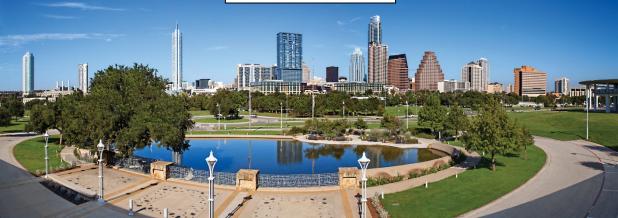


# **Full Program**







The 2016 annual meeting of the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists

Thurs., June 16		Fri, Ju	ne 17	5	Sat., June	2 18	Su 8:15	ın., June 19			on., June 20	)	Tues., Jur	ne 21	Wed., June 22
			8:30	8:30				8:30		8:15 ē. S	8:30				
SSB Phylogene	9:00	ASN Science Com Evo101 Te:	SSB Softwa	SSB Mayr symposium (Ball. A) 9:45	SSE Education symposium (MR7)	Regular contributed talks	Symp: Putting evolution into ecological niche modeling (Ball. C)	Symp: How and why? Towards an eke evolutionary physiological synthesis break (Ball. A)	Regular contributed talks	SSB Symp: Advances in the analysis of reticulate population networks (Ball. C)	ASN Symp: Convergent evolution, natural history & the big questions in biology (Ball. A)	Regular contributed talks	Symp: Co-evolving genomes: cooperation & conflict in cytonuclear interactions (Ball. A) 9:	Regular contributed talks	
tics S		muni	are Sc	10:15			10:15			10:15			= 10:15 Morning	break	
SSB Phylogenetics Symposium (MR7)		ASN Science Communication workshop (MR10C) Evo101 Teacher workshop (MR6B)	SSB Software School (MR4 & 7)	SSE Hamilton symposium (Ball. B)	SSB Mayr symposium (Ball. A)	Regular contributed talks	Symp: Putting evolution into ecological niche modeling (Ball. C)	Symp: How and why? Towards an evolutionary physiological synthesis (Ball. A)	Regular contributed talks	SSB Symp: Advances in the analysis of reticulate population networks (Ball. C)	ASN Symp: Convergent evolution, natural history & the big questions in biology (Ball. A)	Regular contributed talks	Symp: Co-evolving genomes: cooperation & conflict in cytonuclear interactions (Ball. A)	Regular contributed talks	÷
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	13:00			13:00									LUNC	н	ite m
13:45 SSB Phyl	Evo101 Teacher workshop (MR6B)	SSE Diverse Caree	SSB Sc	SSE Hamilton symposium (Ball. B)	ASN Spotlight: The evolution of species interactions (Ball. A)	Regular contributed talks		Regular contributed talks SSE Spotlight: Understanding history and process in rapid diversification		phylogenetic inference (Ball. A)	SSB Spotlight: Next generation	Regular contributed talks	13:30 Investigator Award symposium (Ball.ABC)	iEvoBio Lightning session (MR9C)	iEvoBio satellite meeting (MR9)
ogene	work	S	Ţ	14:15 14:45				ernoon break					14:45 Afternoo	on	
SSB Phylogenetics Symposium (MR7)	<b>(shop (</b> MR6B)	Committee workshop (MR10C)	SSB Software School (MR4 & 7)	SSE Hamilton symposium (Ball. B)	ASN Spotlight: The evolution of species interactions (Ball. A)	Regular contributed talks	Lightning talks (MR4 - 8)	SSE Spotlight: Understanding history & process in rapid diversification with genomic data (Ball. A)	Regular contributed talks	phylogenetic inference (Ball. A)	SSB Spotlight: Next generation	Regular contributed talks	break 15:15 Award symposium (Ball ABC)		
				16:00 ASN	<b>mixer</b> (R	otunda)	SSB m	<b>nixer</b> (Rotunda	)	SSE n	<b>1ixer</b> (Rotur	nda)	stigato ABC)		
17:00	Registrat			16:45 annou	ASN awa	rds ts & Pres.	SSB awar	ds announcem address (Ball.A	ients	SSE award	s announce ddress (Ball	ments &			
	Registration (ACC Palazzo, level 1)	18:30	conference begins		ster sess eception			ter session 2 ception (EH1) 19:00			session 3 tion (EH1)	iEvoBio Software bazaar (EH1)	18:00		
	level 1)	Opening reception & art exhibit (EH1)	19:30 Gould lecture (Ball.ABC)	Free tim	ne - dinno	er & drinks	Free time	Evolution f festival (M	R8)	Free time	19:30 Evolutio outreac (MF e - dinner &	n & Art ch talk R5)	<b>Super so</b> (Palmer E Cente	vents	

#### Welcome

We are delighted to welcome you to *Evolution 2016*, the joint annual meeting of the <u>Society for</u> the <u>Study of Evolution</u>, the <u>Society of Systematic Biologists</u>, and the <u>American Society of</u> <u>Naturalists</u>. This year's meeting will be held from June 17-21 at the <u>Austin Convention Center</u> in Austin, Texas. Austin is an incredible destination with a convention center in the heart of town that is surrounded by great restaurants and several famous entertainment districts.

The conference is the premier annual opportunity for sharing scientific research in the broad field of evolutionary biology and we anticipate just over 1,700 attendees. The meeting features multiple workshops and symposia, three new Spotlight sessions, 950+ contributed talks (regular and lightning), several plenary and outreach talks, and three poster sessions. Product and service providers are also contributing through their sponsorship and exhibits.

Social activities include an evening opening reception, mixers with each evening poster session, Society-sponsored mixers before each Presidential address, and a Super Social at the Palmer Events Center on the last night of the conference. With the exception of a small additional charge for the Super Social, all of these are included with your general registration.

This is the first conference under our new centralized meeting organization structure and we hope it will be one of the most productive and enjoyable ones yet. Thanks for coming and we look forward to seeing you in Texas!

Howard Rundle – Lead organizer Danielle Wiggins – Conference manager

## **Acknowledgements**

The meeting has been made possible through the hard work of many people. These include current and past members of the Joint Meeting Committee – namely Aneil Agrawal, Butch Brodie, Becky Fuller, L. Lacey Knowles, and Bryan Carstens – who served as valuable consultants and information providers throughout. Candace Brown helped with program design and sponsor/exhibitor management, Stephanie Risbon reviewed the program, arranged the DJ, and is helping onsite, Arman Bilge coded our new poster invitation and talk timing systems, Emily Behrman and Mohamed Noor organized the recording/posting of talks and archiving of posters, Yoel Stuart organized our field trips, Dan Bolnick helped arrange the UTAustin residences and sponsorship, and Andrius Dagilis corralled some AV equipment for us. Numerous local volunteers also helped in various capacities and Jory Weintraub graciously coordinated them all (and also caught many awkward errors in the printed program). To all the organizers of the various symposia, spotlight sessions, workshops, and other special events – a heartfelt thank you for your time and effort!

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## **General Information**

#### Venues

The Austin Convention Center (ACC) is located in the heart of Austin, the capital of Texas, and is situated between the shores of Lady Bird Lake and historic Sixth Street. It has easy access to I-35 and is a short distance from 6,500 downtown hotel rooms (all conference hotels are within an easy walking distance) and several famous entertainment districts. The Center is a s a **LEED® Gold** certified building and through a mix of on-site panels and Austin Energy's Green Choice Program, is powered by 100% Renewable Energy.

The conference-ending Super Social will be held at the spectacular Palmer Events Center, an indoor/outdoor venue located with an urban park of oak and cypress with a view of Lady Bird Lake. The Palmer Center is ~1 mile walk from the ACC and on the way you cross the Congress Avenue Bridge, home to the world's largest urban bat colony. Between 750,000 and 1.5 million Mexican free-tailed bats reside under the bridge each summer and emerge at dusk to feed. The bridge and a bat are featured in our conference logo.

#### Registration & information desk

The Registration & information desk will be located in the Palazzo on Level 1 of the ACC and will be attended during the times listed below. Staff and volunteers will be identified by distinctive orange conference t-shirts; don't hesitate to ask any of them for help. Your conference registration covers attendance at all scientific events over the four days (June 18-21) including concurrent sessions, symposia, Spotlight sessions, plenary addresses, and three evening poster sessions. It also includes morning and afternoon coffee breaks (June 18-21), the June 17 evening opening reception, the three evening poster session mixers with light food, and wireless access throughout the ACC. There is a small, additional charge for the conference-ending Super Social. With the exception of the Super Social, no meals are provided. The Austin convention center will have a concession stand in the building on Saturday – Tuesday with coffee, drinks, and lunch available for purchase. See the Dining in Austin section later in this program for information about local restaurants.

# In the interest of reducing waste, no conference bag will be provided. Your name badge is your entrance ticket to all of these events: please wear it.

#### Registration & information desk hours:

Friday, June 17	4:00 pm - 8:00 pm
Saturday, June 18	7:30 am - 5:30 pm
Sunday, June 19	8:30 am - 4:30 pm
Monday, June 20	8:30 am - 4:30 pm
Tuesday, June 21	8:30 am - 3:30 pm

#### Childcare & nursing

Onsite childcare services for children ages 6 months – 12 years are located in Show Offices 1 & 2 on the Mezzanine Level of the ACC. Bookings had to be made prior to May 20, 2016 (i.e. no unscheduled drop-ins). Childcare services are provided by <u>KiddieCorp</u>, a professional organization that serves for over 175 events each year. Their goal is to provide your children with a comfortable, safe, and happy experience. Snacks and beverages are provided but parents must provide lunch each day. There will be a fridge to store food/drinks but no way to heat them. KiddieCorp enforces a strict NUT FREE policy. All arrangements and payments were handled directly by KiddieCorp.

A quiet, private room with comfortable seating and a mini-fridge is available for nursing mothers in Show Office 5 on the Mezzanine Level, right near the childcare rooms. A <u>Mamava Suite</u> will also be onsite at the ACC set up near the registration area. These free-standing pods provide a comfortable and private area to nurse/pump.

#### Practice room

Meeting Room 2 is available from 8 am -5 pm daily (Sat-Tues) as a quiet room in which to practice your talk. It will be configured with boardroom-style seating so you will have to use your own laptop/tablet during your practice. The room is reserved for council meetings from 11:30 am -1:30 pm on Saturday, June 18 and from 8:30 - 10 am on Tuesday, June 21.

#### Message board

A message board will be located near the Registration & Information desk in the Palazzo on Level 1 of the ACC. Registrants are welcome to post notices about events, jobs, announcements, and messages for other attendees.

#### **Charging station**

Charging Stations are located in Exhibit Hall 1 on banquet tables nearest Meeting Rooms 2 and 3 Entrances.

#### Internet access & electronic devices

Wireless access is provided to participants free of charge throughout the ACC, sponsored in part by Wiley (network: Austin Convention Center; no password required).



# Please remember to turn off or mute all electronic devices during all concurrent sessions.

#### First aid & emergencies

A large pharmacy (CVS Pharmacy; 500 Congress Avenue; 512-478-1091) is a 10 min. walk away from the Austin Convention Center.

Call 911 in an emergency for fire/police/ambulance.

#### Conference policies

#### Policy on harassment, discrimination and liability

The Societies (American Society of Naturalists, the Society of Systematic Biologists, and the Society for the Study of Evolution) are dedicated to providing a safe, hospitable, and productive environment for all participants of the annual Evolution Meetings. Accordingly, the Societies prohibit all forms of discrimination and harassment at the Evolution Meetings. Behavior that undermines the integrity of intellectual discourse and interactions will not be tolerated. This applies to all conference participants including staff, volunteers, and attendees. If a participant engages in harassing or discriminatory behavior, the Societies reserve the right to take action ranging from a simple warning to the offender to expulsion from the conference. If you have a question or concerns about this policy or would like to report an incident involving yourself or another person, please contact any member of the Joint Meeting Committee. We take such issues seriously and will maintain your confidentiality (unless legally compelled otherwise).

The Societies shall not be responsible for any defamatory, offensive, or illegal conduct of all Evolution Meeting participants, and shall not be held liable for personal injury, property damage, theft or damage of any kind suffered by the participants at or in connection with the Evolution meeting.

By registering for and attending the annual Evolution Meeting, each participant acknowledged that they have read this Disclaimer, and expressly released the Societies and its board members, directors, officers, employees, or agents from any and all liability in connection with such Meeting as provided herein.

#### Weapons policy

For the safety of all attendees, the Evolution Meetings are 'weapons free' and all conference participants, including staff, volunteers, and attendees, are banned from possessing any object or substance intended to cause injury to others, including but not limited to firearms.

#### Broadcasting policy

The Evolution Meetings support the communication and discussion of science. Information presented at the Meeting (in oral or poster format) may be reported and discussed by attendees and science writers via blogs, Twitter, or other formats. However, we require that this be done respectfully and without direct reproduction of visual materials (e.g., no posting photos of slides or posters) unless permission is obtained from the presenter or they have already made this information freely available in an open-source forum. If a

presenter does not want information from his/her presentation to be broadcast, they should make this clear in their talk/poster and we ask that attendees respect this.

If you have questions or concerns about this policy, or would like to report an abuse of it, please contact any member of the <u>Joint Meeting Committee</u>.

#### Policy on multiple presentations

The Evolution Meetings have grown dramatically of late, increasing the demand for both oral and poster presentations. To reduce competition and give more people an opportunity to present, attendees are limited to presenting one talk, no matter what type (e.g., regular contributed talk, lightning talk, symposium talk, award talk, etc.) and/or one poster. Please note that this only applies to the presenting author; you can be a co-author on multiple presentations given by others.

#### **Oral presentations**

Regular concurrent talks will be held to 14 min, including questions, permitting a 1 min movement and switch-over time between talks. This will be rigorously enforced by an automatic audio timing system that will sound at 12 min (indicating two 2 min left), then at 14 min to denote the end of the talk and the start of 1 min of movement time, then finally at 15 min to denote the start of the next talk. Note that the 14 min includes time for questions, so we suggest 12-13 min for the talk and 1-2 min for questions.

Lightning talks are short presentations that are 5 min in duration with no scheduled setup/movement time between them (i.e. the next speaker will need to be 'waiting in the wings'). Timing will also be strictly enforced by an automatic system that will sound once at 4 min to indicate 1 min left, then again at 5 min to denote the end of the current talk and the start of the next.

Special talks of other duration (e.g. '30' min. symposium talks) will likewise include 1 min of movement time, meaning a 30 min talk is actually 29 min including questions.

The AV system is PC-based and will support both PowerPoint (all versions) and PDF files (unfortunately Keynote and Prezi are NOT supported). **Presentations should be formatted using a standard (4:3) slide size, NOT widescreen (16:9).** If your presentation was prepared on a Mac or other non-Windows based system, it is STRONGLY recommended that you review it in the Speaker Ready room prior to giving your talk (see below). Additional details about audio and video support can be found on the <u>conference website</u>.

Talks can be uploaded online before or during the conference, or via the Speaker Ready Room (Meeting Room 1 on Level 1 of the ACC) at the conference. **This must be done a minimum of 2 h before your presentation**. Instructions on how to upload presentations online were emailed to every speaker ahead of the meeting. You can also review your talk in the Speaker Ready Room and AV technicians will be present to help resolve any compatibility or formatting issues and can also explain the in-room setup. The computers in the Speaker Ready Room will be configured with hardware and software exactly like the ones in the meeting room.

#### Speaker Ready Room hours

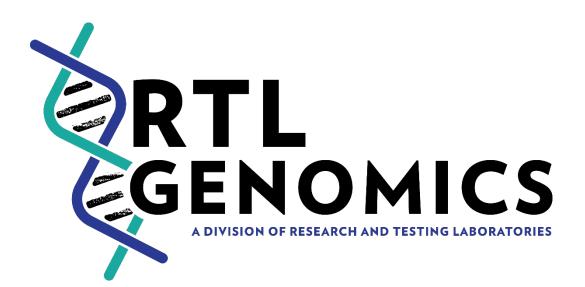
Hours for the Speaker Ready Room (MR1 in ACC) are as follows:

Friday, June 173:00 pm - 8:00 pmSaturday - Monday, June 18-208:00 am - 5:00 pmTues., June 218:30 am - noon

#### Session chairs

Session chairs were drawn from attendees who volunteered during registration. Their principal duty is to act as a backup for the automated timing system. Chairs will also receive instructions on how to request AV help in the case of a problem.

Sessions chairs and presenters should arrive at their room at least 10 min before the session begins. Each speaker should introduce him/herself to the Chair and confirm that his/her talk is present on the podium computer. (Talks are uploaded ahead of time via the website or in the Speaker Ready Room, not in the seminar room itself). For regular concurrent talks, the automated timing system will notify the speaker at the 12 min mark (i.e. 2 min remaining), and will then sound a different chime at 14 min indicating the end of the talk and the start of the 1 min movement time. It will sound again at 15 min to denote the start of the next talk. Audio chimes in Symposia and Spotlight sessions will function in a similar way with the exception of lightning talks which will feature a 4 min warning chime and then a different chime at 5 min denoting the end of the current talk and start of the next talk. Should the automated timing system fail, chairs are expected to rigorously enforce the above timing with reference to the time shown on the clock radio in each room.



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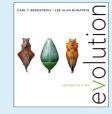
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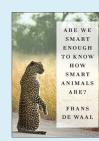
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9

#### **Poster sessions**

Posters are assigned to one of the three poster sessions that will be held in conjunction with social mixers that include light food, beer, wine and non-alcoholic beverages. Presenters should attend their poster during their assigned session (see the daily schedule later in this program). All poster sessions will be held in Exhibit Hall 1 (EH-1).

#### Poster session #1: Saturday, 5:45 - 7:45 pm

Posters should be displayed by noon on Saturday and removed by noon on Sunday.

#### Poster session #2: Sunday, 5:45 - 7:45 pm

Posters should be displayed by 1pm on Sunday and removed by noon on Monday.

#### Poster session #3: Monday, 5:45 - 7:45 pm

Posters should be displayed by 1pm on Monday and removed by 10 am on Tuesday.

Posters can be a maximum of 1.2 m x 1.2 m (4 ft x 4 ft) and pushpins will be provided. **Poster boards will be numbered and presenters should use the space assigned to them in the program**. If the previous poster is still displayed when you arrive to put up your own, please carefully remove it, roll it up, and place it next to your poster board. We will collect unclaimed posters prior to the next poster session and relocate them to a side table.



Reception and Book Signing Monday, June 20 at 6:00 p.m. Please join us at our booth for wine and cheese. **How Evolution Shapes Our Lives** Essays on Biology and Society *Edited by Jonathan B. Losos* & *Richard E. Lenski* Paper \$39.50

The Scientist's Guide to Writing How to Write More Easily and Effectively throughout Your Scientific Career Stephen B. Heard Paper 521.95 Book Signing Sunday, June 19 at 6:00pm

The Serengeti Rules The Quest to Discover How Life Works and Why It Matters *Sean B. Carroll* Cloth \$24.95

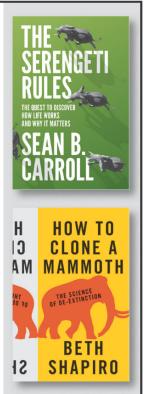
Silent Sparks The Wondrous World of Fireflies *Sara Lewis* Cloth \$29.95 Following the Wild Bees The Craft and Science of Bee Hunting *Thomas D. Seeley* Cloth \$22.95

How to Clone a Mammoth The Science of De-Extinction Beth Shapiro Paper \$14.95 August 2016 Cloth \$24.95

How Men Age What Evolution Reveals about Male Health and Mortality *Richard G. Bribiescas* Cloth \$27.95 *Fall 2016* 

Phylogenies in Ecology A Guide to Concepts and Methods Marc W. Cadotte & T. Jonathan Davies Cloth \$55.00 Fall 2016

Eco-evolutionary Dynamics Andrew P. Hendry Cloth \$65.00 Fall 2016



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#### Super social

The conference-ending Super Social will be held in the indoor/outdoor <u>Palmer Events</u> <u>Center</u> starting at 6:00 pm on Tuesday, June  $21^{st}$ . The Center is located off W Riverside Drive (900 Barton Springs Rd officially) and is about a 1-mile (~20 min.) walk from the ACC. Guided walks will be leaving the ACC Palazzo at 5:30 and 5:45 pm for those interested. Shuttles will also be running between the ACC, UT Austin dorms, and Palmer Event Center from 5:30 pm – 1 am that evening (see below).

#### Shuttle service

A free shuttle service will be offered from the UT Austin Duren Hall dorms (pickup location is the corner of 27<sup>th</sup> St. & Whitis Ave.) to the Austin Convention Center. The shuttle stop at the ACC is on Trinity St. immediately outside of the building across from Exhibit Hall 1 (see map on inside back cover). You can also use public transit (Capital Metro), with direct trips (i.e. no transfer) taking ~12 min. plus walking time and costing at little as \$1.25 one-way / \$2.50 day pass (see the Capital Metro Trip planner).

FRIDAY, JUNE 17 (ACC– DUREN HALL LOOP)							
Time Frequency Departs Duren Hall Departs ACC							
2:00 pm - 6:00 pm	Every 60 min.	On the hour	On the half-hour				
6:00 pm - 11:00 pm	Every 30 min.	On the hour & half-hour	On the hour & half-hour				
SATURDAY, JUNE 18 – MONDAY, JUNE 20 (ACC – DUREN HALL LOOP)							
7:30 am - 11:00 am	Every 15 min.	:00 :15 :30 :45	:00 :15 :30 :45				
11:00 am - 9:00 pm	Every 60 min.	On the hour	On the half-hour				
TUESDAY, JUNE 21 (ACC – DUREN HALL LOOP)							
8:00 am - 11:00 am	Every 15 min.	:00 :15 :30 :45	:00 :15 :30 :45				
11:00 am - 9:00 pm	Every 30 min.	On the hour	On the half-hour				

Shuttle schedule:

SUPER SOCIAL SHUTTLES (TUESDAY, JUNE 21)						
Time	Frequency	Route				
5:00 pm - 9:00 pm	Every 10 min.	Loops from Austin Convention Center to Palmer Events Center				
9:00 pm - 1:00 am	Every 15 min.	Loops from Palmer Events Center to Convention Center to Duren Hall				

## **Sponsors & Exhibitors**

#### **Sponsors**

We are grateful to our sponsors whose financial contributions have helped keep registration costs more affordable.

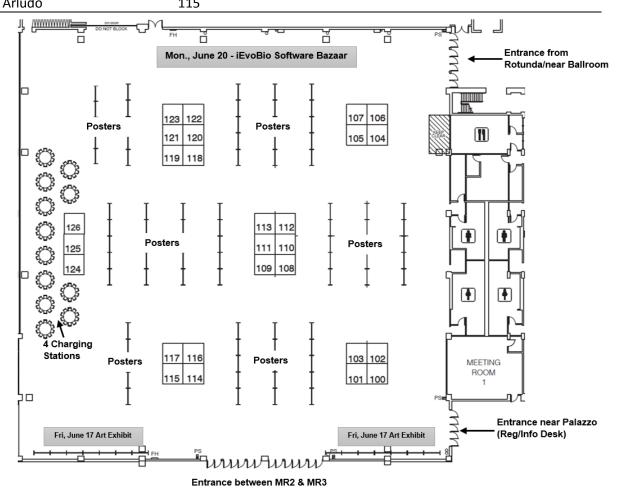


#### **Exhibitors**

A wide range of exhibitors have booths in Exhibit Hall 1. We encourage you to visit them and learn about the publications, products, and services they have to share. Exhibitor hours are:

Friday, June 17	7:00 pm – 7:30 pm
Saturday - Monday, June 18-20	9:30 am – 7:30 pm
Tuesday, June 21	9:00 am – 12 noon

Exhibitor	Booth	Exhibitors	Booth
SimBio	100	Sinauer Associates, Inc., Publishers	116
Harvard University Press	101	Elsevier	117
Princeton University Press	102	MYcroarray	118
Macmillan Learning	103	Genomics (Biomatters)	120
YXLON	104	Taylor & Francis	122
New Phytologist	105	University of Chicago Press	108, 110
Wiley	106	BEACON Center for the Study of Evolution in Action	109, 111
Dragonfly Glass	107	Oxford University Press	119, 121
Arbor Workflows	112	RTLGenomics	124
W.W. Norton	113	British Ecological Society	125
Royal Society Publishing	114	SSE Diverse Careers	126
Arludo	115		



Welcome to Austin

on behalf of the Graduate Program in Ecology, Evolution & Behavior and the Department of Integrative Biology at The University of Texas at Austin











EEB and IB constitute a community of over 40 faculty and 70 PhD students from around the world. We are supported by outstanding field research stations around Austin (Brackenridge Field Laboratory, and the recently-expanded Stengl "Lost Pines" Biology Station), the magnificent biodiversity collections, the Texas Advanced Computing Center, the Genome Sequencing and Analysis Facility, and the Center for Computational Biology and Bioinformatics.

#### The University of Texas at Austin

Department of Integrative Biology College of Natural Sciences



integrativebio.utexas.edu



# The University of Texas at Austin

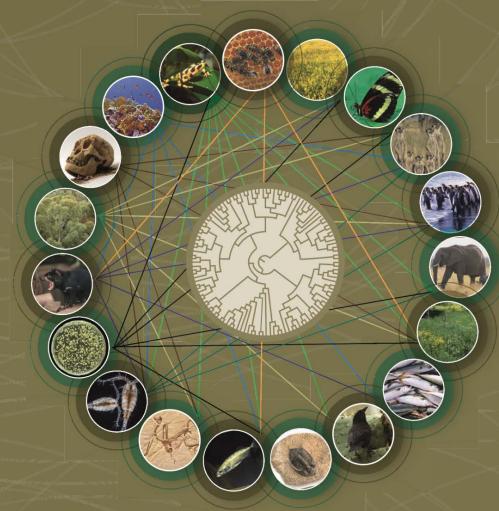
Graduate Program in Ecology, Evolution & Behavior College of Natural Sciences

cns.utexas.edu/eeb-graduate-program

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## Things to Do in Austin

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#### Local attractions

#### Puzzle Room http://www.puzzleroomaustin.com/

Race the clock to find clues and solve puzzles in this real life game experience. Your team will have one hour to test your wits against a variety of mind-bending challenges. Try your hand at this new genre of game that has been exploding in popularity around the country. Do you have what it takes to escape the room?

#### Austin Aquarium http://www.austinaquarium.com/

Austin Aquarium provides children and families access to the excitement and learning opportunities of the ocean without the long trip to the coast. Guests can watch jellyfish float and glow, admire the bright and colorful corals, feel the soft ray on their fingertips, interact with tropical birds and reptiles... all within easy reach of home. Austin Aquarium offers multiple educational programs and events for kids. Popular activities include feeding the animals, Birthday Parties, Private Events, Sleep with the Sharks, and Morning Rounds.

#### Austin Duck Adventures http://austinducks.com/

A fun, narrated, amphibious tour of downtown Austin that ends with a splash on Lake Austin. Tours and tickets available at Austin Visitor Center.

#### Ann Richards Congress Avenue Bridge Bats www.batcon.org

Congress Avenue Bridge shelters the largest urban bat colony in North America. Between 750,000 and 1.5 million bats fly out near dusk. Best viewing dates: April-October.

#### Austin Oddities & Entertainment http://www.austinoddities.com/

Austin Oddities & Entertainment is a unique one-stop shop to find and book talent that is both exciting and out of the ordinary. Our focus is in Circus, Texas-themed, and off-beat specialty talent using both local and national acts. Austin Oddities is best known for our large scale big-spectacle events. We build unique concepts that are event specific, design one-of-a-kind costumes, and ensure that creativity and professional execution are at the heart of everything we do.

#### Austin Panic Room https://texaspanicroom.com/

Austin Panic Room is the original live escape room experience in Austin. We are the perfect option for any group outings. Imagine - you are locked up in a room for 60 minutes with your friends, and the only way to get out is by working together to solve the clues and

puzzles hidden inside the room. None of our rooms are scary. Instead, they test your communication skills and the ability to think outside of the box. The current escape rate is ~30% for all our rooms. Are you up for the challenge? Visit our website at www.texaspanicroom.com to learn more!

#### Austin Toy Museum http://austintoymuseum.org/

The Austin Toy Museum collection primarily features toys and figurines from the golden age of the '80s and is comprised of over 20,000 pieces. The toys range all the way back to the early 1900s. The museum houses many rare and unique items including prototypes of action figures acquired directly from some of the people who used to work in these great toy companies. Exhibits include action figures, dolls, merchandise, arcade games, comic books and over 50 video game systems all the way back to the first home console unit.

#### Austin Zoo http://austinzoo.org/

The mission of Austin Zoo is to assist animals in need through rescue, rehabilitation and education. Located on the southwest edge of Austin off of Highway 290 West and Circle Drive, Austin Zoo is a pleasant Hill Country zoo where visitors from around the world can come to learn about animals close-up, spend some time outdoors getting exercise and have fun.

# **Dining in Austin**

If you're using a pdf version of this program, here are some useful websites by cuisine (click to access hyperlink for each):

- BBQ in Austin
- BBQ on the outskirts of
   Austin
- Cajun & Creole
- Chinese
- French

- Indian Food
- Meat Lovers Guide
- Mexican
- Middle Eastern
- Thai

And by diet:

- Gluten free
- Vegan

- Vegetarian
- Whole30 diet

A listing of downtown restaurants is included on the next page. The co-ordinates correspond to the map on the back cover of this program.

# **Austin Downtown Restaurant Guide**

MAP	RESTAURANT	ADDRESS	PHONE	WEBSITE	CUISINE
E14	III Forks D \$\$\$	111 Lavaca St.	474-1776	3forks.com	Steakhouse
G9	1886 Bakery & Café, Driskill Hotel 🐠 🛙 🖉 🖇	604 Brazos St.	391-7066	1886cafeandbakery.com	Bakery
G13	Annie's Café and Bar	319 Congress Ave., Ste. c150	472-1884	anniescafebar.com	American
F9	Athenian Bar & Grill LD \$\$	600 Congress Ave.	474-7775	athenianbargrill.com	Mediterranean
110	The Backspace LD \$\$	507 San Jacinto Blvd.	474-9899	thebackspace-austin.com	Italian
N18	Banger's Sausage House & Beer Garden 🐢 B L D \$\$	79 Rainey St.	386-1656	bangersaustin.com	American
E14	Bar Chi L D LN \$\$	206 Colorado St.	382-5557	barchiaustin.com	Sushi
H9	BD Riley's Irish Pub	204 E. Sixth St.	494-1335	bdrileys.com	Irish
F13	Bob's Steak and Chop D \$\$\$	301 Lavaca St.	222-2627	bobs-steakandchop.com	Steakhouse
F15	The Bonneville D \$\$	202 W. Cesar Chavez St.	428-4643	thebonnevilleaustin.com	New American
H10	Buffalo Billiards L D LN \$	201 E. Sixth St.	479-7665	buffalobilliards.com	American
E14	Cantina Laredo L D \$\$	201 W. Third St.	542-9670	cantinalaredo.com	Mexican
F13	The Capital Grille LD \$\$\$	117 W. Fourth St.	322-2005	thecapitalgrille.com	Steakhouse
K10	Carmelo's LD \$\$\$	504 E. Fifth St.	477-7497	carmelosrestaurant.com	Italian
H13	Cedar Door 🕙 B L D LN \$	201 Brazos St.	473-3712	cedardooraustin.com	American
111	Champions Sports Bar	300 E. Fourth St.	473-0450	championsaustin.com	American
J10	Chez Nous LD \$\$\$	510 Neches St.	473-2413	cheznousaustin.com	French
F11	Chinatown L D \$\$	107 W. Fifth St.	637-8888	chinatown-downtown.com	Asian
G13	Cooper's Old Time Pit Bar-B- Que 🛯 L D LN \$\$	217 Congress Ave.	474-4227	coopersbbqaustin.com	Barbecue
G13	Corner Flavors of Texas	110 E. Second St.	608-4488	cornerrestaurantaustin.com	New Texan
G13	Counter 3. Five. VII D \$\$\$\$	315 Congress Ave.	291-3327	counter3fivevii.com	New American
F15	Cru - A Wine Bar D \$\$	238 W. Second St., Ste. 13	472-9463	cruawinebar.com/ locations austin	New American
G15	DINE BLD \$\$	111 E. Cesar Chavez	478-2991	dineradissonaustin.com	New American
H10	The Driskill Grill D \$\$\$\$	604 Brazos St.	391-7162	driskillgrill.com	New Texan
M10	Easy Tiger L D LN \$\$	709 E. Sixth St.	614-4972	easytigeraustin.com	German
111	Eddie V's Steakhouse D LN \$\$\$	301 E. Fifth St.	472-1860	eddiev.com	Seafood & Steak
M18	El Naranjo d \$\$	85 Rainey St.	474-2776	elnaranjo-restaurant.com	Mexican
L9	El Sol y La Luna BLD \$\$	600 E. Sixth St.	444-7770	elsolylalunaaustin.com	Mexican
M20	Emmer & Rye B D \$\$	51 Rainey St., Ste. 110	366-553	emmerandrye.com	New American
H10	Eureka! LD LN \$\$	200 E. Sixth St.	735-1144	eurekarestaurantgroup.com	American
E12	Fadó Irish Pub L D LN \$\$	214 W. Fourth St.	457-0172	fadoirishpub.com/austin	lrish
113	Fleming's Prime Steakhouse	320 E. Willie Nelson Blvd.	457-1500	flemingssteakhouse.com	Steakhouse
113	Fogo de Chao L D \$\$\$	309 E. Third St.	472-0220	fogodechao.com	South American
F11	Frank 🐠 B L D LN \$	407 Colorado St.	494-6916	hotdogscoldbeer.com	American
M20	G'Raj Mahal d LN \$\$	73 Rainey St.	480-2255	grajmahalaustin.com	Indian
L17	Geraldine's B d LN \$\$	605 Davis St.	476-4755	geraldonesaustin.com	New American
D9	Gloria's LD \$\$	300 W. Sixth St.	833-6400	gloriasrestaurants.com	Mexican
F11	Gourdough's Public House B L D LN \$	201 W. Fifth St.	645-0255	gourdoughs.com	American
I 14	Gus's Fried Chicken LD\$	117 San Jacinto Blvd.	474-4877	gusfriedchicken.com	Chicken
E12	Halcyon B L D LN \$\$	218 W. Fourth St.	472-9637	halcyonaustin.com	Coffee House
19	Iron Cactus LD LN \$\$	606 Trinity St.	472-9240	ironcactus.com	Mexican
K14	Iron Works LD \$\$	100 Red River St.	478-4855	ironworksbbq.com	Barbecue
F11	Isla D \$\$\$	208 W. Fourth St.	322-9921	islaaustin.com	Caribbean
D13	Jo's Hot Coffee 🚳 🛛 L D \$	242 W. Willie Nelson Blvd.	469-9003	joscoffee.com	Coffee House

