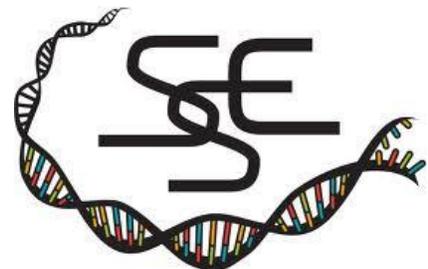
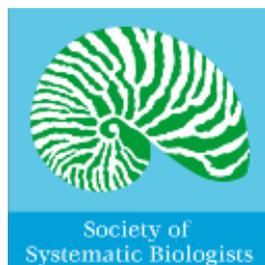


Conference Program

American Society of Naturalists
Society for the Study of Evolution
Society of Systematic Biologists

ANNUAL MEETINGS
JUNE 21-26, 2013

snowbird  **utah**



Snowbird Village Map



Meetings & Banquets

The Cliff Lodge Meeting & Banquet Rooms
Snowbird Center
The Lodge at Snowbird

Outdoor Meeting Venues

Conference Center Terrace Tent
Amphitheater Lobby Patio
Event Tent
Plaza Deck
Skier's Bridge

Dining & Nightlife

The Cliff Lodge
The Atrium
The Aerie
El Chancho Restaurant & Cantina
Superior Snacks

The Lodge at Snowbird
The Lodge Bistro
Restaurant & Lounge

Iron Blossam Lodge
Wildflower Restaurant

Snowbird Center

The Forklift
Baked & Brewed
General Grits
Tram Car Pizza
Steak Pit
The Tram Club

The Cliff Spa

The Cliff Lodge
Fitness Room & Classes
Roof Top Pool & Hot Tub
Salon

Summer Activities

Peruvian Chairlift & Tunnel
Ropes Course
Aerial Tram
Alpine Slide
Mountain Flyer
Mountain Coaster
Cool Air Concert Series
Family Flicks
Oktoberfest

Shops

The Cliff Lodge
Cliff Sundries
Marco Polo's
The Cliff Spa Shop

Snowbird Center

Wine & Liquor Store
Pipeline
Center Sundries
Christy Sports
Superior Photography
Snowbird Sports

Services

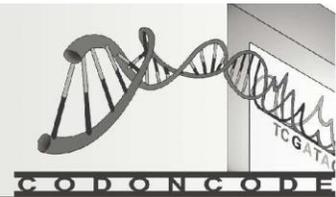
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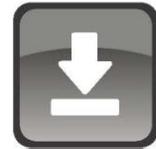


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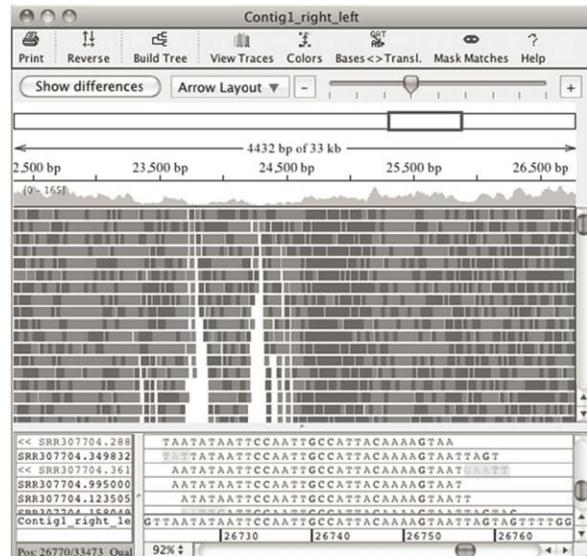
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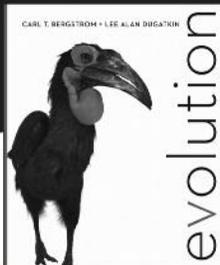
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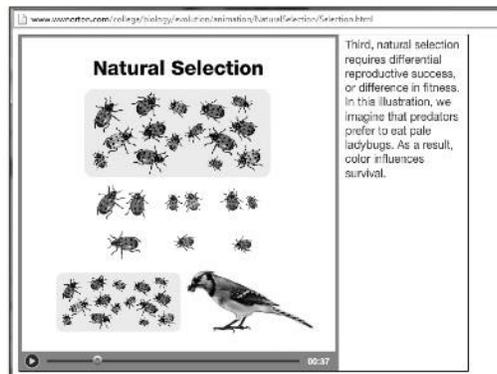
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Saturday June 22, 8:30 – 10:00 AM

Contributed Talks

Time	Alpine A & B	Alpine C	Cottonwood A
Session	Population Genetics Theory I	Evolutionary Ecology I	Sexual Selection I
8:30	Fitness-valley crossing in subdivided populations McLaren, Michael.	Strong seasonal selection results in rapid life history changes in <i>Drosophila</i> Behrman, Emily; O'Brien, Katherine; Watson, Samuel S; Schmidt, Paul.	Sexual selection may work under the radar of natural selection in populations of a polytypic poison dart frog Crothers, Laura; Cummings, Molly.
8:45	The inevitability of deleterious fixations during adaptation McCandlish, David; Epstein, Charles; Plotkin, Joshua B.	Evolution of metal tolerance and hyperaccumulation in annual sunflowers (<i>Helianthus</i>) Goolsby, Eric; Mason, Chase; Shefferson, Richard.	Turtles in a different light: underwater visual ecology and mate selection in the diamondback terrapin Dominy, Abby; Loew, Ellis R; Spotila, James R.; Avery, Harold W..
9:00	The Dynamics of Genetic Draft in Rapidly Adapting Populations Kosheleva, Katya; Desai, Michael.	Differential high-altitude adaptation and limited gene flow across a mid-elevation hybrid zone in Andean tit-tyrant flycatchers (Aves: Tyrannidae) DuBay, Shane; Witt, Christopher.	Plumage color predicts pathogen-induced gene expression in a wild bird Balenger, Susan; Bonneaud, Camille; Sefick, Stephen A.; Edwards, Scott V.; Hill, Geoff E..
9:15	How High-order Epistasis Influences Robustness and Evolvability of Fitness Landscapes Lan, Yinghong; Weinreich, Daniel M..	Evolution of thermal sensitivity and thermal opportunity in the tropics: geographic variation, acclimation, and microclimates of two lizard species Damasceno, Roberta; Carnaval, Ana Carolina; Moritz, Craig.	Persistence of sperm through multiple matings and continued relevance to fertilization in the highly promiscuous <i>Tribolium castaneum</i> Droge-Young, Elizabeth; Belote, John; Perez, Giselle; Pitnick, Scott.
9:30	The effects of population size fluctuation and coalescent model choice on inference of population structure from shared haplotype tracts Harris, Kelley; Lorenzen, Eline; Fumagalli, Matteo; Liu, Shiping; Willerslev, Eske; Nielsen, Rasmus.	A simple index of the strength of convergent evolution Arbuckle, Kevin.	Prkar1a shapes the development of a sexually selected sperm trait in <i>Peromyscus</i> mice. Jacobs-Palmer, Emily; Fisher, Heidi; Hoekstra, Hopi.
9:45	Understanding molecular evolution with the help of new theoretical concepts Livnat, Adi.	Reaction norm evolution and habitat specialization in California goldfields (<i>Lasthenia</i> , Asteraceae) Emery, Nancy Christine; Torres-Martinez, Lorena.	Use them or lose them: Sperm use and offspring production in <i>Drosophila</i> Mossman, Jim; Rand, David.

Saturday June 22, 8:30 – 10:00 AM			Contributed Talks
Room	Cottonwood B	Cottonwood C	Cottonwood D
	Macroevolution I	Ecological Genetics/Genomics I	Evolutionary Theory
Session			
8:30	<p>Monkey eat, monkey do: Folivory specialization and the diversification of colobine monkeys</p> <p>Tran, Lucy; Knowles, L. Lacey.</p>	<p>Integrative testing of how environments from the past to the present shape genetic structure across landscapes</p> <p>He, Qixin; Knowles, L. Lacey.</p>	<p>Evolution of social behavior in structured populations of finite size</p> <p>Debarre, Florence; Hauert, Christoph; Doebeli, Michael.</p>
8:45	<p>Evolution of crypsis in hymenoptid praying mantises (Mantodea)</p> <p>Wightman, Haley; Hardy, Nate; Wieland, Frank; Svenson, Gavin.</p>	<p>Signals of selection in three morphologically distinct horned beetle species: Integrating gene function, expression, and sequence data using RNA-seq</p> <p>Pespeni, Melissa; Moczek, Armin P..</p>	<p>General Models for the Spectra of Surface Area Scaling Strategies: Fractality, Geometric Dissimilitude, and Internalization</p> <p>Okie, Jordan.</p>
9:00	<p>Macroevolutionary dynamics of diversification across extant bats</p> <p>Shi, Jeff; Badgley, Catherine; Rabosky, Daniel.</p>	<p>Transposable elements drive expansion and turnover of genomes in the Asteraceae</p> <p>Staton, Evan.</p>	<p>Effects of temporal heterogeneity on the evolution of recombination</p> <p>Wardlaw, Alison; Agrawal, Aneil; Kamran-Disfani, Ahmad.</p>
9:15	<p>Tempo of diversification across a 900-species murid-rodent phylogeny; what do different methods tell us?</p> <p>Schenk, John; Stepan, Scott.</p>	<p>Evolutionary history of flower color adaptation in Mimulus</p> <p>Bahr, Joshua; Streisfeld, Matthew.</p>	<p>The interplay between co-evolutionary dynamics and the evolution of phenotypic plasticity</p> <p>Scheiner, Samuel; Gomulkiewicz, Richard; Holt, Robert.</p>
9:30	<p>Assembly & early diversification of modern reef fishes</p> <p>Price, Samantha; Wainwright, Peter.</p>	<p>Non-adaptive plasticity, antagonistic selection, and rapid evolution of the guppy transcriptome</p> <p>Ghalambor, Cameron; Hoke, Kim; Hughes, Kimberly.</p>	<p>Leap-Frogging in Asexual Structured Populations Balances Exploration and Exploitation</p> <p>III, Arthur W. Covert; Wilke, Claus.</p>
9:45	<p>Fossils as terminals: a total-evidence analysis to estimate angiosperm divergence date</p> <p>Magallon, Susana; Doyle, James.</p>	<p>Open</p>	<p>The Extended Evolutionary Synthesis: new theory, new practices, new marketing, or new narratives?</p> <p>Serrelli, Emanuele.</p>

Time	Peruvian A	Peruvian B	Rendezvous B
Session	Hybridization I	Behavior and Social Evolution I	Invasion Ecology/Evolution I
8:30	History cleans up messes: a genome-wide perspective on introgression in a tropical suture zone Singhal, Sonal.	Altruism and Social Cooperation Leng, Xuguang.	Genomic insights into the evolutionary ecology of plant invasions Dlugosch, Katrina.
8:45	Rapid northward movement of a hybrid zone revealed through genomic analyses and distribution modeling Taylor, Scott; Hochachka, Wesley; White, Tom; Curry, Robert; Lovette, Irby.	Sex Difference in Behavior and Genomic Data Suggest Indirect Benefits Important for the Maintenance of Cooperative Nest Construction in Sociable Weavers Leighton, Gavin M.	An invasive jewelweed alters selection on vegetative traits in a native congener Beans, Carolyn.
9:00	Gene flow and convergent character displacement among the Cynopterine fruit bats in India Chattopadhyay, Balaji; Garg, Kritika M; A.K., Vinoth Kumar; SwamiDoss D, Paramanatha; Sivasundar, Arjun; Kandula, Sripathi; Ramakrishnan, Uma.	Relatedness on the landscape: do juvenile steelhead trout (<i>Oncorhynchus mykiss</i>) establish territories near their siblings? Jones, Marissa; Seeb, Lisa; Seeb, Jim; Seamons, Todd; Warheit, Ken; Quinn, Tom.	Title: Reconstructing the invasion history of Kudzu, <i>Pueraria montana</i> var. <i>lobata</i> from Asia into the United States Bentley, Kerin.
9:15	Genome-wide analysis of replicate hybrid zones between the swordtail fish <i>Xiphophorus birchmanni</i> and <i>X. malinche</i> Schumer, Molly; Cui, Rongfeng; Powell, Daniel; Rosenthal, Gil; Andolfatto, Peter.	The evolution of coordination in spatially structured populations Van Cleve, Jeremy; Lehmann, Laurent.	Adaptive potential of <i>L.salicaria</i> to continued selection pressure in a changing landscape Quiram, Gina; Shaw, Ruth; Cavender-Bares, Jeannine.
9:30	Patterns of Mating, Generation of Diversity, and Fitness of Offspring in a Geum Hybrid Swarm Ennos, Richard; Ruhsam, Markus; Hollingsworth, Peter.	Why cooperate under promiscuity? Budding dispersal and strong natal philopatry cause temporal variation in relatedness in a cooperative breeding mammal Nichols, Hazel; Jordan, Neil; Jamie, Gabriel; Cant, Michael; Hoffman, Joseph.	Genomic signatures of selection in a widespread invasive plant, <i>Centaurea solstitialis</i> McTeague, Brianna; Lai, Zhao; Sarah, Otto; Rieseberg, Loren; Dlugosch, Katrina.
9:45	Epistatic interactions between X-chromosomes cause hybrid inviability in <i>Drosophila</i> hybrids Matute, Daniel.	Open	Open

Saturday June 22, 10:30 AM – 12:00 PM

Contributed Talks

Time	Alpine A & B	Alpine C	Cottonwood A
Session	Population Genetics Theory II	Evolutionary Ecology II	Sexual Selection II
10:30	The Modification of Dominance in Response to Sexually Antagonistic Selection Spencer, Hamish; Priest, Nicholas.	Co-existence of competing bacterial strains stabilized by a shared "Black Queen" function Morris, Jeffrey; Lenski, Richard.	Understanding individual differences and efficacy in human mate-poaching Arnocky, Steven; Sunderani, Shafik; Vaillancourt, Tracy.
10:45	Epigenetic variation and the response to selection. Furrow, Robert; Feldman, Marcus W..	Plant-animal mutualism in biological markets: Evolutionary and ecological dynamics driven by non-heritable phenotypic variance Song, Zhiyuan; Feldman, Marcus W..	Post-copulatory mate choice for heterozygous offspring in harem forming fruit bat, <i>Cynopterus sphinx</i> Garg, Kritika M; Chattopadhyay, Balaji; Ramakrishnan, Uma.
11:00	The Signature of Past Population Isolation on Gene Genealogies and DNA sequence data ALCALA, Nicolas; JENSEN, Jeffrey D.; VUILLEUMIER, Séverine.	Introducing one of the worlds largest Müllerian mimicry complexes in North American velvet ants Wilson, Joseph; williams, Kevin; Jahner, Josh; Forister, Matt; Pitts, James P..	Time flies: the circadian dynamics of sexual displays and mating in <i>Drosophila serrata</i> Rundle, Howard; Toumishey, Ethan; Gershman, Susan.
11:15	The coalescent with soft sweeps Coop, Graham; Berg, Jeremy.	Managing evolution with sources and sinks: agricultural pest adaptation to Bt crops Friedenberg, Nicholas A.; Shoemaker, Kevin T..	Direct detection of male quality and the evolution of indicators of good genes. Dhole, Sumit; Stern, Caitlin; Servedio, Maria.
11:30	Using deterministic functions to approximate coalescent distributions Jewett, Ethan; Rosenberg, Noah.	The origin of a killer: Tetrodotoxin in early life-history stages of newts (<i>Taricha granulosa</i>) Gall, Brian; Stokes, Amber; French, Susannah; Brodie III., Edmund; Brodie, Jr., Edmund.	Conspicuous Female Ornamentation and Male Mate Preference in the Threespine Stickleback Wright, D. Shane; Pierotti, Michele; McKinnon, Jeffrey.
11:45	Open	Larval dietary restriction alters resource allocation at metamorphosis Boggs, Carol; Niitepold, Kristjan.	The mitonuclear compatibility hypothesis of sexual selection Hill, Geoffrey; Johnson, James.

Time	Cottonwood B	Cottonwood C	Cottonwood D
Session	Macroevolution II	Ecological Genetics/Genomics II	Evolutionary Genetics/Genomics I
10:30	Better interpretation of patterns of trait evolution using a novel reversible-jump method of detecting adaptive regimes from phylogenetic comparative data Uyeda, Josef C; Harmon, Luke.	Population epigenomics of valley oaks Platt, Alexander; Gugger, Paul; Sork, Victoria.	PhyloSift: a pipeline for phylogenetic analysis of genomes and metagenomes Darling, Aaron; Bik, Holly; Jospin, Guillaume; Lowe, Eric; Matsen, Eric; Eisen, Jonathan.
10:45	Models of species diversification and the age-richness relationship paradigm Sánchez-Reyes, Luna Luisa; Magallón, Susana.	Evolutionary genomics of plant defense in wild tomatoes Haak, David; Moyle, Leonie.	Does Queuing of Ribosomes Influence Translational Selection? Higgs, Paul.
11:00	A generalized kappa statistic for estimating phylogenetic signal from multivariate data Adams, Dean.	Landscape genomics of Australian rainbowfish Beheregaray, Luciano; Smith, Steve; Bernatchez, Louis.	Regulatory Wiring of Domesticated Genes Kordis, Dusan; Kokosar, Janez.
11:15	Losing to the Red Queen I: a tale of two rates Quental, Tiago Bosisio; Marshall, Charles.	Population genomics of rapid adaptive radiation: hybridization and divergence in Lake Victoria cichlids Wagner, Catherine; Keller, Irene; Seehausen, Ole.	A new genome-wide method for annotation and gene expression measurement Paris, Mathilde.
11:30	Losing to the Red Queen II: when non-equilibrial processes trump diversity dependence Marshall, Charles; Quental, Tiago Bosisio.	A landscape genomic approach to identify adaptive genetic variation in Darwin's finches Lawson, Lucinda; Petren, Kenneth.	Quantifying the neutral expectations of genomic patterns of divergence Delcourt, Matthieu; Hohenlohe, Paul A..
11:45	Response of BiSSE (Binary State Speciation and Extinction) to known paleontological violation of its assumptions Simpson, Andrew G.; Fenster, Charles.	Phytometers: adding realism to genomic screens for fitness-related plant phenotypes Callahan, Hilary; Flynn, Leah; Hanslits, Katherine; Lake, Karoline; Pantalena, Madeline; Peng, Hsuan; O'Donnell, Kelly; Wan, Jeffrey; Winship, Grace.	Extracting additional loci from the second reads of double digested paired-end RAD-Seq data Simison, Brian; Crawford, Nicholas; Pollock, Josh; Parham, James F.

Saturday June 22, 10:30 AM – 12:00 PM			Contributed Talks
Time	Peruvian A	Peruvian B	Rendezvous A
Session	Hybridization II	Behavior and Social Evolution II	Evo Devo I
10:30	Introgression and Phenotypic Assimilation in Zimmerius Flycatchers (Tyrannidae): Population Genetic and Phylogenetic Inferences from Genome-Wide SNPs Rheindt, Frank; Fujita, Matthew; Wilton, Peter; Edwards, Scott.	Worldwide phonemic variation: evolutionary analyses and genomic comparisons Creanza, Nicole; Ramachandran, Sohini; Feldman, Marcus W..	The evolution of Zingiberales petaloid staminodes through abaxial polarity lenses: Implications for plant body plan evolution Almeida, Ana Maria; Yockteng, Roxana; Freeling, Michael; Specht, Chelsea.
10:45	Facultative hybridization and the recovery of hybrid fitness Pfenning, Karin; Monroy, Anaïs; Jones, Corbin.	Why do Europeans Have so many Different Eye Colors? Evidence for Negative Frequency Dependent Sexual Selection on Eye Color in Europeans Carter, Ashley; Uhl, Alexandra.	The evolution of AP3-like PI-like protein-protein interactions in the grasses: when, how, and why? Bartlett, Madelaine; Waddell, Holly; Taylor, Zachariah; Whipple, Clinton.
11:00	Biased maternal expression and paternal loss of rbcS in allopolyploid Tragopogon miscellus: insight into cytonuclear coordination Tate, Jennifer; Sehrish, Tina; Soltis, Douglas; Soltis, Pamela.	Homology and homoplasy of sea slug swimming behaviors and the neural circuits that control them Katz, Paul S.; Sakurai, Akira; Gunaratne, Charuni.	Heterochrony and the evolution of leaf morphologies in Acacia Leichty, Aaron R.; Poethig, Scott.
11:15	Introgression from domestic goats as a source of major histocompatibility complex (MHC) variation in Alpine ibex Grossen, Christine; Croll, Daniel; Biebach, Iris; The International Goat Genome Consortium, ; Keller, Lukas.	Macroevolutionary patterns of trait diversification in social insects: a phylogenetic analysis of caste evolution using turtle ants Powell, Scott.	Evolution of sympetaly in the asterid core eudicots Preston, Jill Christine.
11:30	Diploid apomixis and hybridization in the wild mustard <i>Boechera retrofracta</i> Rushworth, Catherine; Mitchell-Olds, Thomas.	Correlated evolution of exploratory behavior with divergence along the bold-shy continuum Singer, Matthew; St. John, Elizabeth; Robison, Barrie D..	Using RNA-Seq to investigate the genetic basis and evolution of floral pigmentation patterns in <i>Clarkia</i> (Onagraceae). Martins, Talline R; Rausher, Mark D.
11:45	Open	Open	Open

Time	Rendezvous B	Superior B
Session	Invasion Ecology/Evolution II	Disease Ecology/Evolution I
10:30	Plant growth and defense in native and introduced populations of common milkweed Agrawal, Anurag.	Synchrony in malaria infections: How can maximizing within-host competition be adaptive? Greischar, Megan Ann; Read, Andrew F; Bjornstad, Ottar N..
10:45	Fitness costs of SINV-1 and SINV-2 viral infections on incipient queens and colonies of the invasive fire ant <i>Solenopsis invicta</i> Fisher, Mark; Ross, Kenneth; Shoemaker, DeWayne.	Sex ratio evolution in malaria parasites: test of theoretical predictions and consideration of assumptions Neal, Allison T.
11:00	Next-generation invasion: the transcriptomic signature of multiple introductions in the European green crab Tepolt, Carolyn; Palumbi, Stephen.	Evolution of prion genes in the face of Transmissible Spongiform Encephalopathies Antolin, Michael; Galloway, Nathan.
11:15	Hybridization between native and non-native catostomid fish in the Upper Colorado River basin Mandeville, Elizabeth; Parchman, Thomas; Buerkle, C. Alex .	Evolutionary dynamics of Andes hantavirus in Chile Torres-Perez, Fernando; Palma, Eduardo; Hjelle, Brian; Cook, Joseph.
11:30	A plant's switch from non-indigenous to invasive: mechanisms and consequences Korpelainen, Helena.	Phylogenetic signal in immunity and its relationship with disease ecology and the future of coral reefs Pinzon, Jorge; Beach-letendre, Joshua; Weil, Ernesto; Mydlarz, Laura.
11:45	Open	A model- and field-based evaluation of frequency-dependent selection on <i>Borrelia burgdorferi</i> genotypic diversity Tsao, Kimberly; Fish, Durland.

Time	Ballroom 1	Ballroom 2
Symposium	ASN Young Investigator Symposium	SSB Symposium: New Molecular Approaches to Species Delimitation
8:30	Open	A history of species delimitation methods applied in the <i>Sceloporus grammicus</i> species complex and what it tells us about the future Marshall, Jonathon C..
9:00	Killers and protectors: exploring virulence in host-parasite communities King, Kayla Christina.	Defining species proxies in hyperdiverse groups. Puillandre, Nicolas.
9:30	Isolation by Environment: the Role of Ecology in Genetic Differentiation Wang, Ian J.	Mutual allelic exclusivity as a criterion to delineate species Flot, Jean-François.
10:00	Break	Break
10:30	Selection and speciation: from genotype to phenotype to reproductive isolation Hopkins, Robin.	Using ecological niche models to predict species boundaries Pelletier, Tara A; Zellmer, Amanda J; Carstens, Bryan.
11:00	Top-down determinants of ecology and adaptation in African savannas Staver, Ann Carla.	Simulated likelihood for species delimitation and phylogeography O'Meara, Brian C.; Carstens, Bryan.
11:30	(Dobzhansky Prize) The genomics of adaptation to new environments. Barrett, Rowan	The architecture of genomic divergence in sympatric species of <i>Sulfolobus islandicus</i> Whitaker, Rachel; Cadillo-Quiroz, Hinsby ; Didelot, Xavier; Krause, David.

Time	Alpine A & B	Alpine C	Cottonwood A
Session	Population Genetics Theory III	Evolutionary Ecology III	Sexual Selection III
1:30	PopART: Population Genetics Software with Appeal Leigh, Jessica W.; Bryant, David.	An unusual pattern of geographic variation in warning coloration in the spittlebug <i>Prosapia ignipectus</i> (Hemiptera, Cercopidae) at the northern limit of the species in Maine Thompson, Vinton; Carvalho, Gervásio.	Evolution of parental care and clutch size: a comparative study South, Samuel; Monroe, Melanie; Alonzo, Suzanne.
1:45	Inference of high dimensional genotype-phenotype maps Otwindowski, Jakub; Plotkin, Joshua B.	The evolution of migration in swallows (Hirundinidae) Brown, Clare.	Sexually dimorphic skeletal morphology in Gray Wolves (<i>Canis lupus</i>): specialization for male-male competition or for male provisioning? Morris, Jeremy; Brandt, Ellissa.
2:00	Dispersal kernels and the evolution of quantitative traits in invasions Miller, Judith; Castorena, Alexander.	Food, Sex and Travel can help us to understand the origin of microbial species Souza, Valeria; Eguiarte, Luis; Travisano, Michael; Siefert, JAnet.	The interplay between genetic variation for sexual trait size and female sexual resistance: an experimental test of the factors controlling directional sexual selection on secondary sexual trait size Hurtado-Gonzales, Jorge L.; Hooker, Kassie; Stanforth, Amber; Polak, Michal.
2:15	The roles of vertical vs. horizontal symbiont transmission in host-endosymbiont dynamics. Orive, Maria E.; Wakeley, John.	The evolution of ecological specialization in birds Oswald, Jessica A.; Burleigh, J. Gordon.	Assortative mating mediated by signal differentiation in the Amazonian frog <i>Physalaemus petersi</i> Guerra, Monica; Cannatella, David; Ryan, Michael.
2:30	BadDNA.org: An Online Field Guide to Transitional & Transformative NGS Tools Glenn, Travis; Faircloth, Brant.	A global sample to address the distribution of diet breadth in insect herbivores and parasitoids Forister, Matt; Panorska, Anna; Kozubowski, Tomasz; Jahner, Josh; Pardikes, Nick; Glassmire, Andrea; Dyer, Lee.	Learning from experience, divergence, and the evolution of assortative mating Servedio, Maria; Dukas, Reuven.
2:45	Harnessing the ionTorrent platform for targeted sequencing in population genetic, phylogeographic or phylogenetic studies Edwards, Danielle L.; Schnettler, Erin; Caccone, Adalgisa.	Open	The dynamics of sexual selection in a wild insect population Somjee, Ummat.

