Conference Program

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

Annual Meetings
June 25-29, 2010

Portland State University
Portland, Oregon
Welcome to Evolution 2010

It is our pleasure to welcome you to Portland, Oregon. Self-described as the “Rose City,” Portland offers mild weather and breathtaking sights of the nearby snow-covered mountains during the month of June. It is a city where there are “more trees than cars,” and an extensive system of natural parks and waterways. It is a pedestrian and bicycle friendly town, and there is an extensive public transportation system that includes MAX light rail, a downtown transit mall, and the Portland Streetcar. The MAX light rail and streetcar rides downtown are free within the Free Rail Zone (including the Oregon Convention Center and Portland State University). Ample opportunities exist within Portland and the region for recreation and sightseeing, including the Columbia River Gorge, Mount Hood, Mount St. Helens, and the Oregon Coast.

Portland is an easy living city, with numerous restaurants that represent a broad diversity of cuisines. With a coffeehouse on every corner, more microbreweries per capita than any other city in North America, and several premier wine regions just to the north and south, the appropriate beverage for any moment is always close at hand. Need we say more?

Thanks for coming – we hope you find time to enjoy our city and the surrounding region!

Mitch Cruzan, Program Chair, Evolution 2010
On behalf of the Organizing Committee at Portland State University

Acknowledgments

Evolution 2010 has been made possible through the hard work of many people; most notably, our three graduate assistants, Tanya Cheeke (Administrative Assistant), Amy Shipley (Housing Administration), and Sara Viernum (Program Development), and the Evolution 2010 Organizing Committee, which included Christiane Biermann, Sarah Eppley, Suzanne Estes, Niles Lehman, Susan Masta, and Pam Yeh. We thank the officers of the American Society of Naturalists, the Society of Systematic Biologists, and the Society for the Study of Evolution, and especially Sydney Cameron, Kathleen Donohue, Scott Edwards, Charlie Fenster, Monica Geber, Leah Larkin, Jonathan Losos, Heidi Meudt, Allen Orr, Robert Pennock, Sam Scheiner, Judy Stone, and Kelly Zamudio. We received advice from the 2008 and 2009 hosts, particularly George Weiblen and Olle Pellmyr. Education activities during the meeting have organized by Kristin Jenkins, Louise Mead, and Robert Pennock. Special thanks to Hilmar Lapp and the other iEvoBio organizers for their cooperation and contributions. To all the organizers and contributors to the workshops and symposia, and to everyone who is participating – thank you!

We are indebted to Portland State University and the Department of Biology, especially Autumn Droste, Laura Carmichael, Leah Tuor, Isabel Anheier, and Jane Boone; the staff at the Oregon Convention Center especially Julie DeWeese, Judy Henry, Gloria Nelson, Natalia McDonough, and Bruce McKinney; Marc Beyer and the staff at DWA Trade Show and Exposition Services; Brian Berry, Randall Fastabend and the OMSI Education Staff; Amie Pico and her staff at A+ Child Care to You; Terry Bristol of the Institute of Science, Engineering and Public Policy for promoting the Gould Award Lecture; and to Travel Portland, Portland Oregon Visitors Association, and all of our sponsors for financial support.
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academia

BOOK EXHIBITS

Please visit Booth #1 to see publications from Cambridge University Press, Harvard University Press, CRC Press - Taylor & Francis Group and E. Schweizerbart’sche Verlagsbuchhandlung, Garland Press, Johns Hopkins University Press among others. A free catalog of titles on display is available on request.
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You can download a free, fully functional trial version from [www.codoncode.com/aligner](http://www.codoncode.com/aligner)

Or pick up a CD at our booth.
Registration and General Information

Location

Evolution 2010 takes place at the Oregon Convention Center in Portland, Oregon, June 25-29, 2010. Conference registration is in the lobby in front of Exhibit Hall A. Symposia, special lectures, and the Awards Banquet will be held in the Oregon Ballrooms on the upper level. Concurrent sessions will be held in meeting rooms A105 – C125. Poster sessions, sponsor exhibits, receptions, and coffee breaks will be held in Exhibit Hall A.

Registration and Information Desk

Staff from the SSE Business Office and Portland State University will attend the registration desk during the times listed below. Information about Portland and the vicinity is available at the Evolution 2010 Registration Desk and the Information Desk on the upper level.

Registration / Help desk hours:
Friday, June 25 8:00 AM - 9:00 PM
Saturday, June 26 7:00 AM - 5:00 PM
Sunday, June 27 8:00 AM - 5:00 PM
Monday, June 28 8:00 AM - 5:00 PM
Tuesday, June 29 8:00 AM - 5:00 PM

Student Volunteers

Student volunteers are on duty throughout the conference to assist as room monitors, attend the registration desk, and to act as conference guides.

Name Badge

Your name badge is your entrance ticket to all symposia, concurrent sessions, poster and exhibit sessions, and social events. Please remember to always wear your name badge.

Presentations

The scientific sessions will be located in the Oregon Convention Center across the Willamette River from downtown Portland. Speakers in concurrent sessions are limited to 15 minutes including 12 minutes for presentation and 3 minutes for questions. Talks for invited symposia are scheduled to run for 30 minutes each unless indicated otherwise. If you are presenting a talk please leave time for questions. Consult the schedule of symposia and concurrent sessions to confirm the time and location of your talk.

Each meeting room is equipped with a laptop PC, LCD projector, microphone, and is hosted by a session chair. A student AV volunteer will be available to transfer presentations to the computer desktop and to start each presentation. Notebook computers are equipped with Windows, Microsoft PowerPoint, and Acrobat Reader. **It is not possible under any circumstance for**
presenters to use their own laptop computers. PowerPoint or PDF files must be provided to the room monitor before the start of a session on either a CD or a USB Flash Drive. Please report to your assigned room location and identify yourself to the AV volunteer at least 20 minutes before the beginning of the session. Presenters are encouraged to use practice rooms to test presentations for compatibility with the equipment that is provided.

Session Chairs

If you are chairing a session, please arrive approximately 30 minutes early to ensure that all presentations are ready, and that the scheduled presenters are accounted for. It is imperative that talks remain on schedule to minimize disruptions as people move among the session rooms. The Chair should alert speakers when 3 minutes remain, and, if necessary, when 1 minute remains. If time runs out, the presenter will be asked to leave the podium without taking questions. If a presenter finishes early, the Chair should help the previous presenter to field questions and answers. In the event of a cancellation, the Chair should announce a pause in the session so that talks remain on schedule.

Poster Sessions

Poster sessions and receptions are scheduled 7:00 - 9:00 PM on Sunday, June 27 (Poster Session A), and Monday, June 28 (Poster Session B). The sessions will be held in Exhibit Hall A. Each presenter has 120 cm wide x 120 cm (4 x 4 ft) space for their poster. Posters may be attached using provided push pins. Each poster is assigned a numbered location. Please place your poster at the location corresponding to your presentation number.

Posters for Session A should be displayed starting at 8:00 AM on Saturday until 9:00 PM, and for Session B from 8:00 AM on Monday until 5:00 PM on Tuesday. Presenters should attend their posters during the receptions for each session to explain your study and answer questions.

Refreshments

Morning and afternoon refreshment breaks will be available in Exhibit Hall A on Saturday June 26 through Tuesday, June 29. Morning breaks run 10:00–10:30 AM and afternoon breaks run 3:00–3:30 PM. Meals are not provided except for some of the workshops and information sessions. Beer for receptions and the picnic will be provided by Rogue Ales and will feature Hazelnut Brown Nectar, Shakespeare Stout, Brutal IPA, and John John Juniper Pale Ale. The wine will be provided by Sokal Blosser and will feature Evolution (white) and Meditrina (red) and by the Olsen Family Vineyards and will feature Viridian Pinot Noir. A list of local restaurants, brewpubs, coffee shops, etc. is included in this program. Participants are encouraged to use personal reusable drink containers to reduce waste.

Social Functions

All registered attendees and their paid guests are invited to the following events:
- Opening Reception, Friday, June 25, 6:00-8:00 PM
- Picnic, Saturday, June 26, 6:30-10:00 PM, Oregon Zoo
· Poster Receptions, Sunday, June 27 and Monday, June 28, 7:00-9:00 PM in Exhibit Hall A.
· Graduate Student Mixer - Karaoke Party, Monday, June 28, 9:00-11:00 PM, Alibi Restaurant and Lounge

Set quantities of complimentary beer, wine, and root beer will be served at all receptions and the picnic at the Oregon Zoo. At the convention center there will be water, soda, and juice available upon request. Once complimentary beverages are depleted, additional beer and wine will be available for purchase at the receptions.

The conference banquet takes place on Tuesday, June 29, 6:30-10:00 PM in the Oregon Ballroom. Advance purchase of tickets is required for the banquet. A limited number of banquet tickets may be available for purchase at the registration desk.

Participants are responsible for all tickets. Lost tickets will not be replaced.

**Picnic at the Zoo**

The Picnic at the Zoo will feature a live performance by the country western swing band *Lisa and Her Kin* from 7:00-9:00 PM. Open mic for any willing participants will be available from 9:15-10:00 PM. The zoo exhibits are open until 8:00 PM. The main course will be Chardonnay cured Wild Salmon with grilled onions and dill or baked tofu marinara. An open bar will be available.

**Directions to Oregon Zoo**

4001 SW Canyon Rd

Transit from Convention Center (31 minutes)
Board MAX Blue or Red Line West at Convention Center MAX Station
Get off at Washington Park (Stop ID 10121)
Take elevator up to surface and walk ½ block west to SW Canyon Rd.
Zoo is across from elevator.

**Directions to Alibi Restaurant and Lounge**

4024 N Interstate Ave

Transit from Convention Center (22 minutes)
Walk west on NE Holladay St (street on the north side) for several blocks
Turn left on NE Wheeler Ave and walk one block, turn right on N Interstate Ave and two blocks. Arrive at the Interstate/Rose Quarter Max station
Board Max Yellow Line to Expo Center (Stop ID 11508)
Get off at N Prescott St. (Stop ID 11511) (N Interstate Ave)
Walk 5 ½ blocks south on N Interstate Ave to restaurant

**Personal Electronic Devices**

Please turn off or mute all personal electronic devices while in all meeting rooms. Please mute the sound on your personal laptops.

**Language**

All conference activities including talks and posters will be presented in English.
First Aid

In case of emergency, please dial 911 and contact the Registration/Help desk.

Time Zone

The time zone in Portland is Pacific Daylight Time (PDT), 7 hours behind GMT.

Exhibits

Exhibit booths are in the Exhibit Hall A. Exhibitor hours are:
Friday, June 25 5:00 PM to 8:00 PM
Saturday, June 26 9:30 AM to 6:30 PM
Sunday, June 27 9:30 AM to 9:00 PM
Monday, June 28 9:30 AM to 9:00 PM
Tuesday, June 29 9:30 AM to 6:30 PM

Message Board

A message board is located near the Registration/Help Desk. Participants are welcome to post messages about events, jobs, announcements, and personal messages for other participants.

Internet Access

Free wireless internet is available throughout the Oregon Convention Center for the duration of the conference. Use the username ‘evolution’ and the password ‘evol2010’ to access the wireless network.

Taxicab service

Taxis are scarce, so you’ll need to call for a pickup. The following companies are available:
Radio Cab 503-227-1212
Blue Star Shuttle 503-249-1837 Frequent service to and from airport

Transportation

Portland is a pedestrian and bicycle friendly town, and there is an extensive public transportation system that includes bus lines, MAX light rail, a downtown transit mall, and the Portland Streetcar. The MAX light rail has regular service to the Portland Airport and the Oregon Convention Center. MAX or streetcar rides downtown are free within the Free Rail Zone (including the Oregon Convention Center and Portland State University). The MAX does not run between midnight and about 5am. Please check www.trimet.org for times and schedules for public transportation.
MAX rides are free between the convention center, PSU, and downtown. Fare must be paid for rides to the airport, zoo, and other destinations outside of the Free Rail Zone.
Childcare and Day Trips for Kids

With a recent grant from the Elsevier New Scholars Program, we are continuing to offer childcare services to parents who will be attending Evolution 2010. We have received funding to support these new programs for the Evolution conferences from 2009 to 2011. We encourage all members to take advantage of these opportunities, which are detailed below. If you have any questions about either of these two programs, please contact Leah Larkin or Heidi Meudt.

On-Site Childcare Services

Professional childcare services will be provided by A+ Child Care to You on-site at the Oregon Convention Center. Attendees who wish to use the childcare services will have the opportunity to sign up when you register for the meeting. You will be able to add childcare needs up to one week before the meeting starts (June 18th), but once a request is made it can only be canceled through notification by email (see cancellation and refund policy below). Childcare will be available from 7:30 AM - 5:30 PM on each day of the conference** (divided into morning and afternoon sessions). A subsidy is available to help offset the cost of childcare services at the conference for a limited number of graduate students, postdocs, and early-career parents. Childcare pre-registration is required. Drop-ins will be taken on a case-by-case basis.

Day Trips for Kids

For the first time we are trying a new service for kids who may be too old for on-site care. 'Hit the Road' day trips will be provided by educators from the Oregon Museum of Science and Industry (OMSI). OMSI has extensive education programs, day camps, and field excursions, and is extending their services to include single-day trips exclusively for our Evolution 2010 attendees. Trips will cost $60* per child/per day. Parents or legal guardians of a participating child are welcome to tag along at no extra charge. Trip participants are required to bring their own sack lunch, snacks, and water bottles. Trips will leave from the Oregon Convention Center each day at 8:00 AM and will return between 4:30 and 5:00 PM. Minimum age is 8 years. (Preregistration required)

Sunday June 27th- Mount St. Helens. Take a trip into Washington State and visit Mount St. Helens - an active volcano!

Parking

Parking arrangements should be made with your hotel. If you are staying in the PSU campus dorms parking is available for a fee. Inquire when you register for your room.

Medical Services and Emergency Numbers

For Fire, Police, and Medical Assistance dial: 911
An emergency room and other medical treatment are available at:

Near Convention Center –
Legacy Emanuel Hospital 2801 N. Gantenbein Ave 503-413-2200
Near Dorms -  
OHSU Hospital 3181 SW Jackson Park Rd  503-494-8311

iEvoBio Conference

iEvoBio (Informatics for Phylogenetics, Evolution and Biodiversity) is being held jointly with the Evolution Meetings as a satellite conference (June 29-30), with the aim of providing a forum that brings together biologists working in evolution, systematics, and biodiversity, with software developers, and mathematicians, both to catalyze the development of new tools, and to increase awareness of the possibilities offered by existing technologies (from reusable software to mega-scale data analysis to rich visualization). The meeting features contributed talks and keynote presentations, as well as more dynamic elements, including a challenge, lightning talk-style sessions, a software bazaar, and Birds-of-a-Feather gatherings. iEvoBio is supported by the National Evolutionary Synthesis Center (NESCent), and the Society of Systematic Biologists (SSB).

Lunchtime Bike Rides

A great way to see a little bit of Portland while generating some energy. June 27th and 29th (Sun and Tues). Register at the conference registration table. $9 bike and helmet rental, all skill levels welcome.

Sporting Events and Venues

Baseball at PGE Park. The Beavers vs. Fresno, June 22-25 at 7:05 PM.
Football (soccer) at PGE Park. The Timbers vs. Tampa Bay Rowdies, June 27 at 5:00 PM.
World Cup Football – best sports bars for football:
  Thirsty Lion Pub – SW 2nd and Ash St. downtown.
  Cheerful Tortoise – across from the Ondine dorms on Broadway.

Directions to PGE Park 1844 SW Morrison
  Transit from Convention Center (21 minutes)  
  Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at PGE Park (Stop ID 9757)  
  Walk about one block west to park

Directions to Thirsty Lion 71 SW 2nd Ave
  Transit from Convention Center (12 minutes)  
  Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at Skidmore Fountain (Stop ID 8379) (W Burnside St)  
  Walk 1 block west on W Burnside, turn left on SW 2nd Ave and walk 1 1/2 blocks to restaurant

Directions to Cheerful Tortoise 1939 SW 6th Ave
  Transit from Convention Center (25 minutes, across the street from Ondine dorm)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at PSU/SW 5th & Mill (Stop ID 7618)
Walk 2 ½ blocks south on SW 5th Ave, turn right on SW Hall St and walk one block
Turn left on SW 6th Ave and walk to restaurant

Guide to Portland

Please visit the Evolution 2010 web site for ideas on things to do in Portland and the surrounding region. Here is a quick list of …..

The top MUST SEE things in Portland:

1. Portland Saturday (and Sunday) Market – arts and crafts that reflect Portland its regional culture.
2. Powell’s City of Books – new and used books – the largest bookstore on the west coast.
3. Voodoo Donuts – for an exceptional and unexpected donut experience.
5. Pioneer Square – where you will find out why Portland’s motto is “keep it weird.”
6. Oregon Museum of Science and Industry (OMSI) – home of Samson, one of the largest and most complete Tyrannosaurus skeletons ever found.
**Restaurants, Pubs, and Attractions**

Below is a select list of establishments and attractions that your colleagues have compiled. An interactive version of the establishments and attractions map can also be found at http://www.batchgeo.com/map/evolution2010

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**Asian Food**

- **Suriya Café**
  - Thai
  - $-$-$
  - 1101 SW 4th Ave
  - Transit from Convention Center (22 minutes)
  - Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
  - Get off at Morrison/SW 3rd Ave (Stop ID 8381)
  - Walk 4 blocks south on SW 3rd, turn right on Main St. and walk one block to restaurant

- **Baan-Thai Restaurant**
  - Thai, Asian
  - $-$-$
  - 1924 SW Broadway
  - Transit from Convention Center (26 minutes; near dorms)
  - Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at PSU/SW 5th & Mill St (Stop ID 7618)
  - Walk 2 blocks south on SW 5th, turn right on SW Hall and walk 2 blocks,
  - Turn left on SW Broadway to restaurant

- **Hot Pot City**
  - Chinese
  - $-$-$
  - 1975 SW 1st Ave
  - Transit from Convention Center (28 minutes, near dorms)
  - Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at PSU/SW 5th & Mill St (Stop ID 7618)
  - Walk 1 ½ blocks south on SW 5th, turn left on SW Harrison and walk 3 blocks (named blocks), Turn right on SW 1st and walk one block to restaurant

- **Restaurant Murata**
  - Japanese, Sushi
  - $$$
  - 200 SW Market St.
  - Transit from Convention Center (25 minutes)
  - Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at PSU/SW 5th & Mill St (Stop ID 7618)
  - Walk 1 ½ blocks north on SW 5th, turn right on SW Market and walk 4 blocks to restaurant

- **Chef Naoko Bento Café**
  - Japanese, Organic
  - $$
  - 1237 SW Jefferson St
  - www.chefnaoko.com
  - Transit from Convention Center (25 minutes)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at City Hall/SW 5th & Jefferson St (Stop ID 7608)
Walk west 6 ½ blocks on SW Jefferson St to restaurant

**Pho PDX**  
827 SW 2nd Ave  
Vietnamese, Vegan options  
$  
www.phopdx.com

Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Morrison/SW 3rd Ave (Stop ID 8381)
Walk one block south on SW 3rd Ave, turn left on SW Yamhill St and walk one block,
Turn right on SW 2nd Ave and walk to restaurant

**Portland City Grill**  
111 SW 5th Ave  
Asian, Seafood, Steakhouse  
$$-$-$-$-$  
www.portlandcitygrill.com

Near Convention Center
**European**

**South Park Seafood Grill & Wine Bar**  
Seafood, French, International  
901 SW Salmon St  
$-$-$ $$
http://southparkseafood.com
Transit from Convention Center (21 minutes)  
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station  
Get off at Galleria/SW 10th Ave (Stop ID 8384)  
Walk 3 blocks south on SW 10th Ave, turn left on SW Salmon St and walk one block to restaurant

**Bijou Café**  
French, American, Coffee  
132 SW 3rd Ave  
$-$-$ $$
Transit from Convention Center (13 minutes)  
Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at Skidmore Fountain (Stop ID 8379) (W Burnside St)  
Walk 2 blocks west on W Burnside St, turn left on SW 3rd Ave and walk 2 ½ blocks to restaurant

**Paccini**  
Bar, Italian, European  
1717 SW Park Ave  
$  
www.paccinirestaurant.com
Transit from Convention Center (26 minutes)  
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at PSU/SW 5th & Mill St (Stop ID 7618)  
Walk ½ block north on SW 5th, turn left on SW Mill St and walk 3 blocks to restaurant

**Geraldi's Italian Eating Place**  
Italian  
518 SW 4th Ave  
$  
Transit from Convention Center (17 minutes)  
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station  
Get off at Mall/SW 5th Ave (Stop ID 8382)  
Walk one block north on SW 5th, turn right on SW Alder St and walk one block  
Turn left on SW 4th Ave and walk to restaurant

**Kell's Irish Pub**  
Pub, Irish, European  
112 SW 2nd Ave  
$$
www.kellsirish.com
Transit from Convention Center (14 minutes)  
Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station. Get off at Oak/SW 1st Ave (Stop ID 8380)  
Walk 1 block west on SW Oak, turn right on SW 2nd and walk 2 blocks to restaurant

**Thirsty Lion**  
Pub, Irish  
71 SW 2nd Ave  
$$
www.thirstylionpub.com
YOUR RESOURCE FOR EVOLUTIONARY BIOLOGY RESEARCH

Stop by the Wiley-Blackwell Booth # 16/17

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✓ Meet the editor events

With more resources in Evolutionary Biology than ever before, Wiley-Blackwell is the leading publisher in the field. From cutting-edge research in our journals and our prolific book program, visit the Wiley-Blackwell booth for the latest information on our extensive product range.

Visit us online to view our entire range of resources:

www.wiley.com/go/biosci
Transit from Convention Center (12 minutes)
Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station. Get off at Skidmore Fountain (Stop ID 8379) (W Burnside St)
Walk 1 block west on W Burnside, turn left on SW 2nd Ave and walk 1 ½ blocks to restaurant

**Döner Kebab**
German, Turkish
515 SW 4th Ave
www.donerkebabpdx.com

Transit from Convention Center (18 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Mall/SW 5th Ave (Stop ID 8382)
Walk one block north on SW 5th Ave, turn right on SW Alder and walk one block
Turn left on SW 4th Ave and walk to restaurant

**Clyde Common**
Bar, European, Vegan Options
1014 SW Stark St
www.clydecommon.com

Transit from Convention Center (20 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Galleria/SW 10th Ave (Stop ID 8384)
Walk 3 blocks north on SW 10th Ave, turn left on SW Stark and walk to restaurant

**Middle Eastern/Mediterranean**

**Abu Rasheed**
Lebanese, Vegan options
1921 SW 6th Ave
www.aburasheed.com

Transit from Convention Center (25 minutes, across the street from Ondine dorm)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at PSU/SW 5th & Mill St (Stop ID 7618)
Walk 2 ½ blocks south on SW 5th Ave, turn right on SW Hall St and walk one block
Turn left on SW 6th Ave and walk to restaurant

**Nicholas Restaurant**
Lebanese, Vegan options
318 SE Grand Ave
http://nicholasrestaurant.com

Transit from Convention Center (11 minutes)
Walk south on NE Martin Luther King Blvd (street on east side on the center) for several blocks, Turn left on E Burnside St and walk one block,
Turn right on SE Grand Ave and walk 4 ½ blocks to restaurant

**East India Co.**
Indian, Gluten-Free, Vegan options
821 SW 11th Ave
www.eastindiacopdx.com

Transit from Convention Center (19 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Galleria/SW 10th Ave (Stop ID 8384)
Walk one block west on SW Morrison St
Turn left on SW 11th Ave and walk 1 ¼ blocks to restaurant

Alexis Restaurant
Mediterranean
215 W Burnside St.
www.alexisfoods.com
Transit from Convention Center (11 minutes)
Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at Skidmore Fountain (Stop ID 8379)
Walk 1 ¼ blocks west on W Burnside to restaurant

American

Cheerful Tortoise
Sports Bar, Pub Food
1939 SW 6th Ave
COUPON - $5 off purchase of $25 or more, Free $1.99 Breakfast, must show conference badge
http://cheerfulgrills.com
Transit from Convention Center (25 minutes, across the street from Ondine dorm)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at PSU/SW 5th & Mill (Stop ID 7618)
Walk 2 ½ blocks south on SW 5th Ave, turn right on SW Hall St and walk one block
Turn left on SW 6th Ave and walk to restaurant

Rogue Distillery & Public House
Pub, Pub Food
1339 NW Flanders
www.rogue.com
Transit from Convention Center (20 minutes)
Board MAX Green Line to City Center/PSU (Stop ID 8376)
Get off at Union Station/NW 5th & Glisan St. (Stop ID 7601) at Convention Center MAX Station, Walk 9 blocks west on NW Glisan St,
Turn left on NW 13th Ave and walk one block, turn right on NW Flanders St. and walk to restaurant

Rock Bottom Brewery
Pub, American, Pub Food
206 SW Morrison St
www.rockbottom.com
Transit from Convention Center (16 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Morrison/SW 3rd Ave (Stop ID 8381)
Walk east one block on SW Morrison St to restaurant

Tube
Dive Bar, Vegan options
18 NW 3rd Ave
Transit from Convention Center (12 minutes)
Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at Skidmore Fountain (Stop ID 8379) (W Burnside St)
Walk 2 blocks west on W Burnside St, turn right on NW 3rd Ave and walk to restaurant

**Rontoms**
600 E Burnside St
Lounge, American, European  $-$ $$
Transit from Convention Center (9 minutes)
Walk south on NE Martin Luther King Blvd (street on east side on the center) for several blocks, Turn left on E Burnside St and walk 2 ½ blocks to restaurant

**Doug Fir Lounge**
830 E. Burnside St.
Lounge, American, Music venue  $$
www.dougfirlounge.com
Transit from Convention Center (12 minutes)
Walk south on NE Martin Luther King Blvd (street on east side on the center) for several blocks, Turn left on E Burnside St and walk 5 ¾ blocks to restaurant

**Jake’s Grill**
611 SW 10th Ave
Seafood, American,  $$
Check in your conference bag for the COUPON - $10.00 off dinner.
www.jakesgrill.com
Transit from Convention Center (18 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Galleria/SW 10th Ave (Stop ID 8384)
Walk one block north on SW 10th Ave to restaurant

Downtown

- 20 -
El Gaucho
Seafood, Steakhouse
319 SW Broadway
www.elgaucho.com
Transit from Convention Center (16 minutes)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station
Get off at SW 5th & Oak St (Stop ID 7627)
Walk 2 blocks west on SW Oak St, turn right on SW Broadway and walk to restaurant

The Farm Café
Northwest, Organic
10 SE 7th Ave
www.thefarmcafe.com
Transit from Convention Center (11 minutes)
Walk south on NE Martin Luther King Blvd (street on east side on the center) for several blocks, Turn left on E Burnside St and walk 4 blocks, turn right on SE 7th Ave and walk to restaurant

Hot Lips Pizza
Pizza, Vegan options
1909 SW 6th Ave
www.hotlipspizza.com
Transit from Convention Center (24 minutes, across the street from Ondine dorm)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at PSU/SW 5th & Mill St (Stop ID 7618)
Walk 2 ½ blocks south on SW 5th Ave, turn right on SW Hall St and walk one block
Turn left on SW 6th Ave and walk to restaurant

The Peoples’ Sandwich of Portland
Sandwiches, Subs, Vegan options
53 NW 1st Ave
www.sandwichofportland.com
Transit from Convention Center (11 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Old Town/Chinatown (Stop ID 8378) (NW 1st Ave)
Walk 1 ½ blocks south on NW 1st Ave to restaurant

Voodoo Doughnut
Best in PDX, Vegan options
22 SW 3rd Ave
www.voodoodoughnut.com
Transit from Convention Center (12 minutes)
Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at Skidmore Fountain (Stop ID 8379)
Walk 2 blocks west on W Burnside St, turn left on SW 3rd St and walk to restaurant

Mother's Bistro & Bar
Breakfast Food, American
212 SW Stark St.
www.mothersbistro.com
Transit from Convention Center (14 minutes)
Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at Oak/SW 1st Ave (Stop ID 8380)
Walk one block south on SW 1st Ave, turn right on SW Stark and walk one block to restaurant

**Pazzoria**  
Bakery, Sandwiches, Coffee  
621 SW Washington St.  
Transit from Convention Center (11 minutes)  
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station  
Get off at SW 5th & Oak St (Stop ID 7627)  
Walk 2 blocks south on SW 5th Ave  
Turn right on SW Washington St and walk 1¼ blocks to restaurant

**Stumptown Coffee Roasters**  
Best Coffee in PDX  
128 SW 3rd Ave  
Transit from Convention Center (13 minutes)  
Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at Skidmore Fountain (Stop ID 8379)  
Walk 2 blocks west on W Burnside St, turn left on SW 3rd Ave and walk 2 ¼ blocks to restaurant

**Stumptown Coffee Roasters**  
Best Coffee in PDX  
1026 SW Stark  
Transit from Convention Center (20 minutes)  
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station Get off at SW 5th & Oak St (Stop ID 7627)  
Walk one block south on SW 5th Ave, turn right on SW Stark and walk 5 ¼ blocks to restaurant

**Coffee Crutch Corp.**  
Coffee and Tea  
1023 SW Yamhill St.  
Transit from Convention Center (19 minutes)  
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station  
Get off at Galleria/SW 10th Ave (Stop ID 8384)  
Walk one block south on SW 10th Ave, turn right on SW Yamhill St. and walk to restaurant

**Invasion Café**  
Coffee and Tea  
412 SW 4th Ave  
Transit from Convention Center (16 minutes)  
Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at Oak/SW 1st Ave (Stop ID 8380)  
Walk 3 blocks west on SW Oak St., turn left on SW 4th Ave and walk one block to restaurant
Hillbilly Bento
211 SW 6th Ave
Southern, Soul, Cajun, Creole
$ www.hillbillybento.com
Transit from Convention Center (16 minutes)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at SW 5th & Oak St (Stop ID 7627)
Walk one block west on SW Oak St., turn right on SW 6th Ave and walk one block to restaurant

Blossoming Lotus
1713 NE 15th Ave
Vegetarian, Vegan $$
www.blpdx.com
Transit from Convention Center (21 minutes)
Walk north on NE Martin Luther King Blvd (street on east side on the center) for several blocks, Turn right on NE Broadway and walk 11 blocks,
Turn left on NE 15th Ave and walk to restaurant

Lloyd Center Mall Food Court
Various
$ 2201 Lloyd Center
Transit from Convention Center (15 minutes)
Walk north on NE Martin Luther King Blvd (street on east side on the center) for several blocks, Turn right on NE Multnomah St and walk four blocks to Lloyd Center Mall
-OR-
Transit from Convention Center (8 minutes)
Board MAX Green Line to Clackamas TC (Stop ID 8341) at Convention Center MAX Station, Get off at Lloyd Center/NE 11th Ave (Stop ID 8343)
Walk one block north on NE 11th Ave to Lloyd Center Mall

OUTSIDE FREE RAIL ZONE
Alibi Restaurant and Lounge
Lounge, Karaoke, Pub Food $$$
4024 N Interstate Ave
Transit from Convention Center (22 minutes)
Walk west on NE Holladay St (street on the north side on the center) for several blocks
Turn left on NE Wheeler Ave and walk one block, turn right on N Interstate Ave and two blocks Arrive at the Interstate/Rose Quarter Max station
Board Max Yellow Line to Expo Center (Stop ID 11508)
Get off at N Prescott St. (Stop ID 11511) (N Interstate Ave)
Walk 5 ½ blocks south on N Interstate Ave to restaurant

Green Dragon Bistro
Pub, American $$$
928 SE 9th Ave
www.rogue.com
Transit from Convention Center (11 minutes)
Board Bus 6 Martin Luther King to Portland (Stop ID 5612) at NE Martin Luther King Blvd and NE Hoyt St (on west side of the center),
Get off at SE MLK Blvd & SE Belmont St (Stop ID 5895)
Walk 5 blocks east on SE Belmont St, turn right on SE 9th Ave and walk to restaurant
Santería
Mexican
733 SW Ankeny St.
Transit from Convention Center (17 minutes)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at SW 5th & Oak St (Stop ID 7627)
Walk 2 blocks west on SW Oak St, turn right on SW Broadway and walk one block
Turn left on SW Ankeny St and walk ¾ block to restaurant

Chipotle Mexican Grill
Mexican, Vegan options
1948 SW Broadway
Transit from Convention Center (26 minutes, near dorms)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at PSU/ SW 5th & Mill St (Stop ID 7618)
Walk 3 ½ blocks south on SW 5th Ave, turn right on SW College St and walk 2 blocks to restaurant on SW Broadway
Food Carts

PSU Campus- Park Blocks, SW Park Ave & SW Harrison St.
Transit from Convention Center (25 minutes, near dorms)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at PSU/ SW 5th & Mill St (Stop ID 7618)
Walk 1 ½ blocks south on SW 5th Ave, turn right on SW Harrison and walk 3 blocks to PSU Park blocks, Food carts are scattered throughout these blocks

SW 4th Ave & SW Hall St
Transit from Convention Center (23 minutes, near dorms)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at PSU/ SW 5th & Mill St (Stop ID 7618)
Walk 2 ½ blocks south on SW 5th Ave, turn left on SW Hall St and walk one block to SW 4th Ave, Food carts are up and down SW 4th Ave

SW 5th Ave & SW Oak St
Transit from Convention Center (14 minutes)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at SW 5th & Oak St (Stop ID 7627)
Food Carts are between SW Oak and SW Stark St on SW 5th Ave

SW Alder St & SW 10th Ave
Transit from Convention Center (17 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Galleria/SW 10th Ave (Stop ID 8384)
Walk one block north on SW 10th Ave to SW Alder St, Food cart are down SW Alder St and SW 10th Ave

Other Areas of Interest

Bookstores

Powell's Book
1005 W Burnside St.
Largest Independent Bookstore
www.powells.com
Transit from Convention Center (17 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Galleria/SW 10th Ave (Stop ID 8384)
Walk 5 blocks north on SW 10th Ave to W Burnside St, Store on corner

Museums

Oregon Historical Society
1200 SW Park Ave.
www.ohs.org
Transit from Convention Center (22 minutes)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at City Hall/SW 5th & Jefferson St (Stop ID 7608)
Walk 3 blocks west SW Jefferson St, turn right on SW Park Ave and walk ¾ block to museum

Oregon Maritime Museum
113 SW Natio Parkway www.oregonmaritimemuseum.org
Transit from Convention Center (15 minutes)
Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at Oak/SW 1st Ave (Stop ID 8380)
Walk one block east on SW Oak St, turn left on SW Natio Parkway and walk 2 blocks to museum

Portland Art Museum
1219 SW Park Ave www.portlandartmuseum.org
Transit from Convention Center (23 minutes)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at City Hall/SW 5th & Jefferson St (Stop ID 7608)
Walk 4 ½ blocks west on SW Jefferson to museum

OUTSIDE FREE RAIL ZONE

Oregon Museum of Science and Industry (OMSI)
1945 SE Water Ave www.omsi.edu
Transit from Convention Center (18 minutes)
Walk south on NE Martin Luther King Blvd (street on east side on the center) for a few blocks to NE Hoyt St, Broad Bus 6 ML King Jr to Portland (Stop ID 5912)
Get off at Hawthorne Bridge (Stop ID 2642) (SE Madison St)
Walk ½ block east on SE Madison St, turn right on SE Water Ave and walk 4 ½ (long) blocks to museum

Portland Children’s Museum
4015 SW Canyon Rd www.portlandcm.org

Oregon Zoo
4001 SW Canyon Rd www.oregonzoo.org

World Forestry Center
4033 SW Canyon Rd www.worldforestry.org
Transit from Convention Center (31 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Washington Park (Stop ID 10121)
Take elevator up to surface and walk ½ block west to SW Canyon Rd and follow road around to museum and Forestry Center. Zoo is across from elevator
- NESCent supports meetings, sabbaticals, short-term visits, and postdoctoral fellowships

- Upcoming proposal deadlines:
  - July 1st – Short-term visits
  - July 10th – Meetings, sabbaticals, course proposals
  (For a complete list, go to www.nescent.org)

- Visit our booth to learn more about all of
  NESCent’s activities and initiatives

New from Princeton

- An Introduction to Methods and Models in Ecology, Evolution, and Conservation Biology
  Edited by Stanton Braude & Bobby L. Low
  Paper $29.95

- The Symbiotic Habit
  Angela E. Douglas
  Cloth $45.00

- Art Encounters
  Interaction Networks and Colony Behavior
  Deborah M. Gordon
  Paper $29.95

- Darwin in Galápagos
  Footsteps to a New World
  David R. Andreadis & Gregory B. Estes
  Cloth $20.95

- The Geographic Spread of Infectious Diseases
  Models and Applications
  Lisa Sattenspiel
  Paper $39.95

- The Calculus of Selfishness
  Karl Sigmund
  Cloth $35.00

- Secular Cycles
  Peter J. Seltch & Sergey A. Nefedov
  Cloth $35.00

- Glimpses of Creatures in Their Physical Worlds
  Steven Vogel
  Paper $35.00

- Sex Allocation
  Stuart West
  Paper $45.00

- From Populations to Ecosystems
  Theoretical Foundations for a New Ecological Synthesis
  Michel Loreau
  Paper $45.00

- Resolving Ecosystem Complexity
  Oswald T. Schmitz
  Paper $35.00

- Collective Animal Behavior
  David J. T. Sumpter
  Paper $39.95

- In Search of the Causes of Evolution
  From Field Observations to Mechanisms
  Edited by Peter R. Grant & B. Rosemary Grant
  Paper $49.95

Titles on display at Booth No. 4
20% conference discount
Natural Areas

**Lan Su Chinese Garden**
239 NW Everett St  
www.portlandchinesegarden.org  
Transit from Convention Center (12 minutes)  
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station  
Get off at Old Town/Chinatown (Stop ID 8378) (NW Davis St)  
Walk 2 blocks west on NW Davis St, turn right on NW 3rd Ave and walk one block to garden

**Waterfront Park**
NW Davis St & Naito Parkway  
www.portlandonline.com  
Transit from Convention Center (9 minutes)  
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station  
Get off at Old Town/Chinatown (Stop ID 8378) (NW Davis St)  
Walk 1 ½ blocks east on NW Davis St to park

**OUTSIDE FREE RAIL ZONE**

**International Rose Test Garden**
400 SW Kingston Ave  
www.portlandonline.com/parks

**Portland Japanese Garden**
611 SW Kingston Ave  
www.japanesegarden.com  
Transit from Convention Center (35 minutes)
Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station. Get off at PGE Park (Stop ID 9757)
Walk west ½ block to SW 18th and board Bus 63 Washington Park to Zoo (Stop ID 6911)
Get off at SW Kingston & Japanese Garden (Stop ID 3276)
Rose Garden on right (east). Japanese Garden on left (west)

Forest Park
NW 29th Ave & Upshur St
Transit from Convention Center (33 minutes)
Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station. Get off at Union Station/NW 5th & Glisan St (Stop ID 7601)
Walk 2 blocks west on NW Glisan St and board Bus 17 Holgate/NW 21st (Stop ID 1997)
Get off at NW Vaughn & 27th (Stop ID 8802)
Walk one block south on NW 27th, turn right on NW Upshur and walk 4 blocks to park

Oaks Bottom Wildlife Refuge
SE Milwaukie & SE Mitchell St
Transit from Convention Center (27 minutes)
Walk north on NE Martin Luther King Blvd (street on east side on the center) for a few blocks to NE Multnomah St, turn right on and walk 1 ½ blocks
Board Bus 70 Milwaukie TC (Stop ID 4042)
Get off at SE 17th & Mitchell (Stop ID 6846) and ½ block north in SE 17th Ave
Turn left on SE Mitchell St and walk 2 blocks to SE Milwaukie Ave, Trailhead start at parking lot across the street

Hoyt Arboretum
4000 SW Fairview Blvd.
Transit from Convention Center (40 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Washington Park (Stop ID 10121)
Take elevator up to surface and walk ½ mile north on SW Knight Blvd (west of elevator)
Turn right on SW Fairview Blvd and walk east to arboretum

Tualatin Hills Nature Park
15655 SW Milikan Way, Beaverton, OR
Transit from Convention Center (1 hour 30 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Beaverton TC (Stop ID 9818)
Board Bus 57 to Forest Grove (Stop ID 9984)
Get off at SW Tualatin Valley Hwy & Milikan Blvd (Stop ID 5619)
Walk about 0.5 mile north on SW Milikan Blvd to Interpretive Center

Tryon Creek State Park
11321 SW Terwilliger Blvd.
Transit from Convention Center (1 hour 30 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station
Get off at Washington Park (Stop ID 10121)
Take elevator up to surface and walk ½ mile north on SW Knight Blvd (west of elevator)
Turn right on SW Fairview Blvd and walk east to arboretum
Transit from Convention Center (1 hour 30 minutes)
Walk south on NE Martin Luther King Blvd (street on east side on the center) for several blocks to NE Couch St and board Bus 12 to King City (Stop ID 13330)
Get off at SW Barbur & Terwilliger (Stop ID 191)
Board Bus 39 to Lewis and Clark College (Stop ID 191)
Get off at 10000 Block SW Terwilliger (Stop ID 12729)
Walk about 1 mile south on SW Terwilliger Blvd to park entrance

Leach Botanic Garden
6704 SE 122nd Avenue www.leachgarden.org
Transit from Convention Center (45 minutes)
Board MAX Blue Line to Greshman (Stop ID 8341) at Convention Center MAX Station
Get off at E 122nd Ave (Stop ID 8349)
Walk ½ block south on SE 122nd Ave and board Bus 71 to Lents Town Center (Stop ID 6623), Get off at SE Foster & 122nd (Stop ID 1787)
Walk ¼ block east in SE Foster Rd, turn right on SE 122nd Ave and walk 3 ½ blocks to garden

Amazement Parks

OUTSIDE FREE RAIL ZONE

Oaks Bottom Amazement Park
7805 SE Oaks Park Way www.oakspark.com
Transit from Convention Center (1 hour 30 minutes)
Board MAX Blue Line to Ruby Junction/E 19th Ave (Stop ID 8341) at Convention Center MAX Station, Get off at Lloyd Center/NE 11th Ave (Stop ID 8343) (NE Holladay St), Walk ¼ block west on NE Holladay St and board Bus 70 Milwaukie TC (Stop ID 8937), Get off at SE 13th & Nehalem (Stop ID 6700)
Walk one block south on SE 13th Ave, turn right on SE Spokane St and walk 7 blocks west, turn right on SE Oaks Park Way and walk north to park

Markets

Portland Saturday (and Sunday) Market
SW Ankeny St & Naito Parkway www.portlandsaturdaymarket.com
Transit from Convention Center (11 minutes)
Board MAX Blue Line to Hillsboro (Stop ID 8376)
Get off at Skidmore Fountain (Stop ID 8379) (SW 1st Ave & W Burnside St)
Walk one block south on SW 1st Ave, turn left on SW Ankeny St and walk one block to market
Wilfried Westheide, Günter Purschke, Andreas Schmidt-Rhaesa, Matthias Glaubrecht, Stefan Richter, Niels P. Kristensen, Rolf G. Beutel, Harald Schliemann, Martin Fischer (Eds.)

ZOOLOGY ONLINE

Covering nearly 100 years of zoological research, the “Handbook of Zoology” represents a vast store of knowledge. But with the speed of scientific discovery in the past decades, a new format is required – online. Beginning in 2010 we will offer Zoology Online, a database which can be easily searched and rapidly updated to reflect the current state of phylogenetic knowledge.

Faster publication times through online-first publication, reference linking, forward linking and multimedia presentations will make Zoology Online highly attractive to both users and authors. The original Handbook material (approx. 28,000 pages) has been reordered along taxonomic (instead of bibliographical) categories and forms the historical basis of the database. As living database the content will be continuously updated and new content added. The material can be accessed through taxonomic and subject categories as well as free text, with a diversity of linking and search options.

New and updated entries in 2010 from projects in progress will include Lepidoptera, Coleoptera, Archaeognatha, Nannomecoptera, Neomecoptera, Dermaptera, Mantophasmatodea, Chelicerata, Malacostraca, Annelida, Nematodea and Gnathiidae and Molusca followed later by fishes, reptiles and mammals.

Key features:
- Online-first publication of new material
- Reference linking, forward linking and multimedia presentations
- Comprehensive overviews on animal systematics and morphology as well as extensive coverage of physiology, behaviour, ecology and applied aspects of zoological research
- Publication Language: Englisch (publication language of the historical entries: German)

USER INTERFACE English, German
TO BE PUBLISHED June 2010

Online/Purchase Option. One-time purchase of base content (RRP), subsequently annual update fee for new content
RRP € 599.00/*US$ 928.00.
Standing Order / Update price € 889.00/*US$ 1378.00.

Online/Rental Option. Perpetual access to the purchased data after 6 full years. Annual subscription price € 1490.00/*US$ 2310.00.

