

# Welcome to Evo-Wibo 2018

## Conference Schedule at a Glance

Friday (PM)	
4:00-10:00	Check-In (Bldg 204)

Saturday		
8:15 - 9:00	Breakfast (Cafeteria)	
9:00 - 9:15	Welcome (Commons A)	
9:15 - 10:30	Talk Session 1 (Commons A)	
10:30 - 11:45	Poster Session 1 [Posters 1- 37] & Coffee Break (Bldg 204)	
11:45 - 12:45	Talk Session 2 (Commons A)	
12:45 - 1:45	Lunch (Cafeteria)	
2:00 - 3:30	Talk Session 3 (Commons A)	
3:30 - 4:45	Poster Session 2 [Posters 38- 74] & Coffee Break (Bldg 204)	
4:45 - 6:30	Talk Session 4 (Commons A)	
7:00 - 8:00	Dinner (Cafeteria)	
8:15 - 9:00	Town Hall and Awards (Commons A)	
9:00 - 12:00	Mixer (Dorm 203 Downstairs Common Area)	

Sunday	
8:15 - 9:00	Breakfast (Cafeteria)
9:00 - 10:00	Plenary by Prof. Scott Nuismer (Commons A)
10:00 - 11:00	Key Check Out & Coffee Break (Commons A)
11:00 - 12:00	Talk Session 5 (Commons A)

## Saturday Schedule

Talk Se	ession 1	
9:00		WELCOME
9:15	Barrie Robison	Evolution Always Wins: Modeling evolutionary processes with video games
9:30	Allison Fuiten	Identification of enhancer loss & changes in Hox gene expression in Gulf pipefish
9:45	Jared Grummer	Population structure of sympatric rainbow trout ecomorphs in Kootenay Lake coauthors: Michael Whitlock, Eric Taylor
10:00	Adam Jones	Should we care about epistasis?
10:15	Samuel Hart	The evolution of win-win phenotypes in a cooperative microbial community
Poster	Session 1	
10:30	Bldg 204	Posters 1-37
Talk Se	ssion 2	
11:45	Raymond B. Huey	Climate warming, food ration, thermoregulatory behavior, and metabolic meltdown of ectotherms coauthor: Joel G. Kingsolver
12:00	Hannah Tavalire	Heritability of the gut microbiome: what we can learn from siblings reared apart
12:15	Matthew Osmond	Predicting the genetic paths evolutionary rescue will take coauthors: Guillaume Martin, Ophelie Ronce, Sarah Otto
12:30	Emily Helliwell	Genome-wide perspective on plant invasion and subsequent phenological adaptation coauthors: Joshua Faber-Hammond, Zoie Lopez, Aaron Garoutte, Eric Von Wettberg, Maren L. Friesen, Stephanie Porter
Lunch		
12:45	Cafeteria	Lunch
Talk Se	ssion 3	
2:00	Katrina M. Kaur	Cooperate-and-Radiate Co-Evolution Between Ants and Plants coauthors: Pierre-Jean Malé, Erik Spence, Crisanto Gomez Lopez, Megan Frederickson
2:15	Leithen M'Gonigle	Local adaptation in dispersal in multi-resource landscapes coauthor: Meredith Cenzer
2:30	Christine H. O'Connor	Interaction of gene flow and selection on the genetics of adaptation to a novel environment coauthors: Sally Claridge, Patrick C. Phillips
2:45	Daniel Anstett	Testing for range-wide rapid evolution to drought
3:00	Ken A. Thompson	Patterns of speciation under adaptation from standing genetic variation coauthors: Matthew M. Osmond, and Dolph Schluter
3:15	Barbara Neto-Bradley	What can phylogenies tell us about grass phenology? coauthors: Jeannette Whitton, Linda Jennings, Matthew W. Pennell
Poster	Session 2	
3:30	Bldg 204	Posters 38-74

#### Talk Session 4

4:45	Megan Bontrager	Climate anomalies disrupt local adaptation
5:00	Pirmin Nietlisbach	Nonequivalent lethal equivalents: Estimation of inbreeding depression with pedigrees and genomic data coauthors: Stefanie Muff, Jane Reid, Michael Whitlock, Lukas Keller
5:15	Tina Arredondo	Evidence for human-mediated gene flow in an invasive grass coauthor: Mitch Cruzan
5:30	Thomas Nelson	Selection, linkage, and population structure interact to maintain genome-wide variation in stickleback coauthors: John Crandall, Kate Ituarte, Julian Catchen, William Cresko
5:45	Zoie Lopez	Distribution of co-invading specialist rhizobium mutualist limits the potential of Medicago polymorpha to invade via large and small scale dispersal events coauthors: Maren Friesen, Stephanie Porter
6:00	Mark Margres	A mechanism for tumor regression in a transmissible cancer coauthors: Sarah Hendricks, Paul Hohenlohe, Andrew Storfer
Dinner		
7:00	Cafeteria	Dinner
Award	ds	
8:15	Commons A	Town Hall and Awards
Mixer		
9:00	Dorm 203 Downstairs Common Area	Mixer

