington; Matthew T. Smith, University of Texas at Arlington</p>	>
10:40 AM 10:50 AM	<p>Mutation bias reflecting natural selection in <i>Arabidopsis thaliana</i> (774)</p> <p>Grey Monroe, UC Davis; Detlef Weigel, Max Planck Institute for Developmental Biology</p>	>
10:50 AM 11:00 AM	<p>Spontaneous DNA methylation changes in the filamentous fungus <i>Neurospora crassa</i> (378)</p> <p>Ilkka Kronholm, University of Jyväskylä</p>	>
11:00 AM 11:10 AM	<p>Variation in pedigree-based germline mutation rate across 68 species of vertebrates (634)</p> <p>Lucie A. Bergeron, University of Copenhagen</p>	>
11:10 AM 11:20 AM	<p>Lethal Variation in Natural Populations (7)</p> <p>Sarah Boston Marion (she/her/hers), Duke University</p>	>

Quantitative Genetics

📅 Thu, June 24

🕒 7:00 AM - 8:30 AM

📁 Faux-Live

Session Chairs

Chair

Benjamin Haagen, Western Washington University

Presentations

10:00 AM

10:10 AM	<p>Indirect Genetic Effects of Social Interactions on Juvenile Fitness in the Florida Scrub-Jay (316)</p> <p>Gladiana Spitz, University of Rochester; Elissa J. Cosgrove, Cornell University; Reed Bowman, Archbold Biological Station; John Fitzpatrick, Cornell Lab of Ornithology; Nancy Chen (she/her), Assistant Professor, University of Rochester</p>	>
10:10 AM 10:20 AM	<p>An Integrative Approach to Dissecting the Genetic Basis of Thermal Tolerance in a Fruit Fly Model. (1022)</p> <p>Patricka Williams-Simon, University of Missouri</p>	>
10:20 AM 10:30 AM	<p>Genome-wide association mapping for growth rate at fluctuating and extreme temperatures (357)</p> <p>Emmi Räsänen, University of Jyväskylä; Ilkka Kronholm, University of Jyväskylä</p>	>
10:30 AM 10:40 AM	<p>Mapping networks of heritable genetic variation acting on protein expression dynamics during mating pheromone response in haploid <i>Saccharomyces cerevisiae</i> (1133)</p> <p>Benjamin David Haagen, Western Washington University; Dan Pollard, Western Washington University</p>	>
10:40 AM 10:50 AM	<p>The enigmatic DUP240 yeast gene family plays a role in killer toxin defense (749)</p> <p>Meru Sadhu, Investigator, National Institutes of Health; Ilya Andreev, NIH</p>	>
10:50 AM 11:00 AM	<p>Genetic mapping of host loci determining gut microbiome composition in hybrid mice (951)</p> <p>Leslie Turner, University of Bath; Shauni Doms, CAU Kiel & Max Planck Inst for Evolutionary Biology; John Baines, CAU Kiel & Max Planck Institute for Evolutionary Biology</p>	>
11:00 AM 11:10 AM	<p>Contrasting roles of constraint and natural selection on cranial traits in the diversification of sigmodontine rodents (1032)</p> <p>Bárbara Andrade Costa (she/her), Florida State University; Daniela Munhoz Rossoni, Field Museum; Scott J. Stepan, Florida State University; Gabriel Marroig, Universidade de São Paulo</p>	>

11:10 AM

11:20 AM

Dynamics of a Quantitative Trait in a Patchy Environment: Beneath the Gaussian Approximation (94)

Léonard Dekens (he/him), Institut Camille Jordan



Sex/Recombination

Thu, June 24

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Molly Hirst, University of Michigan

Presentations

10:00 AM

10:10 AM

Divergent mating systems lead to differences in sperm morphology between two closely-related Neotropical primates (447)

Molly Hirst, University of Michigan; Alba Z. Rodas-Martínez, Universidad Juárez Autónoma de Tabasco; Liliana Cortés-Ortiz, University of Michigan



10:10 AM

10:20 AM

Female mating dynamics in a drosophilid with large sperm (1004)

Jennifer M. Gleason, University of Kansas



10:20 AM

10:30 AM

Proteome-wide scan of evolutionary rates reveals targets of sexual selection in primates (618)

Brianna Ports (She/Her), Duquesne University; Michael Jensen-Seaman, Associate Professor, Duquesne University



10:30 AM

10:40 AM

Sex chromosome turnover and the repeated evolution of a master sex determination gene in Central American cichlids (737)

Camila Leitão Nacif, Federal University of Rio de Janeiro



10:40 AM

10:50 AM

Mobile elements mediate the evolution of sex chromosome dosage compensation of nucleolar organizing regions (NORs) in turtles with male (XX/XY) and female (ZZ/ZW) heterogamety (97)

Nicole Valenzuela, Iowa State University; Eugenia E. Montiel, Iowa State University; Daleen Badenhorst, Iowa State University



10:50 AM

11:00 AM

The Evolutionary Patterns of Recombination Rates in North American Gray Wolves (*Canis lupus*) and Domestic Dogs (*C. familiaris*) (1051)

Tina Del Carpio (They/Them), PhD Candidate, UCLA; Maria Izabel A. Cavassim, UCLA; Robert Wayne, UCLA; Kirk E. Lohmueller, UCLA



11:00 AM

11:10 AM

Recombination Rate and Virulence Across Dimorphic Human Pathogenic Fungi (265)

Gastón Ignacio Jofre Rodriguez, Department of Biology, UNC Chapel Hill; Daniel R. Matute, University of North Carolina, Chapel Hill; Heidi Mavengere, University of North Carolina at Chapel Hill



11:10 AM

11:20 AM

Adaptive divergence of meiotic recombination rate in ecological speciation (1129)

Swatantra Neupane, University of Texas at Arlington



SSB Excellence Award Symposium

Thu, June 24

7:00 AM - 8:30 AM

Faux-Live

Session Chairs

Chair

Liliana Davalos, Stony Brook University

Presentations

10:00 AM

10:10 AM

Heterogeneity characterizes early diversification across a biogeographic barrier (142)

Kaiya Provost (she/her), Postdoctoral Researcher, The Ohio State University

10:10 AM

10:20 AM

Rapid Alignment Updating for Evolutionary Analyses with Extensiphy (168)

Jasper Sabaku Toscani Field, University of California, Merced; A. Jeanine Abrams; John Cartee; Emily Jane McTavish, University of California, Merced

10:20 AM

10:30 AM

Macroevolutionary Analyses Provide New Evidences of Phasmids Wings Evolution as a Reversible Process. (474)

Giobbe Forni, University of Bologna; Jacopo Martellosi, University of Bologna; Andrea Luchetti, University of Bologna; Pablo Valero; Oskar Conle; Frank Hennemann; Baarbara Mantovani, University of Bologna

10:30 AM

10:40 AM

Fairy Wrasses and Fairy Tales: Phylogenomic Analysis of Concatenated Ultraconserved Elements Reveals the Recent Evolutionary Radiation of the Fairy Wrasses (Teleostei: Labridae: Cirrhilabrus) (628)

Yi-Kai Tea, University of Sydney; Xin Xu, College of Life Sciences, Hunan Normal University; Joseph D. DiBattista, Australian Museum Research Institute; Nathan Lo, University of Sydney; Peter F. Cowman, ARC Centre of Excellence for Coral Reef Studies, James Cook University; Simon Y.W. Ho, University of Sydney

10:40 AM

10:50 AM

A novel target-capture bioinformatic pipeline resolves allopolyploid evolution, paralogs, and allelic variation in *Polypodium s.s. ferns* (735)

Jonas Ivan Mendez-Reneau, B.S. Botany (Humboldt State University), University of Louisiana, Lafayette; Nic Kooyers, University of Louisiana, Lafayette; John Gordon Burleigh, University of Florida; Erin M. Sigel, University of New Hampshire

10:50 AM

11:00 AM

EVOLUTIONARY FORCES IN THE BENGALESE FINCH'S SONG: PARALLELS AND IMPLICATIONS FOR THE STUDY OF HUMAN SPEECH (1088)

Madza Farias-Virgens, University of California Los Angeles; Terrence Deacon, University of California Berkeley; Kazuo Okanoya, University of Tokyo and RIKEN Brain Science Institute; Stephanie A. White, University of California at Los Angeles; Emilia Huerta-Sánchez, Brown University

11:00 AM

11:10 AM

Detection of sex-linked regions in *Amaranthus* using Kmerkit (1130)

Jasmina Dzurlic, Columbia University; Deren A. R. Eaton, Columbia University



11:10 AM

11:20 AM

Prolonged morphological expansion of spiny-rayed fishes following the end-Cretaceous (454)

Ava Ghezelayagh, Yale University; Richard Harrington, Yale University; Edward Burrell, University of California, Davis; Matthew A. Campbell; Janet C. Buckner, PhD, Postdoctoral Researcher, Louisiana State University; Prosanta Chakrabarty, Ph.D., Professor/Curator of Fishes, Louisiana State University, Museum of Natural Science; Jessica Glass (she/her), Assistant Professor, University of Alaska Fairbanks; W. Tyler McCraney, University of California, Los Angeles; Peter J. Unmack, University of Canberra; Christine E. Thacker, Natural History Museum of Los Angeles County; Michael E. Alfaro, University of California, Los Angeles; Sarah Friedman (She/Her), Yale University; William B. Ludt, Natural History Museum of Los Angeles County; Peter F. Cowman, ARC Centre of Excellence for Coral Reef Studies, James Cook University; Matt Friedman, University of Michigan; Samantha Price, Clemson University; Alex Dornburg, NC Museum of Natural Sciences; Brant Faircloth, Louisiana State University; Peter Wainwright, University of California Davis; Thomas Near, Yale University