For further information, please visit our website at www.degruyter.com/zoology-online

FREE TRIAL AVAILABLE AT
www.degruyter.com/evolution

*For orders placed in North America
Prices are recommended retail prices only.
Prices do not include postage and handling. Prices are subject to change.

www.degruyter.com
Portland Farmers Market  www.portlandfarmersmarket.org

At PSU – Saturday
SW Harrison & SW Park Ave
  Transit from Convention Center (25 minutes, near dorms)
  Board MAX Green Line to City Center/PSU (Stop ID 8376) at Convention Center MAX Station, Get off at PSU/SW 5th & Mill St (Stop ID 7618)
  Walk 1 ½ blocks south on SW 5th Ave, turn right on SW Harrison and walk 3 ½ blocks to market

At Pioneer Courthouse Square – Monday
SW Broadway & SW 6th Ave
  Transit from Convention Center (17 minutes)
  Board Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at Pioneer Square North (Stop ID 8383) and walk over to square

At Shemanski Park – Wednesday
SW Salmon St & SW Park Ave
  Transit from Convention Center (20 minutes)
  Board MAX Blue Line to Hillsboro (Stop ID 8376) at Convention Center MAX Station, Get off at Galleria/SW 10th Ave (Stop ID 8384) (SW Morrison St)
  Walk one block east on SW Morrison St, turn right on SW 9th Ave and walk 2 blocks to market

Other 🌸

PGE Park  Sports Center
1844 SW Morrison  www.pgepark.com
  Transit from Convention Center (21 minutes)
  Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at PGE Park (Stop ID 9757)
  Walk about one block west to park

Pioneer Courthouse Square
701 SW 6th Avenue  www.pioneercourthousesquare.org
  Transit from Convention Center (17 minutes)
  Board Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at Pioneer Square North (Stop ID 8383) and walk over to square

Portland Aerial Tram  Best views of downtown and region
SW Moody Ave & SW GibbsSt  www.portlandtram.org
  Transit from Convention Center (42 minutes)
  Board MAX Green Line to City Center/PSU (Stop ID 8376)
  Get off at PSU/SW 5th & Mill St (Stop ID 7618)
  Walk ¼ south on SW 5th Ave

- 34 -
Board Portland Streetcar to South Waterfront (Stop ID 10763)  
Get off at SW Moody & Gibbs (Stop ID 12760)  
Walk ½ block east on SW Gibbs to tram

**Made In Oregon**  
Oregon foods, wines, and crafts  
700 SW 5th Ave  
www.madeinoregon.com  
Transit from Convention Center (14 minutes)  
Board MAX Red Line to City Center & Beaverton TC (Stop ID 8376) at Convention Center MAX Station, Get off at Mall/SW 5th Ave (Stop ID 8382)  
Arrive at store

1017 Lloyd Center  
Transit from Convention Center (15 minutes)  
Walk north on NE Martin Luther King Blvd (street on east side on the center) for several blocks, turn right on NE Multnomah St and walk four blocks to Lloyd Center Mall  
-OR-  
Transit from Convention Center (8 minutes)  
Board MAX Green Line to Clackamas TC (Stop ID 8341) at Convention Center MAX Station, Get off at Lloyd Center/NE 11th Ave (Stop ID 8343)  
Walk one block north on NE 11th Ave to Lloyd Center Mall

**Shopping Districts**

**OUTSIDE FREE RAIL ZONE**

SE Hawthorne Blvd  
between 30th - 45th  
SE Belmont Blvd  
between 32nd - 37th  
N Mississippi  
between N Skidmore - N Fremont  
NE Alberta  
between N 15th - 31st  
NW Pearl  
NW 23rd between NW Lovejoy - NW Thurman

**Delivered Dish**  
Food Delivery Service  
http://d-dish.com/

**Happy Cow**  
Vegetarian Restaurant Guide  
www.happycow.net

**A Portland “Must See”**

Vegan, Vegetarian Options

All locations are within the Free Rail Zone unless listed otherwise
Field Trips

Birding Trip to the Oregon Coast (closed)

This will be an all-day trip from Portland to the scenic Oregon Coast, likely focusing on Ecola State Park and Cannon Beach.

We will observe nesting seabirds on offshore rocky islands and should see (at a distance) Common Murres, Brandt’s and Pelagic Cormorants, Brown Pelicans, and hopefully Tufted Puffins. Black Oystercatchers, Bald Eagles, and Heerman’s Gulls are among other species we will look for along the shore. We will also visit coastal rainforest in search of favorites like American Dipper, Chestnut-backed Chickadee, Swainson’s Thrush, and Varied Thrush.

The trip will be led by local experts. Telescopes provided, but bring binoculars if you have them!

Cost covers van rental only. You will be able to buy food on one of our stops or you can bring a sack lunch.

Wednesday, June 30, depart 7:00 AM and return flexible 5 PM at the earliest. This trip is fully booked and cannot accept more participants. Depart from in front of the OCC.

Mount St. Helens Expedition (closed)

A guided trip designed to explore the plant and animal communities recolonizing areas that were devastated by the eruption in 1980. Participants will stop by the visitor’s center and can participate in a couple of optional hikes of about 2 miles each.

Cost covers van rental only. There are not many options to stop for food so you will need to bring a sack lunch.

Wednesday, June 30, depart at 7:30 AM, return at 6:00 PM. This trip is fully booked and cannot accept more participants. Depart from in front of the OCC.

Rogue Hop Farm Tour (a limited number of tickets available)

The Rogue Hop Farm of Rogue Ales is on the Willamette River south of Independence, Oregon, on the former John Haas Alluvial Hop Farm. Eight varieties of hops have been planted on 42 acres, which will be processed and baled on the farm and used in Rogue Ales, Porters, Stouts, and Lagers. The farm includes 44,598 square feet of processing sheds, 2 osprey nests, river-side picnic area, Rogue Farms Tasting Room, and the Rogue Hop N Bed with historical hop farm pictures. Tour the farm with our guide, taste the Chatoe Rogue series of ales made with Rogue's hops, and see hops growing on the vine.

Lunch and one beer ticket is included in the price of the tour.
Wednesday, June 30, depart 10:00 AM and return at 4:00 PM. The tour will be from 10am-4pm. The farm is in Independence, OR, so we will pick up tour goers at the Rogue Ales Public House at 1339 NW Flanders at 10am and drop them back off there at 4pm.
Announcements

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

The winner of the 2010 Stephen Jay Gould Prize is Sean B. Carroll. Dr. Carroll has had a distinguished career both advancing the science of evolution and in conveying that knowledge to the general public. This breadth is exemplified by his six books, including The Making of the Fittest (2006), which won the Phi Beta Kappa 2007 Science Book Award, and his latest book, Remarkable Creatures: Epic Adventures in the Search for the Origins of Species (2009), that was a finalist for the 2009 National Book Award in non-fiction. He has served as a consulting producer for the Public Broadcasting System (PBS) program NOVA, as well as numerous appearances on other shows on PBS, the Discovery Channel, BBC television and radio, and National Public Radio. These efforts have made him a leading spokesperson in the public sphere for evolutionary biology.

Dr. Carroll’s scientific research is at the intersection of the disciplines of evolution and development. He is Professor of Molecular Biology at the University of Wisconsin, Madison,
where he has been since 1987. He has authored more than 130 peer-reviewed papers and has received numerous honors for his scientific achievements, including fellowships in the National Academy of Sciences and the American Association for the Advancement of Science, and serving as president of the Society for Developmental Biology. His classroom achievements have been honored with a Distinguished Service Award from the National Association of Biology Teachers. For all of these reasons, it is fitting that Dr. Carroll receive the Gould Prize.

**Student Presentation Award from SSB**

The Ernst Mayr Award is given to an outstanding student talk in the field systematics. The award consists of $1000 and a set of available back issues of Systematic Biology. Members of the Society who are students or have completed their Ph.D. within the last 15 months are eligible. All candidates will participate in the **SSB Ernst Mayr Symposium on Sunday, June 27 at 8:00 AM in Oregon Ballroom 201**. Applicants may be from any country, but must be members of SSB, and are advised to join the Society as soon as possible to be considered. Previous Mayr award winners are not eligible.

**The W.D. Hamilton Award from SSE**

The Society for the Study of Evolution is offering “The W.D. Hamilton Award” for an outstanding student presentation at the annual meeting. Presentations will be judged by a committee of SSE members. Applicants will present their papers during regular sessions appropriate for their topic. The winner will receive an award of $1000, a year of membership to the Society for the Study of Evolution, and one year’s free subscription to the journal “Evolution”. Runners-up will each receive one year of membership to the Society for the Study of Evolution, plus one year's subscription to the journal "Evolution".

**Student Travel Awards**

**Student Travel Award from ASN**

The American Society of Naturalists will award $500 each to graduate students to help defray the cost of attending the annual meeting of the American Society of Naturalists. Awards will be chosen from a random drawing of eligible students who have indicated their eligibility by checking the box above before the deadline. To be eligible, the student must be a student member of ASN, and must not have received a travel award the previous year. The student must also be presenting a paper or a poster at the meeting.

**Student Travel Award from SSE**

The Society for the Study of Evolution will award $500 each to graduate students to help defray the cost of attending the annual meeting of the Society for the Study of Evolution. Awards will be chosen from a random drawing of eligible students who have indicated their eligibility by checking the box above before the deadline. To be eligible, the student must be a student member of SSE, and must not have received a travel award the previous year. The student must also be presenting a paper or a poster at the meeting.
Student Volunteer Opportunities

Student volunteer positions are offered to student society members (ASN, SSB, or SSE) on a first-come basis. Volunteers will work for one full day during the meeting. If you are selected, you will be notified before the meeting and offered the opportunity to select job preferences, but there is no guarantee that you will get your top choices. Typical jobs would include being a session monitor (helping with computer/AV equipment) or working at the registration desk. Reimbursements for registration (early registration rate for student members) will be provided to volunteers who complete their work assignments.

Undergraduate Diversity at Evolution 2010

For the 8th consecutive year the National Science Foundation has funded a program to send talented and diverse undergraduates from across the US to the annual meetings of the Society for the Study of Evolution and the Society for Systematic Biologists (SSE/SSB). This year the program is again being organized by Scott Edwards (Harvard University) and Richard Kliman (Cedar Crest College, NJ), but we have gained additional strength and outreach capability through a collaboration with the National Evolutionary Synthesis Center (NESCent), a major initiative for evolutionary research and synthesis in Durham, NC also funded by NSF. At NESCent, Director of Education and Outreach Brian Wiegmann (Duke University/NESCent) and Science Education and Outreach Program Manager Jory Weintraub are organizing the application portal and helping recruit applicants through their network of student contacts.

The program will cover the costs of travel to the meetings, registration and lodging for 25 undergraduates from the US and Puerto Rico. Students will present a poster on their research in a designated area of one of the poster sessions. In addition, the students will receive mentoring by a diverse and enthusiastic group of graduate students, postdocs and faculty from across the country and from many different subdisciplines within evolutionary biology. Please help us celebrate this diverse and talented group of students at the Undergraduate Diversity Social (Monday June 23, 5:00 - 6:00 p.m., Oregon Ballroom 203) as well as the Undergraduate Diversity Futures Discussion (Tuesday June 24, 4:00 - 5:30 p.m., B110). The Futures Discussion will consist of a short seminar on career options as well as a panel of a graduate student, postdoc and faculty member to whom students can ask questions about careers using training in evolutionary biology. Everyone is welcome to both events, and they are a great way to meet the next generation of evolutionary biologists and to share your experiences and advice with this talented group.

We are particularly grateful to Patrick Herendeen at NSF for his enthusiastic support of this program, which benefits everyone in the societies supporting the meeting. We also thank George Weiblen, Heather Dorr, Eugene Anderson, Kristi Fischer and the rest of the meeting planning staff for their generous time in facilitating this year’s program. Look out for the undergraduate posters at the meeting, and spread the word about this important opportunity for students embarking on careers in evolutionary biology. For further information about this and next year’s program, go to: http://www.oeb.harvard.edu/faculty/edwards/community/application.html
e-Mentoring Program

Are you a graduate student, postdoc or early-career faculty member? If so, you could benefit from having a MentorNet e-mentor for advice and guidance about your career. Are you an experienced researcher, educator or late-career faculty member? If so, your expertise will greatly benefit a protégé while increasing your leadership and mentoring skills.

With a recent grant from the Elsevier New Scholars Program, we are continuing to offer a FREE Evolution Tri-Societies MentorNet e-Mentoring Program to all who will be attending Evolution 2010. We have received funding to support this new program for the Evolution conferences from 2009 to 2011. We encourage all members to take advantage of this unique opportunity, which is detailed below. If you have any questions about e-Mentoring, please contact Leah Larkin or Heidi Meudt.

MentorNet is an award-winning mentoring organization that matches mentors with compatible protégés for an eight-month pairing, which includes weekly or biweekly e-mail discussion prompts to foster supportive mentoring relationships. When you create a profile in MentorNet's system and specify that you are a member of the Evolution Tri-Societies Mentoring Program, their proprietary software will recommend suitable matches between established scientist mentors and early-career protégés (including graduate students, post-doctoral researchers, and assistant professors) from SSB, ASN, and SSE. Paired mentors and protégés will have the opportunity to meet one another (and other participants) at a tri-society symposium luncheon at the conference as they begin their eight-month pairing.
20% Evolution Meeting Discount

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ASN Membership
Only $20

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Workshops

SSE EVO 101 Workshop: Hands on Evolution for K-12 Educators

Friday, 25 June - All Day

Evolutionary biology is a dynamic and exciting field. Science educators in the Portland area are invited to join evolutionary biologists and other science educators for “Evolution 101” – a one day workshop to be held at the Portland Convention Center on June 25. 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 in Oregon 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”.

Louise Mead (mead@ncse.com), Kristin Jenkins (kjenkins@nescent.org)

SSE EVO 101 Workshop Schedule

June 25th 8:00 - 4:45

8:00-8:30 AM Registration, coffee and bagels

8:30 AM Brief Introduction to SSE EVO 101 by Dr. Rob Pennock, Michigan State University

8:45 AM Brief overview of EVO 101 by Dr. Kristin Jenkins, National Evolutionary Synthesis Center

9:00 AM Science talk by Dr. Luke Harmon, Idaho State University

9:45 AM Break

10:00 AM Hands-on Activities
K-6 Educators: Giant Timeline/Resources with Kate Miller, Charlie’s Playhouse. Learn how to use the Giant Timeline with your class. Inventor Kate Miller will take you through various activities you can do with your class using this teaching tool.

7-12 Educators: Using Inquiry and Tree-thinking with Dr. Jim Smith, Michigan State University. Dr. Smith will show how to make a traditional taxonomy lab series into an evolution based, inquiry activity.

11:30 AM Lunch and conversations with scientists

1:00 PM Foundations of Science and Evolution by Dr. Matthew Rowe, Sam Houston State University

1:30 PM Panel Discussion on Teaching Evolution with Dr. Matthew Rowe, SHSU; Dr. Peter Wimberger, University of Puget Sound, and Dr. Louise Mead, National Center for Science Education

2:00 PM Hands on Activities

K-6 Educators: Clipbirds (Louise Mead) /Backyard Birdfeeders (Kristin Jenkins). Combine a hands-on class activity with a long term class citizen science project.

7-12 Educators: Symbiotic software with Dr. Ellie Steinberg. Learn how to use the EvoBeaker software to teach basic evolutionary biology concepts.

3:30 PM Break

3:45 PM Science Talk by Dr. Tiffany Garcia, Oregon State University

4:30 PM Raffle and Closing

Evening Dinner (on your own), Reception and Gould Award Lecture

**Communicating Science Practicum**

*This event is fully booked and cannot accept more participants.*

Saturday, 26 June Afternoon (1:30 - 5:00 PM)

Building on the principles of the morning SSE Education Symposium, this special 3-hour afternoon workshop will provide interactive opportunities for participants to develop and practice messages on camera and get peer feedback from other attendees. This practicum portion of the AAAS Communicating Science workshop is limited to 50 persons and requires (free) pre-registration.
Data Archiving in Evolution Information Session

Sunday, 27 June 5:00 - 6:00 PM

Many of the leading journals in evolutionary biology will soon adopt a policy requiring archiving of the data required to support the results in published papers. This informal forum will allow discussion about the benefits and challenges of data archiving and about how it will be most effectively implemented.
Lunch-Time Workshops

Outreach Workshop: Developing Science Education Outreach Projects with Local Teachers

Saturday, 26 June Noon - 1:30 PM (lunch provided for a limited number of participants)

Are you planning a teacher workshop? Although many faculty have long been involved in outreach, since the adoption of the Broader Impacts criteria in NSF grants, there is a growing interest in outreach projects. Outreach projects can take many forms, bring you in contact with different audiences, and require varying amounts of time and effort. In this session, we’ll focus on providing workshops for local teachers. We’ll cover best practices, logistics, partners and other resources that can make your outreach project go more smoothly. Join us and share your ideas and experiences.

Workshop leaders:
Louise Mead
Education Project Director
National Center for Science Education

Kristin Jenkins
Education and Outreach
National Evolutionary Synthesis Center

How to Get a Job in Academia

Sunday, 27 June Noon - 1:30 PM (lunch provided for a limited number of participants)

The title says it all.
Workshop leader: Lorne Wolfe
Georgia Southern University

Mentoring luncheon: Improving Work-Life Satisfaction for Scientists

Tuesday, June 29th at Noon in Oregon Ballroom 203

(Sponsored by Elsevier New Scholars Program and AWIS)*
Dr. Donna Dean, former President, Association for Women in Science (AWIS)

Given the work environments and expectations for scientists, and the fact that a career in science is very often a way of life and far more than a job, work-life balance satisfaction can be elusive. While advocating for change in policies and systems continues to be important, academics must find the personal work-life balance strategies that work for them within the systems in which they work. This interactive program will help participants:

• Define for themselves what work-life satisfaction is and is not
• Understand how incongruence between priorities and actions can drain energy and negatively impact work-life satisfaction
• Examine how their current choices impact work-life balance and identify changes that will have the biggest impact on personal and professional satisfaction
• Identify 7 keys to achieving and maintaining work-life satisfaction
• Craft a personalized plan to improve work-life balance satisfaction

NOTE: The luncheon is FREE and open to all conference attendees. Complementary lunch will be provided to the first 60 people who attend (or until the food runs out!).

*The luncheon is sponsored by a grant from the Elsevier New Scholars Program (http://www.elsevierfoundation.org/scholar.html), and the Association for Women in Science (http://www.awis.org/). We encourage all members to take advantage of these opportunities. If you have any questions about either of these two programs, please contact Leah Larkin (llarkin@pacific.edu) or Heidi Meudt (heidim@tepapa.govt.nz).
Calendar of Events

Friday, June 25

Lobby B 8:00 AM–9:00 AM  Coffee and Bagels (Workshop and Joint Council)
B117-118 8:30 AM–5:00 PM  Evolution 101 Workshop
B110 9:00 AM–Noon  ASN/SSE/SSB Joint Council Meeting
Ballrm203 Noon–1:30 PM  Society Council Members Lunch
Ballrm203 Noon–1:30 PM  Evolution 101 Workshop Lunch
B110 1:00 PM–5:00 PM  SSE Council Meeting
B119 1:00 PM–5:00 PM  SSB Council Meeting
C120 2:00 PM–5:00 PM  ASN Council Meeting
Exhibit A 6:00 PM–8:00 PM  Opening Reception
Ballrm 201/2 8:00 PM–9:30 PM  S.J. Gould Award Lecture Sean B. Carroll
“Impressive Creatures: Epic Adventures in the Search for the Origins of Species”

Saturday, June 26

A/B/C rms 8:00 AM–5:00 PM  Symposia and Concurrent Sessions
Ballrm 201 8:30 AM–Noon  SSE Education Symposium: Communicating Science
Exhibit A 10:00 AM–10:30 AM  Coffee Break
B110 Noon–1:30 PM  Evolution Editorial Board Lunch
B119 Noon–1:30 PM  SSB Editorial Board Lunch
Ballrm 201 1:20 PM–5:00 PM  ASN Vice-Presidential Symposium "Ecological and evolutionary limits to geographic ranges"
Organizer: Monica Geber
C125-126 1:30 PM–5:00 PM  SSE Education Workshop: Communicating Science Practicum
Exhibit A 3:00 PM–3:30 PM  Coffee Break
Ballrm 201 5:00 PM–6:00 PM  ASN Presidential Address
Ballrm 201  6:00 PM–6:30 PM  ASN Membership Meeting
Oregon Zoo  6:30 PM–10:00 PM  Picnic at the Oregon Zoo

Sunday, June 27

Ballrm 201  8:00 AM–11:00 AM  SSB Symposium: “The future of historical biogeography: conceptual and methodological challenges.” Organizer: Joel Cracraft
A/B/C rms  8:00 AM–5:00 PM  Symposia and Concurrent Sessions
Exhibit A  10:00 AM–10:30 AM  Coffee Break
Ballrm 203  Noon–1:30 PM  SSE Workshop: How to get a Job in Academia
B110  Noon–1:30 PM  American Naturalist Editorial Board Lunch
B119  Noon–1:30 PM  Education Outreach Workshop: Developing Science Education Outreach Projects with Local Teachers
Off site  Noon–1:30 PM  Noon-time bike ride (Register at the information table)
Ballrm 201  1:30 PM–5:00 PM  SSE Symposium: “Diversifying selection: speciation and the evolution of dimorphism.” Organizer: Jenny Boughman
Exhibit A  3:00 PM–3:30 PM  Coffee Break
B110  3:30 PM–4:30 PM  Molecular Phylogenetics and Evolution Editorial Board Meeting
B114-115  4:30 PM–5:00 PM  Fisher Award Address
A106  5:00 PM–6:00 PM  Data Archiving in Evolution Information Session
Ballrm 201  6:00 PM–7:00 PM  SSB Presidential Address
Ballrm 201  7:00 PM–7:30 PM  SSB Membership Meeting
Exhibit A  7:00 PM–9:00 PM  Poster Session A & Reception
A106  7:30 PM–8:30 PM  Meet the Editors Reception - How to get published

Monday, June 28

Ballrm 201  8:00 AM–12:15 PM  SSB Symposium: Ernst Mayr Symposium
Organizer: Sydney Cameron

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**Tuesday, June 29**

**Ballrm 201** 8:00 AM–Noon  
SSE Symposium: “Moving towards a science of evolutionary prediction.” Organizer: Allen Rodrigo

**B114-115** 8:00 AM–5:00 PM  
iEvoBio Sessions

**A/B/C rms** 8:00 AM–5:15 PM  
Symposia and Concurrent Sessions

**Exhibit A** 10:00 AM–10:30 AM  
Coffee Break

**B110** Noon–1:30 PM  
ASN/SSB/SSE Joint Council Exit Meeting (Lunch)

**Ballrm 203** Noon–1:30 PM  
MentorNet Lunch: Improving Work-Life Satisfaction for Scientists, Dr. Donna Dean, former President, AWIS

**Off site** Noon–1:30 PM  
Noon-time bike ride (Register at the information table)

**Ballrm 201** 1:30 PM–5:00 PM  
ASN Young Investigator Symposium
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<tr>
<th>Location / Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>Exhibit A 3:00 PM–3:30 PM</td>
<td>Coffee Break</td>
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<tr>
<td>B110 4:00 PM–5:30 PM</td>
<td>Undergraduate Diversity Futures Discussion</td>
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<tr>
<td>A105 5:00 PM–6:30 PM</td>
<td>SSE Council Exit Meeting</td>
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<tr>
<td>A106 5:00 PM–6:30 PM</td>
<td>ASN Council Exit Meeting</td>
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<tr>
<td>Ballrm Lobby 6:30 PM–7:00 PM</td>
<td>Banquet reception–Oregon Ballroom Lobby</td>
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<tr>
<td>Ballrm 203/4 7:00 PM–10:00 PM</td>
<td>Banquet–Oregon Ballroom</td>
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**Wednesday, June 30**

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<tr>
<th>Location / Time</th>
<th>Event</th>
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<tr>
<td>Off Site 7:00 AM–9:00 PM</td>
<td>Field Trips</td>
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<tr>
<td>A114-115 8:00 AM–5:00 PM</td>
<td>iEvoBio Sessions</td>
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For further information please visit Claire Rawlinson at booth 21, where samples of our journals will be available.

[royalsocietypublishing.org](http://royalsocietypublishing.org)
FRIDAY, JUNE 25TH

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<th>Room</th>
<th>Speaker</th>
<th>Title</th>
</tr>
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<tbody>
<tr>
<td>8:00</td>
<td>L0001</td>
<td>CARROLL, SEAN B.</td>
<td><strong>Remarkable Creatures: Epic Adventures in the Search for the Origins of Species</strong></td>
</tr>
</tbody>
</table>

*Gould Award Lecture*

*Chair: Samuel M. Scheiner*
SATURDAY, JUNE 26TH

8:30 AM - 10:00 AM  001 Contributed Papers  A105/OCC

Adaptation 1
Chair: Nathan E. Rank

8:30 001001 WILLETT, CHRISTOPHER S.
Potential fitness tradeoffs for thermal tolerance in the intertidal copepod Tigriopus californicus

8:45 001002 RANK, NATHAN E.* - DAHLHOFF, ELIZABETH P. - SMILEY, JOHN
Enzyme polymorphisms and population biology in a montane insect

9:00 001003 DAHLHOFF, ELIZABETH P.* - RANK, NATHAN E. - DICK, CYNTHIA - BRUCE, DOUGLAS - MCMILLAN, DAVID
Heat shock protein expression may buffer effects of genetic variation at phosphoglucose isomerase on performance and reproductive success in montane populations of a willow beetle

9:15 001004 GOODMAN, KARI ROESCH
Ecological divergence does not precede rapid diversification of sexual signals in Hawaiian Nesosydne planthoppers (Hemiptera: Delphacidae)

9:30 001005 MINER, BROOKS E.* - KERR, BENJAMIN
Fine-scale adaptation to ultraviolet radiation exposure in alpine ponds

9:45 001006 OSBORN, KAREN
Adrift in a vast foreign habitat: pelagic invertebrate evolution

8:30 AM - 10:00 AM  002 Contributed Papers  A106/OCC

Phylogenetic Theory 1
Chair: Jonathan Davies

8:30 002001 BOETTIGER, CARL
A new phylogenetic comparative method: detecting niches and transitions with continuous characters

8:45 002002 ALLMAN, ELIZABETH* - DEGNAN, JAMES - RHODES, JOHN
Identifying the Rooted Species Tree from the Distribution of Unrooted Gene Trees under the Coalescent Model

9:00 002003 FELSENSTEIN, JOE
A comparative method for discrete and continuous characters using the threshold model and MCMC

9:15 002004 MCINNIS, LYNSEY* - ORME, C. DAVID L. - PURVIS, ANDY
Deep-time changes to equilibrial diversity - a simulation study of the power to detect rule changes from reconstructed phylogenies
8:30 AM - 10:00 AM  003  Contributed Papers  A107-108/OCC
Phylogenetics & Diversification 1
Chair: Jeremy Miller

8:30  003001  SANTINI, FRANCESCO* - NGUYEN, MAI - WALTZEK, THOMAS - LYNCH, ALFARO, JESSICA - ALFARO, MICHAEL
Tempo of diversification and freshwater invasions in pufferfishes (family Tetraodontidae)

8:45  003002  ROBINS, JUDITH H* - MCLENACHAN, PATRICIA - PHILLIPS, MATTHEW J - MCCOMISH, BENNET - MATISOO-SMITH, ELIZABETH - ROSS, HOWARD
Evolutionary relationships and divergence times among the native rats of Australia using mitochondrial DNA genomes

9:00  003003  JANSSON, ROLAND - HARDING, LARISA E.* - RODRIGUEZ-CASTANEDA, GENOVEVA
Seeing the forest for the trees: Opportunities and problems in understanding the latitudinal diversity gradient using phylogenetic information

9:15  003004  STEIN, R. WILL* - SMITH, GORDON J. - MOOERS, ARNE
Bayesian inference of Galliformes phylogeny based on a large concatenated alignment of coding and noncoding mitochondrial and nuclear sequences

9:30  003005  BRAVO, GUSTAVO A.* - BRUMFIELD, ROBB
Phylogenetic analysis of phenotypic evolution in the antbirds (AVES: Thamnophilidae)

9:45  003006  MILLER, JEREMY* - GRISWOLD, CHARLES
Phylogeny of Entelegyne Spiders: Affinities of the Family Penestomidae and Asymmetric Rates of Change in Spinning Organ Evolution

8:30 AM - 10:00 AM  004  Contributed Papers  B111-112/OCC
Phylogeography 1
Chair: Amanda J Zellmer

8:30  004001  DAWSON, MICHAEL N* - HAYS, CYNTHIA G. - LEHMAN, JOAN M.
Community genetics of the California and Baja California mainland and island array

8:45  004002  ZELLMER, AMANDA J.* - KOOPMAN, MARGARET - CARSTENS, BRYAN
Community Phylogeography in a Carnivorous Plant
9:00  004003  WARREN, BEN H.* - STRASBERG, DOMINIQUE - BRUGGEMANN, J. HENRICH - PRYS-JONES, ROBERT P. - THEBAUD, CHRISTOPHE
Why does the biota of the Madagascar region have such a strong Asiatic flavour?

9:15  004004  OAKS, JAMIE* - SUKUMARAN, JEET - ESSELSTYN, JAKE - LINKEM, CHARLES - SILER, CAMERON - BROWN, RAFF M.
Comparative phylogeography of terrestrial vertebrates across Philippine Pleistocene aggregate island complexes

9:30  004005  HAMILTON, ALISON M.* - THOMASSEN, HENRI - AUSTIN, CHRISTOPHER C.
Historical and environmental influences on intra-archipelago diversification in a South Pacific tree skink

9:45  004006  EDWARDS, DANIELLE L.* - KEOGH, J. SCOTT - KNOWLES, L. LACEY
Model-based comparative phylogeographic hypothesis testing of co-distributed Australian reptiles with coupled ENM and ABC analyses

8:30 AM - 10:00 AM  005  Contributed Papers  B113/OCC
Speciation 1
Chair: Barbara K. Mable

8:30  005001  SOBEL, JAMES M.* - CHEN, GRACE F.
Unification of methods for estimating the strength of individual reproductive barriers

8:45  005002  NOSIL, PATRIK* - FEDER, JEFFREY
Genomic architecture of speciation: islands or continents of divergence?

9:00  005003  LAPORT, ROBERT G.* - MINCKLEY, R.L. - RAMSEY, JUSTIN
Polyploid Speciation in North American Creosote Bush (Larrea tridentata, Zygophyllaceae)

9:15  005004  MABLE, BARBARAK.
Polyploids in extreme environments: is there potential for climate change to increase polyploid speciation rates?

9:30  005005  FEDER, JEFFREY* - NOSIL, PATRIK - POWELL, THOMAS - GEJJI, RICHARD
Adaptive chromosomal divergence driven by mixed geographic mode of evolution

9:45  005006  AYALA, DIEGO - GUERRERO, RAFAEL F. - KIRKPATRICK, MARK *
A chromosome inversion is a magic speciation trait in a malaria mosquito

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## Molecular Evolution 1

**Chair:** Jon Seger

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<th>Session</th>
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<tr>
<td>8:30</td>
<td>006001</td>
<td>Evolution of fission-fusion in mitochondria</td>
<td>DIWEGAR, MANAWA* - KUMBHAR, CHARUSHILA - WATVE, MILIND</td>
</tr>
<tr>
<td>8:45</td>
<td>006002</td>
<td>Ghosts of amelioration past haunt a mitochondrial genome replacement in whale lice</td>
<td>SEGER, JON* - PERRY, JAROM - YAMADA, TADASU</td>
</tr>
<tr>
<td>9:00</td>
<td>006003</td>
<td>An evolutionary history of primate cytochromes c in a functional context</td>
<td>PIERRON, DENIS* - OPAZO, JUAN C. - HEISKE, MARGIT - PAPPER, ZACK - UDDIN, MONICA - CHAND, GOPI - WILDMAN, DEREK E. - ROMERO, ROBERTO - MORRIS, GOODMAN - GROSSMAN, LAWRENCE</td>
</tr>
<tr>
<td>9:15</td>
<td>006004</td>
<td>Mutation rate variation and organelle genome evolution in the angiosperm genus Silene (Caryophyllaceae)</td>
<td>SLOAN, DANIEL* - ALVERSON, ANDREW - PALMER, JEFFREY - TAYLOR, DOUGLAS</td>
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<tr>
<td>9:30</td>
<td>006005</td>
<td>The phylogeography of two California Channel Island endemic buckwheats (Eriogonum spp.)</td>
<td>RILEY, LYNN* - MCGLAUGHLIN, MITCHELL - HELENURM, KAIUS</td>
</tr>
<tr>
<td>9:45</td>
<td>006006</td>
<td>Accelerated Evolution of CES7, a Putative Premating Isolation Gene in the Cat Family</td>
<td>LI, GANG* - JANECKA, JAN - MURPHY, WILLIAM J.</td>
</tr>
</tbody>
</table>

## Genomics 1

**Chair:** Bryan Kolaczkowski

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<tr>
<th>Time</th>
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<th>Authors</th>
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<tbody>
<tr>
<td>8:30</td>
<td>007001</td>
<td>Origins of developmental instability in transgenic RNAi lines of Drosophila melanogaster</td>
<td>GRAHAM, JOHN* - POE, AMY R. - CASSELL, G. SAM - BLALOCK, JENNIFERA</td>
</tr>
<tr>
<td>8:45</td>
<td>007002</td>
<td>Combining phylogenetics and population-genetics to examine species-specific evolution in Drosophila melanogaster</td>
<td>KOLACZKOWSKI, BRYAN* - KERN, ANDREW</td>
</tr>
<tr>
<td>9:00</td>
<td>007003</td>
<td>A genomic analysis of incipient speciation in Drosophila melanogaster</td>
<td>TURISSI, DAVID* - HUNGATE, ERIC - WU, CHUNG-I</td>
</tr>
</tbody>
</table>
9:15   007004   BURKE, MOLL Y  K.*  - DUNHAM, JOSEPH P - THORNTON, KEVIN - ROSE, MICHAEL R - LONG, ANTHONY D.
Genome-wide characterization of *Drosophila melanogaster* with experimentally-evolved accelerated development

9:30   007005   REINHARDT, JOSEPHINE A*  - JONES, CORBIN D
*De novo* genes in *Drosophila melanogaster* are involved in male reproduction

9:45   007006   MCGAUGH, SUZANNE *  - NOOR, MOHAMED A F
Fine-scale recombination rate in *Drosophila pseudoobscura*

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<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
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</table>
| 8:30  | 008     | **Contributed Papers**  
**Systematics 1**  
*Chair: Mercedes Ames*  
8:30   008001   TIPPERY, NICHOLAS P.*  - LES, DONALD H. - JONES, CYNTHIA S.
Learning to float: Evolution of inflorescence architecture in the aquatic plant genus *Nymphoides* (Menyanthaceae)

8:45   008002   AMES, MERCEDES*  - WILLIAMS, NORRIS - MOORE, MICHAEL - LEEBENS-MACK, JIM - WHITTEN, MARK - NEUBIG, KURT - CLEMENTS, MARK - PIRES, J. CHRIS - STEELE, ROXANNE - GIVNISH, THOMAS
A plastome phylogeny for Orchidaceae and its systematic implications

9:00   008003   ROTHFELS, CARL*  - SCHUETTPELZ, ERIC - PRYER, KATHLEEN
An accelerated rate of molecular evolution spans all three genomes in vittarioid ferns

9:15   008004   FRIAR, ELIZABETH
Species tree inference in a recent adaptive radiation: the genus *Argyroxiophium* of the Hawaiian silversword alliance (Compositae)

9:30   008005   CLEMENT, WENDY L.*  - DONOGHUE, MICHAEL J.
Dissolution of Viburnum section Megalotinus clarifies morphological evolution and the importance of Southeast Asia in the diversification of Viburnum

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<tr>
<th>Time</th>
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<th>Title</th>
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</table>
| 8:30  | 009     | **Contributed Papers**  
**Plant Mating Systems 1**  
*Chair: Andrew Raduski*  
8:30   009001   HARDER, LAWRENCE D.*  - BARRETT, SPENCER C.H. - RICHARDS, SHANE A.
The role of floral design in pollen dispersal by tristylos *Pontederia cordata*

8:45   009002   PICKUP, MELINDA*  - BARRETT, SPENCER C.H.
Female biased sex ratios and sexual dimorphism in an annual dioecious plant
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<th>Time</th>
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<th>Title</th>
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<tbody>
<tr>
<td>9:00</td>
<td>009003</td>
<td>FIELD, DAVID* - BARRETT, SPENCER C.H.</td>
<td>The coexistence of males, females and hermaphrodites in flowering plant populations</td>
</tr>
<tr>
<td>9:15</td>
<td>009004</td>
<td>KELLER, BARBARA* - THOMSON, JAMES D. - SCHMIDT-LEBUHN, ALEXANDER N. - DE VOS, JURRIAAN M. - CONTI, ELENA</td>
<td>Does reciprocal herkogamy contribute to mechanical isolation between heterostylous species? Evidence from pollen transfer studies between Primula elatior and P vulgaris.</td>
</tr>
<tr>
<td>9:30</td>
<td>009005</td>
<td>DAI, CAN* - GALLOWAY, LAURA</td>
<td>Triple role of style deflexion in Passion flower: dichogamy, herkogamy, and andromonoecy</td>
</tr>
<tr>
<td>9:45</td>
<td>009006</td>
<td>RADUSKI, ANDREW</td>
<td>Does a latitudinal gradient of plant breeding systems exist?</td>
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**8:30 AM - 10:00 AM  010  Contributed Papers  C123/OCC**

*Natural Selection and Contemporary Evolution 1*

*Chair: Mark Christie*

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<th>Time</th>
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<tbody>
<tr>
<td>8:30</td>
<td>010001</td>
<td>HOLZMAN, ROI* - COLLAR, DAVID C - MEHTA, RITA S - WAINWRIGHT, PETER</td>
<td>Can functional complexity mitigate performance trade-offs? An evolutionary analysis</td>
</tr>
<tr>
<td>8:45</td>
<td>010002</td>
<td>CHRISTIE, MARK* - MARINE, MELANIE - BLOUIN, MICHAEL</td>
<td>Where are the missing parents? Grandparentage analysis identifies reproductively successful residualized hatchery fish</td>
</tr>
<tr>
<td>9:00</td>
<td>010003</td>
<td>BELK, MARK C* - BILLMAN, ERIC - RASMUSSEN, JOSH - MOCK, KAREN - JOHNSON, JERALD B.</td>
<td>Demography of southern leatherside chub in the presence and absence of an introduced predator</td>
</tr>
<tr>
<td>9:15</td>
<td>010004</td>
<td>ELZ, ANNA* - TIMMINS-SCHIFFMAN, EMMA - PARK, LINDA - WAPLES, ROBIN S</td>
<td>Anthropogenic influences on life history traits in Snake River fall Chinook</td>
</tr>
<tr>
<td>9:30</td>
<td>010005</td>
<td>LOPEZ-SEPULCRE, ANDRES* - BASSAR, RONALD - FITZPATRICK, SW - FURNESS, ANDREW - GORDON, SWANNE - HANDELSMAN, C - HEINEN, JUSTA - TORRES-DOWDALL, J - TORRES-MEJIA, MAURICIO - BENTZEN, PAUL - REZNICK, DAVID</td>
<td>Changes in size-specific selection throughout a species invasion of a novel environment: An individual-based long-term experiment in wild Trinidadian Guppies</td>
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<td>9:45</td>
<td>010006</td>
<td>HANDELSMAN, C* - TORRES DOWDALL, JULIAN - FITZPATRICK, SW - LOPEZ-SEPULCRE, ANDRES - GHALAMBOR, CK - REZNICK, DAVID N</td>
<td>Getting fit: Morphological divergence in introduced guppies (Poecilia reticulata) and the rapid ascent of a new adaptive peak</td>
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</table>
### Population Genetics 1

**Chair:** Dorset Trapnell

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<th>Time</th>
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<th>Authors</th>
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<tbody>
<tr>
<td>8:30</td>
<td>011001</td>
<td>How do population genetics affect diversification? Case studies using oceanic islands and tropical orchids.</td>
<td>KISEL, YAEL* - BARRACLOUGH, TIM</td>
</tr>
<tr>
<td>8:45</td>
<td>011002</td>
<td>Global Population Structure of <em>Arabidopsis thaliana</em></td>
<td>PLATT, ALEXANDER* - NORDBORG, MAGNUS - BERGELSON, JOY - BOREVITZ, JUSTINO</td>
</tr>
<tr>
<td>9:00</td>
<td>011003</td>
<td>Genetic reconstruction of colonization patterns of the neotropical epiphytic orchid, <em>Brassavola nodosa</em></td>
<td>TRAPNELL, DORSET* - HAMRICK, J.L.</td>
</tr>
<tr>
<td>9:15</td>
<td>011004</td>
<td>Spatiotemporal effects on FST in a metapopulation of <em>Silene latifolia</em></td>
<td>FIELDS, PETER D.* - TAYLOR, DOUGLAS R.</td>
</tr>
<tr>
<td>9:30</td>
<td>011005</td>
<td>Closely spaced eelgrass (<em>Zostera marina</em>) beds maintain population genetic differentiation in a high-current environment</td>
<td>ORT, BRIAN S.* - COHEN, C. SARAH - BOYER, KATHARYNE - WYLLE-ECHEVERRIA, SANDY</td>
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<tr>
<td>9:45</td>
<td>011006</td>
<td>Population genetics in <em>Phlox drummondii</em>: Insight into reinforcement from patterns of neutral genetic variation.</td>
<td>HOPKINS, ROBIN* - RAUSHER, MARK</td>
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</table>

### Behavior and Social Evolution 1

**Chair:** Ophélie Ronce

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<th>Time</th>
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<tbody>
<tr>
<td>8:30</td>
<td>012001</td>
<td>Why harm kin?</td>
<td>VAN DYKEN, J. DAVID</td>
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<td>8:45</td>
<td>012002</td>
<td>Group optimality, behavioral responses, and kin selection in the evolution of cooperation</td>
<td>AKÇAY, EROL* - VAN CLEVE, JEREMY</td>
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<td>9:00</td>
<td>012003</td>
<td>Kin competition, natal dispersal and the moulding of senescence by natural selection</td>
<td>RONCE, OPHÉ LIE* - PROMISLOW, DANIEL</td>
</tr>
<tr>
<td>9:15</td>
<td>012004</td>
<td>Functional morphology of social groups: a case study with group-living spiders that build webs</td>
<td>SALOMON, MAXENCE* - AVILÉ S, LETICIA</td>
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<td>9:30</td>
<td>012005</td>
<td>Intraspecific and intersexual differences in allometry between band forming and non-band forming Mormon crickets (<em>Anabrus simplex</em>)</td>
<td>NEAL, STACY - LORCH, PATRICK D.*</td>
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<td>9:45</td>
<td>012006</td>
<td>Social wasp worker behavior is not based on relatedness, whereas their eusociality requires it</td>
<td>HUNT, JAMES H.</td>
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### 8:30 AM - 12:00 PM  Sym1 Symposium  Oregon Ballroom 201/OCC

**Communicating Science Symposium -**

*Chairs: Robert T. Pennock; Tiffany Lohwater*

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<tr>
<td>8:30</td>
<td>Introduction</td>
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<tr>
<td>8:45</td>
<td>002</td>
<td>PENNOCK, ROBERT T.</td>
<td>Communicating Evolution</td>
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<tr>
<td>9:45</td>
<td>003</td>
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<td>Communication 101: Audience and Message</td>
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<tr>
<td>10:00</td>
<td>Break</td>
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<tr>
<td>10:30</td>
<td>005</td>
<td></td>
<td>Evolution in the Media and Communication Opportunities</td>
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<tr>
<td>10:45</td>
<td>006</td>
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<td>Brainstorming Session</td>
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<tr>
<td>11:00</td>
<td>007</td>
<td></td>
<td>Resource Review and Conclusion</td>
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</table>

### 10:30 AM - 12:00 PM  013 Contributed Papers  A105/OCC

**Adaptation 2**

*Chair: Jason Pienaar*

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<tr>
<th>Time</th>
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<th>Speaker(s)</th>
<th>Title</th>
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<tr>
<td>10:30</td>
<td>013001</td>
<td>DES ROCHES, SIMONE* - ROBERTSON, JEANNE - HARMON, LUKE - ROSENBLUM, ERICA</td>
<td>Ecological release in a geologically young community</td>
</tr>
<tr>
<td>10:45</td>
<td>013002</td>
<td>HARRISON, A.S.</td>
<td>Multiple conflicting selection pressures shape visual signal diversity in <em>Anolis</em> lizards</td>
</tr>
<tr>
<td>11:00</td>
<td>013003</td>
<td>BERNs, CHELSEA</td>
<td>Environmental pressures or shared evolutionary history? Sexual shape dimorphism in hummingbird bills</td>
</tr>
<tr>
<td>11:15</td>
<td>013004</td>
<td>FREEDMAN, ADAM* - BUERMANN, WOLFGANG - MITCHARD, EDWARD - RUTH, DEFRIES - SMITH, THOMAS</td>
<td>Human Impacts Flatten Rainforest-Ecotone Gradient and Reduce Adaptive Diversity in a Rainforest Bird</td>
</tr>
<tr>
<td>11:30</td>
<td>013005</td>
<td>PIENAAR, JASON* - ANDERSSON, STAFFAN - PRAGER, MARIA - BARTOSZEK, KRZYSZTOF</td>
<td>Ecological adaptation and trade-offs between sexual ornaments in bishops and widowbirds (Euplectes).</td>
</tr>
<tr>
<td>11:45</td>
<td>013006</td>
<td>CLARAMUNT, SANTIAGO* - DERRYBERRY, ELIZABETH - BRUMFIELD, ROBB - JAMES, REMISEN</td>
<td>Adaptations for trunk-climbing in the Neotropical ovenbird radiation (Furnariidae): the effect of a key innovation on diversification</td>
</tr>
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10:30 AM - 12:00 PM  014  Contributed Papers  A106/OCC

Phylogenetic Theory 2
Chair: Laura Boykin

10:30  014001  BOUSSAU, BASTIEN* - SZOLLOSI, GERGELY J. - GOUY, MANOLO - TANNIER, ERIC - DAUBIN, VINCENT
Simultaneous inference of gene trees and organism tree in the presence of duplications and losses

10:45  014002  MOOERS, ARNE O* - GASCUEL, OLIVIER - LI, HEYANG - STEEL, MIKE
Squeezing information from a fully unresolved phylogeny

11:00  014003  BOYKIN, LAURA* - ARMSTRONG, KAREN
Biosecurity and Species Delimitation - Is there a Holy Grail?

