II Joint Congress on Evolutionary Biology

Montpellier 2018, France

August 18-22, 2018

Congress book

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WELCOME

ESEB is delighted to welcome you to the Second Joint Congress on Evolutionary Biology. Joint Congresses take place every six years and bring together four of the world's largest academic societies in the field of evolutionary biology: the European Society for Evolutionary Biology, the American Society of Naturalists, the Society for the Study of Evolution and the Society of Systematic Biologists. The first joint congress was in Ottawa, Canada in 2012. The current (i.e. second) is held in Montpellier, France, on August 19-22 2018.

The venue of the meeting will be **The Corum**, a convention center ideally located in the heart of Montpellier historic neighborhood, easily accessed by public transportation and at very short walking distance from restaurants, cafes and hotels.

A welcome reception will take place on Saturday August 18 (7:00 pm to 8:30 pm) at the Lycée Joffre, next to the Corum. The official program, beginning on Sunday August 19, largely follows the traditional organization of an ESEB meeting: there will be more than **800 contributed talks**, organized in **78 thematic symposia,** running as 13 parallel sessions, showcasing the most recent advances in evolutionary biology, with a very large diversity of topics and fields from paleontology to molecular evolution. More than **1200 posters** will be presented in two poster sessions (Sunday 19 and Tuesday 21 August) associated with each of the symposia. **Plenary talks** will be given by the presidents of SSE, SSB and ASN, by recipients of the ESEB Presidents' Award and of SSE Stephen Jay Gould Outreach Prize. **The conference dinner** will take place on the evening of Wednesday, August 22nd, at the Abbaye de Valmagne, a spectacular venue, one-hour drive away from Montpellier.

Special care was given to gender balance, equal opportunity and environmental impact. Childcare is provided on the venue during the whole conference. Various travel stipends and grants were provided by the organizing societies.

With about 2700 attendees and almost 60 countries represented, **this will be the largest and most international Evolutionary Biology meeting ever organized** so far, showing the dynamism of our field of research. For many, it will be a unique opportunity to meet with colleagues who they rarely meet, exchange about science and different ways of doing it, learn about exciting and different work, discover different cultures and different people. As evolutionary biologists, we all know that diversity is the fuel for adaptive evolution. We hope that this meeting will celebrate the diversity in our community and the general benefits of exchange across borders. We wish all attendees to come back home with a different and wider perspective, as scientists and as human beings.

Precisely for these reasons, **Isabelle Olivieri** was a strong proponent of the joint Evolution congresses and devoted a lot of effort while she was President of ESEB to see them launched. We therefore dedicate this meeting to her memory.

We wish you a productive and pleasant congress,

Ophélie Ronce and Yannis Michalakis
On behalf of the organizing committee

Acknowledgements
We thank all our partners and sponsors, and in particular ESEB, which funded very generously this conference, the numerous people who participated to the organization and scientific committees, symposia organizers who achieved the crazy work of selecting abstracts for this oversized conference, Society officers of ASN, SSE and SSB for their collaboration in adapting to a different European-style conference format, and in particular Howard Rundle for his precious help throughout the years of preparation for this event.

IN MEMORIAM Isabelle Olivieri

Isabelle Olivieri passed away in December 2016, before she turned 60.

Isabelle played a key role in the development of Evolutionary Biology in Montpellier, where she was the first professor of population genetics hired at the University. Beyond Montpellier, she was an important figure of the European community of evolutionary biologists, a very free mind, with strong opinions and a fierce ability to defend them. She liked Science because she liked the people she met in Science. In her own work and in her life, she enjoyed building links and connections between people and between ideas. She was particularly interested in working at the border of ecology and evolution, especially by interactions between demography and evolution. She is very well known for her work on the evolution of dispersal and for her pioneering studies about life history traits in metapopulations. She is also well known for her promotion of evolutionary conservation biology, also combining the study of population dynamics and genetics. She trained a large number of young evolutionary biologists in Europe, with a very large impact on the field and vivid memories for all who came to cross her path.