11:20 AM

11:30 AM

Diversification dynamics and evolution of old biodiversity hotspots – the Australian temperate flora has no global analogue (473)


Francis J. Nge (he/him), the University of Adelaide; Ed Biffin, the University of Adelaide; Kevin R. Thiele, the University of Western Australia; Michelle Waycott, the University of Adelaide



SSE President Plenary - Entanglement of genomic and environmental influences on organismal

fitness: its bearing on two research programs

 Thu, June 24

 9:30 AM - 10:30 AM

 LS Plenary

Session Chairs

Chair

Lynda Delph, Indiana University

Conduct Moderator

Michael Whitlock (he/him), UBC

Info

Will you be presenting your talk in English or Spanish?:

English

Author

Ruth Geyer Shaw (she/her)

University of Minnesota

Biologists with disabilities/chronic illness/Deaf biologists and allies mixer

 Thu, June 24

 11:00 AM - 12:00 PM

 Social Events

Author

Kelsey Jaye Ruth Paularena Byers

University of Cambridge

Adaptation/Behavior

📅 Thu, June 24

🕒 12:00 PM - 1:30 PM

📁 Faux-Live

Session Chairs

Chair

Marta Vidal-Garcia, University of Calgary

Presentations

10:00 AM

Biomechanics and morphological patterns in head-first burrowing frogs (1105)

10:10 AM

Marta Vidal-Garcia, University of Calgary; Marta Marchini, University of Calgary; Jordi Marcé Nogué, URV; Josep Fortuny, Institut Català de Paleontologia Miquel Crusafont; Thomas Semple; Paul Cooper, The Australian National University; J. Scott Keogh, Australian National University



10:10 AM

Digging up the truth: ^{SEP} the evolutionary genomics of Culex pipiens mosquitoes (508)

10:20 AM

Yuki Haba, Princeton University; Carolyn S. McBride, Princeton University; Noah H. Rose, Princeton University; Molly Schumer, Stanford University



10:20 AM

Evolution of boldness and exploratory behavior in giant mice from Gough Island (201)

10:30 AM

Jered Stratton, UW-Madison; Mark Nolte, University of Wisconsin - Madison; Bret Payseur, Ph.D., Professor, University of Wisconsin-Madison



10:30 AM

How did the Vikings use plants? Testing phylogenetic inference of past botanical cultures. (857)

10:40 AM

Fiona Jordan, University of Bristol



10:40 AM

10:50 AM

Genetic basis of individual variation in spatial cognitive abilities in food-caching chickadees (1044)

Scott Taylor (he/him), University of Colorado Boulder; Carrie Branch, Cornell Lab of Ornithology; Georgy Semenov, University of Colorado Boulder; Dominique Neitzel Wagner, PhD, University of Colorado Boulder; Angela Pitera, University of Nevada Reno; Eli Bridge, University of Oklahoma; Vladimir Pravosudov, University of Nevada Reno



10:50 AM

11:00 AM

A conserved trans regulatory loop involving an odorant binding protein controls male mating behavior in flies (236)

Pablo J. Delclos, University of Houston; Kiran Adhikari, University of Houston; Richard Meisel (he/him), University of Houston



11:00 AM

11:10 AM

Nest architecture is linked with ecological success in songbirds (588)

Iliana Medina, University of Melbourne; Daniela Perez; Justin Cally; Ana Catarina Silva; Odile Maliet; Ignacio Quintero



Adaptation/Ecology

Thu, June 24

12:00 PM - 1:30 PM

Faux-Live

Session Chairs

Chair

Moises Exposito-Alonso, Carnegie Institution for Science & Stanford University

Presentations

10:00 AM

10:10 AM

Rapid evolution in globally-distributed field experiments of *Arabidopsis thaliana* (1125)

Ru Peng, Carnegie Institution for Science; Lucas Czech, Carnegie Institution for Science; Francois Vasseur, Centre D'Ecologie Fonctionnelle et Evolutive; Niek Niek Scheepens, Goethe University Frankfurt; GrENE-net.org Consortium, GrENE-net.org Consortium;



Moises Exposito-Alonso, Carnegie Institution for Science & Stanford University

10:10 AM

10:20 AM

Effects of CBF2 on cold acclimation and fitness in contrasting ecotypes of a widespread winter annual (180)

Gwonjin Lee, Purdue University; Christopher G. Oakley (he/him), Assistant Professor, Purdue University



10:20 AM

10:30 AM

Ecological basis and genetic architecture of crypsis polymorphism in the desert clicker grasshopper (*Ligurotettix coquilletti*) (237)

Timothy Kevin O'Connor, University of Chicago; Marissa Sandoval, University of California, Berkeley; Jiarui Wang, UC Berkeley; Jacob Hans, University of California, Riverside; Risa Takenaka, University of Washington; Myron Child, University of Utah; Noah K. Whiteman, UC-Berkeley



10:30 AM

10:40 AM

Patterns of local adaptation and loss of diversity during the colonization of riverine habitats by invasive round gobies (286)

Jared Homola, Michigan State University; Seth R. Smith, Michigan State University; Bailey Lorencen, Michigan State University; John Robinson, Michigan State University; Kim Scribner, Michigan State University



10:40 AM

10:50 AM

Stressful Cities: Evolutionary Implications of Urbanization on Coastal Marine Invertebrates (563)

Madison Leigh Armstrong, University of California Davis, Department of Evolution and Ecology; Rachael Bay, University of California, Davis



10:50 AM

11:00 AM

Adaptation of the Virginia opossum to temperate environments in North America (918)

Renee García-Flores, National Autonomous University of Mexico; Andrés Moreno-Estrada, LANGEBIO-CINVESTAV; Sergio F. Nigenda-Morales, CINVESTAV, LANGEBIO



11:00 AM

11:10 AM

Hybrids and rogue clocks: exploring the genetic architecture of thermal tolerance in swordtail fishes (45)



Cheyenne Payne, Stanford University; Stephen Bovio, Texas A&M University; Daniel Powell, Stanford University; Molly Schumer, Stanford University; Gil G. Rosenthal, Texas A&M University; Shreya Banerjee, Stanford University; Theresa Gunn, Stanford University

11:10 AM

11:20 AM

Fit and fatty freshwater fish: Contrasting polyunsaturated fatty acid phenotypes between hybridizing stickleback lineages (631)

Cameron M. Hudson, PhD Evolutionary Biology, EAWAG; Nemiah Ladd; Miguel Leal; Carsten Schubert; Ole Seehausen, The Swiss Federal Institute of Aquatic Science and Technology (EAWAG); Blake Matthews



Behavior/Sexual Selection

Thu, June 24

12:00 PM - 1:30 PM

Faux-Live

Session Chairs

Chair

Daniel Goldberg, Illinois State University

Presentations

10:00 AM

10:10 AM

Comparative analysis of association between scaling of copulatory organs and mating behavior in livebearing fishes (1035)

Daniel Lorenz Goldberg, Illinois State University; Eric T. Schultz, University of Connecticut; Brian Langerhans, North Carolina State University; David Norman Reznick, University of California



10:10 AM

10:20 AM

Selection, drift, & constraint act at different times during the diversification of bioluminescent signals in sea fireflies (350)

Niko Hensley (he/him), Cornell University; Todd H. Oakley, University of California, Santa Barbara



10:20 AM

Sex differences in parent-offspring communication (1065)

10:30 AM

Shana Caro, UT Austin

10:30 AM

The effects of signal complexity on the copulation success of *Schizocosa stridulans* wolf spiders (346)

10:40 AM

Noori Choi, University of Nebraska-Lincoln, USA; Kasey Fowler-Finn, Saint Louis University; Elise Knowlton, University of Oklahoma School of Community Medicine, Tulsa, OK; Malcolm Rosenthal, University of California-Berkeley, Berkeley, California, USA.; Aaron Rundus, West Chester University, West Chester, Pennsylvania, USA.; Roger Santer, Aberystwyth University, Aberystwyth, Wales, United Kingdom; Dustin Wilgers, McPherson College, McPherson, Kansas, USA; Eileen Hebets, University of Nebraska-Lincoln

10:40 AM

Patterns of utilizing sexual dimorphic chemical signals in male mate choice across *Drosophila* species (49)

10:50 AM

Haosu Cong, Michigan State University; Zinan Wang, Michigan State University; Henry Chung, Michigan State University

10:50 AM

The relationship between starvation and courtship success in a species with a novel courtship song (927)

11:00 AM

Connor James Bryant, University of Kansas; Jennifer M. Gleason, University of Kansas

11:00 AM

Environmental Motion and the Evolution of Motion-Based Display Traits: A Test Case in *Habronattus* Jumping Spiders (463)

11:10 AM

David James Morris, University of Cincinnati; Sebastian Echeverri, University of Pittsburgh; David Outomuro Priede, University of Cincinnati; Daniel Zurek, University of Cincinnati; Nathan I. Morehouse, University of Cincinnati