11:15  014004  TITLE, PASCAL* - BURNS, KEVIN J.
The evolution of ecological niches in Neotropical tanagers

11:30  014005  HAN, KIN-LAN* - KIMBALL, REBECCA T. - BRAUN, EL - WANG, NING
The challenges of using transposons in avian phylogenetics

11:45  014006  JACOBSEN, FRODE* - OMLAND, KEVIN E.
Comparison of methods for species tree inference in a recent radiation of orioles (genus *Icterus*): overall congruence among data sets and methods

10:30 AM - 12:00 PM  015  Contributed Papers  A107-108/OCC

Phylogenetics & Diversification 2
Chair: David C. Marshall

10:30  015001  DAVIS, BRIAN W.* - LI, GANG - MURPHY, WILLIAM J.
Lions, Tigers and Jaguars: Progress and Pitfalls in Resolving the Phylogeny and Divergence Times of the Big Cats, *Panthera*

10:45  015002  PANKEY, M. SABRINA* - LINDGREN, A.R. - OAKLEY, T.H.
Estimating the origins of cephalopod bioluminescence

11:00  015003  PIE, MARCIO R.
Intriguing macroevolutionary patterns in large-scale phylogenies

11:15  015004  SACHS, JOEL L.
The evolutionary origins of rhizobial cheaters

11:30  015005  MARSHALL, DAVID C.* - HILL, KATHY B. R. - SIMON, CHRIS
Relaxed-molecular-clock dating when fossils are few: Australasian origin, rapid diversification and global expansion of a large cicada tribe

11:45  015006  MOREAU, CORRIE S.
Biogeography of ants in the Australian Wet Tropics
10:30 AM - 12:00 PM  016  Contributed Papers  B111-112/OCC

**Phylogeography 2**

*Chair: Renee Catullo*

10:30 016001  THOMÉ, M. TEREZA* - ZAMUDIO, KELLY R. - HADDAD, CÉLIO F.B. - ALEXANDRINO, JOÃO
Model-based phylogeography of an endemic group of toads provides clues to the Plio-Pleistocene history of the Brazilian Atlantic Forest

10:45 016002  CATULLO, RENEE* - KEOGH, J. SCOTT
Substrate specialization, climate and geology drive speciation in Australian burrowing frogs (Anura: Myobatrachidae: *Uperoleia*)

11:00 016003  RICHARDSON, JONATHAN L

11:15 016004  FIRQOWSKI, CARINA R.* - RIBEIRO, LUIZ F. - BORNSCHEIN, MARCOS R. - PIE, MARCIO R.
The diversification of saddleback toads (Anura: Brachycephalidae) in Southern Brazil

11:30 016005  PHILLIPSEN, IVAN* - BLOUIN, MICHAEL
A landscape genetics evaluation of connectivity among Cascades frog (*Rana cascadae*) populations in Olympic National Park

11:45 016006  KIESWETTER, CHARLES* - THOMASSEN, HENRI - SCHNEIDER, CHRISTOPHER
Historical demography and landscape genetics of a Neotropical cloud forest direct developing frog

10:30 AM - 12:00 PM  017  Contributed Papers  B113/OCC

**Speciation 2**

*Chair: Emily Moriarty Lemmon*

10:30 017001  LEMMON, EMILY MORIARTY* - LEMMON, ALAN
Reinforcement in chorus frogs: Lifetime fitness estimates including intrinsic natural selection and sexual selection against hybrids

10:45 017002  WALThER, BERNT TH.
Bioenergetic basis for selection of sexual multicellularity

11:00 017003  ELLISON, CHRISTOPHER K.* - SHAW, KERRY L
Effects of genomic architecture on the evolution of sexual isolation

11:15 017004  FORDYCE, JAMES
Host shifts and evolutionary radiations of butterflies

11:30 017005  Dickey, Aaron M* - MEDINA, RAUL F
Testing Host Associated Differentiation in an Herbivore Community
Back to the future in sympatric speciation: possible host shift reversal in western populations of Rhagoletis pomonella?

Innovations in genetic mechanisms of sex determination in clawed frogs (*Xenopus*)

Eight billion years of shrinkage in avian genomes

Evolution of barriers to recombination in avian sex chromosomes

Molecular evolution of a Y chromosome to autosome gene duplication in *Drosophila*

Regulation of the X chromosome in the *Drosophila* male germline and its implications for hybrid sterility

Experimentally Increased Codon Bias in the *Drosophila* Adh Gene Leads to an Increase in Larval, But Not Adult, Alcohol Dehydrogenase Activity

Using comparative genomics to reveal what makes us mammals

Functional diversification of the beta-globin gene family in reptiles, birds, and mammals
11:00 019003  INVERGO, BRANDON M* - MONTANUCCI, LUDOVICA - BERTRANPETIT, JAUME
The Influence of Network Topology on Recent Rates of Molecular Evolution in the Mammalian Phototransduction Signaling Cascade

11:15 019004  PODLAHA, ONDREJ* - ZHANG, JIANZHI
Processed pseudogenes: the ‘fossilized footprints’ of past gene expression

11:30 019005  WALTERS-CONTE, KATHRYN* - JOHNSON, DIANA - PECON-SLATTERY, JILL
A Genomics Approach to SINE Discovery in Exotic Carnivores

10:30 AM - 12:00 PM  020  Contributed Papers  B117-118/OCC

Systematics 2
Chair: Brian Sidlauskas

10:30 020001  ROSS, HOWARDA.
Species Delimitation Using Networks

10:45 020002  SIDLAUSKAS, BRIAN* - MOL, JAN - VARI, RICHARD
Allometric analyses aid discrimination, diagnosis and discovery of rare fish species: a case study using two recent morphometric methods

11:00 020003  CHAFFEE, CL* - BRAUN, EL - OSENBERG, CW
Molecular phylogeny provides insights into evolution of the Vermiidae

11:15 020004  WILLIS, STUART* - FARIAS, IZENI - ORTI, GUILLERMO
Hybrid species or inaccurate taxonomy in Amazonian peacock cichlids?

11:30 020005  SCHWARTZ, SONJA A.* - CARLON, DAVID B.
Good species, bad genera, and rapid Plio-Pleistocene radiation: a coral species phylogeny of the Caribbean Faviidae

10:30 AM - 12:00 PM  021  Contributed Papers  C121-122/OCC

Plant Mating Systems 2
Chair: Kentaro K. Shimizu

10:30 021001  TSUCHIMATSU, TAKASHI - SUWABE, KETTA - SHIMIZU-NATSUGI, RIE - ISOKAWA, SACHIYO - PAVLIDIS, PAVLOS - STÄDLER, THOMAS - SUZUKI, GO - TAKAYAMA, SEIJI - WATANABE, MASAO - SHIMIZU, KENTARO K.*
Evolution of self-compatibility in Arabidopsis by a mutation in the male specificity gene

10:45 021002  LEPPÄLÄ, JOHANNA* - BOKMA, FOLMER - SAVOLAINEN, OUTI
Epistatic hybrid incompatibility in Arabidopsis lyrata

11:00 021003  SHADE, JESSICA* - SIMMS, ELLEN
Differences in population differentiation between an outcrossing and selfing species
Mixed mating in a recently derived self-compatible population of *Leavenworthia alabamica*

On tests of self-fertilization as an evolutionary dead end

Selfing-rate variation over small spatial scales in an androdioecious plant: mixed mating as a consequence of local pollen availability

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**10:30 AM - 12:00 PM  022  Contributed Papers  C123/OCC**

**Natural Selection and Contemporary Evolution 2**

**Chair: Sacha Vignieri**

**10:30   022001**  
SWANSON, ELI M.* - DWORKIN, IAN M. - HOLEKAMP, KAY E.  
Lifetime selection on a hypoallometric body size trait in the spotted hyena (*Crocuta crocuta*)

**10:45   022002**  
TRAN, LUCY A.P.* - KNOWLES, L. LACEY  
Ecological divergence as a driver of Asian colobine monkey diversification?

**11:00   022003**  
YANG, DOU-SHUAN* - KENAGY, GJ  
Natural selection drives phenotypic divergence in the face of strong gene flow in Oregon Peromyscus maniculatus (deer mice)

**11:15   022004**  
VIGNIERI, SACHA* - HOEKSTRA, HOPI  
Witnessing evolution in ecological time: environment shapes mouse color

**11:30   022005**  
HARR, BETTINA* - TURNER, LESLIE M - STAUBACH, FABIAN - TAUTZ, DIETHARD  
The signature of selection at “islands of speciation” in a natural house mouse hybrid zone

**11:45   022006**  
BERK, JAMEN - GERBER, GLENN P. - WELCH, MARK E.*  
Heterozygote excess indicates a recruitment bias in the Turks and Caicos Rock Iguana

---

**10:30 AM - 12:00 PM  023  Contributed Papers  C124/OCC**

**Population Genetics 2**

**Chair: Carson Keever**

**10:30   023001**  
ALEXANDER, HEATHER J.* - ANHOLT, BRADLEY  
Natural genetic variation of sex ratio among marine copepod (*Tigriopus californicus*) populations

**10:45   023002**  
TOONEN, ROBERT J* - BIRD, CHRISTOPHER E - WEERSING, KIMBERLY - SKILLINGS, DEREK - FAUCCHI, ANUSCHKA - CONCEPCION, GREG - EBLE, JEFF A - BOWEN, BRIAN W  
Understanding larval dispersal and connectivity across the Hawaiian Archipelago
11:00 023003  SKILLINGS, DEREK J* - BIRD, CHRISTOPHER E - TOONEN, ROBERT J
Gateways to Hawaii: Genetic Population Structure of the Sea Cucumber *Holothuria atra* in the Central Pacific

11:15 023004  KEEVER, CARSON* - SUNDAY, JENNIFER - PURITZ, JONATHAN B - ADDISON, JASON
- GROSBERG, R. K. - BYRNE, MARIA - HART, MICHAEL
Phylogenetic analysis of population structure in the sea

11:30 023005  PURITZ, JONATHAN B* - TOONEN, ROBERT J
Parting the Genetic Sea(scape): The Alteration of Pelagic Larval Dispersal by Coastal Pollution

11:45 023006  SIMION, PAUL J* - BIRD, CHRISTOPHER E - VELASCO, NIC - TOONEN, ROBERT J
Population structure of Hawaiian Octopuses (*Octopus cyanea* and *Octopus oliveri*)

10:30 AM - 12:00 PM  024  Contributed Papers  C125-126/OCC

**Behavior and Social Evolution 2**
*Chair: Helena Mendes-Soares*

10:30 024001  BOTEIRO, CARLOS A.* - PEN, IDO - KOMDEUR, JAN - WEISSING, FRANZ
The Evolution of Individual Variation in Communication Strategies

10:45 024002  SCHWANZ, LISA* - ROBERT, KYLIE - MILLS, HARRIET
Offspring sex varies with maternal investment ability in Tammar wallabies: empirical demonstra-
tion based on cross-fostering

11:00 024003  MUñOZ-DURÁN, JOAO
The genome - sociome loop of mutual affectation and the evolution of sociality and hypercar-
nivory in canids

11:15 024004  MENDES-SOARES, HELENA* - VELICER, GREGORY J.
Social interactions among bacterial genotypes during group predation by *Myxococcus xanthus*

11:30 024005  KRAEMER, SUSANNE
Mikro-scale variation in the social soil bacterium *Myxococcus xanthus*

11:45 024006  DA VIS, ALISON R.* - CORL, AMMON - SURGET-GROBA, YANN - LIWANAG, HEATHER
E.M. - SINERVO, BARRY
Group dynamics and direct fitness benefits of kin sociality in an aggregating lizard
1:20 PM - 5:00 PM  Sym22 Symposium  Oregon Ballroom 201/OCC
ASN Vice Presidential Symposium
Chair: Monica Geber

1:20  Sym22001 GEBER, MONICA
Ecological and Evolutionary Limits to Geographic Range Expansion: Introductory Remarks

1:30  Sym22002 HOLT, ROBERT D.* - BARFIELD, MICHAEL
Theoretical perspectives on the statics and dynamics of species’ borders

2:00  Sym22003 ECKHART, V.M.* - GEBER, MONICA - MOELLER, D.A. - MORRIS, W.F. - TIFFIN, P. - FABIO, E.S.
The geography of demography: Distribution limits in the annual plant Clarkia xantiana ssp. xantiana

2:30  Sym22004 HOFFMANN, ARY* - MITCHELL, KATE - OVERGAARD, JOHANNES - KRISTENSEN, TORSTEN
Plastic versus genetic options to account for geographic distribution limits across Drosophila species

3:00  Break

3:30  Sym22006 MOELLER, D.A.* - TIFFIN, P. - GEBER, MONICA
Distinguishing among hypotheses on geographic range limits using molecular population genetics

4:00  Sym22007 ANGERT, AMY L.* - PAUL, JOHN R. - SHETH, SEEMA N.
Gene flow and phenotypic divergence between central and marginal populations of the scarlet monkeyflower

4:30  Sym22008 PRICE, TREvor
Range limits set by interspecific competition

1:30 PM - 3:00 PM  025  Contributed Papers  A105/OCC
Adaptation 3
Chair: Don Price

1:30  025001 CHELO, IVO M* - LONG, ANTHONY D - ROSE, MICHAEL R - TEOTONIO, HENRIQUE
The dynamics of adaptation from standing genetic variation of Drosophila melanogaster experimental populations

1:45  025002 DENIEU, MICHAEL* - DWORKIN, IAN M.
Evolution of antipredator traits in Drosophila melanogaster

2:00  025003 CLARK, SEAN C.A.* - ROWE, LOCKE - AGRAWAL, ANEIL
Effects of postcopulatory sexual selection on deleterious mutations in Drosophila melanogaster
2:15  025004  PRICE, DON* - ELDON, JON - MOSS, ANDREA - UY, KAREN - VEILLET, ANNE
Adaptive thermal tolerance in an endemic Hawaiian picture-winged fly on the Island of Hawaii: phenotypic and genetic evidence

2:30  025005  SINGH, SHAMA* - PARKASH, RAVI - RAMNIWAS, SEEMA
Impact of body color phenotypes on fitness related traits in highland and lowland populations of Drosophila melanogaster from the Indian subcontinent

2:45  025006  SCHWINN, STEPHANIE* - HOULE, DAVID
Selection On A Modified Genetic Network With A Novel Artificial Link In Drosophila melanogaster

1:30 PM - 3:00 PM  026  Contributed Papers  A106/OCC
Phylogenetic Theory 3
Chair: Frederic Delsuc

1:30  026001  WESTNEAT, MARK W.
Phylogenetic patterns in developmental regulatory genes and the visualization of large phylogenies in coral reef fishes

1:45  026002  HUANG, HUATENG* - TRAN, LUCY A.P. - KNOWLES, L. LACEY
Evaluating the robustness of phylogenetic estimates of cichlid radiations from the viewpoint of coalescent variance

2:00  026003  BASSHAM, SUSIE* - BROWN, ROBIN - ANDREW, NISHIDA - STIFFLER, NICHOLAS - CATCHEN, JULIAN - CRESKO, WILLIAM A.
Apples to apples: can comparing duplicate teleost genes resolve a phylogeny in conflict?

2:15  026004  DELSUC, FREDERIC
An empirical comparison of species tree estimation methods in the context of mammalian phylogenomics

2:30  026005  STEEL, MIKE
Can we avoid ‘SIN’ in the house of ‘No Common Mechanism’?

2:45  026006  WILLSON, STEPHEN J.
Simplifying Networks for Easier Reconstruction
1:30 PM - 3:00 PM 027 Contributed Papers A107-108/OCC

Phylogenetics & Diversification 3

Chair: Karen Ober

1:30 027001 DAWSON, NATALIE* - TALBOT, SANDRA - COOK, JOSEPH
Estimating the evolutionary divergence of Beringian mammals

1:45 027002 SCHENK, JOHN* - STEPPAN, SCOTT
Patterns and Processes of Lineage Diversification Among Sigmodontine Rodents in South America

2:00 027003 GRAY, MELISSA M.* - RYAN, PETER - SEARLE, JEREMY B. - PAYSEUR, BRETA
Colonization history of exceptionally large house mice from Gough Island

2:15 027004 OBER, KAREN* - HEIDER, TOM
Phylogenetic diversification patterns and divergence times in ground beetles (Coleoptera: Carabidae: Harpalinae)

2:30 027005 OWEN, CHRISTOPHER
Diversification and evolution of the Australian cicada genus Pauropsalta

2:45 027006 BEATTY, CHRISTOPHER D* - CORDERO RIVERA, ADOLFO - LORENZO CARBALLA, OLALLA - HARDING, KATHLEEN - HOFFMANN, JOACHIM - SHERRATT, THOMAS N - VAN GOSSUM, HANS
Alternative theories for wing coloration in the Polythore damselflies of Peru

1:30 PM - 3:00 PM 028 Contributed Papers B111-112/OCC

Phylogeography 3

Chair: Patrick Mardulyn

1:30 028001 BARKER, BRITTANY S.* - WAIDE, ROBERT B. - RODRÍGUEZ-ROBLES, JAVIER A. - COOK, JOSEPH
Phylogeography of a montane endemic, Eleutherodactylus portoricensis, and its widespread congener, E. antillensis, in the Caribbean

1:45 028002 REILLY, SEAN B.* - JENNINGS, W. BRYAN - MARKS, SHARYN B.
Phylogeographic history of Black Salamander populations in Northern California inferred from one mitochondrial and fifteen anonymous nuclear loci

2:00 028003 MARDULYN, PATRICK* - MIKHAILOV, YURI - PASTEELS, JACQUES M.
Conflicting phylogeographic signal between mitochondrial and nuclear DNA in the arctic-alpine leaf beetle Chrysomela lapponica

2:15 028004 QUINZIN, MAUD
Multilocus comparative phylogeography of four boreo-montane sister species of leaf beetles
### Session 29

**1:30 PM - 3:00 PM**  
**Contributed Papers**  
**B113/OCC**  

**Speciation 3**  
**Chair: Ingo Schlupp**

<table>
<thead>
<tr>
<th>Time</th>
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<th>Title</th>
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<tbody>
<tr>
<td>1:30</td>
<td>029001</td>
<td>CARO, LINA MARIA - CAYCEDO, PAULA C. - SLABBEKOORN, HANS - BOWIE, RAURI C. K. - CADENA, CARLOS DANIEL*</td>
<td>Ecological speciation associated with elevation in a tropical passerine bird</td>
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<td>1:45</td>
<td>029002</td>
<td>POWELL, THOMAS* - CHA, DONG - LINN, CHARLES - FEDER, JEFFREY</td>
<td>Ecological adaptation and reproductive isolation in southern <em>Rhagoletis pomonella</em>: specialization in a diverse suite of host plants</td>
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<td>2:00</td>
<td>029003</td>
<td>PIGOT, A.L.* - PHILLIMORE, A.B. - OWENS, I.P.F. - ORME, C. DAVID L.</td>
<td>The shape and temporal dynamics of phylogenetic trees arising from geographic speciation</td>
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<td>2:15</td>
<td>029004</td>
<td>HOOD, GLEN R.* - FORBES, ANDREW A. - FEDER, JEFFREY</td>
<td>Geographic and ecological overlap of parasitoid wasps associated with the <em>Rhagoletis pomonella</em> species complex</td>
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<td>2:30</td>
<td>029005</td>
<td>RAKOTOARISOA, JEAN ERIC* - RAHERIARISENA, MARTIN - GOODMAN, M. STEVEN - CACCONE, ADALGISA</td>
<td>Phylogeny, Species Boundaries and Phylogeography of the Endemic Species Complex, <em>Eliurus antongy</em> and <em>E. carletoni</em> (Rodentia: Muroidea: Nesomyidae), in Madagascar using Mitochondrial and Nuclear DNA Sequence Data</td>
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<td>2:45</td>
<td>029006</td>
<td>SCHLUPP, INGO</td>
<td>Ecological speciation in cave mollies: isolation in a continuous habitat?</td>
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### Molecular Evolution 3

**Chair:** Louise A. Lewis

1:30 030001  **PINTAR, JURA* - HELLMUTH, MARC - IMRICH, WILFRIED - WAGNER, GÜNTER P.**
Variational homology and modularity in RNA secondary structures

1:45 030002  **MASTA, SUSAN**
Mitochondrial Genomics of Chelicerates

2:00 030003  **BLUMENSTIEL, JUSTIN* - CASTILLO, DEAN - MELL, JOSHUA**
Retreat from the arms race: Evolution of the piRNA machinery slows under increasing transposable element burden

2:15 030004  **JOVELIN, RICHARD**
Sequence variation of microRNAs in Caenorhabditis remanei

2:30 030005  **DERIEG, NATHAN* - HODGES, SCOTT**
Deep sequencing of mRNA reveals genetic differentiation between *Aquilegia* flower color morphs

2:45 030006  **MCMANUS, HILARY A. - LEWIS, LOUISE A. - FUCIKOVA, KAROLINA* - HAUGEN, PEIK**
Invasion of protein coding genes by green algal ribosomal group I introns.

### Genomics 3

**Chair:** Daniel Janes

1:30 031001  **SAWAYA, STEFANO* - BUSCHIAZZO, EMANUELA - DUSTIN, LEONARD - VLADIMIR, MININ**
The statistics of conserved tandem repeats in mammals

1:45 031002  **KIM, JUNHYONG* - BUCKLEY, PETER - EBERWINE, JIM - FRANCIS, CHANTAL - LEE, MILER - NATARAJAN, SHREEDHAR**
Rapid evolution of the dendritic transcriptome in mammalian neurons mediated by SINE elements

2:00 031003  **CASTOE, TODD* - HALL, KATHRYN - GUIBOTSYMBOULAS, ML - GU, WANJUN - DE KONING, AP JASON - POOLE, ALEXANDER - VEMULAPALLI, VIJETHA - FESCHOTTE, CEDRIC - POLLOCK, DAVID**
Radical dynamics of the genomic repeat landscape in snakes, and its impacts on snake evolution

2:15 031004  **JANES, DANIEL* - CHAPUS, CHARLES - ORGAN, CHRISTOPHER - BALAKRISHNAN, CHRISTOPHER - FUJITA, MATTHEW**
Zebra finch and Anole genome assemblies reveal long non-coding elements conserved across Amniota

2:30 031005  **SHEPARD, DONALD* - HALL, KATHRYN - CASTOE, TODD - POLLOCK, DAVID - MUELLER, RACHEL**
Repeat Element Dynamics in the Giant Genomes of Plethodontid Salamanders
1:30 PM - 3:00 PM  032  Contributed Papers  B117-118/OCC

**Systematics 3**

*Chair: David C. Blackburn*

1:30  032001  GRUMMER, JARED* - BRYSON, ROB - REEDER, TOD  
Phylogenetic relationships and species limits within the *Sceloporus scalaris* species group (Squamata:Phrynosomatidae) as inferred from multi-locus nuclear DNA

1:45  032002  BLACKBURN, DAVID C.* - BICKFORD, DAVID P. - DIESMOS, ARVIN C. - ISKANDAR, DJOKOT - BROWN, RAFE M.  
An ancient origin for the enigmatic Flat-Headed Frogs (*Bombinatoridae: Barbourula*) from the islands of Southeast Asia

2:00  032003  CANNATELLA, DAVID  
Why Stable Taxonomies Are Both Useful and Important

2:15  032004  HAMILTON, CHRIS A* - HENDRIXSON, BRENTE - BOND, JASON E  
Testing the efficacy of DNA barcoding across the North American tarantula genus *Aphonopelma* (Araneae, Mygalomorphae, Theraphosidae)

2:30  032005  STEPHENS, PATRICK R.* - HUANG, SHAN - GITTLEMAN, JOHN L.  
Dimensions of biodiversity: traits, trees and taxa

2:45  032006  GIARLA, THOMAS* - VOSS, ROBERT - JANSA, SHARON  
Systematics of the Marsupial Genus *Thylamys*: Examining Biogeographic Patterns in the Open Habitats of Central and Southern South America

1:30 PM - 3:00 PM  033  Contributed Papers  C121-122/OCC

**Conservation Biology 1**

*Chair: Kathleen Fisch*

1:30  033001  THOMASSEN, HENRI* - FULLER, TREVON - MILÁ, BORJA - KIESWETTER, CHARLES - MENE NDEZ-GUERRERO, PABLO - SCHNEIDER, CHRISTOPHER - GRAHAM, CATHERINE - SAATCHI, SAASSAN - WAYNE, ROBERT - SMITH, THOMAS  
Conserving evolutionary process: the utility of intra-specific morphological and genetic variation in conservation prioritization

1:45  033002  HOFFMAN, ERICA* - MAY, SARAH E. - MEDLEY, KIMBERLY A. - JOHNSON, STEVEN A.  
Combining genetic structure and ecological niche modeling to establish units of conservation: A case study of an imperiled salamander

2:00  033003  RUSSELLO, MICHAEL* - STAHLA, CAROLINE - LALONDE, DANIELLE - SCHMIDT, KARI - AMATO, GEORGE  
Cryptic diversity and conservation units in the Bahama parrot

2:15  033004  FISCH, KATHLEEN* - BURTON, RONALD S. - MAY, BERNIE  
Conservation Genetics of Delta Smelt (*Hypomesus transpacificus*): Population Genetics, Hybridization & Captive Population Genetic Monitoring
Do fishery collapses reduce genetic diversity?

Reciprocal transplant of genetic crosses of the eastern oyster (Crassostrea virginica) along a latitudinal ecotone in eastern Florida

1:30 PM - 3:00 PM 034 Contributed Papers C123/OCC

Animal Mating Systems 1
Chair: Christiane H. Biermann

1:30 034001 BONILLA, MM* - ZEH, JEANNE
Cryptic male choice: males strategically allocate sperm in response to female exposure to previous males

1:45 034002 MCCREIGHT, JENNIFER* - WASER, PETER
The potential for sperm competition and sexually antagonistic coevolution in banner-tailed kangaroo rats (Dipodomys spectabilis) revealed by DNA extracted from copulatory plugs

2:00 034003 BIERMANN, CHRISTIANE H.* - PALUMBI, STEPHEN
Conspecific sperm precedence in strongylocentrotid sea urchins

2:15 034004 ADREANI, MIA
Mechanisms leading to the use of alternative mating tactics in a hermaphroditic seabass

2:30 034005 FRIESEN, CHRIS R. * - MASON, ROBERT T.
Sperm competition, mate order effects, and the potential for female influence on paternity in red-sided garter snakes

2:45 034006 MCGUIRE, JEANETTE* - CONGDON, JUSTIN - SCRIBNER, KIM
Stored Sperm, Iteroparity, Multiple Paternity, and Reproductive Success of Male Painted Turtles (Chrysemys picta marginata)

1:30 PM - 3:00 PM 035 Contributed Papers C124/OCC

Population Genetics 3
Chair: R Deborah Overath

1:30 035001 EYTAN, RONI* - HELMBERG, MICHAEL E.
Nuclear and mitochondrial sequence data reveal and conceal different demographic histories and population genetic processes in Caribbean reef fishes

1:45 035002 MIRAMS, ANNA G. K. - TREML, ERICA - RIGINOS, CYNTHIA *
Vicariance and dispersal across an intermittent barrier: population genetic structure of marine animals across the Torres Strait land bridge
OVERATH, R DEBORAH* - RAINER, KENNETH
Population structure in the spotted seatrout (Cynoscion nebulosus)

FITZPATRICK, SW* - FUNK, WC - GHALAMBOR, CK - ANGELONI, LM - TORRES-DOWDALL, J - HANDELSMAN, C - LOPEZ-SEPULCRE, A
Testing gene flow & fitness interactions in wild populations

BRADIC, MARTINA* - BEERLI, PETER - BOROWSKY, RICHARD
Inferring the demographic history in Cave and Surface Populations of Astyanax mexicanus

HAUSER, LORENZ* - LIN, JOCELYN - NAISH, KERRY - HARD, JEFFREY - THOMAS, QUINN - HILBORN, RAY
Reproductive success and selection differentials in a wild Alaskan sockeye salmon population

3:30 PM - 5:00 PM  037     Contributed Papers     A105/OCC
Adaptation 4
Chair: Eric J Earley

3:30 037001 SHAHRESTANI, PARVIN
Late Life Physiology in Drosophila melanogaster

3:45 037002 EARLEY, ERIC J* - JONES, CORBIN D
The Role of Adaptation in the Evolution of Pseudogenes in Drosophila

4:00 037003 ERIVES, ALBERT
Evolutionary encoding of threshold-specific responses to a morphogen

4:15 037004 CARTER, ASHLEY J.R.* - GARCIA, MARIA GERENE
Patterns of Directional Asymmetry Between and Within Species in the Genus Drosophila

4:30 037005 NG, ROCIO* - TRUE, JOHN
Phenotypic Evolution of Pigmentation in Mycophagus Drosophila

4:45 037006 NYE, JESSICA* - HOULE, DAVID
Multivariate wing variation in the Drosophila Genome Reference Panel

3:30 PM - 5:00 PM  038     Contributed Papers     A106/OCC
Phylogenetic Theory 4
Chair: T. Heath Ogden

3:30 038001 OGDEN, T. HEATH* - FISHER, DAVID - ROSENBERG, MICHAEL
Alignment and Topological Accuracy: Clustal+PAUP vs POY revisited

3:45 038002 DENTON, JSS
Comparison of Alternative Methods for Likelihood Phylogeny of Unaligned Sequences
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<tr>
<td>4:00</td>
<td>038003</td>
<td>ALLMAN, ELIZABETH - PETROVIC, SONJA - RHODES, JOHN - SULLIVANT, SETH*</td>
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<td>Identifiability of Phylogenetic Mixture Models</td>
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<td>REVELL, LIAM J.</td>
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<td>Phylogenetic signal and the analysis of interspecies data</td>
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<td>4:30</td>
<td>038005</td>
<td>VERBRUGGEN, HEROEN</td>
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<td>How much data are needed to resolve a phylogeny? Evaluation of nonparametric estimation methods</td>
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### 3:30 PM - 5:00 PM 039 Contributed Papers A107-108/OCC

**Phylogenetics & Diversification**  
**Chair: Chelsea D. Specht**

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<tr>
<td>3:30</td>
<td>039001</td>
<td>SPECHT, CHELSEA D.* - DRISCOLL, HEATHER E. - SASS, CHODON - XUE, JOYCE JIAO</td>
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|       |          | - FRALEY, SARA - KRESS, W. JOHN  
|       |          | Evolution of Tropical Heliconia: Ecological and Spatial Diversification at the Species Level |
| 3:45  | 039002   | BEAULIEU, JEREMY* - TANK, DAVID - DONOGHUE, MICHAEL J. |
|       |          | A Southern Hemisphere origin for Campanulid angiosperms             |
| 4:00  | 039003   | BROWN, JOSEPH W.* - LIU, YANG - QIU, YIN-LONG |
|       |          | A molecular genetic timescale of early land plant diversification    |
| 4:15  | 039004   | SCHUETTPELZ, ERIC* - WINDHAM, MICHAEL - PRYER, KATHLEEN |
|       |          | Estimating divergence times and ancestral centers of diversity for a xeric-adapted fern clade |
| 4:30  | 039005   | WALLS, RAMONA L.* - LERDAU, MANUEL - GEETA, R. |
|       |          | Phylogenetic niche conservatism of Mexican wild yams linked to conservatism of leaf functional traits |
| 4:45  | 039006   | MARAZZI, BRIGITTE* - SANDERSON, MICHAEL, J. |
|       |          | Large-scale patterns of diversification in the widespread legume genus Senna and the evolutionary role of extrafloral nectaries |

### 3:30 PM - 5:00 PM 040 Contributed Papers B111-112/OCC

**Phylogeography 4**  
**Chair: Elizabeth Sbrocco**

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<td>3:30</td>
<td>040001</td>
<td>KORNOSIS, ETIENNE* - PÁLSSON, SNAEBJÖRN - KRISTJÁNSSON, BJARNI - SVAVARS-SON, JÖRUNDUR</td>
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<td>Molecular evidence of the survival of subterranean amphipods (Arthropoda) during Ice Ages underneath glaciers in Iceland</td>
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<td>040002</td>
<td>HURTADO, LUIS* - SANTAMARIA, CARLOS</td>
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<td>Phylogeography of Ligia rocky intertidal isopods and the controversial geological history of the Gulf of California-Baja Peninsula region</td>
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<td>4:00</td>
<td>040003</td>
<td>MtDNA analysis of a historically recent Australasian range expansion</td>
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<td>by the biting midge Culicoides brevitarsis (Diptera: Ceratopgonidae).</td>
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<td>4:15</td>
<td>040004</td>
<td>Divergence across an intermittent sea barrier: multi-locus phylogeographic analysis of the Austro-Papuan Black Butcherbird</td>
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<td>4:30</td>
<td>040005</td>
<td>The influences of Pleistocene history and contemporary seascapes on marine connectivity and species boundaries in the Coral Triangle</td>
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<td>4:45</td>
<td>040006</td>
<td>The marine speciation paradox: What is the scale of differentiation in Stramonita (Gastropoda: Muricidae)?</td>
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**3:30 PM - 5:00 PM  041  Contributed Papers  B113/OCC**

*Speciation 4*

**Chair: Travis Ingram**

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<tr>
<td>3:30</td>
<td>041001</td>
<td>Do mating system differences predict reproductive incompatibilities between populations of a placental fish?</td>
<td>SCHRADER, MATTHEW* - TRAVIS, JOSEPH</td>
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<td>3:45</td>
<td>041002</td>
<td>Speciation along a depth gradient in a marine adaptive radiation</td>
<td>INGRAM, TRAVIS</td>
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<td>4:00</td>
<td>041003</td>
<td>Effects of environmental conditions on standing reproductive isolation in two species of killifish</td>
<td>BERDAN, EMMA* - FULLER, REBECCA</td>
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<td>4:15</td>
<td>041004</td>
<td>Speciation and Polyploidy in Angiosperms</td>
<td>SCARPINO, SAMUEL V* - LEVIN, DONALD - MEYERS, LAUREN</td>
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<td>4:30</td>
<td>041005</td>
<td>Neo-sex chromosome and speciation in sticklebacks</td>
<td>KITANO, JUN* - MORI, SEIICHI - PEICHEL, CATHERINE L.</td>
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<td>4:45</td>
<td>041006</td>
<td>Patterns of speciation and sexual dimorphism in threespine stickleback populations</td>
<td>COOPER, IDELLE* - BOUGHMAN, JENNY</td>
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Molecular Evolution 4
Chair: Michael McGowen

Major Histocompatibility Complex loci polymorphism in Central American frogs with differing susceptibilities to chytridiomycosis

3:45 042002 Elck, Geeta* - Thornton, Joe
The Evolution of Minimal Specificity in Steroid Receptors

4:00 042003 McGowen, Michael* - Montgomery, Stephen - Gatesy, John
Evolution of the putative brain development gene microcephalin (MCPH1) in cetaceans

4:15 042004 Califf, Katy* - Williams, Barry - Holekamp, Kay E.
Pervasive gene duplication and positive selection at MHC loci in two species of hyenas with distinctive behavioral and social traits

4:30 042005 Johnston, Mark O.
Pollen-biased mutation transmission in diverse plant taxa: Why?

Genomics 4 - Vertebrates

3:30 043001 Meyer, Axel* - Elmer, Kathryn - Fan, Shaohua
“Next generation sequencing approaches to identify genetic differences among closely related Nicaragua crater lake cichlid fishes”

3:45 043002 MacCrander, Jason* - Orti, Guilleremo
Next Generation Sequencing and Phylogenomics: A case study amongst basal lineages of ray-finned fishes (Actinopterygii)

4:00 043003 Wilburn, Damien B.* - Bowen, Kathleen E. - Gregg, Ronald G. - Cai, Jian - Feldhoff, Pamela W. - Houck, Lynne D. - Feldhoff, Richard C.
An inversion in molecular paradigm: using conserved UTRs to characterize a hypervariable family of vertebrate courtship pheromones

4:15 043004 Ostberg, Carl* - Hauser, Lorenz - Naish, Kerry
A genetic linkage map for cutthroat trout-rainbow trout F2 hybrids: setting the genomic foundation for investigating introgression in the wild

4:30 043005 Hecht, Ben* - Thrower, Frank - Nichols, Krista
The Genetic Architecture of Juvenile Migration in Rainbow Trout (Onchorhynchus mykiss)
### 3:30 PM - 5:00 PM  044  Contributed Papers  B117-118/OCC

**Systematics**  
*Chair: Martyn Kennedy*

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>3:30</td>
<td>044001</td>
<td>Phylogeny of the millipede (Arthropoda: Myriapoda: Diplopoda) orders inferred from full mitochondrial genome sequences</td>
<td>BREWER, MICHAEL S.* - BOND, JASON E.</td>
</tr>
<tr>
<td>3:45</td>
<td>044002</td>
<td>Molecular systematics of bioacoustically described cryptic species of the cicada complex Cicadetta montana (Hemiptera: Cicadidae)</td>
<td>WADE, ELIZABETH</td>
</tr>
<tr>
<td>4:00</td>
<td>044003</td>
<td>Not Your Father’s Huechys: A Preliminary Molecular Examination of Relationships Among Subfamilies and Tribes of the Family Cicadidae</td>
<td>HILL, KATHY B. R. - MARSHALL, DAVID C. - SIMON, CHRIS*</td>
</tr>
<tr>
<td>4:15</td>
<td>044004</td>
<td>Rare, Old, and Precious: Discriminating Pillbugs from Alaska to San Diego</td>
<td>WALL, ADAM* - WETZER, REGINA</td>
</tr>
<tr>
<td>4:30</td>
<td>044005</td>
<td>The phylogenetic relationships of the cormorants and shags (Phalacrocrocoracidae)</td>
<td>KENNEDY, MARTYN</td>
</tr>
<tr>
<td>4:45</td>
<td>044006</td>
<td>A passerine bird’s evolution corroborates the geologic history of the Island of New Guinea</td>
<td>DEINER, KRISTY* - LEMMON, ALAN - MACK, ANDREW - FLEISCHER, ROBERT C - DUMBACHER, JOHN</td>
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### 3:30 PM - 5:00 PM  045  Contributed Papers  C121-122/OCC

**Animal Mating Systems 2**  
*Chair: Daniel R. McNabney*

<table>
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>3:30</td>
<td>045001</td>
<td>Lifetime reproductive success in male and female lance-tailed manakins</td>
<td>DUVAL, EMILY H.</td>
</tr>
<tr>
<td>3:45</td>
<td>045002</td>
<td>Genetic basis of sexual isolation in Drosophila</td>
<td>MCNABNEY, DANIEL R.* - ORR, H. ALLEN</td>
</tr>
<tr>
<td>4:00</td>
<td>045003</td>
<td>Sexual imprinting on divergent traits of fathers leads to sexual isolation in a species pair of sticklebacks</td>
<td>KOZAK, GENEVIEVE* - HEAD, MEGAN - BOUGHMAN, JENNY</td>
</tr>
<tr>
<td>4:15</td>
<td>045004</td>
<td>Do consistent behavioral differences among individuals reflect heritable genetic variation?</td>
<td>MCGHEE, KATIE* - TRAVIS, JOSEPH</td>
</tr>
<tr>
<td>4:30</td>
<td>045005</td>
<td>Evolution and geographic variation of acquired chemical mating signals in orchid bees</td>
<td>RAMIREZ, SANTIAGO* - ELTZ, THOMAS - TSUTSUI, NEIL</td>
</tr>
<tr>
<td>4:45</td>
<td>045006</td>
<td>The evolution of self-incompatibility in a solitary ascidian: population genetics of gamete recognition factors in Ciona intestinalis A</td>
<td>MILLER-MESSNER, GABRIELLE</td>
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</table>
### 3:30 PM - 5:00 PM  046  Contributed Papers  C123/OCC

#### Theoretical Population Genetics 1
*Chair: Sam Yeaman*

<table>
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<th>Time</th>
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<tbody>
<tr>
<td>3:30</td>
<td>046001</td>
<td>Predicting Evolutionary Trajectories</td>
<td>AZEVEDO, RICARDO* - PAIXÃO, TIAGO</td>
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<tr>
<td>3:45</td>
<td>046002</td>
<td>The genetic architecture of adaptation under migration-selection balance</td>
<td>YEAMAN, SAM* - WHITLOCK, MICHAEL</td>
</tr>
<tr>
<td>4:00</td>
<td>046003</td>
<td>Stochastic switching and the evolution of mutation in asymmetric fitness landscapes</td>
<td>VAN CLEVE, JEREMY* - LIBERMAN, URI - FELDMAN, MARCUS W.</td>
</tr>
<tr>
<td>4:15</td>
<td>046004</td>
<td>Visualizing Fitness Landscapes</td>
<td>MCCANDLISH, DAVID M.</td>
</tr>
<tr>
<td>4:30</td>
<td>046005</td>
<td>The Hidden Lives of Deleterious Mutations: Escaping Fitness Valleys via Sign-Epistatic Mutations</td>
<td>LENSKI, RICH - COVERT, ART* - OFRIA, CHARLES</td>
</tr>
<tr>
<td>4:45</td>
<td>046006</td>
<td>Crossing adaptive valleys when genetic variation can be cryptic</td>
<td>TROTTER, MEREDITH* - PETERSON, GRANT - PECK, KAYLA - MASEL, JOANNA</td>
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### 3:30 PM - 5:00 PM  047  Contributed Papers  C124/OCC

#### Population Genetics 4
*Chair: Jennifer L Anderson*

<table>
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<th>Time</th>
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<tbody>
<tr>
<td>3:30</td>
<td>047001</td>
<td>Natural mtDNA Variation Affects Mitochondrial Physiology and Morphology in <em>C. briggsae</em></td>
<td>HICKS, KILEY* - ESTES, SUZANNE</td>
</tr>
<tr>
<td>3:45</td>
<td>047002</td>
<td>Evolution of Caenorhabditis mitochondrial genome pseudogenes and <em>C. briggsae</em> natural isolates</td>
<td>RABOIN, MICHAEL* - TIMKO, ASHLEY - HOWE, DANA - FELIX, MARIE-ANNE - DENVER, DEE</td>
</tr>
<tr>
<td>4:00</td>
<td>047003</td>
<td>How to be a successful male: Identification of QTL associated with male frequency/mating ability and thus outcrossing frequency in <em>C. elegans</em></td>
<td>ANDERSON, JENNIFER L* - MARTHA, SARAH - ROCKMAN, MATTHEW - KRUGLYAK, LEONID - PHILLIPS, PATRICK C</td>
</tr>
<tr>
<td>4:15</td>
<td>047004</td>
<td>Epistasis and the functional genetic basis of natural variation in behavior</td>
<td>GAERTNER, BRYN* - PARMENTER, MICHELLE - NOLL, LAUREN - ROCKMAN, MATTHEW - KRUGLYAK, LEONID - LOCKERY, SHAWN - PHILLIPS, PATRICK C</td>
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<td>4:30</td>
<td>047005</td>
<td>The effect of genetic quality on the mutation rate in <em>Drosophila melanogaster</em></td>
<td>SHARP, NATHANIEL* - AGRAWAL, ANEIL</td>
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<tr>
<td>4:45</td>
<td>047006</td>
<td>Condition-dependent usage of alternative DNA double-strand break repair pathways in <em>Drosophila melanogaster</em></td>
<td>WANG, ALETHEAD* - AGRAWAL, ANEIL</td>
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</table>
Saturday

Session L1

5:00 PM - 6:00 PM  L1  Special Lecture  Oregon Ballroom 201/OCC

ASN Presidential Address
Chair: Unknown

5:00  L1001  LOSOS, JONATHAN

Seeing the Forest for the Trees: Limitations on the Use of Phylogenies in Comparative Biology
SUNDAY, JUNE 27TH

8:00 AM - 10:00 AM  058  Contributed Papers  C123/OCC
Education
Chair: Christopher X Jon Jensen

8:00  058001  WEINTRAUB, JORY* - JENKINS, KRISTIN
Evolution Education Resources from the National Evolutionary Synthesis Center

8:15  058002  JENKINS, KRISTIN* - BEARDSLEY, PAUL - FAGEN, ADAM - LABOV, JAY - SCOTCH-MOOR, JUDY - UNO, GORDON
Promoting the adoption of an evolutionary theme in biology courses

8:30  058003  NEHM, ROSS* - HA, MINSU
Measuring students’ evolutionary understanding: context, coherence, and competence

8:45  058004  RECTOR, MEGHAN* - HA, MINSU - NEHM, ROSS
Evolutionary “pressures”: Biologists’ conceptions and students’ misconceptions

9:00  058005  CRESPI, ERICA* - NEHM, ROSS - BANTA, LOIS - CAPORALE, LYNN - MANDUCA, CATHRYN - SCHWARZ, JODI - SINGER, SUSAN
Desegregating evolution in the curriculum: genomics to the rescue!

9:15  058006  JOHNSON, NORMAN
Nature Education: Bridging the Gap Between Textbooks and the Primary Literature

9:30  058007  JENSEN, CHRISTOPHER X JON
Sex, Play, and Music: Reaching Non-majors Through Short Courses in Evolution

9:45  058008  ABRAHAM, JOEL K.* - HERRON, JON C. - MEIR, ELI
College students’ misconceptions about population genetics

8:00 AM - 12:00 PM  Sym34 Symposium  Oregon Ballroom 201/OCC

SSE Symposium. Diversifying selection: speciation and the evolution of dimorphism
Chair: Jenny Boughman

8:00  Sym34001 BOUGHMAN, JENNY* - COOPER, IDELLE - GILMAN, TUCKER
Diversifying selection on two ecological coins: the joint evolution of sexual dimorphism and speciation

8:30  Sym34002 BOLNICK, DI
Disruptive selection and the evolution of sexual dimorphism

9:00  Sym34003 BUTLER, MARGUERITE
Sexual Dimorphism and Adaptive Radiation in Anolis Lizards
9:30 Sym34004 CHIPPINDALE, ADAM* - BEDHOMME, STÉPHANIE - PRASAD, N.G. - ABBOTT, JESSICA
Gender load: Sexual dimorphism, fitness, and the experimental manipulation of intralocus sexual conflict.