MAP           C13           C14           F12           C14           H13           G13           H14           H15           J10           G13           G14           H10           G13           H14           H10           K11	RESTAURANT La Condesa LD \$\$\$ La Traviata LD \$\$ Lamberts BBQ • LD LN \$\$ Le Café Crepe BLD \$ Le Café Crepe BLD \$ Leaf LD \$\$ Leaf LD \$\$ Liberty Tavern BL \$\$ Liberty Tavern BL \$\$ Lonesome Dove LD \$\$ Mai Thai LD \$\$ Mai Thai LD \$\$ Malaga Tapas & Bar LD \$\$ Malaga Tapas & Bar LD \$\$ Manuel's • LD \$\$ Manuel's • LD \$\$ Manuel's • LD \$\$ Moonshine LD \$\$ Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside DLN \$\$	ADDRESS 400A W. Willie Nelson Blvd. 314 N. Congress Ave. 401 W. Willie Nelson Blvd. 200 San Jacinto Blvd. 200 San Jacinto Blvd. 500 E. Fourth St. 419 Colorado St. 419 Colorado St. 207 San Jacinto Blvd. 100 Colorado St. 310 Congress Ave. 207 San Jacinto Blvd. 303 Red River St. 504B Trinity St. 401 E. Sixth St. 110 E. Second St. 201 San Jacinto Blvd. 203 Red River St. 504B Trinity St. 401 E. Sixth St. 201 San Jacinto Blvd. 201 San Jacinto Suth St. 201 San Jacinto Su	PHONE           499-0300           479-8131           494-1500           480-0084           474-5323           493-4901           271-2474           482-8244           236-8020           637-6774           472-7555           904-0111           320-0300           236-8293           478-2491           722-6351           608-4490           457-8308	WEBSITE           lacondesaaustin.com           latraviata.net           lambertsaustin.com           cafecrepeofaustin.com           leafsalad.com           libertytaverntx.com           lonesomedoveaustin.com           maithaiaustin.com           manafus.com           manuels.com           maxwinedive.com austin           micheladasaustin.com           oldpecanstcafe.com           oldschoolaustin.com           oseriaprontoaustin.com	CUISINE         Mexican         Italian         Barbecue         French         American         New Texan         New Texan         Asian         Spanish         Asian         Mexican         Mexican         American         Mexican         American         American         American         American         American         American         American         American         American         American
F12         I           C14         I           H13         I           K11         I           F11         I           H13         I           H14         I           H15         I           H16         I           H17         I           H18         I           H19	La Traviata LD SS Lamberts BBQ O LD LN SS Le Café Crepe BLD S Leaf LD SS Liberty Tavern BL SS Liberty Tavern BL SS Liberty Tavern BL SS Mai Thai LD SS Malaga Tapas & Bar LD SS Manae I'S DD SS Manuel'S O LD SS Max's Wine Dive D SS Micheladas LD SS Moonshine LD SS Old Pecan Street Café LD SS Old School Bar & Grill LD SS Osteria Pronto P.F. Chang's China Bistro LD SS Parkside D LN SSS	Nelson Bivd. 314 N. Congress Ave. 401 W. Willie Nelson Bivd. 200 San Jacinto Bivd. 500 E. Fourth St. 419 Colorado St. 207 San Jacinto Bivd. 207 San Jacinto Bivd. 310 Congress Ave. 207 San Jacinto Bivd. 303 Red River St. 504B Trinity St. 401 E. Sixth St. 110 E. Second St. 201 San Jacinto Bivd. 201 San Jacinto Bivd.	479-8131 494-1500 480-0084 474-5323 493-4901 271-2474 482-8244 236-8020 637-6774 472-7555 904-0111 320-0300 236-9599 478-2491 722-6351 608-4490 457-8300	Iatraviata.net         Iambertsaustin.com         cafecrepeofaustin.com         leafsalad.com         libertytaverntx.com         lonesomedoveaustin.com         maithaiaustin.com         manafus.com         manuels.com         incheladasaustin.com         micheladasaustin.com         oldpecanstcafe.com         oldschoolaustin.com         oseriaprontoaustin.com	Italian Barbecue French American New Texan New Texan Asian Spanish Asian Asian Mexican American American American American American
C14         I           H13         I           K11         I           K11         I           F11         I           G13         I           G14         I           H13         I           G14         I           G13         I           G14         I           J16         I           J16         I           J17         I           J16         I           J17         I           J18         I           J19	Lamberts BBQ I DLN \$\$ Le Café Crepe BLD \$ Leaf LD \$\$ Liberty Tavern BL \$\$ Lonesome Dove LD \$\$\$ Mai Thai LD \$\$ Malaga Tapas & Bar LD \$\$ Manuel's I D \$\$ Manuel's I D \$\$ Max's Wine Dive D \$\$ Micheladas LD \$\$ Micheladas LD \$\$ Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside D LN \$\$\$	Ave.         Ave.         401 W. Willie Nelson Blvd.         200 San Jacinto Blvd.         500 E. Fourth St.         500 E. Fourth St.         419 Colorado St.         207 San Jacinto Blvd.         100 Colorado St.         100 Colorado St.         310 Congress Ave.         207 San Jacinto Blvd.         303 E. Second St.         303 Red River St.         504B Trinity St.         401 E. Sixth St.         110 E. Second St.         201 San Jacinto Blvd.	494-1500           480-0084           474-5323           493-4901           271-2474           482-8244           236-8020           637-6774           472-7555           904-0111           320-0300           236-9599           478-2491           722-6351           608-4490           457-8300	lambertsaustin.com cafecrepeofaustin.com leafsalad.com libertytaverntx.com lonesomedoveaustin.com maithaiaustin.com malagatapasbar.com mamafus.com manuels.com manuels.com manuels.com manuels.com oldpecanstcafe.com oldpecanstcafe.com oldschoolaustin.com oseriaprontoaustin.com	Barbecue French American New Texan Asian Asian Spanish Asian Asian Mexican American American American American
H13 ( 114 ( K11 ( F11 ( 113 ( 113 ( 113 ( 114 ( 110 ( 114 ( 110 ( 114 ( 111 ( 114 ( 11	Le Café Crepe BLD \$ Leaf LD \$\$ Liberty Tavern BL \$\$ Liberty Tavern BL \$\$ Lonesome Dove LD \$\$\$ Mai Thai LD \$\$ Mai Thai LD \$\$ Mana Fu'S LD \$ Manuel's @ LD \$\$ Manuel's @ LD \$\$ Max's Wine Dive D \$\$ Micheladas LD \$\$ Micheladas LD \$\$ Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside DLN \$\$\$	Blvd.           200 San Jacinto Blvd.           419 W. Willie Nelson Blvd.           500 E. Fourth St.           419 Colorado St.           207 San Jacinto Blvd.           410 OLOrado St.           200 Colorado St.           310 Congress Ave.           207 San Jacinto Blvd.           303 Red River St.           303 Red River St.           504B Trinity St.           401 E. Sixth St.           110 E. Second St.           201 San Jacinto Blvd.	480-0084 474-5323 493-4901 271-2474 482-8244 236-8020 637-6774 472-7555 904-0111 320-0300 236-9599 478-2491 722-6351 608-4490 457-8300	cafecrepeofaustin.com leafsalad.com libertytaverntx.com lonesomedoveaustin.com maithaiaustin.com malagatapasbar.com manuels.com manuels.com maxswinedive.com austin micheladasaustin.com oldpecanstcafe.com oldpecanstcafe.com oldschoolaustin.com	French American New Texan New Texan Asian Asian Spanish Asian Mexican American American American American Italian
C14       K11       F11       I13       C13       C13       F14       F12       I13       J16       J12       I13       G13       I14       J16       J16       J114       J104       J114       J114       J114       J114       J114       J114	Leaf LD \$\$ Liberty Tavern BL \$\$ Lonesome Dove LD \$\$\$ Mai Thai LD \$\$ Malaga Tapas & Bar LD \$\$ Mana Fu's LD \$ Manuel's @ LD \$\$ Max's Wine Dive D \$\$ Micheladas LD \$\$ Moonshine LD \$\$ Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside DLN \$\$\$	Blvd.           419 W. Willie Nelson Blvd.           500 E. Fourth St.           207 San Jacinto Blvd.           419 Colorado St.           200 C. Fourth St.           810 C.           207 San Jacinto Blvd.           100 Colorado St.           207 San Jacinto Blvd.           303 Congress Ave.           207 San Jacinto Blvd.           303 Red River St.           504B Trinity St.           401 E. Sixth St.           110 E. Second St.           201 San Jacinto Blvd.           301 San Jacinto Blvd.	474-5323 493-4901 271-2474 482-8244 236-8020 637-6774 472-7555 904-0111 320-0300 236-9599 478-2491 722-6351 608-4490 457-8300	leafsalad.com libertytaverntx.com lonesomedoveaustin.com maithaiaustin.com malagatapasbar.com mamafus.com manuels.com manuels.com incheladasaustin.com moonshinegrill.com oldpecanstcafe.com oldpecanstcafe.com oldschoolaustin.com	American New Texan New Texan Asian Spanish Asian Mexican American American American American American
K11       F11       F13       C13       C14       F12       J16       L12       J10       G13       J14       J10       G13       L12	Liberty Tavern BL \$\$ Lonesome Dove LD \$\$\$ Mai Thai LD \$\$ Malaga Tapas & Bar LD \$\$ Mama Fu's LD \$ Manuel's @ LD \$\$ Max's Wine Dive D \$\$ Micheladas LD \$\$ Micheladas LD \$\$ Micheladas LD \$\$ Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside DLN \$\$\$	Blvd. 500 E. Fourth St. 419 Colorado St. 207 San Jacinto Blvd. 440 W. Willie Nelsoon Blvd. 100 Colorado St. 310 Congress Ave. 207 San Jacinto Blvd. 303 Red River St. 504B Trinity St. 401 E. Sixth St. 110 E. Second St. 201 San Jacinto Blvd. 303 Les Sixth St.	493-4901 271-2474 482-8244 236-8020 637-6774 472-7555 904-0111 320-0300 236-9599 478-2491 722-6351 608-4490 457-8300	libertytaverntx.com lonesomedoveaustin.com maithaiaustin.com malagatapasbar.com mamafus.com manuels.com maxwinedive.com austin micheladasaustin.com moonshinegrill.com oldpecanstcafe.com oldschoolaustin.com oseriaprontoaustin.com	New Texan New Texan Asian Spanish Asian Mexican American American American American Italian
F11       I13       C13       E14       F12       J16       J12       I13       J10       J10       J11       J10       J11       J11	Lonesome Dove LD \$\$\$ Mai Thai LD \$\$ Malaga Tapas & Bar LD \$\$ Mama Fu's LD \$ Manuel's © LD \$\$ Manuel's © LD \$\$ Max's Wine Dive D \$\$ Micheladas LD \$\$ Micheladas LD \$\$ Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside DLN \$\$\$	419 Colorado St. 207 San Jacinto Blvd. 440 W. Willie Nelson Blvd. 100 Colorado St. 310 Congress Ave. 207 San Jacinto Blvd. 303 Red River St. 303 Red River St. 504B Trinity St. 401 E. Sixth St. 110 E. Second St. 201 San Jacinto Blvd. 303 Le Sixth St.	271-2474 482-8244 236-8020 637-6774 472-7555 904-0111 320-0300 236-9599 478-2491 722-6351 608-4490 457-8300	Ionesomedoveaustin.com maithaiaustin.com malagatapasbar.com mamafus.com manuels.com maxswinedive.com austin micheladasaustin.com moonshinegrill.com oldpecanstcafe.com oldpecanstcafe.com oldschoolaustin.com oseriaprontoaustin.com	New Texan Asian Spanish Asian Mexican American American American American Italian
I13       C13       E14       F12       I13       J16       L12       I00       J10       G13       I14       J10       E14       I13	Mai Thai LD \$\$ Malaga Tapas & Bar LD \$\$ Mama Fu's LD \$ Manuel's @ LD \$\$ Max's Wine Dive D \$\$ Micheladas LD \$\$ Micheladas LD \$\$ Moonshine LD \$\$ Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside D LN \$\$\$	207 San Jacinto Blvd. 440 W. Willie Nelson Blvd. 100 Colorado St. 310 Congress Ave. 207 San Jacinto Blvd. 303 Red River St. 504B Trinity St. 401 E. Sixth St. 110 E. Second St. 201 San Jacinto Blvd. 303 Le Sixth St.	482-8244 236-8020 637-6774 472-7555 904-0111 320-0300 236-9599 478-2491 722-6351 608-4490 457-8300	maithaiaustin.com malagatapasbar.com mamafus.com manuels.com maxswinedive.com austin micheladasaustin.com moonshinegrill.com oldpecanstcafe.com oldschoolaustin.com oseriaprontoaustin.com	Asian Spanish Asian Mexican American American American American Italian
C13     I       E14     I       F12     I       I13     I       J16     I       J10     I       J10     I       J10     I       I13     I       J10	Malaga Tapas & Bar LD \$\$ Mama Fu's LD \$ Manuel's © LD \$\$ Max's Wine Dive D \$\$ Micheladas LD \$\$ Moonshine LD \$\$ Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside D LN \$\$\$	Blvd. 440 W. Willie Nelson Blvd. 100 Colorado St. 310 Congress Ave. 207 San Jacinto Blvd. 303 Red River St. 303 Red River St. 504B Trinity St. 401 E. Sixth St. 110 E. Second St. 201 San Jacinto Blvd. 301 San Jacinto	236-8020 637-6774 472-7555 904-0111 320-0300 236-9599 478-2491 722-6351 608-4490 457-8300	malagatapasbar.com mamafus.com manuels.com maxswinedive.com austin micheladasaustin.com moonshinegrill.com oldpecanstcafe.com oldpecanstcafe.com oldschoolaustin.com oseriaprontoaustin.com	Spanish Asian Mexican American American American American Italian
E14   F12   F12   F13	Mama Fu's LD \$ Manuel's @ LD \$\$ Max's Wine Dive D \$\$ Micheladas LD \$\$ Micheladas LD \$\$ Moonshine LD \$\$ Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside D LN \$\$\$	Blvd.         100 Colorado St.         310 Congress Ave.         207 San Jacinto Blvd.         333 E. Second St.         303 Red River St.         504B Trinity St.         401 E. Sixth St.         110 E. Second St.         201 San Jacinto Blvd.         301 E. Sixth St.	637-6774 472-7555 904-0111 320-0300 236-9599 478-2491 722-6351 608-4490 457-8300	mamafus.com manuels.com maxswinedive.com austin micheladasaustin.com moonshinegrill.com oldpecanstcafe.com oldschoolaustin.com oseriaprontoaustin.com	Asian Mexican American Mexican American American American Italian
F12 I13 J16 L12 I10 G13 I14 I10 E12	Manuel's © LD \$\$ Max's Wine Dive D \$\$ Micheladas LD \$\$ Moonshine LD \$\$ Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside D LN \$\$\$	310 Congress Ave.         207 San Jacinto         Blvd.         333 E. Second St.         303 Red River St.         504B Trinity St.         401 E. Sixth St.         110 E. Second St.         201 San Jacinto         Blvd.         301 E. Sixth St.	472-7555 904-0111 320-0300 236-9599 478-2491 722-6351 608-4490 457-8300	manuels.com maxswinedive.com austin micheladasaustin.com moonshinegrill.com oldpecanstcafe.com oldschoolaustin.com oseriaprontoaustin.com pfchangs.com	Mexican American Mexican American American American Italian
I13       J16       L12       I0       J10       G13       I14       I10       E12	Max's Wine Dive D \$\$ Micheladas L D \$\$ Moonshine L D \$\$ Old Pecan Street Café L D \$\$ Old School Bar & Grill L D \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside D LN \$\$\$	207 San Jacinto Blvd. 333 E. Second St. 303 Red River St. 504B Trinity St. 401 E. Sixth St. 110 E. Second St. 201 San Jacinto Blvd. 301 E. Sixth St.	904-0111 320-0300 236-9599 478-2491 722-6351 608-4490 457-8300	maxswinedive.com austin micheladasaustin.com moonshinegrill.com oldpecanstcafe.com oldschoolaustin.com oseriaprontoaustin.com pfchangs.com	American Mexican American American Italian
J16 L12 I10 J10 G13 I14 I10 E12	Micheladas LD \$\$ Moonshine LD \$\$ Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside DLN \$\$\$	Blvd. 333 E. Second St. 303 Red River St. 504B Trinity St. 401 E. Sixth St. 110 E. Second St. 201 San Jacinto Blvd. 301 E. Sixth St.	320-0300 236-9599 478-2491 722-6351 608-4490 457-8300	micheladasaustin.com moonshinegrill.com oldpecanstcafe.com oldschoolaustin.com oseriaprontoaustin.com pfchangs.com	Mexican American American American Italian
L12 I10 J10 G13 I14 I10 E12	Moonshine LD \$\$ Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside DLN \$\$\$	333 E. Second St.303 Red River St.504B Trinity St.401 E. Sixth St.110 E. Second St.201 San JacintoBlvd.301 E. Sixth St.	236-9599 478-2491 722-6351 608-4490 457-8300	moonshinegrill.com oldpecanstcafe.com oldschoolaustin.com oseriaprontoaustin.com pfchangs.com	American American American Italian
<ul> <li>I10</li> <li>J10</li> <li>G13</li> <li>I14</li> <li>I10</li> <li>E12</li> </ul>	Old Pecan Street Café LD \$\$ Old School Bar & Grill LD \$\$ Osteria Pronto P.F. Chang's China Bistro LD \$\$ Parkside D LN \$\$\$	504B Trinity St. 401 E. Sixth St. 110 E. Second St. 201 San Jacinto Blvd. 301 E. Sixth St.	478-2491 722-6351 608-4490 457-8300	oldpecanstcafe.com oldschoolaustin.com oseriaprontoaustin.com pfchangs.com	American American Italian
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110 E12	LD \$\$ Parkside D LN \$\$\$	Blvd. 301 E. Sixth St.			Asian
E12	Parkside D LN \$\$\$		474-9898	1.11 12	
	Péché d ln \$\$			parkside-austin.com	American
K8		208 W. Fourth St.	495-9669	pecheaustin.com	French
	Pelon's Tex Mex LD\$\$	802 Red River St.	243-7874	pelonsaustin.com	Mexican
F8	Perry's Steakhouse & Grille	114 W. Seventh St.	474-6300	perryssteakhouse.com	Seafood & Steak
114	Piranha Killer Sushi LD \$\$	207 San Jacinto Blvd., Ste. 202	473-8775	piranhakillersushi.com	Asian
<b>G7</b>	Quattro Gatti L D \$\$	908 Congress Ave.	476-3131	quattrogattiaustin.com	Italian
F12	RA Sushi L D \$\$	117 W. Fourth St., Ste. 300	726-2130	rasushi.com	Asian
J14	Revival Public House B D \$\$	340 E. Second St.	469-0000	revivalph.com	New Texan
G8	Roaring Fork LD \$\$\$	701 Congress Ave.	583-0000	roaringfork.com	Southwestern
111	Russian House L D LN \$\$	307 E. 5th St.	428-5442	russianhouseofaustin.com	Russian
F10	Ruth's Chris Steak House	107 W. Sixth St.	477-7884	ruthschris-austin.com	Steakhouse
E11	Searsucker D \$\$\$	415 Colorado St.	394-8000	searsucker.com	American
F13	Second Bar + Kitchen	200 Congress Ave.	827-2750	congressaustin.com	New Americar
111	Stella San Jac BLD \$\$	310 E. Fifth St.	391-2333	stellasanjac.com	
L7	Stubb's BBQ 🚳 L D LN \$\$	801 Red River St.	480-8341	stubbsaustin.com	Barbecue
E13	Sullivan's Steak House	300 Colorado St.	495-6504	sullivansteakhouse.com	Steakhouse
G13	Swift's Attic LDLN \$\$	315 Congress Ave.	482-8200	swiftsattic.com	American
H12	Taco Shack BL\$	402 Brazos St.	473-0101	tacoshack.com	Mexican
E14	Taverna Ristorante	258 W. Willie Nelson Blvd.	477-1001	tavernabylombardi.com	Italian
67	Thai Passion L D LN \$\$	620 Congress Ave.	472-1244	thaipassion.com	Asian
D14	Trace at the W Hotel LD LN \$\$\$	200 Lavaca St.	542-3660	traceaustin.com	American
H15	TRIO, The Four Seasons Austin BLD \$\$	98 San Jacinto Blvd.	685-8300	triorestaurantaustin.com	New American
E12	Truluck's D \$\$\$	400 Colorado St.	482-9000	trulucks.com	Seafood &
H13	Uncle Julio's LD \$\$	301 Brazos St.	815-2100	unclejulios.com	Steak Mexican
H12	Vince Young Steak House	301 San Jacinto	457-8325	vinceyoungsteakhouse.com	Steakhouse
	D \$\$\$ Waller Creek Pub House	Blvd. 603 Sabine St.			
м9 15-2	L D LN \$\$\$		358-1903	*Area code is 512 for all	American

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# The Surviving Branch: How Genomes Are Revealing The Twisted Course of Human Evolution

*Please join the Society for the Study of Evolution at Evolution 2016 for a public lecture by* 

# Carl Zimmer

Stephen Jay Gould Prize winner for 2016 Friday June 17<sup>th</sup> 7:30 PM Austin Convention Center

Ever since the days of Charles Darwin, scientists have been uncovering clues to how we evolved. Today, biotechnology is allowing them to gather DNA preserved in ancient human fossils. The knowledge emerging from those studies is changing how we understand our history — and what it means to be human.

> Society for the Study of Evolution Stephen Jay Gould Prize is awarded in recognition of sustained and exemplary efforts in the advance

of public understanding of evolutionary science







# **Field Trips**

#### 1) Lady Bird Johnson Wildflower Center: 2:30-5:45 pm roundtrip Friday, June 17, 2016

The Center displays 650 native Texas plant species in gardens, meadows and nature trails. Visitors can also explore indoor art exhibits, learn about Mrs. Johnson and native plant research, and enjoy the café, store and more. Looking for more than wildflowers? The center's offerings include tree swings in the Texas Arboretum, a tower for panoramic views, turtles and fish in ponds, the Little House for kids' crafts, a Visitors Gallery and picnic tables.

What to bring: Comfortable walking (field) shoes, water bottle, hat, sunscreen and camera.

#### Tour Leaders: TBD

**Logistics:** Meet in the lobby of the convention center at 2:30 pm. Your tour leaders will arrange cabs to the Wildflower Center. We will return to the convention center by cab at approximately 5:45 pm.

**Cost:** \$30/cab one-way, so ~\$18/person round trip with tip, assuming 4 people ride in each cab. Bring cash to pay your cabbie.

#### 2) Barton Springs Pool: Salamanders and Swim: 4:00-6:30 pm, round trip Friday, June 17, 2016

Barton Springs Pool is a several-acre, spring-fed pool in Zilker Park a few minutes from downtown Austin. It is the only known home of two species of salamander: the Barton Springs Salamander (Eurycea sosorum) and the Austin Blind Salamander (Eurycea waterlooensis). Join this trip to learn about water and watersheds in the Austin Area, Barton Springs, salamander natural history, and captive breeding and conservation efforts by City of Austin Watershed Protection Department scientists. After the tour, stay for a swim in the Pool and/or explore Zilker Park.

What to bring: Comfortable walking shoes, light clothing, water bottle, snack, hat, sunscreen and camera.

Tour leaders: Yoel Stuart, Tom Devitt, and CofA staff scientists

**Logistics:** Meet your tour leader in the lobby of the Austin Convention Center at 4:00 pm if you'd like to travel together to Barton Springs Pool. Otherwise, meet at the statue in front of the main pool gate at 4:30 pm.

**Bus:** From the Convention Center to Barton Springs Pool and back take Bus #30 (BartonCreekSq-NB) with ~0.75mi walking; Cost: \$1.25 for a one-way ticket. Bus every ~35min.

**Bike:** \$8 for unlimited 30-minute rides over a 24 h period.

**Cost:** the tour is free (tour is outside pool gates). Admission to pool is \$4 (pay at the pool).

#### 3) Morning Naturalizing on Lady Bird Lake Daily from Saturday-Tuesday (June 18-21): 6:30-8:30am

Many species of bird are abundant in and along Lady Bird Lake. Be you an experienced twitcher or a beginning birder; join us on this (up to 5 mile) trip along the Lady Bird Lake walking trail to add birds to your life list. You may also see several species of turtles and possibly a nutria (aka coypu; an invasive semi-aquatic rodent). We may be able to arrange a few lender pairs of binoculars, but please bring your own if possible.

What to bring: Walking shoes, binoculars, water

Tour Leader(s): Experienced local birders (TBD)

Logistics: Meet in the Convention Center Lobby each morning at 6:30am.

Cost: Free

#### 4) Hornsby Bend Bird Observatory: 7:00-11:00am roundtrip Wednesday, June 22, 2016

Hornsby Bend, about 20 min. east of Austin, is a premier birding location. Its relatively small area encompasses large ponds (wastewater, of course), a slow bend in the river, forest, and open meadows, and is good habitat for many bird species as well as mammals and herps. We may be able to arrange a few lender pairs of binoculars, but please bring your own if possible.

What to bring: Comfortable walking shoes, water bottle, snack, hat, sunscreen, binoculars, and camera.

#### Tour Leaders: TBD

**Logistics:** Meet in the lobby of the convention center at 7am. Your tour leaders will arrange cabs to Hornsby.

**Cost:** ~\$25/cab one-way, so ~\$15/person with tip, assuming 4 people ride in each cab. Bring cash to pay your cabbie.

#### 5) Bats: Sunset 8:35 pm Every Evening

After a 1980 redesign of the Ann W. Richards Congress Avenue Bridge, the Mexican freetailed Bat (*Tadarida brasiliensis*) colonized gaps in the bridgework. The colony grew to become the largest urban bat colony in North America. Around dusk, about 30 minutes before sunset, the bats will begin leaving the roost for a feeding flight which, at its colony peak, can take ~9,000kg of flying insects, collectively, per night.

**Logistics:** Head to the east sidewalk of the Congress Avenue Bridge, or to the hillside below the bridge on the south side of the river, to watch this neat spectacle. You can also rent a canoe or kayak from several agencies along the river or join a Capital Cruise.

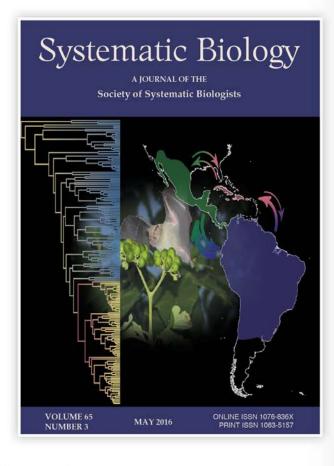
Cost: Free

# Systematic Biology

#### Editor-in-Chief: Frank E. Anderson

Impact factor: 14.387

Systematic Biology is the bimonthly journal of the Society of Systematic Biologists. Papers for the journal are original contributions to the theory, principles, and methods of systematics as well as phylogeny, evolution, morphology, biogeography, paleontology, genetics, and the classification of all living things.



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## **Travel Support**

Financial support to attend the meeting was available from various sources. At this stage, application deadlines have all passed.

#### Volunteer at the conference

In return for volunteering for approximately 1/2 day during the meeting, graduate students can receive a rebate of 50% of their early registration fee. Applications were made available during main conference registration and were accepted until the end of early registration (i.e. midnight on Apr. 30). Recipients were randomly selected from the list of applicants and were informed by May 15<sup>th</sup>. Registration fees must be paid in advance and the rebate will be processed after the meeting, subject to completion of assigned volunteer duties.

#### ASN Graduate Student travel grants

Graduate student members of the ASN could request to be considered for a \$500 US travel award. To be eligible, the student must present a talk or poster and must not have received the travel award in the previous year. Applications were made available during main conference registration and were accepted until the end of early registration (i.e. midnight on Apr. 30). Recipients were randomly selected from the list of applicants and were informed by May 15th.

#### SSE/BEACON Undergraduate Diversity @ Evolution travel award

This travel award brings talented and diverse undergraduates from throughout the US and Puerto Rico to the meeting to present a poster, receive mentoring and participate in a career-oriented 'Undergraduate Futures in Evolutionary Biology' panel and discussion. The program covers travel, registration, and room and board. For more information visit the their <u>website</u>. Applications were accepted until 11:59 pm (EST) on Apr. 18 and awardees were notified by Apr. 26.

#### SSE Graduate Student travel supplements

Supplements of \$500 US were randomly selected from among the list of SSE graduate students who volunteered to help during the conference (whether they were chosen as volunteers or not). Applications were made available during main conference registration and were accepted until the end of early registration (i.e. midnight on Apr. 30). Recipients were informed by May 15th.

#### **SSE International travel stipends**

These stipends support attendance at the conference for scientists at various stages of their professional career (e.g., Masters/PhD students, postdocs, and lecturers). You must

be a member of the SSE. Those working in countries with high GDP are not eligible. For additional information and the application procedure, consult the <u>SSE's website</u>. Deadline for applications was Mar. 31, 2016.

#### **ESEB** International travel stipends

These stipends support attendance at the conference for scientists at various stages of their professional career (e.g., Masters/PhD students, postdocs, and lecturers). You must be a member of ESEB. Note that these stipends are given in conjunction with analogous international travel stipends offered by the SSE above, so there is no need to apply for both. Additional details can be found <u>here</u>. Deadline for application was Mar. 31, 2016.

## **Special Talks**

#### Presidential addresses

- ASN Presidential address & award announcements Saturday, June 18 from 4:45 - 5:45 pm, Ballroom ABC (Level 1) Mark McPeek (Dartmouth), *Traits, adaptation, and the evolution of community structure*
- SSB Presidential address & award announcements Sunday, June 19 from 4:45 - 5:45 pm, Ballroom ABC (Level 1) Paul Lewis (U. Connecticut), *Entropy and information in phylogenetics*
- SSE Presidential address & award announcements Monday, June 20 from 4:45 - 5:45 pm, Ballroom ABC (Level 1)
   Kim Hughes (Florida State U.), Variety is the spice of life: death, sex, and the maintenance of genetic variation

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#### Spotlight sessions

See the daily schedule later in this program for a listing of the talks in each symposium.

 The evolution of species interactions Saturday, June 18, 1 - 4 pm, Ballroom A Organizers: M.C. Stoddard (Harvard), Marjorie Weber (UC Davis/Michigan State) and Jesse R. Lasky (Penn State); Sponsor: ASN

Understanding links between species interactions and evolutionary dynamics has been a fundamental challenge in biology since Darwin. Classic questions remain highly relevant, especially given new molecular, quantitative, and computational tools. For example: How have diverse mechanisms of evolution influenced why some species interact strongly and others weakly? How have the selective forces associated with these interactions shaped genotype, phenotype, and the structure of ecological communities? This session will focus on current research and perspectives on the evolution of species interactions. By bringing together a group of diverse approaches and viewpoints, our goal is to synthesize micro and macro perspectives at the nexus of species interactions and evolutionary biology.

#### 2. Next generation phylogenetic inference

Monday, June 20, 1 - 4 pm, Ballroom A Organizers: Erick Matsen (Fred Hutchinson Cancer Research Center), Tracey Heath (Iowa State), and Felipe Zapata (San Francisco State); Sponsor: SSB

Statistical phylogenetic inference methods, and in particular Bayesian methods, are reaching a hard limit on the number of taxa that can be used in an analysis. Although many interesting and worthwhile efforts have been made to increase the computational efficiency of these methods, it appears that existing inference strategies will simply not scale to orders of magnitude more taxa. In this session we will explore alternate strategies and algorithms for phylogenetic inference.

# 3. Understanding history and process in rapid diversification with genomic data

Organizer: Katie Wagner (U Wyoming)

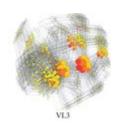
Sunday, June 19, 1 - 4 pm, Ballroom A; Sponsor: SSE

As the availability of genomic data for non-model organisms increases, our ability to make detailed inferences about the history of even very rapidly diversifying species groups has dramatically increased. However, these data also present new challenges, particularly in the goal of inferring process from pattern. We seek to understand species historical relationships, as well as the roles of selection, incomplete lineage sorting, drift, and introgression in structuring the genetic variation among recently and/or rapidly diverged species. However, accurately distinguishing among these processes can be challenging. In this session, we welcome contributions from researchers working on these questions with genomic data in a diverse array of systems.

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#### Symposia

See the daily schedule later in the program for a detailed listing of the talks in each symposium.

# 1) ASN VP Symposium: Convergent evolution, natural history, and the big questions in biology

Monday, June 20, 8:30 - 11:45 am, Ballroom A Organizer: Anurag Agrawal (Cornell)

In this symposium, we will bring together researchers working on diverse taxa to address the role of convergent evolution in answering big and long-standing questions in ecology and evolution. Central to our synthesis will be the use of natural history information, and assessing its role in the study of convergence, adaptation, function, and ecology.

# 2) Putting evolution into ecological niche modeling: Building the connection between phylogenies, paleobiology, and species distribution models

Organizers: Nick Matzke (NIMBioS & Australian National U.) and Dan Warren (Macquarie University)

Sunday, June 19, 8:15 - 11:45 am, Ballroom C; Sponsor: SSB

By combining inference of present-day niche distributions with paleo-data and inferences about how niches and distributions evolve on phylogenies, we may be able to improve evolutionary insight and make more robust niche models that are better at capturing the true predictors of species ranges. This symposium will be devoted to "building the connection" between SDMs and phylogenies.

#### 3) Advances in the analysis of reticulate population networks

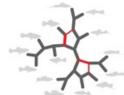
Organizers: Claudia Solís-Lemus (U. Wisconsin) and David Baum (U. Wisconsin)

Monday, June 20, 8:15 - 11:45 am, Ballroom C; Sponsor: SSB

Typical population tree methods are still constrained by the assumption there is a true tree for the taxa under study, with all gene-to-gene discordance being attributable to incomplete lineage sorting (ILS), but what if evolutionary history was not tree-like but involved some reticulation? Systematists would like to have methods for using multilocus sequence data to infer the population network while taking account of both ILS and causes of reticulation such as introgression and hybrid speciation. This symposium will cover some of the most recent advances in developing computationally practical methods for population network inference.

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# 4) How and why? Towards an evolutionary physiological synthesis

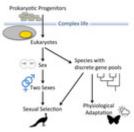
Organizer: Chris Muir (University of British Columbia) Sunday, June 19, 8:30 - 11:30 am, Ballroom A; Sponsor: SSE

In this symposium, we will assess the progress and potential of evolutionary physiology ('evophys') as an interdisciplinary approach to study how and why organismal function evolves. Although evo-phys has a long and successful history, there are several areas that are ripe for new syntheses. The last major syntheses occurred before major advances in Next-Gen sequencing, molecular phylogenetics, phenomics, and other now-standard tools of evolutionary biology.

# 5) Co-evolving genomes: Cooperation and conflict in cytonuclear interactions

This symposium will bring together leading experts working on the

Organizers: Justin Havird (Colorado State), Geoffrey Hill (Auburn U), and Daniel Sloan (Colorado State) Tuesday, July 21, 9 - 12:15 am, Ballroom A; Sponsor: SSE



evolution of cytonuclear interactions in diverse organismal systems to address emerging and controversial topics in this field. It will explore new and fascinating ideas

about cytonuclear interactions and integrate them with familiar evolutionary themes, including genomic conflict, the evolution of sex, speciation, sexual selection, and adaptation.

# 6) Education Symposium: Making evolution work - Synthesizing research and applied practice to inform both fields

Organizer: Louise Mead (Michigan State) and Kristin Jenkins (BioQUEST), Co-organizers: David Hills (UT Austin) and Ben Wu (Texas A&M). Cost: FREE, <u>registration required</u>; Saturday, June 18, 8:30 – 11:30, MR7; Sponsor: SSE

This symposium brings together evolutionary biology researchers with staff scientists and researchers from state and federal agencies to explore how to use a local conservation topic, in this case Karst watershed conservation, as a way to bring together academic researchers and more applied scientists to address global issues. To provide a framework for the conversation, participants will read a paper by panel members and engage in pre-conference discussion on a virtual platform. Participants will have the opportunity to present virtual posters to inform the discussion on Karst research and conservation during this pre-symposium activity. The symposium will consist of two panel sessions which will set the stage for breakout group discussions to identify mutually relevant areas of interest and potentially fruitful areas for collaboration. Participants should be prepared to interpret their work and knowledge for interested individuals from a different discipline in small group discussions. There is no charge for this event. For more information, visit the symposium website.



#### Outreach talks

#### 1) SSE's Stephen J. Gould Prize Lecture

Friday, June 17, 7:30-8:30 pm, Austin Convention Center, Ballroom A/B/C (Level 1) Speaker: Carl Zimmer, *The surviving branch: How genomes are revealing the twisted course of human evolution* 

#### 2) Evolution & Art public outreach speaker

Monday, June 20 from 7:30 - 8:30 pm, Austin Convention Center, Meeting room Speaker: Nathan Morehouse (U. Pittsburgh), *The evolution of seeing* Sponsor: <u>Art.Science.Gallery.</u>

# **Special Events**

#### Social events

#### Friday, June 20

• Opening Reception & Pop-up Art Exhibit, 6:30 - 10:00 pm, Exhibit Hall 1

#### Saturday, June 21

• ASN Student-Mentor Mixer, 4:00 – 4:45 pm, Rotunda (level 1)

#### Sunday, June 22

- SSB Student Mixer, 4:00 4:45 pm, Rotunda (level 1)
- Evolution Film Festival, 7:00 9 pm, MR8

During the first hour, event co-sponsor HHMI Biointeractive will screen some of the terrific evolution videos they offer including "Great Transitions: The Origin of Birds", and you will have a chance to hear from Dr. Julia Clarke, paleontologist at U. Texas, who is prominently featured in the video. She'll talk about her experience making the video and answer questions.

During the 2<sup>nd</sup> hour, we will screen the top entrants to this year's contest. We asked the science and science education communities to tell a story about evolution in 3 min. or less, using animation, art, music, dance, etc. We have some terrific entries and you will be able to see them all and vote on your favorite. (To learn more and see past years' entries, go to evolutionfilmfestival.org and follow #evofilmfest on Twitter.)

Sponsored by the <u>Duke Initiative for Science & Society</u>, the <u>Howard Hughes Medical</u> <u>Institute (HHMI)</u>, the <u>Society for the Study of Evolution (SSE)</u> and the <u>BEACON</u> <u>Center for the Study of Evolution in Action</u>.

#### Monday, June 20

#### • SSE/BEACON Undergraduate Diversity @ Evolution events

These events are part of the Undergraduate Diversity @ Evolution program but are open to all undergraduates attending the conference. Registration is not required.

- Undergraduate Ice Cream Social, 8:00 pm, Rotunda (level 1)
   Come meet and mingle with other undergrads, expand your network, and eat free ice cream! Open to undergraduates and their advisers and mentors.
- Undergraduate Futures Lecture and Discussion, 11:30 am 1:00 pm, MR7 This session will include an inspirational talk by keynote speaker Dr. Julia Clarke, as well as a panel discussion featuring Dr. Clarke, a postdoctoral fellow, and a graduate student. Plan to attend to learn more about how to get in to and succeed in graduate programs in evolution, as well as the rewards and challenges of a career in evolutionary science. The event is open to all undergraduates attending the conference. Come prepared to ask questions.
- SSE Student-Faculty Mixer, 4:00 4:45, Rotunda (level 1)

#### Tuesday, June 24

• Super Social, 6:00 pm – midnight, Palmer Events Center. Ticket required.

#### Council & business meetings

#### 1) Executive joint council (ASN/SSB/SSE)

- Opening meeting: Friday, June 17, 9:00 am; Austin Suite
- Exit meeting: Monday, June 20, 8:30 am; Austin Suite

#### 2) ASN

- Executive council opening meeting: Friday, June 17, 1:00 pm; Austin Suite
- Business meeting (open to all ASN members): Saturday, June 18, 5:45 pm; MR3
- Executive council exit meeting: Tuesday, June 21, 8:30 am; Austin Suite

#### 3) SSB

- Executive council opening meeting: Friday, June 17, 1:00 pm; MR3
- Business meeting (open to all SSB members): Sunday, June 19, 5:45 pm; MR3
- Executive council exit meeting: Tuesday, June 21, 8:30 am; MR2

#### 4) SSE

- Executive council opening meeting: Friday, June 17, 1:00 pm; MR2
- Education and Outreach Committee: Saturday, June 18, 11:30 am; Austin Suite
- Hamilton Award Committee meeting: Sunday, June 19, 4:00 pm; Austin Suite
- Executive council exit meeting: Monday, June 20, 11:30 am; Austin Suite
- Business meeting (open to all SSE members): Monday, June 20 5:45 pm; MR3

#### Workshops & other events

#### ASN Science Communication workshop

Friday, June 17 from 9:00 am - noon, MR10C; Cost: FREE, registration required (during conference registration)

Sure, your work on [fill-in-the-topic-of-your-research-here] is the most exciting and important science out there! But to have an impact, it must be communicated in ways that enable people to understand and compel them to care. This workshop will provide strategies and approaches that will help you to communicate your work effectively to diverse audiences.

Topics will include:

- The Importance of Message What is your message? Why does it matter?
- Identifying your Audience Should your message (or its delivery) change based on your audience (general public, education community, media, policymakers)?
- o The Elevator Pitch What is it? Why is it important? How can you perfect yours?
- Social Media Do you really need to use social media to communicate your work? If so, how can you do so effectively, without it taking over your life?
- Communicating "Controversial" Science Why are some areas of science considered controversial, and what strategies can be used to deal with this? This will be a "hands-on" workshop, so come prepared to practice your skills with your colleagues! This workshop is sponsored by ASN and is being led by the science communication team from Duke University's Initiative for Science & Society:
- Jory Weintraub, PhD (Science Communication Director, Duke Initiative for Science & Society) – Jory has over 20 years of experience in science education, outreach and communication, including 10+ years leading the education and outreach efforts at NESCent (the National Evolutionary Synthesis Center).
- Abby Olena, PhD (Postdoctoral Fellow, Duke Initiative for Science & Society) Since receiving her PhD in Developmental Biology, Abby has worked as a science writer/communicator and has led multiple courses and workshops on effective science communication.