Time	Cottonwood B	Cottonwood C	Cottonwood D
Session	Macroevolution III	Ecological Genetics/Genomics III	Evolutionary Genetics/Genomics II
1:30	The evolution of hyperdiversity in the ant genus <i>Pheidole</i> Economato, Evan; Klimov, Pavel; Sarnat, Eli; Knowles, L. Lacey.	Spatial variation in parasite-mediated selection on the major histocompatibility complex of a passerine Jones, Matthew R; Chevion, Zachary; Carling, Matthew.	Ecological and genomic parallel evolution in crater lake cichlid fishes Meyer, Axel.
1:45	Colonization history and speciation dynamics: understanding species diversity patterns in the hyperdiverse <i>Pheidole</i> ants from the South Pacific Klimov, Pavel; Economato, Evan; Knowles, L. Lacey.	Evolution of herbivory in the drosophilid fly, <i>Scaptomyza flava</i> Lapoint, Rick; Whiteman, Noah.	Effects of temporal and spatial variation on genome-wide patterns of diversity in experimental fly populations Huang, Yuheng; Wright, Stephen; Agrawal, Aneil.
2:00	Evolution of viviparity: a phylogenetic test of the cold-climate hypothesis in phrynosomatid lizards Lambert, Shea; Wiens, John J..	Scales of dispersal may limit rate of co-evolution between reef corals and their dinoflagellate symbionts Baums, Iliana; Devlin-Durante, Meghann; LaJeunesse, Todd.	A bottleneck for Moby Dick? Next-generation sequencing of nuclear and mitogenomic diversity in the sperm whale Alexander, Alana; Steel, Debbie; Baker, C. Scott.
2:15	Morphology and exploitation in ray-finned fishes using crowdsourced data Chang, Jonathan; Rabosky, Daniel; Alfaro, Michael.	Conservation Genomics of Freshwater Invertebrates in the Crown of the Continent Ecosystem Jordan, Steve; Luikart, Gordon; Stanford, Jack.	Whole transcriptome sequencing facilitates nuclear marker development in salmonid fishes Houston, Derek D.; Davis, Nicholas; Page, Justin; Ridge, Perry; Evans, R. Paul; Maughan, Peter J; Udall, Josh; Shiozawa, Dennis K..
2:30	Identifying hidden rate changes in the evolution of a binary morphological character: the evolution of plant habit in campanulid angiosperms Beaulieu, Jeremy; O'Meara, Brian C.; Donoghue, Michael .	Diversity and distribution of ciliates (<i>Oligotrichia</i> and <i>Choreotrichia</i> subclasses) in marine environments GRATTEPANCHE, Jean-David; Santoferrara, Luciana; Andrade, Jessica; Oliverio, Angela M; McManus, George; Katz, Laura A.	Genomic patterns of rapid evolution in 50 year old threespine stickleback populations from seismically uplifted islands in Alaska Lescak, Emily; Bassham, Susan; Catchen, Julian; Sherbick, Mary; von Hippel, Frank; Cresko, William.
2:45	Beetle phylogeny and the evolution of structural colors in Coleoptera Seago, Ainsley.	Open	Looking for genomic signatures of platelessness in the threespine stickleback (<i>Gasterosteus aculeatus</i>) Mazzarella, Anna; Østbye, Kjartan; Vøllestad, Asbjørn.

Time	Peruvian A	Peruvian B	Rendezvous A
Session	Hybridization III	Behavior and Social Evolution III	Evo Devo II
1:30	A multigenerational assessment of the fate and impact of crop gene introgression into wild sunflower	Digging for the genetic basis of complex behavior: burrow construction in wild mice	Combining quantitative expression of CYCLOIDEA-like genes in Dipsacaceae (Dipsacales) and geometric morphometrics of corolla shape: Further insights into the evolution of bilateral symmetry and radial symmetry in flowers.
	Dechaine, Jennifer; Corbi, Jonathan; Baack, Eric; Burke, John.	Metz, Hillery; Hoekstra, Hopi.	Savriama, Yoland; Ricigliano, Vincent; Berger, Brent; Howarth, Dianella.
1:45	Selection on domestication traits and QTL in water-stressed sunflower (<i>Helianthus annuus</i>) crop-wild hybrids	Social structure can affect decision-making if individuals have enough information: a social network/neural network simulation investigating the evolution of stable, cohesive, heterogeneous groups	Morphological diversification through the evolution of developmental networks
	Owart, Birkin; Dechaine, Jennifer.	Tanner, Colby; Keller, Laurent.	Shirai, LT; Beldade, P.
2:00	Species integrity involves a large post-zygotic component in <i>Populus</i> hybrid zones	The evolution and loss of complex behaviors in social insects: Silk weaving and arboreal nesting in <i>Polyrhachis spiny</i> ants	Investigating the Homology of Feathers and Scales with High-Throughput Genomics
	Lindtke, Doro; Lexer, Christian; Castiglione, Stefano; Buerkle, C. Alex .	Moreau, Corrie; Robson, Simon.	Musser, Jacob; Gunter, GP; Prum, RO.
2:15	The role of hybridization in the origin and spread of asexuality in <i>Daphnia</i>	Negative frequency dependent selection in Trinidadian guppies (<i>Poecilia reticulata</i>): The rare male effect, aggression and dispersal	Phylum-level conservation of the regulatory vocabulary that controls expression in different nematode cell types
	Xu, Sen; Innes, David; Lynch, Michael; Cristescu, Melania.	Li, Anna; Rodd, Helen.	Gordon, Kacy Lynn; Ruvinsky, Ilya.
2:30	Pre- and postzygotic reproductive barriers between sympatric wild tomato species	From solitary predator to cooperative soldier: ecological drivers of sociality in the bloom-forming microalga <i>Prymnesium parvum</i>	Influences of appendage-patterning genes on adult beak allometry in the soapberry bug <i>Jadera haematoloma</i> (Rhopalidae)
	Bedinger, Patricia; Baek , You Soon; Royer, Suzanne.	Driscoll, Will; Ferrière, Régis.	Angelini, David R..
2:45	RAD-tag sequencing reveals asymmetric introgression in the central California blue mussel hybrid zone.	Open	Nothing new under the sun? The recent evolution of shape and sense in male <i>Drosophila prolongata</i>
	Saarman, Norah; Pogson, Grant.		Luecke, David.

Time	Rendezvous B	Superior B
Session	Evolution in Response to Anthropogenic Change I	Disease Ecology/Evolution II
1:30	Thermal adaptation, heat stress, and the fitness consequences of climate change for ectotherms Kingsolver, Joel; Diamond, Sarah; Buckley, Lauren.	Virulence evolution: Selection to increase geometric mean fitness Graves, Christopher.
1:45	The impact of global warming on floral traits in a high altitude plant Brunet, Johanne; Van Etten, Megan.	Timing of antimicrobial use influences the evolution of antimicrobial resistance during disease epidemics Bergstrom, Carl; Tanaka, Mark.
2:00	Hot, crowded, and unfriendly: disentangling the direct and indirect effects of warming and competition on phenology, growth, and fitness Wadgyamar, Susana M.; Gilbert, Benjamin; Cumming, Matthew N.; Tucker, Caroline M.; Cadotte, Marc W.; Weis, Arthur E..	Rational design of HCV antiviral treatments to clear infection and minimize risk of resistance Ke, Ruian; Loverdo, Claude; Lloyd-Smith, James O..
2:15	Spatially explicit models of dynamic histories: examining the role of recent sea-level rise and climate change on the phenotypic diversification of the Strawberry Poison Frog Brown, Jason L..	Host Range Expansion in the Bacteriophage Phi6 Dennehy, John J..
2:30	Rapid adaptation to captivity: evidence from pedigree and gene expression data Christie, Mark; Fox, Sam; Marine, Melanie; Blouin, Michael.	Pea aphid immune response to pathogen and symbiont exposure: insights from the transcriptome Huynh, Lynn; Gerardo, Nicole.
2:45	Spatiotemporal SNP analysis reveals cryptic distribution shifts and signs of ongoing adaptation at the northern range margin for Atlantic cod Therkildsen, Nina Overgaard; Hemmer-Hansen, Jakob; Hedeholm, et. al.	A recent evolution of entomopathogenicity within a plant pathogen, <i>Pseudomonas syringae</i> . Hendry, Tory A; Clark, Kelley ; Baltrus, David A..

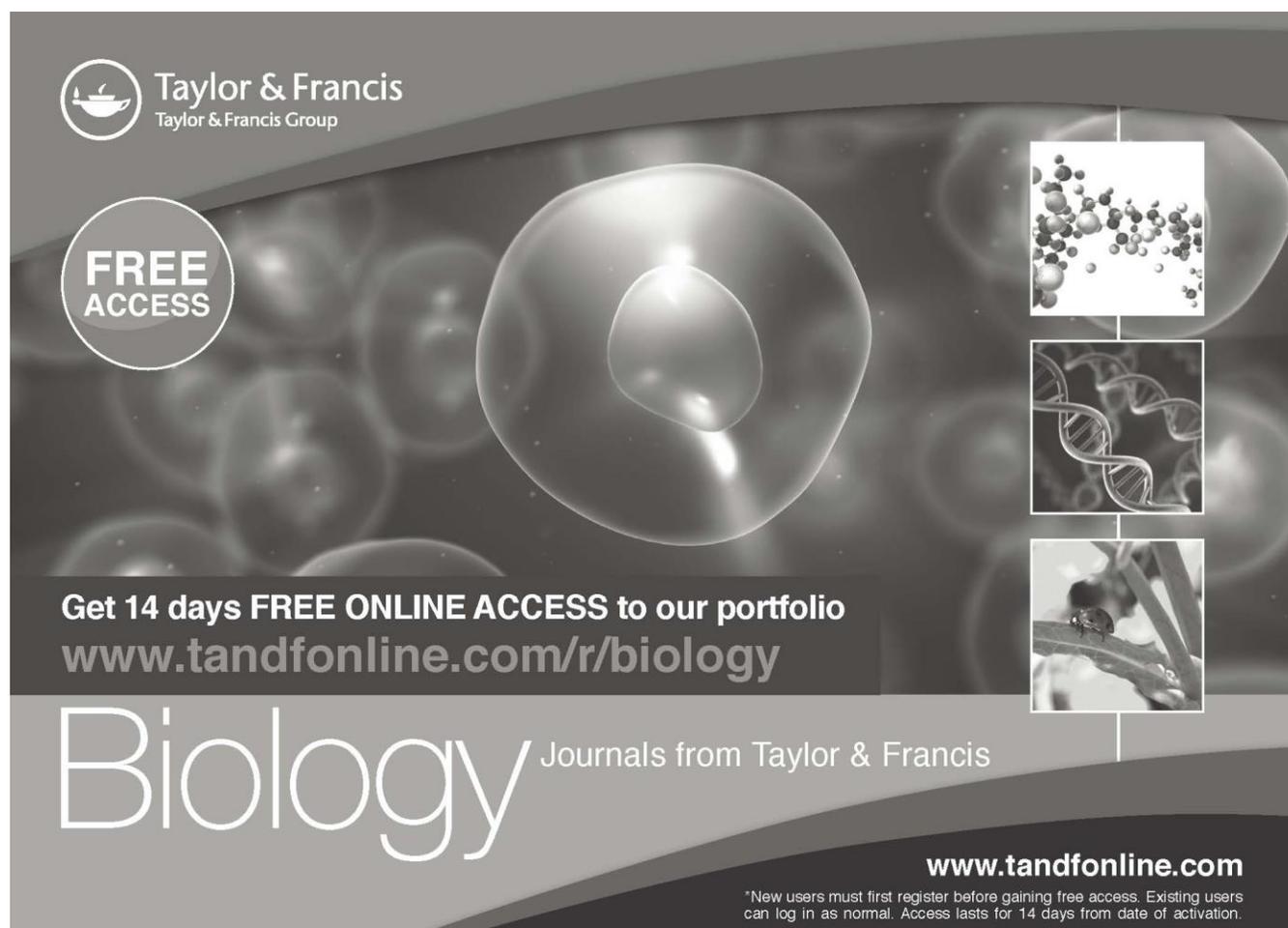
Time	Alpine A & B	Alpine C	Cottonwood A
Session	Population Genetics Empirical I	Evolutionary Ecology IV	Sexual Selection IV
3:30	Parallel Genomic Evolution But Not Parallel Speciation in Annual Sunflowers	Testing models of sex-ratio variation in a gynodioecious plant: relative seed fitness does not covary with female frequency	Male-male competition is not a diversifying force in sticklebacks
	Renaut, Sebastien; Rieseberg, Loren.	Case, Andrea; Caruso, Christina.	Keagy, Jason; Lettieri, Liliana; Boughman, Jenny.
3:45	Demographic and selective influences on population structure and clines in the Ivyleaf morning glory	Population genomics of an obligate pollination mutualism: Using RAD sequencing to study coevolution of yuccas and yucca moths	Assortative mating in animals
	Campitelli, Brandon E.; Stinchcombe, John R.	Smith, Christopher; Goldade, Dylan; Flatz, Ramon.	Jiang, Yuexin; Bolnick, Daniel; Kirkpatrick, Mark.
4:00	Population genomics and geographic range limits in the Scarlet Monkeyflower, <i>Mimulus cardinalis</i>	Character Displacement and the Evolution of Floral Color Polymorphism in <i>Leavenworthia stylosa</i>	Species composition affects the shape of female response functions
	Paul, John R.; Angert, Amy; Parchman, Thomas; Buerkle, C. Alex .	Norton, Nicholas; Herlihy, Chris; Busch, Jeremiah.	Symes, Laurel.
4:15	Disentangling the contributions of hybridization, gene flow and natural selection to patterns of population differentiation in black cottonwood (<i>Populus trichocarpa</i>)	The functional roles of disassortative pollination and sexual interference in heterostyly: A case study from Darwin's primroses	Parallel genomics of sexually-isolating traits in an island species radiation
	Geraldes, Armando; Farzaneh, Nima; Grassa, Christopher; Mansfield, Shawn; Douglas, Carl; Cronk, Quentin.	Keller, Barbara; Thomson, James; Conti, Elena.	Oh, Kevin; Shaw, Kerry.
4:30	Identifying genetic variation under selection by climate in valley oak (<i>Quercus lobata</i>)	Consistent male-biased sex allocation in <i>Selaginella</i> , a non-seed vascular plant	Identification and characterization of a gene influencing behavioral isolation.
	Gugger, Paul; Cokus, Shawn; Albarrán Lara, Ana Luisa; Peñaloza Ramírez, Juan Manuel; Sork, Victoria.	Burd, Martin.	Moehring, Amanda; Calhoun, Ryan; Laturney, Meghan; Chan, Stephen.
4:45	Genome-wide associations with climate and geography in valley oak (<i>Quercus lobata</i>)	Variation, heritability, and functional significance for a common ultraviolet floral pattern	Male-like females increase male-male interactions, and reduce male fitness, in a female-polymorphic damselfly
	Sork, Victoria; Gugger, Paul; Cokus, Shawn.	Koski, Matthew; Ashman, Tia-Lynn.	Gering, Eben J..

Time	Cottonwood B	Cottonwood C	Cottonwood D
Session	Macroevolution IV	Ecological Genetics/Genomics IV	Evolutionary Genetics/Genomics III
3:30	Evolution of nesting behavior in megapodes Harris, Rebecca; Birks, Sharon; Leaché, Adam.	Using RNA-Seq to Investigate Local Adaptation to Heat Stress in the Marine Snail <i>Chlorostoma</i> (formerly <i>Tegula</i>) <i>funnebralis</i> Gleason, Lani; Burton, Ronald S..	Functional evolution of an ecologically important gene family: Serine proteases in the <i>Daphnia</i> genome St. Julien, Madeline; Robison, Barrie D.; Settles, Matthew L.; Dudycha, Jeffry L..
3:45	Wing shape evolution in social wasps and phylogenetic signal. Perrard, Adrien; Baylac, Michel; Carpenter, James M.; Villemant, Claire.	The genetic basis of local adaptation to serpentine soils in <i>Mimulus guttatus</i> Selby, Jessica P; Willis, John H.	Variation in expression of duplicated insulin-like receptor genes in <i>Daphnia pulex</i> Wooller, Ian (Page) Martin; Scoville, Alison.
4:00	Diversification of a diverse lineage of Neotropical rodents (Caviomorpha: Octodontoidea): integrating DNA sequences, fossils, and species traits Upham, Nathan S; Patterson, Bruce D.	Inconstant clines and shifting thresholds: the ecological genetics of seasonal adaptation in annual <i>Mimulus</i> Blackman, Benjamin; Willis, John H.	Absolute dosage and functional diversification drive majority of gene retention in Compositae Sessa, Emily; Barker, Michael.
4:15	Sexual dichromatism and speciation rate in birds HUANG, HUATENG; Rabosky, Daniel.	The genetic architecture of seed germination speed variation in <i>Arabidopsis thaliana</i> Yuan, Wei; Purugganan, Michael.	Genome-wide transposable element insertion frequencies change with selection for accelerated development Hertweck, Kate L.; Han, Mira; Phillips, Mark A.; Greer, Lee F.; Rose, Michael R.; Graves, Joseph L..
4:30	Body size-dependent diversification in Neotropical salamanders Rovito, Sean M..	Genetic adaptation across a natural temperature gradient in reef-building corals Bay, Rachael A.; Palumbi, Stephen.	Gene duplication and genetic pathway evolution: the epidermal cell fate pathway as an example Symonds, Vaughan.
4:45	How clades expand in size/shape space: integrating fossil and Recent data to evaluate the role of clade age, species richness and position in morphospace Huang, Shan; Jablonski, David.	Interactions between mitochondrial and enzyme loci affect performance and survival in a montane leaf beetle Rank, Nathan; Heidl, Sarah; Zavala, Nic; Roberts, Kevin; Smiley, John; Mardulyn, Patrick; Dahlhoff, Elizabeth.	Sequence divergence and dosage compensation on the young sex chromosomes of the threespine stickleback White, Michael; Peichel, Catherine.

Time	Peruvian A	Peruvian B	Rendezvous A
Session	Hybridization IV	Behavior and Social Evolution IV	Evo Devo III
3:30	Postmating prezygotic barriers in interspecific crosses in the tomato clade Baek, You Soon; Bedinger, Patricia; Covey, Paul.	Selection on social traits in human Sheehan, Michael; Nachman, Michael W..	Dissecting the gene regulatory network linking two fitness-related traits in <i>Arabidopsis thaliana</i> Runcie, Daniel; Schmitt, Johanna.
3:45	Genomics of Hybridization and Allopolyploidy in <i>Selaginella</i> subg. <i>Tetragonostachys</i> " Baniaga, Anthony E; Arrigo, Nils; Barker, Michael.	Phenotypic integration dictated by glucocorticoid receptors underlies adaptive animal personality in a wild mammal Dosmann, Andy; Brooks, Katie; Mateo, Jill.	The making of a pest: ovipositor evolution in <i>Drosophila suzukii</i> and its close relatives Atallah, Joel; Teixeira, Lisa; Salazar, Raul; Zaragoza, George; Kopp, Artyom.
4:00	Hybridization leads to lower extinction rates in plant polyploids Barker, Michael; Arrigo, Nils.	If you can't take the pressure, stay out of the bedroom. A direct test of atmospheric pressure shifts on mating success in <i>Drosophila</i> . Austin, Christopher; Guglielmo, Christopher; Moehring, Amanda.	Evolution and developmental plasticity of germline patterning and reproduction in <i>Caenorhabditis nematodes</i> Pouillet, Nausicaa; Vielle, Anne; Braendle, Christian.
4:15	Hybridization, introgression and differentiation on a continental scale: genome-wide sequence analysis Kingston, Sarah; Parchman, Thomas; Gompert, Zachariah; Buerkle, C. Alex ; Cicero, Carla; Klicka, John; Braun, Michael.	Honest signal of male quality in the territorial contests of a Neotropical giant damselfly Xu, Mingzi; Fincke, Ola.	When more is less: Expanded endoderm contributes to the novel short gut morphology of a cannibalistic anuran larva Ledon-Rettig, Cristina; Womble, Mandy; Nascone-Yoder, Nanette.
4:30	Open	Resource competition, social environment, and the expression of sexual dimorphism De Lisle, Stephen; Rowe, Locke.	Addressing Homology Across Multiple Levels of Complexity CaseStudy: Biomineralization Kamel, Bishoy; Medina, Mónica.
4:45	Open	Open	Open

Time	Rendezvous B	Superior B
Session	Evolution in Response to Anthropogenic Change II	Disease Ecology/Evolution III
3:30	Patterns of genetic variation reveal anthropogenic homoploid speciation in the Australian soapberry bug, <i>Leptocoris tagalicus</i>	The role of the human-constructed environment in mediating the genetic structure of seasonal influenza
	Andres, Jose; Carroll, Scott P.; Thampy, Prasobh.	Bozick, Brooke; Real, Leslie.
3:45	Monkeying around with parasites: the impact of anthropogenic ecologies on population genetic structuring and parasite distribution in long-tailed macaques in southeast Asia	The deeper evolutionary history of a contemporary ecological threat revealed: a genome resequencing study of the amphibian-killing chytrid fungus
	Hollocher, Hope; Lane, Kelly; Fuentes, Agustin.	Rosenblum, Erica Bree; James, Timothy Y.; Zamudio, Kelly R.; Poorten, Thomas J.; Stajich, Jason E..
4:00	Rapid loss of migratory behavior and physiology associated with a songbird's recent colonization of an urban habitat: natural selection or 'non-random drift'?	Tiger salamander-ranavirus coevolution and local adaptation
	Atwell, Jonathan; Rice, Rebecca; Ketterson, Ellen.	Storfer, Andrew; Chojnacki, Karen; Eastman, Jonathan; Brunner, Jesse.
4:15	Incorporation of cigarette butts into nests reduces ectoparasite load in urban birds: an adaptation to urban environments?	Variation in the virulence of a fungal pathogen drives population-level responses of an amphibian host.
	Suarez-Rodriguez, Monserrat; Lopez-Rull, Isabel; Macias-Garcia, Constantino.	Piovia-Scott, Jonah; Pope, Karen; Rejmanek, Daniel; Worth, Sparrow Joy; Lawler, Sharon; Foley, Janet.
4:30	Effects of Anthropogenic Noise on Orthopteran Communication	The innate immune response may be important for surviving plague infection in wild Gunnison's prairie dogs
	Costello, Robin; Symes, Laurel.	Busch, Joseph D.; Van Anandel, Roger; Stone, Nathan E.; et. al.
4:45	Open	Context-dependency of the immune response: Implications for host fitness
		Parker, Benjamin James; Gerardo, Nicole.

Time	Ballroom 1
Symposium	Tree of Life Symposium
1:30	Open Tree of Life: large-scale phylogenetic data synthesis Cranston, Karen.
2:00	Arbor: Comparative Analysis Workflows for the Tree of Life Harmon, Luke; Baumes, Jeff; Hughes, Charlie; Soberon, Jorge; Specht, Chelsea; Thacker, Robert; Turner, Wes; Lisle, Curtis.
2:30	Querying life in a post-taxonomic age Cellinese, Nico; Lapp, Hilmar.
3:00	Break
3:30	Microbes shake the tree of life: insights from phylogenomics Katz, Laura A.
4:00	Building the tree of life with safe taxonomic expansion Sanderson, Michael.
4:30	Building trees with transcriptomes and analyzing transcriptomes with trees Dunn, Casey.