10:00 Break

10:30 Sym34006 RUSSELL, BONDURIANSKY
The sexual coevolution landscape: sexual selection and conflict as engines of adaptation

11:00 Sym34007 DELPH, LYNDAY
Sexual dimorphism in a dioecious plant: a quantitative-genetic and evolutionary-ecology perspective

11:30 Sym34008 PFENNIG, KARIN
Mate recognition trade-offs promote divergent sexual selection, variation in dimorphism, and speciation

8:30 AM - 10:00 AM 049 Contributed Papers A105/OCC
Adaptation 5
Chair: Samantha Young

8:30 049001 MCCLAIN, CRAIG
The Evolution of Body Size in Marine Invertebrates Under Extreme Food Limitation

8:45 049002 YOUNG, SAMANTHA* - BERTA, ANNALISA
The Comparative Anatomy of Baleen

9:00 049003 KELLY, MW* - SANFORD, E - GROSBERG, R.K.
The capacity for adaptation to climate change varies among populations of the copepod Tigriopus californicus.

9:15 049004 SERB, JEANNE M. - ALEJANDRINO, ALVIN* - OTAROLA-CASILLO, ERIK - ADAMS, DEAN C.
Application of modern landmark-based geometric morphometrics to quantify shell shape and detect convergence using scallops (Bivalvia: Pectinidae) as a model

9:30 049005 SPEISER, DANIEL* - JOHANSEN, SONKE
Seeing through rocks: Chiton eyes use calcium carbonate lenses to form images

9:45 049006 CHEN, GANG* - CHANG, DAN - DUDA, THOMAS
Geographic variation and population genetics of conotoxin genes in a widespread predatory snail species
**8:30 AM - 10:00 AM  050  Contributed Papers  A106/OCC**

**Phylogenetic Theory 5**  
*Chair: Paul O. Lewis*

8:30 050001 CRESSLER, CLAYTON E* - KING, AARON A  
Can you trust evolutionary parameters estimated by complex phylogenetic comparative methods? : A simulation study with OUCH

8:45 050002 SUKUMARAN, JEET* - HOLDER, MARK T.  
Performance and Robustness of Phylogeographic Analytical Statistics

9:00 050003 LEWIS, PAULO.* - XIE, WANGANG - FAN, YU - KUO, LYNN - CHEN, MING-HUI  
Potential uses of CPO (Conditional Predictive Ordinates) in Bayesian phylogenetic model selection

9:15 050004 ROBERTS, TRINA E.  
Sticky tips, misplaced roots, and model choice in intraspecific phylogenies

9:30 050005 FAN, YU* - WU, RUI - CHEN, MING-HUI - KUO, LYNN - LEWIS, PAULO.  
Choosing among partition models in Bayesian phylogenetics

9:45 050006 CRANSTON, KAREN A  
Phylogenetic inference strategies for thousands of gene trees

---

**8:30 AM - 10:00 AM  051  Contributed Papers  A107-108/OCC**

**Phylogenetics & Diversification 5**  
*Chair: Ryan Ellingson*

8:30 051001 CARLSON, ROSE* - WAINWRIGHT, PETER  
The disparification of darter fishes (Percidae: Etheostomatinae)

8:45 051002 ELLINGSON, RYAN* - JACOBS, DAVID  
Phylogenetics of North Pacific estuarine gobies: gene trees, species trees and divergence times have never been so much fun

9:00 051003 GANTE, HUGO F.* - DE MADDALENA, JULIA - SALZBURGER, WALTER  
Test of parallel evolution in east african cichlid fishes

9:15 051004 WIENS, JOHN* - KUCZYNSKI, CAITLIN - TOWNSEND, TED - REEDER, TOD - MULCABY, DANIEL - SITES, JACK  
Combining phylogenomics and fossils in squamate reptiles: molecular data change the placement of fossil taxa

9:30 051005 JACKMAN, TODD* - PORTIK, DANIEL  
Developing rapidly evolving nuclear protein coding markers for phylogeographic and phylogenetic studies in squamates

9:45 051006 ROBERTSON, JEANNE* - ROSENBLUM,ERICA  
Dude looks like a lady: Male territoriality and “sex confusion” in recently adapted lizards at White Sands
8:30 AM - 10:00 AM  

**Phylogeography 5**  
*Chair: James A. Morris-Pocock*

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<tbody>
<tr>
<td>8:30</td>
<td>052001</td>
<td>Unique cryptic diversification in a passerine, <em>Bernieria madagascariensis</em></td>
<td>Block, Nicholas L.* - Raherilalao, Marie Jeanne - Hackett, Shannon J. - Bates, John M. - Goodman, Steven M.</td>
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<tr>
<td>8:45</td>
<td>052002</td>
<td>Comparative phylogeographic inference from 64 taxon pairs of Neotropical birds using ABC</td>
<td>Tsang, Susan* - Hickeron, Mike - Burney, Curt - McCormack, John - Brumfield, Robb</td>
</tr>
<tr>
<td>9:00</td>
<td>052003</td>
<td>The complex history of isolation and gene flow in brown and red-footed boobies</td>
<td>Morris-Pocock, James A.* - Steeves, Tammy E. - Estela, Felipe A. - Anderson, David J. - Friesen, Vicki L.</td>
</tr>
<tr>
<td>9:15</td>
<td>052004</td>
<td>The role of Amazonian rivers in generating and maintaining avian diversity: a comparative, multi-species approach to test the ‘riverine barrier hypothesis’</td>
<td>Naka, Luciano Nicolas</td>
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<tr>
<td>9:30</td>
<td>052005</td>
<td>Asymmetric gene flow following secondary contact in the Mountain Chickadee (Poecile gambeli)</td>
<td>Manthey, Joseph D.* - Spellman, Dr. Garth</td>
</tr>
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</table>

8:30 AM - 10:00 AM  

**Speciation 5**  
*Chair: Richard Newcomb*

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<tbody>
<tr>
<td>8:30</td>
<td>053001</td>
<td>Regulatory and structural mutations involved in the evolution of sex pheromone production and reception systems among species of endemic New Zealand tortricid moths</td>
<td>Newcomb, Richard</td>
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<td>8:45</td>
<td>053002</td>
<td>Disloyalty in the sexual life of yeasts: Accelerated evolution of yeast sex adhesin genes</td>
<td>Xie, Xianfa* - Lipke, Peter</td>
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<tr>
<td>9:00</td>
<td>053003</td>
<td>Role of Mutation Rate in Optimizing Speciation in a Computational Evolutionary Model</td>
<td>Bahar, Sonya* - Dees, Nathan</td>
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<tr>
<td>9:15</td>
<td>053004</td>
<td>Modeling speciation with regulatory pathways</td>
<td>Tulchinsky, Alexander* - Johnson, Norman - Watt, Ward - Porter, Adam</td>
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<tr>
<td>9:30</td>
<td>053005</td>
<td>Modeling different forms of rarity: causes and consequences</td>
<td>Birand, Aysegul* - Gavrilets, Sergey</td>
</tr>
<tr>
<td>9:45</td>
<td>053006</td>
<td>The genetic architecture of reproductive isolation in Louisiana Iris</td>
<td>Talor, Sunni J.* - Martin, Noland H.</td>
</tr>
</tbody>
</table>

Sunday  

*Sessions 52 - 53*
8:30 AM - 10:00 AM 054 Contributed Papers B114-115/OCC

Molecular Evolution 5
Chair: Stacey D. Smith

8:30  054001  DOBSON, ANAE.* - SCHMIDT, DANIEL J. - HUGHES, JANE M.
Not so black and white: candidate color genes and the inheritance of plumage colour in the Australian magpie

8:45  054002  BRAASCH, INGO* - LIEDTKE, DANIEL - BRUNET, FREDERIC - VOLFF, JEAN-NICOLAS - SCHARTL, MANFRED
Pigmentation pathway evolution after whole genome duplication in fish

9:00  054003  WEADICK, CAMERON* - LOEW, ELLIS - RODD, HELEN - CHANG, BELINDA S.W.
A less colorful world for Neotropical cichlids? Evidence for a reduced opsin complement in the Trinidadian Pike Cichlid (*Crenicichla frenata*)

9:15  054004  MARTINS, TALLINE R* - BLINKA, STEVEN - BERG, JEREMY - BAUM, DAVID
Evolution of floral pigment patterns: regulation of flavonoid pathway genes and the production of petal spots

9:30  054005  CHEN, XI
Chemical Analysis of two types of fruits of *Lithocarpus*, Fagaceae

9:45  054006  SMITH, STACEY D.* - RAUSHER, MARK
Gene loss contributes to species differences in flower color in *Iochroma*

8:30 AM - 10:00 AM 055 Contributed Papers B116/OCC

Genomics 5 - Arthropods
Chair: Noah K. Whiteman

8:30  055001  WIEGMANN, BRIAN M* - TRAUTWEIN, MICHELLE - WHEELER, BENJAMIN - PETERSON, KEVIN J
Phylogenetic analysis of microRNA content in the fly tree of life

8:45  055002  TOUPS, MELISSAA.* - HAHN, MATTHEW W.
Retrogenes reveal the direction of sex-chromosome evolution in mosquitoes

9:00  055003  WHITEMAN, NOAH K.* - SACKTON, TIMOTHY
Transcriptomes without genomes: De novo transcriptome assembly and transcriptional profiling in a drosophilid parasite of Arabidopsis thaliana

9:15  055004  BARRETO, FELIPE S.* - BURTON, RONALD S.
*De novo* analysis of the transcriptome and estimates of interpopulation divergence in the copepod *Tigriopus californicus*
9:30 055005  ROBINSON, JOHN* - WARES, JOHN  
Estimating population ages on ecological time-scales using multilocus genetic datasets

9:45 055006  SIOL, MATHIEU* - NESS, ROB - BARRETT, SPENCER C. H.  
Genomic consequences of the transition from outcrossing to selfing: insights from next-generation sequencing

8:30 AM - 10:00 AM 056  Contributed Papers  B117-118/OCC

**Plant Mating Systems 3**

**Chair: Carolyn Wessinger**

8:30 056001  CARLSON, JANE* - HOLSINGER, KENT  
Natural selection on inflorescence color polymorphisms in wild *Protea* populations: the role of pollinators, seed predators and inter-trait correlations

8:45 056002  WESSINGER, CAROLYN* - RAUSHER, MARK  
Genetics of pollination syndrome divergence in a pair of *Penstemon* species

9:00 056003  KULBABA, MASON W.* - WORLEY, ANNE C.  
Comparison of selection by hawkmoths and hummingbirds on the flowers of *Polemonium brandegei* (Polemoniaceae)

9:15 056004  HOWARD, AARON* - BARROWS, EDWARD  
Impact of Pollinators on the Self-Pollination Rate and Floral Display of *Asclepias Syriaca*

9:30 056005  LANDIS, JACOB* - HILEMAN, LENA  
The birds and the bees: Investigating a role for MIXTA genes in pollinator shifts

8:30 AM - 10:00 AM 057  Contributed Papers  C121-122/OCC

**Natural Selection and Contemporary Evolution 3**

**Chair: Leonard Nunney**

8:30 057001  BAER, CHARLES F.* - JOYNER-MATOS, JOANNA - OSTROW, DEJERIANNE - GRIGALTCHIK, VERONICA - SALOMON, MATTHEW P. - UPADHYAY, AMBUJ  
Rapid decline in fitness of mutation accumulation lines of gonochoristic (outcrossing) Caenorhabditis nematodes

8:45 057002  KINGSOLVER, JOEL* - DIAMOND, SARA H.  
What constrains directional selection on phenotypic traits in natural populations?

9:00 057003  JOHNSON, DARREN  
A meta-analysis of multilevel selection in natural populations

9:15 057004  NUNNEY, LEONARD  
Levels of selection and the evolution of genome defense
9:30 057005  JONES, ADAM G* - ARNOLD, STEVAN J - BÜRGER, REINHARD - HOHENLOHE, PAULA - UYEDA, JOSEF C
Evolution of the G-matrix under episodic or stochastic directional selection

9:45 057006  CARVALHO, SARA* - MANOEL, DIOGO - ROQUE, MIGUEL - TEOTONIO, HENRIQUE
Patterns of life-history evolution of inbred and outbred populations of C. elegans

8:30 AM - 10:00 AM  059  Contributed Papers  C124/OCC
Population Genetics 5 - Chair: Marc Tollis

8:30 059001  CHOUTEAU, MA THIEU* - ANGERS, BERNARD
The role of predators and variability of aposematic signals in the evolution of Müllerian mimicry

8:45 059002  APODACA, JOSEPH J. * - RISSLER, LESLIE J.
Estimating the effects of habitat modification on genetic patterns and population connectivity: a case study using the federally threatened Red Hills salamander (Phaeognathus hubrichti)

9:00 059003  POSBIC, KARINE* - CHURCH, DON - CHURCH, SHERI
Comparing direct and indirect estimates of migration of the marbled salamander, Ambystoma opacum

9:15 059004  TOLLIS, MARC* - BOISSINOT, STEPHANE
Selfish Gene Phylogeography in Anolis carolinensis using resources from the Green Genome

9:30 059005  RAYNES, YE YEGENY* - GAZZARA, MATTHEW - SNIEGOWSKI, PAUL
The effect of sex on the evolution of mutation rates: direct and indirect selection on a mutator allele in yeast.

9:45 059006  EIMES, JOHN A. * - BOLLMER, JENNIFER L. - WHITTINGHAM, LINDAA. - JOHNSON, JEFF A. - VAN OOSTERHOUT, COCK - DUNN, PETER O.
Drift and Gene Conversion Reduce MHC Variation Following a Population Bottleneck

8:30 AM - 10:00 AM  060  Contributed Papers  C125-126/OCC
Ecology and Evolution of Disease 1 - Chair: Jacobus de Roode

8:30 060001  RODRIGUES, ANTÓNIO* - GARDNER, ANDY - BROWN, SAM - BULL, JAMES J.
Population demography and cost of resistance mediate the evolution of mutualistic bacteriophages

8:45 060002  MARTINSEN, ELLEN
Cryptic diversity and convergent morphology in malaria parasites

9:00 060003  LAUGHTON, ALICE* - HALL, JUSTINE - ALTINCICEK, BORAN - GERARDO, NICOLE M.
Characterization of cellular immune responses in the pea aphid, Acrithosiphon pisum.

9:15 060004  VOYLES, JAMIE
To be virulent or not to be virulent? A pathogen’s predicament with evolutionary consequences
9:30 060005 BRUNS, EMILY* - CARSON, MARTY - MAY, GEORGIANA
Virulence and host genotype affect fitness in a plant pathogen

9:45 060006 DE ROODE, JACOBUS* - ALTZER, SONIA
Host-parasite genetic interactions and virulence evolution in natural populations of monarch butterflies

10:30 AM - 12:00 PM 061 Contributed Papers A105/OCC

Adaptation 6
Chair: Jennifer M Reininga

10:30 061001 BLANQUART, FRANÇOIS* - GANDON, SYLVAIN
Evolution of migration and local adaptation in a spatially and temporally variable environment

10:45 061002 PROULX, STEPHEN
Adaptive gene duplication via concurrent function loss and allelic divergence

11:00 061003 REININGA, JENNIFER M* - MAGWENE, PAUL M
Genetic and Phenotypic Variation in Yeast Developmental Networks

11:15 061004 GERSTEIN, ALEEZA C.* - OTTO, SARAH P.
Teasing apart the appearance and subsequent loss of ploidy diversity during experimental evolution with yeast: fitness, phenotype, and a taste of genotype

11:30 061005 ROMANCHUK, ARTUR
Horizontal Gene Transfer: a Persisting Source of Adaptation

11:45 061006 MILLER, SCOTT R
The genetic basis of RubisCO adaptation at the thermal limit of photosynthesis

10:30 AM - 12:00 PM 062 Contributed Papers A106/OCC

Phylogenetic Theory 6
Chair: Graham J Slater

10:30 062001 MCMAHON, MICHELLE* - SANDERSON, MICHAEL, J. - STEEL, MIKE
Phylogenomics with incomplete taxon coverage: theoretical limits and practical applications

10:45 062002 BATTISTUZZI, FABIA URSULA* - FILIPSKI, ALAN - HEDGES, S BLAIR - KUMAR, SUDHIR
Performance of relaxed clock methods in estimating evolutionary divergence times and their credibility intervals

11:00 062003 SLATER, GRAHAM J* - HARMON, LUKE - REVELL, LIAM J. - SUCHARD, MARC - ALFARO, MICHAEL E
Estimating Rates of Phenotypic Evolution and Speciation from Incomplete Trees
11:15 062004  SCHULTE II, JAMES A.
Does sampling fewer long genes or more short genes improve phylogenetic support for rapid radiations?

11:30 062005  NIELSEN, RASMUS - WANG, YONG*
Estimating Population Divergence Times and Phylogeny from Ascertained SNP Data

10:30 AM - 12:00 PM  063  Contributed Papers  A107-108/OCC
Phylogenetics & Diversification 6
Chair: D.V. Lavrov

10:30 063001  CROWTHER, ANDREA* - CARTWRIGHT, PAULYN - DALY, MARY MEGAN - FAUTIN, DAPHNE
Evolution of column morphology in Aliciidae (Cnidaria, Hexacorallia, Actiniaria) inferred from a molecular phylogeny

10:45 063002  LAVROV, D.V.* - LANGE, PHILIP - MAIKOVA, OLGA - WEINBERG, E.V. - BIELIKOV, S.I.
Baikalian sponges as a model for the study of endemic speciation

11:00 063003  WEAVER, KATHLEEN* - MORALES, VANESSA
Diversification and conservation of the land snail Oreohelix in the Okanogan and Wenatchee National Forests, Washington

11:15 063004  FORSMAN, ZACH* - CONCEPCION, GREGORY T. - HAVERTOR, ROXANNE - SHAW, ROSS W - MARAGOS, JIM E - TOONEN, ROBERT J
Can endangered species of coral be distinguished from population level variation? Genes and skeletal microstructure reveal Hawaiian species complexes in Montipora

11:30 063005  O'GRADY, PATRICK M
Biogeographic patterns in the Hawaiian Diptera

11:45 063006  STAKE, JOEL L.
An integrative approach to delimiting species in the scleractinian coral genus Agaricia

10:30 AM - 12:00 PM  064  Contributed Papers  B111-112/OCC
Phylogeography 6
Chair: Jon Eldon

10:30 064001  WALTER, RYAN P* - BLUM, MICHAEL - SNIDER, SUNNY B - LAMPERE, BRAD A - GILLIAM, JAMES F
Isolation and differentiation of Rivulus hartii across Trinidad and neighboring islands

10:45 064002  ELDON, JON* - PRICE, DON - MAGNACCA, KARL
Phylogeographic patterns of population differentiation in closely related endemic picture-winged Drosophila on the Island of Hawaii
11:00 064003  HALAS, DOMINIK
Assessing Pseudocongruence in the Divergence Dates of Taxa using Multiple Nuclear Genes: a study of Fishes of the Central Highlands of North America

11:15 064004  LAPoint, Richard* - O’Grady, Patrick M
A Refined Analysis of the Biogeography of Drosophila waddingtoni across the Hawaiian Islands

11:30 064005  Szabo, Zoltan* - Martin-Smith, Keith - Norah, Saarmann - Hamilton, Healy - Toonen, Robert J
Taxonomic delineation of seahorses in the Hawaiian archipelago

11:45 064006  Gaither, Michelle, R.* - Toonen, Robert J - Bowen, Brian W
Phylogeography as a predictor of success in marine invasions: a Hawaiian case study of three introduced fishes (Lutjanus kasmira, L. fulvus, and Cephalopholis argus)

10:30 AM - 12:00 PM  065  Contributed Papers  B113/OCC
Speciation 6
Chair: Christopher E Bird

10:30 065001  Davis, Matthew
Deep-sea habitat shifts and the evolutionary history of lizardfishes (Euteleosteii: Aulopiformes)

10:45 065002  Colosi, Jordan G.* - Glass, Jessica R. - Guralnick, Robert P. - Near, Thomas
Microendemism in North American darters: a tropical pattern in a temperate setting

11:00 065003  Stapper, AP* - Levitan, DR
Diversity and selection on the sea urchin Strongylocentrotus purpuratus egg receptor for sperm bindin EBR1

11:15 065004  Levitan, DR* - Stapper, AP
Influence of sperm availability on selection and genetic variation in gamete recognition proteins in sea urchins

11:30 065005  Springer, Stevan* - Swanson, Willie
Biogeography of gamete recognition protein divergence within a single Mytilus species

11:45 065006  Bird, Christopher E* - Holland, Brendens - Bowen, Brian W - Toonen, Robert J
Diversification of sympatric broadcast-spawning limpets (Cellana spp.) within the Hawaiian Archipelago
### Molecular Evolution 6

**Chair:** Mary, J. O’Connell

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<th>Time</th>
<th>ID</th>
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<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>10:30</td>
<td>066001</td>
<td>Natural Distributions of Sequence Diversity Support New Null Hypotheses</td>
<td>WARES, JOHN</td>
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<tr>
<td>10:45</td>
<td>066002</td>
<td>Fisher’s model in molecular evolution: pleiotropy and the fitness effect of mutations</td>
<td>LOURENCO, JOAO* - GALTIER, NICOLAS - GLÉMIN, SYLVAIN</td>
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<tr>
<td>11:00</td>
<td>066003</td>
<td>Evolution of Placenta specific genes and their regulatory networks</td>
<td>WALSH, THOMAS, A - HOLOHAN, KIERAN, J. - O’BRIEN, ANNA, C. - VELASQUEZ, ELINOR - O’CONNELL, MARY, J.*</td>
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<tr>
<td>11:15</td>
<td>066004</td>
<td>Proteins with greater influence on network dynamics evolve more slowly</td>
<td>GUTENKUNST, RYAN N.</td>
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<td>11:30</td>
<td>066005</td>
<td>Effect of correlated tRNAs in the genetic code on the evolution of codon usage bias.</td>
<td>SHAH, PREMAL* - GILCHRIST, MICHAEL</td>
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<td>11:45</td>
<td>066006</td>
<td>Assessing the predictive power of site-prediction methods for identifying positive selection within empirical datasets</td>
<td>BENDALL, MATTHEW L.* - DYER, MATTHEW - CRANDALL, KEITH A.</td>
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### Genomics 6 - Plants

**Chair:** Madhura Siddappaji

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<tr>
<td>10:30</td>
<td>067001</td>
<td>A genome-wide scan for adaptations to the environment in Arabidopsis thaliana</td>
<td>HANCOCK, ANGELA* - NORDBORG, MAGNUS - BOREVITZ, JUSTIN O. - BERGELSON, JOY</td>
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<td>10:45</td>
<td>067002</td>
<td>The role of cytosolic invertase in plant compensatory responses following herbivory</td>
<td>SIDDAPPAJI, MADHURA* - PAIGE, KEN</td>
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<td>11:00</td>
<td>067003</td>
<td>Chitinase Subfunctionalization in Carnivorous Plants</td>
<td>RENNER, TANYA* - SPECHT, CHELSEA</td>
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<td>11:15</td>
<td>067004</td>
<td>A first look at the genome of common milkweed (Asclepias syriaca): a resource for ecology and evolutionary biology</td>
<td>LISTON, AARON* - STRAUB, SHANNON - CRONN, RICH - FISHBEIN, MARK</td>
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<td>11:30</td>
<td>067005</td>
<td>Genomic approach using the pyrosequencing method to unravel genetic diversity of Broomrape (Orobanche cumana Wallr)</td>
<td>BRETON, CATHERINE* - TADMOR, YAAKOV - JOEL, DANIEL - KNAPP, STEVEN</td>
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<td>11:45</td>
<td>067006</td>
<td>Replicating candidate gene studies: can more loci be mapped?</td>
<td>BANTA, JOSHUA* - EHRENREICH, IAN - GERARD, SILVIA - CHOU, LUCY - BHAMBHRA, NAEHSA - KOVER, PAULA - PURUGGANAN, MICHAEL</td>
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### Plant Mating Systems 4

**Chair:** Vanessa A. Koelling

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<th>Time</th>
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<tr>
<td>10:30</td>
<td>068001</td>
<td>KOELLING, VANESSA.* - KELLY, JOHN K.</td>
<td>Estimating the relationship between outcrossing rate and inbreeding depression when family sizes are small</td>
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<tr>
<td>10:45</td>
<td>068002</td>
<td>WEBER, JENNIFER.* - WELLER, STEPHEN - SAKAI, ANN</td>
<td>The Evolution of Autogamous Lineages in a Self-Incompatible Population of Oxalis alpina</td>
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<td>11:00</td>
<td>068003</td>
<td>KISSLING, JONATHAN.* - AGIER, CAMILLE - ENDRESS, PETER K. - BERNASCONI, GIORGINA</td>
<td>Time persistence of diplospory and its potential role as a morphological mixed mating strategy</td>
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<td>11:15</td>
<td>068004</td>
<td>DE VOS, JURRIAAN M.* - KELLER, BARBARA - ISHAM, SAM T. - KELSO, SYLVIA - CONTI, ELENA</td>
<td>Do homostylous species outcross? Variation of anther-stigma separation and mating system in Primula halleri</td>
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<td>11:30</td>
<td>068005</td>
<td>KARRON, JEFF.* - MEDRANO, MONICA - MITCHELL, RANDY - HERRERA, CARLOS</td>
<td>Influence of pollinator visitation patterns on multiple paternity in Mimulus and Narcissus</td>
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<tr>
<td>11:45</td>
<td>068006</td>
<td>BODBYL ROELS, SARAH A.* - KELLY, JOHN K.</td>
<td>Rapid evolution caused by pollinator loss in Mimulus guttatus</td>
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### Natural Selection and Contemporary Evolution 4

**Chair:** ZA Cheviron

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<th>Time</th>
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<tr>
<td>10:30</td>
<td>069001</td>
<td>ZAKAS, CHRISTINA.* - HALL, DAVID W</td>
<td>Asymmetric Dispersal and the Maintenance of Larval Dimorphism in the Benthic Polychaete Streblospio benedicti</td>
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<td>10:45</td>
<td>069002</td>
<td>OLIVER, THOMAS.* - GARFIELD, DAVID - MANIER, MOLLIE K. - HAYGOOD, RALPH - WRAY, GREGORY - PALUMBI, STEPHEN</td>
<td>Whole-genome positive selection and habitat-driven evolution in a shallow and a deep-sea urchin</td>
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<tr>
<td>11:00</td>
<td>069003</td>
<td>MITRA, CHANDREYEE.* - WAGNER JR., WILLIAM - ZERA, ANTHONY</td>
<td>A cost of phenotypic plasticity? - Decreased leg muscle mass and jumping ability post flight-muscle histolysis in a polymorphic field cricket, Gryllus lineaticeps</td>
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<tr>
<td>11:15</td>
<td>069004</td>
<td>CHEVIRON, ZA.* - SMITH, THOMAS - STORZ, JF</td>
<td>Altitudinal variation in hemoglobin polymorphisms of Rufous-collared Sparrows (Zonotrichia capensis)</td>
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<td>11:30</td>
<td>069005</td>
<td>TURCOTTE, MARTIN M.* - REZNICK, DAVID - HARE, J. DANIEL</td>
<td>The Impact of Rapid Evolution on Population Dynamics in the Wild; An Experimental Test of Ecological-Evolutionary Feedback</td>
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<tr>
<td>11:45</td>
<td>069006</td>
<td>PARENT, CE.* - AGASHE, D - BOLNICK, DI</td>
<td>Contrary to expectations, intraspecific competition suppresses niche width in flour beetles</td>
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### 10:30 AM - 12:00 PM  070  Contributed Papers  C123/OCC

**Paleobiology I - Mammals**  
**Chair: Christopher Organ**

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<th>Time</th>
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<tbody>
<tr>
<td>10:30</td>
<td>070001</td>
<td>Reconstruction of the Primate Alcohol Metabolic Pathway: Did Ardi Party Hearty?</td>
<td>Carrigan, Matthew* - Uryasev, Oleg - Davis, Ross - Chamberlin, Steve - Benner, Steven</td>
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<td>10:45</td>
<td>070002</td>
<td>Cooking Originated in African <em>Homo erectus</em></td>
<td>Organ, Christopher* - Nunn, Charles - Machanda, Zarin - Wrangham, Richard</td>
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<td>11:00</td>
<td>070003</td>
<td>Mammal body size and paleoclimatic change: a new perspective on an old debate</td>
<td>Orcutt, John D.* - Hopkins, Samantha</td>
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<td>11:15</td>
<td>070004</td>
<td>Turning the macroevolutionary ratchet: Pattern and process in morphological evolution of burrowing mammals</td>
<td>Hopkins, Samantha* - Samuels, Joshua</td>
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<td>11:30</td>
<td>070005</td>
<td>Burrowing rodents of the Cenozoic: repeated convergence and ecological replacement</td>
<td>Samuels, Joshua* - Hopkins, Samantha</td>
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<td>11:45</td>
<td>070006</td>
<td>Fossils and molecules agree on post-Cretaceous diversification of rodents</td>
<td>Norris, Ryan W.* - Kilpatrick, C. William</td>
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### 10:30 AM - 12:00 PM  071  Contributed Papers  C124/OCC

**Population Genetics 6**  
**Chair: AC Frantz**

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<th>ID</th>
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<tr>
<td>10:30</td>
<td>071001</td>
<td>Historical Specimens Reveal a Century of Genetic Change in Darwin’s Finches</td>
<td>Farrington, Heather L.* - Petren, Kenneth</td>
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<td>10:45</td>
<td>071002</td>
<td>Coalescent-based comparative study of population divergence and elevational zonation in cloud forest Andean birds</td>
<td>Cuervo, Andres M.* - Brumfield, Robb</td>
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<td>11:00</td>
<td>071003</td>
<td>Tension in the eastern Pacific? An examination of the blue-footed / Peruvian booby hybrid zone</td>
<td>Taylor, Scott A.* - Zavalaga, Carlos B - Anderson, David J. - Friesen, Vicki L.</td>
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<td>11:15</td>
<td>071004</td>
<td>Using isolation-by-distance-based approaches to assess the barrier effect of linear landscape elements on badger dispersal</td>
<td>Frantz, AC* - Pope, LC - Etherington, TR - Wilson, GJ - Burke, T</td>
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<td>11:45</td>
<td>071006</td>
<td>Mitochondrial Dynamics of Chipmunks (Tamias) at Contact Zones</td>
<td>Sarver, Bruce A. J.* - Sullivan, Jack</td>
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10:30 AM - 12:00 PM  072  Contributed Papers  C125-126/OCC
**Ecology and Evolution of Disease 2**
*Chair: Erica M. Goss*

10:30  072001  WAITE, JESSICA.* - HENRY, AUTUMN - CLAYTON, DALE
Do flies suffer fitness consequences from vectoring blood parasites: experiments with *Pseudolychnia canariensis* and *Haemoproteus columbae*

10:45  072002  GOSS, ERICA M.* - GRUNWALD, Niklaus J.
Evolution and global migration of the emerging sudden oak death pathogen, *Phytophthora ramorum*

11:00  072003  RUIZ-LOPEZ, MARIA JOSE* - MONELLO, RYAN - GOMPER, MATTHEW E. - EGGERT, LORIS.
Relative importance of neutral genetic variability to predict parasitism

11:15  072004  NAUM, MARIANNA* - ZHENG, JIE - STRAIN, ERROL - BROWN, ERIC
Phylogenetic analysis of *Salmonella enterica* subsp. *enterica* serovar Enteritidis using single nucleotide polymorphic data, and their use in enhancing the molecular epidemiology of *S. Enteritidi*

11:30  072005  BRITT, JENNIFER* - HANSEN, EVERETT
The epidemiology of an invasive pathogen - genotypic relationships and evolution of *Phytophthora ramorum* (sudden oak death) in Oregon forests

11:45  072006  BEDFORD, TREVOR* - COBEY, SARAH - BEERLI, PETER - PASCUAL, MERCEDES
Global migration dynamics of human influenza virus

1:30 PM - 3:00 PM  073  Contributed Papers  A105/OCC
**Adaptation 7**
*Chair: Matthew McGee*

1:30  073001  TRAVIS, JOSEPH
Numerical dynamics as an agent of selection: experimental evolution in the least killifish

1:45  073002  MCGEE, MATTHEW* - WAINWRIGHT, PETER
Evolution of the threespine stickleback trophic apparatus

2:00  073003  BARRETT, ROWAN D.H.* - PACCARD, ANTOINE - HEALY, TIM - BERGEK, SARAH - SCHULTIE, PATRICIA - SCHLUETER, DOLPH - ROGERS, SEAN
Rapid evolution of cold tolerance in stickleback

2:15  073004  GORDON, SWANNE* - LOPEZ-SEPULCRE, ANDRES - REZNICK, DAVID
Evolutionary ecology of sex-linkage in the wild

2:30  073005  TORRES DOWDALL, JULIAN* - HANDELSMAN, COREY - GHALAMBOR, CK
Does adaptation to salinity determine the range limits of guppies and swamp guppies?

2:45  073006  ROBINSON, BEREN W
Genetic accommodation of growth in Icelandic threespine stickleback adapting to freshwater habitats
1:30 PM - 3:00 PM  074  Contributed Papers  A106/OCC

**Phylogeographic Methods 1**
Chair: Emily Jane McTavish

1:30  074001  SCOBLE, JOLENE* - LOWE, ANDY  
A case for incorporating phylogeographic and landscape genetic information into species modelling for improved conservation planning and climate change adaptation

1:45  074002  BROWN, JASON L.* - CHAN, LAUREN - YODER, ANNE  
Integrating species distribution models, geographic information systems and population genetics into phylogeography studies

2:00  074003  MCTAVISH, EMILY JANE* - HEDTKE, SHANNON  
Distinguishing signal from noise in phylogeographic data

2:15  074004  HE, QIXIN* - KNOWLES, L. LACEY  
An approach for coupling ecological, demographic, and genetic models to test spatially-explicit phylogeographic hypotheses

2:30  074005  BYSTRIAKOVA, NADIA* - ANSELL, STEVEN - SCHNEIDER, HARALD - GRUNDMANN, MICHAEL - RUMSEY, FRED - VOGEL, JOHANNES  
Integrating bioclimatic modelling and phylogeography: A case study of Iberian bluebells

2:45  074006  ROSAUER, DAN* - FERRIER, SIMON - WILLIAMS, KRISTEN J. - GLENN, MANION - SHAWN, LAFFAN  
A predictive model of spatial pattern in phylogenetic beta diversity

1:30 PM - 3:00 PM  075  Contributed Papers  A107-108/OCC

**Phylogenetics & Diversification 7**
Chair: C. Miguel Pinto

1:30  075001  BENNETT, GORDON  
Systematics and Biogeography of Native Hawaiian Leathoppers (Hemiptera: Cicadellidae: Nesosphyrosyne)

1:45  075002  HIPP, ANDREW* - CHUNG, KYONG-SOOK - ROALSON, ERIC  
Chromosome and genome size evolution in sedges (*Carex* subgenus *Vignea*)

2:00  075003  OLMSTEAD, RICHARD G* - YUAN, YAO-WU - MARX, HANNAH - TANK, DAVID  
The PPR gene family, one stop shopping for multiple, independent, nuclear gene loci for plant-phylogenetics with examples from Lamiales

2:15  075004  PARKS, MATTHEW* - LISTON, AARON - CRONN, RICH  
Striving for the First Finish Line: A Whole-Plastome Phylogeny for the Entire Genus *Pinus*
### Phylogeography 7

**Chair: Michael E. Hellberg**

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<tr>
<td>1:30</td>
<td>076001</td>
<td>Water, colour and Fish Evolution: A Comparative Phylogeographic Study of Amazonian Fishes across an Ecological Gradient</td>
<td>COOKE, GEORGINA, M*, CHAO, NING, L, BEHEREGARA, LUCIANO, B</td>
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<td>1:45</td>
<td>076002</td>
<td>Into the Amazon: time-calibrated phylogeography and biogeographic pattern reveal a Miocene origin of freshwater Anchovies (Engraulidae)</td>
<td>BLOOM, DEVIN</td>
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<td>2:00</td>
<td>076003</td>
<td>Evolutionary history of Southern Ocean sea star species across the Drake Passage (Odontasteridae; Asteroidea)</td>
<td>JANOSIK, ALEXIS*, MAHON, ANDREW, HALAN YCH, KENNETH M.</td>
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<tr>
<td>2:15</td>
<td>076004</td>
<td>An Aussie Phylogeographic Bouillabaisse: using fish and shellfish to prepare water resource policy</td>
<td>PAGE, TIMOTHY J.*, HUGHES, JANE M.</td>
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<td>2:30</td>
<td>076005</td>
<td>The Eastern Pacific Barrier isolates coral populations</td>
<td>HELLBERG, MICHAEL E.</td>
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<td>2:45</td>
<td>076006</td>
<td>Phylogeography of a widely distributed western North American lichen-forming fungus, Ramalina menziesii</td>
<td>SORK, VICTORIA*, WERTH, SILKE</td>
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### Speciation 7

**Chair: Natasha Sherman**

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<tr>
<td>1:30</td>
<td>077001</td>
<td>QTL analysis of population variation for reproductive barriers in Solanum</td>
<td>SHERMAN, NATASHA*, JOSEPHS, EMILY, MOYLE, LEONIE</td>
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<td>1:45</td>
<td>077002</td>
<td>Selection for copper tolerance driving the fixation of an intrinsic post-zygotic isolating factor in M. guttatus</td>
<td>WRIGHT, KEVIN M*, LLOYD, DEBORAH, MACNAIR, MARK R., WILLIS, JOHN H.</td>
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<tr>
<td>2:00</td>
<td>077003</td>
<td>Speciation by disruption of reproductive period and the repeated shift of reproductive season in genus Inurois</td>
<td>YAMAMOTO, SATOSHI*, BELJAEV, EUGENE, SOTA, TEIJI</td>
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**Title:** Reticulate phylogenetics of wild potato polyploids inferred from multilocus analysis

**Presenters:** CAI, DANYING*, TENG, YUANWEN, RODRIGUEZ, FLOR, MUELLER, LUKAS, BONI-ERBALE, MEREDITH, SPOONER, DAVID

**Abstract:** Host switches, hybridizations and species boundaries within the mammalian parasite *Trypanosoma cruzi*
Experimental and population genetic evidence of incipient host race formation in *Mitoura* butterflies

The quantitative genetics of incipient speciation: heritability and genetic correlations of skeletal traits in populations of diverging *Favia fragum* ecomorphs

Biogeography of the “bristle-tarsus” Hawaiian *Drosophila*: recent speciation on an old island

1:30 PM - 3:00 PM 078 Contributed Papers B114-115/OCC

**Experimental Evolution 1**

**Chair: Catherine Putonti**

1:30 078001 WOJTOWICZ, ANDRZEJ* - WICHMAN, HOLLY - JOYCE, PAUL
Estimating the number of one step beneficial mutations

1:45 078002 KERR, BENJAMIN* - ESHELMAN, CHRISTAL - VOUK, ROXANNE - STEWART, JODI - HALSNE, ELIZABETH - LINDSEY, HALEY - SCHNEIDER, STACY - GUALU, MILYARD - DEAN, ANTONY
Unrestricted migration favors virulent pathogens in experimental metapopulations: Evolutionary genetics of a rapacious life history

2:00 078003 COX, JENNIFER* - PUTONTI, CATHERINE
Investigating selection on a segmented RNA genome

2:15 078004 PUTONTI, CATHERINE* - COX, JENNIFER - SAELENS, JOSEPH W - KULA, ALEX - TRAVISANO, MICHAEL
The Impact of Selecting for Host-Preferred Codons on Viral Virulence

2:30 078005 COOPER, VAUGHN* - WROCKLAGE, SARAH
Distributions of pleiotropic effects of four sets of beneficial mutations

2:45 078006 AGASHE, D* - DRUMMOND, DALLAN - MARX, CHRISTOPHER
Synonymous mutations matter: fitness effects of altered codon usage
1:30 PM - 3:00 PM  079  Contributed Papers  B116/OCC

Genomics 7

Chair: Mary M Guisinger

1:30  079001  PIRES, J. Chris* - SCHRANZ, M. Eric - EDGER, Patrick
Impact of ancient polyploidy on the origin of gene networks in Brassicales: Investigating the dosage balance hypothesis by transcriptomics and phylogenomics

1:45  079002  MILLER, Ryan* - OLMSTEAD, Richard
Orthology in a paralogous world: a phylogenetic circumscription for a unique gene duplicate and orthology determination by synteny for rbcS copies in asterids and rosids

2:00  079003  ALVERSON, Andrew* - PALMER, Jeffrey
Evolutionary genomics of supersized mitochondrial genomes in plants

2:15  079004  GUISINGER, Mary M* - KUEHL, Jennifer V - BOORE, Jeffrey L - JANSEN, Robert K
Genomes gone wild: plastid genomes in the angiosperm family Geraniaceae

2:30  079005  HANCOCK, Lillian* - LANE, Christopher
Comparative mitochondrial genomics in red algal parasite evolution

2:45  079006  PAAPE, Timothy* - BRANCA, Antoine - YOUNG, Nevin - TIFFIN, Peter
Population genomics of the model legume Medicago truncatula

1:30 PM - 3:00 PM  080  Contributed Papers  B117-118/OCC

Animal Mating Systems 3

Chair: Maurine Neiman

1:30  080001  WEEKS, Stephen* - PANNELL, John
Using sex ratios and associated genotype frequencies to characterise the mating system and genetic load of an androdioecious clam shrimp

1:45  080002  AULD, Josh R.* - JARNE, Philippe - DAVID, Patrice
Simultaneous senescence of male and female reproductive function in a hermaphrodite: cross-sex interactions and constraints

2:00  080003  GODFREY-SMITH, Peter* - HUFFARD, Christine
Mating, pair formation, and sexual conflict in the Gloomy Octopus

2:15  080004  NEIMAN, Maurine
Triploid males and ploidy elevation reveal complex relationships between sexuality, ploidy level, and gender in a New Zealand snail

2:30  080005  KAMEL, Stephanie* - GROSBERG, R. K.
Multiple mating and family conflict in a marine snail

2:45  080006  BRANDVAIN, Yaniv
Coevolution & plasticity of genomic imprinting and the mating system
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30</td>
<td>081</td>
<td>Conservation Biology 2</td>
<td>JONES, BRANDON* - JORDAN, STEVE</td>
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<tr>
<td>1:30</td>
<td>081</td>
<td>Land Bridges Over Troubled Waters? Population Structure of Hawaiian</td>
<td>Meeglagrion Damselflies as Inferred by Microsatellite Analysis</td>
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<td>1:45</td>
<td>081</td>
<td>Conservation Biology 2</td>
<td>GUDDE, RENSKE M* - JOY, JEFFREY B - READER, SIMON M - MOOERS, ARNE O</td>
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<td>1:45</td>
<td>081</td>
<td>Geographical and evolutionary rarity mapped on the landscape: a</td>
<td>case study of phylogenetic endurance using the Malagasy lemuriformes</td>
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<tr>
<td>2:00</td>
<td>081</td>
<td>Genetic monitoring of a critically endangered subspecies: the Maui’s</td>
<td>BAKER, C.S.</td>
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<tr>
<td>1:30</td>
<td>082</td>
<td>Paleobiology 2</td>
<td>WELCH, ANDREANNA J* - JAMES, HELEN F - SPITZER, MEGAN D - FLEISCHER, ROBERT C</td>
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<td>1:30</td>
<td>082</td>
<td>What is a jugabilis anyway? Using ancient DNA to investigate the</td>
<td>phylogenetic position of an extinct Hawaiian seabird</td>
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<td>1:45</td>
<td>082</td>
<td>Comparison of demographic histories of 6 North Atlantic intertidal</td>
<td>WALTARI, ERIC* - ILVES, KATRINA - HICKERSON, MIKE</td>
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<td>2:00</td>
<td>082</td>
<td>The Elephant in the Dark: Resolving evolutionary patterns across</td>
<td>UYEDA, JC* - HANSEN, THOMAS F - ARNO, STEVAN J - PIENAAR, JASON</td>
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<tr>
<td>2:15</td>
<td>082</td>
<td>Dealing with Incomplete Taxon Sampling and a Poor Fossil Record in</td>
<td>RYBERG, MARTIN* - MATHENY, P. BRANDON</td>
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<td>RYBERG, MARTIN* - MATHENY, P. BRANDON</td>
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* Asterisk indicates the presenting author.
### Population Genetics 7

#### Chair: C. S. Baker

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<tr>
<th>Time</th>
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<tr>
<td>1:30</td>
<td>083001</td>
<td>Polygyny and population structure in the ant Camponotus modoc</td>
<td>Duvall-Jisha, John* - Spellman, Dr. Garth</td>
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<tr>
<td>1:45</td>
<td>083002</td>
<td>Signatures of divergent selection associated with the northward range expansion of a European butterfly, the Brown Argus (Aricia agestis)</td>
<td>Buckley, James* - Butlin, Roger - Bridle, Jon</td>
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<tr>
<td>2:00</td>
<td>083003</td>
<td>Partitioning population genetic variance: how does environmental heterogeneity contribute to Daphnia population structure?</td>
<td>Pantel, Jelena H.* - Juenger, Thomas E - Leibold, Matthew A.</td>
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<tr>
<td>2:15</td>
<td>083004</td>
<td>Landscape genetics of white-footed mice (Peromyscus leucopus) in New York City</td>
<td>Munshi-South, Jason* - Kharchenko, Katerina - Grindley, Jonathan</td>
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<tr>
<td>2:45</td>
<td>083006</td>
<td>Remarkably ancient balanced unlinked gene network polymorphisms</td>
<td>Hittinger, Chris Todd* - Gonçalves, Paula - Sampaio, José Paulo - Dover, Jim - Johnston, Mark - Rokas, Antonis</td>
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1:30 PM - 3:00 PM  084  Contributed Papers  C125-126/OCC

*Theoretical Population Genetics 2*

**Chair: Robin S Waples**

1:30  084001  FIERST, JANNA L
   Sexual selection determines evolvability and robustness in a computational model of a genetic regulatory network

1:45  084002  SERVEDIO, MARIA
   Limits to the evolution of assortative mating by female choice under restricted gene flow

2:00  084003  PATTEN, MANUS* - HAIG, DAVID - UBEDA, FRANCISCO
   Linkage disequilibrium and fitness variation in two-locus models of sexual antagonism

2:15  084004  JONES, DREW - MOORE, FRANCISCO B.-G.*
   Inbreed vs. Outcrossing in Captive Populations: The Upside of A Downward Trend

2:30  084005  LOTTERHOS, KATIE
   On the effect of multiple paternity on effective population size (Ne)

2:45  084006  WAPLES, ROBIN S* - WAPLES, RYAN K
   Inbreeding effective size and parentage analysis without parents

1:30 PM - 5:00 PM  Sym43  Symposium  Oregon Ballroom 201/OCC

*SSB Symposium. The future of historical biogeography: conceptual and methodological challenges*

**Chair: Joel Cracraft**

1:30  Sym43001  CRACRAFT, JOEL
   Historical biogeographic analysis: overcoming the conceptual and methodological challenges

2:00  Sym43002  GOLDBERG, EMMA E.* - REE, RICHARD H.
   Disentangling interactions of diversification and range shifts with comparative methods

2:30  Sym43003  HICKERSON, MIKE
   Using “sticky” and “slippery” multi-taxa phylogeographic models to test community assembly hypotheses

3:00  Break

3:30  Sym43005  RONQUIST, FREDRIK* - SANMARTIN, ISABEL
   Bayesian Island Biogeography

4:00  Sym43006  SMITH, STEPHENA
   The challenges of large scale biogeographic analyses: examples in angiosperms

4:30  Sym43007  SIDDALL, MARK
   Historical Biogeography: A short look forward at a long look back
3:30 PM - 5:00 PM  085  Contributed Papers  A105/OCC

Adaptation 8
Chair: David Reznick

3:30  085001  SCHMITZ, L. * - WAINWRIGHT, PETER
Evolution of eye morphology and diet in coral reef fishes

3:45  085002  BERNER, DANIEL. * - STUTZ, WE. - BOLNICK, DI
Foraging trait (co)variances in stickleback evolve deterministically and do not predict trajectories of adaptive diversification

4:00  085003  COLLIN, HELENE. * - FUMAGALLI, LUCA
Selection and local adaptation in the cyprinid fish *phoxinus phoxinus*

4:15  085004  BASSAR, RONALD. * - MARSHALL, MICHAEL. - BRYAN, BRYNNE. - LOPEZ-SEPULCRE, ANDRES. - PRINGLE, CATHERINE. - REZNICK, DAVID
Direct and Indirect Effects of Guppy Phenotype and Density on Ecosystem and Community Structure

4:30  085005  REZNICK, DAVID. * - BASSAR, RONALD. - RODD, HELEN
The demographics of density regulation: experiments on natural populations of guppies (*Poecilia reticulata*) designed to bridge theory with nature

4:45  085006  TORRES-MEJIA, MAURICIO. * - LANGERHANS, R. BRIAN. - REZNICK, DAVID
From micro- to macroevolution: Life history and body shape evolution in the genus *Gambusia* (Poeciliidae)

3:30 PM - 5:00 PM  086  Contributed Papers  A106/OCC

Behavior and Social Evolution 3
Chair: Michael Sheehan

3:30  086001  VARGAS SALINAS, FERNANDO. * - DORADO CORREA, ADRIANA. - AMÉ ZQUIT A TORRES, ADOLFO
The frog Ranitomeya bombetes (Dendrobatidae) call at a higher pitch in noisy breeding sites along streams

3:45  086002  GILLESPIE, STEPHANIE. * - MILLER, CHRISTINE W. - TUDOR, M. SCARLETT
Female condition affects mating behaviors in leaf-footed cactus bugs

4:00  086003  SHEEHAN, MICHAEL. * - TIBBETTS, ELIZABETH
Selection for identity signals maintains genetic variation at multiple segregating loci underlying extreme color polymorphism in *Polistes fuscatus* paper wasps

4:15  086004  AKCAY, CAGLAR. * - CAMPBELL, LIZ. - SEARCY, WILLIAM A. - WOOD, WILLIAM E. - TEMPLETON, CHRIS N. - BEECHER, MICHAEL D.
Good Neighbor, bad neighbor: Song sparrows retaliate against aggressive rivals based on direct experience and reputation
Males and females require different sensory inputs for successful courtship in *Drosophila nebulosa*. 