# Sunday Schedule

Plenar	У	
9:00	Scott Nuismer	From tales of coevolution to a coevolutionary synthesis
Check	( Out	
10:00	Commons A	Key Check Out
Talk Se	ession 5	
11:00	Stephanie Porter	Mosaics of antagonistic loci within a host-microbe mutualism
11:15	Wenying Shou	Artificial selection on microbial communities
11:30	John Orcutt	Evolution and diagnostic utility of humeri in big cats coauthors: Jonathan Calede, and Carlo Meloro
11:45	Dietmar Schwarz	Local adaptation to abiotic stress and its potential for adaptive introgression in apple maggot flies coauthors: Jennifer L Hill, Christa Kohnert, Keely A. Hausken, Neal J. Shaffer, Anna Marie Yanny, Nathan Roueche, and Jeffrey L. Feder

## Poster Session 1

### Saturday 10:30 -11:45 Posters 1-37

Poster	Presenter	Poster title
1	Kristin Robinson	A microfluidic platform for studying the trade-off between reproduction and somatic maintenance in <i>C. elegans</i>
2	Kellum Tate-Jones	A new species of Desmatophoca (Mammalia, Carnivora) from the Astoria Formation, Oregon
3	Jennifer Sullins	Accumulation and transmission dynamics of a naturally-occurring mtDNA deletion in <i>Caenorhabditis briggsae</i>
4	Elizabeth Pérez	Analyzing The Potential For Gametophytic Selection and Selective Ovule Abortion in <i>Mimulus guttatus</i>
5	Adalid Pelayo	Anoxia and desiccation: the role of GABA in a vertebrate extremophile
6	Austin Patton	Contemporary demographic reconstruction methods are robust to genome assembly quality: A case study in Tasmanian Devils
7	Anna Coleman-Hulbert	Automation of the Caenorhabditis Intervention Testing Program
8	Stuart Lujan & Yana Pavlovskiy	Back to the Future: Does Evolution Look like Coevolution?
9	Jessica Persinger	What is the origin and ultimate fate of a range-limited species?
10	Blanca Rodriguez	Back to the future: Investigating dynamics of coevolution in mutualism
11	Dana M Reuter	Body size implications of the dietary ecology of mammalian omnivores
12	Elijah Reyes	Can conditioning and social learning be used to escape an evolutionary trap?
13	Francisco Henao Diaz	Young clades appear to be diversifying faster: meta-analysis of speciation rates reveals ubiquitous age-dependent effects
14	Tiara Johnson	Measuring environmental & genetic effects on cell differentiation kinetics in yeast
15	Kory Kolis	Single Major Locus Explains Life History Adaptation of <i>Mimulus guttatus</i> in Geothermal Soils of Yellowstone National Park
16	Alberto Rivera	Characterizing a Repetitive Reproductive Gene
17	Julie Lee-Yaw	Chloroplast variation in sunflowers
18	Lauren Ricci	Comparative Dispersal of Devil Facial Tumor Disease and Tasmanian Devils (Sarcophilus harissii)
19	Anthony Brown	Concordant changes in gene expression and nucleotides underlie independent adaptation to extremely sulfidic environments
20	Omar Cornejo	Detailed demographic analysis of recent bacterial species hybridization between Campylobacter coli and Campylobacter jejuni
21	Lou Nielly-Thibault	Distinguishing between natural selection and neutral turnover during the emergence of new proteins from scratch
22	Dan Schneck	Different light regimes contribute to phenotypic and genetic variation within the circadian clock of the copepod <i>Tigriopus californicus</i>
23	Kerry McGowan	Differential Gene Expression in Eye Transcriptomes of Cave and Surface Populations of the Atlantic Molly, <i>Poecilia mexicana</i>
24	Yee Mey Seah	Detecting fluctuating selection in a nascent microbial mutualism
25	Christine Sedore	Lifespan versus Healthspan: Tradeoffs of lifespan extension in Caenorhabditis
26	Niall Millar	Domestication and the relationship between legumes and rhizobia
27	Ryan Garcia	Patterns of genome methylation associated with epigenetic inheritance of increased trichome production in response to Yellow Monkeyflower leaf damage
28	Claire Belen Vietri	Evolution of Burrowing in Miocene Ground Squirrels
29	Genevieve Metzger	Evolution of LINE-1 in human genomes

#### Poster Session 1 - continued

30	Luana Lins	Evolutionary Dynamics of the Antifreeze Protein Type III Gene Cluster in Polar Fish
31	Samantha Heck	Evolutionary Tower Defense: Modeling evolution in video games using a metapopulation framework
32	Landon Wright	Evolving Digital Genomes to Generate Video Game Monsters
33	Nicolas Diaz	Exploring the ecological and genomic consequences of polyploidy in Oregon sunshine ( <i>Eriophyllum lanatum</i> )
34	Joel Nelson	Fine-scale recombination rates across populations of Anopheles gambiae
35	Mariana Pascual	Were shorter sunflowers more likely to survive Hurricane Harvey?
36	Weston Staubus	Gene expression analysis of locally adapted snowberry flies ( <i>Rhagoletis zephyria</i> ) under desiccation stress
37	Kieslana Wing	Genomic and fitness consequences of cryopreservation on diverse natural isolates of Saccharomyces cerevisiae