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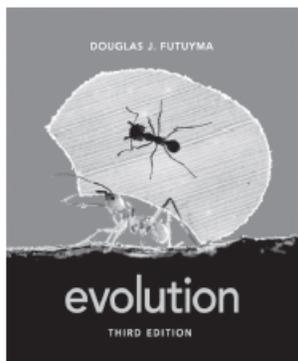
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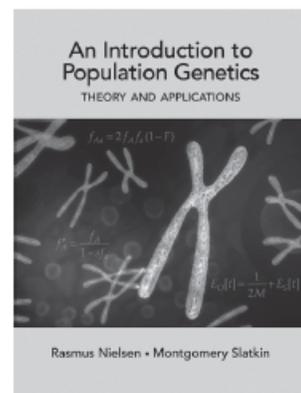
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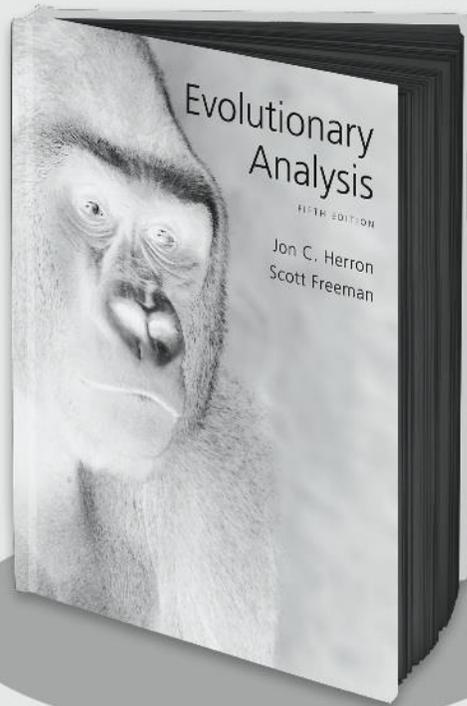
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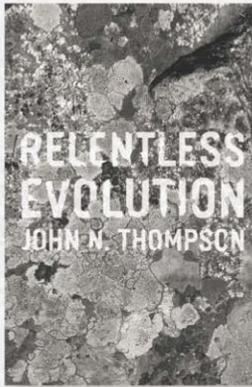
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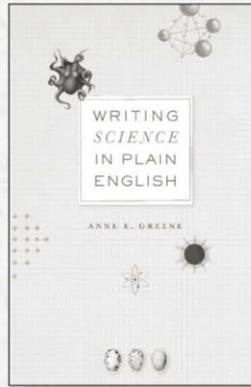
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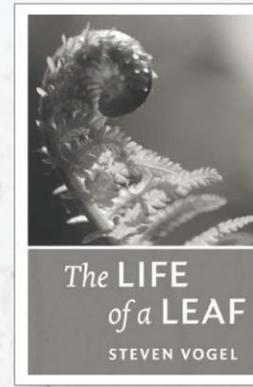
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Sunday June 23, 8:30 – 10:00 AM

Contributed Talks

Time	Alpine A & B	Alpine C	Cottonwood A
Session	Population Genetics Empirical II	Evolutionary Ecology V	Phylogenetic Methods/Theory I
8:30	Estimating effective population size in natural populations: which method is best? Gilbert, Kimberly J.	The effect of a specialist fungal pathogen on behavior and polyphenism in milkweed aphids Chiang, Stephanie; Gerardo, Nicole.	MCDUSA: A Monte Carlo method for more reliable detection of lineage-specific rates of diversification May, Michael R; Moore, Brian.
8:45	The influence of genetic drift on population genetic structure of the American black bear (<i>Ursus americanus</i>) in the Central Interior Highlands Puckett, Emily; Eggert, Lori.	Negative feedback between plants and mycorrhizal fungal individuals angelard, caroline; James, Bever; Ian, Sanders.	A linear-time algorithm for Gaussian and non-Gaussian trait evolution models. Ho, Lam; Ane, Cecile.
9:00	Beached bones: diversity and population differentiation of mtDNA from humpback whales killed at South Georgia whaling stations Sremba, Angie; Martin, Anthony; Cypriano de Souza, Ana; Engel, Márcia; Bonatto, Sandro; Baker, C. Scott.	The effect of pathogens on life-history traits and sexual dimorphism in the gypsy moth Paez, David James; Fleming-Davies, Arietta; Dwyer, Gregory.	A variable rates approach to quantifying the processes underlying trait co-variation Smaers, Jeroen.
9:15	RAD sequencing illuminates population genetic structure and demographic history of the endemic meltwater stonefly (<i>Lednia tumana</i>) in Glacier National Park, Montana Hotaling, Scott; Muhlfeld, Clint; Giersch, J.J.; et. al.	Surprisingly extensive mixed phylogenetic and ecological signals among bacterial Operational Taxonomic Units Wu, Martin.	New graphical methods for visualizing comparative data on phylogenies Revell, Liam J..
9:30	Population structures of horizontally-transmitted fungal endophytes associated with southeastern U.S. pine hosts Oono, Ryoko; Kaye, Laurel; Arnold, A. Elizabeth; May, Georgiana; Lutzoni, Francois; Carbone, Ignazio.	Endosymbiosis in the Arthropoda and symbiosis as an innovation in Anchialine cave systems Pakes, M Joey; Weiss, Amelia K; Mejía Ortíz, Luis; Wrighton, Kelly C.	Evolution and the Levels of Lineage Haber, Matt.
9:45	Open	Does evolution of body size and micro habitat use trigger reproductive isolation in feather lice? Villa, Scott; Montgomery, Heidi; Bush, Sarah; Clayton, Dale H..	The Impact of Time-Scaling Methods on Phylogenetic Comparative Methods in the Fossil Record Bapst, David.

Time	Cottonwood D	Peruvian B	Rendezvous A
Session	Evolutionary Genetics/Genomics IV	Gene Flow/Migration I	Natural and Artificial Selection I
8:30	The Dynamic Nature of Genomes Across the Tree of Life Oliverio, Angela M; Katz, Laura A.	Inferring the origin of a range expansion from genetic data Peter, Benjamin; Slatkin, Montgomery.	Frequency-dependent natural selection drives female-limited polymorphic mimicry in butterflies Kunte, Krushnamegh; Agashe, Deepa; Chute, Katharine; Smith, Meghan.
8:45	The genome of the big-eyed arboreal ant <i>Pseudomyrmex gracilis</i> Rubin, Benjamin; Moreau, Corrie.	Coalescent, biophysical and comparative approaches give evidence for a stepping-stone model of gene flow in pelagically-dispersed neritid snails Crandall, Eric; Trembl, Eric; Barber, Paul.	Selection for early flowering through male fitness: three complementary analyses of a phenotypic manipulation Austen, Emily; Weis, Arthur E..
9:00	Regulation of nutritional endosymbiosis in aphids via a nutrient sensing amino acid transporter Price, Daniel R. G.; Luetje, Charles; Wilson, Alex C.C..	Movements of genes between populations: are pollinators more effective at transferring their own or plant genetic markers? Liu, Min; Chen, Xiao-Yong.	Natural selection on the thermal performance curve of <i>Anolis sagrei</i> Logan, Michael L; Cox, Robert M; Calsbeek, Ryan G.
9:15	How the turtle gets its sex: Comparative transcriptomics of TSD and GSD turtle embryos during sexual development Valenzuela, Nicole; Radhakrishnan, Srihari; Literman, Robert.	Consequences of downstream gene flow following 50 years of experimental guppy introductions in Trinidad Fitzpatrick, Sarah W.; Angeloni, LM; Funk, W. Chris.	Natural selection, developmental trajectories, and quantitative genetics underlying intraspecific variation in sexual dimorphism in an island lizard Cox, Robert; Daugherty, Christopher; Price, Jennifer; McGlothlin, Joel.
9:30	The population genetics of rapidly evolving reproductive genes: How much variation should we expect to find? Dapper, Amy L; Wade, Michael J.	Do phenotypically divergent immigrants help or hurt populations?: An experimental test in Trinidadian guppies Funk, W. Chris; Smith, Jedediah; Fitzpatrick, Sarah W.; Broder, E Dale; Angeloni, LM.	Inter- and intra-island differences in morphological selection for the waterfall-climbing fish <i>Sicyopterus stimpsoni</i> Kawano, Sandy; Bridges, William C.; Schoenfuss, Heiko L.; Blob, Richard W..
9:45	Comparison of fine-scale and broad-scale recombination rates across great apes Stevison, Laurie; Kidd, Jeffrey M; Kelley, Joanna; Woerner, August E; Veeramah, Krishna R; Johnstone, Laurel M; Bustamante, Carlos; Hammer, Michael F; Wall, Jeffrey D.	Open	Open

Time	Rendezvous B	Superior B	Ballroom 2
	Experimental Evolution I	Adaptation I	SSB Symposium: Ernst Mayr Symposium A
8:30	The Genetics of Ecological Divergence and Incipient Speciation in an Experimental Population of <i>Escherichia coli</i>	Elucidating the genomic underpinnings for replicated adaptation to extreme environments: signatures of selection in coding genes	Integrating Phylogeny, Climatic Niche, and Biogeographic History to Explain Growth Form Evolution in the Spine-shield Euphorbias (<i>E. sect. Euphorbia</i> , Euphorbiaceae)
	Blount, Zachary D; Lenski, Richard E.	Tobler, Michael; Passow, Courtney; Arias Rodriguez, Lenin; et. al.	Dorsey, Brian; Berry, Paul.
8:45	Changes in elemental composition of <i>E. coli</i> during 50,000 generations of experimental evolution under carbon limitation	Genetic Differentiation, Transcriptome Variation, and Local Adaptation of an Ecologically Dominant Prairie Grass <i>Andropogon gerardii</i> (Big Bluestem) Occurring Along the Climate Gradient in Midwest Climate Gradient	Utility and Limitations of Indels as Phylogenomic Characters
	Turner, Caroline; Wade, Brian; Meyer, Justin; Lenski, Richard.	Johnson, Loretta C; Baer, Sara; Maricle, Brian; et. al.	Narula, Nitish; Houde, Peter.
9:00	Analysis of Fitness Trajectories in a Long Term Evolution Experiment	Cellular adaptation and the maintenance of fitness in temporally variable environments	Novel trophic niches drive variable progress toward speciation within a pupfish adaptive radiation: integrating genomic-scale RAD sequencing with field measurements of a complex adaptive landscape
	Wiser, Michael; Lenski, Richard E.	Cooper, Brandon; Hammad, Loubna; Montooth, Kristi.	Martin, Christopher.
9:15	Exploring the Costs of Horizontal Gene Transfer	Testing the limits of adaptation: Jacks-of-all-trades become masters of none after 6,000 generations	Detecting Genomic Introgression at the Phylogenetic Scale
	Baltrus, David A.; Dougherty, Kevin; Smith, Brian; et. al.	Satterwhite, Rebecca S.; Cooper, Tim F..	Eaton, Deren; Ree, Richard.
9:30	Experimental coevolution along a parasitism-mutualism continuum	The influence of history on adaptation of experimentally evolved populations of <i>Escherichia coli</i>	Coevolution, diversification, and biogeography of a specialized insect-plant pollination mutualism on oceanic islands
	Shapiro, Jason; Turner, Paul E..	Phillips, Kelly; Cooper, Timothy.	Hembry, David.
9:45	Coevolution Facilitates the Evolution of a Novel Function in Phage Lambda by Altering the Fitness Landscape.	The predictability of evolution tested using experiments with Trinidadian guppies	Diversification of lineages and traits supports multiple adaptive radiations in babblers (Aves: Timaliidae)
	Burmeister, Alita; Meyer, Justin; Lenski, Richard.	Gotanda, Kiyoko; Pack, Amy; Hendry, Andrew.	Yohe, Laurel R.; Reddy, Sushma; Lordahl, Rachel; et. al.

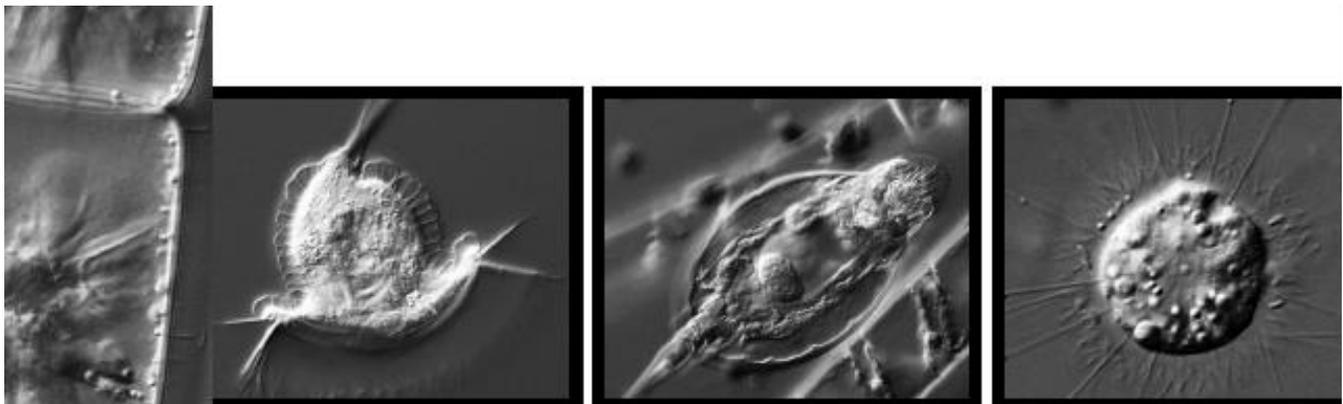
Sunday June 23, 10:30 AM – 12:00 PM			Contributed Talks
Time	Alpine A & B	Alpine C	Cottonwood A
Session	Population Genetics Empirical III	Evolutionary Ecology VI	Evolutionary Ecology VI
10:30	Scans of selection using whole genome sequences of diverse African hunter-gatherers reveal associations between pituitary loci and Pygmy stature Lachance, Joseph; Tishkoff, Sarah.	Phenotypic plasticity facilitated the evolution of terrestrial reproduction in <i>Dendropsophus</i> treefrogs Touchon, Justin Charles.	How cryptic is cryptic diversity? Machine learning approaches to fine scale variation in the morphology of <i>Emys marmorata</i> Smits, Peter D; Angielczyk, Kenneth D; Parham, James F.
10:45	Strong purifying selection on horizontal gene transfer and gene duplications in rhizobia Epstein, Brendan; Sadowsky, Michael; Tiffin, Peter.	Tradeoff between robustness and elaboration produces cycles of avian color diversification Badyaev, Alexander; Morrison, Erin S.; Sanderson, Michael J..	The effects of differences in taxonomic opinion on evolutionary inferences Faurby, Søren; Svenning, Jens-Christian; Eiserhardt, Wolf.
11:00	Genomic Signatures distinguish ancient from recent selection in pink salmon (<i>Oncorhynchus gorbuscha</i>) Limborg, Morten; Waples, Ryan; Seeb, Jim; Seeb, Lisa.	Evolutionary response when selection and heritability covary Wood, Corlett W.; Brodie III., Edmund.	The incidence of species-level paraphyly in animals: a re-assessment Ross, Howard.
11:15	Population genomic study uncovers signs of selection in a nutritional symbiont, <i>Ishikawaella</i> , during a soybean pest invasion Brown, Amanda M.V.; Huynh, Lynn Y.; Bolender, Caitlin M. ; Nelson, Kelly G. ; McCutcheon, John P..	Do maternal and paternal effects interact to affect antipredator behavior in threespined stickleback? McGhee, Katie; Bell, Alison.	A likelihood method for detecting paralogy from next-generation sequencing data Linderoth, Tyler; Nielsen, Rasmus.
11:30	Genomic signatures of late Pleistocene range dynamics revealed by re-sequencing of the black cottonwood exome Holliday, Jason; Zhou, Lecong.	Trade-offs or cross-tolerance: Evolvability of cold tolerance and plasticity in <i>Drosophila melanogaster</i> Egge, Alison; Hahn, Daniel; Morgan, Theodore.	Open
11:45	Open	The role of geography, ecology and behaviour in the adaptive diversification of a major avian radiation lapiedra, oriol; sol, daniel.	Open

Sunday June 23, 10:30 AM – 12:00 PM			Contributed Talks
Time	Cottonwood B	Cottonwood C	Cottonwood D
Session	Macroevolution V	Speciation I	Speciation I
10:30	The major features of plant trait evolution, or: how I learned to stop worrying and love the model	Pollinator-driven speciation in heterostylous plants: an individual-based model incorporating floral morphology, pollinator traits, and spatial effects	Evolution of alternative spicing in angiosperm plants
	Pennell, Matthew; Cornwell, William; Harmon, Luke.	Haller, Ben; de Vos, Jurriaan; Keller, Barbara; Hendry, Andrew; Conti, Elena.	Triant, Deborah A.; Taylor, Douglas.
10:45	Go fast or go far: kinematic trade-offs in a power amplified system	The genetics of floral mechanical isolation in the neotropical spiral gingers	A bird's eye view on transposable element evolution
	Anderson, Philip; Claverie, Thomas; Patek, Sheila.	Kay, Kathleen; Surget-Groba, Yann.	Suh, Alexander.
11:00	Freeloader to free-living: lineage diversification and morphological evolution of the megadiverse marine bivalve clade Galeommatoidea	The role of three floral volatiles in pollinator-mediated reproductive isolation in monkeyflowers (<i>Mimulus</i>)	Large numbers of novel miRNAs originate from DNA transposons and are coincident with a large species radiation in bats
	Li, Jingchun; Ó Foighil, Diarmaid; Strong, Ellen.	Byers, Kelsey J.R.P.; Riffell, Jeffrey A.; Bradshaw, H.D. "Toby", Jr.	Platt, Roy N.; Vandewege, Mike; Kern, Colin; Schmidt, Carl; Ray, David; Hoffmann, Federico.
11:15	The discovery and documentation of convergent evolution in the morphology and mechanics of turtle shells	Chromosomal rearrangements and the genetics of speciation in <i>Mimulus lewisii</i> and <i>M. cardinalis</i>	Variable targeting of transposable elements by piRNA/PIWI proteins in two Laurasiatherians
	Stayton, C. Tristan.	Stathos, Angela; Fishman, Lila.	Vandewege, Michael W.
11:30	Association between colony life-history and polymorphism in Cheilostome	Genetics of hybrid lethality between sympatric species of <i>Mimulus</i>	Likelihood estimates indicate higher rates of chromosome number evolution in angiosperms than other vascular plants
	Simpson, Carl.	Zuellig, Matthew; Kenney, Amanda; Sweigart, Andrea.	Zhan, Shing Hei; Mayrose, Itay; Barker, Michael.
11:45	Body shape diversity from 3000 fish species: repeated evolution of elongation	Mitochondrial dysfunction, oxidative stress and fitness: mechanisms underlying F2 hybrid breakdown in the copepod <i>Tigriopus californicus</i>	Duplicate gene evolution on the Y-chromosome: insights from ampliconic genes of Indonesian macaques
	Claverie, Thomas; Wainwright, Peter.	Barreto, Felipe; Burton, Ron.	Ghenu, Ana-Hermina; Bolker, B M; Evans, Ben.

Time	Peruvian A	Peruvian B	Rendezvous A
Session	Biogeography I	Gene Flow/Migration II	Gene Flow/Migration II
10:30	A Phylogentic Approach to Niche Evolution in Gadine Fishes Owens, Hannah L.	Gene flow across environmental gradients: patterns and implications for adaptation Sexton, Jason; Hangartner, Sandra; Hoffmann, Ary.	Female preference evolution under reinforcing selection Higgie, Megan; Blows, Mark W..
10:45	Freshwater paths across the ocean: amphibian dispersal to the oceanic islands of SaoTome and Principe Bell, Rayna; Drewes, Robert; Zamudio, Kelly.	Can gene flow cause an increased genetic robustness? Theory and possible relevance Yanchukov, Alexey; Proulx, Stephen.	Don't put all your sperm in one basket: are dimorphic stamens adaptive in wild radish? Royer, Anne; Slowinski, Samuel; Conner, Jeffrey K.
11:00	How does a predaceous vs. a vegetarian life-history affect the evolution of butterflies in South Africa? Or, the Hooligan vs. the Cop. Kaliszewska, Zofia Ada; Pierce, Naomi.	Using Genome Wide Association and Populating Genomic Analyses to dissect the genetic basis of migration in rainbow and steelhead trout Hale, Matt; Thrower, Frank; Berntson, Ewann; Miller, Michael; Nichols, Krista.	Predator response to polymorphism in anti-predatory strategies Yeager, Justin; Richards-Zawacki, Corrine.
11:15	Uncovering the causal mechanism of island gigantism Langerhans, Brian; Anderson, Chris.	Phylogenetic inference of migration rates and structured population sizes using BEAST 2 Vaughan, Timothy; Kühnert, Denise; Poppinga, Alexandra; Drummond, Alexei.	Relative growth rate and important leaf economic traits in an association mapping population of cultivated sunflower (<i>Helianthus annuus</i>) Ishibashi, Caitlin; Mason, Chase; Mandel, Jennifer; Burke, John.
11:30	Paleoclimate breaks isolated Philippine bird lineages Hosner, Peter.	Open	Response of allometric slope to artificial selection in <i>Drosophila melanogaster</i> Cassara, Jason A.; Bolstad, Geir H.; Marquez, Eladio J.; Houle, David; Pelabon, Christophe.
11:45	Pleistocene diversification in North American Central Highland fishes Halas, Dominik.	Open	Using Environmental Correlations and Genome Wide Associations to Detect the Signal of Polygenic Selection Berg, Jeremy; Coop, Graham.

Time	Rendezvous B	Superior B	Ballroom 2
	Experimental Evolution II	Disease Ecology/Evolution I	SSB Symposium: Ernst Mayr Symposium B
Session			
10:30	Cryptic variation and fitness landscapes in ribozyme evolution experiments Hayden, Eric.	Microevolution under climate change: adaptive capacity revealed by ecologically realistic environmental change van Heerwaarden, Belinda; Sgro, Carla M.	The duplication, expression and co-option of CYC and RAD in shaping floral zygomorphy Zhong, Jinshun; Kellogg, Elizabeth.
10:45	Genetically determined variation in lysis time variance in the bacteriophage λ X174 Baker, Christopher W.; Thaweethai, Tanayott; Yuan, Jeffrey; Hollibaugh Baker, Meghan; Miller, Craig; Joyce, Paul; Weinreich, Daniel M..	Adaptation to climate drives morphological, physiological, and taxonomic diversification in Solanum (Solanaceae) Muir, Christopher D..	Species boundaries, mitochondrial phylogeny, and the geographic extent of introgression in New Zealand cicadas: species or species swarms? Wade, Elizabeth.
11:00	Evolution of plasmid persistence Loftie-Eaton, Wesley; Top, Eva.	The role of rosette economic variation in adaptation across a climate gradient in Arabidopsis thaliana Wolfe, Marnin; Tonsor, Stephen.	Evolution of specificity in fungi-cyanobacteria lichen symbioses Magain, Nicolas; Lutzoni, Francois; Rivas Plata, Eimy; et. al.
11:15	Acetate- versus nitrate-limitation: Evolution of Paracoccus denitrificans in anoxic chemostats Mueller, Stefanie; Tegetmeyer, Halina E.; Vahrenhorst, Regina; Erb, Tobias J.; Strous, Marc.	High resilience to climate change predicted in a butterfly with strong local adaptation Bennett, Nichole; Singer, Michael; Severns, Paul; Parmesan, Camille.	new birth-death model recovers the K-Pg mass-extinction event in mammals Hoehna, Sebastian.
11:30	Applying Evolution: Transformation of a Population Using Underdominance Principles Reed, Floyd A.; Reeves, R. Guy.	Leaf traits and their integration in Pelargonium: indicators of responses to climate change? Schlichting, Carl; Jones, Cynthia; Martinez-Cabrera, Hugo; Mocko, Kerri.	Testing for simultaneous divergence and gene flow in sister-pairs of physiologically divergent Anolis lizards from Puerto Rico McElroy, Matthew.
11:45	Live long and procreate: Metabolic pathways in late life reproduction Reynolds, Lauren A; Hughes, Kimberly.	Tolerance to competition and associated tolerance traits in the agricultural Weed Ipomoea purpurea. Chaney, Lindsay; Baucom, Regina.	Founder-event speciation dramatically improves likelihoods and alters parameter inference in Dispersal-Extinction-Cladogenesis (DEC) analyses Matzke, Nicholas J.

Time	Ballroom 1
Symposium	SSE Education Symposium: Evolution out of Bounds, Part 1
8:30	Introduction to the Symposium Gilchrist, George; Wolfe, Lorne.
9:00	Evolution as a General Theoretical Framework for Economics and Public Policy Wilson, David Sloan.
9:30	Darwinian agriculture: evolutionary tradeoffs as opportunities Denison, R Ford.
10:00	Break
10:30	The History and Evolution of Infectious Disease Smocovitis, Betty.
11:00	Evolution in Action Ofria, Charles.
11:30	Evolving robots Bongard, Josh.



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Sunday June 23, 1:30 – 3:00 PM			Contributed Talks
Time	Alpine A & B	Alpine C	Cottonwood A
Session	Population Genetics Empirical IV	Epigenetics	Phylogenetic Methods/Theory III
1:30	Inferring selective constraint and gain-of-function from population genetic data Schridder, Daniel R.; Kern, Andrew D..	Paleoepigenetics: Reconstructing the DNA methylation maps of archaic hominins Gokhman, David; Prufer, Kay; Lavi, Eitan; Kelso, Janet; Paabo, Svante; Meshorer, Eran; Carmel, Liran.	Learning to live with complex models: speeding optimization with an appropriate surrogate function for likelihood curve approximation McCoy, Connor; Matsen, Eric.
1:45	RADseq for population genomics of <i>Anopheles gambiae</i> mosquitoes. O'Loughlin, Samantha; Burt, Austin.	Behavioral Epigenetics - a biomedical and epistemological assessment Silva, Marco Alexandre Silva Pina e.	More accurate phylogenies inferred from low-recombination regions in the presence of incomplete lineage sorting Pease, James B; Hahn, Matthew W.
2:00	Links between breeding, migrating and wintering common loon populations (<i>Gavia immer</i>) with genome-wide RAD-tag data Lindsay, Alec R.; DaCosta, Jeff; Sorenson, Michael.	Evolution with stochastic fitnesses: a role for recombination Carja, Oana; Feldman, Marcus W.; Liberman, Uri.	When are missing data problematic for phylogenetic estimation from phenotypic data sets? Wright, April; Hillis, David.
2:15	Maintenance of Standing Genetic Variation in <i>Capsella grandiflora</i> : Insights from the Intersection of Quantitative and Population Genomics Lee, Young Wha; Josephs, Emily; Wright, Stephen; Stinchcombe, John R.	Transgenerational gene expression plasticity in <i>Mimulus guttatus</i> Colicchio, Jack; Kelly, John; Hileman, Lena.	The Genomic Nature of Linnaean Genera Masalia, Rishi R.; Barker, Michael.
2:30	Model-based analysis of genome-wide allele frequency changes in a field experiment Gompert, Zachariah; Nosil, Patrik.	Evolutionary inference based on empirical estimates of spontaneous mutation rates and their phenotypic effects Schaack, Sarah.	Experience with maximum likelihood morphometric methods that use phylogenies Felsenstein, Joe.
2:45	Open	Open	ModelOMatic: a fast new tool for choosing between RY, nucleotide, amino acid, and codon substitution models for phylogenetic inference Whelan, Simon; Allen, James; Blackburne, Benjamin P; Talavera, David.

Sunday June 23, 1:30 – 3:00 PM			Contributed Talks
Time	Cottonwood B	Cottonwood C	Cottonwood D
Session	Macroevolution VI	Speciation II	Evolutionary Genetics/Genomics VI
1:30	Dynamic variation in rates of body mass evolution in birds McEntee, Jay P; Ruhfel, Brad; Burleigh, J. Gordon.	Gene flow and the maintenance of species boundaries at fine spatial scales Larson, Erica; Harrison, Richard.	Identification of Chromosomal Regions Under Divergent Selection In Steelhead/Rainbow Trout Pearse, Devon; Garza, John Carlos; Miller, Mike; Abadía-Cardoso, Alicia.
1:45	Lung evolution in Amniotes Farmer, Colleen.	A new test determines the probability of allopatric versus sympatric speciation in <i>Drosophila</i> Yukilevich, Roman.	The severity of a mitochondrial-nuclear incompatibility depends upon the developmental thermal environment Montooth, Kristi; Hoekstra, Luke; Siddiq, Mohammad.
2:00	The evolution of cichlid craniofacial diversity McGee, Matthew; Borstein, Sam; Wainwright, Peter.	Predation cause rapid sympatric divergence in European whitefish Englund, Göran; Öhlund, Gunnar; Bodin, Mats; Nilsson, Karin; Mobley, Kenyon; Brännström, Åke; Bartels, Pia.	Sequence evolution and gene expression underlying osmoregulation in Heteromyid rodents Marra, Nicholas J. ; Waser, Peter M.; DeWoody, J. Andrew.
2:15	Testing the strength of evolutionary correlations between dental morphology and diet in extant Carnivora Hopkins, Samantha; Price, Samantha.	Resource specialization in a model of sympatric asexuals Østman, Bjørn; Adami, Christoph; Lin, Randall.	Pseudogenes can act as reservoirs of adaptive gene mutations in humans Casola, Claudio; MohammedIsmail, Wazim; Phillips, Andrew D.; Hahn, Matthew W; Cooper, David N.
2:30	Gene networks have a predictive long-term fitness Palmer, Michael E..	Female choice is a diversifying force in sticklebacks Lettieri, Liliana; Keagy, Jason; Boughman, Jenny.	Genome-wide quantification of homeolog expression ratio in allopolyploid <i>Arabidopsis</i> revealed non-stochastic gene regulation Shimizu, Kentaro K.; Satoru, Akama; Shimizu-Inatsugi, Rie; Sese, Jun.
2:45	How good is good enough? - Taxonomy and phylogeny in evolutionary analyses Soul, Laura; Lloyd, Graeme; Friedman, Matt.	Open	Evolutionary genetics and genomics of speciation in <i>Tribolium</i> flour beetles Demuth, Jeff; Watson, Eric; Blackmon, Heath; Drury, Doug; Wade, Michael J.