You are what you eat implications of larval diet.

### 3:30 PM - 5:00 PM  087  Contributed Papers  A107-108/OCC

**Phylogenetics & Diversification 8**  
*Chair: Anthony Barley*

- **3:30 087001** SILER, CAMERON* - BROWN, RAFF M.  
  Historical Processes Behind Patterns of Limb Reduction and Loss in an Island Radiation of Fossorial Lizards

- **3:45 087002** MAHLER, D. LUKE  
  Ecological opportunity and the rate of morphological evolution in the diversification of Greater Antillean anoles

- **4:00 087003** JACKSON, NATHAN D.* - AUSTIN, CHRISTOPHER C.  
  Inferring hierarchical population genetic structure within a lizard species comprised of cryptic, incomplete lineages (Genus *Scincella*)

- **4:15 087004** BARLEY, ANTHONY* - BROWN, RAFF M. - LAWSON, ROBIN - BURBRINK, FRANK  
  Phylogenetics and Biogeography of cat-eyed snakes (genus Boiga) in Southeast Asia

- **4:30 087005** MCGUIRE, JIMMY A.  
  Multilocus phylogenetics of flying lizards (Agamidae: Draco) and SE Asian biogeography

- **4:45 087006** RITTMEYER, ERIC N.* - AUSTIN, CHRISTOPHER C. - RICHARDS, STEPHEN J. - ZUG, GEORGE R.  
  Phylogeny, Biogeography, and Species Boundaries in the Crocodile Skinks (*Tribolonotus*)

### 3:30 PM - 5:00 PM  088  Contributed Papers  B111-112/OCC

**Phylogeography 8**  
*Chair: David Duvernell*

- **3:30 088001** DUVERNELL, DAVID* - MEIER, STEPHANIE - SCHAEFER, JACOB - KREISER, BRIAN  
  Phylogeography of the Fundulus notatus species complex of Topminnows inferred from nuclear AFLP and mtDNA cytochrome b variation

- **3:45 088002** HUNDT, P.J.* - SIMONS, A.M.  
  Phylogeography of the Northern studfish (*Fundulus catenatus*)

- **4:00 088003** NAUGHTON, KATE  
  Glacial connectivity in a coastal marine invertebrate: the Little Biscuit Star on the southern Australian coastline
**Phylogeography of the Korean Loach, *Iksookimia koreensis* (Teleostei: Cypriniformes)**

**The rainbow connection: an integrative approach to identifying melanotaeniid (*Melanotaenia splendida inornata*) dispersal in a tropical Australian river**

**High-level phylogeny and historical biogeography of ostariophysan fishes and their allies (Otocephala) resolved with 5 nuclear genes**

### 3:30 PM - 5:00 PM  089  Contributed Papers  B113/OCC

**Speciation 8**  
**Chair: Andrea C. Premoli**

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<tr>
<td>3:30</td>
<td>089001</td>
<td>Corl, Ammon* - Davis, Alison R. - Kuchta, Shawn - Sinervo, Barry</td>
<td>Loss of polymorphic mating types is associated with rapid evolution and speciation</td>
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<td>4:00</td>
<td>089003</td>
<td>Ng, Julienne* - Glor, Rich</td>
<td>Diverse dewlaps: a reproductively isolating signal?</td>
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<td>4:15</td>
<td>089004</td>
<td>Rose, Colin* - Edmands, Suzanne</td>
<td>Use of a mapping approach to discover hybrid inviability loci in the tidepool copepod <em>Tigriopus californicus</em></td>
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<tr>
<td>4:30</td>
<td>089005</td>
<td>McGlaughlin, Mitchell* - Wallace, Lisa - Helenurm, Kaius</td>
<td>Evolutionary divergence among <em>Lotus</em> species endemic to the California Channel Islands</td>
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<td>4:45</td>
<td>089006</td>
<td>Premoli, Andrea C.* - Mathiassen, Paula - Acosta, M. Cristina</td>
<td>When ecological adaptation matters: <em>Nothofagus</em> populations with concordant geographic patterns have conserved species’ identity in sympathy since the Paleogene</td>
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### 3:30 PM - 4:30 PM  090  Contributed Papers  B114-115/OCC

**Experimental Evolution 2**  
**Chair: Michael Palmer**

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<th>Time</th>
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<tr>
<td>3:30</td>
<td>090001</td>
<td>Qian, Wenfeng* - Zhang, Jianzhi</td>
<td>Pervasive antagonistic pleiotropy quantified by precise measurement of fitness in yeast</td>
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<td>3:45</td>
<td>090002</td>
<td>Palmer, Michael</td>
<td>The Red Queen’s Race Can Select for Evolvability</td>
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4:00  090003  BURLS, KEVIN* - HOELZER, GUY - FORISTER, MATT  
Selecting on dispersal distance in a micropterous seed beetle

4:15  090004  ZEE, PETER C. * - MENDES-SOARES, HELENA - VELICER, GREGORY J.  
Epistasis in experimentally evolved social bacteria lineages

3:30  091001  MASON, VICTOR* - LI, GANG - MURPHY, WILLIAM J.  
Exploring Hidden Genetic Divergence Within Sunda Colugos by Means of Novel DNA Capture Methods and Next Generation Sequencing

3:45  091002  MARRA, NICHOLAS* - WASER, PETER - DEWOODY, J. ANDREW  
Transcriptome pyrosequencing for the identification and study of genes underlying osmoregulation and immunity in banner-tailed kangaroo rats

4:00  091003  GOOD, JEFFREY* - GIGER, THOMAS - DEAN, MATT - NACHMAN, MICHAEL  
Widespread over-expression of the X chromosome in sterile F1 hybrid mice

4:15  091004  DUMONT, BETH - WHITE, MICHAELA - STEFFY, BRIAN - WILTSHIRE, TIM - PAYSEUR, BRETA.*  
Extensive Recombination Rate Divergence among Subspecies of House Mice

4:30  091005  STAPLEY, JESSICA* - BIRKHEAD, TIM R. - BURKE, TERRY - SLATE, JON  
Individual variation in recombination rate in zebra finches

4:45  091006  MELE, MARTA* - JAVED, ASIF - PYBUS, MARC - CALAFELL, FRANCESC - PARIDA, LAXMI - BERTRANPETIT, JAUME  
Incorporating recombination events into phylogeography

3:30 PM - 5:00 PM  092  Contributed Papers  B117-118/OCC
Life History Evolution
Chair: Holly K. Kindsvater

3:30  092001  URBANSKI, JENNIFER* - ARMBRUSTER, PETER  
Life History Evolution Across a Latitudinal Gradient in the Invasive Mosquito Aedes Albopictus

3:45  092002  MCDONALD, M. VICTORIA  
Molt Migration Evolution and Variability in Oporornis Warblers

4:00  092003  PRIEST, NICK* - HUNT, VICKY - CHARNLEY, KEITH  
Consequences of cold-seeking behavior for pathogen and host and what the findings imply about the evolution of fever

4:15  092004  MORRONGIELLO, JOHN* - WONG, BOB - CROOK, DAVID - BOND, NICK  
Environmental quality and predictability influence egg size and egg number in Southern pygmy perch

4:30  092005  KINDSVATER, HOLLY K. * - ROSENTHAL, GILG. - ALONZO, SUZANNE H.  
Does age matter? Effects of age on allocation to reproductive traits in swordtails

-108-
### Invasive Species 1

**Chair: Frank Bouchard**

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| 3:30  | 093001  | MORTON, TEGAN A.L.* - THORN, ALEXANDRA - REED, J. MICHAEL - VAN DRIESCHE, ROY - CASAGRANDE, RICHARD - CHEW, FRANCES S.  
Trapped by invasive aliens: Evaluating adaptation by a native butterfly (*Pieris napi oleracea*) to the invasive weed garlic mustard (*Alliaria petiolata*) |
| 3:45  | 093002  | HIMLER, ANNA* - BERGEN, JACQUELYN - CHIEL, ELAD - KELLY, SUZANNE - DUCKWORTH, VICTORIA - KOZUCH, AMARANTA - ZCHORI-FEIN, EDNA - HUNTER, MOLLY  
Fitness consequences and transmission dynamics of the bacterial endosymbiont *Rickettsia* in the sweetpotato whitefly, *Bemisia tabaci*  |
| 4:00  | 093003  | NORMARK, BENJAMIN, B  
Evolution of extreme diet breadth and parthenogenesis in phytophagous insects |
| 4:15  | 093004  | CRANE, SAMUEL  
Stopping the Invasion Before It Starts: Using Predictive Niche Modeling in Quarantine Cases |
| 4:30  | 093005  | BOUCHARD, FRANK  
Recombination and adaptation in invading populations |
| 4:45  | 093006  | GERING, EBEN* - CUMMINGS, MOLLY  
Can male mimicry explain geographic and ontogenetic color variation in a female polymorphic damselfly. |

### Evolutionary Theory 1

**Chair: Jeffrey A Fletcher**

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<th>Time</th>
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| 3:30  | 094001  | WAINWRIGHT, JOEL* - MANN, GEOFF  
The Evolution of Climate Leviathan |
| 3:45  | 094002  | ROSINDELL, JAMES* - CORNELL, STEPHEN J. - HUBBELL, STEPHEN P. - ETIENNE, RAMPS  
A simple generalization of neutral biodiversity theory resolves many of its problems |
| 4:00  | 094003  | UNG, VISOTHEARY*  
Time and Biogeography: a review |
### 3:30 PM - 5:00 PM  095  Contributed Papers  C124/OCC

**Population Genetics 8**

*Chair: Lawrence J. Weider*

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<td>LAVERY, SHANE</td>
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<td>Dividing the seas: A multi-species analysis of connectivity in New Zealand coastal waters</td>
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<td>Genome wide loss of diversity in the Hawaiian monk seal</td>
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<tr>
<td>4:00</td>
<td>095003</td>
<td>COURBIS, SARAH* - BAIRD, ROBIN W. - CIPRIANO, FRANK - DUFFIELD, DEBORAH</td>
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<td>Comparisons to create baselines for biologically significant genetic differentiation levels: Population structure of pantropical spotted dolphins in the North Pacific Ocean as an example</td>
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<tr>
<td>4:15</td>
<td>095004</td>
<td>SREMBIA, A.* - MARTIN, A. R. - BAKER, C. S.</td>
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<td>Beached bones: Species Identification and Genetic Diversity of Whale Bones from South Georgia Island Whaling Stations</td>
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<td>4:30</td>
<td>095005</td>
<td>WEIDER, LAWRENCE J.* - FRISCH, DAGMAR - HAVEL, JOHN</td>
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<td>Population genetic structure of the invasive freshwater cladoceran, Daphnia lumholtzi, in North America</td>
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<td>4:45</td>
<td>095006</td>
<td>HUEY, JOEL* - SCHMIDT, DANIEL J. - CARINI, GIOVANELLA - MARSHALL, JON - BALCOMBE, STEPHEN - HUGHES, JANE M.</td>
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<td>Darling Dams: how well can genetics detect recent barriers to gene flow</td>
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### 3:30 PM - 5:00 PM  096  Contributed Papers  C125-126/OCC

**Species Interactions and Coevolution 1**

*Chair: Keenan ML Mack*

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<td>JONES, EMILY* - GOMULKIEWICZ, RICHARD</td>
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<td>Evolution, coevolution and the success of species invasions</td>
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<td>096002</td>
<td>COGNI, RODRIGO* - FUTUYMA, DOUGLAS</td>
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<td>The geographical scale of coevolution: local adaptation and population differentiation in a plant herbivore interaction</td>
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<td>Population genetic structure and the evolution of specialization within a multi-species ant-microbe symbiosis</td>
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<td>096004</td>
<td>Metapopulation dynamics and sperm storage may explain the maintenance of a vertebrate gynogenetic species: A simulation model</td>
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<td>096005</td>
<td>Spatial patterns of competing coevolving species</td>
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<td>096006</td>
<td>The selective feedback between the evolution of dispersal distance and the stability of mutualism</td>
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**4:30 PM - 5:00 PM L4**  
Special Lecture  
*Fisher Award Lecture*  
Chair: Unknown

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**6:00 PM - PM L3**  
Special Lecture  
*SSB Presidential Address*  
Chair: Unknown

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Effects of the population subdivision on the spread of the advantageous allele and genetic hitchhiking

P1002  MIDFORD, PETER E  
Phylontal: Using Phylogenies to Align Phenotype Ontologies

P1003  BOORE, JEFFREY L.* - FUERSTENBERG, SUSAN I.  
Evolutionary analysis as the basis for interpreting, comparing, and presenting genomes: The GATOR and PHRINGE system

P1004  TAMURA, KOICHIRO - DANIEL, PETERSON* - NICHOLAS, PETERSON - MASATOSHI, NEI - KUMAR, SUDHIR  
MEGA5: Molecular Evolutionary Genetics Analysis version 5.0

P1005  BORGES, MARCELO* - PIE, MARCIO R.  
The Structure of Parasite-Host Interaction Networks

P1006  ANDERSON, DAVE W* - THORNTON, JOE  
The functional evolution of duplicate trans-acting nuclear receptors

P1007  PERRY, GAD* - WALLACE, MARK J - PERRY, DAN - CURZER, HOWARD - MUHLBERGER, PETER  
Biological field work, ecological ethics, and the America COMPETES Act

P1008  WOLAK, MATTHEW E.* - PAULSEN, YALE R. - FAIRBAIRN, DAPHNE, J.  
Is there a rule of thumb for estimating repeatability? The effect of variance structure, number of measurements per individual, and number of individuals measured

P1009  HAASL, RYAN J.* - PAYSEUR, BRETA.  
Microsatellites as targets of natural selection

P1010  YEDID, GABRIEL* - STREDWICK, JASON - NANLOHY, KABEN  
Detecting episodes of elevated extinction and loss of evolutionary history in phylogenies of digital organism communities

P1011  LUBIN, TERRA* - HOLESKI, LIZA - KELLY, JOHN K.  
Mating System and Response to Selection in the Yellow Monkeyflower

P1012  ANOKWURU, UGOCHUKWU C.* - DAPPA, STANLEY - PHUNGWAYO, S. SOLOMON - SPEARS, STEFAN F. - SURI, RAHUL - SWENSON, M. SHEL - LINDE, C. RANDAL - WARMNOW, TANDY  
Constructing a phylogeny from Goloboff et al.'s 73,060-taxon dataset using supertree methods and maximum likelihood combined analysis

P1013  ASHKI, HALEH* - WILGENBUSCH, JIM - VAN DER MARK, PAUL  
Bayesian Phylogenetic Diagnostics
P1014 GUIMARAES, PAULO R.* - JORDANO, PEDRO - THOMPSON, JOHN N.
The coevolutionary dynamics of mutualistic networks

P1015 DIAZ ARENAS, CAROLINA - LEHMAN, NILES*
Quasispecies Behavior Exhibited in Catalytic RNA Populations Evolving in Vitro

P1016 TURJAK, MARTIN* - TRONTELI, PETER
Pattern versus process: A new method for evaluating synapomorphic support on phylogenetic trees

P1017 NOWAK, MICHAEL* - SMITH, ANDREW - SIMPSON, CARL - ZWICKL, DERRICK
SNAPE v1.0: Estimating informative divergence time priors from the stratigraphic distribution of fossil lineages

P1018 SCOTT, ADAM* - BAHAR, SONYA
Adaptation of Mutability in a Computational Evolutionary Model

P1019 DAPPER, AMY L.* - LIVELY, CURT
Linkage and the dynamics of sexually antagonistic coevolution

P1020 MESSINGER, SUSANNA* - OSTLING, ANNETTE
Predicting pathogen evolution in a spatial context

P1021 CAMPBELL, R. B.
Coancestry of Unlinked Genetic Segments

P1022 KUAN, SHU-HUI * - LIN, YU-TEH, KIRK
Spring and summer cohorts of the Indian Rice Frog, Fejervarya limnocharis, tadpoles use different life-history strategies

P1023 SHEN, JANE
The abundance and distribution of transposable elements in Silurana tropicalis

P1024 PAULL, JEFF
Stable isotope analysis reveals a strong association between diet and morphology in spadefoot toad tadpoles

P1025 PRESSLER, KELSEY K. - HELDT, ARIEL - KNOWLES, L. LACEY*
The genetic consequences of habitat disturbance in the Pacific giant salamander

P1026 STEWART, KATHRYNA.* - AUSTIN, JAMES D. - LOUGHEED, STEPHEN C.
Contact zone dynamics and the evolution of reproductive isolation in a North-American treefrog, Pseudacris crucifer

P1027 BARROW, LISA N.* - LEMMON, EMILY MORIARTY
The Effect of pH on Reproductive Success and Hybridization of Chorus Frogs (Pseudacris feriarum and P. nigrita) in Northern Florida

P1028 MICHELSOHN, MOSES* - LEMMON, EMILY MORIARTY
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P1030 LEICHTY, AARON R* - PFENNIG, DAVID W - PFENNIG, KARIN
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Genomic data reject the hypothesis of a prosimian primate clade
P1127  SACKETT, LOREN C.* - MARTIN, ANDREW P. - COLLINGE, SHARON K.
Recolonization after plague extirpation increases genetic variation within prairie dog (*Cynomys ludovicianus*) populations

P1128  LOPES, CARLA M. - XIMENES, SIMONE S. F. - FREITAS, THALES R. O.*
Evolutionary history of *Ctenomys minutus* and *Ctenomys lami* in the southern Brazilian coastal plain (Rodentia, Ctenomyidae)

P1129  ALVAREZ, LAUREN MARIE* - BOISSINOT, STEPHANE - HICKERSON, MIKE
Population genetics of the baboon species complex using polymorphic transposable elements

P1130  HVALA, JOHN* - WHITE, MICHAEL A. - WAGNER, JENNIFER - DUMONT, BETH - PAYSEUR, BRET A.
Sex ratio distortion in hybrids between subspecies of house mice

P1131  DURST, PAUL
Is there an island rule? Utilizing classification trees to evaluate insular body size evolution in rodents

P1132  SWIFT, HOLLY F.* - DAWSON, MICHAEL N
Population genetics of zooxanthellae symbionts of genetically differentiated *Mastigias papua* sp. jellyfish in marine lakes

P1133  LIU, SHUANG* - HURTADO, LUIS
Population genetics of the crab *Portunus trituberculatus* in China

P1134  SPERLING, ERIK* - VINther, IAKOB - MOY, VANESSA - WHEELER, BENJAMIN - SEMON, MARIE - BRIGGS, DEREK - PETERSON, KEVIN
MicroRNAs resolve an apparent conflict between annelid systematics and their fossil record

P1135  MARKO, PETER* - HART, MICHAEL
Genetic differentiation in the sea: is it always all about gene flow?

P1136  HAUPT, ALISON* - MICHELI, F - PALUMBI, STEPHEN
Separate stocks despite high connectivity in the fished warty sea cucumber

P1137  SHOWERS CORNELI, PATRICE * - KRAUS, NICOLE - OLIVERA, BAlDOMERO - SEGER, JON - WATKINS, MAREN - BANDYOPADHYAY, PRAdIP
Cone snail phylogenetics: Good things from small packages

P1138  HOLLAND, BRENDENS* - HOAN, RYAN
Trouble in paradise: comparative molecular systematics of amber snails intercepted from agriculture shipments in Hawaii and Oregon

P1139  YAMAMICHI, MASATO* - SASAKI, AKIRA
Ecological speciation of snails by right-handed snakes: Red queen or evolutionary stasis?

P1140  VERGARA, DANIELA* - MIDGETT, BAILEY - LIVELY, CURT
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<td>Within-host genetic and phenotypic variation in <em>Euprymna tasmanica</em> symbionts, <em>Vibrio fischeri</em></td>
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<td>Molecular evolution and cryptic speciation of tropical Atlantic opisthobranchs (Mollusca)</td>
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<td>Sitka-white spruce (<em>Picea sitchensis x P. glauca</em>) hybrids as tools for investigating adaptation to climate</td>
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<td>Convergent evolution of morphological traits among many congeneric savanna and forest trees in the Brazilian Cerrado</td>
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<td>Rangewide population-level variation of whitebark pine (<em>Pinus albicaulis</em>) using full chloroplast genomes</td>
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<td>Shared drought and pathogen response pathways in Brassica rapa</td>
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<td>Increased vigor in invasive and domesticated sunflower correlates with impaired response to biotic and a-biotic stress</td>
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<td>Trait correlations in Loblolly Pine (<em>Pinus taeda</em>), and the potential for conflicting selection pressures</td>
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<td>Ecological niche attributes and geographic range size in western North American monkeyflowers</td>
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The evolution of reproductive isolation in the genus *Cakile* (Brassicaceae)

Sunflowers in Sand Dunes

A nursery pollinator as a selective agent on floral traits through oviposition behavior

Genetic diversity and population dynamics of natural populations of *Carica papaya* in Costa Rica

Evidence for mimicry in the pollination of *Dracula* orchids

Sex-specific competitive effects and the relationship with mycorrhizal fungi

Extreme desiccation tolerance in three species of moss spermatozoa

The mating environment and sex allocation in the outcrossing *Clarkia xantiana* (Onagraceae)

A quantitative analysis of floral syndromes associated with bird and bee pollination systems in *Aloe* (Asphodelaceae)

Direct and correlated responses to selection on pollen grain size in the tall morning glory, *Ipomoea purpurea*

Reproductive Dynamics and Population Genetics of the Western Prairie Fringed Orchid: *Platanthera praecox*

Population genetics in several closely related *Cryptantha* subgenus *Oreocarya* (Boraginaceae) in the Colorado Plateau and surrounding region

Does transcriptome have any phylogenetic signals? An example of the genome-wide floral gene expression evolution in ten Asian *Mitella* species

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<td>An Evolutionary Ecology Approach to Marsh Restoration with Spartina alterniflora</td>
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<td>TREIBER, ERIN L.* - WEIBLEN, GEORGE D. - WENGER, JONATHAN P.</td>
<td>THCA and CBDA synthase in Cannabis sativa: alleles or linked loci?</td>
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<td>WALL, CHRISTOPHERA* - MILLER, SCOT'TR</td>
<td>Molecular Population Genetics of a Spatially Structured Population of the Thermophilic Cyanobacterium Mastigocladus laminosus</td>
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<td>LUO, YINGQIN* - BATTISTUZZI, FABIA URSULA - KUMAR, SUDHIR</td>
<td>A genome-wide analysis of decay of overlapping genes in the bacterium E. coli</td>
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<td>PERRY, ELIZABETH B* - FORDE, SAMANTHA E - BOHANNAN, BRENDAN JM</td>
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<td>HANSCHEN, ERIK* - LE GAC, MICKAEL - DOEVELI, MICHAEL</td>
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<td>HENDRY, TORY A.* - DUNLAP, PAUL V</td>
<td>Luminescence operon structure and regulation in a new luminous symbiont genus</td>
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<td>A first look at the genomics of natural transformation</td>
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<td>SANDSTEDT, SARA A.* - NANCE, WILLIAM C. - MARRS, CARL F. - GILSDORF, JANET R. - ZHANG, LIXIN</td>
<td>Natural selection on surface exposed molecules of Haemophilus influenzae</td>
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<td>Somatic Chromosome Copy Number Variation: Impact on Transcript Abundance in the Ciliate Chilodonella uncinata</td>
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<td>LIEBESKIND, BENJAMIN* - ZAKON, HAROLD H.</td>
<td>A proto-sodium channel gene in a choanoflagellate, the sister group to the metazoa: A glimmer of an adaptive walk</td>
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Monday, June 28th

8:00 AM - 12:15 PM  Sym55 Symposium  Oregon Ballroom 201/OCC

SSB Symposium: Ernst Mayr Symposium
Chair: Sydney A. Cameron

8:00  Sym55001  BECKMANN, SEAN
The Effects of Biogeographic Events on the Cotton Mouse, *Peromyscus gossypinus*

8:15  Sym55002  CONDAMINE, FABIEN L.* - SOLDATI, LAURENT - RASPLUS, JEAN-YVES - KERGONAT, GAËL J.
Back in *Blaps*. Deciphering biogeographical patterns in wingless endemic insects of the Mediterranean basin hotspot: historical biogeography of the darkling beetle genus *Blaps* (Coleoptera: Tenebrionidae)

8:30  Sym55003  LAWSON, LUCINDA
Amphibian Diversification in the East Afromontane Sky-Island System

8:45  Sym55004  HILLS, SIMON* - TREWICK, STEVE - MARY, MORGAN-RICHARDS
Calibrating molecular trees with an excellent fossil record

9:00  Sym55005  HERTWECK, KATE* - PIRES, J. CHRIS
Low copy nuclear gene analysis: Battle of the clones

9:15  Sym55006  GIBB, GILLIAN C* - KENNEDY, MARTYN - PENNY, DAVID
Beyond Phylogeny: Pelecaniform and Ciconiiform Birds, and Long-Term Niche Stability

9:30  Sym55007  WINTER, DAVID J.* - KENNEDY, MARTYN - WALLIS, GRAHAM P. - SPENCER, HAMISH G.
Mayr’s Hydra grows another head: Could Rarotonga’s *Lamprocystis* radiation have arisen by sympatric speciation?

9:45  Sym55008  FENWICK, ALLYSON M.* - GREENE, HARRY W. - PARKINSON, CHRISTOPHER L.
Evaluating Dollo’s Law using reproductive mode in vipers (Serpentes: Viperidae)

10:00  Break

10:30  Sym55010  SHERRATT, EMMA
Patterns of cranial evolution in Caecilians (Amphibia: Gymnophiona): a wide scale investigation using geometric morphometrics and computed tomography.

10:45  Sym55011  CUMMINS, CARLA* - MCINERNEY, JAMES
Identifying rapidly evolving characters without using trees

11:00  Sym55012  SWAIN, DEVJANEE* - FAY, JUSTIN
The role of rapidly evolving transcription factors in reproductive isolation in the budding yeast *Saccharomyces*

11:15  Sym55013  GREENWOLD, MATTHEW J.* - SAWYER, ROGER H
Identification and Phylogenetic Analyses of a Large Array of Feather β-keratin Genes in the Genome of the Chicken, *Gallus gallus*: Evidence for Accelerated Rates of Recombination?
11:30  Sym55014  BROWN, JEREMY  
Detecting Inadequate Bayesian Phylogenetic Estimates

11:45  Sym55015  HÖHNA, SEBASTIAN* - RONQUIST, FREDRIK - HUELSENBECK, JOHN  
Probabilistic Graphical Model Representation for Phylogenetics

12:00  Sym55016  HANSON-SMITH, VICTOR* - THORNTON, JOE  
Simulated annealing improves maximum likelihood phylogenetic inference.

**8:30 AM - 10:00 AM   097   Contributed Papers   A105/OCC**

*Adaptation 9 - Chair: Brian W Bowen*

8:30  097001  PERRIER, CHARLES* - BAGLINIÈRE, JEAN-LUC - GUYOMARD, RENÉ - EVANNO, GUILLAUME  
Landscape genetics and introgression following stocking in Atlantic salmon populations

8:45  097002  MARTIN, CHRISTOPHER* - WAINWRIGHT, PETER  
Trophic innovation drives exceptional rates of morphological diversification in two adaptive radiations of Cyprinodon pupfishes

9:00  097003  BOWEN, BRIAN W* - ROCHA, LUIZA - EBLE, JEFF A - TOONEN, ROBERT J  
The origins of tropical marine biodiversity: a phylogeographic perspective

9:15  097004  BERGSTROM, CAROLYN  
Evidence for ecological niche segregation in the face of gene flow in a polymorphic flatfish

9:30  097005  O'MALLEY, KATHLEEN* - FORD, MICHAEL - HARD, JEFFREY  
A Clock gene polymorphism in highly migratory fishes: Evidence for variable selection along a latitudinal gradient

9:45  097006  SIVASUNDAR, ARJUN  
Rapid adaptive divergence during invasion: parallel cases of parapatric lake-stream divergence in invasive stickleback

**8:30 AM - 10:00 AM   098   Contributed Papers   A106/OCC**

*Phylogenetics & Diversification 9 - Chair: Daisie Huang*

8:30  098001  LU-IRVING, PATRICIA* - MARX, HANNAH - OLMSTEAD, RICHARD  
Fruit type, biogeography and intergeneric relationships in Verbenaceae (the Verbena family) - a phylogenetic perspective

8:45  098002  CELLINESE, NICO* - SMITH, STEPHEN A.  
A first comprehensive phylogenetic analysis of the broader Campanulaceae: 500+ taxa and counting.
9:00  098003  HUANG, DAISIE* - FRIAR, ELIZABETH
Divergent gene histories in perennial *Lupinus*

9:15  098004  LEWIS, LOUISE A.* - LEWIS, PAULO.
Diversification of terrestrial green algae

9:30  098005  TATE, JENNIFER A.* - MCLAY, TODD
Phylogeny and breeding system evolution in Australasian mallows (Malvaceae)

9:45  098006  CARLSON, SARA E.* - DONOGHUE, MICHAEL J.
Innovation, dispersal, and diversification in the plant clade Dipsacaceae (Dipsacales)

8:30 AM - 10:00 AM  099  Contributed Papers  A107-108/OCC
Speciation and Hybridization 1
Chair: Michael Wade

8:30  099001  DRURY, DOUGLAS* - JIDEONWO, VICTORIA - WADE, MICHAEL
The Genetics of Hybrid Incompatibility in Tribolium

8:45  099002  FUNK, DANIEL J.* - GOMEZ-ZURITA, JESUS - LUCAK, THOMAS J.
Hybrid Origins of Asexual Species in Calligrapha Leaf Beetles?: Phylogenetic, Ecological, and Reproductive Insights

9:00  099003  EDMANDE, SUZANNE* - RUNDLE, DANIEL - ROSE, COLIN - LEONG, WAI
Genetic architecture of both beneficial and detrimental hybridization effects in the copepod *Tigriopus californicus*

9:15  099004  SALAZAR, CAMILO* - BAXTER, SIMON - PARDO-DIAZ, CAROLINA - WU, GRACE - SURRIDGE, ALISON - LINARES, MAURICIO - BERMINGHAM, ELDREDGE - JIGGINS, CHRIS
Genetic Evidence for Hybrid Trait Speciation in Heliconius Butterflies

9:30  099005  WADE, MICHAEL* - DRURY, DOUGLAS
Reproductive incompatibility: sire performance for fitness on sympatric and allopatric backgrounds

9:45  099006  SALAZAR C., PATRICIO A.* - JIGGINS, CHRIS
The role of hybridization in wing color-pattern diversification in *Heliconius* butterflies
8:30 AM - 10:00 AM  100  Contributed Papers  B111-112/OCC

Molecular Evolution 7
Chair: Stephen Keller

8:30  100001  RYTÖNEN, KALLE T.* - WILLIAMS, TOM A. - RENSHAW, GILLIAN M. - FARES, MARIO A. - NIKINMAA, MIKKO
Molecular evolution of the metazoan oxygen sensing system: insights from elasmobranchs

8:45  100002  ZAKON, HAROLD H.* - ARNEGARD, MATTHEW E - ZWICKL, DERRICK
Elevated rates of evolution of sodium channel genes that generate species-specific communication signals in two independently evolved lineages of electric fishes

9:00  100003  JANECKA, JAN - MEREDITH, ROBERT - FISHER, COLLEEN - STEINER, CYNTHIA - TEELING, EMMA - EIZIRIK, EDUARDO - HONEYCUTT, RODNEY - RYDER, OLIVER - GATESY, JOHN - SPRINGER, MARK - MURPHY, WILLIAM J.*
A complete family-level supermatrix resolves the phylogeny and timing of the mammalian radiations

9:15  100004  OLSON-MANNING, CARRIE* - MITCHELL-OLDS, THOMAS
The genetic basis of local adaptation to herbivores in Boechera stricta (Brassicaceae)

9:30  100005  KELLER, STEPHEN* - OLSON, MATTHEW - LEVSEN, NICHOLAS - TIFFIN, PETER
The scale of adaptation in poplar phenological genes: species-wide sweeps versus local selection

9:45  100006  LIVINGSTONE, KEVIN* - MALPEDE, BRIAN - MATHEWS, GREG
Relaxed constraint on a duplicated lycopene β-cyclase led to the evolution of novel fruit colors in Capsicum

8:30 AM - 10:00 AM  101  Contributed Papers  B113/OCC

Genomics 9
Chair: John McCormack

8:30  101001  OGURA, ATSUSHI* - KOMIYAMA, TOMOYOSHI
Genomic diversity of chickens underlying cultural domestication revealed by aCGH

8:45  101002  MCCORMACK, JOHN* - MALEY, JAMES - HIRD, SARAH - DERRYBERRY, ELIZABETH - BRUMFIELD, ROBB
A simple and cost-effective application of 454 pyrosequencing to investigate four recent divergences in birds

9:00  101003  EO, SOO HYUNG* - DEWOODY, J. ANDREW
Transcriptomics of amphibian metamorphosis: pyrosequencing in tiger salamanders (Ambystoma tigrinum)
Monday

9:15 101004  HALE, MATT C* - COLLETTI, JOHN - SCARDINA, JULIE - THROWER, FRANK - NICHOLS, KRISTA
Candidate gene discovery and association of embryonic development rate in rainbow trout

9:30 101005  MININ, VLADIMIR N.* - OAKLEY, TODD - SUCHARD, MARC
A Bayesian approach to testing the independent origin hypothesis

9:45 101006  ZAROWIECKI, MAGDALENA* - BERRIMAN, MATT - PETE, OLSON
The genome and transcriptome of the tape-worm *Hymenolepis microstoma*

8:30 AM - 10:00 AM  102  Contributed Papers  B114-115/OCC

Natural Selection and Contemporary Evolution 5
Chair: Joan West

8:30 102001  ROLES, ANGELA J.* - RUTTER, MATTHEW T. - FENSTER, CHARLES B. - CONNER, JEFFREY
Field measurements of GEI for spontaneous mutations in *Arabidopsis thaliana*

8:45 102002  WEST, JOAN* - MAURICIO, RODNEY
Genetic differentiation across a severe environmental gradient in *Arabidopsis lyrata*

9:00 102003  LARSON, HANNAH* - OTFINOSKI, JAMIE - LORUSSO, AMANDA - GELGUD, RYAN - BURGHARDT, LIANA - ENGELMANN, KATHLEEN
The “shade avoidance” type response in *A. thaliana* when grown under oscillating daily thermal cycles: a possible role for FRI, FLM, FLC, and PHYB

9:15 102004  BLACKMAN, BENJAMIN* - RASMUSSEN, DAVID - RADUSKI, ANDREW - STRASBURG, JARED - BURKE, JOHN - KNAPP, STEVEN - MICHAELS, SCOTT - RIESEBERG, LOREN
Gene Duplication and Evolutionary Innovation During Sunflower Domestication

9:30 102005  KULPA, SARAH - LEGER, ELIZABETH*
Natural selection in the wild as a part of large-scale restoration

9:45 102006  LA ROSA, RAFFICA J.* - CONNER, JEFFREY
Selection through male and female fitness: trends over three years in milkweed floral traits

8:30 AM - 10:00 AM  103  Contributed Papers  B116/OCC

Population Genetics 9
Chair: Rachel W. Clostio

8:30 103001  RUSSELL, JAMES* - FAULQUIER, LUCIE - TONIONE, MARIA
Rat invasion ecology and genetics on Tetiaroa atoll, French Polynesia

8:45 103002  CHAVEZ, ANDREAS* - KENAGY, GJ
Maintenance of phenotypic variation despite hybridization in a secondary contact zone in tree squirrels (*Tamiasciurus*)
### Monday

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<tr>
<td>9:00</td>
<td>103003</td>
<td>Fitness Epistasis and Constraints on Adaptation in HIV-1</td>
<td>DASILVA, JACK</td>
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<td>9:15</td>
<td>103004</td>
<td>Landscape features influence regional population genetic structure of the Gopher Tortoise (Gopherus polyphemus)</td>
<td>CLOSTIO, RACHEL W. - ANTHONY, N. M. - MARTINEZ, A. M. - LEBLANC, K. E.</td>
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<td>9:30</td>
<td>103005</td>
<td>Microsatellite diversity and population genetic structure of the endangered Hine’s emerald dragoonly (Somatochlora hineana)</td>
<td>BRITTEN, HUGH* - MONROE, EMY</td>
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<td>9:45</td>
<td>103006</td>
<td>Evolution of the purposefully released Biological Control Agent Diachasmimorpha tryoni (Hymenoptera: Braconidae) in Hawaii</td>
<td>VORSINO, ADAM* - WIECZOREK, ANIA - WRIGHT, MARK - MESSING, RUSSELL</td>
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| 8:30 AM - 10:00 AM | 104 | Contributed Papers | B117-118/OCC  
Behavior and Social Evolution 4  
Chair: Adrian M Paterson |
| 8:30  | 104001  | Can environmental filtering of animal personalities promote speciation? | BRODIN, TOMAS* - LIND, MARTIN - JOHANSSON, FRANK                                               |
| 8:45  | 104002  | Toxic Web: Tracking Pollutants Across Trophic Levels                  | DANIELSON-FRANCOIS, ANNE* - AWAD, AMNEH - MURRAY, KENT                                        |
| 9:00  | 104003  | Black or white? The evolution of behavioral traits in penguins        | PATERSON, ADRIAN M                                                                           |
| 9:15  | 104004  | The Phylogenetics of Song Characters in the House Finch (Carpodacus Mexicanus) | AGUILAR, E.G.* - LAHTI, D.                                                                     |
| 9:30  | 104005  | Individual differences in sensitivity to a changing resource within a group setting | LASKOWSKI, KATE                                                                               |
| 9:45  | 104006  | Genetic parameters of personality in North American red squirrels     | TAYLOR, RYAN W.* - BOUTIN, STAN - HUMPHRIES, MURRAY M. - MCADAM, ANDREW G.                    |

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| 8:30 AM - 10:00 AM | 105 | Contributed Papers | C121-122/OCC  
Sexual Selection 1 - Chair: Mollie K. Manier |
| 8:30  | 105001  | Correlated evolution of female reproductive tract design and complex sperm morphology in diving beetles (Dytiscidae) | HIGGINSON, DAWN M* - SEGRAVES, KARIA - MILLER, KELLY B - PITNICK, SCOTT                       |
| 8:45  | 105002  | Genetic architecture of highly diverged genitalia in a ground beetle group | SOTA, TEJII* - SASABE, MASATAKA - TAKAMI, YASUOKI                                               |
### Monday

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<tr>
<td>9:00</td>
<td>105003</td>
<td>Patterns of sperm variation in the red-winged blackbird</td>
<td>LUEPOLD, STEFAN</td>
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<tr>
<td>9:30</td>
<td>105005</td>
<td>The evolution of sperm size in fishes</td>
<td>MONTGOMERIE, ROBERT D* - FITZPATRICK, JOHN L</td>
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<td>9:45</td>
<td>105006</td>
<td>Post-copulatory sexual selection and sexual conflict in the Gulf pipefish</td>
<td>PACZOLT, KIMBERLY A* - JONES, ADAM G</td>
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### 8:30 AM - 10:00 AM  106 Contributed Papers  C123/OCC

**Bioinformatics 1**  
*Chair: Sudhir Kumar*

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<tr>
<td>8:30</td>
<td>106001</td>
<td>MEGA5: Molecular Evolutionary Genetics Analysis using Maximum Likelihood, Distance, and Maximum Parsimony methods</td>
<td>KUMAR, SUDHIR* - TAMURA, KOICHIRO</td>
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<tr>
<td>8:45</td>
<td>106002</td>
<td>TimeTree: a web resource for exploring the evolutionary timescale of life (<a href="http://www.timetree.org">www.timetree.org</a>)</td>
<td>HEDGES, S BLAIR</td>
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<td>9:00</td>
<td>106003</td>
<td>Extracting Phylogenetic Information from Ambiguous Regions through Multidimensional Scaling of Pairwise Likelihoods</td>
<td>CARTWRIGHT, REED* - HODKINSON, BRENDA N - STAMATAKIS, ALEXIS - LÜCKING, ROBERT</td>
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<tr>
<td>9:15</td>
<td>106004</td>
<td>BEAST 2.0: The computational science of evolutionary software</td>
<td>BOUCKAERT, REMCO - DRUMMOND, ALEXE I*</td>
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<tr>
<td>9:30</td>
<td>106005</td>
<td>Inferring accurate gene genealogies in the presence of selection</td>
<td>OFALLON, BRENDA N</td>
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<tr>
<td>9:45</td>
<td>106006</td>
<td>Analytical methods for next-generation population genomics</td>
<td>GOMPERT, ZACH* - BUERKLE, C. ALEX</td>
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### Species Interactions and Coevolution 2
*Chair: Jeremy B. Yoder*