She had always a strong taste for international interactions and was very much attached to ESEB, for which she served as vice-president in 1995, as president in 2007-2009 and in various ESEB committees. She also contributed to European Science through her service for ERC where she chaired a panel for several years, and was recruited by EMBO for her openness of mind and ability to discuss across disciplines and still advocate for our discipline. She was also a strong proponent of better connections between different evolutionary societies inside and outside Europe, was vice-president of SSE in 2007 and really pushed for the organization of joint meetings when she was president of ESEB. She initially proposed that the Second Joint Congress would be organized in Montpellier. Unfortunately, she became ill just before the very first Joint Congress in Ottawa and could not attend the first, nor organize the second. In recognition of her services to the Society, ESEB had decided, before she died, to make her a Distinguished Fellow, the highest honor the Society confers. She received this honor last year posthumously.

We would have very much liked her to attend the present conference and see her very extended family of evolutionary biologists gathered in Montpellier. We hope that her wonderful sense of welcome will still inspire this event.

CONFERENCE INFORMATION

CONGRESS VENUE

Most of the scientific events will take place in **the Corum convention center**, which is entirely booked for our conference. Session rooms and posters will be distributed from level 0 to level 3. Part of the symposia will take place in the "**Salle Rabelais**", which is a former movie theater located on the Esplanade, a few minutes walk from the Corum. Reaching this room will take a bit longer than moving between rooms in the Corum.

REGISTRATION AND INFORMATION

Registration will be open on Saturday, August 18 from 13:30 to 19:00 on level 3 of the Corum, and will remain open throughout the entire conference (morning and afternoon). General information can be obtained there.
Your conference registration covers attendance to all scientific events (including poster sessions), the welcome reception, and coffee breaks. Accompagnying person badge does not allow entrance in session rooms.

MESSAGE BOARD

A message board will be located near the Registration & Information desk on level 3 of the Corum. Registrants are welcome to post notices about events, jobs, announcements, and messages for other attendees.

GOODIES

If you have ordered conference goodies during registration (bags, program, water bottle, T-shirts or tram tickets), you can retrieve them on **level 0 of the Corum** using a **voucher** you will obtain in your registration package. We have ordered a limited number of additional 'goodies' for sale during the congress. You will be able to buy them at registration (level 3) until stock runs out (first come, first served). There will be a limited number of free notebooks and pens with the congress logo at your disposal in the venue.

STAFF

Congress staff will be identified by their red congress T-shirts and straw hats. Feel free to ask them for any help you may need.

SECURITY CONTROLS

Stringent security measures apply to all public places in France. Security guards will in particular check bags at the entrances to all congress related venues. **You will not be allowed entrance without your congress badge**, so always carry it with you. Please collaborate with the security people and **allow time for bag searches** when entering congress venues, especially at potential rush hours, such as the start of the day in the morning or the end of lunch breaks.

WATER FOUNTAINS

Water fountains will be available on all floors of the Corum. However, to limit the environmental impact of the congress, disposable cups will not be provided. If you have not ordered a water bottle when registering, you can either buy one at the registration desk or bring your own cup/bottle. Non disposable cups and glasses will be provided for drinks during breaks.

WASHROOMS

Washrooms are unevenly distributed in the Corum. To avoid long lines during breaks, consider trying the larger set of washrooms on level 0 of the Corum next to the Berlioz auditorium. Check the maps for washroom location on different floors.

BAGGED LUNCHES

If you pre-ordered a bagged lunch during conference registration, you can retrieve it in the Corum, from distribution points located on each floor, in exchange for a **voucher for that day** (vouchers for a different day cannot be used). Meat, fish and vegan options will be indicated by bags of different colors. You will not be able to retrieve a different menu from what you ordered for that day (but you can trade vouchers with other participants if you like). If you think that you will not use your voucher for one day, look for someone interested in it. To reduce waste, 20 min before the end of lunch break, we will give away unclaimed bagged lunches of the day to any participant still hungry. So do not wait for too long before claiming your bag!
There are many cafes, bakeries and restaurants in the vicinity of the conference venues, but there will also be a very large crowd of hungry evolutionary biologists foraging during lunch breaks. We advise you to plan ahead and **check our list of restaurants** on the conference website and app and we encourage attendees to explore further away from the congress center (getting on the tram for a few stops will provide new restaurant options).