#### • SSE Diverse Careers Committee workshop

Friday, June 17 from 1:00 pm - 5:30 pm, MR10C; Cost: \$20, registration required (during conference registration). Restricted to PhD students/PDFs who are members of the SSE, ASN, and/ or SSB

- An afternoon workshop, sponsored by SSE, to point young professionals towards the first steps of personal career exploration (academic and nonacademic) and necessary actions for active planning of post-PhD stages. Attendees will leave the workshop with more confidence regarding career options and with actionable items for pursuing the careers of their choosing.
- Participants will be asked to complete a set of exercises before the workshop. On the day of the workshop, there will be a short introduction, followed by two in-depth sessions: a) Networking & Communications (informational interviews, creating a brand, and related topics), and b) Diverse Careers roundtables (small-group meetings with visiting professionals from industry, government, diverse academic positions, etc.). The above sessions will be informative but also highly interactive, balancing guidance and practice.
- The Diverse Careers committee is also manning a booth in Exhibit Hall 1 for resume-consults and practice of the skills covered in this workshop.

#### • Evo101 Workshop for Science Educators

Friday, June 17 from 8:30 am - 4:00 pm, MR6B, Austin Convention Center; Cost: \$25 (lunch included), registration required (separate from conference registration - see below).

Science educators in the Austin area are invited to join evolutionary biologists and other science educators for a one-day workshop. Come learn about recent research in the field of evolution, talk with evolutionary biologists, and attend sessions that feature hands-on activities for teaching evolution to all ages. Evolution is the unifying concept of biology and a centerpiece of science education standards BUT also at times one of the more challenging topics to teach. How to teach it effectively? How to deal with student preconceptions? How to make it fun and relevant to their lives? If you've been asking yourself questions like these, and are interested in updating your repertoire of evolution-related teaching materials, we invite you to attend "Evolution 101". Supported by the Society for the Study of Evolution Education Committee and the Howard Hughes Medical Institute.

This workshop had its own registration process that was separate from main conference. <u>Details here</u>.

# • Women in Science luncheon: Skills for combating bias throughout your scientific career

Saturday, June 18, 11:30 am – 1 :00 pm, MR18. Pre-registration required. Open to graduate/pdf/faculty who are members of the SSE, ASN, and/or SSB. Interested members of all genders are welcome.

- 30 min. networking period followed by a 1 h panel discussion with several speakers. Discussion will focus on developing personal skills for dealing with biases in science.
- A box lunch could be purchased at time of registration. Options for a quick takeout lunch near the convention center are limited. If you opted out of lunch, you are strongly encouraged to bring a bag lunch. There is a concession stand in the ACC with coffee, drinks, and lunch available for purchase.

# • Taylor & Francis Workshop: Publishing in Academic Journals: tips to help you succeed

Sunday, June 19 from noon - 12:50 pm, MR7. Cost: FREE, registration not required. This talk aims to guide new researchers through the process of getting a paper published – from choosing a journal, to what to think about when writing to improve their chances of publication, and then on to how to navigate the peer review process and what you can do once their article is published to increase its impact. The talk will cover article metrics, use of social media, how to respond to reviewers' comments, plus more, giving a thorough understanding of the steps involved, the key information sources authors should be aware of, and what they can (and should) be doing to help get their paper published.

Lunch is not provided but you can bring your own to eat during the event. There is a concession stand in the ACC with coffee, drinks, and lunch available for purchase.

#### iEvoBio satellite conference

iEvoBio is a forum bringing together biologists working in evolution, systematics, and biodiversity, with software developers and mathematicians. The goal is both to catalyse the development of new tools and to increase awareness of the possibilities offered by existing technologies (ranging from standards and reusable toolkits to mega-scale data analysis to rich visualization).

iEvo bio will host three events at the meeting:

- 1) A Software demo during the Monday poster session (5:45 7:45, Exhibit Hall 1)
- 2) Lightning talk aession: Tuesday, June 21 from 1:30 2:25 pm, MR9C
- 3) All-day session on Wednesday, June 22, MR9

For more details see the daily schedule below and visit <u>their website</u>. Pre-registration is required.

# **Daily Schedule**

Thursday, June 16

Thuisuay, Julie 10					
SSB Ph	ylogenetics Symposium				
MR7					
8:00	Full breakfast and registration*				
9:00	Jim Leebens-Mack. Opening remarks				
9:15	<b>Siavash Mirarab.</b> ASTRAL: Fast coalescent-based computation of the species tree topology, branch lengths, and local branch support				
9:45	Pranjal Vachaspati. ASTRID				
10:15	Coffee break*				
10:45	Erin Molloy. The effect of missing data on species tree estimation				
11:15	Sébastien Roch. A survey of theoretical results for species tree estimation				
11:45	Lunch (on your own)				
1:15	Tandy Warnow. Multiple sequence alignment				
1:45	Michael Nute. Scaling BAli-Phy to large datasets				
2:15	Nam Nguyen. Taxonomic identification of metagenomic data				
2:45	Coffee break*				
3:15	Dave Swofford, SVDquartets				
3:45	C écile Ané and Claudia Solis Lemus. Quartet-based estimation of reticulate evolution				
4:15	Luay Nakhleh. The Multispecies Network Coalescent and Phylogenetic Network Inference				
4:45	Tandy Warnow. Closing remarks, and description of Friday's tutorials				

\*Attendance at the talks requires registration, but on-site registration will be possible. Breakfast and coffee breaks required pre-registration by May 30.

#### Friday, June 17

#### SSB Software School\* MR4 & 7

	MR4	MR7
7:30	Full bre	eakfast
8:30 - 9:45	PhyloNetworks Part I (Claudia and Cécile)	SVDquartets (Dave)
10:00 - 11:00	PhyloNetworks Part II (Claudia and Cécile)	TIPP (Nam)
11:15 - 12:15	Phylonet (Yun and Luay)	ASTRID (Pranjal)
12:15 - 1:45	Lunch (on your own)	
1:45 - 3:15	Multiple Sequence Alignment (Nam), last name M-Z	ASTRAL (Siavash), last name A-L
3:15 - 3:45	Coffee break (provided)	
3:45 - 5:15	Multiple Sequence Alignment (Mike), last name A-L	ASTRAL (Siavash), last name M-Z

\*Additional details and instructions here: <u>http://tandy.cs.illinois.edu/software-school-2016.html</u>

#### ASN Science Communication workshop MR10C

9:00 am – noon

#### SSE Diverse Careers workshop MR10C

1:00 – 5:30 pm

#### **Evo101 Workshop for Science Educators** MR6B

8:30 am – 4:00 pm

# Saturday, June 18 | 8:30 – 9:45 am

Ballroom A		Ballroom B	Ballroom C
	SSB Mayr Award Symposium 1	Prokaryotes	Contemporary evolution
8:30 am	Likelihood-based parameter estimation for high-dimensional phylogenetic comparative models: overcoming the limitations of 'distance-based' methods Eric Goolsby	Experimental analysis of barriers to horizontal gene transfer Hande Acar; Jonathan P. Bollback	Maladaptation to acute metal exposure in resurrected <i>Daphnia</i> ambigua clones after decades of increasing contamination Mary Rogalski
8:45 am	Targeted sampling and target capture: Assessing phylogeographic concordance with genome-wide data Lisa Barrow; J. Angel Soto- Centeno; Alan Lemmon; Emily Lemmon	Capturing the phage-host interaction in wastewater Emily Sible; Katherine Bruder; Siobhan Watkins; Catherine Putonti	The stasis that wasn't: Adaptive evolution goes against phenotypic selection in a wild rodent population Timothée Bonnet
9:00 am	Historical Biogeography of Reptiles and Amphibians from the Lesser Sunda Islands, Indonesia Sean Reilly; Ke Bi; Evy Arida; Djoko Iskandar; Jimmy McGuire	Bacteriophages infecting bladder dwelling bacteria Alexandria Cooper; Katherine Bruder; Kema Malki; Catherine Putonti	Exome sequencing of >800 individuals tracks genomic changes during rapid life history evolution in a non-model species Nina Overgaard Therkildsen*; Aryn Wilder; David Conover; Stephan Munch; Stephen Palumbi
9:15 am	The abiotic and biotic drivers of rapid diversification in Andean bellflowers (Campanulaceae) Laura Lagomarsino; Fabien Condamine; Andreas Mulch; Alexandre Antonelli; Charles Davis	Dynamic microbiome evolution in social bees Waldan Kwong; Nancy Moran	Cancellled
9:30 am	When the Leaf Breaks: Unrooted Phylogenetic Orthology (UPhO) for Phylogenomics Jesus Ballesteros; Gustavo Hormiga	Two before one; The origin of double membrane envelopes in Firmicutes Daniel Poppleton*; Luisa Antunes; Andreas Klingl; Céline Brochier- Armanet; Christophe Beloin; Simonetta Gribaldo	Sex, Bugs, and Birth Control: Human Evolution in the 21st Century and Beyond Scott Solomon
	Morning coffee break   9:45 –	10:15 am Sponsor:	New Phytologist

8:30 – 9:45 am	(Bold denotes presenter	
MR4	MR5	MR6A
Development 1	Quantitative genetics 1	Mobile elements
From sticklebacks to humans: Evolving skeletal traits by cis-regulatory changes in bone morphogenetic proteins	New wine in old skin: classical and modern methods reveal the genetic basis of male dichromatism in annual killifishes	Evidence of a recent invasion of <i>Drosophila</i> yakuba by the P-element Antonio Serrato; Daniel
Vahan Indjeian	Cellerino; Matthias Platzer	Matute
DNA Elimination in Copepods: A Complex Picture of Genes, Transposable Elements and other Sequence Repeats Grace Wyngaard; Maxim Zagoskin; Cheng Sun; Brian Walton; Rachel Lockridge	Why are humans so longed- lived? Selection for genes that promote late-life human longevity Jacob Moorad	Computational modeling of endogenous retrovirus evolution Fabricia Nascimento*; Aris Katzourakis
Mueller		
Evolution of the Myc/Max transcription factor network: Insights from Trichoplax adhaerens	Artificial selection to increase the phenotypic variance in gmax fails in the presence of stabilizing	Evaluating the Relationship between Reproductive Mode and Transposable Element Evolution
Sarah Rolfes; Karolin v. d. Chevallerie; Georgios Tsiavaliaris; Bernd Schierwater	Jacqueline Sztepanacz*; Mark Blows	Kyle McElroy; Jeffery Boore; John Logsdon; Maurine Neiman
Biology of chitin in Nematostella vectensis, a soft-bodied anemone	High evolutionary constraints limited adaptation to past climate in toad skulls	The evolution of small RNA-mediated silencing of an invading transposable element
Lauren Vandepas; Leslie Babonis; Chris Amemiya	Monique Simon; Fabio Machado; Gabriel Marroig	Erin Kelleher; Ricardo Azevedo; Yichen Zheng
Allele specific expression of candidate developmental genes in F1 hybrids of <i>Arabidopsis lyrata</i> Bishwa Giri*; David	Fitness variation in a wild song sparrow ( <i>Melospiza</i> <i>melodia</i> ) population: quantitative genetic analyses of fitness components	Cancelled
	MR4Development 1From sticklebacks to humans: Evolving skeletal traits by cis-regulatory changes in bone morphogenetic proteinsVahan IndjeianDNA Elimination in Copepods: A Complex Picture of Genes, Transposable Elements and other Sequence RepeatsGrace Wyngaard; Maxim Zagoskin; Cheng Sun; Brian Walton; Rachel Lockridge MuellerEvolution of the Myc/Max transcription factor network: Insights from Trichoplax adhaerensSarah Rolfes; Karolin v. d. Chevallerie; Georgios Tsiavaliaris; Bernd SchierwaterBiology of chitin in Nematostella vectensis, a soft-bodied anemoneLauren Vandepas; Leslie Babonis; Chris AmemiyaAllele specific expression of candidate developmental genes in F1 hybrids of	MR4MR5Development 1Quantitative genetics 1From sticklebacks to humans: Evolving skeletal traits by cis-regulatory changes in bone morphogenetic proteinsNew wine in old skin: classical and modern methods reveal the genetic basis of male dichromatism in annual killifishesDNA Elimination in Copepods: A Complex Picture of Genes, Transposable Elements and other Sequence RepeatsWhy are humans so longed- lived? Selection for genes that promote late-life human longevityGrace Wyngaard; Maxim Zagoskin; Cheng Sun; Brian Walton; Rachel Lockridge MuellerArtificial selection to increase the phenotypic variance in gmax fails in the presence of stabilizing selectionEvolution of the Myc/Max transcription factor network: Insights from Trichoplax adhaerensArtificial selection to increase the phenotypic variance in gmax fails in the presence of stabilizing selectionBiology of chitin in Nematostella vectensis, a soft-bodied anemoneHigh evolutionary constraints limited adaptation to past climate in toad skullsLauren Vandepas; Leslie Babonis; Chris AmemiyaFitness variation in a wild song sparrow ( <i>Melospiza</i> <i>melodia</i> ) population: quantitative genetic analyses

Saturday morning 1

### Saturday, June 18 | 8:30 – 9:45 am

0011	MR6B MR7 MR8			(* Indicates session chair) MR9AB	
	Population genetics	Education	Reproductive isolation 1	Adaptation / genomics	
8:30 am	Cancelled	symposium (Prior registration required) <u>https://qubeshub.org/gr</u> <u>oups/sseedsym2016/ove</u> <u>rview</u> Introduction & welcome	A widespread and polymorphic genetic incompatibility in <i>Mimulus</i> Matthew Zuellig*	<b>1</b> Significant role of standing regulatory variants in altitudinal adaptation Yu-Ting Lai; Shou-hsien Li; Kui Lin	
8:45 am	Estimating effective population size from temporal allele frequency changes in experimental evolution Agnes Jonas; Thomas Taus; Carolin Kosiol; Christian Schlötterer; Andreas Futschik	Panel discussion on Karst watershed conservation with Timothy H. Bonner, Texas State University, San Marcos, Jean Krejca, Owner, Sara Environmental LLC, and others	Local adaptation to hosts of different size triggers reproductive isolation in feather lice Dale Clayton; Sarah Bush; Scott Villa	The genomic basis of bridling and thermal adaptation in a dimorphic seabird Anna Tigano; Vicki Friesen	
9:00 am	Any Ne future: Unifying demography and genetic Ne estimation for conservation of long-lived, low-fecundity species Dean Blower; Cynthia Riginos; Jennifer Ovenden		Genetic, gametic, and developmental insights into Haldane's rule and its corollary in <i>Caenorhabditis</i> nematodes Joanna Bundus; Asher Cutter	Genomics of local adaptation in corals (Acropora millepora) from the Great Barrier Reef Sarah Barfield; Mikhail Matz	
9:15 am	Riverscape genetics: modeling genomic expectations to test hypotheses about river network architecture as drivers of evolutionary dynamics in aquatic populations Andréa Thomaz*; Mark R. Christie; L. Lacey Knowles	Small group discussion: What are the challenges, what are important questions?	Epistasis for Premating Postzygotic Isolation Jennafer Hamlin; Natasha Sherman; Leonie Moyle	Modularity characterizes the Heliconius warning color adaptive radiation Steven Van Belleghem*; Chris Jiggins; Brian Counterman; Owen McMillan; Riccardo Papa	
9:30 am	Are the allele frequency constraints on differentiation measures GST and D less than on FST? A mathematical,simulation and empirical study Nicolas Alcala; Noah Rosenberg		The evolution of premating reproductive isolation in song in tropical birds Benjamin Freeman; Graham Montgomery; Dolph Schluter	Rapid evolution during habitat invasions Carol Eunmi Lee	
		9:45 – 10:15 am	Sponsor:	Jew hytologist	

Saturday, June 18	8:30 – 9:45 am	( <b>Bold</b> denotes presente	r when not first author.)
MR9C	MR10A	MR10B	MR10C
Expression studies 1	Sexual conflict 1	Species interactions	Genomics 1
Transcribed microsatellite allele lengths are correlated with gene expression in sunflowers Mark Welch*	Female plasticity and post- copulatory sexual conflict David McLeod; Troy Day	Visual ecology of a three level predator-prey system David Outomuro*; Linus Söderquist; Frank Johansson; Anders Ödeen; Karin Nordström	Growth and development in wild sunflowers: Effects of genome size and life history Hannah Tetreault; Mark Ungerer; Anastasia Weston
Experimental evolution of gene expression and plasticity Aneil Agrawal; Yuheng Huang	Tearing the sexes apart: Artificial sexually-antagonistic selection reveals the fitness consequences of pleiotropy between sexes Thomas Gosden; Adam Reddiex; Steve Chenoweth	Modeling tripartite interactions between plants, insects and mutualistic bacteria Chandra Jack; Leigh Sheneman; Arend Hintze	Coexpression networks connect genes to secondary metabolic pathways in plants Jennifer Wisecaver; Antonis Rokas
Gene expression through out spermatogenesis: what new genes can tell us Julia Raices; Paulo Otto; Maria Vibranovski	Does environmental complexity affect sexual selections ability to purge deleterious mutations? Amardeep Singh*; Aneil Agrawal; Howard Rundle	The proof is in the partially- digested plants: Reconstructing Chrysochus (Eumolpinae, Chrysomelidae) phylogeny and host associations through gut DNA extractions Elizabeth McHone; Tatyana Livshultz	Genome-wide analysis of indirect genetic effects on maternal behaviour Reinmar Hager*; David Ashbrook; Beatrice Gini
Using RNA-seq to study the sex-role reversed Gulf pipefish: Are patterns of sex-bias gene expression different when we are dealing with Mr.Mom? Andria Beal; Matt Hale; Douglas Martin	Female dimorphism and male harassment in the Hawaiian damselfly Megalagrion calliphya Phoebe Cook; Rebecca Rasmussen; Edward Hsieh; Jackie Brown; Idelle Cooper	Proto-farming and the carried microbiome in a social amoeba Longfei Shu; Susanne DiSalvo; Tamara Haselkorn; David Queller; Joan Strassmann	The evolution of sex chromosomes in Asparagus Alex Harkess; Jim Leebens- Mack
	Sexual selection, mutation load, and the private male genome Karl Grieshop; David Berger; Göran Arnqvist	The symbiotic potential of Burkholderia bacteria in the social amoeba Dictyostelium discoideum Tamara Haselkorn; Susanne DiSalvo; Usman Bashir; Debra Brock; Joan Strassmann; David Queller	Louse genomes reveal major host switches between birds and mammals Kevin Johnson; Julie Allen; Bret Boyd; Nam Nguyen; Pranjal Vachaspati; Tandy Warnow
Morning coffee break	x   9:45 – 10:15 am		New Phytologist

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Saturday morning 1

# Saturday, June 18 | 10:15 – 11:30 am

	Ballroom A Ballroom B		Ballroom C
	SSB Mayr Award Symposium 2	SSE Hamilton Award Symposium 1	Invasion / molecular ecology
10:15 am	Finding space for biogeography in phylogenetic inference Michael Landis	The two-fold cost of sex: experimental evidence from a natural system Amanda Gibson; Lynda Delph; Curtis Lively	Effective population size variation and local adaptation in invasion Joseph Braasch; Katrina Dlugosch
10:30 am	Uncovering macroevolutionary diversification dynamics from clade age, species richness and taxonomic structure Luna Luisa Sánchez Reyes; Hélène Morlon; Susana Magallon	Coevolutionary interactions with parasites constrain the spread of self- fertilization into outcrossing host populations Samuel Slowinski; Levi Morran; Raymond Parrish II; Eric Cui; Amrita Bhattacharya; Curtis Lively; Patrick Phillips	Mitochondrial Heteroplasmy Confounds Inference of Infestation History Grant Robison; Ondrej Balvin; Coby Schal; Edward Vargo; Warren Booth
10:45 am	Drivers of rapid speciation in high Andean Plants (Asteraceae: Diplostephium) Oscar Vargas; Beryl Simpson	Diet and venom evolution in cone snails Mark Phuong	Toll-Like Receptor genes in dunnocks: comparing United Kingdom and New Zealand Carlos Lara*; Shinichi Nakagawa
11:00 am	Vomeronasal system evolution in bats is a one-way street Laurel Yohe; Liliana Davalos	Genomic analysis of Escherichia coli from an evolution experiment with intergenomic recombination Rohan Maddamsetti; Richard Lenski	Rapid evolution of heat tolerance and heat-shock protein gene expression during the invasion of the seaweed <i>Gracilaria</i> <i>vermiculophylla</i> Ben Flanagan; Erik Sotka; Stacy Krueger-Hadfield
11:15 am	Parallel phylogeographic histories of two Viburnum species complexes revealed with RADseq data Elizabeth Spriggs; Deren Eaton; Caroline Schlutius; Michael Donoghue	Multiple reproductive barriers separate recently diverged sunflower ecotypes Katherine Ostevik; Rose Andrew; Sally Otto; Loren Rieseberg	Genetic insights into the range expansion of the coral Oculina patagonica along the Spanish Mediterranean coast Karine Leydet; Carsten G.B. Grupstra; Rafel Coma; Marta Ribes; Michael Hellberg
		Lunch   11:30 am – 1:00 pm	

aturday, June 18	10:15 – 11:30 am	· ·	er when not first author.)
MR3	MR4	MR5	MR6A
Reproductive systems 2	Development 2	Quantitative genetics 2	Allometry
Nuts & bolts in ants, bees & wasps: describing the meiotic gene inventory in Hymenoptera Eric Tvedte; Andrew Forbes; John Logsdon	Evolution and development of leaves, the story that lycophytes and ferns tell Alejandra Vasco; Barbara Ambrose	Temperature-dependent sex determination under rapid anthropogenic environmental change: evolution at a turtle's pace? Fredric Janzen*	Cancelled
A genetic map of the selfing syndrome in morning glory Joanna Rifkin; Mark Rausher	Reproductive capacity evolves through changes in ecology and allometric growth in Hawaiian <i>Drosophila</i> Didem Sarikaya*	The genetic basis of nesting behavior in wild mice (genus <i>Peromyscus</i> ) Caitlin Lewarch; Hopi Hoekstra	The evolution of sexual dichromatism in African reed frogs Daniel Portik
Evolutionary lag in populations with both sexual and clonal reproduction Maria Orive*; Michael Barfield; Robert Holt	Tammar wallaby <i>Macropus</i> <i>eugenii</i> (Macropodidae) as a model for mammalian tooth evolution, development and replacement Qamariya Nasrullah; Marilyn Renfree; Alistair R. Evans	Genetic correlations among types of behavioral plasticities in <i>Drosophila melanogaster</i> Julia Saltz; Sergey Nuzhdin; Seana Lymer	Variation in limb length across lizards Travis Hagey*; Christofer Clemente
Influences of ploidy level and reproductive mode on patterns of adaptive molecular evolution in a New Zealand freshwater snail Laura Bankers; Jeffery Boore; John Logsdon; Maurine Neiman	Ecological causes and consequences of developmental complexity in experimentally evolved multicellular yeast William Driscoll; Michael Travisano	The genetic basis of the divaricating plant growth form Vaughan Symonds; Kay Pilkington	A genetic parallel between flightlessness evolution in the Galapagos Cormorant (Phalacrocorax harrisi) and human ciliopathies Alejandro Burga; Weiguang Wang; Paul Wolf; Andrew Ramey; Claudio Verdugo; Karen Lyons; Patricia Parker Leonid Kruglyak
Sex chromosome macroevolution & the reproductive biology of dinosaurs Chris Organ; Andrew Meade; Dan Janes	Comparative genomics and developmental biology suggest a strong role for gene regulation in the evolution of flightless birds Phil Grayson; Tim Sackton; Alison Cloutier; John Young; Michele Clamp; Clifford Tabin; Scott V.	Cancelled.	Serotonin mediates the evolution of developmental plasticity in horn-polyphenic beetles Daniel Schwab; Keeley Newsom; Armin Moczek

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Saturday morning 2

#### (\* indicates session chair) Saturday, June 18 10:15 – 11:30 am MR6B MR8 MR9AB MR7 Adaptation / genomics Population genetics / Education **Reproductive isolation 2** hybridization symposium 2 Convergent local adaptation to climate in conifers: exome Florally diverse species of sequencing reveals an Selfish evolution of 10:15 am Jaltomata (Solanaceae) unexpected role for gene cytonuclear hybrid exhibit multiple post-mating duplication incompatibility in *Mimulus* and post-zygotic reproductive Sam Yeaman\*; K. Hodgins; K. barriers Andrea Case; Findley Finseth; Lotterhos; H. Suren; S. Nadeau; Camille Barr; Lila Fishman J. Degner; K. Nurkowski; P. Panel discussion of the Jamie Kostyun; Leonie Moyle Smets; T. Wang; L. Gray; K. social implications: getting Liepe et al. people to think globally Sex-specific selection and Balancing selection facilitates Patterns of reproductive sexually dimorphic gene 10:30 am introgression of newt isolation in California expression in humans and immune genes Jewelflowers (Streptanthus) flies Anna Fijarczyk; Katarzyna **Kyle Christie** Mark Kirkpatrick; Changde Dudek; Wiesław Babik Cheng Evidence and estimation of genome-wide linked selection and differential Parental conflict, parent of l0:45 am introgression in multiple origin effects, and the species using mixture-model evolution of hybrid seed Cancelled based isolation with failure in Mimulus migration (IM) analyses Jenn Coughlan; John Willis Arun Sethuraman\*; Vitor Small group discussion Sousa; Jody Hey based on topics identified in earlier session Divergent sexual selection on Population genomics of a Asymmetrical introgression 11:00 am male courtship song drives multi-species mimetic mediated by selection in a rapid speciation in Drosphila hybrid zone recent turtle hybrid zone athabasca species complex Jake Morris; Kanchon Peter Scott Roman Yukilevich\* Dasmahapatra Genomic admixture resulting from secondary contact Quantity, not quality: rapid am between two invasive fire ant The evolution of incomplete adaptation to local prey species reproductive isolation: from proceeds through venom-11:15 Large group discussion gene expression changes in allopatry to sympatry and feedback for next year Elizabeth Wade; Sean Ryan; rattlesnakes Pnina Cohen; Lucinda Olivier Cotto; Maria Servedio Lawson; Kenneth Ross; Mark Margres; Darin Rokyta **DeWayne Shoemaker**

Lunch | 11:30 am – 1:00 pm

MR9C	MR10A	MR10B	MR10C
Expression studies 2	Sexual conflict 2	Speciation 1	Genomics 2
The transcriptional basis of quantitative behavioral variation Kyle Benowitz; Elizabeth McKinney; Allen Moore	The Evolution of Sexual Conflict in the Trinidadian Guppy Alex Landy; Joseph Travis; David Reznick; Andrés López- Sepulcre	A novel perspective of the evolution of ring species: Effects of historical contingency, ecological gradients, dispersal and the genetic basis of adaptation Michael Williamson; Cortland Griswold	Multiple whole genome duplications during the evolution of hexapods Zheng Li
Comparative transcriptomics of social behavior: a case in monogamous males	Sins of the father: the effect of experimentally increased sexual harassment on offspring behaviour in Trinidadian guppies	Genetic differentiation associated with host plants and geography in widespread lineages within a hyperdiverse group of neotropical tephritid fruit flies	The genome sequence of the bananaquit (Passeriformes: Coereba flaveola) and insights into the immunogenetic repetoire
Becca Young*; Lauren O'Connell; Hans Hofmann	Alex De Serrano; Mitchel Daniel; Helen Rodd	Andrew Forbes; Kristina Ottens; Isaac Winkler; Marty Condon	Jennifer Antonides; J. Andrew DeWoody
Gene expression changes in the brains of pair-bonded blue stripe pipefish Emily Rose; Caitlin Leslie; Adam Jones	Male-male relatedness or familiarity? Which reduces female harm in <i>Drosophila</i> melanogaster? Sally Le Page; Pau Carazo; Stuart Wigby	Disruptive natural selection predicts divergence between the sexes during adaptive radiation Stephen De Lisle; Locke Rowe	Bringing sharks into the genomic age: Insights from genome and transcriptome sequencing in elasmobranchs Nicholas Marra; Minghui Wang; Paulina Pavinski Bitar; Qi Sun; Aleksey Komissarov; Stephen J. O'Brien; Mahmood Shivji; Michae J. Stanhope
Cancelled	Runaway nuclear- mitochondrial coadaptation leaves behind a residue of genomic conflict Devin Drown*; Michael Wade	Divergent phenotypes and their influence on genome-wide divergence in barn swallows Rebecca Safran; Elizabeth Scordato; Georgy Semenov; Alex Rubstov; Matt Wilkins; Joanna Hubbard; Brittany Jenkins; Tomas Albrecht; Samuel Flaxman; Hakan Karaardic; Yoni Vortman et al.	Comparative mitogenomics reveals extreme population differentiation and armless tRNAs in Tigriopus californicu Eric Watson; Felipe Barreto; Christopher Willett; Suzanne Edmands; Thiago Lima; Ron Burton
The genetic basis of red ketocarotenoid coloration in birds Nick Mundy; Jessica Stapley; Staffan Andersson; Jon Slate	Does the Y-chromosome facilitate sexual dimorphic evolution or constrain autosomal evolution? Ian Kutch; Kenneth Fedorka	Social context, not individual personality, alters immigrant viability in a social spider Spencer Ingley*; Jonathan Pruitt; Jessica Purcell	Evolutionary dynamics of genomic repeat element landscapes across 200 million years of squamate evolution Giulia Irene Pasquesi*; Todd Castoe; Daren Card; Richard Adams; Andrew Corbin; Drew Schield

Saturday morning 2

# Saturday, June 18 | 1:00 – 2:15 pm

	Ballroom A	Ballroom B	Ballroom C
	ASN Spotlight: Evolution of species interactions 1	SSE Hamilton Award Symposium 2	Invasion / genomics
1:00 pm	Ant symbioses: from parasitism to	Phylogenetic reconstruction of a complex trait: how a single evolutionary innovation drives the deep evolution of the N2-fixing symbiosis in angiosperms Gijsbert Werner; William Cornwell; Janet Sprent; Jens Kattge; Hans Cornelissen;	Ecological genomics of invasive species Katrina Dlugosch
1:15 pm	Mutualism Naomi Pierce	Toby Kiers The evolutionary mechanisms that establish chromosome rearrangements in natural populations of <i>Drosophila</i> <i>pseudoobscura</i> Zachary Fuller; Gwilym Haynes; Stephen Richards; Stephen Schaeffer	Intraspecific genome size variation in an invasive plant Alice Cang; Katrina Dlugosch; Shana Welles
1:30 pm	Spatial patterns in the distribution of fruit characters in relation to dispersal agents and latitude M. Sinnott-Armstrong; M. Donoghue; A. Downie Gut bacteria co-speciated with hominids Andrew Moeller; H. Ochman; B. Hahn Host genetic vs geographic distance on gut microbiome in natural populations of house mice T. Suzuki; M. Phifer-Rixey; K. Ferris; A. Chavez; M. Nachman	Imprinting, the X chromosome, and extreme growth in hybrid mammals Thomas Brekke; Colin Callahan; Jeff Good	Genomic population structure and the evolution of freshwate tolerance in the invasive cnidarian <i>Cordylophora caspia</i> E. Sally Chang*
1:45 pm	Assessing the impact of species interactions on trait evolution Jonathan Drury; Hélène Morlon	A previously unknown neo-sex chromosome mediates plumage divergence and speciation in hybridizing birds Jason Sardell; Elizabeth Cooper; J. Albert C. Uy	Genomics of invasiveness in a perennial sunflower Dan Bock
2:00 pm	Evolution of ecological equivalence in response to competition and omnivory P. Zee; C. terHorst; S. Schreiber Latitudinal patterns in herbivory and defense: a test of the biotic interactions hypothesis to explain tropical biodiversity C. Baskett; D. Schemske Are species interactions trapped in the dungeon of your discussion section? Luke Harmon	Clustering of adaptive alleles is favored by gene flow in a globally distributed species Kieran Samuk; Gregory Owens; Diana Rennison; Kira Delmore; Sara Miller; Dolph Schluter	Evolutionary genomics of introduced salmonid species ir Patagonia, South America Shawn Narum

MR3	MR4	MR5	MR6A
Phylogenomics 1	Macroevolution 1	Phylogenetic methods development 1	Macroevolution / diversification 1
Evolution of vagility and convergent island gigantism in quail (Aves: Coturnix)	Selection, constraint, and the evolution of coloration in African starlings	Statistically consistent phylogenetic inference using k-mer frequencies	Macroevolutionary dynamic and convergence in frogs
Peter Hosner; Joseph Tobias; Ed Braun; Rebecca Kimball	Rafael Maia; Dustin Rubenstein; Matthew Shawkey	John Rhodes*; Elizabeth Allman; Seth Sullivant	Joanna Larson; Daniel Rabosky
Tectonic collision and uplift of Wallacea triggered the global songbird radiation Carl Oliveros*; R. Moyle; M. Andersen; P. Hosner; B. Benz; J. Manthey; S. Travers; R. Brown; B.	Macroevolutionary trade- offs in plant-feeding insects Daniel Peterson*; Nate Hardy; Benjamin Normark	Terraphy: characterizing terraces in phylogenetic treespace Derrick Zwickl; MIchael Sanderson	The macroevolution of climatic niches and its implications for generating species diversity gradients Marcio Pie; Andressa Duran;
Faircloth		Sanderson	Andreas Meyer
Early and dynamic colonization of Central America drives speciation in Neotropical army ants Max Winston; Daniel Kronauer; Corrie Moreau	Complex dynamics in rates of dinosaur body mass evolution Jonathan Mitchell	Construction and diagnosis of hybridization networks Michael Miyagi; Ward Wheeler	Combining performance surfaces in studies of functional and morphological diversification C. Tristan Stayton*
Society Island Partula tree snail survival after a mass extinction: New genomic insights using museum specimens	The role of gut microbes in ant evolution Corrie Moreau; Scott	The impact of ancestral population size and incomplete lineage sorting on Bayesian estimation of species divergence times	A quantitative macroevolutionary approach to exploring the pharmaceutical drug innovation crisis
Amanda Haponski; Taehwan Lee; Diarmaid O' Foighil	Powell; John Wertz; Jacob Russell	Konstantinos Angelis; <b>Mario</b> dos Reis	Erik Gjesfjeld; Jonathan Chang; Daniele Silvestro; Michael Alfaro
Genomic characterization of anchored phylogenomic and anonymous loci using a de novo chorus frog (Pseudacris) transcriptome	The evolution of a morphologically and ecologically specialized soldier caste in a socially complex lineage	The semantic clade: how computable phylogenetic definitions can link any data to any clade on any phylogenetic tree, ever Gaurav Vaidya; Hilmar Lapp;	Ecology of avian diversification across islands Antonin Machac; Knud Jønsson; Carsten Rahbek
Sean Holland; Sarah Banker; Emily Lemmon; Alan Lemmon	Shauna Price; Scott Powell	Nico Cellinese	

Saturday afternoon 1

#### Saturday, June 18 | 1:00 – 2:15 pm

	84DCD	1:00 – 2:15 pm (*			
	MR6B	MR7	MR8	MR9AB	
	Population genetics theory/methods 1	Education	Reproductive isolation 3	Adaptation / genomics 3	
1:00 pm	Landscape genomics of the Desert Tortoise Peter Ralph*; Bradley Shaffer; Evan McCartney- Melstad	Reducing students' perceived conflict between religion and evolution Elizabeth Barnes; James Elser; Sara Brownell	Tests of reproductive isolation between the fishes <i>Fundulus</i> <i>heteroclitus</i> and <i>F. grandis</i> Ruthie Barbas; <b>Matthew Gilg</b>	The 1001 genomes of Arabidopsis thaliana reveal a deep climatic adaptation history driven by summer drought Moises Exposito-Alonso; François Vasseur; George Wang; Detlef Weigel	
1:15 pm	Adaptive introgression and the evolutionary genetics of hybrid fitness effects Joseph Lachance	Avida-ED 3.0: The Digital Evolution Education Platform, Now in the Browser Robert Pennock; Diane Blackwood; Matthew Rupp; Charles Ofria	Pervasive antagonistic interactions among hybrid incompatibilities Rafael Guerrero*; Takuya Nakazato; Leonie Moyle	Genomics of lateral gene transfer in grasses Luke Dunning; Jill Olofsson; Colin Osborne; Patrik Nosil; Pascal-Antoine Christin	
1:30 pm	Local maladaptation interacts with expansion load during species range expansions Kimberly Gilbert; Nathaniel Sharp; Jeremy Draghi; Frédéric Guillaume; Anna Hargreaves; Rémi Matthey- Doret; Gina Conte; Amy Angert; Michael Whitlock	Clicker use in introductory biology: Does question format affect learning? Joanna Hubbard*; Brian Couch	Quantifying the relationship between pollinator behavior and plant reproductive isolation Robin Hopkins	Genomic basis of desert adaptation in the rock pocket mouse Noëlle Bittner; Michael Nachman	
1:45 pm	SLiM 2.0: A flexible and interactive framework for population genomic simulations in realistic evolutionary and ecological scenarios Benjamin Haller; Philipp Messer	Tri-society outreach opportunities through BEACON Alexa Warwick; Louise Mead	The melting snowball: A test of the snowball theory using RNA Ata Kalirad; Ricardo B. R. Azevedo	Whole genome comparisons among hummingbirds reveal targets of natural selection during repeated high-altitude colonization Jessica Weber; O. Chung; H. Kim; Y. Kim; Y.S. Cho; J. McGuire; R. Dudley; E. Beckman; J. Mudge; C. Witt; J. Bhak et al.	
2:00 pm	Mind the gap: the effects of INDEL variation on population genetic inference from RAD sequencing Jonathan Puritz; David S. Portnoy; John R. Gold	Implementing models of biological evolution in video games Barrie Robison; Terence Soule	Quantitative genetic simulations show that standing variation facilitates the evolution of reproductive isolation during ecological speciation Kayla Hardwick; Ailene MacPherson; Erica Bree Rosenblum; Luke Harmon	Ecological genomics of parallel adaptation to climate in lodgepole pine and interior spruce Jeremy Yoder*; Sally Aitken; Sam Yeaman; Michael Whitlock; Kathleen Lotterhos	