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<tr>
<td>8:30</td>
<td>107001</td>
<td>MOE, ANNIKA</td>
<td>A mechanism for interspecific gene flow in a highly specialized pollination mutualism</td>
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<tr>
<td>8:45</td>
<td>107002</td>
<td>BRISCOE RUNQUIST, RYAN* - STANTON, MAUREEN</td>
<td>Ecological and Evolutionary consequences of pollinator-mediated competition between two vernal pool annuals</td>
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<tr>
<td>9:00</td>
<td>107003</td>
<td>ALCANTARA, SUZANA* - REE, RICHARD H. - MARTINS, FERNANDO R. - LOHMANN, LUCIA G.</td>
<td>The role of floral morphology on the assembly of liana communities in the Neotropics</td>
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<td>9:15</td>
<td>107004</td>
<td>DEEN, CECILE* - CHANG, SHU-MEI</td>
<td>The role of pollinators in the maintenance of a floral color polymorphism in <em>Geranium maculatum</em></td>
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<td>9:30</td>
<td>107005</td>
<td>YODER, JEREMY B.* - SMITH, CHRISTOPHER I. - ROWLEY, DANIEL - STARR, TYLER - GODSOE, WILLIAM K.W. - PELLMYR, OLLE</td>
<td>Coevolution and gene flow in an obligate pollination mutualism</td>
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<tr>
<td>9:45</td>
<td>107006</td>
<td>SHOEMAKER, IVAN R.* - BURGESS, KEVIN S.</td>
<td>Tracking Floral Visitation Using DNA Barcodes</td>
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### Development and Evolution 1
*Chair: Grace Wyngaard*

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<td>8:30</td>
<td>108001</td>
<td>CROW-SANCHEZ, KAREN</td>
<td>The role of duplicate Hox genes in the evolution of novelty in ray-finned fishes</td>
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<td>8:45</td>
<td>108002</td>
<td>WYNGAARD, GRACE* - RASCH, ELLEN</td>
<td>Extraordinary amounts of excised DNA during chromatin diminution: an example of how Cyclops (Crustacea: Copepoda) “break the rules” of quantitative behavior of DNA during development</td>
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<td>9:00</td>
<td>108003</td>
<td>STANSBURY, MATTHEWS*S. - MOCZEK, ARMIN P.</td>
<td>The firefly lantern: Developmental genetics of an evolutionary novelty</td>
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<td>9:15</td>
<td>108004</td>
<td>PLACHETZKI, DAVID</td>
<td>Deep homology and the evolution of the animal senses: insights from the Cnidaria</td>
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<td>9:30</td>
<td>108005</td>
<td>GOLD, D.A.* - JACOBS, DAVID</td>
<td>Development in Aurelia and the Beginnings of Animal Evolution</td>
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10:30 AM - 12:00 PM  109  Contributed Papers  A105/OCC

Adaptation 10

Chair: Patrick McIntyre

10:30  109001  MUIR, CHRISTOPHER D.
Genetics of drought adaptation in wild tomatoes (Solanum sect. Lycopersicon)

10:45  109002  MCINTYRE, PATRICK
Adaptation and niche Breadth among polyploid cytotypes of Claytonia perfoliata (Portulacaceae)

11:00  109003  OAKLEY, CHRISTOPHER G.
The Effect of Spatial Population Structure on Adaptive Trait Variation in a Rare Perennial Plant

11:15  109004  PILLON, YOHAN
Ultramafic soils and species sorting in the flora of New Caledonia

11:30  109005  FRIESEN, MAREN L.* - VON WETTBERG, ERIC J. - STRAUSS, SHARON - COOK, DOUG - NUZHDIN, SERGEY
Population Genomics of Salinity Tolerance in Medicago truncatula

11:45  109006  MOORE, KARA* - STANTON, MAUREEN
Consequences of habitat heterogeneity and seed dormancy for adaptation at the margins of a native plant population

10:30 AM - 12:00 PM  110  Contributed Papers  A106/OCC

Phylogenetics & Diversification 10

Chair: Chris Venditti

10:30  110001  CATCHEN, JULIAN* - AMORES, ANGEL - HOHENLOHE, PAUL - EMERSON, KEVIN J - CRESKO, WILLIAM A. - POSTLETHWAIT, JOHN
Generating markers from short-read, de novo RAD-Tags for genetic mapping and phylogenetics

10:45  110002  FRITZ, SUSANNE A* - JONSSON, KNUDA - FJELDSÅ, JON - RAHBEK, CARSTEN
Out of New Guinea: Non-density dependent cladogenesis in several families of core-corvid passerine birds

11:00  110003  BINFORD, GRET AJ* - MERRELL, ANDREW V - ZOBEL-THROPP, PAMELAA
Biogeography and venom diversity in South American relatives of brown recluse spiders (Loxosceles)

11:15  110004  FAHEY, ANNA L.* - RICKLEFS, ROBERT - DEWOODY, J. ANDREW
Comparative historical demography: migrant and breeding resident birds from Hispaniola
Monday

11:30  110005  VENDITTI, CHRIS* - MEADE, ANDREW - PAGEL, MARK
The Varying Rates of Mammal Body Size Evolution

11:45  110006  CAPELLINI, ISABELLA* - VENDITTI, CHRIS - BARTON, ROBERT
Phylogeny and metabolic scaling in mammals

10:30 AM - 12:00 PM  111  Contributed Papers  A107-108/OCC
Speciation and Hybridization 2
Chair: Victoria Cattani

10:30  111001  CATTANI, VICTORIA* - PRESGRAVES, DAVEN
Genetics and evolution of a hybrid incompatibility between Drosophila mauritiana and its
sibling species

10:45  111002  MCDERMOTT, SHANNON* - NOOR, MOHAMED A F
Directly testing an association between meiotic drive and hybrid male sterility

11:00  111003  MATUTE, DANIEL R* - COYNE, JERRY A.
The rate of evolution of hybrid incompatibilities in Drosophila

11:15  111004  LACKEY, ALYCIA CR* - BOUGHMAN, JENNY
Impacts of changing habitats on male competition and reproductive isolation in sticklebacks

11:30  111005  GLENNON, KELSEY L.* - CHURCH, SHERI
Polyploidy limits species incompatibilities and influences hybridization patterns in Houstonia
section Amphiotis

11:45  111006  RICCA, MARIANA* - SHAW, A. J.
Interploidal hybridization in peatmosses

10:30 AM - 12:00 PM  112  Contributed Papers  B111-112/OCC
Molecular Evolution 8
Chair: Michael Gilchrist

10:30  112001  BRIDGHAM, JAMIE* - THORNTON, JOE
Evolution of response element recognition by ancestral transcription factor DNA binding domains

10:45  112002  ENGLE, ELIZABETH* - FAY, JUSTIN
Epistasis between promoter and coding regions results in functional divergence of a yeast tran-
scription factor FZF1 between species

11:00  112003  WILLIAMS, BARRY* - KLIMYTE, EDITA - TWISS, BEVERLY - HARKINS, VICTORIA
Epistasis, dominance, and environmental contingency explain putative compensatory tRNA
evolution in Saccharomyces cerevisiae
11:15 112004 DAUGHA RTHY, EVAN* - GOODMAN, AARON
Antisense transcription conserved in wild strains of budding yeast

11:30 112005 GILCHRIST, MICHAEL
Translational Errors and the Evolution of Protein Length

11:45 112006 HOFFMANN, FEDERICO G.* - OPAZO, JUAN C. - STORZ, JAY F.
The role of Whole Genome Duplications in the early diversification of vertebrate hemoglobins

10:30 AM - 12:00 PM 113 Contributed Papers B113/OCC
Genomics 10
Chair: Paul M Magwene

10:30 113001 SCHAACK, SARAH* - GILBERT, CLEMENT - FESCHOTTE, CEDRIC
A role for host-parasite interactions in the horizontal transfer of DNA transposons across animal phyla

10:45 113002 ZILVERSMIT, MARTINE* - DAY, KARE N - MCVEAN, GIL - AWADALLA, PHILIP
Recombination, gene families, and host-parasite coevolution

11:00 113003 CHEN, JIANG - HANNIG, JAN - JONES, CORBIN D*
The power and deceit of RNA-seq data

11:15 113004 WILSON, BENJAMINA* - MASEL, JOANNA
Identification of Noncoding Transcripts Associated with Ribosomes in Yeast

11:30 113005 SIMOLA, DANIEL* - FRANCIS, CHANTAL - SNIEGOWSKI, PAUL - KIM, JUNHYONG
Heterochronic Evolution Reveals Modular Timing Changes in Budding Yeast Transcriptomes

11:45 113006 MAGWENE, PAUL M
Genomic Heterozygosity and Loss-of-Heterozygosity in Saccharomyces cerevisiae

10:30 AM - 12:00 PM 114 Contributed Papers B114-115/OCC
Plant Mating Systems 5
Chair: Diana Pilson

10:30 114001 MILANO, ELIZABETH R.
Population structure of floral traits in Ipomopsis aggregata ssp. candida and collina in the Front Range of the Colorado Rockies

10:45 114002 CHEN, CHARLES* - RITLAND, KERMIT
Lineage specific inference about QTLs in mating system evolution among three taxa of the yellow monkeyflower species complex

11:00 114003 PILSON, DIANA
Natural selection on flowering phenology: fall, spring, and twice-flowering Capsella bursa-pastoris
### 10:30 AM - 12:00 PM  115  Contributed Papers  B116/OCC

**Theoretical Population Genetics 3**

*Chair: Jon Wilkins*

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<td>115001</td>
<td>WILKINS, JON</td>
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<td>A pain in the torus, revisited: Isolation by distance in the absence of local population density regulation</td>
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<td>10:45</td>
<td>115002</td>
<td>ALVARADO-S., DIEGO* - KNOWLES, L. LACEY</td>
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<td>Incorporating more realistic demographic histories in population expansion studies: insights from coupled ecological, demographic and genetic models</td>
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<td>115003</td>
<td>RALPH, PETER L* - COOP, GRAHAM</td>
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<td>Spatial parallel evolution: One wave or many?</td>
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<td>115004</td>
<td>YANCHUKOV, ALEXEY</td>
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<td>Evolution via gene duplication facilitated by gene flow</td>
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<td>11:30</td>
<td>115005</td>
<td>WONG, EDWARD</td>
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<td>A synthesis of social evolution theories through spatial ecological game</td>
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<td>SIMON, BURT* - PUHALSKII, ANATOLII</td>
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<td>Evolutionary birth-death processes and their large population limits</td>
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### 10:30 AM - 12:00 PM  116  Contributed Papers  B117-118/OCC

**Life History Evolution 2**

*Chair: C. Athena Aktipis*

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<td>116001</td>
<td>AKTIPIS, C. ATHENA* - PEPPER, JOHN - MALEY, CARLO</td>
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<td>The Evolution and Ecology of Metastasis: Resource depletion favors cell motility</td>
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<td>116002</td>
<td>MACLEAN, H.J.* - GILCHRIST, G.W.</td>
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<td>Environmental Mismatch in Drosophila subobscura: What to do with Incorrect Cues</td>
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<tr>
<td>11:00</td>
<td>116003</td>
<td>BILLMAN, ERIC* - BELK, MARK C</td>
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<td>Reproductive allocation of western mosquitofish in Utah Lake: evidence for the reproductive value hypothesis</td>
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11:15  116004  ADLER, MARGO
Life History and Condition: How to maximize fitness when you’re small, hungry and lonely

11:30  116005  SCHWARTZ, TONIA*S - BRONIKOWSKI, ANNE M
Molecular-physiological responses to heat stress in divergent snake life-history ecotypes

11:45  116006  FITZJOHN, RICHARD G
Survival of the littlest? Body size and speciation in mammals

10:30 AM - 12:00 PM  117  Contributed Papers  C121-122/OCC
Sexual Selection 2
Chair: Kevin A. Judge

10:30  117001  FORMICA, VINCE*S - LARSEN, WHITNEY - BRODIE III, EDMUND
Sexual selection on social network metrics in a wild population of forked fungus beetles (Bolitotherus cornutus)

10:45  117002  JUDGE, KEVINA*S - DE LUCA, PAUL D. - MORRIS, GLENN K.
Material benefits of sexual cannibalism in a primitive acoustic insect

11:00  117003  MUNGUIA-STEYER, ROBERTO*S - BUZATTO, BRUNO A. - MACHADO, GLAUCO
Male dimorphism across ten populations in the wild: harem size, sneaker mating opportunities and gonadic investment in the arachnid Serracutisoma proximum

11:15  117004  DELCOURT, MATTHIEU*S - BLOWS, MARK - RUNDLE, HOWARD
Genetics and nature of condition dependence in a multi-component sexual display

11:30  117005  BILLO, TIM
Effects of sexual selection on the structure and evolution of calls in two recently diverged bird species

11:45  117006  NIEBERDING, CAROLINE M.* - FISCHER, KLAUS - HEDENSTRÖM, ERIK - BRAKEFIELD, PAUL
Sexual selection on olfactory communication in males of the butterfly Bicyclus anynana: a comparison with selection pressures in female moths
### Bioinformatics 2

**Chair: Aaron E. Darling**

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<tr>
<td>10:30</td>
<td>118001</td>
<td>Capturing the Cloud: High Throughput Sequencing of Multiple Individual Genomes from a Retroviral Population</td>
<td>Jabara, Cassandra* - Jones, Corbin D - Anderson, Jeffrey - Swanstrom, Ron</td>
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<td>10:45</td>
<td>118002</td>
<td>Resolving the Hidden Biosphere: A high-throughput procedure that identifies Operational Taxonomic Units from metagenomic data</td>
<td>Sharpton, Thomas* - Riesenfeld, Samantha - Kembel, Steven - Laau, Joshua - O'Dwyer, James - Eisen, Jonathan - Green, Jessica - Pollard, Katherine</td>
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<tr>
<td>11:00</td>
<td>118003</td>
<td>Using phylogenetic signal in 16S rRNA gene copy number to improve estimates of microbial diversity</td>
<td>Kembel, Steven* - Wu, Martin - Eisen, Jonathan - Green, Jessica</td>
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<tr>
<td>11:15</td>
<td>118004</td>
<td>Searching for a bacterial species concept: Asymmetric gene flow and recombination inferred from whole <em>E. coli</em> genomes</td>
<td>Darling, Aaron E.* - Dideлот, Xavier - Lawson, Dan - Falush, Daniel</td>
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### Species Interactions and Coevolution 3

**Chair: Douglas Yu**

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<tr>
<td>10:30</td>
<td>119001</td>
<td>Let the right one in: a microeconomic approach to partner choice in mutualisms</td>
<td>Archetti, Marco - Ubeda, Francisco - Fudenberg, Drew - Green, Jerry - Pierce, Naomi - Yu, Douglas*</td>
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<td>10:45</td>
<td>119002</td>
<td>Growth of mycorrhizal hyphae in the soil is affected by relatedness of ragweed host plants</td>
<td>File, Amanda* - Kliromos, John - Dudley, Susan</td>
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<tr>
<td>11:00</td>
<td>119003</td>
<td>Serpentine soils do not limit ectomycorrhizal fungal diversity</td>
<td>Branco, Sara</td>
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<td>11:15</td>
<td>119004</td>
<td>Transgenic Bt maize: An evaluation of nine different Bt maize isolines on arbuscular mycorrhizal fungi</td>
<td>Cheeke, Tanya E.* - Rosenstiell, Todd N. - Cruzan, Mitchell</td>
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11:30 119005  HOEKSEMA, JASON* - ROGERS, DEBORAH - VARGAS-HERNANDEZ, JESUS - THOMPSON, JOHN N.
Geographic divergence of specialization in a diverse symbiosis: Pines and spore-bank ectomycorrhizal fungi

11:45 119006  OONO, RYOKO - DENISON, R. FORD*
Relative host sanctions in the legume-rhizobium symbiosis

10:30 AM - 12:00 PM  120  Contributed Papers  C125-126/OCC

**Development and Evolution 2**

*Chair: S.R. Dennis*

10:30 120001  LEDÓN-RETTIG, CRIS C* - PFENNIG, DAVID W - CRESPI, ERICA
Diet and hormones reveal cryptic genetic variation: Implications for the evolution of novel feeding strategies

10:45 120002  DENNIS, S.R.* - BECKERMAN, A.P.
Predator induced changes in gene expression in developmentally hormone pathways

11:00 120003  DANIELS, EMILY* - REED, ROBERT
Development and Seasonal Variation of Butterfly Wing Pigments

11:15 120004  DREYER, AUSTIN P. * - SHINGLETON, ALEXANDER W.
Male genitalia of *Drosophila melanogaster*: Canalized but developmentally instable

11:30 120005  SIKKINK, KRISTIN L.* - CRESKO, WILLIAM A.
Genotype-by-environment interactions and the evolution of transcriptional regulation in the threespine stickleback

11:45 120006  PAABY, ANNALISE* - PIANO, FABIO - ROCKMAN, MATTHEW
Uncovering cryptic genetic variation for *C. elegans* embryogenesis

1:20 PM - 5:00 PM  Sym66 Symposium  Oregon Ballroom 201/OCC

**SSB Symposium: Paleontological and neontological approaches to dating the Tree of Life**

*Chair: Brian, R Moore; Thomas Near*

1:20  Introduction

1:30  Sym66002HEATH, TRACY A.* - HUELSENBECK, JOHN - HOLDER, MARK T.
A Dirichlet process model for estimating lineage-specific substitution rates and dating species divergences
2:00 Sym66003  MARTHALL, CHARLES
Looking under the hood: the meaning of Bayesian priors on divergence times in light of the nature of the fossil record

2:30 Sym66004  DORNBURG, ALEX* - TOWNSEND, JEFFREY - NEAR, THOMAS
Signal, Noise, and Inferences of Molecular Divergence Time Estimates

3:00 Break

3:30 Sym66005  NEAR, THOMAS
Informed calibration priors and calibration sampling strategies in molecular divergence time estimates of ray-finned fishes

4:00 Sym66007  OAKLEY, TODD
Testing divergence time hypotheses with concatenated data sets and multiple fossils

4:30 Sym66008  MOORE, BRIAN, R* - HUELSENBECK, JOHN
How well are we playing the dating game? A simulation study of divergence-time estimation using relaxed molecular clock methods

---

**1:30 PM - 3:00 PM  121  Contributed Papers  A105/OCC**

**Adaptation II**

**Chair: Luke Hoekstra**

1:30 121001  CONNER, JEFFREY
Why using genetic correlations for predicting/inferring/estimating evolutionary constraints is totally lamesauce

1:45 121002  HOEKSTRA, LUKE* - MONTOOTH, KRISTI
Costs of inducible gene expression manifest as a transient rise in *Drosophila* energy expenditure

2:00 121003  KUCHTA, SHAWN* - SVENSSON, ERIK
Predator-mediated natural selection on wing traits in the damselfly *Calopteryx splendens*: shape, size, or sex?

2:15 121004  JOY, JEFFREY B* - CRESPI, BERNARD J
Island Phytophagy: explaining the remarkable diversity of phytophagous insects

2:30 121005  BARSIS, DANIEL* - OLIVER, THOMAS - TOONEN, ROBERT J - STILLMAN, JONATHON - GATES, RUTH - BIRKELAND, CHARLES - PALUMBI, STEPHEN
Evolution of climate change resilience in American Samoan corals

2:45 121006  HEIDL, SARAH* - MARDULYN, PATRICK - DAHLHOFF, ELIZABETH P. - SMILEY, JOHN - RANK, NATHAN E.
Concordance between geographic variation at phosphoglucone isomerase and mtCOI in a montane leaf beetle
1:30 PM - 3:00 PM  122  Contributed Papers  A106/OCC

**Phylogeography 9**

*Chair: Kenyon B Mobley*

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<thead>
<tr>
<th>Time</th>
<th>Session ID</th>
<th>Authors / Presenters</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30</td>
<td>122001</td>
<td>Mobley, Kenyon B* - Lussetti, Daniel - Johansson, Frank - Enlund, Göran - Bokma, Folmer</td>
<td>Fine-scale population structure and morphological divergence in Swedish nine-spined stickleback (<em>Pungitius pungitius</em>) populations isolated since the last glacial retreat</td>
</tr>
<tr>
<td>1:45</td>
<td>122002</td>
<td>Deagle, Bruce* - Jones, Felicity - Kingsley, David - Reimchen, Thomas E.</td>
<td>Genome-wide patterns of genetic variation in morphologically diverse populations of threespine stickleback from the Haida Gwaii archipelago</td>
</tr>
<tr>
<td>2:00</td>
<td>122003</td>
<td>Ilves, Katriina* - Hickerson, Mike</td>
<td>Pleistocene divergences of anadromous fishes spanning the North Atlantic and the Florida peninsula</td>
</tr>
<tr>
<td>2:15</td>
<td>122004</td>
<td>Boehm, J.T.* - Lourie, Sara - Woodall, Lucy - Waldman, John - Hickerson, Mike</td>
<td>Statistical phylogeography and species delimitation of three widespread Atlantic seahorse (<em>Hippocampus</em>) species</td>
</tr>
<tr>
<td>2:30</td>
<td>122005</td>
<td>Breinholt, Jesse* - Moler, Paul - Crandall, Keith A.</td>
<td>Estimating phylogenetic relationships of Florida troglobitic crayfish and the number of independent invasions into subterranean habitat</td>
</tr>
<tr>
<td>2:45</td>
<td>122006</td>
<td>Haig, Jodie* - Connolly, Rod - Hughes, Jane M.</td>
<td>Little shrimp answering big questions on connectivity: high levels of genetic structure for abundant seagrass species</td>
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1:30 PM - 3:00 PM  123  Contributed Papers  A107-108/OCC

**Speciation 9**

*Chair: Christopher I. Smith*

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<thead>
<tr>
<th>Time</th>
<th>Session ID</th>
<th>Authors / Presenters</th>
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<tbody>
<tr>
<td>1:30</td>
<td>123001</td>
<td>Xu, Shuqing* - Schlüter, Philipp - Scopec, Giovanni - Breitko, Hendrik - Cozzolino, Salvatore - Schiestl, Florian P.</td>
<td>Can floral isolation prevent gene flow among sympatric sexually deceptive orchids?</td>
</tr>
<tr>
<td>1:45</td>
<td>123002</td>
<td>Byers, Kelsey J.R.P.* - Bradshaw, H.D., Jr.</td>
<td>Rational design of a novel pollinator interaction</td>
</tr>
<tr>
<td>2:00</td>
<td>123003</td>
<td>Smith, Christopher I.* - Starr, Tyler - Yoder, Jeremy B.</td>
<td>Are Joshua trees (<em>Yucca brevifolia</em>) that rely on different pollinators reproductively isolated? Detecting hybridization in a zone of sympathy using morphological and molecular data</td>
</tr>
</tbody>
</table>
The pollen tube proteome of yellow monkeyflowers includes several candidate genes that may contribute to conspecific pollen precedence.

Detecting floral evolution in sympatric monkeyflowers (*Mimulus* spp.)

An Evaluation of Sympatric Speciation in *Limnanthes*

**Molecular Evolution 9**

**Chair: Jose M. Eirin-Lopez**

- **1:30** 124001  
  **RICHARDSON, AARON O.* - WESSLER, SUSAN R.**  
  Introgression, activation, and transposition of transposable elements in Oryza sativa transferred from a reproductively isolated wild relative

- **1:45** 124002  
  **EIRIN-LOPEZ, JOSE M.* - GONZALEZ-ROMERO, RODRIGO - RIVERA-CASAS, CIRO - MENDEZ, JOSEFINA - AUSIO, JUAN**  
  Histones in regalia: flourishing diversity on the verge of germ chromatin evolution

- **2:00** 124003  
  **THEOBALD, DOUGLAS**  
  On the monophyly of all life: A formal, fundamental test of the theory of universal common ancestry

- **2:15** 124004  
  **STARRETT, JAMES* - GARB, JESSICA - HAYASHI, CHERYL**  
  Silk gland transcripts from mesothele and mygalomorph spiders and the early evolution of the spidroin gene family

- **2:30** 124005  
  **YOUNG, BRENT* - DEAN, MATT**  
  Evolution of Copulatory Plug Proteins in Mice

- **2:45** 124006  
  **HOFFMANN, FEDERICO G. - OPAZO, JUAN C.***  
  Evolution of the relaxin/insulin-like gene subfamily in mammals

**Genomics 11**

**Chair: Ian Misner**

- **1:30** 125001  
  **KELLY, JOHN K.* - MOJICA, JULIUS**  
  Epistasis among monkeyflower QTLs

- **1:45** 125002  
  **HUIFENG, JIANG - XU, LIN - ZHENGLONG, GU***  
  Distribution and Evolution of Epistasis
### Session 126

**Monday**

<table>
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<tbody>
<tr>
<td>2:00</td>
<td>125003</td>
<td>Targeted next generation sequencing for population genetics and phylogenomics in Ambystomatid salamanders</td>
<td>O'NEILL, ERIC* - WEISROCK, DAVID</td>
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<tr>
<td>2:15</td>
<td>125004</td>
<td>Core photosynthetic genes in Saprolegnian oomycetes: evidence for a plastid?</td>
<td>MISNER, IAN* - HAUS, LINDSEY - BAILEY, CRAIG - LANE, CHRISTOPHER</td>
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<tr>
<td>2:30</td>
<td>125005</td>
<td>Genomic insights into the role of hybridization in plant evolution</td>
<td>BARKER, MICHAEL S* - DLUGOSCH, KATRINA M - RIESEBERG, LOREN</td>
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**1:30 PM - 3:00 PM  126  Contributed Papers  B114-115/OCC**

**Behavior and Social Evolution 5**

Chair: Theodore Stankowich

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<th>Time</th>
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<tbody>
<tr>
<td>1:30</td>
<td>126001</td>
<td>Trans-generational medication in the monarch butterfly</td>
<td>LEFÈVRE, THIERRY* - OLIVER, LINDSAY - MARK, HUNTER - JACOBUS, DE ROODE</td>
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<tr>
<td>1:45</td>
<td>126002</td>
<td>Inbreeding depression and inbreeding avoidance in the least killifish, Heterandria formosa</td>
<td>ALA-HONKOLA, OUTI* - DIAZ PAULI, BEATRIZ - UDDSTROM, ANNIKA - TUOMINEN, LAURA - LINDSTROM, KAI</td>
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<tr>
<td>2:00</td>
<td>126003</td>
<td>Evolution of cuticular hydrocarbon diversity in ants</td>
<td>VAN WILGENBURG, ELLEN* - ELGAR, MARK - SYMONDS, MATT</td>
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<tr>
<td>2:15</td>
<td>126004</td>
<td>Rapid adaptation to sociality involves upregulation of Mups in the house mouse: testing the mechanisms</td>
<td>NELSON, ADAM* - POTTS, WAYNE</td>
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<tr>
<td>2:30</td>
<td>126005</td>
<td>Black, White, and Stinky: The Evolution of Aposematic Defenses in Terrestrial Carnivores</td>
<td>STANKOWICH, THEODORE* - CARO, TIM</td>
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<tr>
<td>2:45</td>
<td>126006</td>
<td>Maternal egg size plasticity organizes alternative escape behaviors in a socially polymorphic lizard</td>
<td>LANCASTER, LESLEY T.* - MCADAM, ANDREW G. - SINDERO, BARRY</td>
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### 1:30 PM - 3:00 PM  127  Contributed Papers  B116/OCC

**Theoretical Population Genetics 4**  
*Chair: Itay Mayrose*

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<tr>
<td>1:30</td>
<td>127001</td>
<td>Hartfield, Matthew* - Otto, Sarah P.</td>
<td>Hitchhiking of weak deleterious alleles with advantageous mutants, and the costs of adaptation in asexual organisms</td>
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<td>1:45</td>
<td>127002</td>
<td>Guerrero, Rafael F.* - Kirkpatrick, Mark</td>
<td>Coalescent Models of Chromosome Inversions</td>
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<tr>
<td>2:00</td>
<td>127003</td>
<td>Keller, Thomas E.* - Wilke, Claus O. - Bull, James J.</td>
<td>Untangling the interactions between evolutionary processes at high mutation rates</td>
</tr>
<tr>
<td>2:15</td>
<td>127004</td>
<td>Mayrose, Itay* - Otto, Sarah P.</td>
<td>Modeling Trait-Dependent Shifts in the Rate of Molecular Evolution</td>
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<tr>
<td>2:30</td>
<td>127005</td>
<td>Draghi, Jeremy* - Parsons, Todd - Wagner, Gunter - Plotkin, Joshua</td>
<td>The Population Genetics Connecting Robustness and Evolvability</td>
</tr>
<tr>
<td>2:45</td>
<td>127006</td>
<td>Lachance, Joseph</td>
<td>Genotype-phenotype maps and the population genetics of incomplete penetrance</td>
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### 1:30 PM - 3:00 PM  128  Contributed Papers  B117-118/OCC

**Life History Evolution 3**  
*Chair: Dan Cohen*

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<th>Time</th>
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<tr>
<td>1:30</td>
<td>128001</td>
<td>Minckley, R.L.* - Roulston, T.H. - Williams, N.M.</td>
<td>Diapause strategies vary predictably with host reliability in a desert solitary bee community</td>
</tr>
<tr>
<td>1:45</td>
<td>128002</td>
<td>Hale, Rebecca E.* - Travis, Joseph</td>
<td>Abiotic factors complement the effects of local adaptation on life history traits in least killifish, <em>Heterandria formosa</em></td>
</tr>
<tr>
<td>2:00</td>
<td>128003</td>
<td>Parker, Benjamin J.* - Barribeau, Seth M. - Gerardo, Nicole M.</td>
<td>Limitations of the aphid immune response and the costs of immunity</td>
</tr>
<tr>
<td>2:15</td>
<td>128004</td>
<td>Cohen, Dan</td>
<td>Selection and Evolution of Adaptive Traits in Life Stages Sequences in Heterogeneous Environments.</td>
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<tr>
<td>2:30</td>
<td>128005</td>
<td>Ratcliff, William C.* - Denison, R. Ford</td>
<td>Adaptive integration of bet hedging and phenotypic plasticity in free-living <em>Sinorhizobium meliloti</em></td>
</tr>
<tr>
<td>2:45</td>
<td>128006</td>
<td>Friedman, Jannice* - Willis, John H.</td>
<td>Local adaptation and the evolution of life-history changes in <em>Mimulus guttatus</em></td>
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### Invasive Species 2
**Chair: Alisa Ramakrishnan**

<table>
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<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>1:30</td>
<td>129001</td>
<td>The origin and evolution of seed shattering in U.S. invasive weedy rice</td>
<td>THURBER, CARRIE* - OLSEN, KENNETH - JIA, YULIN - CAICEDO, ANA</td>
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<tr>
<td>1:45</td>
<td>129002</td>
<td>Colonization events associated with founder effects and bottlenecks lead to patchy evolution in phenotypic traits during range expansion</td>
<td>RAMAKRISHNAN, ALISA* - CRUZAN, MITCHELL</td>
</tr>
<tr>
<td>2:00</td>
<td>129003</td>
<td>Ecological genomics of species invasions in yellow starthistle</td>
<td>DLUGOSCH, KATRINA M* - LAI, ZHAO - BARKER, MICHAEL S - RIESEBERG, LOREN</td>
</tr>
<tr>
<td>2:15</td>
<td>129004</td>
<td>The Importance of Genetic Diversity and Population Size During the Colonizing Phase of a Biological Invasion</td>
<td>WOLFE, LORNE M.* - BROWN, JANNA - SOWELL, DEXTER R. - KELLER, STEPHEN</td>
</tr>
<tr>
<td>2:30</td>
<td>129005</td>
<td>Evolution at the edge: selection for a colonizing phenotype in invasive Japanese honeysuckle</td>
<td>KILKENNY, FRANCIS F* - GALLOWAY, LAURA</td>
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<tr>
<td>2:45</td>
<td>129006</td>
<td>The impacts of evolutionary and human mediated dispersal mechanisms on invasion success in Solanaceae.</td>
<td>COLEMAN, MARTHA J* - WIECZOREK, ANIA M.</td>
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### Evolutionary Theory 2 - Disease
**Chair: Leithen, K. M'Gonigle**

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<tbody>
<tr>
<td>1:30</td>
<td>130001</td>
<td>Ploidy and the evolution of parasitism</td>
<td>M'GONIGLE, LEITHEN, K.* - OTTO, SARAH P.</td>
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<td>1:45</td>
<td>130002</td>
<td>Cancer as a model system for evolutionary biology (with relevance to human mortality)</td>
<td>MALEY, CARLO C.</td>
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<tr>
<td>2:00</td>
<td>130003</td>
<td>An evolutionary study of the role of stroma in the somatic evolution of cancer</td>
<td>BASANTA, DAVID</td>
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<tr>
<td>2:15</td>
<td>130004</td>
<td>The Effect of Immune System Attack on Intrahost HIV Population Genetics</td>
<td>LEVIYANG, SIVAN</td>
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<tr>
<td>2:30</td>
<td>130005</td>
<td>Role of landscape heterogeneity on viral genetic structure in the Raccoon Rabies (racc-RABV) system</td>
<td>PANJETI, VIJAY</td>
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<td>2:45</td>
<td>130006</td>
<td>Spatial spread of CI-causing Wolbachia: predictions concerning wave initiation, speed and stopping, with possible applications to vector-borne disease control</td>
<td>TURELLI, MICHAEL</td>
</tr>
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1:30 PM - 3:00 PM  131  Contributed Papers  C124/OCC
Species Interactions and Coevolution 4
Chair: Quinn S. McFrederick

1:30  131001  MCFREDERICK, QUINN S.* - TAYLOR, DOUGLAS R.
Effective transmission and evolution of nematode associates of social and solitary sweat bees

1:45  131002  PALMA, R. EDUARDO* - LARRAIN, JUANITA - FERRES, MARCELA - HERNÁNDEZ, CRISTIÁN E.
Coevolution between Andes (Hanta) virus and its rodent reservoir species: evaluating the pattern

2:00  131003  HARCOMBE, WILLIAM* - MARX, CHRISTOPHER
Microbial Community Dynamics: The systems biology of community evolution

2:15  131004  ALLEN, JULIE M.* - LIGHT, JESSICA E. - PEROTTI, M. ALEJANDRA - BRAIG, HENK R. - REED, DAVID L.
Why Don’t Endosymbionts Go Extinct? Muller’s Ratchet and Selection in Endosymbionts

2:30  131005  SUGIURA, SHINJI
Structure of ant-plant interactions in relation to island area

2:45  131006  PRUDIC, KATHLEEN
Batesian-Mullerian mimicry continuum depends on non-trophic interactions in the viceroy/queen butterfly system

1:30 PM - 3:00 PM  132  Contributed Papers  C125-126/OCC
Phylogenetics & Diversification 11
Chair: Shobi Lawalata

1:30  132001  LEMMON, ALAN* - LEMMON, EMILY MORIARTY - ROSENBLUM, ERICA
Will sequence capture for non-model organisms enable high-throughput sequencing for targeted phylogenetics?

1:45  132002  PYRON, R. ALEXANDER
Integrating Fossils and Molecular Data for Divergence Time Estimation

2:00  132003  FRAGA, NAOMI* - FRIAR, ELIZABETH
*Mimulus montioides* (Phrymaceae)— one species or five? Cryptic species diversity in the *Mimulus palmeri* clade

2:15  132004  LAWLATA, SHOBI* - MCGUIRE, JIMMY A.
Population genetics and biogeography of flying lizards in the *Draco sumatranus* species complex

2:30  132005  JETZ, WALTER* - PAUL, FINE
Integrating the evolutionary and ecological effects of time, area, and climate on global patterns of vertebrate diversity

2:45  132006  COOPER, NATALIE* - FRECKLETON, ROB - JETZ, WALTER
Phylogenetic conservatism of environmental niches in mammals
### Adaptation 12 - Contributed Papers

**Chair:** Huabin Zhao

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<tr>
<td>3:30</td>
<td>133001</td>
<td>Adaptive nature of seed emergence timing in common sunflower (Helianthus annuus)</td>
<td>MERCER, KRISTIN L.* - SNOW, ALLISON A. - ALEXANDER, HELEN M.</td>
</tr>
<tr>
<td>3:45</td>
<td>133002</td>
<td>The consequences of losing sex for molecular evolution of plant defenses against natural enemies</td>
<td>HERSCH-GREEN, ERIKA* - MYBURG, HENRIETTA - JOHNSON, MARC</td>
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<tr>
<td>4:00</td>
<td>133003</td>
<td>Widespread losses of vomeronasal signal transduction in bats</td>
<td>ZHAO, HUABIN* - XU, DONG - ZHANG, SHUYI - ZHANG, JIANZHI</td>
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<tr>
<td>4:15</td>
<td>133004</td>
<td>Molecular insights into adaptation of house mice on the sub-Antarctic Kerguelen archipelago</td>
<td>HARDOUIN, EMILIE* - CHAPUIS, JEAN-LOUIS - STEVENS, MARK I. - TAUTZ, DIETHARD</td>
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<tr>
<td>4:30</td>
<td>133005</td>
<td>The genetic bases of convergent adaptive melanism in rock pocket mice</td>
<td>PHIFER-RIXEY, MEGAN* - WLASIUK, GABRIELA - PERMAR, ALEXANDRA - CARNEIRO, MIGUEL - BITTNER, NOELLE - PRICE, MIRISSA - NACHMAN, MICHAEL</td>
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<tr>
<td>4:45</td>
<td>133006</td>
<td>You are what you eat: diet and body size evolution in mammals</td>
<td>PRICE, SAMANTHA A.* - HOPKINS, SAMANTHA - ROTH, V. LOUISE - SMITH, KATHLEEN K.</td>
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### Phylogeography 10 - Contributed Papers

**Chair:** Ben Evans

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<tbody>
<tr>
<td>3:30</td>
<td>134001</td>
<td>Sex-linked inheritance in macaque monkeys: implications for demography and dispersal to Sulawesi</td>
<td>EVANS, BEN* - MELNICK, DON - WRIGHT, STEPHEN</td>
</tr>
<tr>
<td>3:45</td>
<td>134002</td>
<td>Mammals on mountaintops: model-based comparative phylogeography in the Eastern Afrosomontane Biodiversity Hotspot</td>
<td>DEMOS, TERRENCE* - KERBIS, JULIAN - HICKERSON, MIKE</td>
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<tr>
<td>4:00</td>
<td>134003</td>
<td>Effects of latitude and climate cycling on phylogeographic structuring within pikas</td>
<td>LANIER, HAYLEY</td>
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<tr>
<td>4:15</td>
<td>134004</td>
<td>Comparative Phylogeography in Elasmobranchs from the Gulf of California</td>
<td>SANGOVAL-CASTILLO, JONATHAN* - BEHEREGRAY, LUCIANO</td>
</tr>
<tr>
<td>4:30</td>
<td>134005</td>
<td>Evolution of breeding systems in populations of Oxalis alpina in the Sky Islands</td>
<td>TSYUSKO, OLGA* - JOICE, GREG - WELLER, STEPHEN G. - WEBER, JENNIFER - SAKAI, ANN - GLENN, TRVAIS</td>
</tr>
<tr>
<td>4:45</td>
<td>134006</td>
<td>Geographic structure and population sex ratio of gynodioecious Lobelia siphilitica: insights from chloroplast sequence diversity</td>
<td>CASE, ANDREA* - CARUSO, CHRISTINA M. - KNOX, ERIC - MADSON, HANNAH</td>
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### Speciation 10

**Chair: David B. Lowry**

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<th>Time</th>
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<tr>
<td>3:30</td>
<td>135001</td>
<td>LOWRY, DAVID B.</td>
<td>A Life-History Altering Chromosomal Inversion Involved in Adaptation and Ecological Reproductive Isolation</td>
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<td>3:45</td>
<td>135002</td>
<td>EDWARDS, ROBERT, D.* - COOK, LYN, G. - CRISP, MIKE, D.</td>
<td>Complimentary histories from conflicting genomes: unraveling the evolutionary history of the Broad-leaved Paperbark (<em>Melaleuca leucadendra</em>) species complex</td>
</tr>
<tr>
<td>4:00</td>
<td>135003</td>
<td>LEVSEN, NICHOLAS * - TIFFIN, PETER - OLSON, MATTHEW</td>
<td>Tree species evolution in the Ice Age: understanding the divergence of Populus balsamifera and Populus trichocarpa (Salicaceae)</td>
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<td>4:15</td>
<td>135004</td>
<td>STÄDLER, THOMAS* - MERINO, CARLOS - TELLIER, AURELIEN - STEPHAN, WOLFGANG</td>
<td>Population structure, demographic history and natural selection in several wild tomato species</td>
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<tr>
<td>4:30</td>
<td>135005</td>
<td>NANCE, HOLLY* - MARKO, PETER</td>
<td>Decline and divergence: Evolutionary processes behind spatial genetic structure in Eastern Pacific populations of the scalloped hammerhead shark, <em>Sphyra lewini</em></td>
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### Ecological Genetics 1

**Chair: Benjamin M. Fitzpatrick**

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<tr>
<td>3:30</td>
<td>136001</td>
<td>MEDINA GUZMÁN, ILIANA* - AMÉZQUITA TORRES, ADOLFO</td>
<td>Differential evolution of color pattern elements in the aposmatic frog <em>Oophaga histrionica</em></td>
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<td>3:45</td>
<td>136002</td>
<td>MIDDLEMIS MAHER, JESSICA* - WERNER, EARL</td>
<td>Comparison of the predator stress response among anuran larvae: Adaptation to species-typical habitat?</td>
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<td>4:00</td>
<td>136003</td>
<td>WANG, IAN J.</td>
<td>Reduced conspicuousness evolves with increased toxicity in an aposmatic poison frog</td>
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<td>4:15</td>
<td>136004</td>
<td>SAVAGE, ANNA* - ZAMUDIO, KELLY R.</td>
<td>Evolution of resistance to chytridiomycosis in lowland leopard frogs (<em>Lithobates yavapaiensis</em>)</td>
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<tr>
<td>4:30</td>
<td>136005</td>
<td>FITZPATRICK, BENJAMIN M.</td>
<td>Frequency-dependent selection and character shifts in salamanders that share predators</td>
</tr>
<tr>
<td>4:45</td>
<td>136006</td>
<td>REYNOLDS, R. GRAHAM* - FITZPATRICK, BENJAMIN M.</td>
<td>Inference of Historical Demography in Simulated Metapopulations</td>
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3:30 PM - 5:00 PM  137  Contributed Papers  B113/OCC
Genomics and Adaptation 1
Chair: Steve V Vollmer

3:30  137001  PESPENI, MELISSA* - PALUMBI, STEPHEN
Population genomics of the purple sea urchin reveals potential for local adaptation along a latitudinal gradient despite high gene flow

3:45  137002  PALUMBI, STEPHEN* - PESPENI, MELISSA - OLIVER, THOMAS - GARFIELD, DAVID
Genomes and Climate: Function, evolution and population structure of calcification genes in marine species under ocean acidification

4:00  137003  VOLLMER, STEVE V
Next-generation Sequencing Profiles of Reef Coral Innate Immunity

4:15  137004  ORIVE, MARIA E.* - WAKELEY, JOHN
Estimating the relative rates of horizontal versus vertical transmission of coral endosymbionts: a forward model for application to SNP data

4:30  137005  KARL, STEPHEN* - GOROSPE, KELVIN - BARANETS, VALERY
Micro-Spatial Genetic and Thermal Architecture of Hawaiian Coral Reefs: Coral Adaptation Versus Acclimatization

4:45  137006  WILSON SAYRES, MELISSA* - VENDITTI, CHRIS - CHIAROMONTE, FRANCESCA - PAGEL, MARK - MAKOVA, KATERINA
Life history traits affect the magnitude of male mutation bias across 32 mammalian genomes

3:30 PM - 4:30 PM  138  Contributed Papers  B114-115/OCC
Molecular Evolution 10
Chair: Kevin C Rowe

3:30  138001  STUMP, ARAM D.* - MALYSHEV, YURI
Evolution of the transferrin protein superfamily in mammals

3:45  138002  MERLO, LAUREN* - SHAH, NAJAF - MALEY, CARLO
Evolutionary measures of heterogeneity as predictors of progression from Barrett’s esophagus to esophageal adenocarcinoma

4:00  138003  ROWE, KEVIN C
Pheromone Evolution in Sympatric Australian Rattus

4:15  138004  STAITHOPOULOS, SOFIA - O’RYAN, COLLEEN - BISHOP, JACQUELINE*
Enhanced functional diversity in the African mole-rat olfactory receptor gene family - sociality or the subterranean niche?
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3:30 PM - 5:00 PM  139  Contributed Papers  B116/OCC

Development and Evolution 3
Chair: Craig Stillwell

3:30  139001  MARQUEZ, ELADIO* - CABEEN, RYAN - WOODS, ROGER - HOULE, DAVID
Incorporating Biological Models into Morphometrics

3:45  139002  GAVRILETS, SERGEY
Rapid transition towards the division of labor via evolution of developmental plasticity

4:00  139003  HARDWICK, KAYLA MICHELLE
The Relationship of Caste and Sex to Brain Structure and Sensory Organ Development in Dampwood Termites

4:15  139004  URTON, JAMES R.* - BALCELLS, REYES - PEICHEL, CATHERINE L.
The Search for the Sex Determination Gene in the Threespine Stickleback

4:30  139005  STILLWELL, CRAIG* - GOGGY, DAVIDOWITZ
A developmental perspective on the evolution of sexual size dimorphism of a moth

4:45  139006  SATHER, D. NOAH - GOLENBERG, EDWARD M.*
Sexually Dimorphic Expression of \textit{WUSCHEL} and Its Role in Ovule Development in \textit{Spinacia oleracea}

3:30 PM - 5:00 PM  140  Contributed Papers  B117-118/OCC

Sexual Selection 3
Chair: Howard Rundle

3:30  140001  DECANINI, DANIEL P* - WONG, BOB - DOWLING, DAMIAN K
Effects of genetic trade-offs and senescence on male fertility in \textit{Drosophila}

3:45  140002  RUNDLE, HOWARD* - SCHOUSTRA, SIJME - DALI, ROLA - KASSEN, REES
Fitness-associated sexual reproduction in a filamentous fungus

4:00  140003  SMITH, ADAM* - CARLETON, KAREN
How many tools in the box: variation in both the sequence and expression of cone opsin genes in the cichlid retina

4:15  140004  MANICOM, CARRYN
Juvenile growth and sexual size dimorphism in sympatric tropical lizards: considering both proximate and ultimate causes

4:30  140005  MACMANES, MATTHEW
Scale matters: sex and selection on MHC genes in the genus Peromyscus
### Phenotypic Plasticity 1
**Chair: Lev Yampolsky**

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<td>3:30</td>
<td>141001</td>
<td>The consequences of phenotypic plasticity on ecological speciation</td>
<td>THIBERT-PLANTE, XAVIER* - HENDRY, ANDREW P.</td>
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<td>3:45</td>
<td>141002</td>
<td>The phenological response of a terrestrial ectotherm to global climate change: 2000 to 2050</td>
<td>WINTERHALTER, W.E.</td>
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<td>4:00</td>
<td>141003</td>
<td>The genetics of phenotypic plasticity in resource acquisition and allocation in the wing dimorphic cricket, <em>Gryllus firmus</em></td>
<td>KING, ELIZABETH G.* - ROFF, DEREK, A. - FAIRBAIRN, DAPHNE, J.</td>
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<td>4:15</td>
<td>141004</td>
<td>Genomics of heat tolerance and acclimation in <em>Daphnia</em></td>
<td>YAMPOLSKY, LEV* - DICK, KENNETH - WILLIAMS, PATRICIA</td>
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<td>4:30</td>
<td>141005</td>
<td>Adaptive plasticity of barnacle penises and feeding legs</td>
<td>NEUFELD, CHRIS J.</td>
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<td>4:45</td>
<td>141006</td>
<td>Specialists and generalists in a changing world: are all damselflies ready for climate change?</td>
<td>NILSSON, VIKTOR* - JOHANSSON, FRANK</td>
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### Evolutionary Theory 3 - Sex
**Chair: Adi Livnat**

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<tr>
<td>3:30</td>
<td>142001</td>
<td>Driven to extinction: the population genetics of segregation distortion and population decline</td>
<td>UNCKLESS, ROBERT L.* - ORR, H. ALLEN</td>
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<td>3:45</td>
<td>142002</td>
<td>The Evolution of Multiple Female Preferences via Costly Competition</td>
<td>FRAME, ALICIA M</td>
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<td>4:00</td>
<td>142003</td>
<td>Selection favors heterogeneous offspring: a non-bet-hedging argument</td>
<td>FOX, GORDON A.* - KENDALL, BRUCE E.</td>
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<td>4:15</td>
<td>142004</td>
<td>Sex, mixability and modularity</td>
<td>LIVNAT, ADI* - PAPADIMITRIOU, CHRISTOS - PIPPENGER, NICK - FELDMAN, MARCUS W.</td>
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<td>4:30</td>
<td>142005</td>
<td>The evolution of sex ratio under probabilistic sex determination</td>
<td>PAIXÃO, TIAGO* - AZEVEDO, RICARDO</td>
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<td>4:45</td>
<td>142006</td>
<td>On the origins of sexual dimorphism in butterflies</td>
<td>OLIVER, JEFFREY C.* - MONTEIRO, ANTÓNIA</td>
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3:30 PM - 5:00 PM  143  Contributed Papers  C124/OCC
Species Interactions and Coevolution 5
Chair: Martin Burd

3:30  143001  OTT, JAMES* - EGAN, SCOTT - HOOD, GLEN R.
Natural selection on gall size: variable contributions of individual plants to landscape wide patterns

3:45  143002  HAUGEN, RISTON* - SIEMENS, DAVID - ANDERSON, CYNTHIA
Determination of the genetic basis of pathogen-induced pseudoflower formation in Boechera

4:00  143003  HAYDEN, KATHERINE J., M. - WRIGHT, JESSICA W. - DODD, RICHARD - GARBELOTTO, MATTEO
Looking for resistance to an introduced pathogen in a highly susceptible host: I. Quantitative studies of the tanoak-Phytophthora ramorum interaction

4:15  143004  CHAPPELL, THOMAS M* - RAUSHER, MARK
Plant-pathogen coevolution in a natural pathosystem: genetic divergence, and convergence on community structure

4:30  143005  PEARSE, IAN S* - HIPP, ANDREW
A phylogenetic comparison of herbivory and plant defenses in 57 species of non-native oaks - searching for mechanisms of enemy release

4:45  143006  SHRESTHA, MANI R. - BURD, MARTIN*
Is a tree just a tree to an orchid? Phylogenetic patterns of host-epiphyte association in Nepalese orchids

3:30 PM - 5:00 PM  144  Contributed Papers  C125-126/OCC
Phylogenetics & Diversification 12
Chair: Johanna T. Cannon

3:30  144001  GROSBERG, R. K.* - VERMELI, GEERAT
Does life evolve differently in the sea?