TALKS

Talks will be **14 min long, with 3 additional minutes for questions/discussion** and then 3 minutes for moving between rooms.
The speaker preview room is located in the Tiberiade Room on the ground floor of the Corum (level 0). Check in at the Speakers Preview Room the day before your presentation time. The organizers cannot guarantee projection of presentations submitted later than one hour prior to the session. More detailed instructions about talk formats can be found in our speaker guidelines on our website.
Presentations will be recorded with your agreement. You need to go to the Preview room to sign your agreement form and have your picture taken.

CONFERENCE INFORMATION

MUSIC BETWEEN TALKS

Because discussion is crucial to scientific exchange, question time should not be used by the speaker to present a longer talk, nor by the audience to move between rooms (as is too often the case at many congresses). The movement time will be signaled by 3 min of music and the next speaker can also prepare during this time. The end of music breaks will thus signal the start of the next talk. If you arrive late and/or the conference room is crowded, you may be redirected to an overflow room.

POSTERS

There will be two poster sessions: Sunday 19, 17h30-19h30 and Tuesday 21, 17h30-19h30. We kindly ask poster presenters to attend their poster session and stand by their poster to answer questions from attendees. Poster presenters also have the opportunity **to invite up to 3 attendees of their choice to visit their poster** through the Postvites system. The maximum size of poster should be 90 cm (width) x 120 cm (height), portrait style. We highly recommend that you prepare a paper poster. Posters printed on textile are not adapted to the hanging system onsite.

CHILDCARE

Childcare is located in **room Sully 3, next to the entrance on the first floor of the Corum.** A quiet room (B0-2) for nursing mothers is available on the ground floor (level 0).

CODE OF CONDUCT CONFERENCE POLICY

The Joint Congress on Evolution is intended to foster the exchange of scientific ideas, providing participants with an opportunity to network with an international community of evolutionary biologists. The European Society of Evolutionary Biology (ESEB), Society for the Study of Evolution (SSE), the American Society of Naturalists (ASN), and the Society of Systematic Biologists (SSB) are committed to creating an environment where everyone can participate without harassment, discrimination, or violence of any kind. All meeting participants must be treated with respect and consideration. Registration for the meeting is considered an agreement to abide by this code of conduct.

Harassment of any participant will not be tolerated. Unacceptable behavior includes (but is not limited to) unwanted verbal attention, unwanted touching, intimidation, stalking, shaming, or bullying. Blatant discrimination on the basis of gender or gender identity, sexual orientation, age, disability, physical appearance, race, religion, national origin, or ethnicity will not be tolerated. Harassment presented in a joking manner constitutes unacceptable behavior. Retaliation for reporting harassment is also unacceptable, as is reporting an incident in bad faith.

The meeting organizers and society executive officers reserve the right to enforce this code of conduct in any manner deemed appropriate. Anyone violating the code of conduct may be: (a) asked to stop, (b) expelled from the meeting, and/or (c) prohibited from attending future meetings. Establishing this code of conduct is intended to maintain the high quality of scientific discourse that members have come to expect from our meetings.

If you experience any form of inappropriate behaviour, you may wish to contact and speak with an experienced external Human Relations counsellor that ESEB has contracted to help in such situations. You may also speak with the ESEB Office Manager, Dr Ute Moniatte, who can liaise with the external counsellor on your behalf. Either way, all communication will be held in strict confidence.

If you contact our counsellor, you will be asked the following

- to give your name
- to describe the events or behaviour that took place, and any other relevant circumstances surrounding the incident
- if relevant or appropriate, to identify the perpetrator
- if relevant or appropriate, to identify any witnesses.

Important: nothing will be undertaken without your consent, nor will your name be communicated to anyone in ESEB without your consent.

Our external counsellor is Joanne Harding, at Workforce Window Ltd, a Human Relations company based in the UK with many years experience in dealing with individual complaints and breaches of codes of conduct. Joanne will handle your issues both sensitively and confidentially.