Time	Peruvian A	Peruvian B	Rendezvous A
Session	Biogeography II	Genetic Drift/Neutral Evolution	Mating System Evolution I
1:30	Ecology and geography of diversification in Australian <i>Banksia</i> Warren, Dan; Cardillo, Marcel.	Classification of Evolutionary Dynamics in a Neutral Speciation Model King, Dawn M; Scott, Adam; Bahar, Sonya; Maric, Nevena.	Does penis size matter? Spermcast mating in barnacles Barazandeh, Marjan; Palmer, A. Richard.
1:45	The latitudinal species richness gradient in NewWorld woody angiosperms is consistent with the tropical conservatism hypothesis Kerkhoff, Andrew; Moriarty, Pamela; Weiser, Michael.	Mutability Driven Phase Transitions in a Neutral Phenotype Evolution Model Scott, Adam; King, Dawn M; Bahar, Sonya.	Functional significance of pollen size variation in the common morning glory, <i>Ipomoea purpurea</i> Chang, Shu-Mei.
2:00	Latitudinal Gene Transfer: Phylogeographic structure in coastal Chile Wares, John; Ewers, Christine.	Geographical variation in the electric signals of the Neotropical weakly electric fish <i>Brachyhyppopomus occidentalis</i> (Hypopomidae, Gymnotiformes): a strong role for stochasticity in signal evolution? Picq, Sophie; Alda, Fernando; Bermingham, Eldredge; Krahe, Rudiger.	The transcription factor doublesex (<i>dsx</i>) regulates reproductive behavior in the polyphenic beetle <i>Onthophagus taurus</i> Beckers, Oliver M.; Moczek, Armin P..
2:15	Evolution of desert biotas Wiens, John J..	Evolution and Stability of Ring Species de Brito Martins, Ayana; de Aguiar, Marcus; Bar-Yam, Yaneer.	Molecular phylogeny and evolution pattern of diverse sexual systems in thoracican barnacles - further replying to Charles Darwin's unanswered question Lin, Hsiu-Chin; Høeg, Jens; Chan, Benny.
2:30	The 'petaltail' dragonflies (Odonata: Petaluridae): Mesozoic habitat specialists that survive to the modern day Beatty, Christopher D.; Ware, Jessica L..	Estimating population histories using single-nucleotide polymorphisms sampled throughout genomes McTavish, Emily Jane; Hillis, David.	Evolution and maintenance of probabilistic sex determination in the model ciliate <i>Tetrahymena thermophila</i> Dimond, Kristen L.; Zufall, Reecca A..
2:45	Node-based analysis of clade distribution Graham, Catherine.	Disentangling the effects of geographic and ecological isolation on genetic differentiation Bradburd, Gideon; Ralph, Peter; Coop, Graham.	Same-sex pairing in Laysan albatross: a female alternative reproductive strategy? Zuk, Marlene; Young, Lindsay.

Sunday June 23, 1:30 – 3:00 PM

Contributed Talks

Time	Rendezvous B	Superior B
Session	Experimental Evolution III	Adaptation III
1:30	Selecting the tail of the curve: dispersal evolution and life history trade-offs in <i>Callosobruchus maculatus</i> (Coleoptera: Chrysomelidae) Burls, Kevin; Hoelzer, Guy; Forister, Matt.	Geographic variation in flight performance, locomotor activity and thermal resistance of the housefly <i>Musca domestica</i> Kjaersgaard, Anders; Kaufmann, Christian; Pertoldi, Cino; et. al.
1:45	Alternative host-use morphs coexist only when trade-offs emerge in experimentally evolved viruses Bono, Lisa M.; Gensel, Catharine L.; Pfennig, David; Burch, Christina L..	How Geckos Stick in Nature: Ecology and Biomechanics of Gecko Feet Hagey, Travis; Harmon, Luke; Schwarzkopf, Lin.
2:00	Following the fat: Lipid storage as a starvation resistance strategy Reynolds, Lauren A; Gibbs, Allen G.	Local adaptation despite gene flow in the waterfall-climbing Hawaiian goby fish, <i>Sicyopterus stimpsoni</i> Moody, Kristine N.; Hunter, Sabrina N.; Childress, Michael J.; et. al.
2:15	Predicting genome-scale metabolism of microbial consortia Harcombe, William.	Germination in <i>Sinapis arvensis</i> (Brassicaceae) from Agricultural and Non-agricultural Habitats Suggest Local Adaptation Morrison, Ginnie Denise; Linder, C. Randal.
2:30	Extending multicellularity in cyanobacteria Jacobsen, Kristin Alexa; Travisano, Michael; Denison, R Ford.	Axes of differentiation for crossability, genetic and ecological factors in wild Galapagos tomatoes Sherman, Natasha A; Moyle, Leonie C.
2:45	Open	Divergent selection and clinal variation between incipient species of <i>Mimulus</i> Streisfeld, Matthew; Sobel, James.

Sunday June 23, 3:30 – 5:00 PM			Contributed Talks
Time	Alpine A & B	Alpine C	Cottonwood A
Session	Population Genetics Empirical V	Mutations	Phylogenetic Methods/Theory IV
3:30	Naturally occurring lethals, steriles, and segregation distorters are maintained in balanced systems established by chromosomal inversions during the inbreeding of the <i>Drosophila melanogaster</i> Genetic Reference Panel lines	Mutational Erosion of the Ecological Niche	Comprehensive simulation of gene trees within species trees
	Koury, Spencer A; Brud, Evgeny; Eanes, Walter.	Latta IV, Leigh C.; Lynch, Michael; Schaack, Sarah.	Mallo, Diego; Martins, Leonardo de Oliveira; Posada, David.
3:45	Genomic patterns of latitudinal differentiation in <i>Drosophila simulans</i>	Exploring mutational space with unPAK (Undergraduates Phenotyping Arabidopsis Knockouts)	A new MCMC approach for the Bayesian coestimation of gene trees and species trees
	Sedghifar, Alisa; Begun, David.	Rutter, Matthew; Caperton, Christa; Creech, Andrea; et. al.	Boussau, Bastien; Szollosi, Gergely; Tannier, Eric; Daubin, Vincent.
4:00	The role of pigmentation pathway genes in phenotypic variation of melanism in natural populations of <i>Drosophila melanogaster</i>	Context-dependent Mutations Drive Bacterial Genome Evolution	Phylogenies from next-gen sequencing data without assembly
	Ng, Rocio Siu; True, John.	Sung, Way; Ackerman, Matthew; Miller, Sam; Williams, Emily; Lynch, Michael.	Schwartz, Rachel; Cartwright, Reed A..
4:15	Sequencing degraded DNA from non-destructively sampled museum specimens for RAD-tagging and ultra low-coverage shotgun phylogenetics	Variability of the Hepatitis C mutation rate	Prospects for Bayesian phylogenetic inference using streaming data
	Tin, Mandy; Economo, Evan; Mikheyev, Alexander.	Loverdo, Claude; Ke, Ruian; Lloyd-Smith, James O..	McCoy, Connor; Darling, Aaron; Matsen, Frederick "Erick".
4:30	Open	Mutation Accumulation and the Rate of Adaptation in Viruses	Bayesian inference of biogeographical histories for hundreds of discrete areas
		Bhardwaj, Anand; Cutler, David; Real, Leslie.	Landis, Michael; Matzke, Nicholas; Moore, Brian; Huelsenbeck, John.
4:45	Open	Within plant genetic variation: An assessment of the Somatic Mutation Hypothesis	The Fossilized Birth-Death Process: A Coherent Model of Fossil Calibration for Bayesian Divergence Time Estimation
		Paige, Ken N.; Olds, Brett; Mulrooney, Patrick; Scholes, Daniel; Pittendrigh, Barry.	Heath, Tracy; Huelsenbeck, John; Stadler, Tanja.

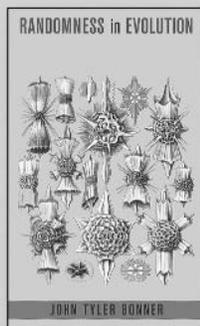
Sunday June 23, 3:30 – 5:00 PM			Contributed Talks
Time	Cottonwood C	Cottonwood D	Superior B
Session	Speciation III	Evolutionary Genetics/Genomics VII	Disease Ecology/Evolution III
3:30	Animal Speciation and the Gut Microbiome Brucker, Rob; Bordenstein, Seth.	Bacteriocins in <i>Pseudomonas syringae</i> Hockett, Kevin; Baltrus, David A..	The role of the human-constructed environment in mediating the genetic structure of seasonal influenza Bozick, Brooke; Real, Leslie.
3:45	Elucidating the cellular and genetic basis of hybrid dysfunction between wild isolates of <i>Caenorhabditis briggsae</i> Ross, Joseph; Pham, Kevin.	x within G: Pleiotropic networks underlying the response to selection for heat and oxidative stress resistance in the nematode <i>Caenorhabditis remanei</i> Phillips, Patrick; Reynolds, Rose; Sikkink, Kristin; Ituarte, Catherine; Cresko, William.	The deeper evolutionary history of a contemporary ecological threat revealed: a genome resequencing study of the amphibian-killing chytrid fungus Rosenblum, Erica Bree; James, Timothy Y.; Zamudio, Kelly R.; Poorten, Thomas J.; Stajich, Jason E..
4:00	The Effect of Sequence Divergence on Hybrid Sterility in <i>Caenorhabditis</i> Bundus, Joanna; Gray, Jeremy, C ; Cutter, Asher, D.	Forces that Shape Evolution of Metabolic Networks and Phenotypes in Budding Yeast Opulente, Dana; Morales, Christopher; Carey, Lucas; Rest, Joshua.	Tiger salamander-ranavirus coevolution and local adaptation Storfer, Andrew; Chojnacki, Karen; Eastman, Jonathan; Brunner, Jesse.
4:15	Divergence in coloration and the evolution of reproductive isolation in the <i>Anolis marmoratus</i> species complex Muñoz, Martha; Crawford, Nicholas; McGreevy, Jr., Thomas; Schneider, Christopher.	Endosymbiont genome reduction and host interactions in an ancient insect-bacteria symbiosis Sloan, Daniel; Moran, Nancy.	Variation in the virulence of a fungal pathogen drives population-level responses of an amphibian host. Piovia-Scott, Jonah; Pope, Karen; Rejmanek, Daniel; Worth, Sparrow Joy; Lawler, Sharon; Foley, Janet.
4:30	Environmental tolerances, latitudinal gradients and the potential for speciation in mammals and birds Botero, Carlos; Dor, Roi; McCain, Christy; Safran, Rebecca.	A Whole Genome Perspective on the Phylogeny and Evolution of Basidiomycete Fungi Pendleton, Amanda; Burleigh, J. Gordon; Davis, John M. .	The innate immune response may be important for surviving plague infection in wild Gunnison™s prairie dogs Busch, Joseph D.; Van Andel, Roger; Stone, Nathan E.; et. al.
4:45	Genomic islands of speciation are due to reduced diversity, not reduced gene flow Hahn, Matthew.	Using comparative genomics to investigate the basis of human pathogenicity in African trypanosomes. Sistrom, Mark.	Context-dependency of the immune response: Implications for host fitness Parker, Benjamin James; Gerardo, Nicole.

Time	Peruvian A	Peruvian B	Rendezvous A
Session	Biogeography III	Landscape Genetics	Mating System Evolution II
3:30	New insights on an older model: the Isthmus of Panama and the Great American Biotic Interchange	Assessing the the influence of variation in local social structure on landscape level patterns of dispersal and genetic differentiation in a metapopulatin of Eastern collared lizards	Are photosynthetic rates and outcrossing rates associated within populations? A test using two mixed-mating Clarkia taxa
	Bacon, Christine; Jaramillo, Carlos; Tilston Smith, Brian ; Chakrabarty, Prosanta ; Antonelli, Alexandre.	Conley, Amy Kathleen; Templeton, Alan.	Ivey, Christopher; Dudley, Leah; Hove, Alisa; Emms, Simon; Mazer, Susan.
3:45	Drowning New Zealand, dissing dispersal and panning panbiogeography	Landscape genetic analysis of the southern torrent salamander, <i>Rhyacotriton variegatus</i>	Phylogenetic analyses of the “selfing syndrome” and the evolutionary fates of self-compatible primrose flowers
	Paterson, Adrian Mark.	Emel, Sarah; Storfer, Andrew.	Vos, Jurriaan de; Wüest, Rafael; Conti, Elena.
4:00	Determining the effects of migration and range expansion on population structure	Landscape genetics of a habitat generalist bird species (<i>Cossypha caffra</i>) across Southern Africa	The genetic architecture of female mate choice in a pair of cichlids in Lake Malawi, East Africa
	Pierce, Amanda A.; Altizer, Sonia M.; Bangura, Marie J.; et. al.	Wogan, Guinevere O. U..	Ding, Baoqing; Daniel, Daugherty; Husemann, Martin; Howe, Aimee; Patrick, Danley.
4:15	Molecular estimates of biogeographic affinities for diverse Californian marine mollusks	Evaluating Temporal Variation in Black Bear (<i>Ursus americanus</i>) Spatial Genetic Structure: Application of a Landscape Genetic Approach Using Time Series Data.	Kin avoidance at breeding sites increases female inclusive fitness in a tropical frog.
	Eernisse, Douglas J..	Draheim, Hope; Moore, Jennifer; Fortin, Marie-Jose; Winterstein, Scott; Scribner, Kim.	Muralidhar, Pavitra; de Sá, Fábio ; Haddad, Célio F. B. ; Zamudio, Kelly R..
4:30	Old World Origins of Multiple Lineages of Grassland Insects	Rapid formation of habitat-conforming metapopulation genetic structure in northeastern coyotes	Inbreeding depression and the evolution of dioecy in <i>Pinus johannis</i> .
	Catanach, Therese A.; Dietrich, Chris.	Monzón, Javier; Kays, Roland.	Flores-Renteria, Lluvia; Molina Frenaner, Francisco; Whipple, Amy; Gehring, Catherine; Dominguez, Cesar.
4:45	Biogeographic transitions in murine rodents of Wallacea	How does fine scale habitat structure create genetic structure?	Open
	Rowe, Kevin C.; Achmadi, Anang S.; Esselstyn, Jacob A.; Smissen, Peter J.; Schenk, John; Steppan, Scott J..	Jackson, Nathan; Fahrig, Lenore.	

Time	Rendezvous B	Superior B
Session	Systematics and Inferred Phylogenies I	Adaptation IV
3:30	Molecular phylogenetics of Annelida based on a supermatrix analysis of publicly available sequence data Anderson, Frank; Williams, Bronwyn; Horn, Kevin.	Spatial and temporal variation in drought tolerance in North American populations of <i>Drosophila melanogaster</i> Rajpurohit, Subhash; Bergland, Alan; Petrov, Dmitri; Schmidt, Paul.
3:45	Combined molecular and morphological phylogenies of the venerid bivalves reveal frequent misidentifications and the need for systematic revisions. Steppan, Scott J.; Robles, Rafael; Sartori, Andre; Mikkelsen, Paula; Jablonski, David; Bieler, Rudiger.	The effect of behavioural and ecological traits on phenotypic evolution in birds and mammals Gudde, Renske Marleen; Venditti, Chris.
4:00	Molecular analysis reveals a giant deep-sea anemone may represent a new order of Anthozoa Rodriguez, Estefania; Brugler, Mercer R..	A comparative study of adaptation in wild and commensal rats Varudkar, Amruta; Ramakrishnan, Uma.
4:15	Phylogenomics offers insights into hemichordate evolution Cannon, Johanna; Kocot, Kevin; Santos, Scott; Swalla, Billie ; Halanych, Ken.	Reconstructing the pathways to soil adaptation using contemporary and historical approaches Strauss, Sharon Y; Cacho, Natalia.
4:30	Evaluation of novel nuclear introns within shallow and deep-water sea anemones (Cnidaria: Anthozoa: Hexacorallia: Actiniaria) Brugler, Mercer R.; Lara, Adolfo; González Muñoz, Ricardo; Rodriguez, Estefania.	Adaptive Radiation of <i>Vibrio fischeri</i> During the Free-living Phase and Subsequent Consequences for Squid Host Colonization Soto, William; Nishiguchi, Michele; Travisano, Mike.
4:45	Who am I and how did I get here? Intraspecific variation and biogeographical patterns in the genus <i>Acanthodoris</i> (Gastropoda, Opisthobranchia, Nudibranchia) Hallas, Joshua; Gosliner, Terry.	Mating system plasticity promotes adaptation to novel environments Peterson, Megan; Kay, Kathleen.

Time	Ballroom 1	Ballroom 2
Symposium	SSE Education Symposium: Evolution out of Bounds, Part 2	ASN Vice Presidential Symposium: Ecology, Evolution and coevolution of host-parasite interactions
1:30	Ultrasociality and Sustainability Gowdy, John.	Infection dynamics in coexisting sexual and asexual host populations: support for the Red Queen hypothesis Lively, Curt.
2:00	Evolution of preferences, norms, and institutions for cooperation Akçaya, Erol.	Bacteriophage adaptation over time and space Koskella, Britt.
2:30	A New Approach to Testing Dynamical Theories in Social and Cultural Evolution Turchin, Peter.	The ecology and evolution of animal medication: genetic determinism versus phenotypic plasticity Roode, Jacobus de; Choisy, Marc.
3:00	Break	Break
3:30	Evolution and Human Sexuality Roughgarden, Joan.	Predation of infected Daphnia can drive evolution of more rapid parasite proliferation and modulate competition between parasite species Duffy, Meghan; Auld, Stuart; Ochs, Jessica; Sebastian, Mathew; Hall, Spencer.
4:00	The Evolution of Pop Culture: Some Ways to Engage the Undergraduate Mind Wolfe, Lorne.	The waxing and waning of immunity within individuals and populations: Generation of ecological-evolutionary feedbacks in sheep-nematode interactions Graham, Andrea L.
4:30	Discussion	Medicine, farming, disease ecology and evolution Read, Andrew F.

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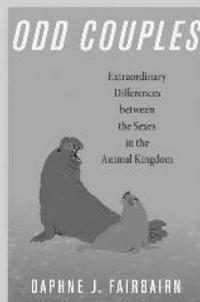


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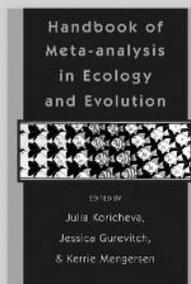
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Event Tent	
P23001	Tidal Newts: Evidence for local adaptation to an osmotically stressful environment
1	Hopkins, Gareth R.; Brodie, Jr., Edmund; Neuman-Lee, Lorin A.; Stopher, Zoe M.; French, Susannah.
P23002	Understanding how gene flow changes adaptive potential: a laboratory study using Bruchid beetles
2	Downey, Michelle H; Miller, Tom E X.
P23003	Inhabiting multi-stressor soils: persistence of an earthworm under extreme volcanic conditions
3	Novo, Marta; Cunha, Luis; Hodson, Mark; Spurgeon, Dave; Camarinho, Ricardo; Viveiros, Maria Fatima B; Silva, Catarina PP; Arruda, Hugo; Dos Santos Rodrigues, Armindo; Bruford, Michael; Morgan, Andrew John; Kille, Peter.
P23004	Morphological variation in commensal rat <i>Rattus rattus</i> and wild rat <i>Rattus satarae</i>
4	Varudkar, Amruta; Ramakrishnan, Uma.
P229001	Biogeographic origins and the evolution of woodiness in the endemic Hawaiian genus <i>Nototrichium</i> (Amaranthaceae: Amaranthoideae)
5	McCauley, Ross A; Havran, J.
P229002	Shedding Light on Nocturnal Insect Evolution in the Pleistocene
6	Sadler, Emily A.; Pitts, James P..
P229003	The evolution of neopilionid harvestmen and a new, putative Gondwanan relict from New Caledonia
7	Krentzel, Dallas; Cokendolpher, James.
P230001	iDigBio as a resource for the digitization of a billion biodiversity research specimens
8	Mast, Austin; Nelson, Gil; Paul, Deborah; Riccardi, Greg.
P223001	A phylogenetic test of the Red Queen Hypothesis: the evolution of mating system and parasitism in the Nematoda
9	Gibson, Amanda.
P223002	Virulence evolution: Selection to increase geometric mean fitness
10	Graves, Christopher.
P223003	Automated Genome Annotation and Identification of candidate Avirulence factors in Fusiforme Rust Disease
11	Ence, Daniel; Kronenberg, Zev; Pendleton, Amanda; Smith, Katherine; Yandell, Mark; Nelson, C. Dana; Davis, John M. .
P223004	Does an Increase in Ploidy Reduce Infection? A Study with Triploids and Tetraploids in the New Zealand snail <i>Potamopyrgus antipodarum</i>
12	Jenkins, Christina; Dybdahl, Mark.
P223005	Deep Sequencing Reveals Genomic Basis of Retroviral Adaptation to Mammalian Host Genotypes
13	Middlebrook, Earl; Kubinak, Jason L.; Cornwall, Douglas H.; Stark, Derek; Potts, Wayne.
P224001	Dissecting the genetic architecture of germination speed variation in response to extreme salinity in <i>Arabidopsis thaliana</i>
14	Yuan, Wei; Purugganan, Michael.
P224002	Transcriptome-based characterization of the koala (<i>Phascolarctos cinereus</i>) MHC and its relevance in captive breeding programs
15	Abts, Kendra; Ivy, Jamie; DeWoody, J. Andrew.
P224003	The impact of the soil community on plant growth and fitness
16	Elliott, Laurie Marie; Baucom, Regina.
P224004	Phenotypic plasticity vs. local adaptation: a study on an Arctic seabird in a changing climate
17	Tigano, Anna; Friesen, Vicki L..
P224006	Local adaptation in pupation preference and larval activity and their implications for ecological speciation
18	Jost, Alexandra; Matzkin, Luciano M..

Event Tent	
P224007	Characterization of the renal transcriptome of the Patagonian long-haired grass mouse <i>Abrothrix longipilis</i> (Cricetidae, Sigmodontinae)
19	Valdez, Lourdes; Varas, Valeria; Giorello, Facundo; Feijoo, Matias; Opazo, Juan C; Lessa, Enrique P; D'Elia, Guillermo.
P22001	Misunderstandings of Evolutionary Concepts Generate Incorrect Reading of Cladograms: a Phylogenetic Shortfall in Brazilian Social Networking Websites
20	De Mello, Rodrigo ; Rigolon, Rafael Gustavo.
P22002	Tools to Engage Introductory Biology Students in Evolution
21	Young, Calvin.
P22003	Cultural Traits as the Focus for Student Demonstration of Evolutionary Analysis Process Skills
22	Martin, Andrew.
P22004	Teaching evolution in a 4th grade classroom: A hands on approach with Galapagos tomatoes
23	Sherman, Natasha A; Cooper, Rachael S..
P238001	Using speciose sticklebacks to study cognitive evolution
24	Keagy, Jason; Baird, Ashley; Lehto, Whitley; LoPresto, Sarah; Minter, Ross; Braithwaite, Victoria; Neuberger, Thomas; Boughman, Jenny.
P238002	A Notch in time saves nine: Notch signaling and the loss of paussine beetle antennal segmentation
25	Eskridge, Paul C; Moore, Wendy.
P238003	A Population Genomic Scan of the Highly Polymorphic Strawberry Poison Frog (<i>Dendrobates pumilio</i>) Reveals Markers Strongly Associated with Color Pattern
26	Freeborn, Layla Renee; Zhang, Wei; Kronforst, Marcus; Richards-Zawacki, Corrine.
P238004	<i>Gilia capitata</i> (Polemoniaceae) as a model for genetic dissection of plant morphological evolution
27	Whipple, Clinton; Ross, Jason; Johnson, Leigh.
P225001	The impact of inbreeding depression on the evolution of herbicide resistance
28	Jankowiak, Anneka; Baucom, Regina.
P225002	<i>Drosophilids</i> in a Northern Temperate Urban Environment: Human Impact and Climate Change
29	Schawaroch, Valerie; Lau, Chuen Yan.
P225003	Lepidopteran diversity and abundance between wild cotton populations with and without transgenes
30	Benitez, Marina; Wegier, Ana ; Alavez, Valeria; Ponce-Mendoza, Alejandro.
P225004	Project Baseline: Evaluating population responses to climate change via migration, extinction and adaptation using spatial models
31	Weber, Jennifer J; Brown, Jason; Franks, Steven.
P226001	No Evidence for Behavioral Adaptations to Nematode Parasitism by the Fly <i>Drosophila putrida</i>
32	Debban, Catherine; Dyer, Kelly.
P226002	Population differentiation in <i>Crepidula</i> spp.: genotypes, phenotypes, and latitude
33	Cahill, Abigail.
P226003	Multivariate patterns of oviposition and kin-structuring in <i>Bolitotherus cornutus</i>
34	Wice, Eric Wesley; Wood, Corlett W.; Formica, Vincent A.; Brodie III., Edmund.
P226004	Competitive superiority based on environmental impacts on population history: A case study in <i>Daphnia pulex</i>
35	Munoz, Joaquin; Jeyasingh, Punidan; Weider, Lawrence.
P226005	Fine scale phenotypic structuring: defining social context in wild <i>Silene vulgaris</i> populations
36	Sanderson, Brian J.; Brodie III., Edmund.
P226006	Maternal sex effects and inbreeding depression under varied environmental conditions in gynodioecious <i>Fragaria vesca</i> subsp. <i>bracteata</i>
37	Dalton, Rebecca; Koski, Matthew; Ashman, Tia-Lynn.