MR9C	MR10A	MR10B	MR10C
Expression studies 3	Sexual conflict 3	Speciation 2	Genomics / bioinformatics
Genetic changes involved in the evolution of delayed hatching, desiccation tolerance, and diapause among annual and non- annual killifishes Andrew Thompson; Anais Hayes; Jason Podrabsky; Guillermo Orti	Comparing genome-guided and de novo methods for inferring transcriptional sexual dimorphism in Ceratodon purpureus Sarah Carey; Jacob Landis; Adam Payton; Emily Woodruff; Kerrie Barry; Jerry Jenkins; Jane Grimwood; Jeremy Schmutz; Stuart McDaniel	Range overlap drives chromosome inversion fixation in passerine birds Daniel Hooper*	The Evolution of the LINE-1 Retrotransposon in Vertebrates Stephane Boissinot
Gene expression under hypoxic conditions in high-elevation Asian pikas	Evolutionary lability in the modulation of sex-biased gene expression by testosterone Christian Cox*; Nick B. Pollock;	Speciation with gene flow in North American Myotis bats	Population Genomics of Transposable Elements in Vertebrates
Katherine Solari; Elizabeth Hadly	Henry John-Alder; Audra Andrew; Daren Card; Todd Castoe; Robert Cox	Ariadna Morales; Bryan Carstens; Brian O'Meara; Nathan Jackson	Robert Ruggiero; Stephane Boissinot
Population structure and venom variation within rock rattlesnakes (Crotalus lepidus) Alyssa Bigelow; Kenneth Wray; Mark Margres; Alan Lemmon; Emily Lemmon; Darin Rokyta	Sex-Specific Selection Pressures and the Evolution of Sex Determination in the House Fly Richard Meisel	Chromosomal Reorganization and Evolution of Phyllostomid Bats Cibele Sotero-Caio; Roy Platt; David Ray; Marianne Volleth; Fengtang Yang; Robert Baker	Transposable element deca rates are correlated with genome size across vascula plants, but not rates of genome size evolution Anthony Baniaga
Evolution of CRAL-TRIO domain genes in Heliconius melpomene Aide Macias-Muñoz*; Adriana Briscoe	Exploring the evolution of competition and the self- perception of status in humans using video games Michael Kasumovic; Tom Denson; Khandis Blake; Barnaby Dixson	Expression divergence underlies habitat shifts and speciation in silverside fishes Lily Hughes	Using iterative pseudoreferences to estimate phylogenies and infer evolutionary patterns in non-model and near- model systems Brice Sarver*; Sara Keeble; Matthew Dean; Jeff Good
Intestinal regeneration in the garden of eatin': Comparative genomic analysis of extreme intestinal regenerative growth in snakes paves a path for translational research in human systems Blair Perry; Audra Andrew; Daren Card; Stephen Secor; Todd Castoe	A neo-sex chromosome in the monarch butterfly Andrew Mongue; Christopher Hamm; James Walters	Localizing transcriptome model interactions in a drosophilid genome William Etges; Cassia de Oliveira; Subhash Rajpurohit; Allen Gibbs; Axel Wiberg	An Automated Workflow for Mitochondrial DNA Extraction and Analysis from High-throughput Sequencing Data Alisha Mechtley

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Saturday afternoon 1

	Ballroom A Ballroom B Ballroom C				
	Baillooffi A	Ballroom C			
	ASN Spotlight: Evolution of species interactions 2	SSE Hamilton Award Symposium 3	Invasion		
2:45 pm	Microbe-mediated host defence drives the evolution of reduced pathogen virulence	Mutation, migration, standing variation: the where and how of convergent adaptation	Leveraging species invasions to improve understanding of character evolution and diversification		
2	Suzanne Ford; Kayla King	Kristin Lee; Graham Coop	Patricia Lu-Irving; Katrina Dlugosch		
mq	Eco-evolutionary feedbacks promote fluctuating selection and long-term stability of species-rich antagonistic networks Cecilia Andreazzi; P.R. Guimarães Jr.; C. Melián Hermaphrodite-biased oviposition on a gynodioecious host plant in a novel nursery pollination interaction	Drug treatment without the evolution of drug resistance	The copepod microbiome during independent habitat invasions		
3:00 pm	Laura Doubleday; Lynn Adler Mimics without models: the importance of being spatial Flavia Maria Darcie Marquitti; P.R. Guimaraes Jr; F.C. Santos; J.M. Pacheco	Nina Wale; Derek Sim; Matthew Jones; Troy Day; Andrew Read	Martin Bontrager; Carol Eunmi Lee; Jane Remfert; Joana Carneiro da Silva		
3:15 pm	Ecological genomics and ecosystem impacts of mutualism decline Katy Heath; Dylan Weese; Wendy Yang; Jennifer Lau	Post-K/Pg Extinction Lilliput Effect May Influence Avian Molecular Clocks Jacob Berv; Daniel Field	Genetic diversity in an asexual invader Jennifer Madrid Thorson		
3:30 pm	Variation in plant and fungal traits indicate mycorrhizal mediated selection in Pinus radiata Megan Rúa; Jason Hoeksema Mutualism breakdown and ecological opportunity in a plant- insect interaction David Hembry; N. Whiteman; K. Dlugosch	Understanding the impact of directional selection on the evolution of human quantitative traits	The cytochrome P450 superfamily in an invasive copepod		
ñ	The maintenance of host-associated differentiation in a vector- borne parasitic plant Kelsey Yule; Judith Bronstein	Jeremy Berg; Graham Coop	Alexandra Mechler-Hickson; Carol Eunmi Lee		
3:45 pm	Triangulating the genetic basis of host-parasite coevolution through genetic mapping, population genomics, and transcriptomics Daniel Bolnick; Jesse Weber; Brian Lohman; Natalie Steinel; Will Shim	Ticket to Ride: The microbiome as a passenger and driver of host evolution in a social, wood-feeding beetle Alex Waldrop; Andrew Eckert; Maria Rivera	Variability and plasticity in invasive and native shrubs in southeast Michigan Jeffrey Lake*; Matthew Konieczki; Olivia Herrera; Robert Asphall; Derek Gavelis		
A	ASN Student-Mentor Mixer   4:0 SN awards announcements & Presidential Address ASN General Business Meetir Poster session #1   5	– Mark McPeek   4:45 – ng   5:45 – 6:45 pm, MR3	5:45 pm, Ballroom ABC		

aturday, June 18   2: MR3		Bold denotes presenter MR5	
Phylogenomics 2	MR4 Macroevolution 2	Phylogenetic methods development 2	MR6A Macroevolution / diversification 2
Phylogenomics of an ancient rapid radiation of misfit fishes (Syngnathiformes) Sarah Longo	Dental morphology predicts diet across marsupials and placentals Silvia Pineda-Munoz; John Alroy; Ignacio A. Lazagabaster; Alistair R. Evans	To include or not to include: The impact of missing data on summary methods for species tree estimation Erin Molloy; Tandy Warnow	Cancelled
Phylogenetics and floral symmetry evolution of the core Goodeniaceae Rachel Jabaily; Andy Gardner; Kelly Shepherd; Emily Sessa; Dianella Howarth	Eating away the fish tree of life: the phylogenetic distribution of human exploitation Jonathan Chang; Kaustuv Roy; Julia Baum; Peter Cowman; Matt Friedman; Lauren Sallan; John Clarke; Michael Alfaro	Fast and accurate inference of phylogenetic networks using large-scale genomic sequence data Hussein Hejase; <b>Kevin Liu</b>	Primate diversification dynamics in deep time: Inferences from fossils vs. extant phylogenies James Herrera
Anchored phylogenomics recovers a robust phylogeny of Erebinae (Lepidoptera, Noctuoidea, Erebidae) Nicholas Homziak; Jesse Breinholt; Akito Kawahara	Untangling trait correlations at intra-individual and macroevolutionary scales: insights from seasonal shifts in leaf traits across the dogwoods (Cornus) Chase Mason; M. LaScaleia; J. Monroe; E. Goolsby	Assessing support and conflict in trees and networks Klaus Schliep*	A general multiprocess diversification model for phylogenies and fossils Daniel Rabosky*; Jonathan Mitchell
Resolution of New World Myotis using phylogenomic methods produces novel topologies Roy Platt*; Brant Faircloth; Kevin Sullivan; Travis Glenn; Troy Kieran; Richard Stevens; Robert Baker; David Ray	Macroevolution of pyrrolizidine alkaloids in Apocynaceae: a case of defense de-escalation? Tatyana Livshultz*; Elisabeth Kaltenegger; Dietrich Ober	Can differences in model fit explain conflicting estimates of the Squamate tree of life? Genevieve Mount; Jeremy Brown	Adaptive radiation and ecomorphological convergence in Caribbean Eleutherodactylus frogs Alejandro Gonzalez Voyer; Alvaro Dugo Cota; Carles Vilà
Cancelled.	Post-turnover diversification of an Australian adaptive reptile radiation Ian Brennan; Paul Oliver	Cancelled	Determinants of regional species diversity in Australian squamates Pascal Title; Daniel Rabosky
ASN awards announceme	nts & Presidential Addres	00 – 4:45 pm, Rotunda (lev s – Mark McPeek   4:45 – ing   5:45 – 6:45 pm, MR3 5:45 – 7:45 pm, EH1	•

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Saturday afternoon 2

(\* indicates session chair)

MRGB Population genetics theory/methods 2 Ising pedigrees and enomics to understand the onsequences of limited and ex-biased dispersal iraham Coop*; Stepfanie guillon; John Fitzpatrick; eed Bowman; Stephan choech; Andrew Clark; lancy Chen he facultative sex coalescent vith recombination and gene onversion Matthew Hartfield; Stephen Vright; Aneil Agrawal election and polymorphism	MR7         Education / outreach         Active learning promotes         diversity in undergraduate         science         Cissy Ballen*         A multifactorial analysis of         the acceptance of         evolution in college         students         Ryan Dunk; Benjamin         Campbell; Andrew Petto	MR8 Reproductive isolation 4 A role for disrupted gene regulation in speciation in house mice Katya Mack; Polly Campbell; Michael Nachman Patterns of reproductive isolation are not consistent across cytotypes within a polyploid complex Brittany Sutherland*; Laura Galloway The molecular substrates of	MR9AB Adaptation / geographic variation Cancelled Heterochrony and geographic scale in climatic adaptation by the bushy- tailed woodrat (Neotoma cinerea) Angela Hornsby
theory/methods 2 Ising pedigrees and enomics to understand the onsequences of limited and ex-biased dispersal iraham Coop*; Stepfanie guillon; John Fitzpatrick; eed Bowman; Stephan choech; Andrew Clark; lancy Chen he facultative sex coalescent vith recombination and gene onversion Matthew Hartfield; Stephen Vright; Aneil Agrawal election and polymorphism	Active learning promotes diversity in undergraduate science Cissy Ballen* A multifactorial analysis of the acceptance of evolution in college students Ryan Dunk; Benjamin Campbell; Andrew Petto Making ideas sing:	A role for disrupted gene regulation in speciation in house mice Katya Mack; Polly Campbell; Michael Nachman Patterns of reproductive isolation are not consistent across cytotypes within a polyploid complex Brittany Sutherland*; Laura Galloway	geographic variation Cancelled Heterochrony and geographic scale in climatic adaptation by the bushy- tailed woodrat (Neotoma cinerea) Angela Hornsby
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vith recombination and gene onversion Matthew Hartfield; Stephen Vright; Aneil Agrawal election and polymorphism	the acceptance of evolution in college students Ryan Dunk; Benjamin Campbell; Andrew Petto Making ideas sing:	isolation are not consistent across cytotypes within a polyploid complex Brittany Sutherland*; Laura Galloway	geographic scale in climatic adaptation by the bushy- tailed woodrat (Neotoma cinerea) Angela Hornsby
Vright; Aneil Agrawal	Campbell; Andrew Petto Making ideas sing:	Galloway	Angela Hornsby
		The molecular substrates of	
t two loci Iamish Spencer	engaging students by singing the science Richard Heineman	species discrimination: Vomeronasal transcriptomes of female mice Polly Campbell; Matthew B. Couger	How a fish lost its worm: tapeworm prevalence in threespine stickleback linked to heritable immune variation and parasite growth Jesse Weber*; Daniel Bolnick; Natalie Steinel; Will Shim
eveloping models for enotype uncertainty, abreeding, and allelic aheritance in non-model olyploids aul Blischak: Kubatko Laura:	The non-uniform cytochrome C molecular clock and creationism James Hofmann	Are hybrids fully fertile? Insights from the chromosomal hybrid zones of the Eurasian common shrew Sorex araneus	Genetic divergence predicts the degree of physiological divergence in salt marsh Savannah Sparrows Phred Benham; Zachary
ndrea Wolfe		Shchipanov	Cheviron
he evolution of serially overted chromosomes	To MATE or not to MATE: Evaluating Measures of Acceptance of Evolution	Prezygotic isolation, mating preferences, and the evolution of chromosomal inversions	Phenotypic variation in native and invasive Sahara mustard
pencer Koury	Cory Kohn; Louise Mead	Andrius Jonas Dagilis; Mark Kirkpatrick	Brian Alfaro
entro ann huv	notype uncertainty, preeding, and allelic heritance in non-model lyploids ul Blischak; Kubatko Laura; drea Wolfe e evolution of serially verted chromosomes encer Koury ASN Stude	notype uncertainty, preeding, and allelic heritance in non-model lyploidsThe non-uniform cytochrome C molecular clock and creationismul Blischak; Kubatko Laura; drea WolfeJames Hofmanne evolution of serially verted chromosomes encer KouryTo MATE or not to MATE: Evaluating Measures of Acceptance of Evolution Cory Kohn; Louise MeadASN Student-Mentor Mixer4:0	veloping models for notype uncertainty, preeding, and allelic neritance in non-model lyploidsThe non-uniform cytochrome C molecular clock and creationismAre hybrids fully fertile? Insights from the chromosomal hybrid zones of the Eurasian common shrew Sorex araneusul Blischak; Kubatko Laura; drea WolfeJames HofmannSvetlana Pavlova; Nikolay Shchipanove evolution of serially verted chromosomesTo MATE or not to MATE: Evaluating Measures of Acceptance of EvolutionPrezygotic isolation, mating preferences, and the evolution of chromosomal inversionsencer KouryCory Kohn; Louise MeadAndrius Jonas Dagilis; Mark

Poster session #1 | 5:45 – 7:45 pm, EH1

MR9C	MR10A	MR10B	MR10C
Expression studies / plants	Sensory systems 1	Speciation 3	Genomics / hybridization
Transcriptome analysis to identify the cause of Yellow Canopy Syndrome in sugarcane Kate Hertweck*; Frikkie Botha; Gerard Scalia; Annelie Marquardt; Rosa Shafiei; Kate Wathen-Dunn	Rapid Evolution, Sexual Dimorphism, and Physiology of Color Visual Systems in Heliconius Butterflies Kyle McCulloch; Adriana Briscoe	Speciation and morphological diversification of mimetic Swallowtail butterflies in the biogeographically complex Indo-Australian Region Jahnavi Joshi; <b>Krushnamegh</b> <b>Kunte</b> *	Plumage genes and little else distinguish the genomes of hybridizing golden-winged and blue-winged warblers David Toews*; Scott Taylor; Alan Brelsford; Rachel Vallender; Bronwyn Butcher; Philipp Messer; Irby Lovette
Genomic abundance predicts transcriptional activity of Ty3/Gypsy retrotransposons in sunflower species Fan Qiu; Mark Ungerer	Sexual dimorphism in UV color vision in Heliconius doris Jennifer Briner; Adriana Briscoe	Allopatry and linked selection drive the speciation of <i>Silene</i> <i>nutans</i> lineages Helene Martin; Fabienne Van Rossum; Xavier Vekemans; Jean-François Arnaud; Camille Roux; Touzet Pascal	De novo assembly of a male sex chromosome in a wild vertebrate yields evolutionary and functiona insights John Blazier; Molly Schumer; Rongfeng Cui; Peter Andolfatto; Gil Rosenthal
Ancestrally high expression predisposes genes for a function in the C4 biochemistry	Omnidirectional Crypsis and Socially Modulated signaling: Evidence for polarization communication and crypsis in fish	Speciation and phenological adaption in action: the transcriptomics of differential diapause regulation in Rhagoletis	Introgression and reinforcement in Texas wildflowers
Jose J Moreno-Villena; Pascal-Antoine Christin	Molly Cummings*; Gina Calabrese; Parrish Brady	Thomas Powell; Eddy Dowle; Qinwen Xia; Greg Ragland; Dan Hahn	Federico Roda; Fabio Mendes Matthew Hahn; Robin Hopkin
Triplication, domestication and diversification of Brassica rapa xinshuai qi; Hong An; Tara	Phylogenomics reveals an ancient metazoan sensory toolkit and a more recent chemosensitivity paradigm shift in the ancestor of protostomes	Population differentiation and evolution of chemosensory receptors in sibling species of orchid bees	What can the genomic composition of the <i>Helianthus</i> hybrids tell us about hybrid speciation?
Hall; Chris Pires; Michael Barker	David Plachetzki	Philipp Brand; Thomas Eltz; Santiago Ramirez	Gregory Owens; Loren Rieseberg
Quantifying expression level divergence following autopolyploidy in Tolmiea (Saxifragaceae)	On the reducible complexity of the <i>Daphnia</i> eye	Genomic evidence for diversification and speciation within a geographic mosaic of coevolution	A peculiar case of hybridization with advantageous mtDNA introgression and lack of nuclear introgression in Caribbean anoles
Clayton Visger; Gane Wong; Pamela Soltis; Douglas Soltis	Jeff Dudycha	Thomas Parchman; Alex Buerkle; Victor Soria- Carrasco; Craig Benkman	Tereza Jezkova; Todd Castoe; Manuel Leal; Daren Card; Drew Schield; David Elzinga; Javier Rodríguez-Robles

ASN General Business Meeting | 5:45 – 6:45 pm, MR3

Poster session #1 | 5:45 – 7:45 pm, EH1

# Sunday, June 19 | 8:15/8:30 – 9:45 am

Jun	Ballroom A Ballroom B Ballroo		Ballroom C
	SSE Symposium: How and why? Towards an evolutionary physiological synthesis 1	Adaptation / plants	SSB Symp.: Putting evol. into ecol. niche modeling: Building the connection between phylogenies, paleobiology & spp. distribution models 1
8:15			phyloSDM: Bayesian hierarchical model for joint estimation of ecological niche
8:30 am	What is evolutionary physiology?	Local adaptation and fitness trade-offs in a California wildflower	models and niche evolution Nicholas Matzke
8	Christopher Muir	Emily Dittmar; Douglas Schemske	
8:45 am	Natural variation in a signaling protein drives a physiological trade-off between resource use efficiency and competitive ability Dave DesMarais; Thomas Juenger; Brandon Campitelli	Urbanization drives parallel adaptive clines in plant populations Ken Thompson*; Marc Johnson	Incorporating evolutionary information into niche and distribution models: learning to love terrible SDMs Dan Warren
9:00 am	Acclimation and adaptation of energy metabolism in Lake Whitefish Anne Dalziel; Martin Laporte; Helga Guderley; Louis Bernatchez	Mechanisms, evolution and ecology of drought tolerance: analyses within a diverse and keystone lineage, Ceanothus (Rhamnaceae) Leila Fletcher; Hongxia Cui; Hilary Callahan; Christine Scoffoni; Grace John; Megan Bartlett; Dylan Burge; Lawren Sack	A Tale Of Two Sisters: Ecological & Evolutionary Divergence In Geminate Species Pairs Erin Saupe; Peter Cowman
9:15 am	Physiology, thermal niche, and predicted local adaptation in a short- lived annual Joe Hereford	Polyploidy and drought-associated phenotypes in Brachypodium distachyon along the aridity gradient in Israel Shira Penner; Yuval Sapir; Itay Mayrose; Yamit Bar-Lev	The fossil record and projecting species distribution models through time Kaitlin Clare Maguire; Jessica Blois; Diego Nieto-Lugilde; Jack Williams; Matthew Fitzpatrick
9:30 am	What field experiments can (and cannot) tell us about the proximate and ultimate basis of life-history tradeoffs: a case study in Anolis lizards Robert Cox	Adaptative divergence in a biotic context: role of plant-rhizosphere interactions and climate in phenotypic divergence of teosinte Anna O'Brien; Sharon Strauss; Jeffrey Ross-Ibarra; Ruairidh Sawers	Evolution and epigenetics: unraveling error in niche models Jenny McGuire; Edward Byrd Davis
	Morning coffee break   9:45 –	10:15 am Sponsor:	

MR3	MR4	MR5	MR6A
Phylogenomics 3	Macroevolution 3	Phylogenetic methods development 3	Biogeography / diversification
An evolutionary timescale for the diversification of ray-finned fishes Michael Alfaro*; J. Chang; P. Cowman; M. Friedman; L. Sallan; J. Clarke; D. Rabosky; T. Near	Spontaneous evolution of cooperation in a nascent multicellular organism Jordan Gulli; Will Ratcliff	Inference expands morphological data: filling in the "unknown knowns" Paula Mabee*; Alex Dececchi; Hilmar Lapp; James Balhoff	Cerrado and Atlantic Forest Eupatorieae (Asteraceae): divergence times, diversification rates and biogeographic history Vanessa Rivera*; Jose Panero
Species delimitation in Canarium Burseraceae), a cryptic tropical clade: integrating genomics, morphology, and biogeography Sarah Federman; Deren Eaton; Douglas C Daly; Michael Donoghue	Evolution of niche and ecomorphological traits in a phylogenetic context in lizards of the Liolaemus bibroni complex (Squamata: Liolaemini) Danielle Edwards*	New methods for constructing the supertree of life Benjamin Redelings; Mark Holder	An island called India: Phylogenetic and diversification studies in the endemic Hemidactylus geckos of India reveals an adaptive radiation Praveen Karanth; Aparna Lajmi; Anjali Verma
Functional and spatial neterogeneity of gene family evolution in non-model species: three strategies using the plant group Caryophyllales as an example Ya Yang; Michael J. Moore; Samuel F. Brockington; Stephen Smith	Inferring paleopolyploidy in the Mollusca Jesse Czekanski-Moir; Michael Barker; Zheng Li; Rebecca Rundell; Chris Reardon	Community curation of the tree of life Karen Cranston	Ecological, evolutionary, and human-mediated determinants of Poeciliid species richness on Caribbean islands Andrew Furness; David Reznick; John Avise
Assessing genealogical discordance n Adansonia (Malvaceae) by cargeted-sequence capture Nisa Karimi; noah Stenz; Corrinne Grover; Joseph Gallagher; Ionathan Wendel; <b>David Baum</b>	Molecular functional evolution of RNA interference across animals and plants Bryan Kolaczkowski	Gene tree reconciliation using MUL-trees resolves polyploidy events Gregg Thomas; S. Hussain Ather; Matthew Hahn	Phylogeny and Biogeography of Coral Reef Fishes Using All Species Trees Mark Westneat
Dissecting broad introgression using exon capture data in Rainbow skinks across the Kimberley (Australia) Ana Silva; Mozes Blom; Sally Potter; Craig Moritz	A macroevolutionary analysis of the Pace of Life Syndrome in killifishes Björn Rogell; Will Sowersby; Simon Eckerström; Alejandro Gonzalez Voyer	Estimating lineage dependent speciation and extinction rates from a phylogeny using a multi-states birth-death model Joelle Barido-Sottani	The repeated colonization of new biogeographic regions promotes lineage diversification among the Corvides (Aves: Passeriformes) Jonathan Kennedy; Knud Jønsson; Michael Borregaard; Ben Holt; Jor Fjeldså; Carsten Rahbek

Sunday morning 1

#### Sunday, June 19 | 8:30 – 9:45 am

Sun	Sunday, June 19   8:30 – 9:45 am (* indicates session cha			
	MR6B	MR7	MR8	MR9AB
	Population genetics: inference of selection 1	Social systems 1	Reproductive isolation 5	Adaptation / experimental evolution
8:30 am	Is haplotype information required in selection scans? Daniel Gómez Sánchez;	First evidence of winner- loser effects in a eusocial species	Diverged female preferences and male aggression patterns are not sufficient to drive behavioral isolation	Protein destabilization as a mechanism of evolutionary innovation
8	Viola Nolte; Christian Schlötterer	Alok Bang; Raghavendra Gadagkar	Yusan Yang; Corinne Richards- Zawacki	Katherine Petrie; Justin Meyer
8:45 am	Measuring natural selection at the gene sequence level in natural populations John Kelly	Native unicolonial ants show no between-colony aggression across 1000 km, despite genetic and CHC differentiation Jonathan Brown*; Rebecca Rasmussen; Edward Hsieh;	Wolbachia in the <i>Drosophila</i> <i>yakuba</i> complex: frequency variation in space and time with cytoplasmic incompatibility modulated by intraspecific Wolbachia-host genetic covariation	Host-selected mutations converge on a global regulator to drive an adaptive leap to bacterial symbiosis
		Margaret Mamantov; Leslie Lyons	Brandon S. Cooper*; Paul Ginsberg; Michael Turelli; Daniel Matute	Sabrina Pankey*
9:00 am	Population genomic signatures of selection in a single Capsella grandiflora population	Performance determines division of labor in leaf- cutting ants	Cascade reinforcement in the fly Drosophila subquinaria	The evolutionary consequences of pleiotropy in bacteriophages under thermal stress
:6	Corlett Wood*; John Stinchcombe; Stephen Wright	Mateo Garcia; Flavio Roces; Martin Bollazzi	Kelly Dyer	Andrew Sackman; Darin Rokyta
15 am	Genomic variation in industrial hemp and drug- type <i>Cannabis sativa</i>	Sexual selection in social networks depends on population size	Intraspecific coevolution of male genitalia and female sensory structures might strengthen reproductive isolation between sympatric	Rate of environmental turnover affects adaptive dynamics in RNA virus populations
9:15	Brian Campbell; John McKay	Vincent Formica; Butch Brodie	damselfly species Alexandra Barnard; Mark McPeek; Ola Fincke; J.P. Masly	Valerie Morley; Paul Turner
9:30 am	Identifying differentiation of populations of the clam shrimp <i>Eulimnadia texana</i> through genome assembly and pooled population sequencing	The evolution of cooperation between unrelated individuals	Variation in outcomes of interactions among hybridizing Catostomus fishes	Pleiotropy and epistasis between high-heat and low-pH mutations in a bacteriophage
.6	James Baldwin-Brown; Anthony Long; Stephen Weeks	Sarah Fumagalli; Sean Rice	Elizabeth Mandeville; Thomas Parchman; Alex Buerkle	Carl Whittington; Darin Rokyta
	Morning coffee break	9:45 – 10:15 am	Sponsor:	
	Morning coffee break	9:45 – 10:15 am	Sponsor:	A D

MR9C	MR10A	MR10B	MR10C
Expression studies / adaptation	Sensory systems & signals	Mutualism 1	Speciation / genomics 1
Local adaptation to fluctuating and extreme temperatures and gene regulation in <i>Tigriopus</i> <i>californicus</i> Christopher Willett; Thiago Lima	Divergence of the dim light opsin gene in Neotropical cichlids reflects macroevolutionary transitions Frances Hauser; Ryan Schott; Belinda Chang	Conserved gut microbiota in a herbivorous beetle mediates the degradation of host plant defences Aileen Berasategui; Hassan Salem; Axel Schmidt; Jonathan Gershenzon; Martin Kaltenpoth	Multispecies outcomes of sympatric speciation after admixture with the source population in two radiations of Nicaraguan crater lake cichlids Andreas Kautt; Gonzalo Machadoo Schiaffino; Axel Meyer
Nested gene duplication and nested electric organ evolution in South American electric fish Ammon Thompson; Harold Zakon	Functional evolution in the cetacean dim-light visual pigment Sarah Dungan; Belinda Chang	Adaptation to chronic malnutrition: Is there room for microbiota? Berra Erkosar Combe	Combining RADseq and Allele Frequency Spectrum towards inferring the demographic history of lake whitefish species-pairs Clément Rougeux; Louis Bernatchez; Pierre-Alexandre Gagnaire
Parallelism in gene expression underlying parallel phenotypic adaptive divergence Dieta Hanson; Andrew Hendry; Rowan Barrett	Concordance between optical environment and male nuptial color leads to conflicting patterns of male conspicuousness Chad Brock*	Carnivorous caterpillars: diet, gut microbiota, and ant- association among Lycaenid butterflies melissa whitaker	Isolation by depth in corals: contrasting brooders vs. broadcast spawners Pim Bongaerts; <b>Cynthia</b> <b>Riginos</b>
Polar Vortex cold wave elicits rapid physiological, regulatory and genetic shifts in populations of the green anole, <i>Anolis carolinensis</i> Shane Campbell Staton; Zachary Cheviron; Jonathan Losos; Scott V. Edwards	Chemoreceptor gene family evolution in the phytophagous hymenopteran <i>Neodiprion</i> <i>lecontei</i> Kim Vertacnik; Catherine Linnen	Endosymbiont encapsulation and metabolic integration sans intracellular localization Hassan Salem*; Eugen Bauer; Aileen Berasategui; Takema Fukatsu; Martin Kaltenpoth	Fine scale genomic mapping of introgressions within the <i>Drosophila yakuba</i> clade David Turissini; Daniel Matute
Genetic basis of butterfly eyespot determination Linlin Zhang*	Pheromonal mechanisms of reproductive isolation in Xiphophorus: opening the black box of male signaling Chris Holland; Gil Rosenthal	A symbiont-mediated shift in the ecology of host-parasite interactions John Jaenike; Vincent Martinson; Tamara Haselkorn	Sex chromosomes, speciation and the sensitivity of spermatogenesis Erica Larson*; Jeff Good
Morning coffee bre	eak   9:45 – 10:15 am	Sponsor:	

Sunday morning 1

### Sunday, June 19 | 10:15 – 11:30/11:45 am

(\* indicates session chair)

Ballroom A Ballroom B Ballroom C				
	SSE Symposium: How and why? Towards an evolutionary physiological synthesis 2	Floral 1	SSB Symposium: Putting evol. into ecol. niche modeling: Building the connection between phylogenies, paleobiology & spp. distribution models 2	
10:15 am	Evidence for and against evolution of a whole plant economic spectrum in wild <i>Helianthus</i> Lisa Donovan; Chase Mason; Alan Bowsher; Alex Pilote	Rethinking flower evolution in irises: are pollinators the agents of selection? Yuval Sapir; Mahua Ghara; Yamit Bar-Lev; Omer Bar	Extending spatial modelling of climate change responses beyond the realized niche: estimating, and accommodating, physiological limits and adaptive evolution Renee Catullo; Simon Ferrier; Ary Hoffmann	
10:30 am	Selection drives metabolic allometry Craig White; Daniel Ortiz- Barrientos; Dustin Marshall	Gene regulation associated with anther color polymorphism in <i>Erythronium umbilicatum</i> (Liliaceae) Rong-Chien Lin; Mark Rausher	Environmental Niche Trackers and Nice Adapters Revealed Through Fine Scale Phenological Niche Modeling Matthew Van Dam; Andrew J. Rominger; Michael S. Brewer	
10:45 am	A phylogenetic perspective reveals extreme evolutionary lability along the C3-CAM continuum in Calandrinia (Montiaceae) Lillian Hancock; Joseph Holtum; Abigail Moore; Erika Edwards	Variation, heritability, & correlated selection in Phlox petal number James Mickley; Carl Schlichting	Distribution models below species level Dan Rosauer	
11:00 am	The physiology of adaptive radiation Alex Gunderson; Manuel Leal; Luke Mahler	The evolution of flower perfume: direct and pleiotropic effects of artificial selection in <i>Brassica rapa</i> Pengjuan Zu*; Florian Schiestl; Wolf Blanckenhorn	Protecting evolutionary history into the future Laura Pollock	
<b>11:15 am</b>	Linking physiology to biogeography in monkeyflowers Amy Angert	Local adaptation: mechanical fit between floral ecotypes of <i>Nerine</i> <i>humilis</i> (Amaryllidaceae) and pollinator communities Ethan Newman; John Manning; Bruce Anderson	Panel discussion and further questions with all symposium presenters 11:15 - 11:45 am	

Taylor & Francis Workshop: Publishing in Academic Journals | MR7

MR3	MR4	MR5	MR6A
Phylogenomics 4	Macroevolution 4	Phylogenetic theory	Biogeography 1
Phylogenomics of amphibia and the nature of support and signal in big data sets Paul Hime; A. Lemmon; E. Lemmon; E. Prendini; J. Brown; R. Thomson; B. Noonan; A. Pyron; P. Peloso; M. Kortyna ; I. Kratovil et al.	Exploring the importance of the evolutionary ratchet in burrowing mammals Samantha Hopkins; Samantha Price	Inappropriate parameterization of fossilized birth-death models causes incorrect estimation of topology and node ages April Wright*; Tracy Heath	Evidence of recent selective sweeps and balancing selection underlining climate-correlated genetic variation in locally adapted populations of <i>Arabidopsis thaliana</i> Nicholas Price
Phylogenomics of the Pulmonate Land Snails Luisa Teasdale; Andrew Hugall; Frank Koehler; Dai Herbert; Tim O'Hara; Adnan Moussalli	Constraints on secondary sympatry in bats (Order: Chiroptera) Jeff Shi; Daniel Rabosky	Displayed trees do not determine distinguishability under the network multispecies coalescent James Degnan; Sha Zhu	Looking for clines in clades: An example from Cassidinae beetle Marianna Simoes
Phylogenomics of the Ranunculales with resolution of the Papaveraceae Amanda Lane	Diversification and rapid phenotypic evolution decoupled in Neogene equids Juan L. Cantalapiedra; Jose Luis Prado; Manuel Hernández Fernández; Mª Teresa Alberdi	Climbing peaks and crossing valleys: Metropolis coupling and rugged phylogenetic distributions Jeremy Brown; Robert Thomson	Does species niche breadth predict plant performance in novel environments? An experimental test in Australian Alps plants Jason Sexton*
Species delimitation of a Cerrado endemic lizard: using Next- Generation Sequencing, ecology, and morphology to test diversification hypotheses Fabricius Domingos*; Guarino Colli; Alan Lemmon; Emily Lemmon; Luciano Beheregaray	The reconstructed ancestral flower and its subsequent diversification Herve Sauquet*; M. von Balthazar; S. Magallon; J.A. Doyle; P.K. Endress; E. Bailes; E. Barroso de Morais; K. Bull-Herenu; L. Carrive; M. Chartier; G. Chomicki et al.	Is it time for a new look at quartet-based invariant methods for phylogenetic inference? David Swofford	Does behavior shape biogeography? A test of whethe behaviorally subordinate species shift away from the ancestral climate niche Eliot Miller; Benjamin Freeman; Wesley Hochachka; Luke Harmo
Green Blood: Investigating the evolutionary history of a unique trait in New Guinea lizards Zachary Rodriguez	Cancelled	Split Scores on Phylogenetic Trees and Applications Elizabeth Allman; John Rhodes; Kubatko Laura	Big brains stabilize populations and facilitate colonization of harsher climates in birds Trevor Fristoe; Andrew Iwaniuk; Carlos Botero

Sunday morning 2

Taylor & Francis Workshop: Publishing in Academic Journals | MR7

#### Sunday, June 19 | 10:15 – 11:30 am

Jun	Sunday, June 19   10:15 – 11:30 am (* Indicates session chai				
	MR6B	MR7	MR8	MR9AB	
	Population genetics: inference of selection 2	Social systems 2	Speciation & adaptation / modeling	Adaptation / diversification	
10:15 am	Genomic patterns of selection through time in a wild pedigreed population Nancy Chen*; Elissa Cosgrove; Huijie Feng; Ishaan Jhaveri; Ashish Akshat; Reed Bowman; John Fitzpatrick; Andrew Clark	Wild social amoebae change gene expression in response to chimerism during the social cycle in order to compete Suegene Noh	Haldane's rule as a consequence of the bioenergetics of binding in a regulatory transcription factor network Norman Johnson*; Adam Porter	Diversification of complex social phenotypes: insights from the turtle ants Scott Powell	
10:30 am	A second coming of sechellia: parallel adaptation to a toxic fruit in <i>Drosophila yakuba</i> Amir Yassin; Vincent Debat; Heloise Bastide; Nelly Gidaszewski; Jean David; John Pool	Genomic signature of kin selection in an ant with obligately sterile workers Michael Warner; Alexander Mikheyev; <b>Tim</b> Linksvayer*	Multi trait divergence in early adaptive radiation Xavier Thibert-Plante; Per- Arne Amundsen; Kimmo Kahilainen; Kim Praebel; Kjartan Østbye; Sergey Gavrilets	Mechanisms of Adaptation in Reef-Building Corals Groves Dixon; Mikhail Matz	
10:45 am	Missing variation uncovered using deep sequencing of a population of D. simulans Sarah Signor; Felicia New; Lauren McIntyre; Sergey Nuzhdin	Gene duplication in the evolution of sex- and caste-biased gene expression in social insects Linh Chau; Michael Goodisman	The evolution of imprinting through reinforcement Justin Yeh; Maria Servedio; Janette Boughman; Glenn- Peter Sætre	The Evolution of Insect Immunity in a Changing Climate Kenneth Fedorka	
<b>11:00 am</b>	Detecting Selection in a Polymorphic Bumble Bee using ddRAD and RNAseq Data Jason Jackson	Debunking the mating hierarchy: population composition and macrocyst production in <i>Dictyostelium discoideum</i> Tracy Douglas; Joan Strassmann; David Queller	Mate-choice mechanisms and the dynamics of reproductive isolation: a simulation study Dan Powell; Gil Rosenthal	Increase in outdoor host- seeking behavior of Anopheles gambiae s.l. over 6 years of vector control on Bioko Island Jacob Meyers*; Sharmila Pathikonda; Zach Popkin-Hall; Matthew Medeiros; Godwin Fuseini; Abrahan Matias; Guillermo Garcia; Hans Overgaard; Vani Kulkarni; Vamsi Reddy; Christopher Schwabe et al.	
11:15 am	Multivariate outliers improve the signal-to-noise ratio in genome scans Kathleen Lotterhos; Daren Card; Caitlin Collins; Liuyang Wang; Sara Schaal; Robert Verity	Cancelled	Fitness-valley crossing in subdivided asexual populations Michael McLaren	An inordinate fondness for rove beetles: evolution and diversification of ant social parasites Joseph Parker	
	Taylor & Fra	Lunch   11:30 a ancis Workshop: Publishi	•	MR7	