The Workforce Window website is:
www.workforcewindowltd.co.uk

To contact Joanne Harding, either send her an email (joanne@workforcewindow.co.uk) or phone/text her (+44 792 009 46 63).

To contact Ute Moniatte, either send her an email (office@eseb.org) or phone/text her (+49 160 524 3050).

Workforce Window Ltd follow the General Data Protection Regulations and are registered with the Information Commissioners Office. The company has no other links with ESEB.

In broad terms, ESEB will adopt an approach that has been developed by a committee of our North American sister organisations (SSE, SSB and ASN). The text they have shared with us can be found here: https://www.evolutionmeetings.org/conference-policies.html

CONFERENCE INFORMATION

WIFI

Wireless internet access will be available in all congress venues. In the Corum the wifi network is evol2018, and the login key is evol2018.

CONGRESS APP

You may download the congress app, **EVOL 2018**, from Google Play (Android, version 4.1 or higher) or App Store (iOS, version 9 or higher) and use it to peruse the scientific program, make your own schedule, see who else is attending etc.

EMERGENCY NUMBERS

In case of an **emergency** call **112**; this is a centralized service that will dispatch your call to the appropriate service (police, ambulances, or fire brigade). Depending on your need you may also contact directly the Police (dial 17) or the Fire Brigade, which also provides first aid (dial 18).

CITY

You can find useful information about places to eat/drink, other information about the city, and practical information on the congress' web site (especially the Venue/Montpellier and Venue/Practical information pages). You can also consult the website of the Tourist Information Office (https://www.montpellier-france.com/), drop by their booth next to the registration desk, or visit their office situated on the Esplanade, just over 100 m from the Corum. By showing your congress badge at the Tourism Office, you can benefit from a 30% discount on a 'City Card'. The City Card offers free entrance or discounts to Museums, leisure activities and shopping. Your badge also provides you a 10% discount on souvenirs at the Tourism Office shop. You may also benefit from discounts that Montpellier merchants, restaurants and bars offer to the congress participants through the Chamber of Congress webpage: http://congres.herault.cci.fr/congres/evolution-congress/