Event Tent	
P226007	Flower color polymorphism in <i>Silene littorea</i> along the Iberian coast: transcriptome analysis reveals downregulation of floral anthocyanin genes
38	Casimiro-Soriguer, Ines; Narbona, Eduardo; Buide, Maria L; del Valle, Jose C; Whittall, Justen B.
P240001	Polyploidy localization and phylogenomics in Brassicaceae using a transcriptomics/genomics approach
39	Mayfield-Jones, Dustin; Edger, Patrick; Koch, Marcus; Pires, Joseph.
P240002	Caught Red Winged: The Genetics of Pheomelanism in the Domestic Rock Pigeon
40	Guernsey, Michael W.; Domyan, Eric; Ritscher, Lars; Miller, Matthew A.; Kronenberg, Zev; Schöneberg, Torsten; Shapiro, Michael D..
P240003	Transposable element proliferation and genome size evolution in Asparagales
41	Hertweck, Kate L..
P240004	Sequencing, assembling, and correcting draft genomes using recombinant populations
42	Zhang, Simo; Hahn, Matthew W; Moyle, Leonie C.
P240005	Investigating Patterns of Molecular Evolution Associated with Floral Variation in Sister Genera, <i>Solanum</i> and <i>Jaltomata</i> (Solanaceae)
43	Kostyun, Jamie L.; Pease, James B; Moyle, Leonie.
P240006	Cryptic diversity within morphospecies of testate (shelled) amoebae in New England bogs and fens
44	Oliverio, Angela M; Katz, Laura A.
P240007	Chemosensory genes in the draft genome of a generalized specialist, the red-headed pine sawfly (<i>Neodiprion lecontei</i>)
45	Duong, Kim; Leonberger, Adam; Bagley, Robin K; Linnen, Catherine.
P240008	Adaptation reshaping transcriptomes in balsam poplar
46	Wang, Li; Olson, Matthew.
P240009	Evolution of Cis-regulatory Elements in Yeast De Novo Genes
47	Wang, Daryi; Tsai, Zing Tsung-Yeh.
P231001	Evolution of female choice and age-dependent male traits with paternal germ-line mutation
48	Adamson, Joel J..
P242001	The Genetics and Development of Head Crests
49	Vickrey, Anna; Domyan, Eric; Guernsey, Michael W.; Shapiro, Michael D..
P243001	Collection citation metrics: quantifying the value of natural history collections to biological discovery
50	Miller, Matthew.
P216001	Is migration overrated? The role of fecundity, survival, and age on migratory behavior in steelhead and rainbow trout
51	Ohms, Haley; Lytle, David A.; Jordan, Chris.
P216002	The effect of temperature and habitat on fish body morphology
52	Landy, J. Alex.
P216003	Life-history of <i>Gambusia vittata</i> (Poeciliidae)
53	Weldele, Meaghan Lynn; Zuniga-Vega, Jose Jaime; Johnson, Jerald B..
P244001	Extensive retrotransposon-driven evolution of ESCRT III genes in primate genomes
54	Downhour, Diane Miller; Gaele, Mercenne; Sundquist, Wesley; Elde, Nels.
P244002	Identification and differential expression analysis of odorant-binding proteins in <i>Anastrepha</i> fruit flies
55	Campanini, Emeline Boni; Lima, Andre L A; Resende, Victor B; Sobrinho, Iderval; de Brito, Reinaldo.
P244003	Identifying positive Darwinian selection within the gonadal transcriptomes of marine rockfishes (genus: <i>Sebastes</i>) to elucidate patterns of adaptive radiations
56	Heras, Joseph.

Event Tent	
P244004	Fishing for defense genes in the milkweed gene pool
57	Fishbein, Mark; Fathepure, Shakuntala; Holland, LaRinda; Cronn, Richard; Straub, Shannon; Liston, Aaron.
P244005	Exploration of sequence variation for resolving the phylogeny of the Neotropical genus <i>Cecropia</i>
58	Treiber, Erin L.; Weiblen, George D.; Madrinan, Santiago.
P29001	Evolutionary escape of a virus: a more realistic within-host model
59	Loverdo, Claude; Lloyd-Smith, James O..
P234001	Phylogeography of the purple finch
60	Macfarlane, Colin; Brown, Mike; Burg, Theresa.
P234002	Genetic Variability in <i>Magnolia acuminata</i> (L.) Populations in the United States
61	Zimmer, Elizabeth; Johnson, Gabriel; Nagi, Suzanne.
P234003	Latitudinal phylogeographic pattern and intraspecific conservation values for <i>Liolaemus tenuis</i> (Liolaemidae), a lizard from the Chilean Hotspot
62	Victoriano, Pedro; Munoz-Mendoza, Carla; Canon, Carola; D'Elia, Guillermo; Mendez, Marco A.; Sites, Jack W..
P234004	Systematics and phylogeography of the snake genus <i>Madagascarophis</i> : genetic analysis reveals a remarkable diversity coupled with complex dispersal patterns
63	Nagy, Zoltan T.; Chan, Lauren; Noonan, Brice; Rakotondravony, Hery A.; Raselimanana, Achille P.; Yoder, Anne D.; Glaw, Frank; Vences, Miguel.
P234005	Phylogeography of <i>Proechimys roberti</i> (Rodentia, Echimyidae): implications for the evolutionary history of southeastern Amazonia and Cerrado ecotone
64	Leite, Rafael N; Werneck, Fernanda de Pinho; da Silva, Maria Nazareth F; Rogers, Duke S.
P234006	The ecology of Malagasy formicine diversification: widespread waifs and undocumented endemics.
65	Nielsen, Stuart; Fisher, Brian; Noonan, Brice.
P234007	Testing hybridization hypotheses within a multilocus coalescent framework: an example with <i>Liolaemus</i> lizards (<i>Squamata</i> : <i>Liolaemini</i> , <i>boulengeri-rothi</i> complexes)
66	Olave, Melisa; Avila, Luciano J.; Sites, Jack W.; Morando, Mariana.
P219001	The younger games:thermal variation of density dependency
67	Borchert, Jason; Angilletta, Michael.
P246001	Population structure of <i>Linanthus dichotomus</i> (Polemoniaceae)
68	Graham, Noel.
P246002	EST-SSR development and population genetic analysis in Russian dandelion (<i>Taraxacum kok-saghyz</i>)
69	McAssey, Edward; Gudger, Ethan; Zuellig, Matthew; Burke, John.
P246003	A genomic screen between two sister species of rockfish identifies divergent markers across a marine faunal break
70	Martinez, Andres; Aguilar, Andres.
P246004	Population Genetics of <i>Herichthys minckleyi</i> in the Cuatro Ciengas Basin
71	Bell, Katherine.
P246005	Mapping Admixture Across the Genome using Principal Component Analysis
72	Kennedy, Brett J; Harpending, Henry .
P247001	Intralocus sexual antagonism and fitness variance
73	Cassidy, Michelle; Patten, Manus.
P247002	Evolution of genomic complexity in a population of digital organisms
74	Mirmomeni, Masoud; Adami, Christoph; Punch, William.
P247003	Recessive mutations interfere with selective sweeps
75	Assaf, Zoe June; Petrov, Dmitri.

Event Tent	
P26001 76	Detection of selection in bacterial plasmid backbone genes: an example from the IncP family Smith, Silvia E.; Sarver, Brice A. J. ; Zhbannikov, Ilya Y. ; Top, Eva M.; Brown, Celeste J..
P26002 77	Investigation of selection in two sites of the gene doublesex in South American fruit flies <i>Anastrepha</i> (Diptera; Tephritidae) Zuffo, Livia; de Brito, Reinaldo; Sobrinho, Iderval.
P232001 78	Resolution Power and Phylogenetic Informativeness of SSU-rDNA and Actin in Resolving the Amoebazoan Tree of Life Tekle, Yonas I..
P232002 79	Extreme mitochondrial and nuclear phylogenetic discordance in Pleuroceridae (Gastropoda: Cerithioidea) Whelan, Nathan; Strong, Ellen.
P232003 80	Mitochondrial phylogenomics strongly supports the monophyly of extant amphibians (Lissamphibia) and Batrachia Setiamarga, Davin H. E.; Machida, Naofumi; Setiamarga, Ivan H. T.; Endo, Kazuyoshi.
P232004 81	A phylogeny of Lampyridae with insight into firefly visual system evolution Martin, Gavin J; Swindle, Michael; Branham, Marc; Whiting, Michael; Bybee, Seth.
P232005 82	Photobiont switch and cephalodia emancipation as evolutionary drivers in the lichen symbiosis Magain, Nicolas; Sérusiaux, Emmanuël.
P232006 83	A phylogenetic reevaluation of the genus <i>Gavia</i> using next-generation sequencing Sprengelmeyer, Quentin; Lindsay, Alec R..
P232007 84	A Preliminary Phylogeny for <i>Mangifera</i> (Anacardiaceae) Warschefsky, Emily; Campbell, Richard; Hidayat, Topik; von Wettberg, Eric.
P21001 85	Tissue Specific Gene Expression of Biomineralization Proteins in <i>Biomphalaria glabrata</i> . Chang, PangKou; Medina, Monica; Hanna, Bishoy.
P21002 86	An Analysis of the Notch Regulatory Gene <i>fringe</i> in Metamorphic Appendage Patterning of the Red Flour Beetle <i>Tribolium castaneum</i> O'Brien, Devin; Smith, Frank; Jockusch, Elizabeth.
P21002 87	An Analysis of the Notch Regulatory Gene <i>fringe</i> in Metamorphic Appendage Patterning of the Red Flour Beetle <i>Tribolium castaneum</i> Sullivan, Jonathan M.; Matzkin, Luciano M..
P21004 88	Shielding Effect of Asexual Reproduction on Mutation Load Ramirez, Julio; Orive, Maria E..
P21005 89	The Effects of the Lower Congo Rapids on Species Diversification Brown, Bianca; Alter, Elizabeth .
P21006 90	Phylogeography of a direct-developing sea star, <i>Leptasterias aequalis</i> , in relation to the San Francisco Bay outflow Smith, Riley; Cohen, C. Sarah.
P21007 91	Divergence in Immune Gene Expression Among Threespine Stickleback Populations Coates, Jessica L; Bolnick, Daniel ; Schmerer, Matthew.
P21008 92	Phylogenetic Relationships of Hemosporidia in a Common Galapagos Migrant, the Bobolink (<i>Dolichonyx oryzivorus</i>) Geest, Emily Altair; Levin, I.I.; Baumann, R.E.; Kim, D.H.; Morton, J.M.; Perlut, N.G.; Renfrew, R.B.; Parker, P.G..
P21009 93	A portrait of speciation in an endemic cloud forest bird: genetics, phenotype, and the niche Venkatraman, Madhvi X.; McCormack, John.
P21010 94	Spatial and temporal population genetic structure in an arctic plant disjunct population Tribble, Carrie M.; Maroja, Luana S.

Event Tent	
P21011	Inbreeding Affects Mate Choice in Female <i>Drosophila</i>
95	Newton, Shanna; McKee, Amberle; Carter, Ashley.
P21012	Mother knows best: Maternal up-regulation of MUPs makes sons sexier
96	Cauceglia, Joseph; Nelson, Adam; Potts, Wayne.
P21013	UNPAK-ing Sources of Phenotypic Variation in <i>Arabidopsis thaliana</i>
97	Lake, Karoline; Winship, Grace; Flynn, Leah; Hanslits, Katherine; McCorkle, Julianna; Pantalena, Madeline; Wan, Jeffrey; Peng, Hsuan; Gomez, Lu; O'Donnell, Kelly; Callahan, Hilary.
P21014	UNPAK-ing Sources of Phenotypic Variation in <i>Arabidopsis thaliana</i>
98	Lake, Karoline; Winship, Grace; Flynn, Leah; Hanslits, Katherine; McCorkle, Julianna; Pantalena, Madeline; Wan, Jeffrey; Peng, Hsuan; Gomez, Lu; O'Donnell, Kelly; Callahan, Hilary.
P21015	UNPAK-ing Sources of Phenotypic Variation in <i>Arabidopsis thaliana</i>
99	Lake, Karoline; Winship, Grace; Flynn, Leah; Hanslits, Katherine; Callahan, Hilary; Pantalena, Madeline; Wan, Jeffrey; Peng, Hsuan; Gomez, Lu; O'Donnell, Kelly; McCorkle, Julianna.
P21016	Adaptation to extreme environmental conditions impacts energy metabolism in a livebearing fish (<i>Poecilia mexicana</i> , Poeciliidae)
100	Keith, Cierra; Dumas, Tess; Tobler, Michael.
P21017	Reducing Systematic Error by Limiting Phylogenetic Inference to Clock-like Genes
101	Young, Randee; Doyle, Vinson; Naylor, Gavin, J.P.; Brown, Jeremy.
P21018	The Effects of the Pheromone 4-8 dimethyl decanal (4-8 DMD) on Sexual Selection in <i>Tribolium castaneum</i>
102	Hatton, Domonique; McDonald, Tenecia; Pai, Aditit.
P21019	Patterns of Gene Flow and Reproductive Isolation in closely related species of mushroom-feeding <i>Drosophila</i>
103	Humphreys, Devon Paul; Dyer, Kelly.
P21020	A genetic and morphological approach to resolving taxonomic confusion in the freshwater fish species of the <i>Poeciliopsis gracilis</i> complex
104	Rodriguez, Victoria; Palacios, Maura; Voelker, Gary; Conway, Kevin.
P21021	Simulative models propose possible mechanisms of purging of genetic load in a metapopulation
105	Cole, Nena Kristine; Cruzan, Mitch.
P21022	Total Sexual Selection on Male Voices
106	Bundy, Jason; Puts, David.
P21023	Genome Evolutionary Dynamics in Squamate reptiles: A Comparative Analysis of Repetitive Elements in the Squamate Lineage
107	Drzich, Laura; Castoe, Todd.

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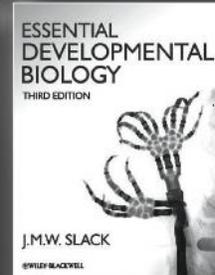
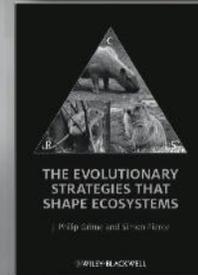
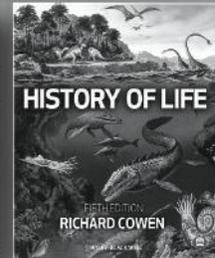
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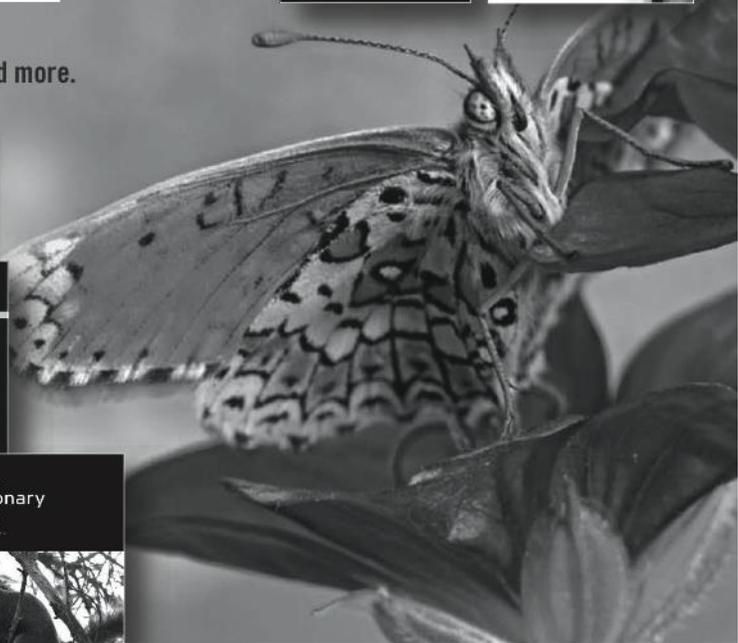
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Monday June 24, 8:30 – 10:00 AM

Contributed Talks

Time	Alpine A & B	Alpine C	Cottonwood A
Session	Informatics	Education and Outreach I	Phenotypic Plasticity I
8:30	Analyzing and synthesizing the tree of life using graphs Smith, Stephen A; Brown, Joseph; Hinchliff, Cody.	Communicating Human Evolution Johnson, Norman; Smith, James; Mead, Louise.	Clinal Patterns of Phenotypic Plasticity for Two Species of <i>Drosophila</i> O'Brien, Katherine; Schmidt, Paul.
8:45	Trials and tribulations of mitochondrial genome assembly using next-generation sequencing data: differences among four bioinformatic workflows Sarver, Brice A. J.; Hunter, Samuel S.; Settles, Matthew L..	Unifying approaches in the Evolutionary Sciences gontier, nathalie; pombo, olga.	Interactions between behavior and developmental plasticity: how caterpillars stay cool Nielsen, Matthew; Papaj, Daniel.
9:00	A General Bayesian Approach for Fitting Evolutionary Models to Data: Nesting Simulations within an MCMC Algorithm Gilchrist, Michael; Hewgley, W. P.; Jian, Huang; Zaretski, Russell.	Teaching Evolution: Can We Change Their Minds? Ogden, T. Heath; Holt, Emily; Mortimer, Tanner; Vance, Joshua.	Developmental plasticity and maternal effects drive population and community dynamics in a flour beetle system Van Allen, Benjamin; Rudolf, Volker.
9:15	Efficient parallelization of the maximum-likelihood phylogenetic inference with the non-homogeneous substitution model Ishikawa, Sohta; Inagaki, Yuji; Hashimoto, Testuo; Sato, Mitsuhsa.	FIRST IV postdocs become faculty: does learner-centered teaching persist? Maher, Jessica Middlemis; Arnold, Bryan; Derting, Terry; Ebert-May, Diane.	Conditional expression of MHC class I dependent on bacterial infection and parental factors in whitefish embryos Wilkins, Laetitia; Clark, Emily; Wedekind, Claus.
9:30	A New Approach to Targeted Next Generation Sequence Assembly using ARC: Assembly by Reduced Complexity Settles, Matt; Sarver, Brice A. J.; Hardwick, Kayla Michelle; Zhbannikov, Ilya; Hunter, Sam.	The Unifying Theory of Biology: New Tools for Weaving Evolutionary Concepts Throughout an Introductory Biology Course Young, Calvin.	The Role of Phenotypic Plasticity in Colonizing Novel Environments Herrera, Freddy; Lacey, Elizabeth P..
9:45	Open	Open	Plasticity of cerebral lateralization in the Trinidadian guppy Broder, E Dale; Angeloni, LM.

Monday June 24, 8:30 – 10:00 AM			Contributed Talks
Time	Cottonwood B	Cottonwood C	Cottonwood D
Session	Species Interaction and Coevolution I	Speciation IV	Evolutionary Genetics/Genomics VIII
8:30	On patterns of coevolution across cophylogenies Merilo, Mark T; Adamowicz, Sarah J; Ali, R Ayesha.	Intraspecific variation for hybrid sterility QTL in Solanum Moyle, Leonie; Sherman, Natasha A.	Evolution of the olfactory receptor subgenome in New World vultures. Kimball, Rebecca T; Wright, Joni; Braun, Edward; Burleigh, J. Gordon.
8:45	The geographic mosaic of sex and infection at multiple spatial scales Vergara, Daniela; Lively, Curt; King, Kayla Christina; Jokela, Jukka.	Genetic architecture of isolation between two species of <i>Silene</i> with sex chromosomes and Haldane's rule Delph, Lynda; Demuth, Jeffery.	Rapid adaptation and the dynamic structure of the threespine stickleback genome Nelson, Thomas C; Catchen, Julian; Bassham, Susan; Cresko, William.
9:00	The evolution of mutation rate in an antagonistic co-evolutionary model with maternal transmission of parasites Greenspoon, Philip Benjamin; M'Gonigle, Leithen.	Endless forms most beautiful: population processes and the origin of diversity in <i>Begonia</i> Twyford, Alex; Kidner, Catherine; Ennos, Richard.	Genetic evidence for mosaic brain evolution in mammals Hager, Reinmar; Lu, Lu; Rosen, Glen D.; Williams, Robert W.
9:15	Increased costs of asymmetric, multi-player mutualisms: is outweighing costs with benefits the answer? Lee, Caitlin E.; Cruzan, Mitchell.	Speciation and introgression in a <i>Mimulus</i> species pair Brandvain, Yaniv; Kenney, Amanda; Flagel, Lex; Coop, Graham; Sweigart, Andrea.	Shake, rattle and evolve. Genomic architecture facilitates rapid adaptation of threespine stickleback on seismically uplifted islands Cresko, William; Bassham, Susan; Catchen, Julian; Lescak, Emily; von Hippel, Frank.
9:30	Coevolution and Mullerian mimicry in <i>Heliconius</i> butterflies: new evidence from co-phylogeny, divergence dating and phylogeography Hoyal Cuthill, Jennifer; Charleston, Michael.	Do shifts in mating system contribute to reproductive isolation in <i>S. habrochaites</i> Randle, April; Bedinger, Patricia; Tovar-Mendez, Alejandro; Petersen, Jennifer.	Transcriptomic insights into tissue-specific patterns in gene expression and the evolution of the placenta in the Poeciliid fish, <i>Poeciliopsis prolifica</i> Jue, Nathaniel; Oberfell, Craig; Foley, Rob; O'Neill, Rachel; O'Neill, Michael.
9:45	Uncharted territory in the pea aphid-defensive symbiont system: superinfections and strain diversity Russell, Jacob; Smith, Andrew; Oliver, Kerry.	Mechanisms of extreme divergent natural selection at an <i>Encelia</i> hybrid zone DiVittorio, Christopher.	Transcriptomic analysis of the evolution of viviparity and placental function in lizards BRANDLEY, MATTHEW; GRIFFITH, OLIVER; THOMPSON, MICHAEL.

Time	Peruvian A	Rendezvous B
Session	Conservation and Restoration Biology I	Systematics and Inferred Phylogenies II
8:30	Exploring the causes of narrow endemism in two imperiled Florida sunflowers: a combined population genetics and niche modeling approach Mason, Chase; Ishibashi, Caitlin; Donovan, Lisa.	Simultaneous Multilocus Species Tree Inference and Species Delimitation Demonstrated Within the Western Rattlesnake (<i>Crotalus viridis</i>) Species Complex Goldenberg, Julianne; Reeder, Tod.
8:45	Life in fragmented prairies: How many females? Byers, Diane L; Pink, Raechel.	The Boa and Python Tree of Life Reynolds, Robert Graham; et. al.
9:00	Life in fragmented prairies: Drift, inbreeding, and sex ratios Meagher, Thomas R; Byers, Diane L.	Phylogenetic relationships of the enigmatic longtailed rattlesnakes (<i>Crotalus ericsmithi</i> , <i>C. lannomi</i> , and <i>C. stejnegeri</i>) Reyes-Velasco, Jacobo ; Meik, Jesse; et. al.
9:15	Effects of a Severe Bottleneck and Fragmentation in Captive-Bred and Wild Populations of Endangered Hawaiian Tree Snails <i>Achatinella lila</i> and <i>Achatinella sowerbyana</i> Price, Melissa; Hadfield, Michael.	The inference of basal snake phylogenetic relationships: The importance of combining molecular, morphological, and fossil data Harrington, Sean.
9:30	Using systematic relationships and signatures of biogeographic history to inform conservation Malaney, Jason.	Identifying the phylogenetic limits of genome-wide SNP data: an empirical example using phrynosomatid lizards. Leaché, Adam; Nieto Montes de Oca, Adrián.
9:45	Open	Species Boundaries, Cryptic Diversity, and Historical Biogeography of the <i>Varanus salvator</i> Complex Welton, Luke; Siler, Cameron; Oaks, Jamie; et. al

Monday June 24, 8:30 – 10:00 AM	Lightning Talks	Session I
Time	Superior A	
8:30	Genomics, recombination, and population structure inference Beerli, Peter.	
8:35	Phylogeography and conservation genetics of black mangroves (<i>Avicennia germinans</i>) in Florida Hodel, Richard; Soltis, Pamela; Soltis, Douglas.	
8:40	Phylogeny, phylogeography and diversification patterns in <i>Liolaemus lineomaculatus</i> section (<i>Iguania</i> : <i>Squamata</i> : <i>Liolaemini</i>) from austral South America (Patagonia) Breitman, Maria Florencia; Avila, Luciano J.; Sites, Jack W.; Morando, Mariana.	
8:45	spedeSTEM 2.0: New, improved & more fun than ever! Carstens, Bryan.	
8:50	Using computer simulations to explore the population genetic consequences of increasing landscape-scale disturbance frequency Phillipsen, Ivan C; Lytle, David A..	
8:55	Simulated historical demographic scenarios of an Atlantic Forest endemic passerine bird Fazza, Ana Cristina; Hickerson, Michael; Miyaki, Cristina Y..	
9:00	<i>Strophurus</i> (Gekkota; Diplodactylidae) - into the trees, again? Speciation and dispersal in response to Australian aridification. Nielsen, Stuart; Oliver, Paul; Bauer, Aaron; Lee, Mike; Noonan, Brice.	
9:05	Parsing Polyphyletic <i>Pueraria</i> : Delimiting Distinct Evolutionary Lineages Through Phylogeny Egan, Ashley N.; Cagle, William.	
9:10	Mitochondrial Introgression and the Perils of DNA Barcoding Halas, Dominik.	
9:15	Multiple origins of introduced Puerto Rican Bank frogs in St. Croix and Panama Barker, Brittany.	
9:20	A biogeographical perspective on the extent of the subtropics Bilski, Diego R.	
9:25	The Use of Molecular-based Data as an Emergent Approach in Ecological and Evolutionary Studies in Brazilian Herpetofauna: a Phylogeographic Essay De Mello, Rodrigo ; Magalhães, Rafael Félix; Gomides, Samuel Campos; Gontijo, Lucas.	
9:30	Evolution and populationgenomics of the Boa constrictor, and comparisons between island and mainland population pairs Card, Daren; Proctor, Nicole; Shaney, Kyle; Schield, Drew; Booth, Warren; Boback, Scott; Castoe, Todd.	
9:35	Using genome-wide SNPs to test mtDNA-based hypotheses of gene flow and population structure in Western Diamondback Rattlesnakes (<i>Crotalus atrox</i>) Schield, Drew; Proctor, Frances N.; Shaney, Kyle J. ; Reyes-Velasco, Jacobo; Card, Daren; Mackessy, Stephen P. ; Castoe, Todd A..	
9:40	Comparative phylogeography of Central American freshwater fishes Bagley, Justin C; Johnson, Jerald B..	
9:45	Higher density SNP mapping in Chinook salmon allows broad and fine-scale resolution of population differentiation Meek, Mariah; Baerwald, Melinda; Stephens, Molly; Goodbla, Alisha; Miller, Mike; Tomalty, Kat; May, Bernie.	
9:50	Diversification and gene flow in island and mainland <i>Tamiasciurus</i> spp. – unraveling the mystery of Vancouver Island’s squirrels Chavez, Andreas S; Maher, Sean; Arbogast, Brian; Kenagy, Jim.	
9:55	Where and when do plasticity and genetic adaptability promote persistence? Integrating genomics and phenomics in <i>Pelargonium</i> to understand trait evolution under environmental change Chong, Caroline; Schlichting, Carl; Jones, Cynthia; Nicotra, Adrienne; Borevitz, Justin.	