## Poster Session 2

#### Saturday 3:30 -4:45 Posters 38- 74

Poster	Presenter	Poster title
38	Joanna Kelley	Big data in evolutionary genomics: genomic basis of adaptation to extreme environments
39	David Farr	Genomic divergence associated with artificial selection on trichome production in Yellow Monkeyflower ( <i>Mimulus guttatus</i> )
40	Silu Wang	Admixing aggression genes through a moving warbler hybrid zone
41	lan Kutch	Leveraging experimental evolution to dissect the molecular underpinnings of complex traits
42	Enrique Jimenez Schwarzkopf	Genomic mousetrap: Meiotic transcription and nucleosome occupancy as potential drivers of recombination hotspots in <i>Mus musculus</i>
43	Alex Fraik	Geographic and sexual variation drives differential expression in Tasmanian devils
44	Jolie Carlisle	High-throughput investigation of species-specific binding of abalone reproductive proteins
45	Josh Brindley	Phylogeny of Eucnide: Taxonomic Implications
46	Alonso Delgado	How do multiple stressors affect food web structure in floodplain wetland ecosystems?
47	Li Xie	Improve community function through community selection
48	Shawn Trojahn	Whole-genome sequencing reveals the extent of heterozygosity in a preferentially self-fertilizing vertebrate
49	Monique Nouailhetas Simon	Living on a saddle: stabilizing and disruptive selection associated with bite force on the lower jaw of three ecologically divergent lizard species
50	Clay Bailes	Mechanisms of superinfection exclusion in Microviridae phage
51	Brittany Takushi	Molecular ecology and polyploidy in the single-celled green algae Micrasterias (Desmidiaceae)
52	Troy Olsen	Morphological stasis despite deep genetic divergences in pseudoscorpion
53	Mark Smithson	Multigenerational phenotypic and epigenetic stability in an asexual snail
54	Jaime Schwoch	Nonrandom Accumulation of Somatic Mutations during Vegetative Growth
55	Allie Graham	Novel miRNAs are associated with divergent transcriptional response to temperature stress in the intertidal copepod, <i>Tigriopus californicus</i>

56	Gavin Woodruff	A morphologically divergent close relative of <i>C. elegans</i> as a system for integrative biology
57	Xiaqing Zhao	Phenotypic and metabolic predictors of lifespan in Drosophila melanogaster
58	Camille DeRome	Phylogenetic analysis and DNA barcoding identifies a potential cryptic species within the leafy liverwort genus Porella (Porellaceae)
59	Mauro Toshiro Caiuby Sugawara	Phylogenetic signal of within-clade competitive dynamics using simulations
60	Amanda R Stahlke	Population genomics of an introduced biocontrol agent
61	Scott Hotaling	Population genomics of the glacier ice worm
62	Emily Morse	Preparing For Success: The Relationship between Energetics, Microbiome, and Migration Distance in Steelhead Trout
63	Kelley Harris	Rapid Evolution of the Human Mutation Spectrum
64	Peter Ralph	Recording pedigrees for fast genome simulation and analysis
65	Stephen A Banse	Regulation versus deterioration: Measuring health in C. elegans
66	Angeliqua Montoya	Retention of the Symbiosis island in a Mesorhizobium population
67	Michael Saxton	Seasonal transcriptional changes in brown bears ( <i>Ursus arctos</i> ) provides novel insights into hibernation physiology
68	Erin Wiese	Temperature effects on Oncorhynchus mykiss muscle physiology
69	Chris Duke	Temperature-mediated plasticity in sprint swimming performance and body shape in rainbow trout
70	Michael Zanis	The biodiversity and molecular evolution of Phycodnaviruses revealed through eDNA
71	Robert (Bob) Week	The Measurement of Coevolution in Nature
72	Ailene MacPherson	Density-dependent selection in finite populations
73	Nathaniel Sharp	The effect of ploidy level on the rate and spectrum of new mutations
74	Madison Armstrong	The evolution of plastic expression as an explanation of invasion success
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#### Acknowledgements

This year we are grateful to have financial support from several sources. The American Society of Naturalists is sponsoring registration of their student members. Princeton University Press provided books as student prizes; you can browse the books on Friday and Saturday, and if you place orders this weekend you get a discount. Polymorphic Games provided funding to help defray overall costs, and will have 4 games that you can try, including Darwin's Demons and Virtual Influenza. Hearty thanks as well to Luana Lins (scientific program design), Chris Duke and Erin Wiese (assistants par excellence), Mark Smithson, our AV guru, and to all our members who helped by moderating sessions, judging students talks and posters, and doing all the small but important things people do to help make things run smoothly. Special thanks to Rachel Barbieto at Fort Worden who has been great to work with. Finally, thanks to all of you for coming and for making EVO-WIBO such a great meeting!

Pat Carter & Mike Whitlock