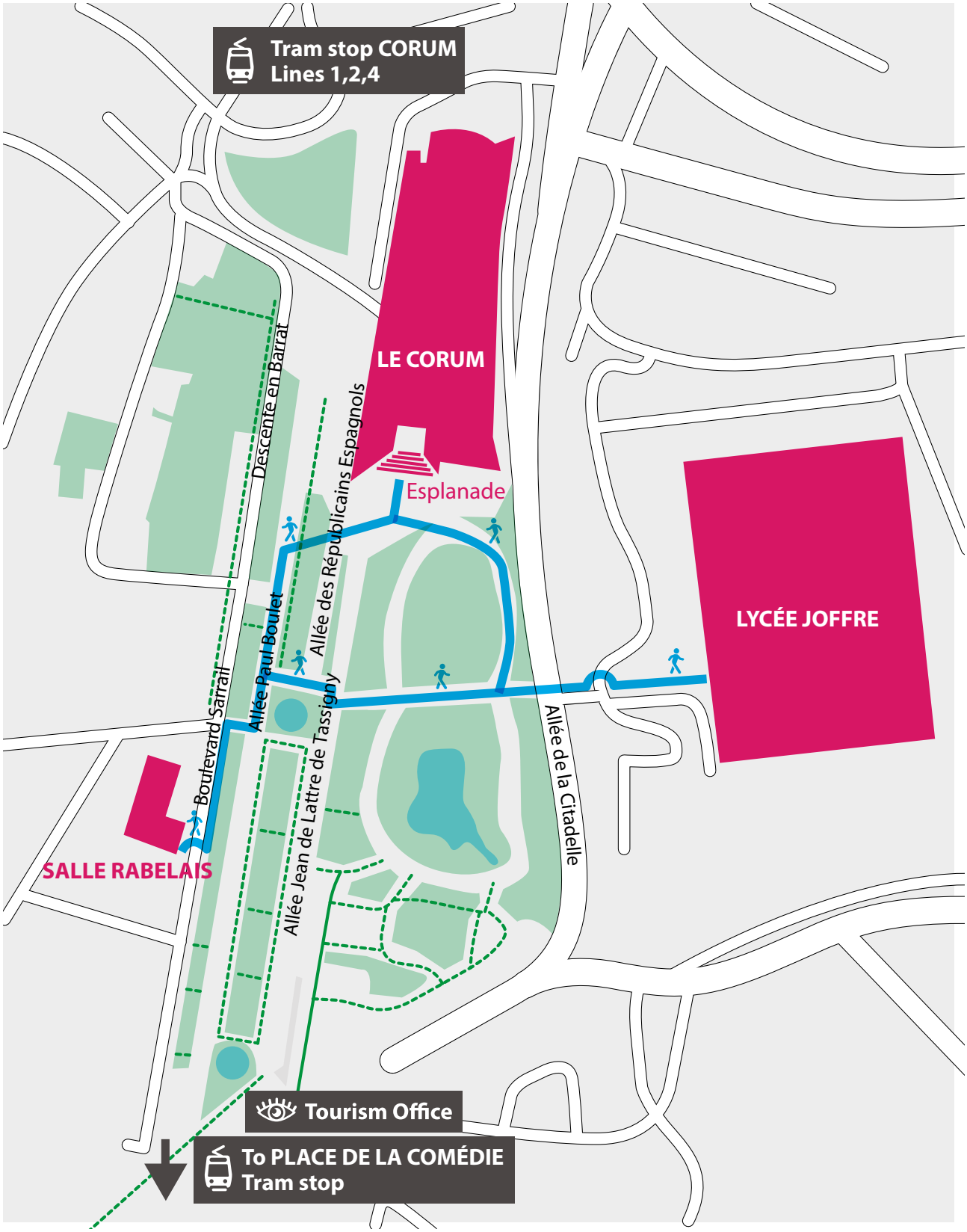
TAM PASS

The congress Public Transportation Pass allows you to use tramways and buses of the city of Montpellier (the TAM network) during the 4 days of the congress (Aug. 19-22) without limitation. Always validate your ticket any time you get on a bus or tram. If you did not order a pass during your registration, you can buy tickets for one or ten trips from the vending machines at all tram stops; you cannot buy transportation tickets once on the tram or bus.