Time	Superior B
8:30	Reproductive isolation between <i>Mimulus guttatus</i> and <i>M. glaucescens</i> Ivey, Christopher; Habecker, Nicole; Bergmann, Jean-Phillippe.
8:35	Polymorphism in the couch potato gene mediates life history plasticity in <i>Drosophila melanogaster</i> O'Brien, Katherine; Schmidt, Paul.
8:40	Phenotypic and Genetic Trade-Offs Between Flowering and Vegetative Growth in <i>Mimulus guttatus</i> Friedman, Jannice; Twyford, Alex; Willis, John; Blackman, Benjamin.
8:45	Using function-valued trait approaches to analyze the response to domestication selection. Robison, Barrie D.; Gomulkiewicz, Richard; Singer, Matthew; St. John, Elizabeth.
8:50	Skin Hydrocarbons, calling intensity and mate choice between the field crickets <i>Gryllus firmus</i> and <i>G. pennsylvanicus</i> Maroja, Luana S.
8:55	Patterns of gene expression variation in <i>Arabidopsis thaliana</i> as revealed by allele-specific transcriptome sequencing Greenhalgh, Robert; Clark, Richard M..
9:00	The younger games: flies compete for oviposition sites that benefit their young Borchert, Jason; Angilletta, Michael.
9:05	On the findability of genotypes McCandlish, David.
9:10	Seasonal and temporal immune adaptations in wild <i>Drosophila</i> Behrman, Emily; Howick, Virginia; Lazzaro, Brian; Schmidt, Paul.
9:15	Can brief exposure to a predator induce persistent personality shifts in livebearing fishes from different predation environments? Rehm, Jeremy; Ingley, Spencer; Johnson, Jerald B..
9:20	Inferring demography and selection in East African <i>Anopheles gambiae</i> , using genome-wide SNPs from RADseq. O'Loughlin, Samantha; Burt, Austin.
9:25	The evolution of aposematic traits in a Batesian mimicry system Kraemer, Andrew; Adams, Dean; Serb, Jeanne.
9:30	<i>Arabidopsis</i> intraspecific variation affects fitness of a generalist mite herbivore Kurlovs, Andre.
9:35	Phenotypic Plasticity vs. Local Adaptation in <i>Drosophila</i> . Austin, Christopher; Moehring, Amanda.
9:40	Petal color polymorphisms across the Brassicaceae: from insect vision to gene expression. Narbona, Eduardo; Dick, Cynthia A; Carlson, Matthew L; Kliebenstein, Daniel J; Whittall, Justen B.
9:45	What maintains the yellow/white flower color polymorphism in <i>Leavenworthia stylosa</i> ? Herlihy, Chris.
9:50	Do females prefer dominant males without seeing the outcome of dominance interactions? A surprising result suggesting eye lateralization in the fish <i>Poecilia gillii</i> McEntire, Michael; Johnson, Jerald B..
9:55	Mating preferences and cuticular chemistry in Malagasy dung beetles Chernenko, Anton.

Monday June 24, 10:30 AM – 12:00 PM		Contributed Talks	Sessions 1 – 3
Time	Alpine A & B	Alpine C	Cottonwood A
Session	Molecular Evolution and Phylogenetics	Education and Outreach II	Phenotypic Plasticity II
10:30	The evolution of horizontal gene transfer in <i>Aeromonas</i> Brokaw, Joshua Michael; Huddleston, Jennifer R.; Zak, John C.; Jeter, Randall M..	The Partnership for Undergraduate Life Science Education (PULSE): Activities in Support of Vision and Change Recommendations at the Department Level and Above Romano, Sandra.	Gene duplication and the evolution of environmental sensitivity Donohue, Kathleen.
10:45	Dynamics of Alternative Pathways to Compensatory Substitution Nasrallah, Chris.	Authentic Inquiry in Organismal Biology Using the Animal Diversity Web Dewey, Tanya; Myers, Phil; Espinosa, Roger; et. al.	Assimilate this! Experimental evolution of phenotypic plasticity under heat stress in the nematode <i>Caenorhabditis remanei</i> Sikkink, Kristin; Reynolds, Rose; Ituarte, Catherine; et. al.
11:00	Estimating evolutionary parameters and haplotypes simultaneously using short-read sequences derived from genetically variable populations Wu, Steven; Sukumaran, Jeet; Rodrigo, Allen.	Teaching and Learning with Digital Evolution Software: Linking Implementation to Student Assessment Outcomes Lark, Amy; Johnson, Wendy; Mead, Louise; Smith, James; Richmond, Gail; Pennock, Robert T..	Another reason to grow big in the cold? Reproductive allometry explains the temperature-size rule in a Physid snail Arendt, Jeffrey.
11:15	Fast selection of multi-gene models of molecular evolution Darriba, Diego; Taboada, Guillermo; Doallo, Ramon; Posada, David.	Using Mobile Technology and Real Data to Teach Evolution and Ecology to Secondary School Students Seiter, Sarah; Wyner, Yael.	Relaxed Genetic Constraint is Ancestral to the Evolution of Phenotypic Plasticity Pfennig, David; Leichthy, Aaron; Jones, Corbin; Pfennig, Karin.
11:30	Evolutionary analyses using reconstructed haplotypes from next-generation sequencing of mixed samples: an evaluation of current programs Ding, Yuantong; Wu, Steven; Sukumaran, Jeet; et. al.	A simulation-based approach to teaching population genetics: The R Programming Language as a teaching platform Cochrane, Bruce.	Development of Fear: Effects of an intraguild predator on phenotypic plasticity in the threespine stickleback (<i>Gasterosteus aculeatus</i>) Miller, Sara E; Schluter, Dolph.
11:45	Open	Open	Evolution of the extended phenotype in plants: co-influences of plant and microenvironment. Tonsor, Stephen J; Wolfe, Marnin; Zhang, Nana.

Monday June 24, 10:30 AM – 12:00 PM		Contributed Talks	Sessions 4 – 6
Time	Cottonwood B	Cottonwood C	Cottonwood D
Session	Species Interactions and Coevolution II	Speciation V	Evolutionary Genetics/Genomics IX
10:30	Symbiotic variation across the ants: patterns, causes, and implications Russell, Jacob; Hu, Yi; Lukasik, Piotr; Moreau, Corrie.	Comparing contributions to reproductive isolation for intact and collapsed stickleback species pairs Lackey, Alycia; Boughman, Jenny.	Understanding the impact of Helitrons on the genome architecture and transcriptome of little brown bat Thomas, Jainy; Philips, Caleb; Baker, Robert; Pritham, Ellen.
10:45	Molecular Analysis of Wolbachia Invasions in <i>Drosophila simulans</i> Xu, Chenling.	Qualitative changes in mate-attracting calls and shifts in female preferences: immediate effects of polyploidy per se in <i>Hyla chrysoscelis</i> treefrogs. Tucker, Mitch; Gerhardt, H. Carl.	Evolutionary genomics of adaptation in a thermophilic cyanobacterium Miller, Scott; Wall, Chris.
11:00	Partner Associations within an Environmentally-Acquired Insect-Bacteria Symbiosis Garcia, Justine; Laughton, Alice; Malik, Zayir; Parker, Benjamin; Trincot, Claire; Chiang, Stephanie; Chung, Euisun; Gerardo, Nicole.	Interspecific variation in male genital morphology has multiple reproductive consequences in <i>Drosophila</i> Frazee, Stephen R.; Masly, John P..	The evolution of genomic architecture: exploring the origins of an adaptive wing pattern supergene in <i>Heliconius</i> butterflies Huber, Barbara; Whibley, Annabel; Le Poul, Yann; Baxter, Simon; Wirth, Thierry; Joron, Mathieu.
11:15	Partner Associations within an Environmentally-Acquired Insect-Bacteria Symbiosis Garcia, Justine; Laughton, Alice; Malik, Zayir; Parker, Benjamin James; Trincot, Claire; Chiang, Stephanie; Chung, Euisun; Gerardo, Nicole.	Divergent spectral sensitivities between marine and freshwater threespined stickleback Veen, Thor; Rennison, Diana; Owens, Gregory; Schluter, Dolph.	Adaptation to seasonality in <i>Drosophila</i> Schmidt, Paul.
11:30	The diversity and evolution of symbiotic bacteria of the New World army ants (Formicidae: Ecitoninae) Lukasik, Piotr; Kronauer, Daniel; Hu, Yi; Moreau, Corrie; O'Donnell, Sean; Russell, Jacob.	Identifying the genetic basis of Ballerini, Evangeline S.; Derieg, Nathan; Filiault, Daniele; Nordborg, Magnus; Hodges, Scott.	Some Like It Hot: The Role of the Tumor Necrosis Factor Receptor In Heat Stressed Corals Traylor-Knowles, Nikki; Palumbi, Stephen.
11:45	A likelihood framework for combining selective models for the evolution of color polymorphism Kraemer, Andrew; Serb, Jeanne; Adams, Dean.	Open	Why can't beetles grow bigger? Evolutionary constraints limit response to selection for larger larvae Irwin, Kristen; Carter, Patrick A..

Time	Peruvian A	Peruvian B	Rendezvous A
Session	Conservation and Restoration Biology II	Phylogeography II	Genetics of Adaptation II
10:30	Genetic drift outweighs natural selection at toll-like receptor (TLR) immunity genes in a reintroduced population of a threatened species Grueber, Catherine; Wallis, Graham; Jamieson, Ian.	The phylogeographic power of sex at the species-level boundary Vazquez Miranda, Hernan.	Mechanisms and consequences of adaptation to an extreme geothermal environment in monkeyflowers Fishman, Lila.
10:45	Phylogeography and conservation of the salamander <i>Plethodon serratus</i> across four isolated regions of the southeastern US Newman, Catherine; Austin, Christopher.	Island-like divergence on Florida's sand ridges - the case of a trap-jaw ant Sorger, Daniela Magdalena.	Next generation analysis of the genetic basis of adaptation to soil aluminum in a wild grass at local and regional scales. Gould, Billie; McCouch, Susan; Geber, Monica.
11:00	Origins of Low-elevation Red Foxes in the American West Volkman, Logan; Statham, Mark; Sacks, Ben; Mooers, Arne.	Multilocus Phylogeography of <i>Thylamys</i> Mouse Opossums from the Southern Andes Giarla, Thomas; Jansa, Sharon.	Genome-wide association study in <i>Arabidopsis thaliana</i> of seed oil melting point, a widespread adaptive trait in plants Pelc, Sandra E; Reba, A.; Wright, Sara J.; Linder, C. Randal.
11:15	Comparing four species delimitation methods applied to a DNA barcode data set of insect larvae for use in routine bioassessment White, Bryan; Pilgrim, Erik; Boykin, Laura; Stein, Eric; Mazor, Raphael.	Molecular phylogenetics and morphometrics reveal cryptic diversity in Speckled Dace (<i>Rhinichthys osculus</i>) from Oregon's Great Basin region. Hoekzema, Kendra; Sidlauskas, Brian.	Range-wide differentiation in wild sunflower: Single nucleotide polymorphisms and common garden phenotypes McAssey, Edward; Burke, John.
11:30	Open	Three routes to cryptic species: stasis, parallelism and convergence in <i>Mastigias</i> jellyfish Swift, Holly; Gomez-Daglio, Liza; Dawson, Michael N.	Genetic differentiation of locally adapted <i>Arabidopsis</i> populations at drought-response quantitative trait loci. Mojica, Julius; McKay, John.
11:45	Open	Living on a volcano's edge: Genetic isolation of an extremophile terrestrial metazoan Cunha, Luis; Montiel, R; Novo, M; Orozco-terWengel, P; Rodrigues, A; Morgan, AJ; Kille, P.	Parallel gene breakdown in <i>Penstemon</i> Wessinger, Carolyn; Rausher, Mark D.

Monday June 24, 10:30 AM – 12:00 PM

Contributed Talks

Time	Rendezvous B
Session	Systematics and Inferred Phylogenies III
10:30	Plastome phylogenetics of <i>Populus</i> reveals unexpectedly deep divergence between sister species Huang, Daisie; Cronk, Quentin.
10:45	Strawberry (<i>Fragaria</i>) phylogenomics: Establishing the framework to detect polyploid speciation Syring, John; Liston, Aaron; Cronn, Richard; Rosenberg, Noah.
11:00	Macroalgal Flora of the Bermuda Islands: Cryptic Diversity, Morphological Plasticity and Novel Species Popolizio, Thea; Schneider, Craig; Lane, Christopher.
11:15	Coalescent-based species delimitation in a recently diverged lineage: a case study using multiple methods Jacobs, Sarah; Kristofferson, Casey; Uribe-Convers, Simon; Tank, David.
11:30	Outcome-based selection of novel oomycete phylogenetic markers from genome sequences Spies, Chris; Rodrigue, Nicolas; Adhikari, Bishwo; Hamilton, John; Buell, Robin; Borhan, Hossein; Links, Matthew; Tisserat, Ned; Levesque, Andre.
11:45	Moving toward a systematic revision of the genus <i>Symbiodinium</i> , the intracellular symbiont of corals Parkinson, John; Coffroth, Mary Alice; Baums, Iliana; LaJeunesse, Todd.

Monday June 24, 8:15 AM - 12:00 PM

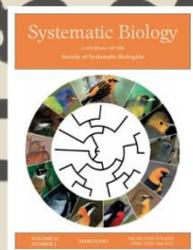
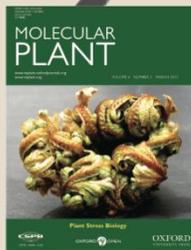
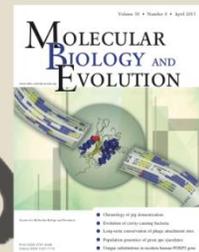
Symposium

Time	Ballroom 1
Symposium	SSE Symposium: The role of field expeditions in modern evolutionary biology
8:15	Symposium Introduction: The status of field expeditions in the era of next-generation Bayesianomics Edwards, Scott
8:30	Expeditionary Science in Deep Time: Motor for Paradigm Change Sereno, Paul.
9:00	Exploring the pelagic abyss Osborn, Karen.
9:30	Evo-devo to Everest: travels with the trilobite time lords Hughes, Nigel.
10:00	Break
10:30	On the value of comprehensive collecting: <i>Viburnum</i> evolution turned upside down Donoghue, Michael .
11:00	Climate and life history influence ancestral population dynamics of Patagonian fishes Ruzzante, Daniel.
11:30	Looking for Life in Antarctica's Hidden Subglacial Lakes Mikucki, Jill.

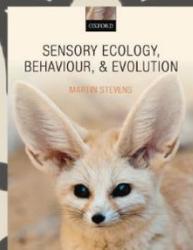
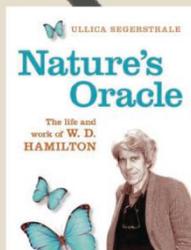
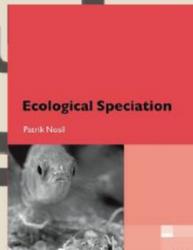
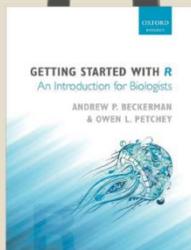
Monday June 24, 10:30 AM – 12:00 PM		Lightning Talks	Session IV
Time	Superior A		
10:30	A panacea for peer review? Vines, Timothy.		
10:35	Genome-wide estimates of transposable element transposition and deletion rates in <i>Drosophila melanogaster</i> Song, Michael; Schridder, Daniel; Hahn, Matthew; Schaack, Sarah.		
10:40	Gene expression in Burmese pythons sheds light on the evolution of venom gene families Shaney, Kyle; Schield, Drew; Card, Daren; Reyes-Velasco, Jacobo; Mackessy, Stephen P. ; Castoe, Todd A..		
10:45	Illuminating dark matter in vertebrate genomes using P-clouds for repeat discovery Ruggiero, Robert; Todd, Castoe; Kathryn, Hall; Jaime , Morano; David, Pollock.		
10:50	Whole genome sequence analysis of the speckled rattlesnake (<i>Crotalus mitchelli</i>): a foundation for exploring the evolution of dramatic body size variation over short temporal and spatial scales Dashevsky, Daniel; Meik, Jesse; Castoe, Todd; Schaack, Sarah.		
10:55	The role of epigenetic regulation in rainbow trout migration using large-scale DNA methylation profiling Baerwald, Melinda; Meek, Mariah; Nagarajan, Raman; Stephens, Molly; Goodbla, Alisha; Tomalty, Kat; Nichols, Krista; May, Bernie.		
11:00	Evolution of Sea Anemone Mitogenomes revealed by Next-Generation Pyrosequencing Foux, Jonathan; Brugler, Mercer R.; Rodriguez, Estefania.		
11:05	Exploring drivers of South African floral diversity: Is polyploidy a key driver of speciation in <i>Helichrysum</i> 's taxonomic Group 4? Glennon, Kelsey; Cron, Glynis.		
11:10	The joys of gene duplication: Evolution of diversity in Chilean monkeyflowers Cooley, Arielle.		
11:15	Differences in size at birth provide a systematic basis for isolation asymmetry between populations of a placental fish Schrader, Matthew; Fuller, Rebecca; Travis, Joseph.		
11:20	Employing GC-MS and two-stage derivitization to assay for cathine and related alkaloids throughout the Celastraceae Tembrock, Luke; Broeckling, Corey; Heuberger, Adam; Simmons, Mark; Stermitz, Frank; Uvarov, Jessica.		
11:25	Expression of a DNA photorepair gene in <i>Daphnia</i> populations from different UV environments Kulling, Paige M; Hairston, Nelson G; Miner, Brooks E..		
11:30	Transcriptional profiling to assess Chinook salmon adaptation to thermal stress in the southern edge of the species range Tomalty, Kat; Meek, Mariah; Stephens, Molly; Fanguie, Nann; May, Bernie; Baerwald, Melinda.		
11:35	Systematic scan for bet-hedging in expression levels across the yeast proteome Fisher, Julius; Morales, Christopher; Waldron, John; Wong, Judy; Bandaralage, Kash; Carey, Lucas; Rest, Joshua.		
11:40	Transcriptome profiling of abdominal appendages in the fly <i>Themira biloba</i> Dacotah, Melicher; Bowsher, Julia.		
11:45	Recessive mutations slow selective sweeps Assaf, Zoe June; Petrov, Dmitri.		
11:50	Phylogenetic analysis of the emergence and epidemiological impact of transmissible defective dengue viruses Ke, Ruian; Aaskov, John; Holmes, Edward; Lloyd-Smith, James O..		
11:55	Evolving Wallpaper: Art and Experimental Evolution Settles, Natalie; Tonsor, Stephen.		

Monday June 24, 10:30 AM – 12:00 PM		Lightning Talks	Session III
Time	Superior B		
10:30	Model selection on the Cloud Santorum, Jose Manuel; Trillo, Marco; Darriba, Diego; Expósito, Roberto R; Taboada, Guillermo; Posada, David.		
10:35	PartitionFinder: finding good models of molecular evolution for phylogenetics Lanfear, Robert.		
10:40	The strange behavior of long branch taxa when constrained or removed from analyses Grant, Jessica; Katz, Laura A.		
10:45	Global Genome Initiative: Capturing and Preserving the Genomic Diversity of Life Brady, Sean; Barker, Katie; Richards, Stephen; Meyer, Chris; Coddington, Jonathan.		
10:50	How to quantify the magnitude and significance of convergent evolution Stayton, C. Tristan.		
10:55	Evolution of the insect wing shape: drift and selection in the hornet <i>Vespa velutina</i> (Hymenoptera) Perrard, Adrien; Debat, Vincent; Muller, Franck; Rome, Quentin; Carpenter, James M.; Baylac, Michel; Villemant, Claire.		
11:00	Geometric morphometrics for analysis of any type of symmetry: Methods and biological applications Savriama, Yoland; Klingenberg, Christian Peter; Neustupa, Jiří; Gómez, José María; Francisco, Perfectti.		
11:05	Multi-Dimensional Optimization - A Mathematic Model For Evolution Leng, Xuguang.		
11:10	The Importance of Non-random Encounters In Species Interactions Ridenhour, Ben; Nuismer, Scott.		
11:15	Coevolution and the architecture of mutualistic networks Nuismer, Scott; Bascompte, Jordi; Jordano, Pedro.		
11:20	Symbiote transmission and maintenance of extra-genomic associations Fitzpatrick, Benjamin M..		
11:25	Identifying the molecular basis of coevolution: merging models and mechanisms Dybdahl, Mark; Jenkins, Christina; Nuismer, Scott.		
11:30	SnakeGut Microbial Communities: Ecological and Evolutionary Implications Colston, Tim; Jackson, Colin; Noonan, Brice.		
11:35	Investigating genomes of scale insect endosymbionts Gruwell, Matthew E.; Beach-letendre, Joshua.		
11:40	The relationship between parasite fitness and host resource availability Tseng, Michelle; Myers, Judith H..		
11:45	The evolution of fairness through spite Forber, Patrick; Smead, Rory.		
11:50	Reol: R Interface to the Encyclopedia of Life Banbury, Barb L; O'Meara, Brian C..		
11:55	Tropical mosquitoes and adaptation to dry environments: opportunities for engineering extinction Williams, Craig.		

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Event Tent	
P33001	Adaptive shifts in time and resources from vegetative to reproductive structures across a climate gradient in <i>Arabidopsis thaliana</i>
1	Wolfe, Marnin; Tonsor, Stephen.
P33002	Many transitions breeds many traditions: Diversity in adaptation to zooplanktivory in reef fishes.
2	Fuller, Patrick; Wainwright, Peter.
P33003	Phylogenetic comparative analysis of milkweed floral traits: patterns of evolution across the genus <i>Asclepias</i>
3	La Rosa, Raffica; Conner, Jeffrey K; Fishbein, Mark.
P33004	How does Phenology and Seed Production of Big Bluestem (<i>Andropogon gerardii</i>) Ecotypes Vary Across the Great Plains Climate Gradient? A Reciprocal Garden Approach
4	Galliard, Matt; Sabates, Sofia; Johnson, Loretta C; Harrison, Chadd; Baer, Sara; Wilson, Laurel; Gibson, David; Maricle, Brian; Caudle, Keri.
P329001	Evolution on continental and oceanic islands in the Aegean Archipelago: insights from the <i>Roucela</i> clade (Campanulaceae, Bellflowers)
5	Crowl, Andrew; Wu, Hsin-Hui; Nhon, Linda; Mansion, Guilhem; Hand, Ralf; Cellinese, Nico.
P329002	Meta-analysis of species-level phylogenies provides insight into biogeographical context of Amazonian speciation
6	Romar, George; Solomon, Scott E..
P329003	Convergent treefrog phenotypes in similar Brazilian savanna habitats
7	Vasconcellos, Mariana Mira; Colli, Guarino; Cannatella, David.
P329004	Integrative Taxonomy in southern Patagonia: niche models, phylogeography and morphological variation in four species of <i>Liolaemus</i> lizards (<i>Liolaemini</i>)
8	Breitman, Maria Florencia; Bonino, Marcelo F.; Sites, Jack W.; Avila, Luciano J.; Morando, Mariana.
P322001	Monitoring spawning activity in a Southern California MPA using DNA barcoding and molecular identification of fish eggs
9	Harada, Alice; Lindgren, Elise; Burton, Ron.
P322002	Mitochondrial sequence variation in American crocodile, <i>Crocodylus acutus</i> , populations in Pacific Costa Rica
10	Mauger, Laurie; Spotila, James.
P322003	The Design and Implementation of Eco-Evolutionary PVA Models: An Integrative Approach Using HexSim
11	Nathan, Schumaker H; Trotter, Meredith; Brookes, Allan; Day, Jennifer M.W..
P324001	Integrated Phenotypes: Ecological genetics of belowground structures in <i>Arabidopsis thaliana</i>
12	Murren, Courtney J; Kohler, Clare; Matthews, Anna.
P324002	High-throughput sequencing as a tool for pollen identification
13	Espindola, Anahi; Settles, Matt; Jones, John; Sullivan, Jack.
P324003	Genetic Diversity of Honey Bee Populations in Turkey Based on Microsatellite Markers in Migratory versus Stationary Colonies
14	kükrcer, mert; kence, meral; kence, aykut.
P324004	A novel approach to develop an <i>Arabidopsis thaliana</i> mapping population for high resolution quantitative trait analysis
15	Sahraie, Dustin; Yuan, Wei; Purugganan, Michael.
P324005	Genomic comparisons of environmentally diverse symbiotic <i>Vibrio fischeri</i>
16	Howard, Jamie; Williams, Becky; Breen, Michael; Nishiguchi, Michele.
P324006	Broad range of genetic variability among invasive copepod species in San Francisco Estuary
17	Cohen, C. Sarah; Craig, Carrie; Perry, Erica; Miller-Sims, Vanessa; Alves, Catherine; Kimmerer, Wim.
P32001	Evolutionary Theory vs. Religious Doctrine: A case study demonstrating that misconceptions about religious doctrines may be limiting student engagement towards evolution.
18	Manwaring, Katie; Bybee, Seth; Jensen, Jamie.