14000	Ay, June 19   10:15 – 11:30 am (Bold denotes presente MR9C MR10A MR10B		MR10C	
MR9C Molecular ecology 1	Sexual selection / behavior 1	Mittualism 2	Speciation / genomics 2	
Broad-scale mechanisms generating intraspecific immune gene variation across a latitudinal gradient Margaret Haines; Rachael Giglio; Emily Latch	Courtship experience and success affect male behavioral, morphological, and extended phenotypes Emily Weigel	Assessing the microbiome of two closely related giant salamanders: bacterial community structure reveals important considerations related to amphibian conservation Obed Hernandez-Gomez; Jeffrey Briggler; Rod Williams	The importance of mito- nuclear versus nuclear-nuclea hybrid incompatibilities in a species without sex chromosomes Thiago Lima; Ron Burton; Ricardo Pereira	
Supergenes and adaptive divergence in Atlantic cod ( <i>Gadus morhua</i> ) within the Gulf of Maine Bryan Barney; Stephen Palumbi	Alternative ejaculation tactics and fertilization success in the yellow dung fly Brian Gress; Scott Pitnick	Algal symbiont mediates maintenance of an egg mass polymorphism in the spotted salamander, Ambystoma maculatum Rebecca Hale*; Elsea Brown; Danielle Winkelman; Caroline Kennedy	Patterns of differentiation between house mouse subspecie at loci implicated in hybrid sterility: Do loci contributing to reproductive isolation show distinctive signatures in the genomic landscape? Leslie Turner*; Bettina Harr	
Genetic variation in the ant social parasite Solenopsis daguerrei predicts host specificity at a micro- geographic scale Sean Ryan*; Elizabeth Wade; DeWayne Shoemaker; Andrew Bouwma; Luis Calcaterra	Behavioral traits as selective regimes: Bird behavior and female plumage evolution Jay McEntee; Zoe Zelazny; J. Gordon Burleigh	Systems biology and eco- evolutionary feedbacks in synthetic microbial communities William Harcombe	Speciation supergenes? Segregating Z chromosome recombination suppressors in European corn borer moths Genevieve Kozak; Brad Coates Erik Do pman	
Hidden genetic variation in the germline genome of <i>Tetrahymena thermophila</i> Kristen Dimond; Rebecca Zufall	Testing hypotheses for the genetic architecture underlying song-preference covariance in Laupala crickets Mingzi Xu; Kevin Oh; Kerry Shaw	Specificity of multi-level species interactions: a mutualistic network of ants, aphids, mealybugs and their microbiomes Aniek Ivens; Daniel Kronauer; Toby Kiers	Divergent phenotypes despite (mostly) homogeneous genomes: insights from a continental avian radiation Leonardo Campagna; Márcio Repenning; Luís Fábio Silveira Carla Suertegaray Fontana; Pablo Tubaro; Irby Lovette	
	Male fruit flies make adaptive mate choices using redundant female cues Devin Arbuthnott*; Daniel Promislow	Will rhizobia evolve to be more cooperative mutualists as atmospheric CO2 rises? Ellen Simms; Erol Akcay	The genetic and physiological mechanisms of plant ecotype evolution David Lowry; Billie Gould	

Sunday morning 2

# Sunday, June 19 | 1:00 – 2:15 pm

(\* indicates session chair)

••••	day, Julie 19   1.00 – 2.15 pl		
Ballroom A		Ballroom B	Ballroom C
	SSE Spotlight: Understanding history 8 process in rapid diversification with geno data 1		Experimental evolution 1
1:00 pm	Tracing the ecological and developmental origins of a replicated radiation in Viburnur using genomic RAD-seq data	<ul> <li>Pollinator-mediated selection and quantitative genetics of floral divergence in Ipomopsis aggregata</li> <li>Brandon Campitelli; Amanda Kenney; Elizabeth Milano; Jacob Soule; Robin Hopkins; Thomas Juenger</li> </ul>	Comparative experimental evolution of antibiotic resistance in clinical strains of <i>Pseudomonas</i> <i>aeruginosa</i> Anita Melnyk; Rees Kassen; Jeremy Dettman
1:15 pm	Deren Eaton; Elizabeth Spriggs; Erika Edwar Michael Donoghue	rds; Evolutionary consequences of pollinator declines: Floral trait evolution in Lobelia siphilitica Kaitlyn Brown; Christina M. Caruso	Using invasion experiments to test for ecological interactions in experimental evolution Michael Wiser*; Caroline Turner; Richard Lenski
1:30 pm	Adaptive radiation in a depauperate environmen The East African soda lake cichlids Antonia Ford; K. Dasmahapatra; L. Rüber; J. Da Anchored phylogenomics resolves evolutionary relationships in the rapid radiation of Protea Nora Mitchell; P. Lewis; E. Lemmon; A. Lemmo Holsinger Analysis of Neotropical freshwater fish radiation using ultraconserved elements (UCEs) Fernando Alda; Caleb McMahan; Victor Tagliaco Maxwell Bernt; Brandon Waltz; William Ludt; Jan Albert; Prosanta Chakrabarty	yThe evolutionary consequences of cascading food web interactions: Do predators indirectly affect the strength of pollinator-mediated selection on floral traits?Milo;Amanda Benoit; Christina Caruso	The historical contingency of mutation effects in <i>E. coli</i> Kedar Karkare
1:45 pm	Phylogenomics of rapid radiation and adaptation in the Andes-Amazon James Pease; C. Dick; D. Haak; M. Hahn; L. Moyle; M. Silman; S. Smith	Loss of floral pigmentation in Iochroma through a novel MYB gene duplication Daniel Gates; Bradley Olson; Stacey Smith	Plasmid/CRISPR-Cas conflict results in compromised adaptive immunity in <i>Enterococcus faecalis</i> Valerie Price; Wenwen Huo; Ardalan Sharifi; Kelli Palmer
2:00 pm	Phylogenies of rapid radiations can be exception prone to bias: a cautionary tale from the army a Marek Borowiec <b>2:05 pm</b> Rapid cis-regulatory evolution underlies racial divergence in the mimetic butterfly <i>Heliconius e</i> James Lewis; Robert Reed	The mutualism to antagonism continuum in floral visitors: implications for selection on floral design in Polemonium brandegeei	Exploring how specialism arises within broad host-range viruses Siobhan Watkins; Alex Kula; Kema Malki; <b>Catherine Putonti</b>
	Afternoon coffee break   2:15 – 2	2:45 pm Sponsor:	geneious <sup>5</sup>

MR3	MR4	MR5	MR6A
Phylogenomics 5	Macroevolution 5	Phylogeography / hybridization	Biogeography 2
Who Let the CAT Out of the Bag? Handling substitutional heterogeneity with computationally efficient data partitioning results in more accurate phylogenies	Discrete and continuous morphological characters reveal different patterns and processes of macroevolution Nicolas Mongiardino Koch; F. Sara Ceccarelli; Andres A.	Comparative landscape genetics and hybridization in two Australian freshwater rainbowfishes Andrew Mather; Cynthia	What limits the elevational ranges of tropical birds? A test of two little-studied mechanisms Daniel Cadena; David
Nathan Whelan*; Kenneth Halanych	Ojanguren-Affilastro; Martin J. Ramirez	Riginos	Ocampo; Paulo Pulgarín
Simulation of Species Tree Inference based on SNP data	Rates of phenotypic evolution at multiple scales in clownfishes	Divergence and hybridization shape genomic diversity among three closely related water bird species (Aves; Plegadis)	Genome biogeography reveals the intraspecific spread of adaptive mutations for a complex trait
Sereina Rutschmann; David Posada; Sara Rocha	Nicolas Salamin*	Jessica Oswald; M. Harvey; R. Remsen; D. Foxworth; D. Dittmann; S. Cardiff; R. Brumfield	Jill Olofsson; Matheus Biancon Luke Dunning; Colin Osborne; Patrik Nosil; Pascal-Antoine Christin
Big data and outlier loci: A cautionary tale with genome- scale phylogenetic data Lyndon Coghill; Jeremy Brown; Robert Thomson	Diatom evolution across the benthos-plankton and marine- freshwater divides Teofil Nakov; Elizabeth Ruck; Andrew Alverson	A decadal comparison of hybrid zone dynamics in the Plateau Fence Lizard (Sceloporus tristichus) in Arizona Adam Leache; Jared Grummer; Ian Breckheimer	Out of or into the tropics: Processes underlying biodiversity patterns in Nev World swallowtail butterflie Hannah Owens; Fabien Condamine; Anne-Laure Clamens; Julian Dupuis; Feli Sperling; Akito Kawahara;
Friend or foe: investigating the impacts of positive selection on multispecies coalescent inferences Richard Adams; Drew Schield; Daren Card; Todd Castoe	Estimating correlated rates of trait evolution from phylogenies with uncertainty Daniel Caetano; Luke Harmon	Divergence, gene flow, and the evolution of aposematic coloration in Phyllobates poison frogs Roberto Marquez*; Tyler Linderoth; Daniel Mejía- Vargas; Rasmus Nielsen; Marcus Kronforst; Adolfo Amézquita	Robert Guralnick Phylogeographic meta- analysis into global patterns of genetic variation Bryan Carstens*; Ariadna Morales; Tara Pelletier
An Investigation of Branch Lengths Using Ultraconserved Elements William Ludt; Jeremy Brown; Christopher Burridge; Prosanta Chakrabarty	Why are red flowers so rare? Testing the macroevolutionary causes of tippiness Julienne Ng; Stacey Smith	Phylogeography and historical hybridization in stickleback fishes Cui Wang	Population structure and migration assessed using 45 discordant gene regions in the Deep-Sea Limpet <i>Lepetodrilus</i> <i>aff. schrolli</i> Abigail LaBella; Sophie Plouvie Bernard Ball; Cindy Van Dover;

# Sunday, June 19 | 1:00 – 2:15 pm

Jun	Sunday, June 19   1:00 – 2:15 pm		(* indicates session chair)		
	MR6B		MR8	MR9AB	
	Population genetics: infe of selection 3	erence	Speciation / adaptation	Adaptation / evolutionary ecology	
1:00 pm	Using resurrection ecology to impacts of environmental ch evolving populations of <i>Daph</i> Lawrence Weider	ange on	Host-associated divergence in a sympatric population of the red-headed pine sawfly ( <i>Neodiprion lecontei</i> ) Robin Bagley; Catherine Linnen	Repair of UV-induced DNA damage in Daphnia from differing UV environments Brooks Miner*	
1:15 pm	The genomic landscape of ra repeated adaptation to huma altered environments Andrew Whitehead*; Noah F	an-	Selection on oviposition traits generates reproductive isolation between two pine sawflies Emily Bendall; Kim Vertacnik; Catherine Linnen	Genome-wide evidence of evolution and adaptation in the invasive Florida python population Daren Card; Drew Schield; Richard Adams; Audra Andrew; Blair Perry; Frank Mazzotti; Margaret Hunter; Kristen Hart; Todd Castoe	
1:30 pm	The genomic basis of enviror adaptation in house mice Megan Phifer-Rixey; Ke Bi; Ka Ferris; Michael Sheehan; Dar Sara Keeble; Jeff Good; Mich Nachman	athleen na Lin;	Exploring complex fitness landscapes supporting novel adaptive zones in Caribbean pupfishes: contributions from ecological opportunity, hybrid swarm, frequency-dependence, and genetic architecture Christopher Martin	Consequences of 400 generations of thermal adaptation in a marine diatom and implications for rapid evolution in response to global change Daniel O'Donnell;I C. Hamman; E. Johnson; C.A. Klausmeier; E. Litchman	
1:45 pm	Exposure to avian malaria dri evolution of disease-related a Hawaiian honeycreeper Loren Sackett		Ecological divergence and adaptation to coral host in a marine snail Sara Simmonds*; Allison Fritts- Penniman; Samantha Cheng; Ngurah Mahardika; Paul Barber	Why do most mammals eat the placenta and why don't humans? Jeff Arendt; Keenan Morrison; Andrew Furness; Juan Perea-Rodriguez; David Reznick	
2:00 pm	Eco-evolutionary dynamics ir marine ecosystem engineer David Aguirre; Wilma Blom; T Landers; Marti Anderson		Adaptation to both discovered and self- constructed niches during incipient speciation in an experimental population of <i>E. coli</i> Zachary Blount; Richard Lenski; Kiyana Weatherspoon	Can corals adapt to simultaneous climate change-related stressors? Rachel Wright; Mikhail Matz; Carly Kenkel; Line Bay	
	Afternoon coffee break   2:15 – 2:45 pm Sponsor: <b>geneious</b>				

MR9C	MR10A	MR10B	MR10C
Molecular ecology 2	Sexual selection / behavior 2	Mutualism 3	Molecular evolution / genomics 1
Effect of phoretic dispersal on the structure of parasite populations Emily DiBlasi; Andrew Beach; Angela Hansen; Sarah Bush; Dale Clayton	Multivariate phenotypic selection on a complex sexual signal Jessie Tanner; Jessica Ward; Ruth Shaw; Mark Bee	The role of gene flow in shaping a Cnidarian- Dinoflagellate symbiosis on the Pacific coast Brendan Cornwell	Targeted hybrid enrichment o complete coding regions across divergent species Ryan Schott; Bhawandeep Panesar; Belinda Chang
Shared and unique mutations underly candidate mechanisms of evolutionary color shifts in <i>Aquilegia</i> Nathan Derieg; Scott Hodges	The morphometric and phylogenetic basis of ornamentation in the livebearer genus <i>Poecilia</i> Daniel Goldberg; Alex Landy; Joseph Travis; Mark Springer; David Reznick	Context-dependent vertical transmission structures the heritable symbiont communities of the pea aphid Jacob Russell; Danielle Rock; Andrew Smith; Jonah Joffe; Kerry Oliver	Insights into the evolution of DNA methylation and its role in social behaviour in insects Adam Bewick; Kevin Vogel
Reconstructing demographic history of gray whales using whole-genome sequences Anna Brüniche-Olsen; J. Andrew DeWoody; Nadia Fernandez; Jennifer Antonides; Jacqueline Doyle; Rick Westerman; Phillip San Miguel; John Bickham; Celine Godard-Codding	Context-dependent mate choice: microspatial effects on female preference Pablo Delclos; Molly Schumer	Impacts of an Environmentally-Acquired Symbiosis for an Insect Host Nicole Gerardo*	Insights from comparative genomic analyses in a non- model organism – Elephas maximus Ishani Sinha; Raman Sukumar; Sanjeev Galande; Puli Chandramouli Reddy; Ashwin Kelkar; Farhat Habib
Site fidelity and habitat features shape fine-scale genetic structure of greater sage-grouse in central Nevada Josh Jahner; Daniel Gibson; Chava Weitzman; Erik Blomberg; James Sedinger; Thomas Parchman	Rapid evolution by sexual selection in an invasive mammal M. Aaron Owen; David Lahti	The influence of host outcrossing on symbiont vertical transmission rates across multiple generations Michelle Sneck; Tom Miller; Carolyn Young; Jennifer Rudgers	Mapping the regulatory architecture of a butterfly wing patterning gene Anyi Mazo-Vargas; Robert Reed
Recruitment of deep-sea wood- boring Xylophaga (Xylophagidae, Mollusca) inferred from RAD sequence data Yuanning Li*; Kenneth Halanych	You can't get there from here: female trait evolution under polygyny when the quality of their mates varies Maria Servedio*; Courtney Fitzpatrick	Morphological plasticity of host sponge contributes to symbiosis with other organisms: evolutionary implication of plasticity in sponges Remi Tsubaki	The evolution of Geadephagan chemical defense: Molecular evolution and functional validation of genes essential to quinone production in bombardier beetles Tanya Renner*; Aman Gill; Athula Attgalle; Kipling Will; Wendy Moore

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Sunday afternoon 1

Jun	day, June 19	2:45 – 4:00 pm	( 1	ndicates session chair)	
		Ballroom A	Ballroom B	Ballroom C	
		derstanding history and process in ification with genomic data 2	Pollination	Experimental evolution 2	
2:45 pm	Western North Ame Kathleen Ferris; Meg	climatic extremes in house mice across rica gan Phifer-Rixey; Andreas Chavez; .in; Felipe Martins; Ke Bi; Michael	Geographic pollinator mosaics drive ecological divergence and convergence of floral tube length Bruce Anderson	Exploiting an evolutionary trade off to eliminate multi- drug resistance in pathogenic bacteria Mark Sistrom*; Benjamin Chan; Paul Turner	
3:00 pm	<ul> <li>Phenotypic and genotypic divergence in an island radiation of African reed frogs Rayna Bell</li> <li>Multiple genomes reveal accelerated evolution in conserved pathways during Anolis lizard adaptive radiations</li> <li>Marc Tollis; E. Hutchins; J. Stapley; W. Eckalbar; S. Rupp; I. Maayan; M. Wilson Sayres; R. Fisher; K.Kusumi</li> <li>Darwinian punctuated disequilibrium during speciation in <i>Rhagoletis</i> Jeffrey Feder; M. Doellman; T. Powell; G. Hood; S. Egan; G. Ragland; P. Meyers; S. Berlocher; P. Nosil</li> </ul>		Exploration-exploitation trade-offs and the evolution of multicomponent signals David Kikuchi*	Within-population diversification of <i>Pseudomonas aeruginosa</i> in a lung-like environment Alana Schick; Rees Kassen	
3:15 pm	zones	bridization in two barn swallow contact Rebecca Safran; Nolan Kane; Matt Ienov	Quantifying the pollinator effectiveness of native solitary bees for Echinacea angustifolia, a native prairie perennial Jennifer Ison; Maureen Page; Alison Bewley; Stuart Wagenius	Investigating evolutionary viability of bacterial efflux pumps for innovative phage therapy Sabah Ul-Hasan; Mark Sistrom; Benjamin Chan	
3:30 pm	'natural' populations o Kathryn Turner; Daisi Evidence of adaptatior Eben Gering; Dominic	e Huang; Quentin Cronk; Loren Rieseberg n in feral (Gallus gallus) genepools c Wright; Thomas Getty; Martin Johnsson olved acute stress response in the	Variation in phenotypic selection in relation to pollinator service in the insect-pollinated plant Sabatia angularis Sarah Emel; Steven Franks; Rachel Spigler	Pathogen of most resistance: Floral phytochemicals affect growth and evolution of the bumble bee parasite <i>Crithidia</i> <i>bombi</i> Evan Palmer-Young; Ben Sadd; Phil Stevenson; Iain Farrell; Rebecca Irwin; Lynn Adler	
3:45 pm	Cascading speciatior a tree-beetle-fungal	n among mutualists and antagonists in interaction Vanderpool; Jeff Good; Diana Six	Can selfing facilitate shifts in pollination syndrome? Carolyn Wessinger; John Kelly	Experimental evolution of sexually selected traits and a selfish X in the stalk-eyed fly, <i>Teleopsis dalmanni</i> Kimberly Paczolt; Gerald Wilkinson	
	SSB Mixer   4:00 – 4:45 pm, Rotunda (level 1) SSB awards announcements & Presidential Address – Paul Lewis   4:45 – 5:45 pm, Ballroom ABC SSB General Business Meeting   5:45 – 6:45 pm, MR3 Poster session #2   5:45 – 7:45 pm, EH1 Evolution Film Festival   7:00 – 9:00 pm, MR8				

(Bold denotes presenter when not first author.)

Sunday afternoon 2

MR3	MR4		
Phylogenomics / phylogeography	Lightning session: Phylogenetics / systematics		
Cryptic phylogenetic structure and history of hybridization in a rapids-adapted clade	Disentangling the roles of ecological and historical processes in structuring plant communities across the United States Robert Laport; William Weaver; Julienne Ng		
of cichlids from the Congo River	How not to "Test" Dollo's Law and why Boris Igic; Emma Goldberg		
Liz Alter; Jason Munshi-South; Melanie Stiassny	Synthesizing paleontological and neontological data Robert Meredith; Tracy Heath; Daniel Ksepka		
hyRAD, Museum Genomics, and	There is no phylogenetic anomaly zone Matthew Hahn; Fabio Kuriki Mendes		
Phylogeography of a New Guinea Forest Kingfisher	A phylogenomic hypothesis of relationships among Typical Owls (Strigidae) Jessie Salter		
Ethan Linck	A phylogenomic tree for African non-rift-lake cichlids Viviana Astudillo-Clavijo; Katriina Ilves; Walter Salzburger; Melanie Stiassny		
Demographic history of threespine	Investigating nuclear and mitochondrial discordance in Yellowfin Shiners Karen Bobier; John Wares		
stickleback populations, estimated from whole genome sequences	Beyond the pond: an organismal, multi-scale approach to integrative phylogeography Inigo Martinez-Solano; Jorge Gutierrez-Rodriguez; Gregorio Sanchez Montes; A. Márcia Barbosa; Joao Gonçalves; Emilio Civantos		
Michael M. Hansen; Shenglin Liu; Magnus Jacobsen	Phylogeography of Wallacean Forest Birds Luke Bloch		
A genome-wide phylogeographic investigation of the model organism	A nuclear gene phylogeny of the goat genus <i>Capra</i> Steve Jordan; Gordon Luikart		
Anolis carolinensis using target capture	Rapidly evolving long exon capture in Squamates Todd Jackman*; Ben Karin		
Joseph Manthey*; Marc Tollis; Emily Lemmon; Alan Lemmon; Stephane Boissinot	Asymmetric gene flow during the protracted diversification of two Neotropical-aridland bird communities Jessica Oswald; Isaac Overcast; William Mauck III; Michael Andersen; <b>Brian Smith</b>		
Ice ages drove explosive diversification of	Inferring responses to climate dynamics from historical demography in neotropical forest lizards Ivan Prates; Alexander Xue; Jason Brown; Diego Alvarado-Serrano; Miguel Rodrigues; Michael Hickerson; Ana Carnaval		
kiwi: a phylogenomic perspective Jason Weir; Oliver Haddrath; Hugh	First phylogeny of the leech genus <i>Placobdella</i> (Hirudinea: Glossiphoniia) Danielle de Carle; Sebastian Kvist		
Robertson; Rogan Colbourne; Allan Baker	Does increased taxon sampling improve phylogenetic resolution when using small molecular datasets? Sara Ruane		
SSB Mixer   4:00 – 4:45 pm, Rotunda (level 1) SSB awards announcements & Presidential Address – Paul Lewis   4:45 – 5:45 pm, Ballroom ABC SSB General Business Meeting   5:45 – 6:45 pm, MR3 Poster session #2   5:45 – 7:45 pm, EH1 Evolution Film Festival   7:00 – 9:00 pm, MR8			

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#### (\* indicates session chair)

	MR5	MR6A
	Lightning session: Population & quantitative genetics / molecular evolution / expression	Lightning session: Biogeography / diversification / varia (chair: A. Agrawal*)
	Evolution of allorecognition in a colonial marine invertebrate Marie Nydam	Evolution in the Eastern Mediterranean: Insights from Bellflowers Andrew Crowl; Nico Cellinese
2:45 pm	Population genomics of hybridization in the amphibian-killing chytrid fungus Thomas Jenkinson; T. James; K. Zamudio; F. Toledo	Projecting the potential future distributions of three mangrove species in Florida and beyond using ecological niche modeling Richard Hodel; Pamela Soltis; Douglas Soltis
	Sea-level mediated refugia as a driver of genetic diversification on subtropical coastlinesa paleohabitat and genetic study Greer Dolby; Ryan Ellingson; Lloyd Findley; David Jacobs	Differentiating between competing phylogeographic hypotheses to explain diversification in the Congo Basin Katy Morgan; P. Mickala; S. Ntie; JF. Mboumba; E. Fokam; G. Tasse; C. Miller; T. Tionga; R. Limesse; T. Ganzi; N. Anthony
	Historical demography of the Brown Rat ( <i>Rattus norvegicus</i> ) inferred from whole genome sequences Jason Munshi-South; Emily Puckett	Island plant breeding systems: broad support for Baker's law Emma Goldberg
3:00 pm	Building and simulating coalescent models in an ABC framework with the PipeMaster R package Marcelo Gehara; Guilherme Mazzocchini; Frank Burbrink	Adequacy and limits of current diversification models Orlando Schwery; Brian O'Meara
9:	Evaluation of tools of deleterious mutation prediction in plants Li Lei; T. Kono; P. Hoffman; CH. Shi; J. Fay; P. Morrell	Phenotypic and genetic structure supports cladogenesis and introgression in an Amazonian flooded forest specialist, the Ash- breasted Antbird species complex Gregory Thom; F. Amaral; A. Aleixo; C. Ribas; C. Miyaki
ſ	Distinguishing recent admixture from ancestral population structure Christoph Theunert; Montgomery Slatkin	Body size evolution and diversification rates of squamate reptiles Christopher Blair; Alex Pyron
5 pm	Characterising mutational input to quantitative traits Katrina McGuigan	Evolution of ontogeny and body size diversity in Neotropical cichlids Sarah Steele; Hernan Lopez-Fernandez
3:1	Environmental variability and the evolution of the glucocorticoid receptor in African starlings Natalie Hofmeister; Dustin Rubenstein	Ecological success in space and time among North American fossil canids Mairin Balisi; Blaire Van Valkenburgh
c	Thumbs up or thumbs down? A test for molecular evolutionary effects of background selection in the absence of (hard) selective sweeps Katharine Korunes; <b>Mohamed Noor</b> *	The evolution of sexual signal modes and associated sensor morphology in fireflies (Lampyridae, Coleoptera) Kathrin Stanger-Hall
::30 pm	Convergent gene recruitment in the evolution of aquatic CAM in lycopods and eudicots Daniel Wood	Evolution of sex-specific growth control in <i>Drosophila prolongata</i> David Luecke; Artyom Kopp
M	Concerted gene expression and selection signatures in convergent Gesneriaceae flowers M.L. Serrano Serrano; A. Marcionetti; M. Perret; N. Salamin	Host switching and the evolution of virulence in a plant pathogen Sean Meaden; Britt Koskella
	MIR retrotransposons rewired the GATA2 regulatory network in decidual stromal cells Katelyn Mika; Vincent J. Lynch	Chromosome evolution in an invasive plant Shana Welles; Katrina Dlugosch
:45 pm	Co-option of endogenous retroviral genes in placental Poeciliid species Nathaniel Jue; Rachel O'Neill; Michael O'Neill	Gut microbiome of clonal and non-clonal congeneric lizards Iris Holmes; Alison Davis Rabosky; Daniel Rabosky
3:	Gene expression patterns of oxidative phosphorylation chain across and within a marine hybrid zone Alice Saunier; Vanessa Becquet; Eric Pante; Pascale Garcia	One gene makes all the difference: social exploitation selects agains aggregative multicellularity Jennifer Pentz; Will Ratcliff

SSB awards announcements & Presidential Address – Paul Lewis | 4:45 – 5:45 pm, Ballroom ABC

SSB General Business Meeting | 5:45 – 6:45 pm, MR3

Poster session #2 | 5:45 – 7:45 pm, EH1 --- Evolution Film Festival | 7:00 – 9:00 pm, MR8

#### (Bold denotes presenter when not first author.)

MR6B	MR7
Lightning session: Genomics / ecological genetics / bioinformatics	Lightning session: Adaptation / (evolutionary) ecology
De novo genome sequencing of the environmentally responsive spadefoot toads <i>Spea multiplicata</i> and <i>Sp. bombifrons</i> Fabian Seidl; A. Kelly; D. Pfenning; K. Pfennig; I. Ehrenreich	Ecological and genetic mechanisms of local adaptation in white clover Sara Wright; Daniel Cui Zhou; Kenneth Olsen
From 0 to genome: the Ninespine Stickleback experience Federico Calboli; P. Rastas; B. Guo; T. Shikano; J. Merilä	Testing for local adaptation in plant-microbe mutualisms Corlett Wood; Tia Harrison; Isabela Borges; John Stinchcombe*
Snake venom diversity through gene loss Matt Giorgianni; Sean Carroll; Noah Dowell	Multiple causative alleles underlie adaptive species differences suggesting soft sweeps from ancestral polymorphisms during evolution in <i>Aquilegia</i> Evangeline Ballerini; Nathan Derieg; Scott Hodges
Expression of tandem gene duplicates is often greater than two-fold David Loehlin; Sean Carroll	Various mechanisms of threespine stickleback adaptation to freshwater (White Sea and Kamchatka regions) Nadezhda Terekhanova; Nikolai Mugue
Genomics of adaptation in Yellowstone <i>Mimulus guttatus</i> Lila Fishman; Findley Finseth	Testing the adaptive significance of body size in Belau's land snails Teresa Rose Osborne; Rebecca Rundell
Common transcriptomic responses to native and novel Wolbachia infections Rosemarie Herbert; Elizabeth McGraw	Thermal tolerance, acclimatory capacity and vulnerability of the Túngara frog to global climate change Hilton Oyamaguchi; P. Vo; K. Grewal; A. Lin; R. Do; K. Tse; C. Chen; N. Jeong; M. Miyaki; E. Erwin; M. Gridi-Papp
Population genomics of the blue crab ( <i>Callinectes sapidus</i> ) in coastal US Luis Hurtado; Mariana Mateos; Wei Wang; Danielle Macedo	Accounting for environmental change in stochastic population models Geoffrey Legault; Brett Melbourne
Genomic insights into hybridization using Heteronotia binoei James Titus-McQuillan; Matthew Fujita; Craig Moritz	Character displacement in lesser antillean Anolis lizards James Boyko; Luke Mahler
Collecting insects for genomic research Mauren Turcatel; Torsten Dikow	Multivariate performance and the search for functional trade-offs Ann Cespedes; Simon Lailvaux
Use of whole genome sequencing to combat antimicrobial resistant gonorrhea Audrey Abrams McLean	Independent origins of resistance or susceptibility of parasitic wasps to a defensive symbiont Mariana Mateos; Lauryn Winter; Caitlyn Winter; Victor Higareda- Alvear; Esperanza Martinez-Romero; Jialei Xie
Population genomics in Mexican cavefish Suzanne McGaugh	The cost of competition in a natural system: insights from critically endangered Cyclura carinata iguanas Giuliano Colosimo; Mark Welch; Glenn Gerber
The evolution of genomic crosstalk in plant stress responses David Haak; Leonie Moyle; Matthew Hahn	Bacterial warfare and the evolution of cooperation Will Ratcliff; Luke McNally; Eryn Bernardy; Ben Kalziqi; Peter Yunker; Sam Brown; Brian Hammer
Sex, doublesex, and triplesex Rita Graze	How to be an effective ant bodyguard? A candidate gene approach Pierre-Jean Malé; Kyle Turner; Ina Anreiter; Aaron Allen; Manjima Doha; Marla Sokolowski; Megan Frederickson
Decontaminating de novo assemblies with machine learning Janna Fierst*	Hybrids are less colorful: another consequence of interpopulation hybridization of the marine copepod, Tigriopus californicus Ryan Weaver; Felipe Barreto; Ron Burton; Geoffrey Hill
Haplostrips: revealing population structure through haplotype visualization	Using RNA-seq to assess sensory biases in the color vision of closely related species, a case study in Anolis and Agamid lizards Alexander Stubbs; Jimmy McGuire

SSB General Business Meeting | 5:45 – 6:45 pm, MR3

Poster session #2 | 5:45 – 7:45 pm, EH1 --- Evolution Film Festival | 7:00 – 9:00 pm, MR8

	MR8	MR9AB			
	Lightning session: Speciation / reproduction isolation / sexual selection	Phenotypic plasticity / adaptation			
_	Sequential divergence and the multiplicative origin of community diversity Glen Hood; Andrew Forbes; Thomas Powell; Scott Egan; Gabriela Hamerlinck; James Smith; Jeffrey Feder	Adapting to a changing environment:			
2:45 pm	Birth-and-death evolution of fatty acyl-CoA reductase gene family and the evolution of cuticular hydrocarbon synthesis in <i>Drosophila</i> Henry Chung; Cédric Finet; Kailey Slavik; Jocelyn Millar; Sean Carroll	modeling the interaction of directional evolution and plasticity			
2	Style length is a speciation phenotype in <i>Silene latifolia</i> Lynda Delph; Amanda Brothers	Leonard Nunney			
рт	Preference functions and the ecological niche in diversification Janette Boughman	Testing for local adaptation and plasticity in four alpine species using			
:00 p	Idiosyncratic and repeatable aspects of hybrid speciation in alpine butterflies Zachariah Gompert	reciprocal transplantation experiments			
3:(	Detecting epistatic selection in hybridizing populations Yaniv Brandvain; Molly Schumer	Elena Hamann; Halil Kesselring; Johannes Scheepens; Georg Armbruster; Juerg Stoecklin			
	Recombination and the Origin of Species Laurie Stevison	Mechanisms of hypoxia adaptation:			
3:15 pm	A Spatially Explicit Test of Neotropical Diversification Models Jordan Koch; Vinson P. Doyle; Brian Smith	plasticity and evolution of heart size and gene regulation in high-altitude deer mice			
3	Does habitat diversity reliably predict diversity in sexual signaling? Justin Yeager; Kinsey Brock; Danielle Edwards	Jonathan Velotta; Zachary Cheviron; Graham Scott			
	Rates of evolution among sperm genes and implications for speciation in a small nocturnal primate, genus <i>Microcebus</i> C. Ryan Campbell; Matthew Dubin; Anne Yoder				
3:30 pm	The unexpected role of male coloration in a darter mating system Becky Fuller*; Muchu Zhou	Variable selection and plasticity counteract theoretically favorable genetic architecture for speciation			
3:	Male density and rapid evolution of genital morphology in the seed beetle Callosobruchus maculatus Deanna Soper; Willow Macy	Brook Moyers*; Loren Rieseberg			
	Sexual cooperation and conflict in butterfly spermatophore proteins Camille Meslin; Tamara Cherwin; Melissa Plakke; Brandon Small; Breanna Goetz; Nathan Morehouse; <b>Nathan Clark</b>	Gene expression plasticity in the gill			
3:45 pm	Sexually antagonistic effects on development and maturation in <i>Drosophila</i> <i>melanogaster</i> Brian Hollis; Laurent Keller; Tadeusz Kawecki	transcriptome differs among stickleback ecotypes in response to salinity			
3:	Innate predispositions and learned behaviors: the effects of hybridization on birdsong Nicole Creanza	Taylor Gibbons; Timothy Healy; David Metzger; Patricia Schulte			
	SSB Mixer   4:00 – 4:45 pm, Rotunda (lev	-			
	SSB awards announcements & Presidential Address – Paul Lewis   4:45 – 5:45 pm, Ballroom ABC SSB General Business Meeting   5:45 – 6:45 pm, MR3 Poster session #2   5:45 – 7:45 pm, EH1 Evolution Film Festival   7:00 – 9:00 pm, MR8				

<i>,;</i> 1	2:45 – 4:00 pm		r when not first author.	
MR9C Molecular evolution / computational biology	MR10A Sexual selection / behavior 3	MR10B Disease	MR10C Molecular evolution / genomics 2	
Interpretation of codon-level positive selection relative to equilibrium dynamics on a mutation-selection landscape Christopher Jones; Edward Susko; <b>Joseph Bielawski</b>	It's what's on the inside that counts - or is it? Microbial vs physiological mediation of sexually selected chemical signals in a songbird Danielle Whittaker*; S. Slowinski; K. Rosvall; N. Gerlach; H. Soini; M. Novotny; E. Ketterson; K. Theis	Cannibalism and infectious disease: friend or foe? Benjamin Van Allen*; Forrest Dillemuth; Andrew Flick; Matthew Faldyn; David Clark; Volker Rudolf; Bret Elderd	Use of contrasting phylogenetic depths to identify evolutionary constraint within neurotransmitter system genes and the implications for discovering behavioral disorder mutations Kristen Wade; Brian Verrelli	
Translational errors purge structural order from potential polypeptides, facilitating future innovation Luke Kosinski; Joanna Masel	A new method for detecting directional and stabilizing mate preference Derek Roff; Alexandra Prokuda; Daphne Fairbairn	Insights into the factors limiting disease emergence in a natural host-pathogen system Molly Staley; Geoffrey Hill; Jonathan Armbruster; Camille Bonneaud	Accurate transposable element annotation is vital when analyzing new genome assemblies David Ray*; Roy Platt; Laura Blanco-Berdugo	
How are proteins different from the random sequences from which they once evolved, and how do they change with age? Joanna Masel; Scott Foy; Ben Wilson; Rafik Neme	Coos, booms, and hoots: the evolution of closed-mouth vocal behavior in birds Tobias Riede; <b>Chad Eliason</b> ; Edward Miller; Franz Goller; Julia Clarke	Factors that structure parasite populations in an aquatic host-parasite system Clara Shaw; Meghan Duffy	Evolutionary and functional (epi)genomics of gene regulation in the primate liver Marco Trizzino; YoSon Park; Minal Caliskan; Marcia Holsbach- Beltrame; George "PJ" Perry; Christopher Brown	
Functional sites induce long-range evolutionary constraints in enzymes Benjamin Jack; Austin Meyer; Julian Echave; <b>Claus</b> <b>Wilke</b> *	Brain size and cognitive ability affect the assessment of male attractiveness during mate choice in the guppy Alberto Corral-Lopez; Natasha Bloch; Alexander Kotrschal; Wouter van der Bijl; Severine Buechel; Judith Mank; Niclas Kolm	Connecting within- and between- host microbial dynamics in primed insect populations Ann Tate	Mitochiondrial genome evolution across major sea urchin families, with special focus on the emerging model Tripneustes gratilla Áki Jarl Láruson; Floyd Reed; David Carlon	
Mechanistic models of protein evolution Richard Goldstein; David Pollock	Interactive courtship behavior varies geographically in divergent populations of a Neotropical frog Maria Akopyan; Kristine Kaiser; Jeanne Robertson	Within-host dynamics and the evolution of pathogen virulence Melanie Clerc; Dieter Ebert; Matt Hall	Population genomics of ancient trans-species polymorphisms in <i>Drosophila</i> Christina Muirhead; Daven Presgraves	
SSB Mixer   4:00 – 4:45 pm, Rotunda (level 1) SSB awards announcements & Presidential Address – Paul Lewis   4:45 – 5:45 pm, Ballroom ABC SSB General Business Meeting   5:45 – 6:45 pm, MR3 Poster session #2   5:45 – 7:45 pm, EH1 Evolution Film Festival   7:00 – 9:00 pm, MR8				

# Monday, June 20 | 8:30 – 9:45 am

(\* indicates session chair)