Computational Biology

Thu, June 24

12:00 PM - 1:30 PM

Faux-Live

Session Chairs

Chair

Magdalena Kozielska, PhD, Dr., University of Groningen

Presentations

10:00 AM	<p>Bad role models: can deep learning save us from the tyranny of mouse, worm, and fly? (717)</p> <p>Kyle T. David, Auburn University; Kenneth M. Halanych, Auburn University</p>	>
10:10 AM		
10:20 AM	<p>Modeling the evolution of associative learning (198)</p> <p>Magdalena Kozielska, PhD, Dr., University of Groningen; Emiliano Mendez Salinas, University of Groningen; Franz J. Weissing, University of Groningen</p>	>
10:30 AM		
10:30 AM	<p>Virtual eco-evolutionary experiments and the pantropical diversity disparity (668)</p> <p>Oskar Hagen, German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig; Alex Skeels (he/him), Dr., ETH Zurich; Renske E. Onstein, iDiv, Germany; Walter Jetz, Yale University; Benjamin Flück, ETH Zürich, Switzerland; Fabian Fopp, ETH Zürich, Switzerland; Juliano S. Cabral, Universität Würzburg, Germany; Florian Hartig, University of Regensburg, Germany; Mikael Pontarp, Lund University, Sweden; Thiago F. Rangel, Federal University of Goiás, Brazil; Loïc Pellissier, ETH Zürich</p>	>
10:40 AM		
10:40 AM	<p>Consequences of frequency-dependent selection for estimating selection strength on a human genetic resistance allele (775)</p> <p>Madeline Peters, University of Toronto; Nicole Mideo, University of Toronto</p>	>
10:50 AM		
10:50 AM	<p>Coalescent tree recording with selection in SimBit offers drastic performance advantage (963)</p> <p>Remi Matthey-Doret, University of Bern</p>	>
11:00 AM		

Diversification/Geographic Variation

📅 Thu, June 24

🕒 12:00 PM - 1:30 PM

📁 Faux-Live

Session Chairs

Chair

Colin Garroway (he/him), Department of Biological Sciences, University of Manitoba

Presentations

10:00 AM

Clade density and the evolution of equilibrial diversification dynamics (245)

10:10 AM

Marcio R. Pie, Universidade Federal do Paraná; Raquel Divieso, Universidade Federal do Paraná; Fernanda de Souza Caron, Universidade Federal do Paraná



10:10 AM

Morphological evolution within a shrew species complex: the effects of biotic and abiotic factors (842)

10:20 AM

Inessa Elena VOET, Museum national d'Histoire naturelle; Violaine Nicolas, UMR 7205 ISYEB, Muséum national d'Histoire naturelle, Paris, France; Christiane Denys, UMR 7205 ISYEB, Muséum national d'Histoire naturelle, Paris, France; Marc Colyn, UMR CNRS 6553 ECOBIO – Université de Rennes 1, Paimpont, France; Aude Lalis, UMR 7205 ISYEB, Muséum national d'Histoire naturelle, Paris, France; Adam Konečný, Department of Botany and zoology, Masaryk University, Brno, Czech Republic; Raphaël Cornette, Muséum National d'Histoire Naturelle



10:20 AM

Elevation, climate niche and morphological trait evolution explain diversification rate variation in hummingbirds (Aves: Trochilidae) (323)

10:30 AM

Elisa Barreto, PhD in Ecology and Evolution, Dr., Universidade Federal de Goiás (UFG) and Swiss Federal Institute WSL; Marisa C. W. Lim, Department of Ecology and Evolution, Stony Brook University, 650 Life Sciences Building Stony Brook, NY 11794, USA; Danny Rojas, Pontificia Universidad Javeriana Cali; Liliana M. Davalos, Stony Brook University; Rafael O. Wüest, Swiss Federal



Research Institute (WSL), Zürcherstrasse 111, 8903 Birmensdorf, Switzerland; Antonin Machac, Biodiversity Research Centre, University of British Columbia, 2212 Main Mall, Vancouver, Canada; Catherine H. Graham, Swiss Federal Research Institute (WSL), Zürcherstrasse 111, 8903 Birmensdorf, Switzerland

10:30 AM

10:40 AM

Alternating regimes of shallow and deep diversification in marine fishes (734)

Elizabeth Christina Miller, U. of Washington/U. of Oklahoma; Christopher Martinez, University of California, Davis; Sarah Friedman (She/Her), Yale University; Peter Wainwright, University of California Davis; Samantha Price, Clemson University; Luke Tornabene, University of Washington



10:40 AM

10:50 AM

The role of temperature and body size dependent speciation rates in shaping biodiversity (556)

Alex Skeels (he/him), Dr., ETH Zurich; Wilhelmine Bach, ETH Zürich; Oskar Hagen, German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig; Walter Jetz, Yale University; Loïc Pellissier, ETH Zürich



10:50 AM

11:00 AM

Genetic and species-level biodiversity patterns are linked by demography and ecological opportunity in mammals (586)

Colin J. Garroway (he/him), Department of Biological Sciences, University of Manitoba; Chloé Schmidt (she/her), University of Manitoba; Stéphane Dray, Université Claude Bernard Lyon I



11:00 AM

11:10 AM

Genetic and phenotypic differentiation of passerine birds in the endemic-rich Central Sierras of Argentina and the southern Andes (1098)

Lucila Chifflet, postdoc, Museo Argentino de Ciencias Naturales; Belen Bukowski, Museo Argentino de Ciencias Naturales; Pablo D. Lavinia, Universidad Nacional de Río Negro. CIT Río Negro UNRN - CONICET, Sede Atlántica; Pablo L. Tubaro, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN-CONICET); Dario A. Lijtmaer, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN-CONICET)



11:10 AM

11:20 AM

Toadally isolated? genetic differentiation and genomic diversity of Western toads on the Haida Gwaii archipelago, BC, Canada (750)



Roseanna Gamlen-Greene, University of British Columbia; Jared Grummer, University of British Columbia; Melissa Todd, British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development; Sally N. Aitken, University of British Columbia

Education/Outreach

📅 Thu, June 24

🕒 12:00 PM - 1:30 PM

📁 Faux-Live

Session Chairs

Chair

Sterling Martin, The University of Wisconsin-Madison

Presentations

10:00 AM

10:10 AM

Introducing Project ENABLE: an online resource for Enriching Navajo as a Biology Language for Education (690)

Sterling Clint Tohdacheeney Martin, The University of Wisconsin-Madison; Joanna Bundus, University of Wisconsin - Madison; Susana Wadgymar (she/her), Davidson College



10:10 AM

10:20 AM

So You Want to Write Fiction (246)

Amanda Niehaus, Science Write Now



10:20 AM

10:30 AM

The Evolution Perceptions and Religious Backgrounds of Black and Hispanic Students Nationwide (987)

Elizabeth Barnes, Middle Tennessee State University; K Supriya, University of California Los Angeles; Hayley Dulop, Ohio State University Medical School; Taija Hendrix, Arizona State University; Gale Sinatra, University of Southern California; Sara Brownell, Arizona State University



10:30 AM

10:40 AM

Identifying and dismantling barriers to evolutionary biology interests and outcomes in minoritized students: Examples from gateway biology (207)

Gena C. Sbeglia, Stony Brook University; Ross H. Nehm, Stony Brook University



10:40 AM

10:50 AM

Natural Selection Does Not Come Naturally: Getting mired in pattern & process and proximate & ultimate causality (58)

Lucy E. Delaney (she/her), Graduate Student, University of Illinois at Chicago



10:50 AM

11:00 AM

Is active learning enough? A large-scale, quasi-experimental study of the role of misconceptions in evolution learning outcomes (208)

Ross H. Nehm, Stony Brook University; Gena C. Sbeglia, Stony Brook University; Jesse Colton, Stony Brook University; Stephen Finch, Stony Brook University



11:00 AM

11:10 AM

Chords and Codons: Musical simulations of evolutionary processes in an interdisciplinary undergraduate course (102)

Jeff Dudycha, Professor, University of South Carolina; Reginald Bain, School of Music, University of South Carolina



11:10 AM

11:20 AM

The Daphnia Games (820)

Trenton Agrelius, University of South Carolina; Rachel Schomaker, University of South Carolina; Libby Davenport, University of South Carolina; Jake Swanson, University of South Carolina; Matt Randall Bruner, University of South Carolina; Jeff Dudycha, Professor, University of South Carolina



Evolutionary Ecology/Plants

Thu, June 24

12:00 PM - 1:30 PM

Faux-Live

Session Chairs

Chair

Yamit Bar-Lev, PhD, Tel Aviv University

Presentations

10:00 AM

10:10 AM

Testing for genetic clines in phenotypic traits along an urban-rural gradient in *A. syriaca* (common milkweed) (425)

Sophie Breitbart (she/her), PhD Candidate, University of Toronto; Marc Johnson, University of Toronto Mississauga; Helene Wagner, University of Toronto Mississauga



10:10 AM

10:20 AM

Evolutionary history and ecological divergence of *Oncoclytus irises* (754)

Yamit Bar-Lev, PhD, Tel Aviv University; Sissi Donna Lozada Gobilard, Tel Aviv University, Botanical Garden; Lior Glick, Tel Aviv University; Itay Mayrose, Tel Aviv University; Yuval Sapir, Botanic Garden Tel Aviv University



10:20 AM

10:30 AM

Pollinator predators affect phenotypic selection on floral traits (912)

Amanda Decker Benoit, University of Tennessee, Knoxville; Susan Kalisz, University of Tennessee, Knoxville



10:30 AM

10:40 AM

Conflicting selection on floral size and its relation with heat reward in Royal Irises (795)