Event Tent	
P32002	Using average H-index scores as a general way of comparing research productivity of tenured and non-tenured faculty in Biology departments in selected groups of colleges and universities in the United States. 19 Marshall, Jonathon C.; Lomiiko, Gideon Lawi.
P32003	Misconceptions in Tree Thinking Among Biology Undergraduates 20 Kummer, Tyler; Jensen, Jamie.
P32004	EvoGrader: A free, online assessment tool for evaluating undergraduates' written evolutionary explanations 21 Ha, Minsu; Moharrerri, Kayhan; Nehm, Ross H..
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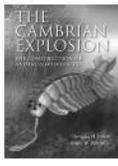


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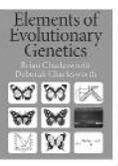
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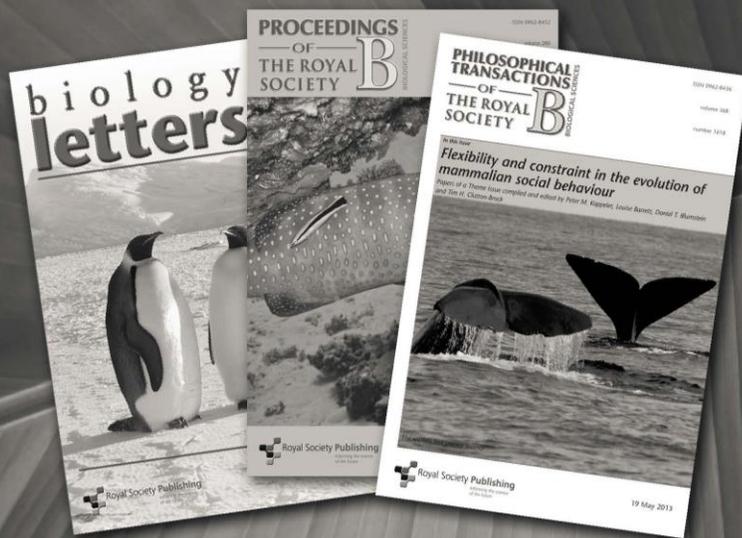
Tuesday June 25, 8:30 – 10:00 AM			Contributed Talks
Time	Alpine A & B	Alpine C	Cottonwood A
Session	Molecular Evolution I	Life History Studies I	Phylogenetic Methods/Theory V
8:30	A gain of function mutation causes a loss of floral carotenoids in multiple North American species of <i>Aquilegia</i> Derieg, Nathan; Hodges, Scott.	Reproductive aging patterns in primates reveal that humans are distinct Alberts, Susan; Altmann, Jeanne; Brockman, Diane; Cords, Marina; Fedigan, Linda; Pusey, Anne; Stoinski, Tara; Strier, Karen; Morris, William; Bronikowski, Anne.	The Signal and the Noise: The Importance of Quality over Quantity for Resolving Deep Phylogenies. Showers Corneli, Patrice.
8:45	How to make a sexy protein: structural evolution in a three-finger protein pheromone Wilburn, Damien B; Bowen, Kathleen E.; Doty, Kari A.; Arumugam, Sengodagounder; Lane, Andrew N.; Feldhoff, Pamela W.; Feldhoff, Richard C..	The decline of polygamy and resulting shifts in selection for longevity in 19th century Utah Moorad, Jacob.	Anchored Phylogenomics in the Angiosperms Mast, Austin; Buddenhagen, Christopher; Lemmon, Alan R..
9:00	The genetics of allorecognition in <i>Botryllus schlosseri</i> Nydam, Marie; De Tomaso, Anthony.	The effects of diet and mating system on reproductive and post-reproductive longevity in a freshwater snail Auld, Josh R..	How do measures of "signal" relate to patterns of traits distributed on a phylogenetic tree? Forrestel, Elisabeth J.; Donoghue, Michael .
9:15	Transcriptome analysis provides insights into the evolution of bioluminescence in cypridinid ostracod crustaceans Torres, Elizabeth; Leung, Nicole; Oakley, Todd.	Dying without wings: extrinsic mortality and lifespan in mammals and birds Cooper, Natalie; Healy, Kevin.	Testing irreversibility/Dollo's law using ancestral state reconstruction: How hard is it? Swofford, David.
9:30	The evolution of olfactory receptor genes (ORs) in orchid bees Ramirez, Santiago; Brand, Philipp; Eltz, Thomas; Leese, Florian.	Empirical evidence for the continuity of degree of parity: phenotypically plastic semelparous reproduction in <i>Lobelia inflata</i> Hughes, P. William; Simons, Andrew M..	A Draft Assembly of Phylogenomic Approaches to Next-generation Genomes Johnson, Kevin P..
9:45	Past vs. Present: How well do LD-based linkage maps reflect present-day measures of recombination? Smukowski Heil, Caiti.	Variation in current versus future reproduction and carcass utilization between populations in a burying beetle Laidlaw, Clinton Thomas; Belk, Mark; Creighton, J. Curtis.	Anchored Phylogenomics: new directions and new applications Lemmon, Emily; Lemmon, Alan R..

Tuesday June 25, 8:30 – 10:00 AM			Contributed Talks
Time	Cottonwood B	Cottonwood C	Cottonwood D
Session	Species Interactions and Coevolution III	Speciation VI	Quantitative Genetics I
8:30	Optimal Control and Cold War Dynamics between Plant and Herbivore Low, Candace; Ellner, Stephen; Holden, Matthew.	The molecular genetic basis of seasonal asynchrony of the European Corn Borer (<i>Ostrinia nubilalis</i>) Wadsworth, Crista; Dopman, Erik.	How to estimate the number of loci affecting a quantitative character Slatkin, Montgomery.
8:45	Indirect defensive traits and lineage diversification rates in plants Weber, Marjorie; Agrawal, Anurag.	Structural and expression outliers along the continuum of species formation in <i>Tigriopus californicus</i> Pereira, Ricardo J; Barreto, Felipe; Carneiro, Miguel; Pierce, N Tessa; Burton, Ron.	Sex chromosome linked genetic variance and the evolution of sexual dimorphism of quantitative traits Husby, Arild; Schielzeth, Holger; Forstmeier, Wolfgang; Gustafsson, Lars; Qvarnstrom, Anna.
9:00	Root chemistry in <i>Populus tremuloides</i> : effects of soil nutrients, defoliation, and genotype Stevens, Michael T.; Gusse, Adam C.; Lindroth, Richard L..	Differentiation and demography: divergence among subspecies of house mice (<i>Mus musculus</i>) Phifer-Rixey, Megan; Bomhoff, Matthew; Nachman, Michael W..	The response to selection in complex mating systems Augat, Malcolm; Brodie III., Edmund.
9:15	Pea aphid symbiont dynamics in association with environmental pressures in natural populations Smith, Andrew H.; Russell, Jacob.	Next-gen transcriptome analysis of species differences in the <i>Anastrepha fraterculus</i> complex of South American fruit flies (Tephritidae) Resende, Victor B; Campanini, Emeline B; Lima, Andre L A; Nakamura, Aline M; Sobrinho Jr, Iderval da Silva; Chahad-Ehlers, Samira; de Brito, Reinaldo.	Genetics of trichome variation in <i>Mimulus guttatus</i> Kelly, John; Monnahan, Patrick; Colicchio, Jack; Holeski, Liza.
9:30	Sex, food and sleep - multiple behaviours in a pollinating fly drive floral divergence in an African daisy Ellis, Allan G..	Patterns of gene expression for enzymes in the cuticular hydrocarbon biosynthesis pathway contributing to reproductive isolation between two <i>Drosophila</i> species Gleason, Jennifer; Swartzlander, Denny.	The Ability of Resequenced Experimentally Evolved Populations to Detect Quantitative Trait Loci Baldwin-Brown, James Guy.
9:45	Aphid endosymbionts reduce survival of the predatory lady beetle <i>Hippodamia convergens</i> Kovacs, Jennifer; Costopoulos, Kelly; Kamins, Alexandria; Gerardo, Nicole.	Understanding variability in allopatric differentiation in tropical montane birds Winger, Ben; Bates, John.	Age-dependent selection on quantitative characters in a fluctuating environment: the reproductive value approach Saether, Bernt-Erik; Engen, Steinar; Kvalnes, Thomas.

Tuesday June 25, 8:30 – 10:00 AM			Contributed Talks
Time	Peruvian A	Peruvian B	Rendezvous A
Session	Community Ecology and Evolution I	Phylogeography III	Genetics of Adaptation II
8:30	Contrasting patterns of diversification across Australian climate gradients Miller, Eliot; Westoby, Mark; Ricklefs, Robert.	Complex Phylogeography and Historical Hybridization of two endemic California freshwater sculpin (Cottus) Baumsteiger, Jason; Kinziger, Andrew; Reid, Stewart; Aguilar, Andres.	Fitness trade-offs and the ecological genetics of adaptation Oakley, Christopher G; Ågren, Jon; Schemske, Douglas.
8:45	Coexistence, ecomorphological evolution, and diversification in the avian family Picidae Dufort, Matthew.	Lineage identification and phylogeography of a Mexican generalist lizard species complex (genus Sceloporus) Grummer, Jared; Calderon, Martha; Mendez, Fausto; Nieto Montes de Oca, Adrián; Leaché, Adam.	Trade-off Between Reproductive Fitness and Thermal Stability in RNA Viruses Turner, Paul E.; Goldhill, Daniel.
9:00	Fungal Community Compositions within the Ipomoea-Drosophilidae System in the Hawaiian Islands Ort, Brian; Doan, Bac Cuc (Daisy); Ku, Kristen L.; O'Grady, Patrick.	Montane frogs in Southern Brazil: microendemism, diversification and species delimitation Firkowski, Carina; Bornschein, Marcos; Ribeiro, Luiz Fernando; Pie, Marcio.	The genetic architecture of traits subject to a range of intensities of natural selection in Timema cristinae Comeault, Aaron A.; Soria-Carrasco, Victor; Gompert, Zachariah; Farkas, Timothy E.; Buerkle, C. Alex ; Parchman, Thomas; Nosil, Patrik.
9:15	Ecology and Evolution intertwined: The effects of early speciation processes on ecosystems Bartels, Pia; Öhlund, Gunnar; Filipsson, Olof; de Leeuw, Joep; Englund, Göran.	A tale of two wrens: using multi-locus population genetics to explore the different outcomes of secondary contact in two lowland neotropical birds Miller, Matthew.	Choose your poison: opposing selection pressures maintain a detoxifying enzyme polymorphism in natural populations of Drosophila melanogaster Chakraborty, Mahul; Fry, James D..
9:30	What can we learn from sequence-based species discovery? An example using sky island fly communities. Reid, Noah M.; Carstens, Bryan.	Reconstructing the invasion history of Gambusia affinis into Asia using microsatellites and mitochondrial sequences Lee, Jared; Mauricio, Rodney.	Mitonuclear epistasis and the transcriptional response to hypoxic stress in Drosophila Rand, David; Ge, Yawei; Wu, Zhijin; Jourjine, Nicholas.
9:45	Open	Open	Epistasis and hemoglobin evolution: insights from protein engineering Storz, Jay F..

Time	Rendezvous B
Session	Systematics and Inferred Phylogenies IV
8:30	Phylogenetic position of avian nocturnal and diurnal raptors Mahmood, Muhammad Tariq; McLenachan, Patricia; Gibb, Gillian; Penny, David.
8:45	Unraveling the Evolutionary History of Nocturnality in the Nightbirds White, Noor; Faircloth, Brant C. ; Braun, Edward; McCormack, John; Braun, Michael.
9:00	Mitogenomic data resolve basal relationships among passeriform and passeridan birds Barker, Keith.
9:15	Conflicting phylogenetic signal among mitochondrial regions: affects of taxon sampling and model choice Meiklejohn, Kelly Ann; Danielson, Melany; Braun, Edward; Faircloth, Brant; Glenn, Travis; Kimball, Rebecca.
9:30	Comparison of the utility of mitochondrial DNA, nuclear introns, and ultraconserved element (UCE) data for the resolution of a recent but difficult avian radiation Braun, Edward L; Meiklejohn, Kelly Ann; Kimball, Rebecca T; Faircloth, Brant C. ; Glenn, Travis.
9:45	Phylogenomics reveals relationships within Aplacophora (Mollusca, Aculifera) Kocot, Kevin M.; Todt, Christiane; Mikkelsen, Nina; Halanych, Kenneth M..

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Tuesday June 25, 10:30 AM – 12:00 PM			Contributed Talks
Time	Alpine A & B	Alpine C	Cottonwood A
Session	Molecular Evolution II	Life History Studies II	Phylogenetics Methods and Theory VI
10:30	Selection at the protein level does not drive the elevated substitution rates of vittarioid ferns Rothfels, Carl; Schuettpelz, Eric.	Stressed butterflies: effects on energetics and life history Niitepold, Kristjan; Boggs, Carol L.	Lateral gene transfer, and joys of leaping between trees Steel, Mike.
10:45	Taller plants have lower rates of molecular evolution Lanfear, Robert; Ho, Simon YW; Davies, T Jonathan; Moles, Angela T; Aarssen, Lonnie; Swenson, Nathan G; Warman, Laura; Zanne, Amy; Allen, Andrew P.	Static and evolutionary allometry of reproductive allocation in aquatic beetles Higginson, Dawn M.	Detecting and locating whole genome duplications: a rigorous probabilistic approach Rabier, Charles-Elie; Ta, Tram; Ane, Cecile.
11:00	A role for gene duplication in the evolution of novel, nutritional interactions between sap-feeding insects and their symbionts Duncan, Rebecca P.; Wilson, Alex C.C..	Modeling life history evolution of a critically imperiled family of freshwater gastropods Whelan, Nathan.	Candidate loci versus next-generation genomic data for phylogenetic estimation Lanier, Hayley; Knowles, L. Lacey.
11:15	Sodium Channels and the Origin(s) of Animal Behavior Liebeskind, Benjamin; Hillis, David; Zakon, Harold.	Variation in the cost of reproduction among burying beetles Meyers, Peter; Belk, Mark; Creighton, J. Curtis.	Estimating Phylogeny from microRNA Data: A Critical Appraisal Thomson, Robert; Plachetzki, David; Mahler, D. Luke; Moore, Brian.
11:30	Parallel Patterns of Expression Evolution Precede Parallel Patterns of Sequence Evolution in a Duplicate Set of Sodium Channel Genes Thompson, Ammon; Zakon, Harold.	Open	Open
11:45	Ancient origin of toxin-resistant sodium channels in snakes McGlothlin, Joel; Kobiela, Megan; Castoe, Todd; Brodie, Jr., Edmund; Pfrender, Michael; Brodie III., Edmund.	Open	Open

Tuesday June 25, 10:30 AM – 12:00 PM		Contributed Talks		Sessions 4 – 6	
Time	Cottonwood B	Cottonwood C	Cottonwood D		
Session	Species Interactions and Coevolution IV	Speciation VII	Quantitative Genetics II		
10:30	Frequency-Dependent Fitness in Evolution Experiments Ribeck, Noah; Lenski, Richard.	The Dynamics of Speciation with Gene Flow: Rapid Transitions from One Species to Two Flaxman, Samuel M; Wacholder, Aaron; Feder, Jeffrey L; Nosil, Patrik.	High genetic correlations between preference and preferred traits cannot be generated by mate choice alone Roff, Derek A; Prokuda, Sasha; Fairbairn, Daphne.		
10:45	Does genetic variation in the Major Histocompatibility Complex (MHC) of stickleback influence gut microbiota composition? Bolnick, Daniel; Stutz, William E; Snowberg, Lisa K.	Major ecological shifts both promote and retard speciation in <i>Timema</i> stick insects Funk, Daniel J.; Nosil, Patrik.	The Strength of Preference and the Heritability of Preferred Traits: A Meta-Analysis Prokuda, Alexandra; Roff, Derek A.		
11:00	MHC-Microbiota Interactions in Health and Disease Kubinak, Jason L.; Round, June L..	Niche divergence accrues after lineage splitting in an allopatric species complex Venkatraman, Madhvi X.; McCormack, John.	Patterns of phenotypic correlations and integration in animals and plants Conner, Jeffrey K; Cooper, Idelle; La Rosa, Raffica; Perez, Samuel; Royer, Anne.		
11:15	Mapping resistance to naturally coevolving viruses in a genetic model organism (<i>Drosophila melanogaster</i>) Cogni, Rodrigo; Jiggins, Frank.	The influence of host shifts on reproductive isolation in a rapid radiation of yucca moth pollinators and cheaters Althoff, David.	Genetic and environmental contributions to gene expression variation in <i>Arabidopsis thaliana</i> Osborne, Edward; Clark, Richard M..		
11:30	Salamander- <i>Pseudomonas</i> Symbiosis: Diversity, Specialization, and Mutual Benefit Fitzpatrick, Benjamin M..	Rapid speciation, cryptic divergence, and evolutionary convergence in the diversification of dark-eyed and yellow-eyed juncos (<i>Aves:Emberizidae</i>) Mila, Borja; Friis, Guillermo; Aleixandre, Pau.	Comprehensive dissection of a complex genetic interaction Taylor, Matthew; Ehrenreich, Ian.		
11:45	Relative rates of genomic divergence between humans, chimpanzees, and their lice Allen, Julie; Johnson, Kevin P.; Olds, Brett; Mugisha, Lawrence; Reed, David; Paige, Ken; Pittendrigh, Barry.	An Inordinate Fondness For Blennies: Pervasive Cryptic Speciation and Fine-Scale Endemism in a Coral Reef Fish Eytan, Ron I; Hellberg, Michael E; Dornburg, Alex; Near, Thomas J.	Genetic regulatory network motifs constrain adaptation through curvature in the landscape of mutational variation Hether, Tyler; Hohenlohe, Paul A..		

Tuesday June 25, 10:30 AM – 12:00 PM		Contributed Talks	Sessions 7 – 9
Time	Peruvian A	Peruvian B	Rendezvous A
Session	Community Ecology and Evolution II	Phylogeography IV	Genetics of Adaptation III
10:30	Nature, nurture and the gut microbiota in the brood parasitic Brown-headed Cowbird Hird, Sarah M; Carstens, Bryan; Brumfield, Robb.	Phylogeography of the Asian Horn Beetle, genus <i>Xylotrupes</i> (scarabaeidae) Huang, Jen-Pan.	Genomics of local adaptation and colorful pigmentation in <i>Anolis</i> lizards Crawford, Nicholas; McGreevy, Jr., Thomas; Mullen, Sean; Schneider, Christopher.
10:45	Microbial variation and Bergmann's rule: clinal variation of gut microbes in house mice across North America. Suzuki, Taichi A.; Nachman, Michael W..	Using genome-wide SNP analysis to infer genetic structure in barking frogs Streicher, Jeffrey; Goldberg, Caren; Malone, John; Devitt, Thomas; Fujita, Matthew.	Strategies for eating poison: a comparison of gene expression profiles in two species of herbivores Malenke, Jael; Skopec, Michele; Dearing, Denise.
11:00	It takes villages: Degradation of plant toxins by gut microbial communities Miller, Aaron; Kohl, Kevin; Dearing, Denise.	Phylogenomics of an insular radiation of birds: using next-generation sequencing to uncover the evolutionary history of a contact zone in Fijian <i>Pachycephala</i> . Andersen, Michael J.; Kelly, John; Moyle, Robert G..	Whole genome sequencing identifies candidate loci for local adaptation in wild bighorn sheep Kardos, Martin; Bunch, Rowan; Dewey, Sarah; Edwards, Hank; Stephenson, John; Yu, Jiang; Allendorf, Fred; Hogg, Jack; Luikart, Gordon; Kijas, James.
11:15	Microbiome Diversity and Dynamics under Different Acquisition Modes Zeng, Qinglong; Sukumaran, Jeet; Rodrigo, Allen.	Diversification of Malagasy ectotherms: an exploration of patterns and processes Noonan, Brice; Raselimanana, Achille P.; Yoder, Anne D.; Vences, Miguel; Fisher, Brian.	A GWAS of high altitude adaptation in feral horses of the Andes Hendrickson, Sher.
11:30	Predator selection history determines ecological dynamics in an empirical system Miner, Brooks E.; Ellner, Stephen; Hairston Jr., Nelson G..	Party in the Pleistocene: The phylogeography and evolution of the New Zealand carabid, <i>Megadromus antarcticus</i> Fountain, Emily D; Cruickshank, Robert; Paterson, Adrian Mark.	Open
11:45	Open	Phylogeographic tests of a widespread lizard (<i>Cercosaura ocellata</i>): geographic distance versus ecological adaptation across Amazonian, Cerrado, and Atlantic forest habitats Sturaro, Marcelo Jose; Avila-Pires, Teresa C. S.; Rodrigues, Miguel Trefault; Knowles, L. Lacey.	Open

Time	Rendezvous B
Session	Systematics and Inferred Phylogenies V
10:30	The pleasures and pitfalls of bee phylogenetics Hedtke, Shannon.
10:45	From transcriptomes to barcodes: building a comprehensive trichopteran tree of life Frandsen, Paul; Zhou, Xin; Kjer, Karl.
11:00	Exploring Divergence and Convergence in the Hyperdiverse Myrmicine Ants Ward, Philip; Schultz, Ted; Fisher, Brian; Brady, Sean.
11:15	What 20 million-year-old Caribbean fossils can tell us about Indo-Australian ants today Barden, Phillip.
11:30	Deciphering Dermapteran Ectoparasitic Evolution Naegle, Michael Andrew; Bybee, Seth; Muggleston, Joseph; Girod, Christophe; Whiting, Michael.
11:45	An evolutionary history of the pathogen <i>Salmonella enterica</i> subsp. <i>enterica</i> : examining character evolution and utilizing the phylogeny for track/trace in the US food supply. Timme, Ruth E.; Pettengill, James; Allard, Marc; Strain, Errol; Brown, Eric.

Time	Ballroom 2
Symposium	SSB Symposium: Current Advances and Challenges in Practical Phylogenomics
8:30	Anchored Phylogenomics and the power of hybrid enrichment data for phylogenetics Lemmon, Alan R..
9:00	SNPs versus sequences for phylogeography - an exploration using simulations and massively parallel sequencing in a non-model bird Harvey, Michael G.; Tilston Smith, Brian; Faircloth, Brant C. ; Glenn, Travis; Brumfield, Robb.
9:30	What to do with missing data in next-generation sequences? Unforeseen sampling effects on species-tree analyses Knowles, L. Lacey; HUANG, HUATENG; He, Qixin.
10:00	Break
10:30	A probabilistic parsimonious model for species tree reconstruction Martins, Leonardo de Oliveira; Posada, David.
11:00	Naive Binning Improves Phylogenomic Analysis Warnow, Tandy; Bayzid, Shamsuzzoha Md.; Mirarab, Siavash.
11:30	Bayesian model averaging and the multispecies coalescent for phylogenomics Drummond, Alexei; Wu, Chieh-Hsi; Heled, Joseph.

Tuesday June 25, 1:30 – 3:00 PM			Contributed Talks
Time	Alpine A & B	Alpine C	Cottonwood A
Session	Molecular Evolution IV	Life History Studies III	Phylogenetics Methods and Theory VII
1:30	Genetic conflicts in the battle for iron Barber, Matthew; Elde, Nels.	Craniofacial feminization in Pleistocene Homo sapiens: testosterone, social tolerance, and the origins of behavior modernity Cieri, Robert.	Deflating trees: improving Bayesian branch-length estimates using informed priors Nelson, Brad; Andersen, John; Brown, Jeremy.
1:45	Parent-offspring conflict drives rapid molecular evolution in angiosperm seeds Geist, Katherine S.; Strassmann, Joan E.; Queller, David C..	Searching for the adaptive significance of superfetation in two species of viviparous fishes Zuniga-Vega, Jose Jaime.	Snapshot: An interactive taxonomy-driven tool for phylogenetic dataset construction Schow, Jarom; Ogden, T. Heath.
2:00	Molecular evolution within dynamic mitochondrial genomes Chong, Rebecca A; Mueller, Rachel Lockridge.	Are Cyprinodont eggs pre-adapted for the evolution of matrotrophy? Morrison, Keenan; Ngo, Vyvian; Reznick, David.	Maximum likelihood species tree estimation under the multispecies coalescent Schliep, Klaus; Posada, David.
2:15	Horizontal transfer of DNA from the mitochondrial to the plastid genome in milkweeds (Apocynaceae) Straub, Shannon; Cronn, Richard; Edwards, Christopher; Fishbein, Mark; Liston, Aaron.	The evolution of placentas in the fish family Poeciliidae: a family-wide analysis of adaptation and conflict Reznick, David.	Distinguishing methodological and biological causes of gene tree discordance in phylogenomic datasets Zwickl, Derrick; Sanderson, Michael.
2:30	Scombroid fishes provide novel insights into the trait/rate associations of molecular evolution Qiu, Fan; Kitchen, Andrew; Burleigh, J. Gordon; Miyamoto, Michael.	Transgenerational effects of resource quality on life history traits in Daphnia pulex Schrader, Matthew; Crawford, John; Caceres, Carla.	Phylogenetic inference with composite likelihood from dependent sites RoyChoudhury, Arindam.
2:45	Open	Open	Sampling Tree-Space Effectively Using Distance Methods Palmer, Nathan D. ; Schwartz, Rachel S.; Cartwright, Reed A..