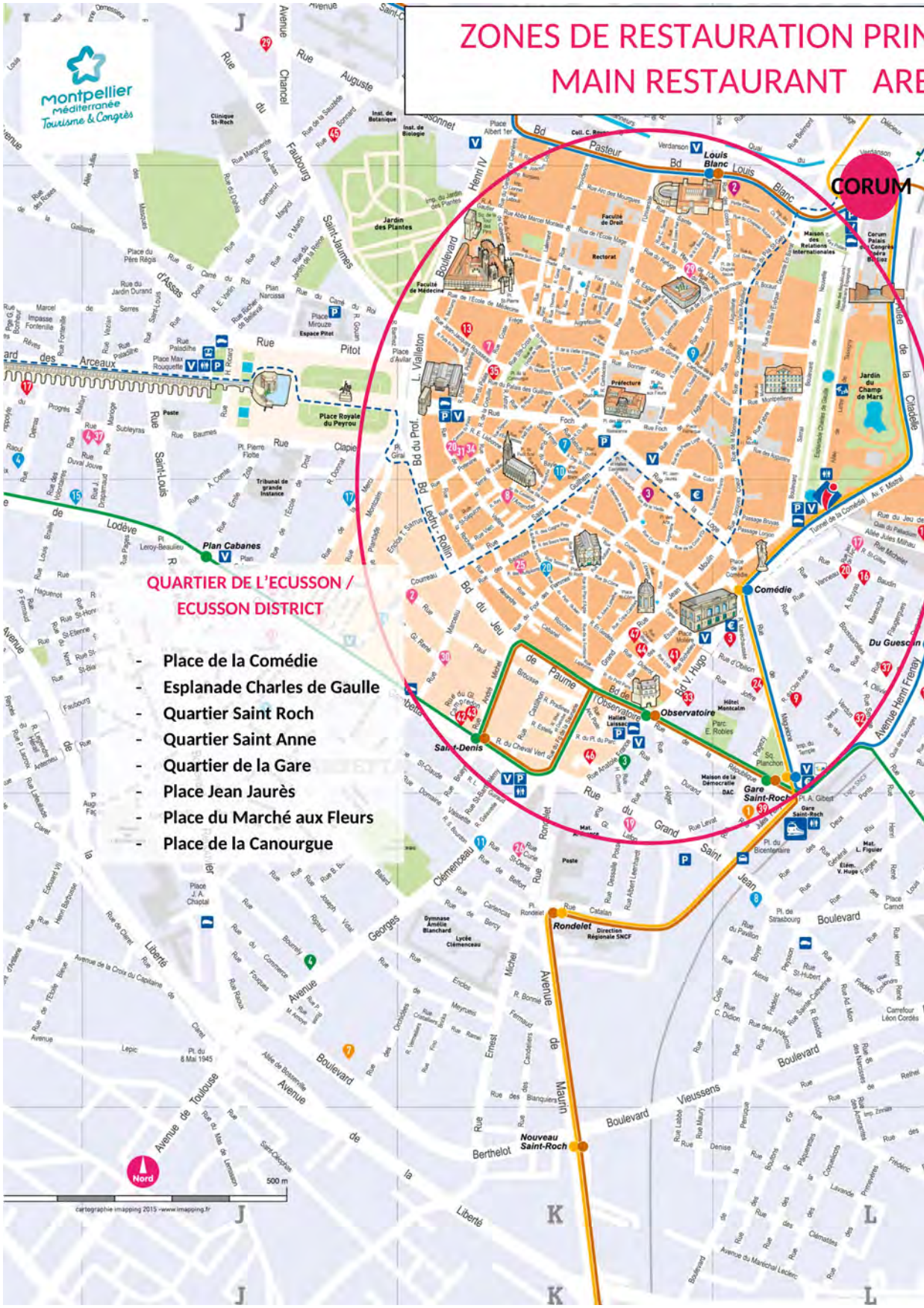
ENVIRONMENTAL IMPACT

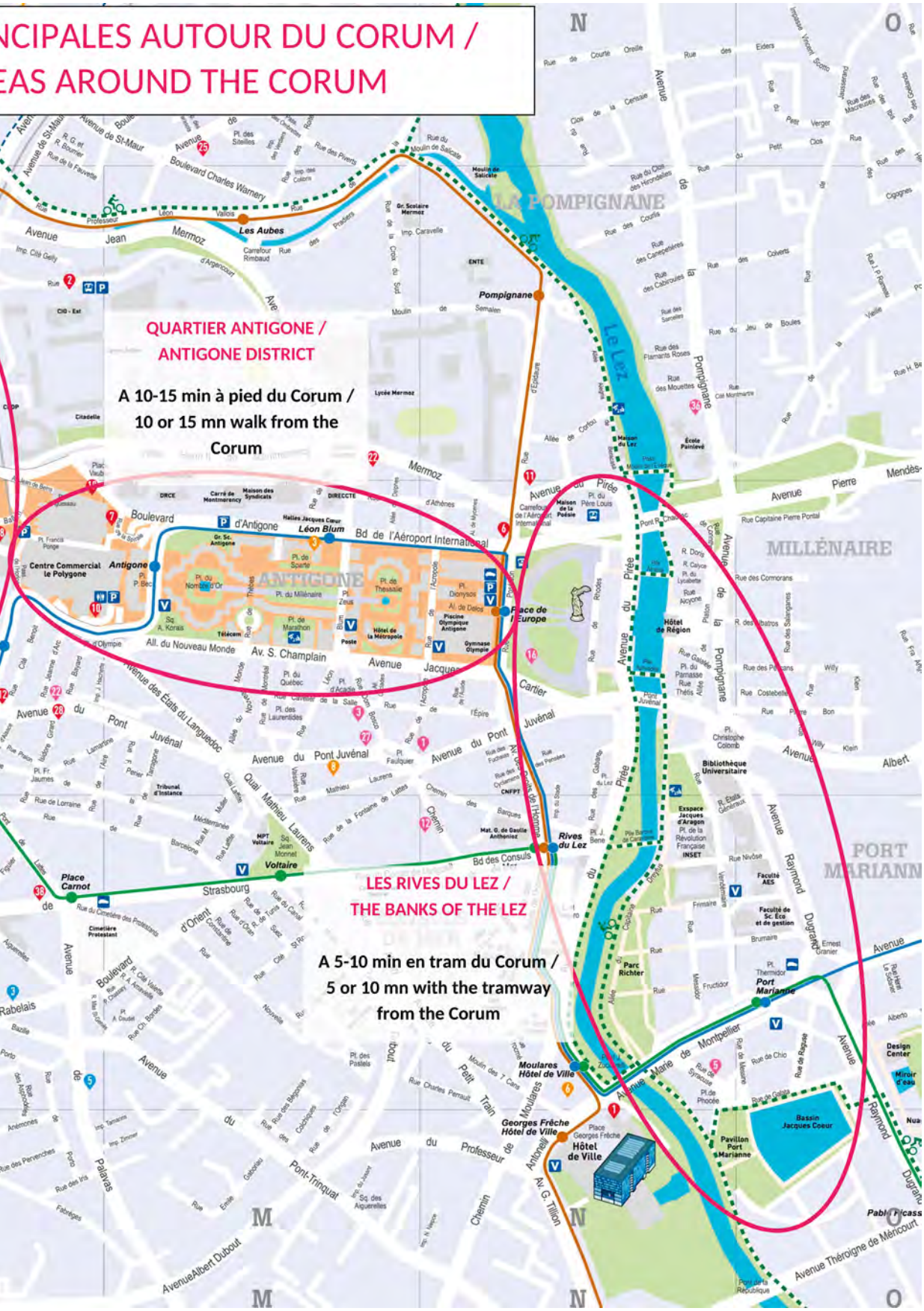
To reduce waste, many items required pre-ordering during registration (e.g., bagged lunches, conference bags, etc.) and we have tried to limit the number disposable items to a minimum. To compensate in part for the environmental impact of such a large international congress, we will also donate a sum corresponding to at least 5 euros per participant to a Forest Conservation NGO (Rainforest rescue https://www.rainforest-rescue.org/).