	Ballroom A ASN VP Symposium: Convergent evolution, natural history, and the big questions in biology 1	Ballroom B Evolutionary ecology / fish	Ballroom C SSB Symposium: Advances in the analysis of reticulate population networks 1	
8:15				
8:30 am	Convergence, natural history, and some big questions in biology Anurag Agrawal	Contrasting effects of ecology and genetics generate a continuum of parallel evolution in threespine stickleback Yoel Stuart; Daniel Bolnick; Catherine Peichel; Andrew Hendry	Statistical inference of reticulate evolutionary histories Luay Nakhleh; Yun Yu; Dingqiao Wen	
8:45 am	Toxic plant secondary metabolites and the convergent evolution of insect defenses Susanne Dobler; Georg Petschenka; Vera Wagschal; Alexander Donath	Phenotypic integration of feeding and locomotor performance across divergent locally adapted populations of Trinidadian guppies Emily Kane*; Cameron Ghalambor	Quartet-based inference of	
9:00 am		Vertebral counts count Petter Tibblin; Hanna Berggren; Oscar Nordahl; Per Larsson; Anders Forsman	phylogenetic networks Claudia Solis-Lemus; Cecile Ane	
9:15 am	Pattern and process in the comparative study of convergence D. Luke Mahler; Travis Ingram	Predation pressure impacts brain anatomy in the wild Alexander Kotrschal; Amy Deacon; Ann Magurran; Niclas Kolm	(Explicit) phylogenetic networks: do branch lengths help?	
9:30 am		Physiological and genomic adaptations to salinity in populations of killifish, Fundulus heteroclitus, following a marine to freshwater habitat shift Reid Brennan; Andrew Whitehead	Celine Scornavacca	
	Morning coffee break   9:4	45 – 10:15 am Sponsor		

Phylogenomics / speciation	Phylogeography 1	Paleobiology	Biogeography / systematics
One is the loneliest number: genomic data reveals morphologically distinct salamander "species" are actually phenotypes Kara Jones; David Weisrock	Historical demography of Rheobates from Colombian Andes Astrid Muñoz-Ortiz; Carlos Guarnizo; Gabrielle Genty; Alvaro Andrés Velásquez; Crawford Andrew	Extinction biases and their ramifications on Caribbean lizard communities Melissa Kemp	Reticulate evolution, divergence times and infrageneric classification insights of the Neotropical genus Lachemilla (Rosaceae) Diego Morales-Briones*; David Tank
Testing the parallel speciation hypothesis using phylogenomic data in in Californian Skinks (Plestiodon) Andrew Frank; Jonathan Richmond; Alan Lemmon; Emily Lemmon; Elizabeth Jockusch	Testing models of refugial isolation, colonization, and population connectivity in Sierra Nevada Web-toed salamanders Sean Rovito*; Sean Schoville	Tunneling through time: Horizontal gene transfers constrain the timing of microbial evolution Joanna Wolfe*; Cara Magnabosco; Gregory Fournier	Historical biogeography of the butterfly-bushes (Buddleja): origins and timing of intercontinental disjunctions John Chau; Richard Olmstead
Larger X inversions in <i>Drosophila</i> flies Changde Cheng; Mark Kirkpatrick	Southern hemisphere phylogeography: Effects of sea- level changes on populations of Australian Common Seadragons investigated with next- generation sequencing Josefin Stiller; Nerida G. Wilson; Greg Rouse	Phylogenetic diversity through deep time: an exploration using Mesozoic dinosaurs Graeme Lloyd; David Bapst; Matt Friedman; Katie Davis	Understanding the evolution of plants in the Andes: The case of Eriocaulaceae (Poales) Amalia Diaz; Beryl Simpson
Microendemism in North American freshwater fishes: a tropical pattern in a temperate setting Thomas Near*	Phylogeography of the brown rat (Rattus norvegicus): Global range expansion and admixture since the 1500s Emily Puckett; Jason Munshi- South	Using stable isotopes to detect responses to environmental change in parapatric ctenomyid rodents Risa Takenaka; Melanie Miller; Mauro Tammone; Eileen Lacey; Todd Dawson	Systematics, biogeography and evolution of kairomone response in the tribe Dacini (Diptera: Tephritidae) Michael San Jose; Luc Leblanc; Dan Rubinoff
Phylogenetics of the sweet potato complex: A comparison of RAD-seq and targeted gene capture for resolving relationships Lauren Eserman; Jim Leebens-Mack	Heterogeneous effects of climate and geography on genetic diversity in Mabuya skinks Danielle Rivera; Ana Carnaval; Miguel Rodrigues	Cancelled.	You say tomato, i say two tomatoes: RADseq, crosses, and morphology uncover a cryptic species in Solanum sect. Lycopersicon Andrew Raduski; Boris Igic

#### Monday, June 20 | 8:30 – 9:45 am

(\* indicates session chair)

wonday, June 20   8:30 – 9:45 am				
	MR6B	MR7	MR8	MR9AB
	Pop. genetics: inference of selection 4	Life history 1	Speciation / hybridization	Phenotypic plasticity 1
8:30 am	Population genetics of polygenic adaptation Kevin Thornton	Supper for your singing mouse: The effect of energetic resources on investment in a sexually selected trait Erin Giglio; Phelps Steve	Ancient hybridization and genomic stabilization in a swordtail fish Molly Schumer; Rongfeng Cui; Dan Powell; Gil Rosenthal; Peter Andolfatto	Intrapopulation genetic variation for flowering and growth in response to photoperiod Kelly Schmid; Jannice Friedman
8:45 am	Does specific immunity selection structure the Plasmodium falciparum population into strains from the perspective of the major blood antigen PfEMP1? Qixin He*; Mercedes Pascual	Striking a balance: Immune challenge elicits sex-specific trade-offs in reproductive investment in the cabbage white butterfly Nathan Morehouse*; Nicholas Saleh; Molly Silverman; Celia Hanss; Tamara Cherwin; Caroline Kirkby	Evolutionary consequences of hybridization: an experimental test Aaron Comeault*; David Turissini; Daniel Matute	Physiological causes and consequences of plastic responses to predators and pond drying in spadefoot toads Pablo Burraco; Carmen Díaz-Paniagua; Miguel A Rendón; Ivan Gomez- Mestre
9:00 am	The evolutionary forces contributing to within- population variation in local and distal regulation of gene expression Emily Josephs; Young Wha Lee; Daniel Schoen; John Stinchcombe; Stephen Wright	Cerebral lateralization and personality as part of a life history strategy Peter Hurd	Reproductive barriers between heterostylous primroses Elena Conti; Barbara Keller; Jurriaan De Vos; James Thomson	What is the relative importance of genotypic diversity versus phenotypic plasticity on productivity under manipulated drought conditions? Cynthia Chang*; Rebecca Kim; Elizabeth Nightingale; Meerit Said; Stefany Sideris; Erica Qiao; Nicolas Vradenburg
9:15 am	Natural selection on secondary metabolites changes direction between adjacent tissues Rose Keith; Tom Mitchell- Olds	Using DNA methylation data to test heritability-based predictions of evolutionary models of human aging Chloe Robins; David Cutler; Karen Conneely; Joseph Powell; Allan McRae; Grant Montgomery; Peter Visscher	Strong plant-pollinator association doesn't explain disruptive selection and reproductive isolation in a Joshua tree hybrid zone Anne Royer; Sean Stankowski; Jackson Waite-Himmelwright; Christopher Smith	Morphological and behavioral plasticity associated with fluctuations in population size Holly Swift; Michael Dawson
9:30 am	Demography and mating system shape the genome-wide impact of natural selection in <i>Arabis</i> <i>alpina</i> B. Laenen; <b>Andrew Tedder</b> ; M. Nowak; P. Toräng; J. Wunder; S. Wötzel; Y. Kourmpetis; T. Odong; A. Drouzas; M. Bink; J. Ågren et al.	A re-evaluation of the predictions and mechanisms that underlie the interactions between current reproduction, future reproduction, and survival Wendy Hood; Yufeng Zhang	Asymmetric hybrid incompatibility drives speciation of neo- allopolyploid monkeyflower Taliesin Kinser	Population differentiation in root architecture in <i>Arabidopsis thaliana</i> : a common garden approach Courtney Murren; Javier Puy; Clare Kohler; Begonia Peco; Juan Traba; Juan Malo; Gorka Sancho

Morning coffee break | 9:45 – 10:15 am

Sponsor:



MR9C	MR10A	MR10B	MR10C
Molecular ecology / gene flow 1	Parental behavior	Ecological genetics 1	Molecular evolution 1
Landscape epigenetics Rodney Dyer*; Chitra Seshadri	Colony size of pine sawflies, genus Neodiprion, is driven by female oviposition behavior rather than larval aggregative tendency John Terbot; Catherine LInnen	Barking up the right trees: the influence of forest fire on the genetic architecture of bark thickness in southeastern pines Chris Friedline; Andrew Eckert; Brandon Lind; Alice Shanfelter; Mitra Menon	The evolutionary origin of sex limited gene expression in <i>Drosophila</i> Emily Delaney; Artyom Kopp; Amir Yassin; John Pool; Steve Chenoweth
Fine-scale population subdivision of Northern pike (Esox lucius) in coastal areas of the Baltic Sea Oscar Nordahl; Per Koch- Schmidt; Anders Forsman; Per Larsson	Parental behaviour increases the potential for evolutionary change Benjamin Jarrett; Matthew Schrader; Rebecca Kilner	Strong genetic differentiation but not local adaptation towards a geographical range limit Christopher Eckert*; Karen Samis; Adriana Lopéz Villalobos	Rapid evolution and positive selection in the synaptonema complex of <i>Drosophila</i> Lucas Hemmer; Justin Blumenstiel
Genetic rescue in small populations of Trinidadian guppies following augmentation with divergent immigrants John Kronenberger; Jill Gerberich; Sarah Fitzpatrick; Dale Broder; Lisa Angeloni; Chris Funk	Mechanisms of parental care: a poison frog perspective Eva Fischer; Alexandre Roland; Kyle Summers; Adam Stuckert; Lauren O'Connell	Physiology of toxin sequestration in poison frogs Lauren O'Connell	Molecular evolution of cone opsin genes in Neotropical cichlids Julian Torres-Dowdall*; Axel Meyer
Fine-scale isolation by distance and genetic bottleneck effects in New Zealand's rarest kiwi (Apteryx rowi) Kristina Ramstad; Hugh Robertson; Rachael Abbott; Charles Daugherty	The evolution of reduced dependence on parental care in experimental populations of the burying beetle, Nicrophorus vespilloides Matthew Schrader*; Benjamin Jarrett; Darren Rebar; Rebecca Kilner	Evolutionary and ecological impacts of horizontal gene transfer in arthropods Jennifer Kovacs; Emily Weigel; Kiera Brown; Jack Werren	Evolutionary dynamics of transposable elements in Zea mays Michelle Stitzer; Jeffrey Ross- Ibarra
Genetic and ecological recovery from a massive invertebrate die-off along the central coast of California Lauren Schiebelhut; Brian Gaylord; Rick Grosberg; Laura Jurgens; Michael Dawson		Adaptive Ecotypic Variation and Genetic Divergence of an Ecologically Dominant Prairie Grass across the Great Plains Precipitation Gradient Matthew Galliart	Evolution of epibatidine resistance in poison frogs Rebecca Tarvin; Wiebke Sach Cecilia Borghese; Juan Carlos Santos; Lauren O'Connell; David Cannatella; Harold Zakon; Adron Harris

# Monday, June 20 | 10:15 – 11:30/11:45 am

	Ballroom A	Ballroom B	Ballroom C
	ASN VP Symposium: Convergent evolution, natural history, and the big questions in biology 2	Evolutionary ecology / reptiles	SSB Symposium: Advances in the analysis of reticulate population networks 2
10:15 am	(Incomplete) convergence across levels at White Sands	The Niche variation hypothesis and its relationship to lizard population density Maria Novosolov; Gordon Roda; Alison Gainsbury; Shai Meiri	Inference of ancestral recombination through topological data analysis
10:30 am	Erica Bree Rosenblum	Factors influencing cranial morphological variation of parthenogenetic and gonochoristic whiptail lizards: implications on evolution Sarah Tulga; Elizabeth Ferrer	Pablo G Camara; Arnold Levine; Raul Rabadan
10:45 am	Where is phylogenetic biology headed? Big trees and the unfortunate rise of 'automated' natural history	Ecological specialization and morphological diversification in Greater Antillean Boas R. Graham Reynolds*; David Collar; Stesha Pasachnik; Matthew Niemiller; Alberto Puente-Rolon; Liam Revell	Reconstructing a dated tree of life using phylogenetic incongruence Gergely Szollosi; Adrian A Davin; Eric
11:00 am	Erika Edwards	Evolutionary effects of urbanization on the tropical lizard genus <i>Anolis</i> Kristin Winchell; Liam Revell; Alberto Puente-Rolon	Tannier; Bastien Boussau; Vincent Daubin
11:15 am	Homoplasy, natural history, and the evolution of snake-primate interactions Harry Greene 11:15 - 11:45 am	Optimal feeding frequency and the physiological mechanisms underlying its evolution Charles Watson	Interrogating transcriptomes to characterize the different causes of gene tree discord in empirical data L. Lacey Knowles; Huanteng Huang; Jeet Sukumaran; Stephen Smith 11:15 - 11:45 am

MR3	MR4	MR5	MR6A
Phylogenomics / systematics	Phylogeography 2	Paleobiology / macroevolution	Geographic variation
Evolution Underground: Phylogenomics of Eurycea Salamanders Deep in the Heart of Texas Tom Devitt; April Wright; David Cannatella; David Hillis	Comparative phylogeography of two loaches, <i>Schistura fasciolata</i> and <i>Pseudogastromyzon myersi</i> , in Hong Kong: the role of sea level changes in the population differentiation of South China freshwater fishes Wai Yee Wong; Ka Yan Ma; Ling Ming Tsang; Ka Hou Chu	New approaches for disparity-through-time analyses Thomas Guillerme*; Natalie Cooper; Martin Brazeau	Predator perspective drives geographic variation in frequenc dependent polymorphism Maggie Grundler; Iris Holmes; Alison Davis Rabosky
Expanding Anchored Enrichment to resolve both deep and shallow relationships within the spider Tree of Life Chris A. Hamilton; Alan Lemmon; Emily Lemmon; Jason Bond	Inland seas may have driven the diversification of Rhacophorid frogs on Sumatra Kyle O'Connell; Eric Smith; Matthew Fujita	Protochordate gill function suggests ions and not oxygen as the primary constraint on body size during early chordate evolution Michael Sackville; Colin J Brauner	Variation in venom gene family repertoires in populations of a Cone Snail Peter Cerda; Thomas Duda
Influence of gene family evolution on phylogenomic analyses Joseph Walker; Ya Yang; Stephen Smith	Geographical factors promoting diversification of the northern Andes and Brazilian Cerrado regions: The case of frogs and Anole lizard species Carlos Guarnizo*	Why are dinosaurs big and mammals are not? Steven Orzack; Nathan Myhrvold	Constraints on geographic variation in fiddler crabs of the western Atlantic Melanie Hopkins; Annat Haber; Carl Thurman
DNA sequences identify cryptic species of quillworts (Isoetes L.) Elizabeth Zimmer*; W. Carl Taylor; Peter Schafran; Gabriel P. Johnson	Phylogeographic structure within the Red Diamond Rattlesnake ( <i>Crotalus ruber</i> ) of Baja California: A genomic perspective based on RADseq data Sean Harrington	How macroecology affects macroevolution: the interplay between extinction intensity and trait-dependent extinction in brachiopods Peter Smits	Venom variation in the Florida Bark Scorpion Micaiah Ward*; Darin Rokyta
A complete species-level phylogeny of Mammalia using a supermatrix of 31 genes Nathan Upham; Walter Jetz; Jacob Esselstyn	Phylogeography of <i>Peromyscus maniculatus</i> based on the mitochondrial gene cytochrome-b James Francis; Caleb Phillips; Robert Bradley	Detecting clade-wide shifts in trait macroevolutionary dynamics: the evolution of gigantism in mysticetes Graham Slater; Nicholas Pyenson; Jeremy Goldbogen	Mimics here and there, but not everywhere: Müllerian mimicry i Ceroglossus ground beetles? Carlos Munoz-Ramirez; L. Lacey Knowles

Monday morning 2

NSF information session | MR10A --- Undergraduate Futures Lecture & Discussion | MR7

,,	5 – 11:30 am	(* indicates session ch		
MR6B	MR7		MR9AB	
Sex/recombination 1	Life history 2	Speciation / reproductive isolation	Phenotypic plasticity 2	
Sex-biased gene expression in XX and XY males of <i>Rana</i> <i>temporaria</i> , a species with polymorphic sex determination Melissa Toups; Nicolas Perrin; Paris Veltsos; Alan Brelsford; Nicolas Rodrigues	Adaptive advantage of the ontogenetic transition from conspicuous colored tails to a cryptic phenotype in lizards William Krogman; Charles Watson	Incipient speciation: Investigating the genetic basis of mate choice in <i>Drosophila melanogaster</i> Charles Miller; David Turissini; Aaron Comeault; Geoffrey Liu	Mitonuclear epistasis for fitness and gene expression in <i>Drosophila</i> : common features of GxG and GxE David Rand; James Mossman; Leann Biancani	
Rapid evolution of sex chromosomes in African clawed frogs (Xenopus) by genomic recycling Benjamin Furman*; Ben Evans	A clinal polymorphism in insulin signaling has pleiotropic effects on <i>Drosophila</i> life history Mukaddes Esra Durmaz; Subhash Rajpurohit; Nicolas Betancourt; Paul Schmidt; Flatt Thomas	Behavioral isolation and color pattern divergence are driven by male behavior in darters Rachel Moran; Becky Fuller	Genetics of variation in phenotypic plasticity in butterfly <i>J. coenia</i> Karin van der Burg; Robert Reed	
Evolution of sex chromosomes in <i>Silene otites</i> and <i>Silene pseudotites</i> Fantin Carpentier; Helene Martin; Aline Muyle; Gabriel Marais; <b>Touzet Pascal</b>	Predator driven brain size evolution in natural populations of Trinidadian killifish Shannon Beston; Whitnee Broyles; Matthew Walsh	Personality drive, mate choice, and speciation Gil Rosenthal*	Inconsistent clines and shifting thresholds: the genetics of seasonal adaptation in annual <i>Mimulus guttatus</i> Benjamin Blackman*; Nicholas Kooyers	
Evolution of recombination on diploid sex chromosomes: The role of pollen or sperm competition Michael Scott; Sally Otto	A density-dependent polyphenism in <i>Notophthalmus viridescens</i> louisianensis is mediated by chemical cues Jason Bohenek; William J. Resetarits Jr.	Introgression of genes in a female pheromone biosynthesis pathway alters female signal and male courtship response Jennifer Gleason; Denny Swartzlander	Plastic genes: parallels between learning and gene expression as mechanisms of developmental plasticity Kristin Sikkink; Megan Kobiela; Emilie Snell-Rood	
A genealogical look at recent X chromosome ancestry Vince Buffalo; Graham Coop; Stephen Mount	Oviposition preference matches larval performance in Cope's gray treefrog Matthew Pintar*; William J. Resetarits Jr.	Behavioral defects in <i>Drosophila</i> hybrids Daniel Matute	Symbiont identity and structural genomic variation alter gene expression in Medicago truncatula nodules and roots Liana Burghardt; Joseph Guhlin; Peng Zhou; Junqi Liu; Robert Stupar; Peter Tiffin	
	Sex/recombination 1Sex-biased gene expression in XX and XY males of Rana temporaria, a species with polymorphic sex determinationMelissa Toups; Nicolas Perrin; Paris Veltsos; Alan Brelsford; Nicolas RodriguesRapid evolution of sex chromosomes in African clawed frogs (Xenopus) by genomic recyclingBenjamin Furman*; Ben EvansEvolution of sex chromosomes in Silene otites and Silene pseudotitesFantin Carpentier; Helene Martin; Aline Muyle; Gabriel Marais; Touzet PascalEvolution of recombination on diploid sex chromosomes: The role of pollen or sperm competitionMichael Scott; Sally OttoA genealogical look at recent X chromosome ancestry Vince Buffalo; Graham Coop;	Sex/recombination 1Life history 2Sex-biased gene expression in XX and XY males of Rana temporaria, a species with polymorphic sex determinationAdaptive advantage of the ontogenetic transition from conspicuous colored tails to a cryptic phenotype in lizardsMelissa Toups; Nicolas Perrin; Paris Veltsos; Alan Brelsford; Nicolas RodriguesWilliam Krogman; Charles WatsonRapid evolution of sex chromosomes in African clawed frogs (Xenopus) by genomic recyclingA clinal polymorphism in insulin signaling has pleiotropic effects on Drosophila life historyBenjamin Furman*; Ben EvansPredator driven brain size evolution of sex chromosomes in Silene otites and Silene pseudotitesFantin Carpentier; Helene Marais; Touzet PascalPredator driven brain size evolution in natural populations of Trinidadian killifishEvolution of recombination on diploid sex chromosomes: The role of pollen or sperm competitionA density-dependent polyphenism in Notophthalmus viridescens lousianensis is mediated by chemical cuesMichael Scott; Sally OttoA density-dependent polyphenism in Notophthalmus viridescens lousianensis is mediated by chemical cuesA genealogical look at recent X chromosome ancestryOviposition preference matches larval performance in Cope's gray treefrog Matthew Pintar*; William J.	Sex/recombination 1Life history 2Speciation / reproductive isolationSex-biased gene expression in X and XY males of Rana temporaria, a species with polymorphic sex determinationAdaptive advantage of the onogenetic transition from conspicuous colored tails to a cryptic phenotype in lizardsIncipient speciation: Investigating the genetic basis of mate choice in Drosophila melanogasterMelissa Toups; Nicolas Perrin; Paris Veltsos; Alan Brelsford; Nicolas RodriguesWilliam Krogman; Charles WatsonIncipient speciation: Investigating the genetic basis of mate choice in Drosophila melanogasterRapid evolution of sex chromosomes in African clawed frogs (Xenopus) by genomic recyclingA clinal polymorphism in insulin signaling has pleiotropic effects on Drosophila life historyBehavioral isolation and color pattern divergence are driven by male behavior in dartersEvolution of sex chromosomes in Silene otites and Silene pseudotites Trait Carpentier; Helene Martin; Aline Muyle; Gabriel Marais; Touzet PascalPredator driven brain size evolution in natural populations of Trinidadian killifshPersonality drive, mate choice, and speciationEvolution of recombination on diploid sex chromosomes: The role of pollen or sperm competitionA density-dependent polyphenism in Notophthalmus viridescens louisianensis is mediated by chemical cuesIntrogression of genes in a female pheromone biosynthesis pathway alters female pheromone biosynthesis pathway alters female signal and male courtship responseEvolution of recombination on diploid sex chromosomes: The role of pollen or sperm competitionA density-depen	

MR10A Behavior Ecolo		
	ogical genetics 2	Molecular evolution 2
bw to become versus glob progamous, very rapidly! Antoine Pac ejandro Berrio*; Mariam khovat; Phelps Steve Kalbe; Tom	accard; Dieta Hanson; t; Daniel Bolnick; Daniel ank Von Hippel; Martin n Klepaker; Bjarni n; Andrew Hendry;	The evolution of environmentally-responsive gene regulatory networks Samuel Scarpino; Jesse Lasky Rafael Guerrero; Dave DesMarais
pplying automated tracking between g chnology to study methylatic havioral evolution in the range osophila thaliana	variate association genome-wide DNA on and climate across of <i>Arabidopsis</i> feller; Jesse Lasky;	Functional genomic evolutior of paedomorphic Cypriniformes Milton Tan; Jonathan Armbruster
tritional stress on host responses lection in a butterfly evolutiona	ed stress and fitness s: Implications for ary theories of aging Everman; Theodore	Repeated adaptation to dangerous prey through a predictable molecular pathway in the garter snake <i>Thamnophis sirtalis</i> Michael Hague; Butch Brodie
ergetic demand and reduced poxia tolerance in weakly ectric African fishes lormyridae) Nberley Sukhum; Megan K.	causes rapid genome- ution in <i>Brassica rapa</i> a climatic change anks*; Nolan Kane; Hara; Silas Tittes; eis; Joshua Rest	How an ongoing evolutionary process within you maintains set of protective antibodies t block pathogens Frederick Matsen*; Trevor Bedford; Vladimir Minin; Duncan Ralph
phylogeny venom co	y and ecology on imposition in Conus	Co-option of cell cycle regulated gene expression during the evolution of undifferentiated multicellularity Tara Marriage; Erik Hanscher
rlson	phylogeny venom co Andrew V	Predatory toolkits: impact of phylogeny and ecology on venom composition in Conus Andrew Wood; Thomas Duda 11:30 am – 1:00 pm

NSF information session | MR10A --- Undergraduate Futures Lecture & Discussion | MR7

## Monday, June 20 | 1:00 – 2:15 pm

	Ballroom A	Ballroom B	Ballroom C
	SSB Spotlight: Next generation phylogenetic inference 1	Evolutionary ecology 1	Experimental evolution / coevolution
1:00 pm	Large-scale phylogenetic inference: information-	When local means local: Polygenic signatures of local adaptation within whitebark pine ( <i>Pinus albicaulis</i> Englm.) across the Lake Tahoe Basin, USA Brandon Lind; Chris Friedline; Jill Wegrzyn; Patricia Maloney; Detlev Vogler; Andrew Eckert	Darwin's tangled bank in digital and microbial coevolution Luis Zaman
1:15 pm	<ul> <li>theoretic insights</li> <li>Sebastien Roch</li> </ul>	Phenotypic divergence despite gene flow along elevational gradients in a poison frog in the Andes Monica Paez; Daryl Trumbo; Chris Funk	Evolution of cryptic coloration in ectoparasites Sarah Bush*; Scott Villa; Dale Clayton
1:30 pm	Bayesian phylogenetics with importance sampling Bret Larget; Claudia Solis-Lemus	Drif selection migration? MHC genetic variation along a latitudinal gradient in Moor frogs Maria Cortazar Chinarro; Ella Z.Lattenkamp; Yvonne Meyer; Emilien Luquet; Jacob Höglund; Anssi Laurila	Major Histocompatibility Complex diversity impedes pathogen fitness and virulence evolution Douglas Cornwall
1:45 pm	A network framework to explore phylogenetic structure in genome data Guifang Zhou; J. Ash; W. Huang; M. Marchand; D. Morris; P. Van Dooren; J. Wilgenbusch; J. Brown; K. Gallivan Genome-wide gene genealogy interrogation advances resolution of recalcitrant groups in the Tree of Life Dahiana Arcila; G. Orti; L. Revell; R. Betancur-R Summarizing population genome variation in phylogenetic analyses August Guang; Casey Dunn; Charles Lawrence	Fish evolution in dynamic size- structured resources Jungkoo Kang*; Xavier Thibert- Plante	Heritability of obligate symbiont titer and link to aphid host fitness Becky Chong; Nancy Moran
2:00 pm	Accelerating bayesian inference for evolutionary biology models Xavier Meyer; Nicolas Salamin	Predicting range contractions in niche conserved plethodontid salamanders comparing correlative and biophysical niche models Marta Lyons; Ken Kozak	Evolution of apoptosis-like programmed cell death Joanna Klim; Arkadiusz Gladki; Roza Kucharczyk; Urszula Zielenkiewicz; <b>Szymon</b> <b>Kaczanowski</b>

MR3	MR4	MR5	MR6A
Phylogenomics methods/techniques	Phylogeography 3	Systematics / bioinformatics	Comparative biology 1
Phylogenomic sensitivity and discordance: Assessing the effect of locus and site selection using anchored phylogenomic data from Chorus Frogs ( <i>Pseudacris</i> ) Sarah Banker; Alan Lemmon; Emily Lemmon	Historical climate change shapes population structure and genomic divergence of treefrogs in the Neotropical Cerrado savanna Mariana Vasconcellos*; Guarino Colli; David Cannatella	Representing phylogeny as a logically tractable variable Nico Franz*; Guanyang Zhang; Shizhuo Yu; Bertram Ludäscher	Evolutionary modularity allows for big brains and strange faces Kory Evans; James Albert; Brian Sidlauskas; Victor Tagliacollo; Brandon Waltz
An empirical test of reduced- representation genomics to inferring species-level phylogenies for two ant groups Corrie Moreau; <b>Brian Wray</b>	Tests of species-specific models reveal the importance of drought in postglacial range shifts of a Mediterranean-climate tree: insights from iDDC modelling and ABC model selection Jordan Bemmels; Pascal Title; Joaquín Ortego; L. Lacey Knowles	Misjudging a snake by its color: molecular systematics of coralsnakes of the <i>Micrurus</i> <i>diastema</i> species complex Jacobo Reyes Velasco; Richard Adams; Thomas Eimermacher; Christopher Parkinson; Jonathan Campbell; Eric Smith; Todd Castoe	Evolution of digital morphology in relation to the acquisition of the adhesive system in geckos Mingna Zhuang*; Anthony Russell; Timothy Higham
Recovering genome-scale data from formalin fixed samples: an Anchored Phylogenomics approach Michelle Kortyna; Felipe Grazziotin; Alan Lemmon	Testing models of colonization in the robust lancetooth snail ( <i>Haplotrema vancouverense</i> ) from the Pacific Northwest using Approximate Bayesian Computation and the Site Frequency Spectrum Megan Smith; Anahí Espíndola; Megan Ruffley; David Tank; Jack Sullivan; Bryan Carstens	Phylogenetics and morphological evolution of butterflyfishes and angelfishes Charlene McCord	Rates and traits: Does life history drive genome size evolution in amphibians? Hans Christoph Liedtke; Ivar Gomez-Mestre
Using phylogenetic reconciliation to decipher microbial evolution: Theory and practice Mukul Bansal*	Phylogeography of <i>Alnus</i> <i>rubra</i> in the Pacific Northwest temperate rainforest Megan Ruffley; Anahí Espíndola; Megan Smith; Bryan Carstens; David Tank; Jack Sullivan	TimeTree: A public knowledge-base of divergence times among organisms Sudhir Kumar; S Blair Hedges	3D reconstruction of a Late Triassic Neopterygian braincase – ecological implications of the neurocranium, and the phylogeny of Neopterygi Ashley Latimer
Radder than RAD: Anonymous MetaPrep extends Anchored Phylogenomics to thousands of customizable loci with minimal missing data at costs comparable to RAD sequencing Alan Lemmon; Emily Lemmon; Paul Sunnucks; Ashley Murphy; Hernan Morales; Alexandra Pavlova	Global altitudinal diversity of birds Ignacio Quintero; Walter Jetz	Comparing the performance of orthology prediction programs Madison Hansen	The role of telomeres in the evolution of exceptional longevity in bats Nicole Foley; Graham Hughes; Zixia Huang; Gareth Jones; Roger Ransome; Gerald Kerth; Sebastien Puechmaille; Emma Teeling

Monday afternoon 1

# Monday, June 20 | 1:00 – 2:15 pm

	MR6B	MR7	MR8	MR9AB
	Sex/recombination 2	Life history 3	Hybridization 1	Phenotypic plasticity 3
1:00 pm	Selection for sex in a quantitative trait model Denis Roze	The contributions of cell size and cell number to body size Sarah Schaack; Leigh Latta IV; Jesse Meik; Angela Omilian; Michael Lynch	When two genomes become one: adaptation following interspecific hybridization Caiti Smukowski Heil	Seed environment affects germination and flowering timing in <i>Mimulus guttatus</i> Matthew Rubin; Jannice Friedman
1:15 pm	Higher rates of sex evolve during adaptation to more complex environments Pepijn Luijckx*; Eddie Ho; Majid Gasim; Suyang Chen; Connor Yanchus; Yun Seong Kim; Aneil Agrawal	Life-history divergence in response to ecological selection: a meta-analysis in livebearing fishes Michael Moore; Rüdiger Riesch; <b>Ryan Martin</b> *	Comparing parallel clines of a polygenic iridescence trait in mimetic butterflies Emma Curran; Melanie Brien; Carolina Pardo-Diaz; Camilo Salazar; Roger Butlin; Nicola Nadeau	Thermoregulatory color plasticity of <i>Battus philenor</i> caterpillars is maintained in regions where it is not used Matthew Nielsen*; Daniel Papaj
1:30 pm	Mutation accumulation and gene conversion in obligately asexual <i>Daphnia</i> Abraham Tucker; Michael Lynch; Nathan Keith	A meta-analytic review of maternal effect senescence theory Edward Ivimey-Cook; Jacob Moorad	Secondary metabolism and hybridization in sunflower Celine Caseys; Kenneth Whitney; Loren Rieseberg	Plasticity in ethanol tolerance along life stages in <i>Drosophila melanogaster</i> Katherine O'Brien; Kristi Montooth
1:45 pm	The maintenance of asexual reproduction in complex natural environments Catherine Rushworth; Tom Mitchell-Olds	Pleiotropic regulation of flowering and seed traits: FLC orthologue PEP1 regulates seed dormancy and longevity in <i>Arabis</i> <i>alpine</i> (Brassicaceae) William Hughes	Topology of syngameons Willaim Boecklen*	From big to small and back again? Plasticity in egg size and number in a sacoglossan sea slug Serena Caplins
2:00 pm	Adaptive Gene-Drive: does meiosis facilitate a mechanism that can bias gene conversion in favor of existing (wildtype) alleles, and against newly arising mutations? Virgil Reese	Adaptive seasonal dynamics in <i>Drosophila melanogaster</i> Emily Behrman; Alan Bergland; Dmitri Petrov; Paul Schmidt	The Avid Wooer: Is there hybridization between the Southern and California Dogface Butterflies? Jennifer Schwab; Brian Counterman	Thermal plasticity of floral color and reflectance: multigenerational effects? Elizabeth Lacey; Scott Richter
		Afternoon coffee break	c   2:15 – 2:45 pm	

MR9C	MR10A	MR10B	MR10C
Molecular ecology / genomics	Behavior / predation	Ecological genetics 3	Adaptation / molecular evolution 1
Genetic structure and viability selection in the Golden Eagle ( <i>Aquila</i> <i>chrysaetos</i> ), a vagile raptor with a holarctic distribution Nadia Fernandez; Jacqueline Doyle; Todd Katzner; Gary Roemer; James Cain; Brian Millsap; Carol McIntyre; Sarah Sonsthagen; Maria Wheeler; Zafar Bulut; Peter Bloom et al.		The causes of fluctuating selection in red squirrels Andrew McAdam*; Murray Humphries; Ben Dantzer; Jeffrey Lane; Stan Boutin	Exaptation and the evolution of tetrodotoxin resistance in Taricha newts Kristopher Pedersen
Population genomics reveals multiple drivers of population differentiation in a sex-role- reversed pipefish	Choosy cannibals preferentially consume siblings with low fitness prospects	The genetic basis of local adaptation and fitness tradeoffs	Adaptation to warmer climates by parallel molecular evolution
Sarah Flanagan*; Emily Rose; Adam Jones	Matthew Dugas; Larkin McCormack; Alice Gadau; Ryan Martin	Christopher Oakley; Jon Ågren; Douglas Schemske	John Monroe
Genetic characterization of unisexual <i>Aspidoscelis tesselata</i> and <i>A. dixoni</i> Alexander Hall; James Cordes; James walker; Danielle Rivera; Matthew Fujita	Scared fitless: context- dependent response of fear to loss of predators over evolutionary time Kyle Elliott*; Ian Dworkin; Gustavo Betini; Ryan Norris	Effects of paternal and maternal stress in Poeciliids Amber Makowicz; Ralf Schneider; Julian Torres- Dowdall; Thomas Elbert; Axel Meyer	Adaptation via divergence in gene regulation along a temperature cline: cis and trans effects on HSP expression the copepod <i>Tigriopus californicus</i> Sumaetee Tangwancharoen*; Ron Burton
RADcap: Sequence capture of dual-digest RADseq libraries with identifiable duplicates Sandra Hoffberg; Travis Glenn; Julian Catchen; Brant Faircloth; Rodney Mauricio	Predation and resource availability shape the evolution of risk-taking behavior Matthew Singer; Spencer Gomez; Barrie Robison	Pleiotropic effects of Rps2 alleles in the absence of pathogen contribute to their long-term maintenance in <i>Arabidopsis thaliana</i> Alice MacQueen; Xiaoqin Sun; Joy Bergelson	Adaptive convergence in hemoglobin function in high- altitude birds: roles of parallel and divergent substitutions Jay Storz; Chandrasekhar Natarajan; Federico Hoffmann; Roy Weber; Angela Fago; Christopher Witt
How to process 1500 RADseq samples in a week for \$6/sample Natalia Bayona Vásquez; Sandra Hoffberg; Brant Faircloth; Travis Glenn	Complex dynamics underlie the convergent evolution of imperfect Batesian mimicry among locally sympatric Neotropical Adelpha butterflies Susan Finkbeiner; Sean Mullen	Investigating the genetic basis of high altitude adaptation in Andean hummingbirds Marisa Lim; Christopher Witt; Catherine Graham; Liliana Davalos	Physiological resistance of garter snakes to toxic prey involves six genes in the voltage-gated sodium channel family Joel McGlothlin; Tyler Miller; John Abramyan; Wesley Warren; Michael Pfrender; Butch Brodie; Todd Castoe

## Monday, June 20 | 2:45 – 4:00 pm

	Ballroom A	Ballroom B	Ballroom C
		Banroom B	Banroonn C
	SSB Spotlight: Next generation phylogenetic inference 2	Evolutionary ecology 2	Coevolution 1
2:45 pm	Hamiltonian Monte Carlo on the space of phylogenies Vu Dinh; <b>Arman Bilge</b> ; Frederick Matsen	Intraspecific variation in phenotypic and transcriptomic plasticity in <i>Tigriopus californicus</i> in response to salinity stress Melissa DeBiasse; Morgan	Female meiotic drive promotes the coevolution of centromeres and suppressors in <i>Mimulus</i> Findley Finseth*; Andrea
		Kelly	Sweigart; Lila Fishman
3:00 pm	Bayesian analysis of continuous-time Markov chain parameters using Hamiltonian Monte Carlo Tingting Zhao; Ziyu Wang; Alexander Cumberworth; Joerg	Transgenerational plasticity in <i>Daphnia</i>	Coevolution of venom function and venom resistance in a rattlesnake predator and its squirrel prey
÷	Gsponer; Nando de Freitas; Alexandre Bouchard-Côté	Nicole Hales	Matthew Holding; James Biardi; Lisle Gibbs
	Continually updated phylogenies Emily Jane McTavish; Mark Holder	Life cycle, interrupted: the invasion of novel habitats uncouples haploid-diploid life	Age matters: the effects of
3:15 pm	Self-Updating Platform for the Estimation of Rates of Speciation, Migration And Relationships of Taxa (SUPERSMART) Rutger Vos	Stacy Krueger-Hadfield; N. Kollars; J. Byers; T. Greig; M.	host age on parasite infectivity, transmission and within-host competition
m	Fast coalescent-based computation of local branch support from quartet frequencies Siavash Mirarab; Erfan Sayyari	Hamman; D. Murray; C. Murren; S. Shainker; A. Strand; R. Terada; F. Weinberger et al.	Rony Izhar; Frida Ben-Ami
3:30 pm	Nearest neighbors of phylogenetic time-trees Alex Gavryushkin	Limits on the evolution of photosynthetic and stomatal traits: insights from artificial selection Christina Caruso; Hafiz	The interplay between gene flow and metapopulation structure affects coevolutionary dynamics at the mutualism/antagonism interface
		Maherali	Paula Lemos-Costa; Ayana Martins; Marcus de Aguiar
45 pm	StarBEAST2 improves convergence and can infer per- species substitution rates	The evolution of spawning strategies in broadcast spawners	The evolution of herbivore impact in novel plant-insect systems
3:45	Huw Ogilvie; Alexei Drummond	Colin Olito*	Stephen Heard; Zoryana Shibel
	SSE Student-Faculty Mixer   4:0 SSE awards announcements & Presidential Addres SSE General Business Meetir Poster session #3   5:45 – 7:45 pm, EH1 Outreach talk: Nathan Moreh	s – Kim Hughes   4:45 – 5 ng   5:45 – 6:45 pm, MR3 iEvoBio Software demo	5:45 pm, Ballroom ABC os (see p. 96)