Tuesday June 25, 1:30 – 3:00 PM			Contributed Talks
Time	Cottonwood B	Cottonwood C	Cottonwood D
Session	Species Interactions and Coevolution V	Speciation VIII	Evolution of Sex
1:30	Correlated trait evolution of yuccas (<i>Yucca</i> ; Agavaceae) and yucca moths (<i>Tegeticula</i> ; Lepidoptera: Prodoxidae) Bendall, Emily; Smith, Christopher.	Reinforcement generates behavioral isolation between and within species of <i>Lucania killifish</i> Kozak, Genevieve; Roland, Genevieve; Rankhorn, Clare; Falater, Amy; Berdan, Emma; Fuller, Rebecca.	Causes and consequences of recombination rate variation in the <i>Ficedula</i> genome Backstrom, Niclas; Kawakami, Taki; Mugal, Carina; Ellegren, Hans.
1:45	Patterns of natural selection reveal conditions for fitness alignment and conflict in an invasive legume-rhizobium mutualism Porter, Stephanie S.; Simms, Ellen L..	Chromosomal rearrangements, adaptation to salinity, and reproductive isolation between two killifish Fuller, Becky; Berdan, Emma; Kozak, Genevieve.	Population genomic insights into the evolutionary origin and fate of obligately asexual <i>Daphnia pulex</i> populations Tucker, Abraham; Ackerman, Matthew; Eads, Brian; Xu, Sen; Lynch, Michael.
2:00	Why pick a fight when you can tolerate your enemy? Defense mechanisms of birds against introduced nest parasites in the Galapagos Islands Knutie, Sarah; McNew, Sabrina M.; Bartlow, Andrew W.; Clayton, Dale H..	Sex Linkage and Mito-Nuclear Interactions in Hybrid Speciation Trier, Cassandra; Hermansen, Jo; Sætre, Glenn-Peter; Bailey, Richard.	Life after sex: genomic evidence for asexual evolution in the bdelloid rotifer <i>Adineta vaga</i> Flot, Jean-François; Jaillon, Olivier; Van Doninck, Karine.
2:15	Reproductive interference and adaptive, between-species territoriality in rubeyspot damselflies (<i>Hetaerina</i> spp.) Drury, Jonathan; Anderson, Christopher; Grether, Gregory.	A genomic approach to investigating sparrow speciation Elgvin, Tore Oldeide; Trier, Cassandra; Sætre, Glenn-Peter.	Identification of sex specific molecular markers from reduced-representation genome sequencing Gamble, Tony; Zarkower, David.
2:30	Do secondary compounds in floral nectar protect pollination rewards from microbial degradation? Vannette, Rachel L.; Barley-Greenfield, Simone; Fukami, Tadashi.	Chromosome-wide impacts of hybrid breakdown in population crosses of the copepod <i>Tigriopus californicus</i> Willett, Christopher S.	Genomic Perspectives on Sex Determination in a Gonochoristic Coral: Whole Transcriptome Sequencing to Tell Girl from Boy Oliver, Thomas; Franklin, Eric; Toonen, Robert.
2:45	Open	Open	Open

Tuesday June 25, 1:30 – 3:00 PM			Contributed Talks
Time	Peruvian A	Peruvian B	Rendezvous A
Session	Community Ecology and Evolution III	Phylogeography V	Genetics of Adaptation IV
1:30	Species abundance distribution drives the evolution of trait overlap in competitive communities Messinger, Susanna M.; Vasseur, David.	Phylogeography: spanning the ecology-evolution continuum Marske, Katharine; Rahbek, Carsten; Nogues-Bravo, David.	Genomic evidence of rapid and stable adaptive oscillations over seasonal time scales in <i>Drosophila</i> Bergland, Alan; Behrman, Emily; O'Brien, Katherine; Schmidt, Paul; Petrov, Dmitri.
1:45	A novel life history type drives phenotypic divergence in a competing species Huss, Magnus; Howeth, Jennifer G; Osterman, Julia; Post, David M.	Elevational differentiation in a widespread Nearctic skipper, <i>Polites sabuleti</i> Jahner, Josh; Forister, Matt; Nice, Chris; Fordyce, James; Wilson, Joseph; Murphy, Dennis; Marion, Zachary; Shapiro, Arthur.	The genetics of adaptation: comparing genotypic and phenotypic clines in cryptic deer mice Linnen, Catherine.
2:00	Saturation of west Himalayan warbler communities Ghosh-Harihar, Mousumi; Price, Trevor Douglas.	Phylogeographic patterns on mountaintop vertebrates: a study model on small mammals and a lizard species of the Coast and the Andes of central Chile Palma, Eduardo; Gutierrez-Tapia, Pablo; Boric-Bargetto, Dusan; Gonzalez, Juan F.; Cianferoni, Franco; Garin, Carlos F.; Torres-Perez, Fernando.	Hemoglobin evolution at the ends of the Earth: Adaption to cold and hypoxia in extreme environments Ibarguchi, Gabriela; Friesen, Vicki L..
2:15	Alien encounters of the floral kind: interpreting patterns of community assembly on the San Juan Islands Marx, Hannah; Tank, David.	Phylogeography of <i>Rattus exulans</i> , a commensal rat dispersed by humans in the Southeast Asia and Pacific regions Hingston, Melanie; Robins, Judith; Tintinger, Vernon; Matisoo-Smith, Lisa; Ross, Howard.	Genetics of adaptation of the perennial <i>Arabidopsis lyrata</i> to environments with different growing season length Leinonen, Paivi H; Kemi, Ulla; Kuittinen, Helmi; Savolainen, Outi.
2:30	Open	Comparative phylogeography of African savannah ungulates Lorenzen, Eline; Heller, Rasmus; Siegismund, Hans.	Fitness component variation across a latitudinal cline in <i>Populus balsamifera</i> Olson, Matthew.
2:45	Open	Open	Evidence for recent adaptation in genome regions associated with ecological traits in <i>Medicago truncatula</i> Yoder, Jeremy; Stanton-Geddes, John; Young, Nevin D.; Tiffin, Peter.

Time	Rendezvous B
Session	Systematics and Inferred Phylogenies VI
1:30	The deep history of tetrapods explored via target enrichment and high-throughput sequencing McCormack, John; Faircloth, Brant; Austin, Christopher; Brumfield, Robb; Glenn, Travis.
1:45	Pike and salmon as sister taxa: Detailed intraclade resolution and divergence time estimation of Esociformes+Salmoniformes Campbell, Matthew A.; López, J. Andrés ; Sado, Tetsuya; Miya, Masaki.
2:00	Molecular phylogeny of lanternfishes and blackchins (Scopelomorpha; Myctophiformes) Denton, John S S.
2:15	Evolution of spiny eels endemic to the Lower Congo River: a molecular analysis of speciation history Alter, Elizabeth.
2:30	Multiple invasions of intertidal habitats in the diverse percomorph clade Blenniidae Hundt, Peter; Simons, Andrew.
2:45	From 'Bigmessidae' to Merulinidae: integrating molecules and morphology to resolve the systematics of scleractinian corals Huang, Danwei; Smith, Nathan; Budd, Nancy.

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Tuesday June 25, 3:30 – 5:00 PM			Contributed Talks
Time	Alpine A & B	Alpine C	Cottonwood A
Session	Molecular Evolution III	Life History Studies IV	Phylogenetics Methods and Theory VIII
3:30	Characterizing epistasis between indels and point mutations in proteins under purifying selection. Shah, Premal; Plotkin, Joshua B.	Sensitivity analysis of the variance in population growth and cumulative extinction risk in stochastic matrix models: A comparative approach Trotter, Meredith; Tuljapurkar, Shripad D..	An artifact caused by undersampling optimal trees in supermatrix analyses of locally sampled characters Simmons, Mark Pitkin; Goloboff, Pablo.
3:45	Explaining diversity of bacterial genomes: a case study with tRNA genes Agashe, Deepa.	Population specific stress tolerance response in <i>Drosophila melanogaster</i> Mathur, Vinayak; Schmidt, Paul.	Bayesian inference of phylogeny from partitioned data Moore, Brian; Fredrik, Ronquist; McGuire, Jim; Huelsenbeck, John.
4:00	Does epistasis constrain horizontal transfer of antibiotic resistance? Perez, Raquel Garcia; Thaweethai, Tanayott; Weinreich, Daniel.	Temperature-dependent sex determination: can sex-specific age of maturity explain the evolution of sex-determining mechanisms in reptiles? Schwanz, Lisa; Janzen, Fred.	A Generic Distance Metric for Unlabeled Phylogenetic Trees and Alignments Sukumaran, Jeet; Wu, Steven; Rodrigo, Allen.
4:15	Selection Against Missense Errors During Protein Translation and the Evolution of Codon Usage Bias Howell, William P; Gilchrist, Michael.	Predation and the terminal investment hypothesis: A comparative study. Jones, Allystair Dunngannon.	Resolving species trees in the anomaly zone Linkem, Charles.
4:30	The evolution of novel enzyme function viewed at atomic resolution Theobald, Douglas L.; Boucher, Jeffrey; Steindel, Phillip.	Open	Beyond the lower-bound: the fossil record can provide empirically-informed prior distributions on node ages in poorly-sampled groups Lloyd, Graeme T.; Friedman, Matt; Bell, Mark A..
4:45	Protein subcellular relocalization (PSR) decreases the death rate of eukaryotic duplicate genes Byun, Ashley; Singh, Sarabdeep.	Open	Open

Tuesday June 25, 3:30 – 5:00 PM			Contributed Talks
Time	Cottonwood C	Cottonwood D	Rendezvous B
Session	Speciation IX	Sexual Conflict	Systematics and Inferred Phylogenies VII
3:30	On the Coyne and Orr-igin of species: effects of intrinsic postzygotic isolation, ecological differentiation, X-chromosome size, and sympatry on <i>Drosophila</i> speciation Turelli, Michael.	Mate scarcity increases sexual competition among humans Ribout, Angela; Arnocky, Steven.	Coalescent-based species delimitation with NGS-scale data: a test case in a recent radiation of ambystomatid salamanders Hime, Paul M.; Hotaling, Scott; Shaffer, H. Bradley; Voss, S. Randal; Weisrock, David.
3:45	A progression of rapidly evolving reproductive incompatibilities in the mountain pine beetle Bracewell, Ryan; Bentz, Barbara; Good, Jeffrey.	Opening the "black box" of intralocus sexual conflict over lifespan: evolution of metabolism, behavior and body size in response to sex-specific selection Berg, Elena; Berger, David; Arnqvist, Göran; Maklakov, Alexei.	Phylogeny, phenotype evolution and taxonomy of Humming Frogs (<i>Anura</i> , <i>Microhylidae</i> , <i>Chiasmocleis</i>) Peloso, Pedro; Sturaro, Marcelo; Mauricio, Forlani; et.al.
4:00	Patterns and genetics of hybrid seed lethality in <i>Mimulus</i> Oneal, Elen; Willis, John.	Differences in costs of reproduction between the sexes in <i>Nicrophorus orbicollis</i> Smith, Ashlee; Creighton, J. Curtis; Belk, Mark; Heflin, Nicholas.	Transcriptomic evidence that enigmatic parasites <i>Polypodium hydriforme</i> and <i>Myxozoa</i> are cnidarians Chang, E. Sally; Cartwright, Pauly; Shcheglovitova, Mariya.
4:15	Genome-wide association mapping in the house mouse hybrid zone Harr, Bettina; Turner, Leslie.	Extreme sex differences in the development of body size and sexual signals are mediated by hormonal pleiotropy in a dimorphic lizard Cox, Christian L.; Hanninen , Amanda F; Cox, Robert M.	Phylogenetic relationships among rats and their close relatives Robins, Judith; McLenachan, Patricia; Penny, David; et. al.
4:30	Mapping the genetic basis of hybrid incompatibility in the beetle <i>Tribolium castaneum</i> using next-generation sequencing of extreme discordant sib-pairs. Watson, Eric; Demuth, Jeff.	Evolution of biparental care as a response to sexual conflict in <i>Nicrophorus</i> Belk, Mark C; Smith, Ashlee; Creighton, J. Curtis.	Lying through your teeth: saturation and non independence in morphological data, and what to do about it Davalos, Liliana M; Velazco, Paul M; Warsi, Omar M; Smits, Peter D; Simmons, Nancy B.
4:45	The Genetic Basis of Interspecific Assortative Fertilization in <i>Drosophila</i> Ahmed-Braimah, Yasir.	Segregating variation for Y-chromosome resistance to sex-ratio meiotic drive in <i>Drosophila affinis</i> Unckless, Robert L.; Clark, Andrew G. .	Variable phylogenetic signal in a forensically important HIV-1 transmission cluster Doyle, Vinson; Andersen, John; Nelson, Brad; et. al.

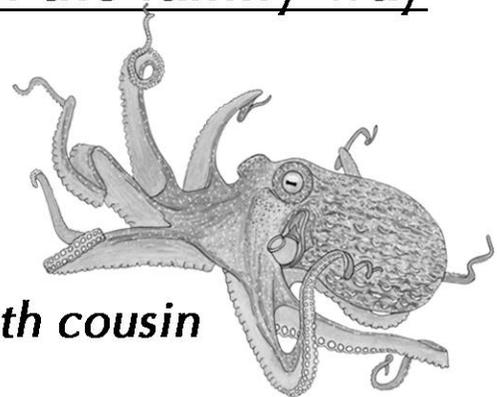
Tuesday June 25, 3:30 – 5:00 PM			Contributed Talks
Time	Peruvian A	Peruvian B	Rendezvous A
Session	Macroecology	Phylogeography V	Genetics of Adaptation V
3:30	The Paradox of Rare Species in Macroecology Newman, Erica A.; Hembry, David; Harte, John.	Speciation by dispersal through a structured tropical landscape Tilston Smith, Brian; McCormack, John; Cuervo, Andrés M.; et. al.	Ancient Homology Underlies Adaptive Wing Pattern in Nymphalid Butterflies Gallant, Jason; Imhoff, Vance; Martin, Arnaud; Reed, Robert; Kronforst, Marcus; Mullen, Sean.
3:45	Patterns and predictors of multi-species genetic diversity in Indo-Pacific shallow water marine fauna. Keyse, Jude; Riginos, Cynthia; Trembl, Eric; Rhodes, Jonathan.	Phylogeography of Ipomoea batatas (sweet potato) and its wild relatives Tilley, George; Miller, Richard.	Early Insights into the Genetic Basis of Mimetic Variation in Bumble Bees Hines, Heather; Mikó, István.
4:00	Does a jack-of-all-temperatures have a large geographic range? Sheth, Seema; Angert, Amy.	Testing Range Expansion and Hybridization in Two Louisiana Irises Hamlin, Jennafer; Arnold, Michael.	Adaptive genomics of diversity and mimicry in Heliconius butterflies Supple, Megan A. ; Hines, Heather; McMillan, W. Owen; Counterman, Brian A..
4:15	Late Quaternary climate velocity, contemporary environmental gradients, and marine biodiversity patterns on coral reefs Sbrocco, Elizabeth J..	The phylogeography of Catha edulis (qat; Celastraceae) in African areas of historic production: the origins of clonal cultivation Tembrock, Luke; Curto, Manuel; Demissew, Sebsebe; Meimberg, Harald; Ngugi, Grace; Reeves, Patrick; Richards, Chris; Simmons, Mark.	Genetic correlates of morphological diversity in Costa Rican army ants Winston, Max; Moreau, Corrie.
4:30	Macroecology of parental care in arthropods: higher benefits of brood protection where biotic interactions are more intense Santos, Eduardo S. A.; Bueno, Pedro P.; Gilbert, James; Machado, Glauco.	Phylogeography of the Canary Islands: Insights from colonization and radiation of Micromeria endemic species (Lamiaceae). Curto, Manuel; Puppo, Pamela; Cochofel, Jaqueline; Guedes, Joana; Meimberg, Harald.	Phylogeography and signatures of pathogen-mediated selection using genome-wide diachronic comparisons in the House Finch (<i>Haemorrhous mexicanus</i>) Shultz, Allison J; Backstrom, Niclas; Baker, Allan J; Nolan, Paul M; Hill, Geoffrey; Edwards, Scott.
4:45	Open	Open	Phenotypic and Molecular Evolution in Insular Speckled Rattlesnakes Meik, Jesse M.; Streicher, Jeffrey; Schaack, Sarah; Lawing, A. Michelle; Flores-Villela, Oscar; Castoe, Todd; Fujita, Matthew.

Time	Ballroom 1	Ballroom 2
Symposium	SSE Presidential Symposium: Everything you wanted to know about evolution but never thought to ask	EDEN Symposium: The Evolution of Gene Regulatory Networks
1:30	The convivial origins of life on the Earth: A cooperative network of RNA replicators Lehman, Niles.	Network evolution that results in gain or loss of plasticity in subsets of butterfly eyespots Monteiro, Antonia; Wasik, Bethany; Tong, Xiaoling; et. al.
2:00	Resurrecting ancient proteins to reveal the mechanisms of evolution Thornton, Joe.	The genomic accordion model of large DNA virus evolution Elde, Nels; Child, Stephanie; Eickbush, Michael; et. al.
2:30	Guns and butter in social amoeba mutualisms Strassmann, Joan E.; Stallforth, Pierre; Brock, Debbie; et. al.	Genes and gene regulatory pathways underlying plant-herbivore interactions Kurlovs, Andre; Greenhalgh, Robert; Osborne, Edward J.; Clark, Richard M..
3:00	Break	Break
3:30	Evolutionary Medicine Kishony, Roy.	Gene regulatory network evolution during the origin of pregnancy in mammals Lynch, Vincent.
4:00	The evolution of intelligence in response to social complexity Holekamp, Kay E..	The Evolution of Robust Gene Regulatory Networks for Early Embryogenesis Hinman, Veronica.
4:30	Evolutionary robotics Bongard, Josh.	Open



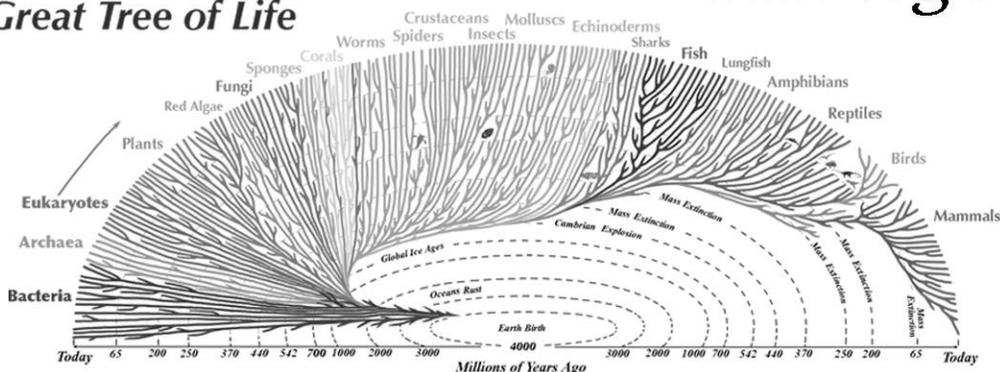
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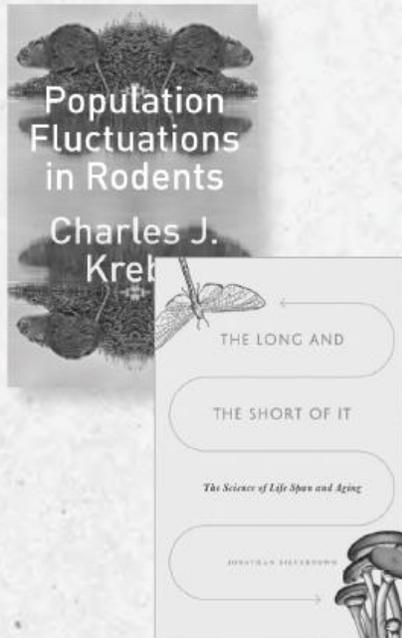


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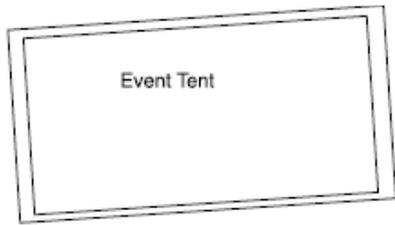
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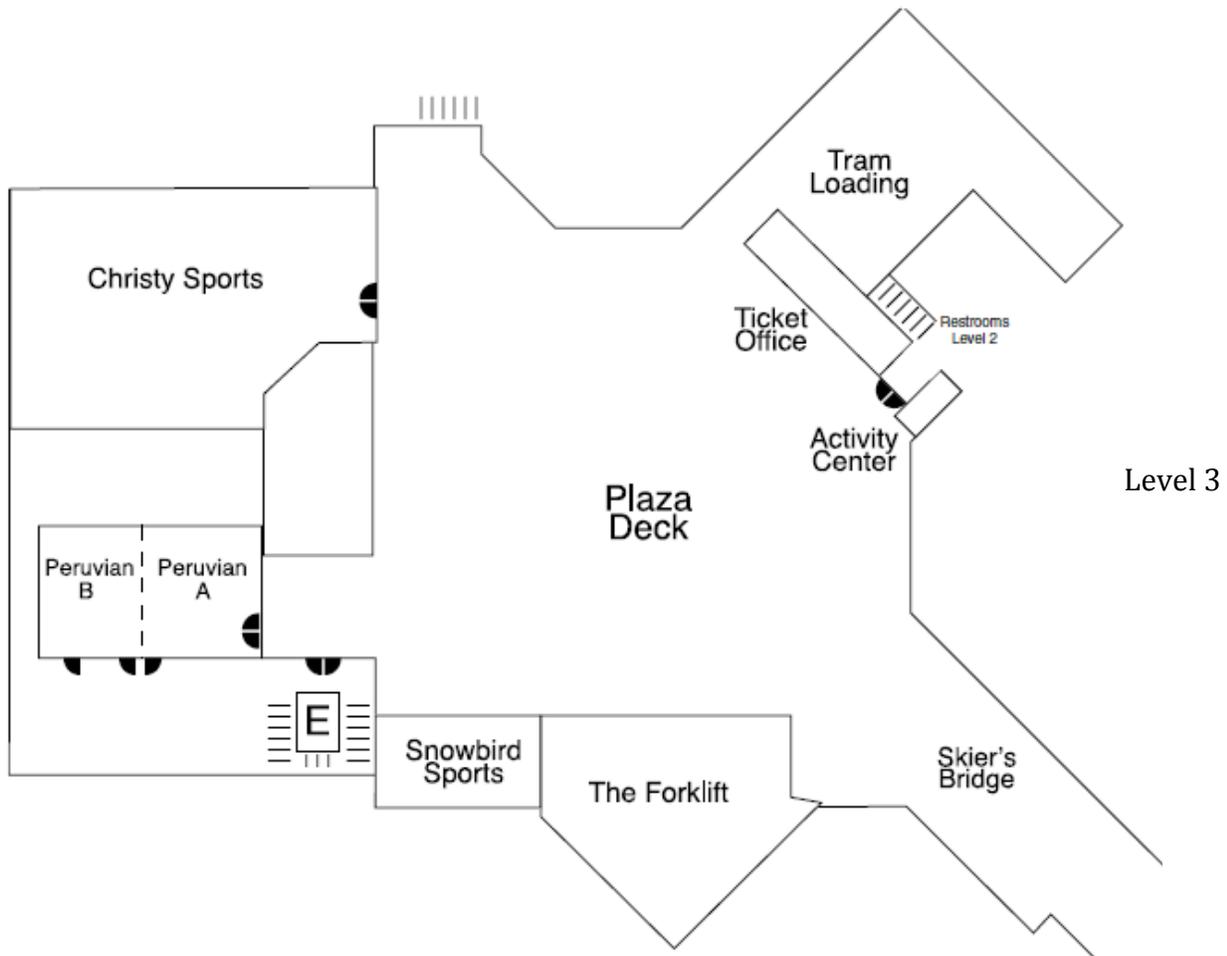
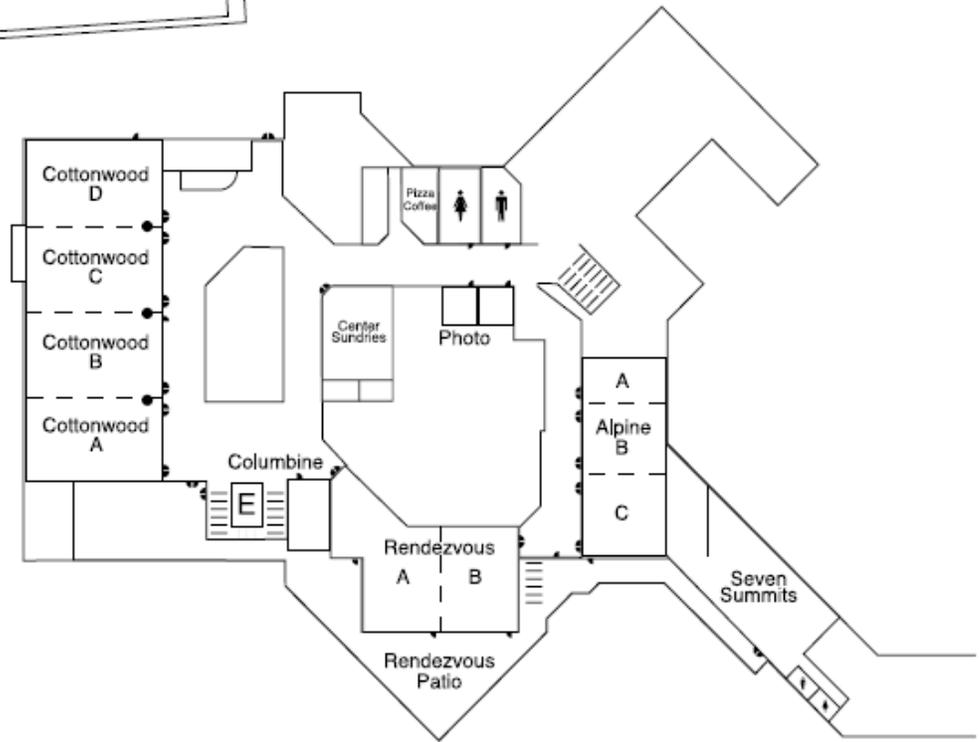
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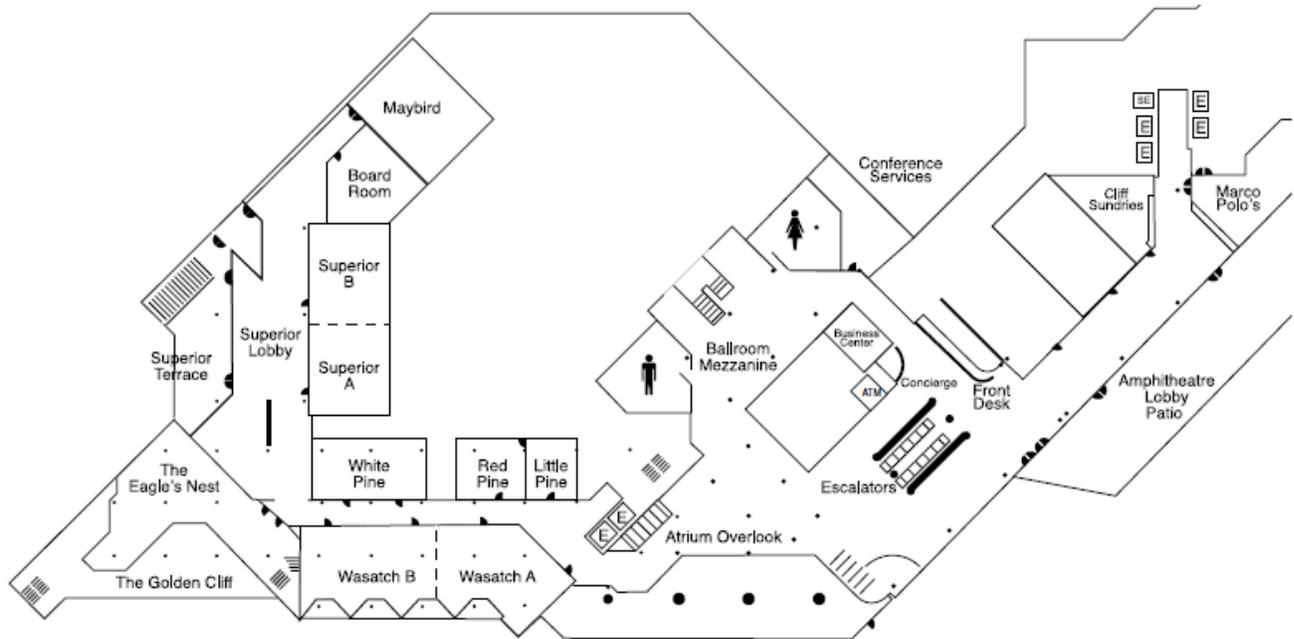


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