Sissi Donna Lozada Gobilard, Tel Aviv University, Botanical Garden; Aliza Fedorenka, The Weizmann Tree Lab, Weizmann Institute, Israel; Tamir Klein, The Weizmann Tree Lab, Weizmann Institute, Israel; Michael Lenhard, University of Potsdam, Germany; Yuval Sapir, Botanic Garden Tel Aviv University



10:40 AM

10:50 AM

Herbicide drift alters plant-herbivore interactions at the agro-ecological interface (244)

Nia Michelle Johnson, University of Michigan; Regina Baucom, University of Michigan



10:50 AM

11:00 AM

Regional co-occurrence patterns of *Rhododendron* species across spatiotemporal scales (1132)



Qin Li, PhD, Postdoctoral Researcher, Field Museum of Natural History; Richard Ree, The Field Museum

11:00 AM

11:10 AM

Mutualism promotes range expansion in both ant and plant partners (186)

Pooja Nathan, University of Toronto; Megan E. Frederickson, University of Toronto



11:10 AM

11:10 AM

What matters most, floral shape or rewards? Variation in phenotypic selection on floral traits in two bee-pollinated Penstemons (959)

Kaushalya Kaushalya Rathnayake, University of New Brunswick, Department of Biology; Amy L. Parachnowitsch (she/her), University of New Brunswick



Experimental Evolution

Thu, June 24

12:00 PM - 1:30 PM

Faux-Live

Session Chairs

Chair

Michael Wisler, Assistant Professor, Michigan State University

Presentations

10:00 AM

10:10 AM

Growth responses of marine cryptophytes after experimental evolution in four light environments (915)

Kristiaan Merritt, University of South Carolina; Tammi L. Richardson, University of South Carolina; Jeff Dudycha, Professor, University of South Carolina



10:10 AM

10:20 AM

Demolition Derby: Following an All-vs-All competition of evolved populations. (1114)

Michael James Wisler, Assistant Professor, Michigan State University; Caroline B. Turner, University of Pittsburgh; Jessica



University Tiv, Loyola University Chicago; Alexa Nicholson, Loyola University Chicago

10:20 AM

10:30 AM

Investigating the evolutionary consequences of adaptation to poor developmental environment on adult heat stress response (850)

Rohit Kapila, IISER Mohali; Mayank Kashyap, IISER Mohali; Nagaraj Guruprasad



10:30 AM

10:40 AM

Dual RNA-seq reveals shared molecular paths in a parasitoid wasp and its host (285)

Alice Dennis, University of Potsdam; Christoph Vorburger, EAWAG



10:40 AM

10:50 AM

Science serving society: Drosophila experimental evolution under global warming. (962)

Marta A. Santos, MSc, PhD, cE3c – Centre for Ecology, Evolution and Environmental Changes, Universidade de Lisboa, Portugal; Ana S. Carromeu-Santos, CESAM – Centre for Environmental and Marine Studies, Universidade de Aveiro & Faculdade de Ciências, Universidade de Lisboa, Portugal.; Marta Antunes, Faculty of Sciences of the University of Lisbon; Ana S. Quina, CESAM – Centre for Environmental and Marine Studies, Universidade de Aveiro & Faculdade de Ciências, Universidade de Lisboa, Portugal.; Mauro Santos, Departament de Genètica i de Microbiologia, Grup de Genòmica, Bioinformàtica i Biologia Evolutiva (GGBE), Universitat Autònoma de Barcelona, Spain.; Margarida Matos, FCUL; Pedro Simões, Faculdade de Ciências, Universidade de Lisboa



11:00 AM

11:10 AM

Effects of population size and environmental fluctuations on microbial adaptation (1001)

Sutirth Dey, Indian Institute of Science Education and Research (IISER)-Pune; Yashraj Chavhan, IISER Pune; Sarthak Malusare, IISER Pune



11:10 AM

11:20 AM

Evolution of metabolic interactions in a Long-Term Community Evolution Experiment (1027)

Maria Rebolleda-Gomez, University of California, Irvine; Sylvie Estrela, Yale University; Djordje Bajic, Yale University; Alicia Sanchez-Gorostiaga, CNB CSIC; Nanxi Lu; Jacquelyn I. Folmar, Yale University; Alvaro Sanchez, Yale University



Genomics

📅 Thu, June 24

🕒 12:00 PM - 1:30 PM

📁 Faux-Live

Session Chairs

Chair

Mylena Santander, BSc., Instituto de Biociencias, Universidade de São Paulo

Presentations

10:00 AM

Genomic differentiation between three subspecies of Orange-crowned Warblers (1070)



10:10 AM

Finola Fogarty, University of British Columbia; Kenneth Askelson, University of British Columbia; Quinn McCallum, University of British Columbia; Ellen Nikelski, University of British Columbia; Andrew Huang, WildResearch; Darren Irwin, Ph.D., Professor, University of British Columbia

10:10 AM

Faster X-effect in Hemiptera (752)



10:20 AM

Eric R. Gordon, University of Connecticut; Alexander Knyshev, University of Rhode Island; Christiane Weirauch, University of California Riverside

10:20 AM

On the evolutionary history of jellyfish genomes: a story told by the rapid turnover of satellite DNA (919)



10:30 AM

Mylena Daiana Santander, BSc., Instituto de Biociencias, Universidade de São Paulo; Maximiliano Manuel Maronna, Instituto de Biociencias, Universidade de São Paulo; Elio Rodrigo Castillo, Laboratorio de Genética Evolutiva, Instituto de Biología Subtropical, Argentina; Edgar Gamero-Mora, Instituto de Biociências, Universidade de São Paulo; Clarissa Garbi Molinari, Instituto de Biociências, Universidade de São Paulo; Jonathan W. Lawley, Griffith University; Sergio Stampar, Universidade Estadual Paulista (UNESP) - FCL/Assis - Departamento de Ciências Biológicas; Andre Carrara Morandini, Instituto de Biociências, Universidade de São Paulo; Sônia Cristina da Silva Andrade, Institute of Biosciences, University of São Paulo

10:30 AM

Large-scale evolutionary patterns of conserved non-coding elements in Metazoan genomes (399)

10:40 AM

Paul Gonzalez, National Institutes of Health; Andy Baxevanis, National Human Genome Research Institute, NIH

10:40 AM

Horizontal gene transfer of Auchenorrhyncha (Hemiptera) (838)

10:50 AM

Zheng Li, The University of Texas at Austin; Nancy Moran, University of Texas at Austin

10:50 AM

Cost-benefit analysis of genomic sequencing for phylogeography (16)

11:00 AM

Drew Duckett (he/him), The Ohio State University; Kailee Calder, Colorado State University; Jack Sullivan, University of Idaho; David Tank, University of Idaho; Bryan Charles Carstens (he/him), The Ohio State University

11:00 AM

Selection on a novel locus and Pleistocene glaciations explain plumage patterning evolution in the Rufous-collared Sparrow (*Zonotrichia capensis*) (747)

11:10 AM

Pablo D. Lavinia, Universidad Nacional de Río Negro. CIT Río Negro UNRN - CONICET, Sede Atlántica; Leonardo Campagna, Cornell University; Ana S. Barreira, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN-CONICET); Stephen C. Loughheed, Department of Biology, Queen's University; Pablo L. Tubaro, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN-CONICET); Dario A. Lijtmaer, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN-CONICET)

11:10 AM

The genomic landscape of Gloger's rule in a tropical passerine bird (95)

11:20 AM

Rafael SOBRAL Marcondes, Louisiana State University; Gustavo A. Bravo, Harvard University; Brant Faircloth, Louisiana State University; Scott Vernon Edwards, Harvard University; Robb Brumfield, Louisiana State University

Host-Parasite Interactions

 Thu, June 24

 12:00 PM - 1:30 PM

Session Chairs

Chair

Alexandra Kahn, UC Berkeley - ESPM

Presentations

10:00 AM

Fight or flight? Bacteria evolve resistance against spatially-distributed parasites (696)

10:10 AM

Mike Blazanin (he/him), PhD Student, Yale University; ; Michael Travisano, University of Minnesota



10:10 AM

Host interactions shape the evolution of specialization in bacteriophage (75)

10:20 AM

Ave Bisesi, University of Minnesota; Will Harcombe, University of Minnesota



10:20 AM

Intraguild predation and trophic transfer drive parasite abundance patterns in larval dragonfly communities (1168)

10:30 AM

Sarah Goodnight, B.S., PhD Candidate , East Carolina University; Michael W. McCoy, East Carolina University



10:30 AM

Wolbachia infections in *Nasonia vitripennis*: A Host-Endosymbiont interaction study (218)

10:40 AM

ALOK TIWARY, Indian Institute of Science Education & Research - Mohali - Punjab



10:40 AM

Host egg signatures are an effective defence against near-perfect mimicry by cuckoos (846)

10:50 AM

Jess Lund, University of Cambridge; Tanmay Dixit, University of Cambridge; Mairenn Attwood (she/her), University of Cambridge; Gabriel Adam Jamie, University of Cambridge; Claire N. Spottiswoode, University of Cambridge and University of Cape Town



10:50 AM

11:00 AM

Exceptions to the rule: why does resistance evolution not undermine antibiotic therapy in all bacterial infections? (1039)

Amrita Bhattacharya (she/her), Pennsylvania State University; Anton Aluquin, Pennsylvania State University; David A. Kennedy, Pennsylvania State University



11:00 AM

11:10 AM

Genomic Correlation with Host Range in *Xylella fastidiosa* (330)