MR3	MR4	MR5	MR6A
Phylogenetic comparative methods	Comparative phylogeography 1	Systematics / species delimination	Comparative biology 2
Coal-Map-2: Mapping the genomic architecture of adaptive traits with interspecific introgressive	Comparative phylogeographic and population genomic inference under hierarchical multi-taxa co-divergence models	Genomic signatures of ancient introgression in darters (Percidae: Etheostomatinae)	Comparative miRNomes an transcriptomes reveal mechanisms of exceptional longevity in bats
origin Hussein Hejase; Kevin Liu	Alexander Xue*; Michael Hickerson	Daniel MacGuigan; Thomas Near	Zixia Huang; David Jebb; Conor Whelan; Nicole Foley Emma Teeling
Rodent ecomorphology in a phylogenetic framework Luis Verde Arregoitia; Manuel	Comparative population genomics of bird species from Indo-Burma and Sundaland using UCE markers and historical DNA	Resolving species boundaries and relationships of Lygus plant bugs with RADseq	Physiological mechanisms of high-altitude adaptation and plasticity of respiratory performance in deer mice Graham Scott; Kevin Tate;
Schweizer	Haw Lim; Robert Fleischer; Robert Moyle; Frederick Sheldon; Michael Braun	Joel Kits; Robert Foottit	Sajeni Mahalingam; Grant McClelland; Jay Storz; Zachary Cheviron
The influence of coloration and life-history on the evolution of prealternate molt in Parulidae Ryan Terrill*; Jared Wolfe; Glenn Seeholzer	Contrasting evolutionary histories between birds of upland and floodplain forest in the Amazon Michael Harvey; Alexandre Aleixo; Camila Ribas; Robb	What the hellbender? SNP-based species delimitation in North America's largest salamander David Weisrock*; Paul Hime; Steven Price; Shem Unger; Jeffrey Briggler; Amy McMillan; Michael Freake; Andrea Drayer; Mary	A comparative analysis of the carnivorous pitcher plar ( <i>Sarracenia sp.</i> ) microbiome Jessica Stephens; Willie Rogers; Ron Determann; Russell Malmberg
The impact of (hyper)prior misspecification on phylodynamic studies Jiansi Gao; Michael May; Bruce Rannala; Brian Moore	Brumfield Evidence for shared refugia based on allele frequency gradients of genomic data among five alpine Alaskan small mammal species? Melisa Olave; Qixin He; L. Lacey Knowles	Foley; Emily Lemmon Assessing ant taxonomy and hidden diversity using morphology and genetic data in the southern Atlantic Forest Priscila Hanisch; Pablo D. Lavinia; Andrew V. Suarez; Darío Lijtmaer; Maurice Leponce; Carolina Paris; Pablo Tubaro	The relationship between viviparity and diversification among South American Liolaemus lizards James Schulte*; Benjamin Gentile
Linking rainforest ecosystem services to species' traits Rodrigo Cámara-Lere; <b>Haris</b> Saslis-Lagoudakis	Phylogeographic inference of historical forest refuges in the Southern Appalachian mountains Ryan Garrick; Louis Zachos; Rodney Dyer; Jeffrey Oliver; Travis Glenn; Zakee Sabree	Species delimitation's new conceptual roots Anthony Barley; Robert Thomson	Ecomorphological variation in the limbs of small-bodied "generalists:" a test case with voles Jonathan Nations; Link Olso
SSE awards announcen	Travis Glenn; Zakee Sabree Student-Faculty Mixer   4:0 nents & Presidential Addres SSE General Business Meeti	00 – 4:45 pm, Rotunda (leve ss – Kim Hughes   4:45 – 5: ng   5:45 – 6:45 pm, MR3 L iEvoBio Software demo	l 1) 45 pm, Ballroom ABC

Monday afternoon 2

Outreach talk: Nathan Morehouse | 7:30 – 8:30 pm, MR5

#### Monday, June 20 | 2:45 – 4:00 pm

(\* indicates session chair)

	MR6B	MR7	MR8	MR9AB
	Mitochondria	Life History / phenotypic plasticity	Hybridization 2	Phenotypic plasticity 4
2:45 pm	Mitonuclear epistasis and linkage disequilibrium in modern humans and related hominins	Understanding the maintenance of polyphenism using lifetime reproductive success in a long-lived amphibian	Experimental evolution of a novel sex chromosome in a species with polygenic sex determination	Phenotypic plasticity in Midas cichlid opsin expression
0	Daniel Sloan; Justin Havird; Peter Fields; Gregory Noe	Alycia Lackey*; Michael Moore; Howard Whiteman	Barret Phillips*; Eric Watson; Suzanne Edmands	Andreas Härer; Julian Torres-Dowdall; Axel Meye
3:00 pm	Mitochondrial heteroplasmy and evolution in long and short lived bats David Jebb; Andrea Locatelli;	Evolutionary divergence in transgenerational plasticity	RAD-Seq analysis of an intertidal goby Chaeogobius annularis uncovered stable hybrid population with novel genomic composition	The microbiota and host genotype contribute asymmetrically to transcriptional variation amon larval threespine stickleback guts
ñ	Nicole Foley; Sebastien Puechmaille; Emma Teeling	Matthew Walsh	Shotaro Hirase; Ayumi Tezuka; Atsushi Nagano; Wataru Iwasaki	Clayton Small; Kat Milligan- Myhre; Susan Bassham; Karen Guillemin; William Cresko
3:15 pm	Effects of experimental mismatching of mito-nuclear genotypes in <i>Drosophila</i> Rebecca Vaught; Klaus	The effects of social environment on male alternative life histories	An integrative approach to understanding hybrid zone movement and introgression in Sphyrapicus woodpeckers	The consequences of complexity: How does organismal complexity affect canalization in the volvocine green algae?
ŝ	Reinhardt; Ralph Dobler; David Clancy; Damian Dowling	Elizabeth Lange; Kimberly Hughes	Shawn Billerman; Matthew Carling	Dinah Davison; Richard Michod
0 pm	Inefficient purifying selection and variation in functional constraint drives accelerated but heterogeneous accumulation of harmful mutations in asexual lineages of a freshwater snail	The role of changing reproductive synchrony in the population dynamics of wild great tits	Love under cover of darkness: population genomics of central Texas cave and spring salamanders (Plethodontidae: Eurycea)	Phenotypic plasticity in response to salinity environment in sailfin molly
3:30	Joel Sharbrough; M. Luse; P. Cherukurri; E. Greimann; M. Lin; M. Zhang; J.L Boore; J. Logsdon; M. Neiman	Emily Simmonds; Ella Cole; Ben Sheldon; Tim Coulson	Andrew Corbin; Matthew Moseley; Drew Schield; Giulia Irene Pasquesi; Andrew Gluesenkamp; Todd Castoe; Paul Chippindale	fish ( <i>Poecilia latipinna</i> ) Kelly Hogan*
bm bm	Genetic surfing, not allopatric divergence, explains spatial sorting of mitochondrial haplotypes in venomous coralsnakes	Evolutionary consequence of a change in life cycle complexity: A link between precocious development and evolution toward female- biased sex allocation in a	Gene flow and mating system variation in the face of	The evolution of robustness and the mode of phenotypi plasticity
3:45	Jeffrey Streicher*; Jay McEntee; Laura Drzich; Daren Card; Drew Schield; Utpal Smart; Christopher Parkinson; Tereza Jezkova; Eric Smith; Todd Castoe	Emily Kasl; C. McAllister; H. Robison; M. Connior; W. Font; C. Criscione	facultative asexuality Martin Schilling	Michael Whitlock; Rémi Matthey-Doret; Jeremy Draghi

SSE awards announcements & Presidential Address – Kim Hughes | 4:45 – 5:45 pm, Ballroom ABC SSE General Business Meeting | 5:45 – 6:45 pm, MR3 Poster session #3 | 5:45 – 7:45 pm, EH1 --- iEvoBio Software demos (see p.96)

Outreach talk: Nathan Morehouse | 7:30 – 8:30 pm, MR5

MR10B         Ecological genetics 4         Applying Fisher's Fundamental         Theorem of Natural Selection:         Empirical evaluation of a plant         population's capacity for         adaptation         Amber Eule-Nashoba; Ruth         Shaw         Identifying mechanisms of         copper tolerance in the         yellow monkeyflower         Annie Jeong; Kevin Wright;         John Willis	Adaptation / molecular evolution 2 ADH adaptation in <i>Drosophila</i> : Testing a classic hypothesis with ancestral sequence reconstruction Mohammad Siddiq; Joe Thornton; David Loehlin; Kristi Montooth The molecular evolution of a novel metazoan ion transporter Nick Mathers; Carol Eunmi Lee
Theorem of Natural Selection: Empirical evaluation of a plant population's capacity for adaptation Amber Eule-Nashoba; Ruth Shaw Identifying mechanisms of copper tolerance in the yellow monkeyflower Annie Jeong; Kevin Wright; John Willis	Testing a classic hypothesis with ancestral sequence reconstruction Mohammad Siddiq; Joe Thornton; David Loehlin; Kristi Montooth The molecular evolution of a novel metazoan ion transporter
Shaw Identifying mechanisms of copper tolerance in the yellow monkeyflower Annie Jeong; Kevin Wright; John Willis	David Loehlin; Kristi Montooth The molecular evolution of a novel metazoan ion transporter
copper tolerance in the yellow monkeyflower Annie Jeong; Kevin Wright; John Willis	novel metazoan ion transporter
John Willis	Nick Mathers; Carol Eunmi Lee
Genetic causes and fitness	
consequences of resistance to herbivory, flowering time variation and drought tolerance in <i>Boechera</i>	Comparative transcriptome sequencing reveals signatures of selection, small population size, and reticulate evolution in the evolutionary history of <i>Caulanthu</i> , <i>amplexicaulis</i> var. barbarae
Julius Mojica; Jing Wang; Tom Mitchell-Olds	Angela Hawkins; Elyssa Garza; W. Daryl Hawkins; Alan Pepper
Repeated adaptation to serpentine soils in <i>Mimulus guttatus</i>	Phenotypic convergence is mirrored at genes but not at mutations in anoles Russell Corbett-Detig*; Shelbi
Jessica Selby*; John Willis	Russell; Rasmus Nielsen; Jonathan Losos
	Local adaptation without beneficial mutations: conditionally deleterious mutations and genomic signatures of selection Jon Mee; Sam Yeaman
	tolerance in BoecheraJulius Mojica; Jing Wang; Tom Mitchell-OldsRepeated adaptation to serpentine soils in Mimulus guttatusJessica Selby*; John WillisEvidence for environmentally driven functional variation in gray wolvesRena Schweizer; Jacqueline Robinson; Bridgett vonHoldt; Ryan Harrigan; Pedro Silva; Marco Galaverni; Marco Musiani; David Coltman; Richard Green; John Novembre;

Monday afternoon 2

Outreach talk: Nathan Morehouse | 7:30 – 8:30 pm, MR5

#### Tuesday, June 21 | 9:00 – 10:15 am

Tuesday, June 21   9:00 - 10:15 a				(* indicates session chair)
	Ballro	oom A	Ballroom B	Ballroom C
	SSE Symposiur genomes: Coopera cytonuclear i	tion and conflict in	Evolutionary theory 1	Coevolution 2
9:00 am			When predators help prey adapt and persist in a changing environment	The genetic architecture of resistance to virus infection in <i>Drosophila</i>
:6	Harmony vs. disco		Matthew Osmond*; Sally Otto; Christopher Klausmeier	Rodrigo Cogni; Chuan Cao; Francis Jiggins
9:15 am	relationships of heritable symbionts and their hosts Nancy Moran; Becky Chong	Genetic diversity through allelic division of labour: a mathematical model of heterozygote advantage Mattias Siljestam; Claus Rueffler	Wolbachia in the montium species subgroup of <i>Drosophila</i> Brooke Peckenpaugh; Brandon S. Cooper; Paul Ginsberg; Michael Turelli	
9:30 am	Functional and ge consequences of coevolution durin divergence in a m Felipe Barreto	mitonuclear g population	The contrast between selection on fecundity versus interference: Grime's triangle and lottery models Jason Bertram; Joanna Masel	Microbes influence the fitness of the generalist flour beetle <i>Tribolium castaneum</i> Aparna Agarwal*; Deepa Agashe
9:45 am	Expression, select evolution in mitor Justin Havird; Dar	nuclear genes	Cell cycle regulation, cell differentiation, and the evolution of multicellularity Erik Hanschen; Richard Michod; Bradley Olson	Evo-devo of mimetic color diversification in bumble bees Heather Hines; Li Tian; Sarthok Rahman; Briana Ezray
10:00 am	The efficacy of sel and implications f mitochondrial-nu Jeffrey Adrion; Kri	clear coevolution	Exaptation an unneeded term in the science of form Gregory Mayer	Unexpected Archaeal Diversity in the Great Ape Gut Microbiome Kasie Raymann; Howard Ochman
		Morning	coffee break   10:15 – 10:45 am	
9:45	evolution in mitor Justin Havird; Dar The efficacy of sel and implications f mitochondrial-nu	nuclear genes niel Sloan lection on mtDNA for clear coevolution isti Montooth	differentiation, and the evolution of multicellularity Erik Hanschen; Richard Michod; Bradley Olson Exaptation an unneeded term in the science of form Gregory Mayer	diversification in bumble bee Heather Hines; Li Tian; Sartho Rahman; Briana Ezray Unexpected Archaeal Diversi in the Great Ape Gut Microbiome Kasie Raymann; Howard

MR3	MR4	MR5	MR6A
Phylogenetic comparative methods/development	Comparative phylogeography 2	Systematics 1	Diversification
Phylogenetic comparative solutions applied to complex evolutionary scenarios Henry Ferguson-Gow*; Andrew Meade; Chris Vendittit	Zoogeography of the San Andreas Fault system: Great Pacific Fracture Zones correspond with spatially concordant phylogeographic boundaries in western North America Andrew Gottscho*	Phylogenetic relationships between the members of the genus Notropis (Family Cyprinidae) Ryan Vazquez*; Llewellyn Densmore; Gene Wilde	Space, time, and host: Patterns of speciation in Blepharoneura fruit flies Isaac Winkler*; Marty Condon; Sonja Scheffer; Andrew Forbes
Bayesian analysis of macroevolutionary mixtures (BAMM): A critical appraisal Brian Moore; Sebastian Hoehna; Michael May; Bruce Rannala; John Huelsenbeck	Using natural experiments to explore correlates of genetic variation Michael Dawson; Lauren Schiebelhut	Fully-sampled phylogenies of squamates reveal evolutionary patterns in threat status João Filipe Tonini	Parallel phenotypic diversification and rapid speciation of Crenicichla species flocks: riverine analogs to the East African Great Lake cichlids Edward Burress; Oldřich Říčan; Lubomír Piálek; Jorge Casciotta; Milton Tan; Jonathan Armbruster
A new hierarchical Bayesian phylogenetic method for detecting shifts in rates of speciation and extinction along lineages Michael May; Brian Moore; Sebastian Hoehna; Bruce Rannala; John Huelsenbeck	Continental synthesis of phylogeographic patterns in North American amphibians Katharine Marske; Michael Borregaard; Carsten Rahbek; David Nogues-Bravo	Morphological evolution in neotropical Ariidae Madlen Stange; Michael Matschiner; Gabriel Aguirre- Fernández; Walter Salzburger; Marcelo R. Sánchez-Villagra	The relative importance of competition and predation for adaptive radiation Jiaqi Tan; Xian Yang; Meng- Hsiu Tsai; Lin Jiang
DisintegratoR: an upcoming R package for evaluating phylogenetic trees while accounting for non- independence of characters William Gelnaw	(Comparative phylogeography)^200: emergent patterns of genetic diversity across the Indo-Pacific Ocean Libby Liggins; Eric D. Crandall; Cynthia Riginos; Michelle Gaither; Sean R. Connolly; Eric A. Treml; Chris Bird; Loic Thibaut; Elizabeth Sbrocco; David Aguirre; Maria Beger et al.	Multidimensional niche evolution as a driver of diversification: phylogenetic insights from codistributed predatory robber flies (Asilidae: Lasiopogon) Tristan McKnight; L. Lacey Knowles	Natural constraints to species diversification Eric Lewitus; Hélène Morlon
Consensus trees & their suitability for macroevolutionary analysis Liam Revell; Cristián Hernández Ulloa; Klaus Schliep	Testing for co-diversification in an ecological community: an example from the <i>Sarracenia alata</i> pitcher plant system Jordan Satler; Bryan Carstens	Phylogenetics using genomic restriction-site-associated sequencing in Camassia and Hastingsia (Asparagaceae): inference from genera to subspecies Jenny Archibald; Patrick Monnahan; Karen Olson; Susan Kephart; Kathryn Theiss	Adaptive radiation of Batesian mimetic butterflies across a tropical archipelago David Lohman; Chia-Hsuan We Dylan Scott; Djunijanti Peggie; Krushnamegh Kunte; Tenzing Doleck; Elva Yang; Susan Tsang Chris Müller; Shen-Horn Yen

## Tuesday, June 21 | 9:00 – 10:15 am

9:00 am	MR6B Mutation 1 Whole-genome mutagenesis under long-term antibiotic exposure in <i>E. coli</i> Hongan Long*; Sam Miller; Chloe Strauss; Chaoxian Zhao; Lei Cheng; Zhiqiang Ye; Katie Griffin; Ronald Te; Heewook Lee; Chi-Chun Chen; Michael Lynch	MR7 Bioinformatics Molecular evolution of hemichordate toll-like receptors and their associated pathways Michael Tassia; Kenneth Halanych	MR8 Species delimination Predicting cryptic diversity from phylogeographic, climatic and taxonomic data Anahí Espíndola; Megan	MR9AB Microbes Mating alters the gut microbiome in a gift- giving insect
9:00 am	Whole-genome mutagenesis under long-term antibiotic exposure in <i>E. coli</i> Hongan Long*; Sam Miller; Chloe Strauss; Chaoxian Zhao; Lei Cheng; Zhiqiang Ye; Katie Griffin; Ronald Te; Heewook Lee; Chi-Chun Chen; Michael	Molecular evolution of hemichordate toll-like receptors and their associated pathways Michael Tassia; Kenneth	Predicting cryptic diversity from phylogeographic, climatic and taxonomic data Anahí Espíndola; Megan	Mating alters the gut microbiome in a gift-
9:00 am	under long-term antibiotic exposure in <i>E. coli</i> Hongan Long*; Sam Miller; Chloe Strauss; Chaoxian Zhao; Lei Cheng; Zhiqiang Ye; Katie Griffin; Ronald Te; Heewook Lee; Chi-Chun Chen; Michael	hemichordate toll-like receptors and their associated pathways Michael Tassia; Kenneth	from phylogeographic, climatic and taxonomic data Anahí Espíndola; Megan	microbiome in a gift-
	=1	Talaliyen	Ruffley; Megan Smith; David Tank; Bryan Carstens; Jack Sullivan	Chad Smith; Srygley Robert; Emma Dietrich; Ulrich Mueller
9:15 am	Spontaneous mutations in the field: GxE for fitness from germination to fruit production in <i>Arabidopsis</i> <i>thaliana</i> Angela Roles; Matthew Rutter; Ian Dworkin; Charles Fenster; Jeffrey Conner	Inferring rates of phage transmission from the host phylogeny Jason Shapiro; Catherine Putonti	Gene flow and species limits among Olympic, Vancouver Island, and hoary marmots: a 21-gene salute Kathryn Everson; Jonathan Nations; Link Olson; Mahaut V. Sorlin	Development of gnotobiotic stickleback model to examine host- microbe evolution Kat Milligan-Myhre
9:30 am	The industrialization of farming may be driving virulence evolution Carly Rozins; Troy Day	Population dynamics of maternal selfish genetic factors, specifically Maternal-Effect Dominant Embryonic Arrest (MEDEA) Catherine Rogers	The prokaryotic species problem Louis-Marie Bobay; Howard Ochman	Scaling of biodiversity - variation in fish microbiomes among and within host species, populations and individuals Hanna Berggren; Stina Israelsson; Petter Tibblin; Oscar Nordahl; Per Larsson; Jarone Pinhassi; Anders Forsman
9:45 am	Conserved rates and patterns of transcription errors across bacterial growth states and lifestyles Charles Traverse; Howard Ochman	FINGERPRINT: Computational filtering of targeted sequences from environmental contaminants Michael Rosenberg	Patterns of speciation and delimitation of populations, species, and genomic adaptations across widely-distributed North American rattlesnake lineages Drew Schield*; Richard Adams; Daren Card; Blair Perry; Tereza Jezkova; Audra Andrew; Giulia Irene Pasquesi; Stephen Mackessy; Todd Castoe	Molecular evolution of obligate bacterial symbionts in sharpshooter leafhoppers (Hemiptera: Cicadellinae) Gordon Bennett*
10:00 am	Lessons from 200,000 <i>Arabidopsis</i> phenotypes: the power of unPAK Matthew Rutter; Courtney Murren; Allan Strand; Hilary Callahan; Michael Wolyniak; April Bisner	Unrecognized diversity of Hemerythrins in Annelida Elisa Paiva; Nathan Whelan*; Damien Waits; Scott Santos; Antonio Sole-Cava; Kenneth Halanych	One kingfisher, two kingfisher, red kingfisher, blue kingfisher: using RADseq to describe the species status of the Oriental dwarf kingfisher Alana Alexander; Joseph Manthey; Frederick Sheldon; Robert Moyle	What's in a tortoise nose? Microbial patterns across space Chava Weitzman; Franziska Sandmeier; C. Richard Tracy
		Morning coffee break	10:15 – 10:45 am	

uesday, June 21	9:00 – 10:15 am	(Bold denotes presente	
MR9C Competition	MR10A Sexual selection 1	MR10B Evolutionary theory / behavior	MR10C Host-parasite 1
The role of selection in niche differentiation among sympatric monkeyflowers along an elevation gradient Nicholas Kooyers*; Brooke James; Benjamin Blackman	Determining Genomic Signatures of Sexual Selection in Primates Utilizing Sex Hormone Response Elements Andrew Anderson; Adam Jones	Can microbes explain the evolution of host altruism? Ohad Lewin-Epstein; Ranit Aharonov; Lilach Hadany	Alternate hosts influence genetic co-structure between Peromyscus maniculatus and an ectoparasite across the California Channel Islands Paul Durst; V. Louise Roth
Long-term social dynamics drive loss of function in pathogenic bacteria Sandra B. Andersen; Rasmus Lykke Marvig; Molin Søren; Helle Krogh Johansen; Ashleigh S. Grifin	Impact of Mating System Evolution on Genomic Variation in Mice Sara Keeble; Brice Sarver; Colin Callahan; Jeff Good; Matthew Dean	Learning to cooperate: The evolution of social rewards in repeated interactions Slimane Dridi; Erol Akcay	A Neutral Model for the Evolution of Specialization Matthew Forister; Stephen Jenkins
Is bacteriocin production plastically induced by the presence of a competitor? Amrita Bhattacharya; Hannah Pak; Farrah Bashey-Visser	Comparative sperm proteomics in mouse species with divergent mating systems Kirill Borziak*; Steve Dorus	Boastful offspring and neglectful parents: Ecology and parent-offspring communication in birds Shana Caro	The impact of male-female differences on pathogen fitness Stephen Gipson; Matt Hall
Pervasive frequency- dependence effects in <i>Caenorhabditis elegans</i> competitions Sara Santos; Ana Paula Marques; <b>Ivo Chelo</b>	The baculum (penis bone) was gained and lost multiple times during mammalian evolution Nicholas Schultz; Michael Lough-Stevens; Eric Abreu; Teri Orr; Matthew Dean	Trait Continuity Affects a Model of Song Evolution Eleanor Brush	Natural selection on disease transmission helps explain boom-bust population cycles in the gypsy moth and its virus pathogen David Paez*; Vanja Dukic; Jonathan Dushoff; Arietta Fleming-Davies; Greg Dwyer
Fluctuations-induced coexistence in public goods dynamics Hilla Behar	The evolution of genital complexity and mating rates in size dimorphic spiders Matjaz Kuntner; Ren-Chung Cheng; Simona Kralj-Fišer; Chen-Pan Liao; Jutta Schneider; Mark Elgar	Sensitive periods and the ontogenetic shape of behavioral plasticity Kim Hoke; Andrew Barron; Hauber Mark; Michael Kopp; Jeremy Van Cleve*	Galapagos mockingbirds lose tolerance to introduced nest parasites in dry years Sabrina McNew; Graham Goodman; Ashley Saulsberry; Angela Hansen; John Jackson; Dale Clayton
	Morning coffee bre	ak   10:15 – 10:45 am	<u> </u>

Tuesday morning 1

Tue	sday, June 21   10:45 am –	12:00/12:15 pm	(* indicates session chair)
	Ballroom A SSE Symposium: Co-evolving genomes: Cooperation and conflict in cytonuclear interactions 2	Ballroom B Evolutionary theory 2	Ballroom C Coevolution 3
10:45 am	Mutation accumulation and adaptation	Experimental adaptation under UV radiation: a case for multi-level adaptation Maria Rebolleda-Gomez; Michael Travisano	Co-evolution of endogenous retroelements and zinc finger proteins in vertebrates Marjan Barazandeh
11:00 am	within the mitochondria: case studies from <i>Drosophila</i> Damian Dowling	Experimental Evolution of Drift Robustness in Digital Organisms Thomas LaBar; Christoph Adami	Tip of the Iceberg: Spectacular and Unprecedented Genome Diversity in Obligate Endosymbionts of Cicadas Chris Simon; Russell Meister; Elizabeth Wade; David Marshall; Christopher Owen; Kathy Hill; Emily Lemmon; Alan Lemmon; John McCutcheon
11:15 am	The contribution of cytonuclear incompatibility to incipient speciation: rapid organelle evolution and biparental inheritance as opposing forces Karen Barnard-Kubow; Laura Galloway	Evolutionary capacitance emerges spontaneously during adaptation to environmental changes Paul Nelson*; Joanna Masel	Coevolution of predator prey behavior modeled using artificial neural networks David Streett; Terence Soule; Barrie Robison
11:30 am	Cell biological and evolutionary dynamics of the mitochondrial genome Maulik Patel	Testing an assumption of monophyly in a group that supports punctuated equilibrium Michael Gemmell; Mary Morgan- Richards; Steve Trewick; Simon Hills	Disentangling diet and phylogeny reveals both horizontal and vertical evolution of mammalian microbiomes Mathieu Groussin; Florent Mazel; Jon Sanders; Chris Smillie; Sebastien Lavergne; Wilfried Thuiller; Eric Alm
11:45 am	Mitonuclear ecology Geoffrey Hil 11:45 am - 12:15 pm	Murphy's Law in phylogenetics and beyond Mike Steel	Metapopulation dominance and genomic-island acquisition of Bradyrhizobium with superior catabolic capabilities Joel Sachs*
	L	unch   12:00 noon – 1:30 pm	

MR3	MR4	MR5	MR6A
Phylogenetic methods	Paleontology	Systematics 2	Diversification / macroevolution
An empirical assessment of model performance tests in phylogenetics Emilie Richards; Anthony	Phylogenetic evidence for adaptive radiation and elevated morphologic rates among stem lineage fossil crinoids (Echinodermata)	Using sequence capture of UCEs for intraspecific phylogenetics and species delimitation of a large-genome salamander, Plethodon serratus	High rates of species accumulation in animals with bioluminescent courtship displays
Barley; Jeremy Brown; Becky Chong; <b>Robert Thomson</b>	David Wright	Catherine Newman*; Christopher, Austin	Emily Ellis; Todd H. Oakley
New methods for species tree estimation (ASTRAL, ASTRID, and statistical binning) Tandy Warnow*; Siavash Mirarab; Pranjal Vachaspati; S. Md. Bayzid; Bastien Boussau	Out of the Antilles: Fossil phylogenies support reverse colonization to South America Liliana Davalos*; Jonah Rothleder; Valeria Tavares	Testing for hidden histories of gene flow in highland birds using genomic markers John McCormack; Eugenia Zarza; Brant Faircloth; Whitney Tsai; Robert Bryson; John Klicka	Total-evidence analyses support a Cretaceous origin o Telluraves Nicholas Crouch; Karolis Ramanauskas
Dealing with phylogenomic data with an intuitive index of informativeness from invertebrates to vertebrates Hernan Vazquez Miranda; Emily Lemmon; Keith Crandall; Alan Lemmon; Heather Bracken-Grissom	New approaches to maximum likelihood phylogenetics using morphological data Liam Heins	Names can be deceiving: how epithets sometimes complicated our understanding of diversity Lukas Musher; Joel Cracraft	Exceptional preservation and the fossil record of tetrapod integument Julia Clarke*; Chad Eliason; Leah Hudson; Hector Garza; Taylor Watts
Tree-based networks Maria Anaya; Olga Anipchenko-Ulaj; Aisha Ashfaq; Joyce Chiu; Mahedi Kaiser; Max Shoji Ohsawa; Megan Owen; Ella Pavlechko; <b>Katherine St. John</b> ; Shivam Suleria; Keith Thompson et al.	Combined analysis of extant Rhynchonellida (Brachiopoda) using morphological and molecular data David Bapst; Sandra Carlson; Holly Schreiber	A preliminary phylogeny of Emerald Moths (Lepidoptera: Geometridae) using anchored enrichment David Plotkin; Akito Kawahara; Jesse Breinholt	'Running colors': Evolution of long-term coloration trends with biochemically unstable ingredients Erin Morrison; Dawn Higginson; Virginia Belloni; Alexander Badyaev
Able was I ere I saw assembly errors Brant Faircloth	Old continent, young fauna: Molecular evidence for a mid- Tertiary turnover in Australian squamates Paul Oliver; Andrew Hugall	Cancelled	Genetic diversification de- coupled with morphological diversification Liza Gómez Daglio; Michael Dawson

Tuesday morning 2

Tuesday, June		45 am – 12:00 noon	-	ndicates session chair
	R6B Ition 2	MR7 Bioinformatics / comparative methods	MR8 Conservation biology	MR9AB Experimental evolution / microbes
The role of m the evolution rate <b>91</b> Ricardo Azeve Zhang		Towards an evolutionary map of the cell Benjamin Liebeskind*; Claire McWhite; Edward Marcotte	Evolutionary Rescue through Assisted Gene Flow: Phenology Makes it Complicated Arthur Weis; Susana Wadgymar; Colin Bonner	When Sensing is Gambling: An Experimental System Reveals how Plasticity can Generate Tunable Bet- Hedging Strategies Colin Maxwell; Paul Magwene
<b>Generation acc</b> lab yeasts David Hall	umulation in	Automated workflows for building time-calibrated phylogenies for comparative analyses using Arbor Josef Uyeda	Evaluating the status of the critically endangered northern white rhino using the recently sequenced genome - how much is left to save? Tate Tunstall; Cynthia Steiner; Richard Kock; Jiri Vahala; Oliver Ryder	Social dynamics in bacterial populations Melanie Ghoul
Consistency a Idiosyncrasy i elegans muta Reza Farhadif Miguel Poncia Andersen; Da Needleman; C	n the <i>C.</i> tional process ar; Jose ano; Erik niel	Investigating flavonoid pathway evolution across angiosperms using bioinformatics, phylogenetics, and network analysis Andrea Berardi; Stacey Smith; Aaron Clauset	Captive breeding has long term demographic and genetic effects for wild populations Janna Willoughby; Mark R. Christie	Adaptation to fluctuating selection for biofilm formation and planktonic growth Caroline Turner; Sean Buskirk; Katrina Harris; Nathan Phillips; Vaughn Cooper
Cancelled		Rphenoscape: Connecting the semantics of evolutionary morphology to comparative phylogenetics Hilmar Lapp; Hong Xu; James Balhoff	Sexual extinction in threatened plant species Mary Ashley*	What can we learn from experimental evolution? Katherine Liu
Fitness effect depend on ge Peter Lind	s of mutations ne class	Super-ordination—a simple method to build concensus from alternative (morphometric, taxonomic, genetic, etc.) ordinations Thomas DeWitt	Genomic consequences of population decline and recovery in the Pinzón Island Galápagos Tortoise Evelyn Jensen; Adalgisa Caccone; Michael Russello	Predicting Life's Tape Eric Libby*
		Lunch   12:00 no	oon – 1:30 pm	

MR9C	MR10A	MR10B	MR10C
Ecology	Sexual selection 2	Inbreeding	Host-parasite 2
Modeling and understanding four millennia of human- resource dynamics in a North Pacific ecosystem Nancy Huntly; Colby Tanner	Female-female aggression in a sexual/unisexual species complex over resources Ingo Schlupp*; Amber Makowicz; Ingo Schlupp	The importance of population size: Increased genetic load and faster ageing in small populations Jennifer Lohr*; Christoph Haag	Evolutionary history between a group of doves and their parasitic wing lice Andrew Sweet; Kevin Johnson
Trait-based ecology at regional scales needs an evolutionary context Timothy Moore; Carl Schlichting; Matthew Aiello-Lammens; Kerri Mocko; Cynthia Jones	Food over sex: Resource competition underlies fitness effects of group sex ratio Deepa Agashe; Imroze Khan; Arun Prakash; Swastika Issar; Mihir Umarani; Prakash Lama; N M Jagadeesh; Radhika Venkatesan	Inbreeding depression and multiple paternity in a wild population of a simultaneously hermaphroditic freshwater snail Anja Buerkli; Jukka Jokela	Explaining vicariance on the African continent by making use of the phylogeographic genetic structure obtained for a generalist ecotoparasitic tick <i>Hyalomma truncatum</i> Conrad Matthee; Francis Sands; Sonja Matthee; Dmitry Apanaskevich
Searching for keystone communities: Evidence from Protist metacommunities Emlyn Resetarits*; Bertrand Fournier; Mathew Leibold	Sex-specific consequences of a novel environment on sexually selected traits Pablo Allen; Christine Miller	Influence of kinship and inbreeding on the gut microbiome of a hindgut- fermenting tortoise Michael Yuan; Samantha Dean; Ana Longo; Betsie Rothermel; Tracey Tuberville; Kelly Zamudio	Evolution of teleost adaptive immunity: characterization of the melano-macrophage center and parasite-induced immunoregulation Natalie Steinel; Daniel Bolnick
Linking the continental migratory cycle of the monarch butterfly to understand its population decline Hidetoshi Inamine; Stephen Ellner; James Springer; Anurag Agrawal	Comparing phenotype networks across barn swallow populations: sexual selection and phenotypic integration Matt Wilkins; Daizaburo Shizuka; Rebecca Safran	Can population estimation enhance kin recognition for inbreeding avoidance and nepotism? Mitchel Daniel; Helen Rodd	Parasites may develop synchronously—or not—can we tell the difference? Megan Greischar*; Sarah E. Reece; Nicholas J. Savill; Nicole Mideo
Experimental tests for thermal local adaptation and heritable phenotypic plasticity in hatching timing by sockeye salmon using a common garden approach Morgan Sparks; Peter Westley; Jeff Falke; Thomas Quinn	Finding beauty in the eyes of the beholders: Mate choice and color vision in the family Poeciliidae Ben Sandkam; Felix Breden	Conservation implications of relatedness, deformity, and reproductive skew in the hatchery stock of greenback cutthroat trout Sierra Love Stowell; Christopher Kennedy; Andrew Martin	Genetic relatedness and metapleural gland activity influencing disease resistance in acorn ants Svjetlana Vojvodic

## Tuesday, June 21 | afternoon

Awards Ballroo	m ABC
1:30	ASN Jasper Loftus-Hills Young Investigator Prize & Ruth Patrick Student Poster Award announcements Mark McPeek
1:45	Young Investigator Prize talk Cultural inheritance of foraging skills in great tits, Parus major Lucy Aplin
2:15	<b>Young Investigator Prize talk</b> Experimental and statistical approaches to understanding the processes driving parallel evolution Susan Bailey
2:45	Coffee break
3:15	Young Investigator Prize talk Macroecology across deep time Matthew Pennell
3:45	<b>Young Investigator Prize talk</b> <i>The rates and effects of mutations are altered by multiple types of genomic variation</i> Nathaniel Sharp
4:15	SSE Dobzhansky Prize announcement Kim Hughes
4:20	<b>Dobzhanksy Prize talk</b> A multidisciplinary perspective on the evolution of avian eggs Mary Stoddard

<b>iEvoBio Lightning session</b> MR9C, 1:30 – 2:45 pm		
1:30	Integrating machine learning, structural modeling and phylogenetics to reconstruct molecular function on a grand scale Bryan Kolaczkowski	
1:37	A simulation-based approach to learning about host-parasite biogeography: Distinguishing between phylogenetic and geographic processes Jeet Sukumaran	
1:44	PhyloNet-HMM: A comparative genomic framework for detecting introgression in Eukaryotese Kevin Liu	
1:51	SLiM 2.0: Flexible, interactive forward genetic simulations Benjamin Haller	
1:58	<i>Coal-Map-2: A tool for mapping the genomic architecture of adaptive traits</i> Hussein Hejase	
2:05	TreeScaper: Software to visualize and extract phylogenetic signals from sets of trees Guifang Zhou	
2:12	Trait-dependent dispersal models for phylogenetic biogeography, in the R package BioGeoBEARS Nicolas Matzke	
2:19	Aligning multiple incongruent phylogenies with the Euler/X toolkit Nico Franz	
2:26	Arbor workflows: Recruiting contributors to new software Bob Thacker	
2:33	SensiPhy: an R-package for sensitivity analysis of phylogenetic comparative methods Gijsbert Werner	

Super Social – drinks, dinner & socializing (DJ & dancing later in the evening) Palmer Events Center, 6:00 pm - midnight

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The University of Texas at Austin Department of Integrative Biology College of Natural Sciences



**ECOLOGY EVOLUTION & BEHAVIOR GRADUATE PROGRAM · UNIVERSITY of TEXAS** 

## Wednesday, June 22

iEvoBio satellite meeting ('Unconference')	
MR9, 9:00 am – 3:30 pm	
9:00	Opening comments
9:15	Birds-of-a-feather (BoF) topics & voting
10:00	Coffee break
10:30	First BoF discussions
11:30	BoF summaries
12:00	Lunch
1:15	Panel discussions
2:15	BoF organizing
2:30	Second BoF discussions (and coffee)
3:00 - 3:30	Wrap-up

#### Footnote for Monday, June 20:

iEvoBio Software demo	
EH1, 5:45 – 7:45 pm	

, 1	
Software title	Authors
NeOGen-Power	Blower, D.; Riginos, C.; Ovenden, J.
SLiM 2.0: Flexible, interactive forward genetic simulations	Haller, Benjamin C.; Messer, Philipp W.
MINOTAUR	Verity, R.; Collins, C.; Card, D.C.; Schaal, S.M.; Wang, L.; Lotterhos, K.E.
phangorn 2: New trees in the phylogenetic forest	Schliep, Klaus; Paradis, Emmanuel; Potts, Alastair
Open Tree of Life	Allman, J.F., Brown, J.W., Cranston, K.A., Hinchliff, C., Holder, M.T., Leto, J., McTavish, E.J., Rees, J.A., Smith, S.A.
BuddySuite	Bond, Stephen R.; Keat, Karl E.; Baxevanis, Andreas D.
ipyrad: interactive assembly and analysis of RAD-seq data sets	Eaton, Deren, A.R.; Overcast, Isaac
BioGeoBEARS	Matzke, Nicholas J.
ASTRID: Fast, Accurate Species Tree Estimation with Thousands of Taxa Evolutionary Morphology, computable: The Phenoscape KB	Vachaspati, Pranjal; Warnow, Tandy
Evolutionary Morphology, computable: The Phenoscape KB	Balhoff, J.P.; Manda, P.; Mao, C.; Zhang, L.; Xu, H.; Dececchi, Alexander, T.; Vision, T.J.; Mabee, P.M.; Lapp, H.