3:45  144002  BRAUN, EL* - PHILLIPS, NR - CIEMNIECKI, NR - KAPRAUN, DF - PRICE, DANA - BHAT-TACHARYA, D
Phylogenomic analyses of the brown algae and related heterokonts

4:00  144003  BYBEE, SEHTH M. - HERMANSEN, RUSSELL - PORTER, MEGAN - BLANCO BERCIAL, LEOCADIO - OAKLEY, TODD - WETZER, REGINA - BUCKLIN, ANN C - WHITING, MICHAEL - CRANDALL, KEEThA.
Novel methods with the usual suspects provides interesting results: pancrustacean phylogeny

4:15  144004  CANNON, JOHANNAT. - KOCOT, KEVIN M. - SANTOS, SCOTT R. - SWALLA, BILLIE J. - HALANYCH, KENNETH M.
Phylogenomics of Hemichordata within Deuterostomia
4:30 144005  WAESCHENBACH, ANDREA* - TAYLOR, PAUL D. - PORTER, JOANNE S. - LITTLEWOOD, D. TIM J.
Interrelationships of major clades of Bryozoa: integrating molecular evidence with the fossil record

4:45 144006  LIOW, LEE HSIANG* - HOLLAND, STEVE M.
Changing tides and times: ecological and sampling influences on occupancy in Ordovician seas

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4:30 PM - 5:00 PM  L2  Special Lecture  B114-115/OCC

**Dobzhansky Prize Address - Chair: Unknown**

4:30 L2001  KONDRASHOV, FYODOR
Dobzhansky-Muller incompatibilities and the expansion of the protein universe

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6:00 PM - PM  L5  Special Lecture  Oregon Ballroom 201/OCC

**SSE Presidential Address - Chair: Unknown**

6:00 L5001  ORR, H. ALLEN
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<tr>
<td>P2001</td>
<td>Microbial communities as experimental units</td>
<td>DAY, MITCH D* - BRYANNA, LARREA - FOSTER, JAMES A</td>
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<td>P2002</td>
<td>CBOrg: Comparative BLAST for Organelles</td>
<td>GASTON, DANIEL* - ROGER, ANDREW J.</td>
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<td>P2003</td>
<td>Will your favorite genome be sequenced?</td>
<td>FUERSTENBERG, SUSAN I* - BOORE, JEFFREY L.</td>
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<td>P2004</td>
<td>EvolMarkers: mining exon and intron spanning markers for evolutionary studies</td>
<td>LI, CHENHONG</td>
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<td>P2005</td>
<td>Phylogeography: conflict resolution and the promising future of a diverse discipline</td>
<td>BARBER, BRIAN R.* - JOHNSON, JERALD B. - CRANDALL, KEITHA.</td>
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<td>P2006</td>
<td>Transcending individual assignment: A generalized Bayesian approach for associating ecological and phenotypic traits with population of origin</td>
<td>MORAN, PAUL* - MASUDA, MICHELE</td>
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<td>P2007</td>
<td>RAD approaches for SNP discovery and <em>de novo</em> assembly</td>
<td>ETTER, PAUL D.* - PRESTON, JESSICA - BASSHAM, SUSIE - CRESKO, WILLIAM A. - JOHNSON, ERICA.</td>
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<td>P2008</td>
<td>Multilocus polymorphism in subdivided populations</td>
<td>BÜRGER, REINHARD</td>
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<td>P2009</td>
<td>The limits on evolution of robustness</td>
<td>ZHANG, BINGJUN* - LOHAUS, ROLF - AZEVEDO, RICARDO</td>
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<td>P2010</td>
<td>An efficient pipeline for the preparation of phylogeographic data collected via next-generation sequencing</td>
<td>HIRD, SARAH* - KOOPMAN, MARGARET - ENCE, DANIEL - CARSTENS, BRYAN - BRUMFIELD, ROBB</td>
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<td>P2011</td>
<td>Simulating Constrained Sequence Evolution</td>
<td>STROPE, CORY L* - MORIYAMA, ETSUKO N. - SCOTT, STEPHEN D</td>
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<td>P2012</td>
<td>The Coevolution of Host/Symbiont Digital Organisms</td>
<td>ZAMAN, LUIS* - DAVID, BRYSON - CHARLES, OFRIA</td>
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<td>P2013</td>
<td>What is the role and impact of SABI (South African Biosystematics Initiative) in stimulating biosystematics research in South Africa?</td>
<td>MAZIBUKO, FRANK</td>
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<td>P2014</td>
<td>Computerized scoring of students’ evolutionary essays: testing the efficacy of Text Analytic software</td>
<td>HA, MINSU* - NEHM, ROSS - HAERTIG, HENDRIK - RIDGWAY, JUDITH</td>
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P2015 HUANG, WEN* - WILGENBUSCH, JAMES - KYLE, GALLIVAN
The Performance of Dimensionality Reduction Methods used to Visualize the Relationship Among Mitochondrial Gene Trees

P2016 HOVMOLLER, RASMUS* - TRAVIS, TRESEDER - KUBATKO, LAURA
The effect of missing data on coalescent based species tree estimation

P2017 PERRY, WILLIAM - LUGO, ROBERTO - HATHAWAY, STACIE - VANDERGAST, AMY*
Genetic Landscapes ArcGIS Toolbox: Tools to create genetic divergence and diversity landscapes in ArcGIS

P2018 ROH, KYOUNGMIN
The simulating evolution of a gene network modeling

P2019 RAMASWAMY, KARTHIK* - COCROFT, REGINALD
Using an individual based model to understand collective behavior in a social insect

P2020 HARMES, MICHAEL J.* - THORNTON, JOE
Biophysical determinants of epistasis in steroid receptor evolution

P2021 HABER, MATT
Phylogenetic Thinking and the Instability of Taxonomic Stability

P2022 SCHAWAROCHE, VALERIE
On the Importance of Characters at Nodes

P2023 SANTOS, JUAN C.
Rates of Molecular Evolution and Life History Traits in Poison Frogs

P2024 KRATOVIL, JUSTIN* - BONETT, RONALD - WEISROCK, DAVID
Comparative Transcriptome Analysis of Lungless Salamanders

P2025 HEDGES, S BLAIR - LIGUORI, ALYSSA*
Evolution in a hot spot: systematics and conservation of Haitian frogs

P2026 SORRENTINO, GINA* - GILLIS, WILLIAM - THOMSEN, GERALD
Conservation of gene function in the TGFβ signaling pathway between Cnidaria and Amphibia

P2027 TRUMBO, DARYL* - SPEAR, STEPHEN - STORFER, ANDREW
Landscape genetics analysis from across the range of a paedomorphic salamander species endemic to the Pacific northwest, the Cope’s giant salamander (Dicamptodon copei)

P2028 RHOADS, ELIZABETH* - WILLIAMS, PK - KRANE, CM
Fine-scale analysis of Ambystoma texanum population substructure in a fragmented habitat

P2029 PEREIRA, RICARDO J.* - WAKE, DAVID B.
transvalley leak and mid-way closure of Ensatina ring species: the evolutionary history of Ensatina eschscholtzii xanthoptica
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<td>Sequencing Lactate Dehydrogenase in the Red-Spotted Newt: An Exploration of Restricted Subunit Association</td>
<td>Torquato, Samantha* - Kaitz, Laura - Merritt, Robert</td>
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<td>P2032</td>
<td>Demographic model selection in a terrestrial salamander</td>
<td>Pelleiter, TARA A* - Carstens, Bryan</td>
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<td>P2033</td>
<td>Amphibian saprolegniasis: A genetic comparison of water mold diversity among amphibian species</td>
<td>Ault, Kori* - Johnson, Jim - Pinkart, Holly - Wagner, Steve</td>
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<td>P2034</td>
<td>Species Tree Reconstruction of Ambystomatid Salamanders Using Multiple Sequence Markers</td>
<td>Williams, Joshua S.* - Weisrock, David</td>
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<td>P2035</td>
<td>Cis-regulatory changes as an important flowering time gene affecting natural variation in flowering time in Arabidopsis thaliana</td>
<td>Chou, Lucy* - Hanzawa, Yoshie - Gerard, Silvia - Bhambhra, Naeha - Banta, Joshua - Ehrenreich, Jan - Purugganan, Michael</td>
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<td>P2036</td>
<td>Rapid functional diversification of recent unlinked gene duplicates in Arabidopsis thaliana</td>
<td>Owens, Sarah - Harberson, Nicholas - Moore, Richard*</td>
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<td>P2037</td>
<td>CONSTANS promoter polymorphism results in flowering time variation</td>
<td>Clemenza, Kelly* - Banta, Joshua - Purugganan, Michael</td>
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<td>P2038</td>
<td>Sympatric divergent evolution in a desert spring crustacean, Hyalella montezuma?</td>
<td>Wellborn, Gary A.* - Cothran, Rickey D - Stiff, Andrew</td>
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<td>P2039</td>
<td>Allelic variation at the glycolytic enzyme locus phosphoglucose isomerase is correlated with thermal melanism along an environmental temperature gradient in a coastal California willow beetle</td>
<td>Heitkamp, Rae A.* - Macko, Christopher A. - Neal, Richelle M. - Rank, Nathan E. - Dahlhoff, Elizabeth P.</td>
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<td>P2040</td>
<td>Developmental constraints on the evolution of wing-body allometry in Manduca sexta</td>
<td>Tobler, Alexandra* - Nijhout, Frederik</td>
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<td>P2041</td>
<td>Evolutionary Consequences of Association Costs in Field Crickets</td>
<td>Martin, Cassandra* - Wagner, Jr., William</td>
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<td>P2042</td>
<td>Nest defense in the little fire ant Wasmania auropunctata</td>
<td>Fernandez-Casas, Rafael* - Ortiz-Alvarado, Carlos - Rivera-Marchand, Bert</td>
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<td>P2043</td>
<td>Sperm Competition in Two Species of Funnel-Weaving Spiders (Agelenidae)</td>
<td>Gagnon, Sabah* - Lutfi, Samaa - Danielson-Francois, Anne</td>
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P2044  JUE, NATHANIEL K* - LINDSAY, JAMES - OBERGfell, CRAIG - O’NEILL, RACHEL
Initial description of the Horseshoe crab, Limulus polyphemus, genome using next-generation sequencing technology

P2045  MCHUGH, ANNE
A Species-level Phylogeny of Speyeria: Implications for Taxonomy, Conservation and Biogeography

P2046  COLE, NINA* - HOU, EMMA CHUEH - TSO, I-MIN - DANIELSON-FRANCOIS, ANNE
Paternity Patterns in the Giant Wood Spider Nephila pilipes

P2047  CALLAHAN, MELISSA, S* - MCPEEK, MARK, A
Dating the recent radiations of Enallagma damselflies (Odonata: Coenagrionidae)

P2048  HUESTIS, DIANA L.* - YARO, ALPHAS - TRAORE, ADAMA I - DAO, ADAMA - LEHMANN, TOVI
Ecological implications and adaptive value of variation in metabolism of the malaria mosquito, Anopheles gambiae

P2049  HADJISTYLLI, MARGARITA - BROWN, JUDY - RODERICK, GEORGE*
Historical demography and origins of invasive biotypes in the whitefly Bemisia tabaci complex

P2050  AYOUB, NADIA* - GARB, JESSICA - KUELBS, AMANDA - HAYASHI, CHERYL
Full-length black widow silk genes reveal variation in repeat complexity underlying functionally diverse fibers

P2051  GIBSON, JOSHUA* - NIEHUIS, OLIVER - VERRELLI, BRIAN - GADAU, JÜRGEN
Selection in the oxidative phosphorylation system and hybrid breakdown in Nasonia parasitoid wasps

P2052  LEAVITT, DEAN H.* - STARRETT, JAMES - HEDIN, MARSHAL
Cryptic diversification in the California endemic spider genus Calisoga (Nemesiidae)

P2053  NOH, SUEGENE* - MARSHALL, JEREMY L
Genes that matter at species boundaries

P2054  EGAN, MARY G
Molecular ecological survey of blacklegged ticks (Ixodes scapularis) in northwestern New Jersey

P2055  BROWN, JONATHAN M.
Phylogeography of the goldenrod ball gallmaker (Eurosta solidaginis) revisited

P2056  GALAMBao, MARCIANA* - TRAN, CAROL - BRESSAN, ALBERTO - WIECZOREK, ANIA
The population genetics of banana aphid, Pentalonia nigronervosa in Hawaii

P2057  CHAALAN, TINA* - DANIELSON-FRANCOIS, ANNE
A Potential Morphological Indicator of Sperm Competition in Spiders

P2058  BAZZANO, JASON* - MASTA, SUSAN
Influence of Sexual Dimorphism on Crypsis among Populations of the Jumping Spider Habronattus oregonensis
Tracing the Movement and Bioaccumulation of Heavy Metals Through the Invertebrate Food Chain

On the Evolution of Pigeons by means of Natural Selection: the Role of Ecology

Contribution of differential diversification rates to current broad-scale patterns of species richness in South American birds

Species, speciation, and biogeography in the Garrulax erythrocephalus complex of tropical Asia: The empirical consequences of alternative species concepts

The epidemiology of malaria in the White-winged Junco (Junco hyemalis aikeni): assessing the impacts of sex, seasonality, and physical condition on parasite diversity and prevalence

Hybridization in Birds of Paradise


A multilocus study of demographic and evolutionary history in the Black-headed Grosbeak (Pheucticus melanocephalus)

Preference-performance correlations and local adaptation in Drosophila mettleri populations

Changes in cuticular lipids, water loss and desiccation resistance in a tropical drosophilid: Analysis of within population variation

Phylogenetic Analysis of courtship songs in Drosophila

Environment dependent sexual selection in a desert insect: female choice and male sexual signals

Ecological genomics of host use and mating status in Drosophila mojavensis

Genetic Influences on Aging and Immunity
Investigating multimodal signaling in the courtship behavior of Drosophila willistoni and its effect on mating success rate

Adaptation of horizontally transmitted symbionts to environmental stress and its effect on host fitness

Morphological divergence parallels patterns of niche divergence among juvenile alewife (Alosa pseudoharengus) populations

Local adaptation of redband trout in desert and montane environments

What factors determine body size? A case of a shell-brooding cichlid from Lake Tanganyika

Gene duplication in an African cichlid adaptive radiation

Genomic basis for sex-biased behavior

Reproductive Allocation and Ornamentation in Northern Swordtails (Teleostei: Xiphophorus)

Plastic responses to predation and food shortage in ninespine sticklebacks

From model to supermodel? Transcript sequencing and annotation from the guppy, Poecilia reticulata

Evidence for parallel divergent evolution of pigmentation within the surfperch subfamily Amphiichinae

Variation in male reproductive allocation in response to body size and mortality rate

Genetic broodstock management in the Russian River: effects on reproductive outcome in endangered coho salmon (Oncorhynchus kisutch) in California

Diversification of New World Silversides

Gene trees and species trees for eastern North American minnows (Cyprinidae)

Independent genome duplication in Polyodon spathula genome supported by Fzd8 paralogs
Monday

P2089  TAYLOR, JULIA* - CROW-SANCHEZ, KAREN
Hox gene expression in a novel feature exhibited by a basal ray-finned fish

P2090  PEREZ-JVOSTOV, FELIPE* - FUSSMANN, GREGOR - HENDRY, ANDREW P. - SCOTT, MARILYN E.
Do evolutionary divergent Trinidadian guppy populations differ in their response to Gyrodactylus parasites?

P2091  HAWKINS, CHELSEA L.* - RUELL, EMILY W. - TORRES DOWDALL, JULIAN - HANDELSMAN, C - GHALAMBOR, CK - ANGELONI, LM
Can a guppy change its spots? Predator versus food induced plasticity in color development

P2092  MENDELSON, TAMRA* - SMITH, TRACY
Using AFLPs to resolve relationships at multiple levels of divergence

P2093  MIYA, MASAKI
Deep-ocean origin of the freshwater eels and their evolutionary history: A mitogenomic perspective

P2094  BRAVO, NEREIDA* - EBERT, DAVID - CROW-SANCHEZ, KAREN
Phylogenetic affinities in the Rajidae and implications for the evolution of multiple embryos per egg capsule

P2095  STRINGHAM, SYDNEY* - TAMPIO, ALEX - MILLER, ASHLEY - LUNSFORD, AMBER - SHAPIRO, MICHAEL
The Genetics of Pelvic Reduction in Ninespine Sticklebacks (Pungitius pungitius)

P2096  JOHNSON, ASHLEY* - FULLER, REBECCA
Maintenance of a pterin-based color polymorphism in bluefin killifish

P2097  A UER, SON YA* - ARENDT, JEFFREY - CHANDRAMOULI, RADHIKA - REZNICK, DAVID
Juvenile compensatory growth has negative consequences for reproduction in Trinidadian guppies (Poecilia reticulata)

P2098  LI, CHENHONG - BROUGHTON, RICHARD* - ORTL, GUILLERMO
Fourteen genes resolve phylogenetic relationships of basal ray-finned fishes (Actinopterygii)

P2099  HOSTERT, E.E. - ZEGERS, G.P. - WARD, M. - COREYA, A.
Genetic Variation in the MHC Class-IIβ in Anadromous and Landlocked Atlantic Salmon in Maine

P2100  HASSELL, ELIZABETH - MEYERS, PETER J* - BILLMAN, ERIC - BELK, MARK C
Effects of ontogeny, sex, and predation environment on the morphology of a livebearing fish

P2101  CHENG, YUN - ROWE, LOCKE - RODD, HELEN*
A rapid change in guppy (Poecilia reticulata) gonopodium morphology is associated with a change in predation regime

P2102  GILL, AMAN S* - O'HARA, NIAMH B - FLENNIKEN, MEGAN
Sequence motifs associated with gene deletion events in yeast

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P2103  STROPE, POOJA K.* - HARRIS, STEVEN D. - NICKERSON, KENNETH W. - MORIYAMA, ETSUKO N.
From Bacteria to Fungi: The story of urea-amidolyase

P2104  LANCASTER, ALEX K.* - BARDILL, J. PATRICK - TRUE, HEATHER L. - MASEL, JOANNA
The spontaneous appearance rate of the yeast prion [PSI+] and its implications for the evolution of the evolvability properties of the [PSI+] system

P2105  SCHEIHING, RODRIGO* - NESPOLO, ROBERTO
Bergman rule, body size and the “bigger is better” hypothesis in ostracods: lessons from high Andean ecosystems

P2106  KOVACS, JENNIFER L.* - HOFFMAN, ERIC A. - MARRINER, SARAH M. - GOODISMAN, MICHAEL A.D.
The Genetic Architecture of Caste in a Social Wasp

P2107  TORRES, ELIZABETH* - STINER, ERIC - GONZALEZ, VANESSA - HERAS, JOSEPH - VALDEZ, DOMINIC - PALACIOS, MAURA
Spatial and temporal speciation patterns in two clades of Caribbean marine ostracodes.

P2108  JOSÉ, JULIANA* - SOLFERINI, VERA, NISAKA
Evidences of phylogenetic history shaping genetic diversity in Nymphalidae butterflies

P2109  RAMOS, R.R. - SOLFERINI, VERA, NISAKA*
Geographic structure of sexual dimorphism in the panmitic butterfly Heliconius erato phylis

P2110  MCSWEENY, AUBRY* - WEAVER, KATHLEEN
Non-Lethal Extraction of DNA from the land snail Helix

P2111  HOLT, BRIAN* - BRACKEN-GRISSOM, HEATHER D. - CRANDALL, KEITH A. - FELDER, DARRYL
Phylogenetic relationships among the Brachyura (Decapoda)

P2112  WHEELER, SHANDA* - MARSHALL, JEREMY L.
Molecular evolution of testis-specific kinases in a cricket complex

P2113  JACINTO, DIANA
Morphological resolution of a cryptic species complex: characterization of Skogsbergia lerneri (Ostracoda: Myodocopida: Cypridinidae) from Bimini, Bahamas

P2114  RIOS, MONICA* - MORALES, VANESSA - SCHUTZ, HEIDI - WEAVER, KATHLEEN
Utilizing Shell Morphometrics and Radula Count for species identification in the land snail Oreohelix

P2115  WATSON, ERIC* - MAKAI, LUKE - D’ORO, ALYSSA - WYNGAARD, GRACE - WALTON, BRIAN - HOLYNSKA, MARIA
Phylogenetic Analysis of Cyclops (Crustacea: Copepoda)
P216 BITTNER, NOELLE* - PHIFER-RIXEY, MEGAN - WLASIUK, GABRIELA - CARNEIRO, MIGUEL - NACHMAN, MICHAEL
Estimating the age of an allele underlying adaptive melanism in a population of rock pocket mice (*Chaetodipus intermedius*)

P217 BODDY, AMY M.* - WILDMAN, DEREK E.
Phylogenetic analysis explains deviations from brain:body allometric scaling laws in Primates and Cetacea

P218 MENDIGUREN, CAROLINA
The AVPR1a gene and its contribution to pair bonding in different species of baboons

P219 CHANG, ANDREW YING-FEI* - LIAO, BEN-YANG
Mechanisms Underlying Expression Reduction of Mammalian Genes after Duplication

P220 SANDERS, TOM* - DOEBELI, MICHAEL
Exploring the circumstances under which the spread of alphabetical writing causes a frequency increase of a linked haplotype

P221 HOPE, ANDREW* - TAKEBAYASHI, NAOKI - TALBOT, SANDRA - COOK, JOSEPH
Trans-Beringian comparative phylogeography of small mammals

P222 MATOS, ANA* - ZHAI, SHI-KANG - LANNING, DENNIS - KNIGHT, KATHERINE L. - ESTEVES, PEDRO J.
Molecular evolution of interleukins 2, 4, 6 and 10 in Leporidae family

P223 HERNÁNDEZ, CRISTIÁN E.* - AVARIA-LLAUTOEO, JORGE - BORIC-BARGETTO, DUSAN - MORALES-PALLERO, BRYAN
Evolution of body size in the Oryzomyini tribe (Rodentia, Sigodontinae): An evaluation of the Cope-Bergmann hypothesis

P224 MAGNUSON-FORD, KAREN
Comparing strategies to preserve evolutionary diversity

P225 CLAYTOR, SIEARA* - MUCHLINSKI, ALAN - TORRES, ELIZABETH
Genetic variation in populations of the introduced eastern fox squirrel (Sciurus niger) in California

P226 HEILMAN, AMY M.* - CHAN, LAUREN - RAKOTOMALALA, ZAFIMAHERY - GOODMAN, STEVEN M. - YODER, ANNE
A multilocus phylogeographic study of a rodent (*Eliurus myoxinus*) distributed throughout western Madagascar

P227 JORDAN, KRISTEN S. * - WATERS, PAUL D. - GRAVES, JENNIFER A.M.
Analysis of X Chromosome Inactivation in Mouse using RNA FISH

P228 JIANG, HUANHUAN* - LI, RUIQIANG - GUO, LIXIA - JIANG, ZHI - LIU, YUAN
The sequence and denovo assembly of the giant panda genome

P229 FINCH, TABITHA M.* - EGGERT, LORI S.
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Phylogeny and Evolution of Perissodactyla

P2131 THOMAS, STEVEN
Population genetics of the federally endangered Pacific Pocket Mouse (Perognathus longimembris pacificus)

P2132 SUZUKI, TAICHI* - NACHMAN, MICHAEL
Speciation and hybrid female fertility in house mice

P2133 HAYS, CYNTHIA G. * - LEHMAN, JOAN M. - DAWSON, MICHAEL N - HEADY, KRISTEN E. K. - RAIMONDI, PETER T.
Deconstructing the Abundant Center Hypothesis: the abundant geographic center versus the abundant ecological center

P2134 LEHMAN, JOAN M. * - DAWSON, MICHAEL N - HAYS, CYNTHIA G. - GROSBERG, R. K. - EERNISSE, DOUGLAS J. - GILMAN, SARAH E.
Population genetic analysis of northern and southern range limits in the intertidal limpet Lottia scabra

P2135 COHEN, OCEAN R* - WALTERS, LINDA J - HOFFMAN, ERICA A.
Genetics of an invasion: Analysis of the Titan acorn barnacle, Megabalanus coccopoma, in the US and Brazil

P2136 ROBLES-SIKISAKA, REFUGIO - BOHONAK, ANDREW J.* - MCCLENAGHAN, LEROY R. - Dhar, Arun K.
Genetic signature of rapid IHHNV (Infectious Hypodermal and Hematopoietic Necrosis Virus) expansion in wild Penaeus shrimp populations

P2137 AMARAL, ANA R. * - MÖLLER, LUCIANA M. - BEHEREGARAY, LUCIANO, B - COELHO, M. MANUELA
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P2138 ARDILA, NESTOR* - SANCHEZ, JUAN
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P2139 JOYNER-MATOS, JOANNA* - COUSINS, DUSTIN - ADAMS, ANTHONY - DENVER, DEE - BAER, CHARLES F.
Free radicals influence mutational processes in Caenorhabditis

P2140 WILHELM, LARRY* - HOWE, DANA - BAER, CHARLES F. - DENVER, DEE
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P2141 COLEMAN-HULBERT, ANNA* - HICKS, KILEY - LEUNG, AUBREY - HOWE, DANA - DENVER, DEE - ESTES, SUZANNE
Phenotypic effects of natural mitochondrial DNA variation and mitochondrial inheritance in C. briggsae

P2142 KLINGBEIL, SKYE N. * - ESTES, SUZANNE - HOWE, DANA - DENVER, DEE
Inheritance of Mitochondrial DNA Mutation Heteroplasmy in C. briggsae
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P2143  SMITH, SAM* - ESTES, SUZANNE
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P2144  SATTERLY, ALICIA* - KAPLAN, ADAM - PALOPOLI, MICHAEL
Heritable variation in the morphology of a chemosensory neuron in the nematode Caenorhabditis elegans

P2145  TURNER, KATHRYN G* - HUFBAUER, RUTHA - RIESEBERG, LOREN
Phenotypic and stress tolerance variation between native and invaded ranges of an invasive weed

P2146  MERCER, CHARLENE* - EPPLLEY, SARAH M.
Testing Mechanisms for the Evolution of Spacial Segregation of the Sexes in a dioecious salt marsh grass, Distichlis spicata

P2147  GRILLO, MICHAEL
Functional traits underlying mating system differentiation in the wild relatives of rice

P2148  LOBO, NINA* - AITKEN, SALLY
Spatial patterns of adaptive variation in Sitka spruce

P2149  JORDAN, CRISPIN* - HODGINS, KAY - ALLY, DILARA - OTTO, SARAH P.
Stress, flowering time, and the potential for local adaptation in Mimulus guttatus

P2150  NEPOKROEFF, MOLLY* - RILEY, LYNN - WILLYARD, ANN - JACOBS, BRIDGET - WELLER, STEPHEN G. - SAKALANN K. - WAGNER, WARREN L. - WALLACE, LISA
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P2151  YAKUB, MOHAMED* - MOYLE, LEONIE
GxE of early flowering traits in response to cold treatment of seeds

P2152  PRAMOD, SREEPRIYA* - WELCH, MARK E.
A study of selection on Microsatellites in the transcriptome of Helianthus annuus (common sunflower)

P2153  BUTLER, TIMOTHY* - DICK, CYNTHIA - WHITALL, JUSTEN
Transcriptome-level comparisons of purple- and white-flowered Arctic mustards (Parrya nudicaulis) using Next-Gen sequencing technologies.

P2154  THUM, R.A.* - ZUELLIG, MATTHEW
Diversification and species boundaries in endemic North American watermilfoils

P2155  SPRUNT, SUSAN V.* - SCHNEIDER, HARALD - WATSON, LINDA E. - RUSSELL, STEPHEN J. - NAVARRO-GOMEZ, ADRIANA - HICKEY, R. JAMES
Exploring the molecular phylogeny and biogeography of Pleopeltis polypodioides (Polypodiaceae) inferred from plastid DNA sequences

P2156  SPAETH, JOHANNES* - STREINZER, MARTIN - PAULUS, HANNES F.
Evolution of visual signals in sexually deceptive orchids
Monday

P2157 BAKER, ROBERT, L.* - DIGGLE, PAMELA K.
A Developmental Analysis of Shoot Architecture in two Populations of *Mimulus guttatus* (Phrymaceae)

P2158 POELCHAU, MONICA* - HAMRICK, J.L.
Differential effects of landscape features on genetic structure in three co-distributed Central American tree species

P2159 KUROIWA, EMI
Reproductive Biology and Conservation of Hawaiian Endemic *Solanum nelsonii*

P2160 DE CLERCK, OLIVIER* - VERBRUGGEN, HEROEN - TYBERGHEIN, LENNERT
Longitudinal diversity patterns in algae: a case study using the brown algal genus *Dictyota* (Dictyotales, Phaeophyta)

P2161 SIEMENS, DAVID* - DUVALL-JISHA, JOHN - JACOBS, JAY - MANTHEY, JOSEPH - MATZNER, STEVE
Tests of the Defense Constraint hypothesis for evolution of local range in plants: Evolutionary tradeoff as a consequence of co-opted antagonistic signaling pathways?

P2162 ADDERLEY, LORRAINE J.* - MCEWEN, JAMIE R. - VAMOSI, JANAA
Effect of floral display and geographical context on selfing rate variation in *Plectritis congesta*

P2163 MOYERS, BROOK T.
Where have all the flowers gone? *Helianthus argophyllus* as a case study of incipient ecological speciation

P2164 KOVACHEVA, EKATERINA* - VANDERGON, VIRGINIA
Evolution of anthocyanin synthase in Hawaiian silverswords and California tarweeds

P2165 BERARDI, ANDREAE* - TAYLOR, DOUGLAS R.
Differential flavonoid evolution in European populations of *Silene vulgaris* (Caryophyllaceae)

Phylogeography of *Rhizophora mangle* (Rhizophoraceae) along the Brazilian coast

P2167 WANG, TINA* - KEARNEY, LAUREN - MAULHARDT, HOLLY - GAETA, ROBERT T. - PIRES, J. CHRIS - HIMELBLAU, EDWARD
Sequence loss and phenotypic variation within resynthesized lineages of *Brassica napus* allopolyploids

P2168 SMITH, MATTHEW* - LEVSEN, NICHOLAS - OLSON, MATTHEW
Linkage Disequilibrium Decay in Populus balsamifera (Salicaceae): a comparison between autosomes and sex chromosomes

P2169 KELLER, STEPHEN - OLSON, MATTHEW - LEVISON, NICK - TIFFIN, PETER*
Population genomics of post-glacial range expansion in Populus balsamifera and diversity in candidate genes for phenological adaptation

P2170 ZUELLIG, MATTHEW* - THUM, RYAN
A Genetic Survey of Invasive Myriophyllum spicatum in North America
Monday

P2171 HORNER, JOHN* - HODCROFT, EMMA - HALE, AMANDA - WILLIAMS, DEAN
Clonal reproduction and genetic variation in the carnivorous plant, Sarracenia alata Wood

P2172 WILSON, HANNAH* - BLAISDELL, G.K. - CARROLL, GEORGE - BITTY, ROY
Pathogens found on introduced perennial grass species also infect co-occurring native grass species

P2173 VISLOVA, ALICE* - KELLER, STEPHEN - TIFFIN, PETER
The role of hybridization between native European plants Silene vulgaris and Silene cserrei in S. vulgaris invasion of North America and subsequent expansion beyond its ancestral climactic range

P2174 HOVE, ALISAA. - IVEY, CHRISTOPHER T.* - MAZER, SUSAN J.
Does reproductive assurance explain the absence of pollen limitation in Clarkia unguiculata and Clarkia xantiana ssp. xantiana?

P2175 PHAN-WESTON, SCARLETT* - MERRITT, ROBERT
PCR Amplification of Mummified Yucca brevifolia

P2176 VERNE, SÉ BASTIEN* - WHITE, RICK - RITLAND, CAROL - JAQUISH, BARRY - RITLAND, KERMIT
sHSP diversification in spruce and constitutive resistance to white pine weevil

P2177 WEINGARTNER, LAURA* - ZHANG, WENYUN - MOORE, RICHARD
Evolution of the Non-Recombining Region of the Papaya Sex Chromosomes

P2178 SOULE, JACOB W* - JUENGER, THOMAS E
Maintenance of Polymorphism in a Desert Annual: Ipomopsis longiflora

P2179 TRAVERS, STEVEN* - VANDewater, PETE - SAGERS, CYNTHIA
Phenotypic plasticity of flowering time in response to climate change

P2180 POPOLIZIO, THEA* - CIANCIOLA, ELISABETH - SCHNEIDER, CRAIG - LANE, CHRISTOPHER
Molecular-Assisted Alpha Taxonomy of Bermudian Centroceras Reveals Two New Species

P2181 ROWE, HEATHER C* - KANE, NOLAN - SEETON, DANNY - RIESEBERG, LOREN
Quantitative variation in sunflower response to environmental stresses

P2182 SIMBOOLON, CHRISTINE* - AAGAARD, JAN - SWANSON, WILLIE
Positive selection among populations and species of yellow monkeyflowers identifies candidate loci underlying conspecific pollen precedence

P2183 COLLINS, JEFF* - SMITH, CHRISTOPHER I.
Signatures of population decline in Yucca brevifolia (Agavaceae)

P2184 ARIDA, EVY* - SULANDARI, SRI - ZEIN, M.S.A - BOEHME, WOLFGANG - CIOFI, CLAUDI0
Phylogeography of Komodo dragon (Varanus komodoensis)

P2185 GERARD, DAVID
A new phylogenetic method to detect levels of hybridization between species
P2186 MAKOVICEY, P.J.* - ERICKSON, G.M.
Systematics and evolution of Psittacosaurus: Using life history data to resolve taxonomy and relationships in an oversplit dinosaurian species complex

P2187 SCOTT, PETER* - HOLLINGSWORTH, BRADFORD - REEDER, TOD
A Multilocus Phylogeographic Study of the Aspidoscelis hyperythra Complex of Baja California

P2188 SAELENS, JOSEPH W* - PUTONTI, CATHERINE
Selection Within Non-Coding Regions of Phage Genomes

P2189 FISHER, DAVID* - OGDEN, T. HEATH
Molecular Evolution of Swine Origin Influenza Virus throughout 2009

P2190 RASMUSSEN, DAVID* - KOELLE, KATIA
Time series, gene genealogies and the population dynamics of rapidly evolving pathogens
TUESDAY, JUNE 29TH

8:00 AM - 12:00 PM   Sym77 Symposium   Oregon Ballroom 201/OCC
SSE Symposium: Moving towards a science of evolutionary prediction
Chair: Allen G. Rodrigo

8:00   Sym77001   SPENCER, HAMISH G
Evolutionary prediction and adaptive landscapes

8:30   Sym77002   BULL, JIM
Homage to Lewontin: Genetics and the prediction of short-term adaptation

9:00   Sym77003   MACKAY, TRUDY F C
Systems Genetics of Drosophila Life History Traits

9:30   Sym77004   LANGERHANS, R. BRIAN
Predicting evolution with generalized models of divergent selection

10:00   Break

10:30   Sym77006   BUSH, ROBIN
Predicting the Evolution of Influenza, Revisited

11:00   Sym77007   STEEL, MIKE
Predicting the loss of future evolutionary heritage

11:30   Sym77008   HOFFMANN, ARY
Climate change adaptation and evolution: towards a predictive framework

8:30 AM - 10:00 AM   145 Contributed Papers   A105/OCC
Adaptation 13
Chair: C. Darrin Hulsey

8:30   145001   ANDERSON, CARLOS J. R.* - WILLIAMS, BARRY
The relative roles of compensatory vs. ecological adaptation to postzygotic isolation

8:45   145002   ROGELL, BJÖRN* - DANNEWITZ, JOHAN - PALM, STEFAN - PETERSSON, ERIK - LAURILA, ANSSI
QST - FST comparisons reveals local adaptation in sea trout

9:00   145003   GONDA, ABIGÉL
Insular evolution underwater: nine-spined sticklebacks in isolated ponds

9:15   145004   HULSEY, C. DARRIN
Comparative Rates of Lower Jaw Diversification in Cichlid Adaptive Radiations
8:30 AM - 10:00 AM  146 Contributed Papers  A106/OCC

**Phylogeography 11**

*Chair: Craig Starger*

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<th>Time</th>
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<th>Authors</th>
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<tr>
<td>8:30</td>
<td>146001</td>
<td>STARGER, CRAIG* - DREW, JOSHUA. - KUPIYANOVA, ELENA - BARBER, PAUL</td>
<td>Phylogeography of the Christmas tree worm, <em>Spirobranchus corniculatus</em> from the Coral Triangle and Fiji</td>
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<tr>
<td>8:45</td>
<td>146002</td>
<td>COWART, DOMINIQUE A.* - MIGLIESA, MARIAPIA - SCHAEFFER, STEPHEN - FISHER, CHARLES</td>
<td>Inferring species distributions of Gulf of Mexico vestimentiferans (Polychaeta, Siboglinidae) using mitochondrial and nuclear genes</td>
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<tr>
<td>9:00</td>
<td>146003</td>
<td>EBLE, JEFF A* - TOONEN, ROBERT J - BOWEN, BRIAN W</td>
<td>Has the pendulum swung too far? Insights into marine connectivity and the 'open' versus 'closed' debate</td>
</tr>
<tr>
<td>9:15</td>
<td>146004</td>
<td>ZHANG, HAIBIN* - HARE, MATTHEW</td>
<td>Gene flow and genetic diversity compared between a broadcast spawning and brooding oyster using AFLP data</td>
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<tr>
<td>9:30</td>
<td>146005</td>
<td>HARE, MATTHEW* - ZHANG, HAIBIN</td>
<td>The high gene flow horse oyster, Ostrea equestris, shows a novel genetic break in southeastern Florida</td>
</tr>
<tr>
<td>9:45</td>
<td>146006</td>
<td>BOUCKAERT, REMCO - GREENHILL, SIMON - DRUMMOND, ALEXEI*</td>
<td>The Statistical Phylogeography of Indo-European Languages</td>
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8:30 AM - 10:00 AM  147 Contributed Papers  A107-108/OCC

**Speciation and Hybridization 3**

*Chair: Leslie M Turner*

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<tr>
<th>Time</th>
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<tr>
<td>8:30</td>
<td>147001</td>
<td>LEXER, CHRISTIAN</td>
<td>Admixture zones: genomic “melting pots” for identifying loci involved in adaptation and reproductive isolation</td>
</tr>
<tr>
<td>8:45</td>
<td>147002</td>
<td>MODLISZEWSKI, JENNIFER* - WILLIS, JOHN H.</td>
<td>Do newly formed <em>Mimulus</em> hybrid polyploids display novel genetic variation?</td>
</tr>
<tr>
<td>9:00</td>
<td>147003</td>
<td>BROTHERS, AMANDA* - DELPH, LYNDI</td>
<td>The generality of Haldane’s rule is extended to plants with sex chromosomes</td>
</tr>
</tbody>
</table>
Tuesday

9:15 147004  NICE, CHRIS* - GOMPert, ZACH - FORISTER, MAT - FORDYCE, JAMES - BUERKLE, C. ALEX
Repeated Hybrid Speciation in Mountain Top Butterflies

9:30 147005  TURNER, LESLIE M* - HARR, BETTINA
The distribution of male sterility phenotypes and testis gene expression variation along a genetic cline in a house mouse hybrid zone

9:45 147006  WHITE, MICHAEL A* - STEFFY, BRIAN - WILTSHIRE, TIM - PAYSEUR, BRETA
The genetics of hybrid male sterility between two subspecies of house mice, Mus musculus castaneus and M. m. domesticus

8:30 AM - 10:00 AM  148 Contributed Papers   B111-112/OCC
Ecology and Evolution of Disease 3
Chair: A. Jeanine Abrams

8:30 148001  KAMATH, PAULINE* - GETZ, WAYNE
Anthrax dynamics and adaptive gene variation across wildlife host populations and species

8:45 148002  TYNDALE, SELNET* - COOK, REBEKAH C.
The Evolutionary Persistence of Hemoglobin Polymorphisms in Newborns whose Parents Racially Self-Identify to Historical Populations Exposed to Endemic Malaria

9:00 148003  ABRAMS, A. JEANINE
Patterns of selection in ranaviruses and their relatives (family Iridoviridae)

9:15 148004  SPURGIN, LEWIS G.* - RICHARDSON, DAVID S.
How pathogens drive genetic diversity: MHC, mechanisms and misunderstandings

9:30 148005  FERNANDEZ, ANDRE A.* - MITCHELL, DAVID L.
The evolutionary biology of cancer - new insights from Xiphophorus fishes

8:30 AM - 10:00 AM  149 Contributed Papers   B113/OCC
Ecological Genetics 2
Chair: Steven J. Franks

8:30 149001  FRANKS, STEVEN J.* - LALCHAN, REBECCA - NOWOGRODZKI, ANNA - LITT, AMY
A candidate gene approach to examining flowering time evolutionary responses to drought in the annual plant Brassica rapa