Alexandra Kahn, UC Berkeley - ESPM; Rodrigo Almeida, UC Berkeley



11:10 AM

11:20 AM

Diversity-area relationships in the microbiome using phylogenetic comparative methods on 220 wild bird species (966)

Elizabeth A. Herder, University of Connecticut; Holly L. Lutz, UCSD Center for Microbiome Innovation; Sarah Hird, University of Connecticut



Hybridization/Genomics

Thu, June 24

12:00 PM - 1:30 PM

Faux-Live

Session Chairs

Chair

Andrius Jonas Dagilis, University of North Carolina Chapel Hill

Presentations

10:00 AM

10:10 AM

A meta-analysis of introgression across eukaryotes (259)

Andrius Jonas Dagilis, University of North Carolina Chapel Hill; Jenn Marie Coughlan, University of North Carolina, Chapel Hill; Emmanuel Raffaello Robinson D'Agostino, University of North Carolina at Chapel Hill; Gastón Ignacio Jofre-Rodríguez, Texas A&M University Department of Biology; Heidi Mavengere, University of North Carolina at Chapel Hill; David Peede, Brown University;



Alex Delacy Tate, UNC - Chapel Hill; Daniel R. Matute, University of North Carolina, Chapel Hill

10:10 AM

10:20 AM

Estimating the components of hybrid fitness (1128)

Carl Veller, University of California, Davis; Pavitra Muralidhar, University of California, Davis



10:20 AM

10:30 AM

Hybridization dynamics and population genomics in a Manakin hybrid zone (569)

Kira Long, University of Illinois Urbana-Champaign; Michael J. Braun, Smithsonian Institution; Jeffrey Brawn, University of Illinois Urbana-Champaign



10:30 AM

10:40 AM

Identifying the genetic basis of coloration differences in a common woodpecker (114)

Stephanie Maria Aguillon (she/her), PhD, Postdoc at Stanford (Sept. 2021), Cornell University; Jennifer Walsh, Cornell University; irby J. Lovette, Cornell University



10:40 AM

10:50 AM

Divergence and hybridization in sea turtles: inferences from whole genomes show evidence of ancient gene flow between species (1153)

Sibelle Vilaca, University of Ferrara; Riccardo Piccinno, Department of Sustainable Agro-ecosystems and Bioresources, Fondazione Edmund Mach, Trento, Italy; Omar Rota-Stabelli, Department of Sustainable Agro-ecosystems and Bioresources, Fondazione Edmund Mach, Trento, Italy.; Maëva Gabrielli, Department of Life Sciences and Biotechnology, University of Ferrara, Ferrara, Italy; Andrea Benazzo, Department of Life Sciences and Biotechnology, University of Ferrara, Ferrara, Italy; Luciano Soares, Archie Carr Center for Sea Turtle Research and Department of Biology, University of Florida, Gainesville, USA; Alan Bolten, Archie Carr Center for Sea Turtle Research and Department of Biology, University of Florida, Gainesville, USA; Karen Bjorndal, Archie Carr Center for Sea Turtle Research and Department of Biology, University of Florida, Gainesville, USA.; Giorgio Bertorelle, Department of Life Sciences and Biotechnology, University of Ferrara, Ferrara, Italy.



10:50 AM

11:00 AM

Admixture in the Africanized Honeybee from San Diego, U.S.A. to Panamá City, Panamá (101)

Daniela Zarate, UC San Diego



11:00 AM

11:10 AM

Long-read DNA sequence data reveal reduced introgression of Z-linked structural variants across a butterfly hybrid zone (627)

Linyi Zhang, Utah State University; Samridhi Chaturvedi, Postdoctoral Fellow, University of California, Berkeley; Lauren Lucas, Utah State University; Zachariah Gompert, Utah State University



11:10 AM

11:20 AM

Exploring disturbance-mediated hybridization in backyard songbirds (1055)

Kathryn Grabenstein, The University of Colorado, Boulder; Ken A. Otter, University of Northern British Columbia; Theresa M. Burg, University of Lethbridge; Scott Taylor (he/him), University of Colorado Boulder



Invasive Species

Thu, June 24

12:00 PM - 1:30 PM

Faux-Live

Session Chairs

Chair

Dan Bock, Washington University in St. Louis

Presentations

10:00 AM

10:10 AM

Changes in selection pressure can facilitate hybridization during biological invasion (589)

Dan Bock, Washington University in St. Louis



10:10 AM

10:20 AM

Effects of resident community composition and genetic identity on invasion success (984)

Kelsey Lyberger, UC Davis, Population Biology; Amelia Munson, UC Davis; Matthew Kim, UC Davis; THOMAS SCHOENER, University of California, Davis



10:20 AM

10:30 AM

Does population density differentially affect invasive vs. native freshwater New Zealand snails (*Potamopyrgus antipodarum*)? (835)

Briante Najev, University of Iowa; Maurine Neiman, University of Iowa



10:30 AM

10:40 AM

Two subspecies of the *Aedes aegypti* mosquito are found in Sudan and originated from recent independent invasion events (670)

Elnour B. Mohammed-Ahmed, Sudan Tropical Medicine Research Institute, National Center for Research; Andrea Gloria-Soria (she/her), Associate Research Scientist 2, The Connecticut Agricultural Experiment Station; Jeffrey R. Powell, Yale University; Bashir Salim, University of Khartoum



10:40 AM

10:50 AM

Comparing life history traits in native vs invasive asexual New Zealand mud snails (674)

Carina Donne, University of Iowa; Katelyn Larkin; Claire Tucci; Carson Kephart, University of Iowa; Abby Goode, University of Iowa; Maurine Neiman, University of Iowa



10:50 AM

11:00 AM

Evidence for continent-wide convergent evolution and stasis throughout 150 years of a biological invasion (471)

Yihan Wu, University of British Columbia; Robert I. Colautti (he/him), Queen's University, Kingston



11:00 AM

11:10 AM

Using museum genomics to understand the rapid evolution of insecticide resistance (748)

Angela McGaughran, University of Waikato



11:10 AM




11:20 AM

Not all hybrid zones are equal: Pre-introduction introgression contributes to unparallel anthropogenic hybridization in Australian marine mussels (839)

Iva Popovic, University of Queensland; Nicolas Bierne; Federico Gaiti; Milos Tanurdzic; Cynthia Riginos, The University of Queensland



Methods/Techniques

 Thu, June 24
 12:00 PM - 1:30 PM
 Faux-Live

Session Chairs

Chair

Erica Baken, Chatham University

Presentations

10:00 AM

A new Shiny app for geometric morphometric analysis: gmShiny (382)



10:10 AM

Erica Karin Baken, Chatham University

10:10 AM

Evolutionary indices for classifying modes of tumour evolution (69)



10:20 AM

Veselin Manojlovic, City, University of London; Jeanne Lemant, Department of Mathematics, ETH Zürich; Swiss Tropical and Public Health Institute, Basel; Robert Noble, City, University of London

10:20 AM

Traversome: using likelihood-based method for organelle genome structure resolution and frequency analysis (1000)



10:30 AM

JianJun Jin, Columbia University; Deren A. R. Eaton, Columbia University

10:30 AM

Sophisticated evolutionary models on morphological data have a high impact in Bayesian phylogenies; a test case with the Feliformia (Carnivora) (881)



10:40 AM

Paul Z. Barrett, University of Oregon

10:40 AM

Maximizing inference power in low-coverage whole genome sequencing experiments (1064)



10:50 AM

R. Nicolas Lou, Cornell University; Arne Jacobs, Cornell University; Aryn Wilder, San Diego Zoo; Nina Overgaard Therkildsen, Cornell University

10:50 AM

11:00 AM

Estimating haplotypes for environmental DNA (1087)

Maya Lemmon-Kishi, University of California, Berkeley; Rasmus Nielsen, University of California Berkeley & Natural History Museum of Denmark



11:00 AM

11:10 AM

Bait design for targeted sequencing in plants using Phyluce: the case of Calceolaria (622)

Nicolas Medina, University of Maryland, College Park; Anahi Espindola (she/her), University of Maryland, College Park



11:10 AM

11:20 AM

New tools for popgen simulation and analysis: What's possible? (1081)

Peter Ralph (he/him), University of Oregon; Benjamin C. Haller, Cornell University; Jerome Kelleher, Oxford Big Data Institute; tskit Consortium



Paleobiology

 Thu, June 24

 12:00 PM - 1:30 PM

 Faux-Live

Session Chairs

Chair

Tiago Simões, PhD, Harvard University

Presentations

10:00 AM

10:10 AM

Fossil Eco-evo-devo: Identifying heterochronic mechanisms employed in the evolution of vermiform morphology in turrnellid gastropods using isotopic sclerochronology (440)

Brendan Anderson, PhD, Baylor University; Warren Allmon, Paleontological Research Institution



10:10 AM

10:20 AM

Accuracy of diversification rate inference methods for shifts in trait-dependence (369)

Bruno do Rosario Petrucci, Iowa State University; Joelle Barido-Sottani, Iowa State University; Tracy Heath (she/her), Iowa State University

10:20 AM

10:30 AM

The rate of food web evolution in Lake Victoria inferred from ancestral fossil phenotypes of haplochromine cichlid fishes (157)