# **Posters**

Session 1: Saturday, June 18 5:45 - 7:45 pm, Exhibit Hall 1 (EH1). **Bold** denotes presenter when not first author.

	Adaptation
1	Can we predict how hosts will react to changing biodiversity based on current selection pressures on genes in tropical areas? Rosemarie Herbert; Elizabeth McGraw
2	Interspecific variation in plumage brightness in relation to light environment among antbirds Rafael Marcondes; Gustavo Bravo; Robb Brumfield
3	Constraints on cold tolerance and hardening limit the distribution of <i>Aphaenogaster picea</i> (Formicidae) at its northern range boundary Andrew Nguyen; Jordan Zitnay; M.Brown; Sara Helms Cahan; Nicholas J. Gotelli; Amy Arnett; Aaron Ellison
4	Functionality of the spotted salamander egg mass polymorphism Matthew Pintar; William J. Resetarits Jr.
5	Phenotypic variation, epigenetic variation, and local adaptation in an asexual animal Mark Smithson
6	Variation in chlorophyll fluorescence, circadian rhythms and ecophysiological traits in <i>Arabidopsis thaliana</i> RILs under light stress Yulia Yarkhunova; Carmela Rosaria Guadagno; Matthew Rubin; Brent Ewers; Cynthia Weinig
	Behavior
7	Exposure to male calling song accelerates shift from dispersal to reproduction in female sand crickets Lauren Conroy; Derek Roff
8	Does allopreening control avian ectoparasites? Graham Goodman; Scott Villa; Dale Clayton
9	When opportunity knocks: Brain activity patterns in a social climber Sean Maguire; Hans Hofmann
10	Male preference for male calling song in the Pacific field cricket, <i>Teleogryllus oceanicus</i> Rachel Olzer; Marlene Zuk
11	Stress and cognition: an improvement on a new learning assay Kelly Wallace; R. Ian Etheredge; Matthew Armstrong; Molly Cummings
	Biogeography
12	Looking in the past to understand the present: glacial refugia and post-glacial recolonization of North America by the spadefoot toads Iulian Gherghel; Ryan Martin
13	Niche conservatism or divergence: a comparison of distribution models across a clade of pine species native to the eastern United States Constance Bolte; Daniel J. McGarvey; Andrew Eckert
14	Phylogenetically clumped species composition of marine green algae (Chlorophyta) in the temperate zone Hungyen Chen; Satoshi Nagai

	Bioinformatics
15	Novel method for transposable element annotation across multiple taxa Austin Osmanski; Roy Platt; David Ray; Llewellyn Densmore
16	A targeted resequencing approach facilitates annotation of polymorphic TE insertions in <i>Drosophila</i> genomes Shuo Zhang; Erin Kelleher
17	Variation and Inbreeding depression in <i>C. remanei</i> Paula Adams; Janna Fierst; Patrick Phillips; Anna Crist
18	A bioinformatics pipeline for processing and evaluating Anchored Phylogenomics data. Kirby Birch; Alan Lemmon; Ameer Jalal
	Coevolution
19	How does species abundance affect coevolution in mutualistic networks? Lucas Medeiros; Paulo Roberto Guimarães Jr.
20	Resistance in Daphnia; insights from the range of host susceptibilities Sigal Orlansky; Frida Ben-Ami
21	Molecular dynamics and phenotypic divergence in a postcopulatory reproductive interaction in the butterfly <i>Pieris rapae</i> Melissa Plakke; Camille Meslin; Kelly Dulin; Breanna Goetz; Aaron Deutsch; Nathan Clark; Nathan Morehouse
22	smithRNAs: could mitochondria 'bend' nuclear regulation? Andrea Pozzi; Fabrizio Ghiselli; Marco Passamonti
23	Experimental coevolution and the origin of biodiversity Carina Baskett; Alita Burmeister; Luis Zaman; Justin Meyer; Chris Takahashi
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<ul> <li>Nikelle Petrillo; Jonathan Richardson; Mark Urban</li> <li>Lack of support for a relationship between predation risk and neonatal mass in three orders of ma Samuel Degregori; Ashley Carter; Theodore Stankowich</li> <li><i>Herpomyces</i>: The phylogeny and ecology of a fungal genus on cockroaches Tristan Wang</li> <li>Last minute additions</li> <li>Miss the poster deadline? Bring your poster and put it up here. Please share the space with others</li> </ul>	150	
152       Samuel Degregori; Ashley Carter; Theodore Stankowich         153       Herpomyces: The phylogeny and ecology of a fungal genus on cockroaches         153       Tristan Wang         Last minute additions         Miss the poster deadline? Bring your poster and put it up here. Please share the space with others	151	Adaptive gene expression differences for salamanders in response to predation and food availability Nikelle Petrillo; Jonathan Richardson; Mark Urban
153 Tristan Wang Last minute additions Miss the poster deadline? Bring your poster and put it up here. Please share the space with others	152	Lack of support for a relationship between predation risk and neonatal mass in three orders of mammals Samuel Degregori; Ashley Carter; Theodore Stankowich
Miss the poster deadline? Bring your poster and put it up here. Please share the space with others	153	
		Last minute additions
<sup>~160</sup> necessary and only post for one session. These posters won't be in the printed or online schedule.	~160	Miss the poster deadline? Bring your poster and put it up here. Please share the space with others if necessary and only post for one session. These posters won't be in the printed or online schedule.

## Session 2: Sunday, June 19

#### 5:45 - 7:45 pm, Exhibit Hall 1 (EH1). **Bold** denotes presenter when not first author.

	Adaptation
1	Functional divergence of heat shock proteins between populations of <i>Tigriopus californicus</i> from the California coast Reginald Blackwell; Ron Burton; Gary Moy
2	Vestigial eyespots but many opsins in sand crabs Claudette Segura; Leslie Garcia; Matthew Terry; <b>Zen Faulkes</b>
3	The ecological genomics of gypsy moth invasion along a latitudinal gradient Chris Friedline; Andrew Eckert; Trevor Faske; Kristine Grayson; Derek Johnson; Dylan Parry
4	Exploring morphological characters associated with habitat transitions in the Acidocerinae (Coleoptera: Hydrophilidae) Jennifer Giron Duque; Andrew Short
5	Studying adaptation of sunflowers in Great Sand Dunes National Park using genotyping-by-sequencing April Goebl; Nolan Kane; Silas Tittes
6	Modeling patterns of long-term adaptation and extinction with diminishing returns Kevin Gomez
7	Investigating adaptability to climate change by monitoring temperature effects on genetic inheritance patterns in <i>Caenorhabditis briggsae</i> Rania Haddad; Joseph Ross
8	Genomic analyses uncover parallel and idiosyncratic evolutionary changes following the colonization of a novel host plant Samridhi Chaturvedi; Lauren Lucas; Matthew Forister; Zachariah Gompert
9	Species distribution models meet intraspecific variation: Contrasting predictions of distribution under climate change in a dominant prairie grass Loretta Johnson; Alsdurf Jacob; Adam Smith; Mary Knapp; Sara Baer
10	Limitations of the heterozygosity-Fst outlier approach for detecting adaptation in population genomics studies Adam Jones; Sarah Flanagan
11	Using self-guided "guppy kits" to teach adaptation and evolution using authentic science Emily Kane; E. Dale Broder; Andrew Warnock; Courtney Butler; A. Lynne Judish; Lisa Angeloni; Cameron Ghalambor
12	Patterns of adaptive trait evolution across the North American Asclepias Raffica La Rosa
13	Significant role of standing regulatory variants in altitudinal adaptation Yu-Ting Lai; Shou-hsien Li; Kui Lin
14	Catastrophic Selection on the body shape of Trinidadian Guppies Alex Landy; Joseph Travis

	Behavior	
15	Sensory modality use across a phylogeny Kaila Colyott; Jennifer Gleason	
16	Effect of predation on the evolution of artificial neural networks Spencer Gomez; David Streett; Matthew Singer; Terence Soule; Barrie Robison	
17	Context-dependent female mate choice: Neurogenetic framework of learned preferences Pablo Delclos	
18	Learning associated to cutting performance in leaf-cutting ants Mateo Garcia; Flavio Roces; Martin Bollazzi	
19	Environmental variation influences how relatedness and density affect fitness in American toad tadpoles Sara Garnett; Thomast Getty	
	Biogeography	
20	Geographic drivers of diversification in loliginid squids Gabrielle Genty; Carlos José Pardo-De la Hoz; Elena Ritschard	
21	Biogeography of mangrove gastropods differs across taxa: a comparison to the "Coral Triangle" Tricia Goulding; Benoît Dayrat	
22	The influence of host genetic structure on fungal endophyte community assembly Josh Harrison; Thomas Parchman; Matthew Forister	
	Bioinformatics	
23	AMAS: a fast tool for alignment manipulation and computing of summary statistics Marek Borowiec	
24	Cancelled	
25	Sniffing out accurate olfactory gene family assemblies from PacBio sequencing Wei Jiang; Laurel Yohe; Liliana Davalos	
26	Exploring the Origin of Chloroplast using the tRNA-protein Interaction Network Travis Lawrence	
27	Evolutionary implications of bat antimicrobial peptides in white nose syndrome: from hidden Markov models to hibernacula Katherine Martin; Gregory Poterewicz; Liliana Davalos; Marianne Moore	
	Coevolution	
28	Genotypic and phenotypic variation in space & time of naturally occurring Bacillus bacteriophage communities Katherine Boas; Veronique Delesalle; Greg Krukonis	

29	Viral host range expansion limits the evolution of resistance in experimental populations of <i>E. coli</i> and phage $\lambda$ Alita Burmeister; Rachel Sullivan; Richard Lenski
30	Sexual cooperation and conflict enacted through butterfly spermatophore proteins Camille Meslin; Tamara Cherwin; Melissa Plakke; Brandon Small; Breanna Goetz; Nathan Morehouse; Nathan Clark
31	Is ecological displacement a driving force in the evolution of belowground root structures of invasive weed species? Sara Colom
32	Analysis of functional morphology of genitalia reveals strong functional integration and coevolution in stink bugs Bruno Genevcius; Cristiano Schwertner
	Comparative biology
33	Insect egg evolution: Diversity of size and shape at the single-cell stage Samuel Church; Extavour Cassandra; Seth Donoughe
34	Skeletons in the closet: the Vertebrate collections at the Natural History Museum, London. Access, relevance and opportunities Natalie Cooper; Jeffrey Streicher
35	Interspecific comparisons of intra-individual variation in crocodilian dorsal scutes with discussion of possible functional implications Lauren English
36	A preliminary study investigating the gut microbiome of two sympatric endemic primates, red colobus ( <i>Procolobus pennantii</i> ) & bioko drill ( <i>Mandrillus leucophaeus poensis</i> ), on Bioko Island, Equatorial Guinea Bryan Featherstone; Steve Miller; Drew Cronin; Matthew Mitchell; Janina Dordel; Dana Venditti; Johnathan Clayton; Gabe Al-Ghalith; Dan Knight; Katherine Amato; Katy Gonder
	Comparative phylogeography
37	Genomic signatures of shared life history traits versus biome specific histories: comparison across 3 widespread marsh rat species (Holochilus) Joyce Prado; L. Lacey Knowles; Alexandre Reis Percequillo
38	Comparative phylogeography of guiana shield herpetofauna Andrew Snyder; Brice Noonan
39	Comparative phylogeography of ants in the Brazilian Atlantic Rainforest Patrícia R. Ströher; Eugenia Zarza; Whitney Tsai; John McCormack; Marcio Pie
	Development
40	Using RNAseq to study sources of skull morphological variation among sympatric species of Cyprinodon pupfishes from San Salvador Island, Bahamas Ezra Lencer
41	Can adaptive evolution undermine developmental canalization? The case of wing size evolution in high altitude <i>Drosophila</i> Lack Justin; Matthew Monette; Evan Johanning; Quentin Sprengelmeyer; Amir Yassin; <b>John Pool</b>

42	Central Texas Eurycea, a Novel System for the Study of Eve-Devo Ruben Tovar
43	Testing the hourglass model of development in vivo and in silico Becca Young; Heather Goldsby; Arend Hintze; Hans Hofmann
	Diversification
45	The evolution of relative trait size and shape: insights from the genitalia of dung beetles Harald Parzer; P. David Polly; Armin Moczek
46	Quantitative analysis of color variation in the Ruffed Grouse ( <i>Bonasa umbellus</i> ) Alexis Powell
47	Relationships among rates of climatic niche evolution and diversification Seema Sheth; Will Freyman; Bruce Baldwin; David Ackerly
	Ecological genetics
48	Landscape Genetics and the Impact of Neighboring Land Use: the Proximity Effect Stephanie Burgess; Ryan Garrick
49	The genetic architecture of invasion at the range margin Trevor Faske; Lily Thompson; Chris Friedline; Salvatore Agosta; Derek Johnson; Kristine Grayson; Andrew Eckert
50	Genomics of local adaptation, genetic diversity, and community response to environmental change Jesse Lasky
	Evolutionary ecology
51	Why does anther colour vary in trout lily ( <i>Erythronium americanum</i> )? Emily Austen; Jessica Forrest
52	Patterns of Genomic Differentiation in the Cuatro Cienegas Cichlid ( <i>Herichthys minckleyi</i> ) Katherine Bell; Chris Nice; Francisco J. García-de-León; Darrin Hulsey
53	The evolution of edaphic specialization in plants: relationships between competitive ability, defense and soil resource availability in a clade of California Jewelflowers (Streptanthus) N. Ivalu Cacho; Sharon Strauss
54	Condition dependence of shared traits differs between sympatric Anolis lizards John Curlis; Ryan Davis; Emily Zetkulic; Christian Cox
55	Quantitative genetics of early growth in a combined cross of Large and Small mice Devin Dobias; Javier Morfin; James Cheverud
56	Evolution through the lens of a tourist camera: Social media enables remote-sensing of <i>Gallus gallus</i> genotypes, phenotypes, and demography Eben Gering; Levi Storks; Sigrid van Dort; Dominic Wright; Thomas Getty
57	Diversification of darter diets: phylogenetic analyses of diet data reveal trophic niche differences in the darter radiation (Percidae: Etheostomatinae) Richard Harrington; Thomas Near

58	Morphological evolution on a performance landscape: example from the suction-feeding mechanism of reef fish
	Roi Holzman; Tal Keren; China Victor; Ofri Mann; Christopher Martin; Moshe Kiflawi
59	Coarse- and fine-grained phenotypic divergence in threespine stickleback from alternating lake and stream habitats Rebecca Izen
60	Alcohol tolerance is associated with reproductive behavior in <i>Drosophila melanogaster</i> and <i>Drosophila suzukii</i> Paul Klawinski; Julia Smith; Ronan Zhao; Hailey Mills
	Experimental evolution
61	Evolution of heat tolerance under different warming rates: lessons from <i>Drosophila subobscura</i> Luis Castaneda; Marcela Morales; Andres Mesas
62	Mechanism and fitness benefits of pyruvate kinase: a recurrent target of evolution Kristina Duan; Timothy Cooper
63	Mechanisms of apoptotic cell differentiation in experimentally evolved multicellular yeast Noah Gettle; Michael Travisano
64	When sensing is gambling: An experimental system reveals how plasticity can generate tunable bet- hedging strategies Colin Maxwell; Paul Magwene
65	One gene makes all the difference: social exploitation selects against aggregative multicellularity Jennifer Pentz; Will Ratcliff
66	Host shift dynamics of competitive and exploitative viruses Sonia Singhal; Paul Turner
	Expression studies/transcriptomics
67	Host and symbiont transcriptomic profiling of <i>Acropora millepora</i> corals from the Great Barrier Reef: influence of local adaptation and acclimatization Sarah Barfield
68	Transmutation in the visual system of the Northern Pine Snake, <i>Pituophis melanoleucus</i> Nihar Bhattacharya; Benedict Darren; Ryan Schott; Belinda Chang
69	Next-generation transcriptomic insights for understanding horn development in juvenile cattle ( <i>Bos taurus</i> ) Zachary Calamari
70	RNA in Polyneoptera insects. De novo transcriptomic insights into the molecular substrate underlying evolutionary adaptations in <i>Cryptocercus punctulatus</i> (Dictyoptera: Cryptocercidae) Ioana C. Chintauan-Marquier; Frederic Legendre; Roger A. Barthelson; Fiona McCarthy; Hannes Becher; Laure Desutter-Grandcolas; Sandrine Pavoine; André Nel; Xiaole Xu et al.
71	The effect of ocean acidification on the species interaction between a bioeroding sponge and a stony coral Melissa DeBiasse; Amber Stubler; Morgan Kelly

	Genomics	
72	Conservation genetics of the critically endangered Kemp's Ridley Sea Turtle Xochitl De La Rosa; Mariana Mateos; Donna Shaver; Miguel Angel Reyes López; Luis Hurtado	
73	Characterization of a chromosomal inversion associated with adaptive divergence in <i>Mimulus guttatus</i> Reno Eckebrecht; Jannice Friedman	
74	Hybrid genome assembly of the northern acorn barnacle ( <i>Semibalanus balanoides</i> ) Rebecca Elyanow; Bianca Brown; Joaquin Nunez; David Rand	
75	Genomic consequences of transitions to asexuality in a freshwater snail Joseph Jalinsky; John Logsdon; Maurine Neiman; Isaac Weinberg	
76	Sex differences in the genetic basis of susceptibility to the herbicide Atrazine in D. melanogaster Sarah Marcus; Anthony Fiumera	
77	Genome sequence of the White Shark (Carcharodon carcharias): Insights into genome size evolution, life history characters, and a primitive adaptive immune system Nicholas Marra; Minghui Wang; Paulina Pavinski Bitar; Qi Sun; Aleksey Komissarov; Stephen J. O'Brien; Michael J. Stanhope; Mahmood Shivji;	
78	Alphabet Soup: A Primer For Population Genomics Tessa Clark; Louise Mead; Sydney Berger; Melissa Wilson Sayres	
	Hybridization	
79	Divergence of transcriptomes of two hybridizing cyprinid fishes (genus <i>Cyprinella</i> ) Richard Broughton; Feifei Zhang; Krithi Sankaranarayanan	
80	Mating with a different species: not always a bad idea? Joana Bernardes; Rike Stelkens; Duncan Greig	
81	Does position along the watershed affect hybridization dynamics between the native <i>Orconectes sanbornii</i> and invasive <i>O. rusticus</i> ? Elisa Henderson; Angela Roles	
82	Signatures of introgression in natural replicated hybrid zones Gaston Jofre; John Blazier; Gil Rosenthal; Molly Schumer; Alisa Sedghifar; Peter Andolfatto	
83	Genomic and geographic patterns of gene flow between two spadefoot toad species Audrey Kelly; Karin Pfennig	
84	Exploring species boundaries between introduced and endemic weevils in Santa Cruz Island: Galápagos Sarah Pangburn; Flavia Mendonca de Sousa; Sara Eslami; <b>Andrea Sequeira</b>	
	Life History	
85	Adult infection-energetic interactions in mitochondrial-nuclear hybrid <i>Drosophila</i> Justin Buchanan; Cassie Treu; Kristi Montooth	

	Mitochondrial
87	Discordant patterns of cytoplasmic genetic variation in a flowering plant ( <i>Lobelia siphilitica</i> , Campanulaceae) Binaya Adhikari; Christina Caruso; Andrea Case
88	The Doubly Uniparental Inheritance (DUI) of mitochondria: a model system for mito-nuclear coevolution Fabrizio Ghiselli; Liliana Milani; Marco Passamonti
89	Developmental and metabolic physiology of the fruit fly, <i>Drosophila melanogaster</i> Omera Matoo; Cole Julick; Kristi Montooth
90	Mitochondrial membrane potential: a trait involved in organelle inheritance? Liliana Milani
91	Mitochondrial selfish elements and the evolution of biological novelties Liliana Milani; Fabrizio Ghiselli; <b>Marco Passamonti</b>
92	Mapping mitochondrial contribution to high temperature resistance in <i>Saccharomyces cerevisiae</i> John Wolters; Heather Fiumera
	Modeling
93	The effect of landscape structure on inbreeding depression and metapopulation persistence Etsuko Nonaka
94	Agent-based analysis of mixed strategy threshold public goods Jorden Schossau; Christoph Adami
95	ENVIREM: An expanded set of bioclimatic variables improves ecological niche modeling performance Pascal Title; Jordan Bemmels
	Molecular evolution
44	Molecular evolution of strigolactone perception in parasitic weeds of the Orobanchaceae Caitlin Conn; David Nelson
96	Sex chromosome dosage compensation in Lepidoptera: insights from a neo-Z chromosome. Liuqi Gu; James Walters; Knipple Douglas
97	Sodium-potassium ATPase gene family expansion in Annelida during the invasion of freshwater habitats Kevin Horn; Frank Anderson
98	Morphological variation, population structure and the origin of Colombian weedy rice Veronica Hoyos; Guido Plaza; Ana Caicedo
99	Apoptosis: its origin, history, maintenance Urszula Zielenkiewicz; Joanna Klim; Roza Kucharczyk; <b>Szymon Kaczanowski</b> ; Arkadiusz Gladki
100	Evolutionary analysis of the <i>Caenorhabditis</i> nematode sperm proteome using microfluidic techniques Katja Kasimatis; Patrick Phillips

101	The metabolomic basis of sexual dimorphism in immature moss plants in a common garden Leslie Kollar; Lauren McIntyre; Rainey Patterson; Alexander Kirpich; Alison Morse; Adam Payton; Stuart McDaniel	
102	Evidence of retrogenes in loblolly pine Tomasz Koralewski; Claudio Casola	
103	Gene tree discordance generates patterns of diminishing molecular convergence over time Fabio Kuriki Mendes; Yoonsoo Matthew Hahn	
	Mutation	
104	Discovering deviants in UNPAK's database of mutant phenotypes Clare Kohler; Amanda McLamb; Lu Gomezdelatorre; Amita Wanar; Hilary Callahan	
105	Rates and biases of mitotic gene conversion in <i>Saccharomyces cerevisiae</i> Holly McQueary	
106	Conserved rates and patterns of transcription errors across bacterial growth states and lifestyles Charles Traverse; Howard Ochman	
107	The natural history of mutations: sequence data from <i>Arabidopsis thaliana</i> mutation accumulation lines Mao-Lun Weng; Matthew Rutter; Charles Fenster	
	Phylogenetic comparative methods	
108	Evolution of sex in the volvocine green algae Erik Hanschen	
109	The relationship of species diversification and morphological evolution in New World oscines Tyler Imfeld; Keith Barker	
110	Trait evolution inference under tree estimation error Huan Jiang; James Degnan	
112	The connection between diet and evolution of wing morphology in neotropical bats Kristjan Mets	
112	Evolutionary independence among the modular subcomponents of avian plumage Nicholas Sly; Zachary Cheviron	
	Phylogenomics	
113	The role of geographical barriers in shaping long-lived <i>Pinus greggii</i> varieties with incomplete lineage sorting and high levels of gene flow Xitlali Aguirre-Dugua; David Gernandt; Alejandra Moreno-Letelier	
114	Phylogenomic understandings of polyphyly in the tribe Brassiceae R. Shawn Abrahams; Jacob Washburn; Chris Pires	
115	Interrogating the genome evolution of the Cleomaceae using transcriptomic data Wade Dismukes	

116	Why is there a limit to the resolution of the plastome phylogeny in a rapidly diversifying clade? Mark Fishbein; Shannon Straub; Kimberly Hansen; Richard Cronn; Aaron Liston
117	Sequence capture and phylogenetic utility of genomic ultraconserved elements obtained from pinned insect specimens more than 100 years old Bonnie Blaimer; Michael Lloyd; <b>Wilson Guillory</b> ; Seán Brady
118	Phylogenomics of Sigmodontinae as told by mitochondrial genomes and UCEs. John Hanson; Roy Platt; Guillermo D'Elía; Andres Parada
119	A scalability study of computational methods for inferring phylogenetic networks using multi-locus sequence data Hussein Hejase; Kevin Liu
	Phylogeography
120	Phylogeography and speciation in the field vole ( <i>Microtus agrestis</i> ) Nicholas Fletcher
121	Multi-locus species delimitation in a geographically widespread Mexican ambystomatid salamander ( <i>Ambystoma rosaceum</i> ) Richard Grewelle; Justin Kratovil; David Weisrock; Mary Foley; Bradley Shaffer
122	Impact of the human slave trade on the New World distribution of <i>Perna perna</i> Eric Hoffman; Claudia Tagliaro; Gerardo Zardi; Carlos E. L. Ferreira; Flavio Fernandes; Edson Pereira Silva; Katy Nicastro; Carla Lourenco; Savio Calazans
123	Molecular taxonomy and phylogeography of the sponge genus <i>Ircinia</i> from northern Australia Joseph Kelly
	Population genetics: molecular ecology
124	Comparison of Island Fox scat bacterial communities Nicole Adams; Xiaoming Wang; Suzanne Edmands
125	Untangling the population genetic structure patterns of a cosmopolita fish, <i>Coryphaena hippurus</i> Natalia Bayona Vásquez; Travis Glenn; Manuel Uribe-Alcocer; Píndaro Díaz-Jaimes
126	Single-cell ddRAD sequencing: Methods, pitfalls, and application to diatom population genomics. Mariska Brady; Edward Theriot
127	A proposal for studying the evolution of urban pigeons Elizabeth Carlen
128	Geographic genomic variation detected in recently adapted populations of Song Sparrows ( <i>Melospiza melodia</i> ) previously described as undifferentiated Josie Griffin
129	Comparison of genetic structure of two tree lizard species: differential responses of a thermal specialist and a thermal generalist to climate change Greg Haenel

	Population genetics: theory and methods	
130	On the joint distribution of coalescent tree height and length Ilana Arbisser	
131	Joint site frequency spectra for source and rapidly flushing founder populations Richard Kliman	
132	CallHap: A pipeline for population-level chloroplast DNA analysis Brendan F Kohrn; Pamela Thompson; Mitch Cruzan	
133	Evaluation of tools for deleterious mutation prediction in plants Li Lei; Thomas Kono; Paul Hoffman; Ching-Hua Shi; Justin Fay; Peter Morrell	
	Sexual selection / conflict	
134	Correlates of throat and spine coloration within and between the sexes in the threespine stickleback Haley Overman; <b>Christopher Anderson</b> ; Jeffrey McKinnon	
135	Evolution of dwarf males in spoon worms: Dwarf males originated before the colonization of the deep sea Ryutaro Goto	
136	When chytrid doesn't kill: females discriminate against infected males Sofia Rodriguez-Brenes; Sylvia Garza; Michael J. Ryan	
137	Investigating heterospecific functions of the seminal protein ovulin in <i>Drosophila</i> Trevor Sless; Mariana Wolfner	
138	Spatial Edition! The alignment of sexual and natural selection Li Yun; Patrick Chen; Howard Rundle; Aneil Agrawal	
	Speciation / Reproductive Isolation	
139	Widespread outbreeding depression in arctic selfing plants Lovisa Gustafsson	
140	Genomic resolution of cryptic speciation in chi pmunks Nathanael Herrera; Brice Sarver; Colin Callahan; John Demboski; Jeffrey Good	
141	Genetic and morphological differentiation among host-associated populations of <i>Eurosta solidaginis</i> Brandon Zsigray; Annelie Lindberg-Livingston; Jenny Korstian; Timothy Craig; Joanne Itami; Dean Williams; John Horner	
142	Parallel speciation in an Australian wildflower Maria Clara Melo; <b>Maddie James</b> ; Federico Roda; Diana Bernal-Franco; Melanie Wilkinson; Huanle Liu; Daniel Ortiz-Barrientos	
143	Genomic patterns of pheromone strain divergence in the European Corn Borer, <i>Ostrinia nubilalis</i> Henry Kunerth; Steve Bogdanowicz; Genevieve Kozak; Erik Do pman; Richard Harrison	

144	Non-introgressing loci in <i>Gryllus firmus</i> and <i>G. pennsylvanicus</i> map to the X chromosome. Luana Maroja; Patrick Gainey
145	<i>Drosophila</i> speciation: All roads lead to Cid Emily Beck
	Systematics
146	Phylogenetic relationships and patterns of homoplasy in <i>Mentzelia</i> section <i>Bicuspidari</i> (Loasaceae) Joshua Brokaw; John Schenk
147	Building a comprehensive evolutionary history of flagellate plants Emily Sessa; Stuart McDaniel; E. Christine Davis; Pavlo Antonenko; Matt von Konrat; Eve Gaus; Hong Cui; J. Gordon Burleigh
148	Pipelines and methods for visualization and analysis of phenomic data Chad Eliason; Julia Clarke
149	Beyond OTUs - Phylogenetic identification of bacterial symbiont sequences Nico Franz; Guanyang Zhang; Zhen Geng; Andrew Johnston; Patrick Browne; Hinsby Cadillo-Quiroz
150	Development of nuclear markers for phylogeny reconstruction In <i>Thomasomys</i> (Rodentia: Cricetidae) amber Grothe; Joshua Brokaw
151	Digitizing Molluskan biodiversity at the University of Michigan Museum of Zoology (UMMZ) Taehwan Lee; Thomas Duda; <b>Amanda Haponski</b> ; Diarmaid O' Foighil
152	Combing Africa: preliminary attempts at untangling the historical evolution of the Ledebouriinae (Scilloideae, Asparagaceae). Cody Howard; Nico Cellinese
153	Utilizing genome skimming of the mitochondria, chloroplast, and nuclear genomes to resolve the recalcitrant Goodenia Clade C backbone Pryce Michener; Emily Sessa; Rachel Jabaily
	Microbes
154	Microbiome analyses of acorn barnacles from habitat extremes of a tidal stress gradient Bianca Brown; Rebecca Elyanow; Joaquin Nunez; David Rand
155	Microbial diversity of alpine streams: a North American perspective Mary Foley; Scott Hotaling; J. Joseph Giersch; Debra Finn; Lusha M. Tronstad; Clint C. Muhlfeld; Lydia Zeglin; David W. Weisrock
	Last minute additions
~160	Miss the poster deadline? Bring your poster and put it up here. Please share the space with others if necessary and only post for one session. These posters won't be in the printed or online schedule.

## Session 3: Monday, June 20

### 5:45 - 7:45 pm, Exhibit Hall 1 (EH1). **Bold** denotes presenter when not first author.

	Adaptation	
1	Environmental adaptation and phenotypic differences between temperate and tropical populations of house mice Mallory Ballinger; Kathleen Ferris; Michael Nachman	
2	Salinity tolerance expression patterns in two distinct populations of <i>Tigriopus californicus</i> Jee Yun Lee; Marshall Phillips; Christopher Willett	
3	Identifying loci of adaptive significance in the widely distributed Dusky-footed Woodrat ( <i>Neotoma fuscipes</i> ) Sarah Brown; Jessica Blois	
4	Parallel ecomorphological evolution in ground-dwelling squirrels: Roles of phylogeny, allometry, and modularity Bryan McLean; Joseph Cook	
5	Evolutionary genomic analysis of plant adaptation to serpentine (ultramafic) geology in <i>Caulanthus amplexicaulis</i> (Brassicaceae) Alan Pepper; Angela Hawkins; Elyssa Garza; W. Daryl Hawkins; N. Ivalu Cacho; Adrian Platts; Stephen Wright; Sharon Strauss;	
6	Investigating evolutionary linkages between modules in the evolution of avian locomotion James Proffitt	
7	Origin and dynamics of adaptation in <i>Schizosaccharomyces pombe</i> : Standing genetic variation vs. de novo mutation Alexandre Rego; Zachariah Gompert	
8	Gene duplication among African cichlid fishes Susan Renn	
9	The molecular basis of embryonic acid adaptation in amphibians Longfei Shu; Anssi Laurila; Marc Suter; Katja Rasanen	
10	Does differential habitat use maintain color polymorphism in vipers from warmer environments? Alexandru Strugariu; Iulian Gherghel; Tiberiu C. Sahlean; Paul C. Dinca; Raluca Melenciuc; Mihail V. Hutuleac- Volosciuc; Stefan R. Zamfirescu	
11	Various mechanisms of threespine stickleback adaptation to freshwater (White Sea and Kamchatka regions) Nadezhda Terekhanova; Nikolai Mugue	
12	Climate change, germination, and survival in the montane perennial plant, <i>Boechera stricta</i> Susana Wadgymar; Jill Anderson	
13	Local adaptation in Louisiana Iris Alexander Zalmat; Noland Martin	
14	Genetic basis of butterfly eyespot determination Linlin Zhang	

15	Population genomic signatures of selection during independent invasions into novel environments Tiago da Silva Ribeiro; Martin Bontrager; Carol Eunmi Lee
L6	Evolution of an agricultural weed, <i>Helianthus annuus</i> Emily Drummond; Loren Rieseberg
	Behavior
17	How do microbes respond to increasing population density and why? Jennifer Rattray; Roman Popat; Sam Brown
18	Dietary macronutrients effect <i>Drosophila melanogaster</i> mate preference and attractiveness Janna Schultzhaus
19	The unique mate-guarding behavior of Tigriopus copepods: Exploration of its genetic, molecular and evolutionary bases Satomi Tsuboko-Ishii; Ron Burton
20	Nutritional effects on inter-individual variation in social behaviors Eric Wice; Julia Saltz
21	Population differences in territorial aggression in invasive brown anoles, <i>Anolis sagrei</i> Julie Wiemerslage; Joel McGlothlin; Tamara Fetters
	Biogeography
22	A phylogenetic perspective on the phytogeography of Western Ghats, India Praveen Karanth; Divya B
23	Niche conservatism in plant species with bipolar disjunction Kamil Konowalik
24	Major diversification events in an ancient African anuran lineage (Brevicipitidae: Breviceps) shadow Tertiary geo-climatic change. Stuart Nielsen
	Bioinformatics
25	Gene exchange is rare between species of Coccidioides Kathleen Mattox; David Turissini; Daniel Matute
27	Computational methods for filtering contaminants from NGS data Duncan Murdock; Janna Fierst
28	Zequencer: An automated workflow for analyzing NGS data from Zika virus Helen Shearman
29	ASTRID: Fast, accurate species tree estimation with thousands of taxa Pranjal Vachaspati; Tandy Warnow
30	Comparative genomic analyses of a new cluster of <i>Bacillus subtilis</i> phages with different host ranges Albert Vill; Veronique Delesalle; Greg Krukonis

	Coevolution
31	Evolution of nervous systems in early animals Anuj Guruacharya; Richard Broughton
32	No safety in the trees: Local and species-level adaptation of the Eastern gray squirrel to the venom of sympatric rattlesnakes Abby Pomento; Blair Perry; <b>Matthew Holding</b> ; Rob Denton; Lisle Gibbs
33	Elevated rate of molecular evolution in insect endosymbionts can be exploited for elucidating pest introduction history Alejandro Otero Bravo; Zakee Sabree
34	Less is more: Independent loss-of-function OCIMENE SYNTHASE alleles parallel pollination syndrome diversification in monkeyflowers ( <i>Mimulus</i> ) Foen Peng; Kelsey Byers; Toby Bradshaw
35	Plastid and nuclear coevolution in plastid metabolic complexes: CLP and heteromeric ACCase Kate Rockenbach; John Monroe; Justin Havird; Deborah Triant; Doug Taylor; Daniel Sloan
36	Coevolution of RNA phages and <i>Pseudomonas syringae</i> bacteria is consequential for viral performance in alternate environments Elizabeth Williams; Lisa Bono; Paul Turner
	Comparative biology
37	Differential sensitivity of opsin expression to estrogen manipulation in two poeciliid freshwater fishes Caitlin Friesen; Mary Ramsey; Molly Cummings
38	Scent divergence in functionally distinct floral and vegetative organs in carnivorous pitcher plants (Sarraceniaceae spp.) Winnie Ho; Julienne Ng; Nathan Kutz; Jeff Riffell
39	A map of conserved plant protein complexes Claire McWhite; Ophelia Papoulas; Edward Marcotte; Claire Palmer; Pamela Ronald; John Houser; Cuihong Wan; Karen Browning; Hong Qiao et al.
	Disease
40	Host switching and the evolution of virulence in a plant pathogen Sean Meaden; Britt Koskella
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# Notes