8:45 149002  WALLACE, MARK J.* - BARRETT, MATTHEW D - BARRETT, RUSSELL L - HEEL, KATHY A - ORVAIN, MARIE
Polyploidy and hybridisation in the Lepidosperma costale (Cyperaceae) species complex: Geographic segregation between diploids, triploids, and tetraploids
9:00 149003 GEMEINHOLZER, BIRGIT
Population genetic analysis of the heterocarp plant species *Catananche lutea* (Asteraceae) on a fragmentation and precipitation gradient in Israel

9:15 149004 GEVAERT, SCOTT* - DONOVAN, LISA
Populations of *Helianthus porteri* are genetically differentiated for their response to water and nutrient limitations

9:30 149005 FERRIS, KATHLEEN G* - WILLIS, JOHN H.
Ecological genetics of leaf shape divergence in *Mimulus*

9:45 149006 ANDREW, ROSE* - EBERT, DANIEL - GODFREY, RYAN - FITZPATRICK, CONNOR - OSTEVIK, KATHERINE L - RIESEBERG, LOREN
Ecotypic divergence of dune sunflowers: seed mass, early growth and neutral markers

8:30 AM - 10:00 AM  151 Contributed Papers   B116/OCC

Chair: Julia Bowsher

8:30 151001 AHUJA, ABHA* - SINGH, RAMA
Evo - Devo analysis of sex comb bristle number variation in *Drosophila melanogaster*

8:45 151002 BOWSHER, JULIA
The developmental basis of parallel evolution in sepsid flies

9:00 151003 CAMPBELL, MEGAN* - GANETZKY, BARRY
Evolution of synaptic morphology in *Drosophila*

9:15 151004 PRESTON, JILL* - HILEMAN, LENA
Evolution of the floral symmetry gene network following independent gene duplications in *Antirrhinum majus* and *Mimulus guttatus*

9:30 151005 TOLKIN, THEADORA* - GALIMBA, KELSEY - ODDONE, ALESSANDRA - DISTILIO, VERONICA
Structure and Function of AGAMOUS in a Basal Eudicot

9:45 151006 KIM, SANGTAE
Sequence and expression studies of floral MADS-box genes in *Magnolia salicifolia* (Siebold and Zucc.) Maxim. (Magnoliaceae), a sepaloid-tepal bearing magnolia
8:30 AM - 10:00 AM  152 Contributed Papers  B117-118/OCC
Quantitative Genetics 1
Chair: Derek, A. Roff

8:30  152001  ROFF, DEREK, A.* - FAIRBAIRN, DAPHNE, J.
The Evolution of Trade-offs: Testing a fundamental Prediction of Quantitative Genetics

8:45  152002  GUILLAUME, FREDERIC
Migration-induced phenotypic divergence: The migration-selection balance of correlated traits

9:00  152003  ORD, TERRY* - STAMPS, JUDY - LOSOS, JONATHAN
Adaptation and plasticity of animal communication in fluctuating environments

9:15  152004  LEE, YOUNG WHA* - KELLY, JOHN K. - WILLIS, JOHN H.
Maintenance of variation in a natural population of common monkeyflower: insights from targeted QTL dissection

9:30  152005  FISHMAN, LILA* - CAMPBELL, SAMANTHA
Major QTLs for flowering time in Mimulus

8:30 AM - 10:00 AM  153 Contributed Papers  C121-122/OCC
Species Interactions and Coevolution 6
Chair: David W Kikuchi

8:30  153001  NOVAK, MARK* - TINKER, TIM
Prey-switching and the temporal dynamics of intraspecific diet specialization

8:45  153002  MALÉ, PIERRE-JEAN G.* - LEROY, CÉLINE - DEJEAN, ALAIN - QUILICHINI, ANGÉLIQUE - ORIVEL, JÉRÔME
Evolutionary conflicts and sanctions between a neotropical ant and its host-plant

9:00  153003  HILLESLAND, KRISTINA* - STAHL, DAVID
Rapid evolution of stability and productivity at the origin of a microbial mutualism

9:15  153004  HOLLIS, BRIAN* - ZARPENTINE, CHRISTOPHER - DEEN, DANIEL
Experimental coevolution between two strains of the social amoeba Dictyostelium discoideum

9:30  153005  KIKUCHI, DAVID W* - PFENNIG, DAVID W
High model abundance may permit the gradual evolution of Batesian mimicry: an experimental test

9:45  153006  HOSO, MASAKI
Right-handed snakes and left-handed snails: optimal foraging favors speciation of prey
### 8:30 AM - 10:00 AM  154  Contributed Papers  
**Ecological Modeling**  
*Chair: Travis Hagey*

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<tr>
<td>8:30</td>
<td>154001</td>
<td>Metabolic diversification by genetic assimilation</td>
<td>HERRON, MATTHEW* - DOEBELI, MICHAEL</td>
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<tr>
<td>8:45</td>
<td>154002</td>
<td>Complexity and Diversity</td>
<td>DOEBELI, MICHAEL* - ISPOLATOV, IAROSLAV</td>
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<td>9:00</td>
<td>154003</td>
<td>Maxent environmental niche models as niche and distribution estimates: model selection, complexity, and fit</td>
<td>WARREN, DAN</td>
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<td>9:15</td>
<td>154004</td>
<td>Applying stochastic models of geographic evolution as null models for species richness gradients and species-environment relationships</td>
<td>TELLO, J. SEBASTIAN* - STEVENS, RICHARD D.</td>
</tr>
<tr>
<td>9:30</td>
<td>154005</td>
<td>Modeling effects of pollinator behavior on pollen limitation, hermaphrodite selfing rate, and equilibrium sex ratio in gynodioecious populations</td>
<td>STONE, JAMES* - IWASA, YOH</td>
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<tr>
<td>9:45</td>
<td>154006</td>
<td>Predicting adhesive capabilities in Anolis and Phelsuma lizards via the frictional adhesion model and critical detachment angle</td>
<td>HAGEY, TRAVIS* - HARMON, LUKE - AUTUMN, KELLAR</td>
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### 8:30 AM - 10:00 AM  155  Contributed Papers  
**Phenotypic Plasticity 2**  
*Chair: Liza Holeski*

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<tr>
<td>8:30</td>
<td>155001</td>
<td>The joint evolution of phenotypic plasticity and dispersal: interactions with life history and linkage</td>
<td>SCHEINER, SAMUEL M.* - HOLT, R. D.</td>
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<td>8:45</td>
<td>155002</td>
<td>Gene flow and selection on phenotypic plasticity in an island system</td>
<td>JOHANSSON, FRANK* - LIND, MARTIN</td>
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<tr>
<td>9:00</td>
<td>155003</td>
<td>How important are epigenetic imprinting effects compared to genetic effects in explaining trait variation?</td>
<td>HAGER, REINMAR* - CHEVERUD, JAMES M. - WOLF, JASON B.</td>
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<tr>
<td>9:15</td>
<td>155004</td>
<td>The genomic basis of natural variation in abiotic stress response in Arabidopsis</td>
<td>DES MARAIS, DAVID* - MCKAY, JOHN - RICHARDS, JAMES - JUENGER, THOMAS E</td>
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<td>9:30</td>
<td>155005</td>
<td>Phytochemical defense in <em>Mimulus guttatus</em> (yellow monkeyflower)</td>
<td>HOLESKI, LIZA* - KEEFOVER-RING, KEN - LINDROTH, RICK</td>
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<tr>
<td>9:45</td>
<td>155006</td>
<td>Maternal effects on traits affecting competitive ability in <em>Poa secunda</em></td>
<td>ESPELAND, E.K.* - HORNING, M.E. - CASHMAN, M.J. - JOHNSON, R.C.</td>
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8:30 AM - 10:00 AM 156 Contributed Papers C125-126/OCC

Evolution and Sex
Chair: Aneil Agrawal

8:30 156001 ARCHETTI, MARCO
Evolution of sex and recombination: Maynard Smith’s complementation theory rescued by intragenomic conflict

8:45 156002 MEE, JONATHAN A* - OTTO, SARAH P. - TAYLOR, ERIC B
Quantifying the roles of fitness and mate choice in the persistence of an asexual hybrid species

9:00 156003 TOMAIUOLO, MAURIZIO* - LEVITAN, DR
Modelling how sperm availability influences selection and genetic variation in gamete recognition proteins

9:15 156004 BECKS, LUTZ - AGRAWAL, ANEIL*
The evolution of sex: Experiments with rotifers

9:30 156005 PARK, ANDREW W* - JOKELA, JUKKA - MICHALAKIS, YANNIS
Parasitism & deleterious mutations: interactions influencing the evolutionary maintenance of sex

9:45 156006 JANZEN, FREDRIC* - CHANDLER, CHRIS
On the origin and maintenance of patterns of temperature-dependent sex determination

10:30 AM - 12:00 PM 157 Contributed Papers A105/OCC

Adaptation 14
Chair: Mihaela Pavlicev

10:30 157001 STAYTON, C. TRISTAN* - RIVERA, GABRIEL
Finite Element Modelling of Shell Shape in the Freshwater Turtle Pseudemys concinna Reveals a Trade-Off between Mechanical Strength and Hydrodynamic Efficiency

10:45 157002 FARALLO, VINCENTR* - FORSTNER, MICHAEL R. J.
Predation and the maintenance of color polymorphism in the mottled rock rattlesnake (Crotalus lepidus lepidus)

11:00 157003 PAVLICEV, MIHAELA* - CHEVERUD, JAMES - HANSEN, THOMAS
Modularity revisited: how constraining is pleiotropy?

11:15 157004 VEMULAPALLI, VJETHA* - CASTOE, TODD - NAKAYAMA, MAKI - EISENBARTH, GEORGE - POLLOCK, DAVID
T-cell receptor repertoires in mice and the evolution of autoimmunity
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<tr>
<td>11:30</td>
<td>157005</td>
<td>Use of tuned and natural history-informed ecological niche models to determine if isolated populations inhabit novel climatic conditions: A study with three rodents in northwestern Venezuela</td>
<td>SOLEY-G., MARIANO* - ANDERSON, ROBERT P. - THOMAS, DARLA M. - GUTIÉRREZ, ELÍCER E. - OCHOA-G., JOSÉ - AGUILERA, MARISOL</td>
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<tr>
<td>11:45</td>
<td>157006</td>
<td>Parallel adaptive divergence among independent population sets: a novel approach applied to human genomic polymorphisms</td>
<td>TENNESSEN, JACOB A* - AKEY, JOSHUA M</td>
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**10:30 AM - 12:00 PM  158  Contributed Papers  A106/OCC**

**Phylogeography 12**

*Chair: Brittany Bernik*

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<tbody>
<tr>
<td>10:30</td>
<td>158001</td>
<td>Contemporary population genetic structure clarifies patterns of temporal change reconstructed from a century long coastal marsh seed bank</td>
<td>BERNIK, BRITTANY* - BLUM, MICHAEL - MCLACHLAN, JASON - SAUNDERS, COLIN</td>
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<td>10:45</td>
<td>158002</td>
<td>Considering anthropogenic events when differentiating among historical phylogeographic hypotheses: a study of <em>Agalinis decemloba</em> (Orobanchaceae)</td>
<td>PETTENGILL, JAMES B.* - NEEL, MAILE C.</td>
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<td>11:00</td>
<td>158003</td>
<td>Analysis of phylogeographic data collected via next-generation sequencing in the carnivorous plant <em>Sarracenia alata</em></td>
<td>CARSTENS, BRYAN* - KOOPMAN, MARGARET - HIRD, SARAH</td>
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<td>11:15</td>
<td>158004</td>
<td>Phylogeography and climate adaptation of live oaks (Quercus section Virentes) from the tropics to the temperate zone</td>
<td>CAVENDER-BARES, JEANNINE* - GONZALEZ-RODRIGUEZ, ANTONIO - PAHLICH, ANNETTE - KOEHLER, KARI - DEACON, NICHOLAS</td>
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<tr>
<td>11:30</td>
<td>158005</td>
<td>Analysis of a single locus leaf shape cline in the Ivyleaf morningglory, <em>Ipomoea hederacea</em></td>
<td>CAMPITELLI, BRANDON E* - STINCHCOMBE, JOHN R</td>
</tr>
<tr>
<td>11:45</td>
<td>158006</td>
<td>Phylogeographic patterns and intervarietal relationships within <em>Lupinus lepidus</em>: Morphological differences, genetic similarities</td>
<td>WEITEMIER, KEVIN</td>
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## Hybridization 1

**Chair: Nolan Kane**

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<tr>
<td>10:30</td>
<td>159001</td>
<td>Morphological and mitochondrial analyses of a contact zone between a narrow endemic and a common salamander</td>
<td>MARSH, DAVID M* - BAYER, CLARICE - SACKMAN, ANDREW - C Abe, PAUL</td>
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<td>10:45</td>
<td>159002</td>
<td>Sex in unisexual salamanders</td>
<td>BIKE* - BOGART, JAMES P.</td>
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<td>11:00</td>
<td>159003</td>
<td>Hybridization, life history strategies and invasion success in a parasitoid wasp</td>
<td>BENVENUTO, CHIARA* - CHEYPPE-BUCHMANN, SANDRINE - BERMOND, GÉRALD - RIS, NICOLAS - FAUVERGUE, XAVIER</td>
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<td>11:15</td>
<td>159004</td>
<td>Allee effect in the selection for prime-numbered cycles in periodical cicadas</td>
<td>YOSHIMURA, JIN* - TANAKA, YUMI - SIMON, CHRIS - COOLEY, JOHN R. - TAINAKA, K EICHI</td>
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<tr>
<td>11:30</td>
<td>159005</td>
<td>Horizontal Gene Transfer at the Subgenic Levels</td>
<td>HAO, WEILONG* - PALMER, JEFFREY</td>
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<td>11:45</td>
<td>159006</td>
<td>Genome-wide analysis of divergence, gene flow and hybridization across the range of Helianthus annuus</td>
<td>KANE, NOLAN* - RIESEBERG, LOREN</td>
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## Ecology and Evolution of Disease 4

**Chair: Olivier Restif**

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<tr>
<td>10:30</td>
<td>160001</td>
<td>Can network metrics help discriminate between different infection genetics?</td>
<td>POULLAIN, VIRGINIE* - GANDON, SYLVAIN - NUISMER, SCOTT</td>
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<td>10:45</td>
<td>160002</td>
<td>host heterogeneity, targeted vaccination and virulence evolution</td>
<td>WILLIAMS, PAUL</td>
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<td>11:00</td>
<td>160003</td>
<td>The puzzle of the evolution of cancer non stem cells</td>
<td>SPROUFFSKE, KATHLEEN* - MALEY, CARLO</td>
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<td>11:15</td>
<td>160004</td>
<td>Evolution of mammalian malaria: host transfer or coevolution?</td>
<td>SILVA, JOANA* - EGAN, AMY - SPOUGE, JOHN - HARRIS, DAVID</td>
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<td>11:30</td>
<td>160005</td>
<td>The evolution of sex-specific immunity</td>
<td>RESTIF, OLIVIER* - AMOS, WILLIAM</td>
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<td>11:45</td>
<td>160006</td>
<td>Epidemic Dynamics Revealed in Dengue Evolution</td>
<td>BENNETT, SHANNON* - DRUMMOND, ALEXEI - KAPAN, DURRELL - SUCHARD, MARC - MUNOZ-JORDAN, JORGE - PYBUS, OLIVER - HOLMES, EDWARD - GUBLER, DUANE</td>
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10:30 AM - 12:00 PM  161  Contributed Papers  B113/OCC

Ecological Genetics 3
Chair: Jeffrey Row

10:30  161001  HANIFIN, CHARLES* - GILLY, WILLIAM
Chicken or Egg: Evolution of tetrodotoxin resistance in TTX-bearing salamanders

10:45  161002  MILLER, MATTHEW J* - BERMINGHAM, ELDREDGE - WINKER, KEVIN
The role of ecology in the genetic differentiation of widespread Neotropical birds

11:00  161003  REIMCHEN, THOMAS E.
Ecological genetics of a conspicuous coat colour polymorphism in Black Bear

Intraspecific variation in genetic structure corresponds with social structure and environment for the Hawaiian spinner dolphin (Stenella longirostris)

11:30  161005  ROW, JEFFREY* - LOUGHEED, STEPHEN C.
Habitat distribution impacts the fine-scale genetic population structure of eastern foxsnakes (Mintonius gloydi) across a fragmented landscape

11:45  161006  LIN, JOCELYN* - NEWTON, LYNDASY - THOMAS, QUINN - HAUSER, LORENZ
Patterns of genetic and phenotypic differentiation between beach and creek spawning ecotypes of sockeye salmon

10:30 AM - 12:00 PM  163  Contributed Papers  B116/OCC

Development and Evolution 5
Chair: David Baum

10:30  163001  BAUM, DAVID
Developmental causality as a criterion for character individuation and homology

10:45  163002  SHAPIRO, MICHAEL* - MULROY, ELISABETH - ALDENHOVEN, JACLYN - OSBORNE, E.J. - STRINGHAM, SYDNEY - RECORD, DAVID
On the origin of pigeons by means of artificial selection

11:00  163003  FAVÉ, MARIE-JULIE* - JOHNSON, ROBERTA - ABOUHEIF, EHAB
Ecological and developmental genetics basis of winged and wingless morphs in the ant Monomorium emersoni

11:15  163004  O'BRIEN, CONOR* - QUICK, YEATES-BURGHART - HOLZAPFEL, CHRISTINA - WILLIAM, BRADSHAW - CRESEKO, WILLIAMA.
The evolution of photoperiodic response in the threespine stickleback, Gasterosteus aculeatus
### 10:30 AM - 12:00 PM  164  Contributed Papers  B117-118/OCC
#### Quantitative Genetics 2
Chair: Amanda Lorusso

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<tr>
<td>10:30</td>
<td>164001</td>
<td>Quantitative trait loci associated with the “shade avoidance” type response in <em>A. thaliana</em> when grown under oscillating daily summer temperatures</td>
<td>Engelmann, Kathleen* - Lorusso, Amanda - Gelgud, Ryan - Larson, Hannah - Burghardt, Liana</td>
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<tr>
<td>10:45</td>
<td>164002</td>
<td>Quantitative trait loci directly affecting seed set in <em>A. thaliana</em> differ when grown under oscillating daily summer temperatures versus constant temperature</td>
<td>Lorusso, Amanda* - Gelgud, Ryan - Larson, Hannah - Burghardt, Liana - Engelmann, Kathleen</td>
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<td>11:00</td>
<td>164003</td>
<td>Detecting changes in phenotypic correlation in <em>Arabidopsis thaliana</em> subject to oscillating daily temperatures with Principle Component Analysis and Quantitative Trait Locus analysis</td>
<td>Gelgud, Ryan* - Larson, Hannah - Lorusso, Amanda - Burghardt, Liana - Engelmann, Kathleen</td>
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<td>11:15</td>
<td>164004</td>
<td>Cryptic variation at TDL5: a quantitative trait gene for trichome density in <em>Arabidopsis thaliana</em></td>
<td>Symonds, Vaughan* - Lloyd, Alan</td>
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<td>11:30</td>
<td>164005</td>
<td>Genetic architecture of water-use-efficiency and other ecological traits in <em>Ipomopsis aggregata</em></td>
<td>Kenney, Amanda M* - Juenger, Thomas E</td>
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### 10:30 AM - 12:00 PM  165  Contributed Papers  C121-122/OCC
#### Species Interactions and Coevolution 7
Chair: Maarten Voordouw

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<tr>
<td>10:30</td>
<td>165001</td>
<td>Rapid exploiter-victim coevolution: the race is not always to the swift</td>
<td>Calcagno, Vincent* - Duboscclard, Marion - De Mazancourt, Claire</td>
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<td>10:45</td>
<td>165002</td>
<td>The fitness of rodent malaria-resistant and -susceptible strains of the mosquito, <em>Anopheles gambiae</em></td>
<td>Voordouw, Maarten* - Anholt, Bradley - Taylor, Pam - Hurd, Hilary</td>
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<td>11:00</td>
<td>165003</td>
<td>Malaria in the Black Hills: Is there evidence for pathogen mediated selection in the White-winged Junco (<em>Junco hyemalis aikeni</em>)?</td>
<td>Spellman, Dr. Garth* - Mehrotra, Pankaj - Moser, Jess - Terveen, Daniel - Ketterson, Ellen - Bergeon Burns, Christy</td>
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<tr>
<td>11:15</td>
<td>165004</td>
<td>African <em>Drosophila melanogaster</em> appear more resistant to Type III secretion system virulence factors of <em>Pseudomonas aeruginosa</em></td>
<td>Mckean, Kurt</td>
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<tr>
<td>11:30</td>
<td>165005</td>
<td>Evidence for large-effect loci that control resistance to schistosomes in the snail, <em>Biomphalaria glabrata</em></td>
<td>Bonner, Kaitlin* - Blouin, Michael</td>
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<td>11:45</td>
<td>165006</td>
<td><em>Spiroplasma</em> bacteria enhance survival of <em>Drosophila</em> flies attacked by parasitic wasps</td>
<td>Xie, Jialei - Vilechez, Igor - Mateos, Marianna*</td>
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**10:30 AM - 12:00 PM  166  Contributed Papers  C123/OCC**

**Sexual Selection 4**

**Chair: Cait Dmitriew**

10:30  166001  GAGNON, MARIE-CLAUDE* - TURGEON, JULIE  
Sexual conflict in the water strider *Gerris gillettei* (Insecta: Hemiptera): experimental assessment of individual mating success in relation to morphological and genetic variation

10:45  166002  STEVISON, LAURIE S* - NOOR, MOHAMED A F  
Male Drosophila influence crossover rates in females

11:00  166003  IZZO, AMANDA* - TIBBETTS, ELIZABETH  
Females gain direct benefits in a non-economic, lek-based mating system

11:15  166004  POLLUX, B.J.A.* - OUFIERO, C.E. - BANET, A.L. - ORR, T. - REZNICK, DAVID N  
Sexual selection and evolution of the placenta in the fish family Poeciliidae

11:30  166005  DMITRIEW, CAIT  
Genetic constraints on the evolution of sexual size dimorphism: effects of age and the environment

11:45  166006  PALADITI* - BELLE, JONELL - BRIGHT, MILLCENT - LAMPKIN, ERICA - JAMES, SHELLI - KING, JASMINE - RICHARDSON, CHANCELLA  
Social environment influences the evolution of reproductive traits in the red flour beetle

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**10:30 AM - 12:00 PM  167  Contributed Papers  C124/OCC**

**Genomics and Adaptation 2**

**Chair: Marina L. Ramon**

10:30  167001  EMERSON, KEVIN J* - BRADSHAW, WILLIAM E - HOLZAPFEL, CHRISTINAM  
The genetics of seasonal adaptations

10:45  167002  HOHENLOHE, PAUL* - BASSHAM, SUSIE - CRESKO, WILLIAMA.  
Population genomics of linkage disequilibrium and parallel adaptation in threespine stickleback

11:00  167003  LEDER, ERICA  
Among family variation in gene expression in threespine stickleback: Putative mechanisms for adaptive divergence

11:15  167004  RAMON, MARINA L.* - GRACEY, ANDREW Y.  
Probing population differences in the stress response of an intertidal fish using gene expression

11:30  167005  STAUBACH, FABIAN* - KUENZEL, SVEN - JOHNSON, JILL M - BAINES, ANDREA - DAVID, GINSBURG - BAINES, JOHN F  
Balancing selection at B4galnt2 and its influence on the intestinal microbiota in house mice

11:45  167006  SMALL, CLAYTON M.* - COGNATO, APRILD. - JONES, ADAM G  
Evolution of the Male Pregnancy Transcriptome in Pipefish: A 454 Sequencing Approach
### Biogeography 1

**Chair: Timothy Colston**

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper ID</th>
<th>First Author</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>10:30</td>
<td>168001</td>
<td>Gillespie, Rosemary</td>
<td>Colonization of Remote Islands: How predictable is it?</td>
<td></td>
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<tr>
<td>10:45</td>
<td>168002</td>
<td>Nowak, Michael* - Yoder, Anne</td>
<td>A remarkable exception to Baker’s Rule in Indian Ocean Coffea (Rubiaceae) revealed by trans-specific S-RNase polymorphism</td>
<td></td>
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<tr>
<td>11:00</td>
<td>168003</td>
<td>Paul, John R.* - Angert, Amy L.</td>
<td>Using historical demography to investigate geographic range limits in the scarlet monkeyflower (Mimulus cardinalis)</td>
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<tr>
<td>11:15</td>
<td>168004</td>
<td>Colston, Timothy</td>
<td>Biogeography and Phylogeography of Corallus hortulanus with a Review of the Genus Corallus</td>
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<tr>
<td>11:30</td>
<td>168005</td>
<td>Maizke, Nicholas J.</td>
<td>Testing estimation methods in historical biogeography using the bivalve fossil record: analysis pipeline and preliminary results</td>
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<tr>
<td>11:45</td>
<td>168006</td>
<td>Glor, Richard* - Warren, Dan</td>
<td>A new framework for testing the contribution of environmental variation to the origin and maintenance of biogeographic boundaries</td>
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**12:00 PM - 1:30 PM**

**L6 Special Lecture**

**Chair: Unknown**

<table>
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<tr>
<td>12:00</td>
<td>L6001</td>
<td>Dean, Donna</td>
<td>Improving Work-Life Satisfaction for Scientists</td>
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**1:30 PM - 3:00 PM**

**Adaptation 15**

**Chair: Rachel Prunier**

<table>
<thead>
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<th>Time</th>
<th>Paper ID</th>
<th>First Author</th>
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<tbody>
<tr>
<td>1:30</td>
<td>169001</td>
<td>Mojica, Julius* - Kelly, John K.</td>
<td>Viability selection prior to trait expression is an essential component of natural selection</td>
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<tr>
<td>1:45</td>
<td>169002</td>
<td>Prunier, Rachel* - Holsinger, Kent</td>
<td>But is it adaptive? Using population genetics to discern the role of drift and adaptation in the radiation of the white proteas (Protea section Exsertae Proteaceae L.)</td>
<td></td>
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</table>
Tuesday

2:00 169003  M’BAYA, JESSICA* - HOFFMANN, ARY
Assessing the adaptation potential of Carex species to climate change in the Victorian Alps using microsatellite markers

2:15 169004  SELBY, JESSICA* - WILLIS, JOHN H.
The genetic basis of serpentine tolerance in *Mimulus guttatus*

2:30 169005  SHAW, RUTH* - ETTERSON, JULIE - GEYER, CHARLES
The distribution of genetic effects on fitness in the annual plant, *Chamaecrista fasciculata*

2:45 169006  PURCELL, KEVIN M.* - HITCH, ALANT - KLERKS, PAULL - LEBERG, PAULL
The impact of sea level rise and phenotypic divergence on the genetic structure of a coastal marsh fish

1:30 PM - 3:00 PM  170  Contributed Papers  A106/OCC

*Phylogeography 13*

*Chair: Andrew Gottscho*

1:30 170001  DREW, JOSHUA A.* - WESTNEAT, MARK W.
A multi-locus phylogeny of the coral reef fish genus Amblyglyphidodon and the biogeography of speciation in the Indo-West Pacific

1:45 170002  DIBATTISTA, JOSEPH D* - WILCOX, CHRISTIE - CRAIG, MATT T. - ROCHA, LUIZA. - BOWEN, BRIAN W
Cryptic surgeonfish species: A phylogeographic survey of *Acanthurus nigroris* reveals hidden biodiversity in the Pacific Ocean

2:00 170003  GOTTSCHO, ANDREW* - MARKS, SHARYN B. - JENNINGS, W. BRYAN
Coalescent analysis of fifteen nuclear loci reveals Pleistocene speciation and low genetic diversity in the Mojave Fringe-toed Lizard, *Uma scoparia*

2:15 170004  ARCHIE, JAMES* - QUJIANO, MARC OLIVER
Fine Scale Phylogeography of *Sceloporus occidentalis* in the Transverse Ranges of California Reveals Unexpected and Complex Genetic Structure

2:30 170005  CHAN, LAUREN* - CHOLDEAN - BROWN, JASON L. - YODER, ANNE D.
The phylogeographic history of two iguanid lizards in Madagascar: insights from the integration of genetic and geospatial data

2:45 170006  PORTIK, DANIEL
Phylogeography, population structure, demographic history, and evolution of a coastal melanistic phenotype in a skink species in southwestern Africa
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>1:30 PM</td>
<td>171</td>
<td>Contributed</td>
<td>Maintenance of distinct floral phenotypes despite extensive gene flow</td>
<td>KULBABA, MASON W. - WORLEY, ANNE C. - GHAZVINI, HABIBOLLAH</td>
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<td></td>
<td>Papers</td>
<td>between two species of <em>Polemonium</em> that differ in their major pollinators</td>
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<tr>
<td>1:45 PM</td>
<td>171</td>
<td>Contributed</td>
<td>Microsatellite analysis of an intraspecific hybrid zone in the dominant</td>
<td>STACY, ELIZABETH* - PILLON, YOHAN - SAKISHIMA, TOMOKO - JOHANSEN, JENNIFER</td>
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<td>Papers</td>
<td>Hawaiian tree, <em>Metroside-rros polymorpha</em></td>
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<tr>
<td>2:00 PM</td>
<td>171</td>
<td></td>
<td>Hybridization in Tree lizards: biased movement of loci across species lines</td>
<td>HAENEL, GREG</td>
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<tr>
<td>2:15 PM</td>
<td>171</td>
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<td>Mito-nuclear fitness and hypoxic stress in a post-glacial hybrid population</td>
<td>FLIGHT, PATRICK A. - NACCI, DIANE - CHAMPLIN, DENISE - WHITEHEAD, ANDREW - RAND, DAVID M.</td>
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<td>of the fish, <em>Fundulus heteroclitus</em></td>
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<tr>
<td>2:30 PM</td>
<td>171</td>
<td></td>
<td>Unsuspected hybridization between <em>Calanus</em> spp. (Crustacea: Copepoda) in</td>
<td>PARENT, GENEVIÈVE J.* - PLOURDE, STÈ PHANE - TURGEON, JULIE</td>
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<td>the West Atlantic: impact on oceanographic surveys</td>
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<tr>
<td>2:45 PM</td>
<td>171</td>
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<td>Genetic patterns of introgression in coral: frequency and directionality</td>
<td>LADNER, JASON T* - VAN OPPEN, M.I.H. - PALUMBI, STEPHEN</td>
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<td>1:30 PM</td>
<td>172</td>
<td>Contributed</td>
<td>Does Rensch’s rule apply to plants?</td>
<td>BURNS, K.C.* - PATRICK, KAVANAGH</td>
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<td>Papers</td>
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<td>1:45 PM</td>
<td>172</td>
<td></td>
<td>Characterizing macroevolution: The degree of clustering in phylomorphospace</td>
<td>BERGMANN, PHILIP</td>
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<td>2:00 PM</td>
<td>172</td>
<td></td>
<td>Shakin’ It Island Style: Evolutionary vestigialization of the rattling</td>
<td>RABATSKY, ALI</td>
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<td>system in insular rattlesnakes</td>
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<td>2:15 PM</td>
<td>172</td>
<td></td>
<td>Patterns of head shape evolution in Greater Antillean  <em>Sphaerodactylus</em></td>
<td>SCANTLEBURY, DANIEL* - GLOR, RICH</td>
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<td>geckos</td>
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<tr>
<td>2:30 PM</td>
<td>172</td>
<td></td>
<td>Morphological Evolution of Philippine Forest Skinks (Genus: <em>Sphenomorphus</em>)</td>
<td>LINKEM, CHARLES* - BROWN, RAFF M.</td>
</tr>
<tr>
<td>2:45 PM</td>
<td>172</td>
<td></td>
<td>Convergent evolution of the prey-killing arsenal of saber-tooth predators</td>
<td>MEACHEN-SAMUELS, JULIE</td>
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1:30 PM - 3:00 PM  173  Contributed Papers  B113/OCC

Ecological Genetics 4
Chair: Amy L Parachnowitsch

1:30  173001  BRUNET, JOHANNE*  - LARSON-RABIN, ZACHARY
Variation in flowering time in the Rocky Mountain columbine: impact of genetic and the environment

1:45  173002  PARACHNOWITSC,AMY L*  - GEBER, MONICA  - ANDRE, KESSLER
Natural selection is equally variable across space & time in plant populations (A case study and review)

2:00  173003  CAPPA, JENNIFER*  - FAKRA, SIRINE  - MARCUS, MATTHEW  - SIMMONS, MARK  - PILON-SMITS, ELIZABETH
Differential accumulation and metabolism of selenium in Stanleya (Brassicaceae)

2:15  173004  SAMIS, KAREN E.  - STINCHCOMBE, JOHN R*
Ecological genetics of invasive Arabidopsis populations

2:30  173005  DEBOER, NICHOLAS*  - STACY, ELIZABETH
Genetic structure and dispersal limitation in the dominant tree Metrosideros polymorpha on East Hawaii Island

2:45  173006  QUIRAM, GINA*  - SHAW, RUTH  - CAVENDER-BARES, JEANNINE
Genetic variation in vigor and competitive performance of Lythrum salicaria (purple loosestrife) following the introduction of biological control agents

1:30 PM - 3:00 PM  175  Contributed Papers  B116/OCC

Life History Evolution 4
Chair: Andrew O Shelton

1:30  175001  JENKINS, CHRISTINA*  - NEIMAN, MAURINE
The effect of population diversity on growth and reproduction in asexual female Potamopyrgus antipodarum, a New Zealand snail

1:45  175002  BEHRMAN, EMILY*  - SCHMIDT, PAUL
Live longer: be a couch potato and eat lithium

2:00  175003  IRWIN, KRISTEN K.*  - CARTER, PATRICK A.
Analysis of Function-Valued Traits from growth curves in Tribolium castaneum

2:15  175004  SHELTON, ANDREW O*  - MANGEL, MARC
Detecting cryptic sex differences in pacific herring life-histories and understanding their implications for fisheries

2:30  175005  RUBIO DE CASAS, RAFAEL*  - KOVACH, KATHERINE  - DITTMAR, EMILY  - BARUA, DEEPAK  - BARCO, BRENDEN  - DONOHUE, KATHLEEN
Neither Slumber Nor Sleep: effects of seed dormancy on plants life history

2:45  175006  CARUSO, CHRISTINA M.*  - MAHERALL, HAFIZ  - LAMBERT, ALLISON
Why do flower size-flower number trade-offs vary? A test of three hypotheses
**Tuesday Sessions 176 - 177**

**1:30 PM - 3:00 PM  176  Contributed Papers  B117-118/OCC**

**Invasive Species 3**

*Chair: Luciano, B Beheregaray*

1:30  176001  KOOP, JENNIFER* - HUBER, SARAH - OWEN, JEB - KING, MARISA - GRANT, PETER - GRANT, ROSEMARY - CLAYTON, DALE
Specific immune defenses of Darwin’s finches against an introduced parasite

1:45  176002  MIEHLS, ANDREA* - PEACOR, SCOTT - MCADAM, ANDREW G.
Heritability and Maternal Effects of Key Traits for Interspecific Interactions in an Invasive Species, *Bythotrephes longimanus*

2:00  176003  BANKS, SAM - LING, SCOTT - JOHNSON, CRAIG - PIGGOTT, MAXINE - WILLIANSON, JANE - BEHEREGARAY, LUCIANO, B*
Genetic architecture of a recent climate change-driven range extension

2:15  176004  BRANNOCK, PAMELA M.* - HILBISH, THOMAS J.
Hybrid sterility limits introgression between two *Mytilus* species

2:30  176005  HODGINS, KAY* - RIESEBERG, LOREN
The evolution of invasiveness in common ragweed (*Ambrosia artemisiifolia* L.)

2:45  176006  PETREN, KENNETH* - SHORT, KRISTEN - LESCANO, NINNIA
A tale of two lizards: Fine-scale population structure during range expansion in two invasive lizards

**1:30 PM - 3:00 PM  177  Contributed Papers  C121-122/OCC**

**Species Interactions and Coevolution 8**

*Chair: Jodell Linder*

1:30  177001  KEEBAUGH, ERIN S* - SCHLENKE, TODDA
Molecular evolution of a candidate receptor for parasitic wasp eggs in *Drosophila*

1:45  177002  LINDER, JODELL* - SCHNEIDER, DAVID
Effects of diet on gene expression during infection in *Drosophila*

2:00  177003  RICE, WILLIAM
Empirical evidence for SA-zygotic drive: a selfish X-linked son-killer

2:15  177004  LERAY, MATTHIEU* - MILLS, SUZANNE C. - MEYER, CHRISTOPHER P.
Decapods living with potential fish predators: Examining species coexistence using gut content DNA analysis

2:30  177005  ARNQVIST, GÖRAN
Intergenomic epistasis and the genetic architecture of metabolic rate

2:45  177006  ROWE, ASHLEE H.* - ROWE, MATTHEW P. - ZAKON, HAROLD H.
No pain, no gain: coevolution between bark scorpion pain-inducing toxins and grasshopper mice pain receptors
### Tuesday

#### Sessions 178 - 179

### 1:30 PM - 3:00 PM 178 Contributed Papers C123/OCC

**Sexual Selection 5**

*Chair: Gil G. Rosenthal*

<table>
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<tr>
<th>Time</th>
<th>Paper Number</th>
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<th>Title</th>
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<tr>
<td>1:30</td>
<td>178001</td>
<td>ROBERTS, READE B.* - SER, JENNIFER R. - KOCHER, THOMAS D.</td>
<td>Multifactorial sex determination resolves sexual conflict and contributes to sexual dimorphism in Lake Malawi cichlid fishes</td>
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<tr>
<td>1:45</td>
<td>178002</td>
<td>FOWLER-FINN, KASEY* - RODRIGUEZ, RAFAEL</td>
<td>Social experience influences female mate choice discrimination in <em>Enchenopa</em> treehoppers (Hemiptera: Membracidae)</td>
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<tr>
<td>2:00</td>
<td>178003</td>
<td>OH, KEVIN P.* - SHAW, KERRY L.</td>
<td>Divergent female preference and the evolution of sexual isolation in Hawaiian crickets</td>
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<tr>
<td>2:15</td>
<td>178004</td>
<td>GUMM, JENNIFER* - MENDELSON, TAMRA</td>
<td>The evolution of nuptial coloration in freshwater fishes (genus <em>Etheostoma</em>)</td>
</tr>
<tr>
<td>2:30</td>
<td>178005</td>
<td>ROSENTHAL, GIL G.* - VERZIJDEN, MACHTELD N. - CULUMBER, ZACHARY W.</td>
<td>Contrary female mating preferences favor natural hybrids in swordtails (Teleostei: Xiphophorus)</td>
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<tr>
<td>2:45</td>
<td>178006</td>
<td>WILLIS, P.M.* - RYAN, M.J. - ROSENTHAL, G.G.</td>
<td>Direct costs influence female mate choice in the hybridizing swordtail <em>Xiphophorus birchmanni</em></td>
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### 1:30 PM - 3:00 PM 179 Contributed Papers C124/OCC

**Experimental Evolution 3**

*Chair: Brian Schuster*

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<tr>
<td>1:30</td>
<td>179001</td>
<td>DEBRY, RONALD* - HAUBER, DAVID - GROGAN, DENNIS</td>
<td>Measuring selection coefficients for single silent polymorphisms in <em>E. coli</em></td>
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<tr>
<td>1:45</td>
<td>179002</td>
<td>MELNYK, ANITA* - KASSEN, REES</td>
<td>Mapping adaptive landscapes of <em>Pseudomonas fluorescens</em> using experimental evolution in two single carbon substrate environments</td>
</tr>
<tr>
<td>2:00</td>
<td>179003</td>
<td>BAILEY, SUSAN E.* - KASSEN, REES</td>
<td>The effects of competition on adaptive diversification in <em>Pseudomonas fluorescens</em></td>
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<tr>
<td>2:15</td>
<td>179004</td>
<td>WONG, ALEX* - KASSEN, REES</td>
<td>Genetics of environment-dependent pleiotropy in the bacterium <em>Pseudomonas aeruginosa</em></td>
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<td>2:30</td>
<td>179005</td>
<td>SCHUSTER, BRIAN</td>
<td>Breaking the Language Barrier: Experimental Evolution in the <em>Vibrio fischeri-Euprymna scolopodes</em> Model.</td>
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<td>2:45</td>
<td>179006</td>
<td>ELLIS, CRYSTAL</td>
<td>Evidence of character release in <em>Burkholderia cenocepacia</em> biofilms</td>
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1:30 PM - 3:00 PM  180  Contributed Papers  C125-126/OCC

*Population Genetics 10*

**Chair: Timothy M. Griffith**

1:30  180001  REGAN, KERRY  
The effects of Sigma Virus on female fecundity in D. melanogaster

1:45  180002  GRIFFITH, TIMOTHY M.* - NAUGHGLE, CHRISTIN C.  
Could low genetic variation constrain evolution of geographically marginal populations? A comparison of heritabilities of range-limiting traits in internal and edge populations of Cocklebur

2:00  180003  O’CONNOR, JAQUELINE * - FORISTER, MATT - BURLS, KEVIN - YOUNG, BONNIE - JARAMILLO, ALEJANDRA - DYER, LEE - MILLER, JAMES - WHITFIELD, JAMES  
Piper, Eois, and Parapanteles: Coevolutionary dynamics of a complex neotropical tritrophic interaction

2:15  180004  TILEY, GEORGE P. - MAJOR, SEAN S. - MILLER, RICHARD E.*  
Geographic structure among populations of the morning glory, Ipomoea nil

2:30  180005  BAGLEY, JUSTIN C.* - JOHNSON, JERALD B.  
Do secondary freshwater fishes show congruent phylogeographic patterns in the presence of saltwater barriers?

2:45  180006  COLBY, GREGORY C.* - FUNK, DANIEL J.  
Population genetic elements of conspecific gynogenetic and sexual Neochlamisus leaf beetles

1:30 PM - 5:00 PM  Sym88  Symposium  Oregon Ballroom 201/OCC

*ASN Young Investigator Symposium*

**Chair: Spencer C. H. Barrett**

1:30  Sym88001  MCGLOTHLIN, JOEL  
Integration and Interaction in Evolution

2:00  Sym88002  JOHNSON, MARC  
Life After Sex: The Evolutionary Consequences of Losing Recombination and Segregation in Plants

2:30  Sym88003  DUCKWORTH, RENEE  
Evolution of colonization strategies: historical origin and ecological consequences

3:00  Sym88004  CARLSON, STEPHANIE  
Phenotypic selection in the wild

3:30  Break

4:00  Sym88006  LANGEHANS, R. BRIAN  
Phenotypic multitasking and magic traits in ecological speciation

4:30  Sym88007  RABOSKY, DANIEL L.  
A multiscale perspective on the ecology of evolutionary radiations
### Ecological Genetics 5

**Chair:** Jean M L Richardson

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>3:30</td>
<td>181001</td>
<td>Patterns of <em>Batrachochytrium dendrobatidis</em> presence in native amphibian species throughout British Columbia, Canada</td>
<td>Richardson, Jean M L. - Govindaraju, Purnima - Anholt, Bradley</td>
</tr>
<tr>
<td>3:45</td>
<td>181002</td>
<td>A statistical justification for using distribution models to infer changes in environmental requirements</td>
<td>Godsoe, William K. W.</td>
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<tr>
<td>4:00</td>
<td>181003</td>
<td>Spatial connectivity and phenotypic variation in a predator drives the evolution of prey in coastal lake ecosystems</td>
<td>Walsh, Matthew R. - Post, David M.</td>
</tr>
<tr>
<td>4:15</td>
<td>181004</td>
<td>Phylogenies, foodwebs and finding them all: integrating approaches to explore the diversity of parasitoid wasps</td>
<td>Rodriguez, Josephine - Janzen, Daniel - Hallwachs, Winnie - Smith, Alex - Whitfield, James</td>
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<tr>
<td>4:30</td>
<td>181005</td>
<td>The comparative genetic basis of wing patterning and pigmentation in North American admiral butterflies</td>
<td>Imhoff, Vance - Savage, Wesley - Mullen, Sean</td>
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<td>4:45</td>
<td>181006</td>
<td>Environmental Stress and Inbreeding Depression in <em>Drosophila melanogaster</em></td>
<td>Enders, Larmacy S. - Nunney, Leonard</td>
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### Species Interactions and Coevolution 9

**Chair:** Carol Horvitz

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>3:45</td>
<td>183002</td>
<td>Competition between parasites of the monarch butterfly</td>
<td>Sternberg, Eleanor - Lefèvre, Thierry - Rawstern, Amanda - De Roode, Jacobus</td>
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<tr>
<td>4:00</td>
<td>183003</td>
<td>Experimental demography of neotropical rolled-leaf beetles: Do generalists have higher lifetime fitness on novel hosts than specialists?</td>
<td>Garcia-Robledo, Carlos - Horvitz, Carol*</td>
</tr>
<tr>
<td>4:15</td>
<td>183004</td>
<td>Colorful Stripes Send Mixed Messages to Safe and Risky Partners in a Diffuse Cleaning Mutualism</td>
<td>Lettieri, Liliana - Streelman, J. Todd</td>
</tr>
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</table>
Identifying the models for mushroom mimicry by Dracula orchids

Strain-specific interactions among co-infecting parasites: a mechanism maintaining genetic variation?

Evolutionary patterns of male and female plumage in the tanagers

Elucidating patterns of song evolution in a clade of lowland tanagers: The role of phylogenetic signal and plumage

Spatiotemporal variation in colour patterning in the Trinidadian guppy

Ornaments reflect survival under experimental stress in a wild insect population

Strategy dependent plasticity in ejaculate traits in the swordtail Xiphophorus nigrensis

The highly polymorphic Arctic Charr: what role for immune genes?
Aagaard, Jan 123004, P2182
Abaga, Simon P1049
Abbott, Jessica Sym34004
Abouheif, Ehav 163003
Abraham, Joel K. 058008
Abrams, A. Jeanine 148003
Abramyan, John P1101
Acosta, M. Cristina 089006
Adams, Anthony P2139
Adams, Dean C. 049004
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