Nare Ngoepe, 1. University of Bern, 2.Eawag - Swiss Federal Institute of Aquatic Science and Technology; Eliane Jemmi, 1. University of Bern, 2.EAWAG Center for Ecology, Evolution & Biogeochemistry; Moritz Muschick, 1. University of Bern, 2.EAWAG Center for Ecology, Evolution & Biogeochemistry; Ole Seehausen, The Swiss Federal Institute of Aquatic Science and Technology (EAWAG); Mary Alphonse Kische, Tanzania Fisheries Research Institute (TAFIRI); Salome Mwaiko, Eawag - Swiss Federal Institute of Aquatic Science and Technology



10:30 AM

10:40 AM

Detecting phenotypic selection strength and mosaic evolution during the rise of tetrapods (679)

Tiago Simões, PhD, Harvard University; Stephanie E. Pierce, Harvard University



10:40 AM

10:50 AM

The contribution of functional traits to the understanding of paleoenvironmental changes (385)

Lea Terray, Muséum National d'Histoire Naturelle; Emmanuelle Stoetzel, HNHP UMR 7194 (CNRS/Muséum national d'Histoire naturelle); Anthony Herrel, Muséum national d'Histoire naturelle; Raphaël Cornette, Muséum national d'Histoire naturelle



10:50 AM

11:00 AM

New methods to use Finite Element models in evolutionary studies and their applications to the fossil record (247)

Jordi Marcé Nogué, URV; Püsichel Thomns



11:00 AM

11:10 AM

Snake vertebral shape and temperature: A potential proxy for paleoenvironmental reconstruction in North America? (718)

John Jacisin, Texas A&M University; A. Michelle Lawing, Texas A&M



Phylogenomics

📅 Thu, June 24

🕒 12:00 PM - 1:30 PM

📁 Faux-Live

Session Chairs

Chair

Eren Ada, Ph.D. Candidate, University of Rhode Island

Presentations

10:00 AM

10:10 AM

Phylogenomics and Population History of Widespread Fishes in Lowland Neotropical Rivers (788)

Konrad Taube, DePaul University ; The Field Museum of Natural History; Windsor E. Aguirre, DePaul University; Felix Grewe, Field Museum of Natural History; Caleb D. McMahan, Field Museum of Natural History



10:10 AM

10:20 AM

Phylogenomics of an Ecologically-Diverse Snake Group (Natricidae: Thamnophiini) (415)

Leroy Nuñez, American Museum of Natural History; Levi Gray, University of Kentucky; David Weisrock, University of Kentucky; Frank Burbrink, American Museum of Natural History



10:20 AM

10:30 AM

Aquaporin evolution in the context of arthropod terrestrialization (816)

Gemma Isabel Martínez-Redondo, Institute of Evolutionary Biology (Universitat Pompeu Fabra-CSIC); Pau Balart-Garcia, Institute of Evolutionary Biology (CSIC - Universitat Pompeu Fabra); Rosa Fernández, Institute of Evolutionary Biology (CSIC - Universitat Pompeu Fabra)



10:40 AM

10:50 AM

Evolution of fungal lifestyles and associated effector proteins in the genus *Fusarium* (Ascomycota) (484)

Rowena Hill, PhD student, Royal Botanic Gardens, Kew; Ester Gaya; Richard Buggs



11:00 AM

11:10 AM

Biogeography and ecological drivers of evolution in the Andes: resolving the phylogenetic backbone for *Calceolaria* L. (Calceolariaceae) (487)

Lauren Frankel (she/her), PhD Student, University of Wisconsin-Madison; Anahi Espindola (she/her), University of Maryland, College Park



11:10 AM

11:20 AM

Phylogenomics of the Sigmodontinae Rodent Radiation Using Custom Anchored Hybrid Enrichment Design (904)

Max Bangs (he/him), M.S., Ph.D. , Postdoc, Florida State University; Victor R. Pacheco, National University of San Marcos, Lima, Peru; Alexandre Reis Percequillo, Universidade de São Paulo; Scott J. Stepan, Florida State University



Sexual Selection

Thu, June 24

12:00 PM - 1:30 PM

Faux-Live

Session Chairs

Chair

Kristen Martinet (she/her), University of Idaho

Presentations

10:00 AM

10:10 AM

Sexual selection in plants: pollen competition ability as a pathway to paternity (710)

Omer Iltas, Department of Botany, Charles University; Clément Lafon Placette, Department of Botany, Charles University



10:10 AM

10:20 AM

Drosophila melanogaster females can adjust sperm use patterns in response to perceived changes in male quality (258)

Brooke Peckenpaugh, Indiana University; Leonie Moyle, Indiana University



10:20 AM 10:30 AM	<p>Can female guppies learn to like male colours? (756)</p> <p>Magdalena Herdegen-Radwan, Adam Mickiewicz University in Poznan</p>	>
10:30 AM 10:40 AM	<p>The genetic architecture of the sword and its evolution in hybrid swordtail fish populations (43)</p> <p>Daniel Powell, Stanford University; Cheyenne Payne, Stanford University; Molly Schumer, Stanford University; Gil G. Rosenthal, Texas A&M University</p>	>
10:40 AM 10:50 AM	<p>Weapon performance drives weapon evolution (660)</p> <p>Zach Emberts (he/him), University of Arizona; Wei Song Hwang, Lee Kong Chian Natural History Museum; John Wiens, University of Arizona</p>	>
10:50 AM 11:00 AM	<p>Frequent origins of traumatic insemination predict convergent shifts in sexual trait morphology and sex allocation (456)</p> <p>Jeremias N. Brand, University of Basel / Max Planck Institute for Biophysical Chemistry; Luke Harmon, University of Idaho; Lukas Schärer, University of Basel</p>	>
11:00 AM 11:10 AM	<p>Survival of the Hairiest: Mate Selection in an Evolutionary Video Game (396)</p> <p>Kristen Martinet (she/her), University of Idaho; Barrie Robison, University of Idaho; Terence Soule, University of Idaho; Graeme Holliday, University of Idaho; Lily Mason, University of Idaho; Landon Wright, University of Idaho; Luke Harmon, University of Idaho</p>	>
11:10 AM 11:20 AM	<p>Plant speciation puzzle: is sexual selection involved? (804)</p> <p>Mohammadjavad Haghghatnia, Charles university; Marcus Koch, Centre for Organismal Studies (COS), Universität Heidelberg; Antonin Machac, Biodiversity Research Centre, University of British Columbia, 2212 Main Mall, Vancouver, Canada; Roswitha Schmickl, Department of Botany, Charles University in Prague; Clément Lafon Placette, Department of Botany, Charles University</p>	>

SSB symposium: Diversifying Evolution



Thu, June 24



12:00 PM - 3:00 PM



LS Symposium

Session Chairs

Chair

Jessica ware, Ware Lab

Presentations

3:00 PM

Scientific societies and the publishing ecosystem (836)

3:20 PM

Bryan Charles Carstens (he/him), The Ohio State University



3:20 PM

A South American Naturalist in the 21st century (1177)

3:40 PM

Gabriel Bernardello, IMBIV (CONICET-Universidad Nacional de Córdoba, Argentina)



3:40 PM

Identity as a pathway: scorpion evolution and queer advocacy (1166)

4:00 PM

Lauren Esposito, California Academy of Sciences



4:00 PM

Queering flower evolution (832)

4:20 PM

Hervé Sauquet (he/him), Royal Botanic Gardens and Domain Trust



4:20 PM

The Evolutionary Mosaic of the Fish Skull: a Quest for Answers and Identity (1067)

4:40 PM

Kory M. Evans, Rice University



4:40 PM

Understanding Aphonopelma diversity across the Madrean Pine-Oak Woodlands Hotspot by integrating Western science and Traditional Ecological Knowledge (TEK) (874)

5:00 PM

Chris Hamilton, University of Idaho



5:00 PM

Lessons for DEI from union organizing. (812)

Ambika Kamath, UC Berkeley



5:20 PM

ASN Symposium: Theory of evolution

Thu, June 24

12:00 PM - 3:30 PM

FL Symposium

Session Chairs

Chair

David Mindell, Univ. California at Berkeley, MVZ**Samuel Scheiner**, National Science Foundation

Presentations

3:00 PM

The Theory of Evolution: A Conceptual Framework (1142)

3:15 PM

Samuel Scheiner, National Science Foundation

3:15 PM

Q&A

3:20 PM

3:20 PM

Hlstoricing the Synthesis (1152)

3:35 PM

Vassiliki Betty Smocovitis, University of Florida

3:35 PM

Q&A

3:40 PM

3:40 PM

Situating evolutionary developmental biology in evolutionary theory (1139)

3:55 PM

Alan Love, University of Minnesota

3:55 PM

Q&A

4:00 PM

4:00 PM

Macroevolutionary theory (1140)

David Jablonski, The University of Chicago



4:15 PM

4:15 PM

20 Minute Break

4:35 PM

4:35 PM

The evolution of sex: a theory of recombination (1150)

Maria E. Orive (she/her), University of Kansas



4:50 PM

4:50 PM

Q&A

4:55 PM

4:55 PM

The Theory of Evolutionary Biogeography (1283)

Rosemary G. Gillespie, University of California Berkeley; Andrew Rominger, University of Maine; Jun Ying Lim, Nanyang Technological University, Singapore



5:10 PM

5:10 PM

Q&A

5:15 PM

5:15 PM

The Theory of Evolution: Growth and Outlook (1141)

David P. Mindell, Univ. California at Berkeley, MVZ



5:30 PM

5:30 PM

General Q&A

5:50 PM

SSE Symposium: Using Machine Learning to Understand the Evolution of Biodiversity

Thu, June 24

🕒 12:00 PM - 3:30 PM

📁 FL Symposium

Session Chairs

Chair

Marek Borowiec, University of Idaho**Chris Hamilton**, University of Idaho

Presentations

3:00 PM

The effects of selection on inferences of introgression with Machine Learning (680)

3:15 PM

Megan L. Smith, PhD, Indiana University; Matthew Hahn, Indiana University



3:15 PM

Q&A

3:20 PM

3:20 PM

Using machine learning in species delimitation (731)

3:35 PM

Shahan Derkarabetian, Postdoc, Harvard University



3:35 PM

Q&A

3:40 PM

3:40 PM

Exploring the potential of deep learning for faster and more accurate phylogenetic inference (723)

3:55 PM

Anton Suvorov, UNC Chapel Hill



3:55 PM

Q&A

4:00 PM

4:00 PM

Measuring perceptual distance of organismal color pattern using unsupervised neural networks (1157)

4:30 PM



Briana Ezray Wham, Penn State University; Drew Wham, Penn State University

4:30 PM

Q&A

4:35 PM

4:35 PM

Location, location, location: deep learning about space (996)



5:10 PM

Andrew Kern, Evergreen Associate Professor of Biology, University of Oregon

5:10 PM

Q&A

5:15 PM

5:15 PM

Adaptive evolutionary inference across human populations using convolutional neural networks (783)



5:30 PM

Zhanpeng Wang, Haverford College; Jiaping Wang, Haverford College; Michael Kourakos, Swarthmore College; Nhung Hoang, Swarthmore College; Hyong Hark Lee, Swarthmore College; Iain Mathieson, University of Pennsylvania; Sara Mathieson, Assistant Professor of Computer Science, Haverford College

5:30 PM

Q&A

5:35 PM

5:35 PM

Machine learning as a tool for conservation at different scales (761)



5:45 PM

Anahi Espindola (she/her), University of Maryland, College Park

5:45 PM

Q&A

5:50 PM

5:50 PM

Museum collections, deep learning, and biogeography: a global case study of ferns (682)



6:20 PM

Alex White, Smithsonian Institution; Rebecca Dikow, Smithsonian Institution; Paul Frandsen, Brigham Young University

6:20 PM

Q&A

6:25 PM

Story Collider

 Thu, June 24 4:00 PM - 6:00 PM Satellite Events

Description

2020 was the year (decade?) that just wouldn't end. ASN, SSB, and SSE are partnering again with The Story Collider to share three true, personal stories about how the many events of 2020 impacted our lives and our science. This special virtual edition of the Story Collider will have no cap on attendance. You can learn more about the Story Collider show "Stories from Outside the Distribution" at Evolution 2019 here, and listen to the recordings of the stories here.


Registration Fee: \$5 for students and postdocs (use discount code STUDENT), and \$10 for faculty.

Author

Kati Moore (she/her)

Society for the Study of Evolution

SSB Ernst Mayr Award Symposium

 Fri, June 25 7:00 AM - 10:00 AM LS Symposium

Session Chairs

Chair

Liliana Davalos, Stony Brook University

Presentations

10:00 AM

Effects of feeding mode on the morphological diversification of reef fishes (147)



10:15 AM

Katherine A. Corn, PhD Candidate, University of California, Davis; Sarah Friedman (She/Her), Yale University; Edward Burress, University of California, Davis; Christopher Martinez, University of California, Davis; Olivier Larouche, Rice University; Samantha Price, Clemson University; Peter Wainwright, University of California Davis

10:15 AM

Whole genome phylogeography of a classic leapfrog pattern: origin and color variation of an Andean tanager, Superciliaried Hemispingus (648)



10:30 AM

Jonathan Schmitt, Harvard University; Scott Vernon Edwards, Harvard University

10:30 AM

Fossilized birth-death models, crocodiles, and the K-Pg mass extinction (930)



10:45 AM

Andrew Magee, University of Washington; Sebastian Höhna, LMU Munich

10:45 AM

Ancient radiation explains most phylogenetic conflicts among core genes from nostocalean cyanobacteria (529)



11:00 AM

Carlos J. Pardo De la Hoz, Duke University; Nicolas Magain, University of Liège; Bryan Piatkowski, Duke University; Luc Cornet, University of Liège; Manuela Dal Forno, Botanical Research Institute of Texas; Jolanta Miadlikowska, Duke University; Francois Lutzoni, Duke University

11:00 AM

Revisiting the offspring size-number trade-off using thousands of descriptions of insect eggs and ovaries (262)



11:15 AM

Samuel H. Church, Harvard University; Bruno A S de Medeiros, Postdoctoral Fellow, Smithsonian Tropical Research Institute; Seth Donoughe, University of Chicago; Nicole Márquez, University of Minnesota; Cassandra G. Extavour, Harvard University

11:15 AM

Evolution in the mud: molecular systematics and biogeography of mud snakes (Homalopsidae) (499)



11:30 AM

Justin M. Bernstein, Rutgers University-Newark; John Murphy, Field Museum of Natural History; Harold K. Voris, Field Museum of Natural History; Rafe Brown, Biodiversity Institute and Department of Ecology and Evolutionary Biology, University of Kansas; Sara Ruane, Rutgers University-Newark

11:30 AM

Divergent processes drive parallel evolution in marine and freshwater fishes (523)

11:45 AM

Sarah Friedman (She/Her), Yale University; Michael Collyer (he/him), Chatham University; Samantha Price, Clemson University; Peter Wainwright, University of California Davis



11:45 AM

Expansion and accelerated evolution of 9-exon odorant receptors in Polistes paper wasps (1014)

12:00 PM

Andrew Wesley Legan, Cornell University Department of Neurobiology and Behavior; Christopher Jernigan, Cornell University; Sara Miller, Postdoc, Cornell University; Matthieu Fuchs; Michael J. Sheehan, Cornell University



12:00 PM

Chemical Species Recognition in an Adaptive Radiation of a Hawaiian Spider (995)

12:15 PM

Seira Ashley Adams, University of California, Berkeley; Rosemary G. Gillespie, University of California Berkeley; Stefan Schulz, Technische Universität Braunschweig; Moritz Gerbault, Technische Universität Braunschweig; Anjali Gurajapu, University of California, Berkeley; Albert Qiang, University of California, Berkeley



12:15 PM

Museum phylogenomics unlocks a historical record of extinction in Australia (228)

12:30 PM

Emily Roycroft, Research School of Biology, Australian National University; Anna MacDonald, Research School of Biology, Australian National University; Craig Moritz, Australian National University (ANU); Adnan Moussalli, Sciences Department, Museums Victoria; School of BioSciences, The University of Melbourne; Roberto Portela Miguez; Kevin C. Rowe, Sciences Department, Museums Victoria; School of BioSciences, The University of Melbourne



SSE W.D. Hamilton Award Symposium

Fri, June 25

7:00 AM - 10:00 AM

Session Chairs

Chair

Katy Heath (she/her), University of Illinois at Urbana-Champaign

Presentations

10:00 AM

10:10 AM

The evolution of continuous winter coloration in white-tailed jackrabbits in response to past and future variations in snow cover (44)

Mafalda Sousa Ferreira (she/her), CIBIO-InBIO, University of Porto; Timothy J. Thurman, Division of Biological Sciences, University of Montana; Matthew R. Jones, Division of Biological Sciences, University of Montana; Liliana Farelo, CIBIO-InBIO, University of Porto; Alexander V. Kumar, University of Montana; Sebastian M. E. Mortimer, Oregon State University; John R. Demboski, Denver Museum of Nature and Science; L. Scott Mills, University of Montana; Paulo C. Alves, CIBIO-InBIO, University of Porto; José Melo-Ferreira, CIBIO-InBIO, University of Porto; Jeffrey M. Good, Division of Biological Sciences, University of Montana



10:13 AM

10:23 AM

Colony expansions underlie the evolution of army ant mass raiding (488)

Vikram Chandra, Harvard University; Asaf Gal, The Rockefeller University; Daniel J. C. Kronauer, The Rockefeller University



10:26 AM

10:36 AM

Temperature-dependent flight efficiency and the evolution of darker wings in seabirds (481)

Michaël Nicolai, UGent; Svana Rogalla, UGent; Sara Porchetta, Von Karman Institute; Gertjan Glabeke, Von Karman Institute; Claudia Battistella, D'Alba Liliana; Gianneschi C. Nathan; Jeroen van Beeck, Von Karman Institute; Matthew D. Shawkey, UGent



10:39 AM

10:49 AM

Positive selection on regulatory regions drives gene expression evolution on recently evolved sex chromosomes (404)

Daniel Shaw (he/him), University of Georgia; Michael Andrew White, University of Georgia



10:52 AM	<p>Coevolution's conflicting role in the establishment of novel beneficial associations (85)</p> <p>Kim Hoang, University of Oxford; Levi Morran, Emory University; Nicole Gerardo, Emory University</p>	>
11:02 AM		
11:05 AM	<p>Genomic, transcriptomic, and endocrine mechanisms underlying the introgression of a sexually-selected plumage trait (166)</p> <p>Sarah Khalil, Tulane University; Jennifer Walsh, Cornell University; Erik Enbody, Uppsala University; Daniel T. Baldassarre, State University of New York Oswego; Hubert Schwabl, Washington State University; Michael S. Webster, Cornell University; Jordan Karubian, Tulane University</p>	>
11:15 AM		
11:18 AM	<p>Connecting genotypes to phenotypes: bumble bees as a new model system for evolutionary genetics (509)</p> <p>Sarthok Rasique Rahman, University of Alabama; Heather M. Hines, Pennsylvania State University</p>	>
11:28 AM		
11:31 AM	<p>Does age matter in male reproduction? (79)</p> <p>Upama Aich, Australian National University; Timothee Bonnet, Australian National University; Megan L. Head, Australian National University; Rebecca J. Fox, Australian National University; Michael D. Jennions, Australian National University</p>	>
11:41 AM		
11:44 AM	<p>Deeply Altered Genome Architecture in the Endoparasitic Flowering Plant <i>Sapria himalayana</i> Griff. (Rafflesiaceae) (365)</p> <p>Liming Cai, Harvard University</p>	>
11:54 AM		
11:57 AM	<p>Rapid, parallel evolution of field mustard (<i>Brassica rapa</i>) under experimental drought (146)</p> <p>Stephen Johnson (he/him), PhD Candidate, Fordham University; Elena Hamann, University of Georgia; Steven J. Franks, PhD, Professor, Fordham University</p>	>
12:07 PM		
12:10 PM	<p>Genomics of secondarily temperate adaptation in ecologically divergent icefish species (453)</p>	>
12:20 PM		

Angel Gabriel Rivera-Colon, University of Illinois at Urbana-Champaign; Christina Cheng, University of Illinois at Urbana-Champaign; Julian M. Catchen, Associate Professor, University of Illinois at Urbana-Champaign

12:23 PM

12:33 PM

Gene conversion facilitates the adaptive evolution of self-resistance in highly toxic newts (51)

Kerry Lynn Gendreau, Virginia Tech; Joel McGlothlin, Virginia Tech; Michael Hague, University of Montana; Angela Hornsby



12:36 PM

12:46 PM

Natural variation of mating phenotypes impact the spread of meiotic drivers (190)

JOSE FABRICIO LOPEZ HERNANDEZ, Stowers Institute for Medical Research; Rachel Helston, Stowers Institute for Medical Research; Jeffrey Lange, Stowers Institute for Medical Research; Scott McCroskey, Stowers Institute for Medical Research; Sarah E. Zanders, Stowers Institute for Medical Research



12:49 PM

12:59 PM

Using genome-wide data to detect highly synchronous demographic responses to Pleistocene climate change across insular snake communities (132)

Arianna L. Kuhn, American Museum of Natural History



1:02 PM

1:12 PM

Genomic contributors of speciation: insights from nascent warbler species boundaries (390)

Silu Wang, University of California Berkeley; Devin R. de Zwaan; Else Mikklesen; Madelyn Ore; Jacqueline Mackenzie; David Toews; Sievert Rohwer, University of Washington; Julie Lee-Yaw, University of Lethbridge; Darren Irwin, Ph.D., Professor, University of British Columbia



Latinxs in evolution mixer

Fri, June 25


9:30 AM - 10:30 AM

Social Events

Author

Henry Arenas-Castro
University of Queensland

2020 IDEA Award Plenary

 Fri, June 25

 10:30 AM - 11:30 AM

 LS Plenary

Session Chairs

Chair

Daniel Matute, University of North Carolina, Chapel Hill

Info

Will you be presenting your talk in English or Spanish?:

English

Keyword 2:

Education

Keyword 3:

Communication/outreach

Authors

Scott Vernon Edwards

Harvard University

Richard Kliman

Cedar Crest College

2020 Dobzhansky Prize Address

 Fri, June 25

 12:00 PM - 12:30 PM

 LS Symposium

Session Chairs

Chair

John Stinchcombe, University of Toronto

Info

Will you be presenting your talk in English or Spanish?:

English

Keyword 1:

Quantitative genetics

Keyword 2:

Sexual conflict

Keyword 3:

Contemporary evolution

Taxonomic Group:


Drosophila

Author


Jacqueline Sztepanacz

University of Toronto

SSE: Education Symposium

 Fri, June 25

 12:00 PM - 3:00 PM

 LS Symposium

Session Chairs

Chair

J. Gibson, University of Oklahoma

Richard Kliman, Cedar Crest College

Louise Mead, Education Director, BEACON Center for the Study of Evolution in Action

Presentations

[The challenge and importance of teaching tree thinking \(826\)](#)

David Baum (he/him), University of Wisconsin - Madison



[A cognitive psychological perspective on tree-thinking difficulty: On the critical importance of perceptual grouping \(833\)](#)

Laura R. Novick, Vanderbilt University



[Seeing the forest and the trees: Assessing tree thinking \(898\)](#)

Kristy L. Daniel, Ph.D., Associate Professor, Texas State University



[Teaching trees \(890\)](#)

J. Phil Gibson, University of Oklahoma



2021 Dobzhansky Prize Address

 Fri, June 25

 12:30 PM - 1:00 PM

 LS Symposium

Session Chairs

Chair

Sarah Schaack (she/they), Reed College

Info

Will you be presenting your talk in English or Spanish?:

English

Abstract:

Sex differences are pervasive and contribute much to the spectacular phenotypic diversity seen in nature. Paradoxically, these sex differences arise from largely the same genome, suggesting a history of wide-spread genomic conflict between the sexes. In the simplest form, sexual conflict can arise from a single allele that is beneficial when expressed in one sex yet deleterious in the other. If this locus introduced sex-biases in mortality, a male-female F_{ST} signature may appear. Despite some empirical support for this idea, our population genetic models suggest that reasonable levels of antagonistic selection are not expected to produce detectable allelic divergence between the sexes. Moreover, using GWAS on the large UK and Vanderbilt Biobanks, we found no allelic variants with evidence for sexual antagonism. Together these results demonstrate the need for new metrics to confidently identify sexually antagonistic loci in the genome. Consequently, we are currently engineering a sexual conflict locus in *Caenorhabditis* nematodes to track the evolutionary dynamics of this cryptic signature in real time.

Sexual conflict can also arise among interacting loci, especially as a result of sexual interactions. Male total reproductive fitness is determined by pre- and post-mating (insemination) success. Understanding the balance between in phases and their independent contributions to reproductive fitness has proved challenging. We combined *C. elegans* transgenics and experimental evolution to assess selection on post-insemination interactions. First, we designed an inducible sterility system, which prevented males from producing functional sperm. We then explicitly tested the relative contributions of pre-insemination and post-insemination success to male reproductive fitness. After 30 generations of evolution, we identified a strong response to selection, particularly for post-insemination interactions. Genomic analyses support that selection acted more efficiently under enhanced sperm competition, highly polygenic trait. This work highlights the importance of this cryptic phase of reproduction and its potential for creating sexual conflict.

Keyword 1:

Experimental evolution

Keyword 2:

Sexual selection

Keyword 3:

Population genetics: inference of selection

Taxonomic Group:

Nematodes

Author

Katja Kasimatis (she/her)
University of Toronto

ASN Young Investigator Award

📅 Fri, June 25
🕒 1:00 PM - 3:00 PM
📁 LS Symposium

Session Chairs

Chair
Butch Brodie, University of Virginia

Presentations

- | | | |
|--------------------|--|---|
| 4:00 PM
4:30 PM | <p>Environmental regulation of symbiotic nitrogen fixation in terrestrial ecosystems (776)</p> <p>Benton N. Taylor, Harvard University</p> | > |
| 4:30 PM
5:00 PM | <p>The evolutionary ecology of hybridization in threespine stickleback fish (811)</p> <p>Ken A. Thompson, University of British Columbia; Catherine Peichel, University of Bern; Diana J. Rennison, University of California, San Diego; Matthew D. McGee, Monash University; Arianne Y.K. Albert, BC Women's Health; Timothy H. Vines, DataSeer AI; Anna K. Greenwood, Sage Bionetworks; Abigail R. Wark, Harvard Medical School; Molly Schumer, Stanford University; Dolph Schluter, University of British Columbia</p> | > |
| 5:00 PM
5:30 PM | <p>The ecological and evolutionary interplay between competition and climate (342)</p> <p>Tess Grainger, University of British Columbia</p> | > |
| 5:30 PM
6:00 PM | <p>Evolution in a symbiotic world: the genomic basis of conflict and cooperation in experimentally-evolved and natural symbiont populations (808)</p> <p>Rebecca Tory Batstone (she/her), MSc, PhD, IGB Postdoctoral Fellow, University of Illinois, Urbana-Champaign</p> | > |

6:00 PM


6:30 PM

Bridging the process-pattern divide in the radiation of biological diversity (999)

James T. Stroud, Washington University in St. Louis



iEvoBio

 Sat, June 26

 6:00 AM - 2:00 PM


 Satellite Events

Author

April Wright

Southeastern Louisiana University

Morphometrics Workshop

 Sat, June 26

 11:00 AM - 1:00 PM

 Workshops/Discussion Sessions

Author

Thomas J. DeWitt

Texas A&M University

Public Policy Panel: An evolutionary perspective on international COVID policies

 Wed, June 30

 8:00 AM - 9:30 AM

 Workshops/Discussion Sessions

Description

This panel will focus on international policies surrounding COVID from an evolutionary perspective. This will include discussion of the process and relative success of translating science into policy in different countries. The panel will also cover efforts to coordinate international vaccination policies moving forward. Attendees will learn how scientists at all levels can become more involved in influencing policy decisions.

Access link: <https://us02web.zoom.us/j/83450039794?pwd=MUNIRWFTVVBwQUtmMjdUUXFXN0NuZz09>

Access code: 067919

Author

Matthew J. Rubin
Danforth Plant Science Center