CONGRESS AREA MAP



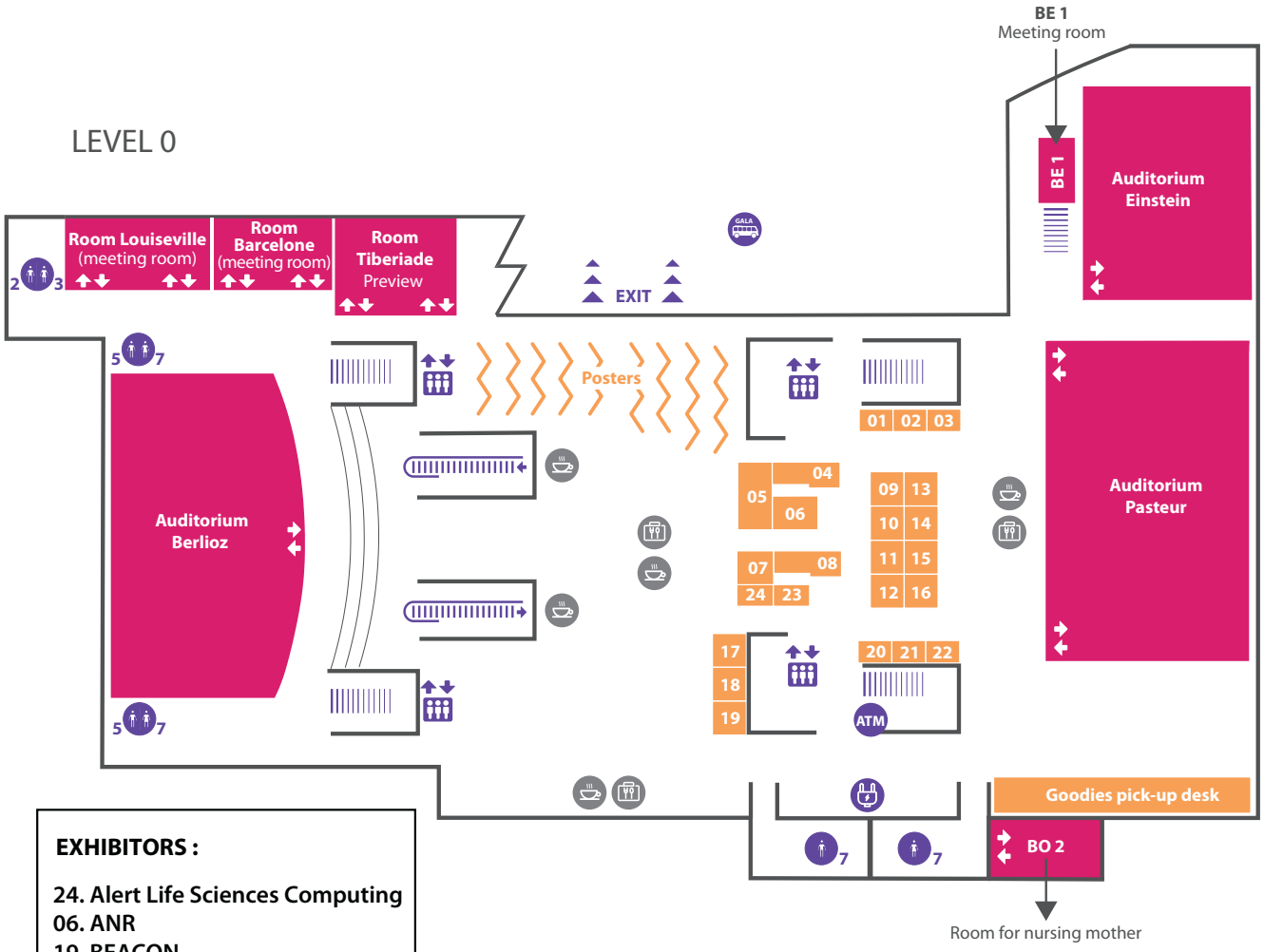
CITY MAP


ZONES DE RESTAURATION PRIN
MAIN RESTAURANT ARE
CORUM
QUARTIER DE L'ECUSSON /
ECUSSON DISTRICT
- Place de la Comédie
- Esplanade Charles de Gaulle
- Quartier Saint Roch
- Quartier Saint Anne
- Quartier de la Gare
- Place Jean Jaurès
- Place du Marché aux Fleurs
- Place de la Canourgue
montpellier méditerranée Tourisme & Congrès
Comédie
Observatoire
Gare Saint-Roch
Rondelet
Nouveau Saint-Roch
Plan Cabanes
Saint-Denis
Nord
500 m


NCIPALES AUTOUR DU CORUM /
EAS AROUND THE CORUM
QUARTIER ANTIGONE /
ANTIGONE DISTRICT
A 10-15 min à pied du Corum /
10 or 15 mn walk from the
Corum
LES RIVES DU LEZ /
THE BANKS OF THE LEZ
A 5-10 min en tram du Corum /
5 or 10 mn with the tramway
from the Corum
Les Aubes
Pompignane
Le Lez
Place de l'Europe
Rives du Lez
Moulares Hôtel de Ville
Georges Frêche Hôtel de Ville
Hôtel de Ville
Place Georges Frêche
Port Marianne
Voltaire
Place Carnot
Antigone
Centre Commercial le Polygone
Bd de l'Aéroport International
Av. S. Champlain
Bd des Consuls
Avenue Albert Dubout
Avenue Théroigne de Méricourt
MILLÉNAIRE
PORT MARIANNE
ANTIGONE

CORUM MAPS

LEVEL 0

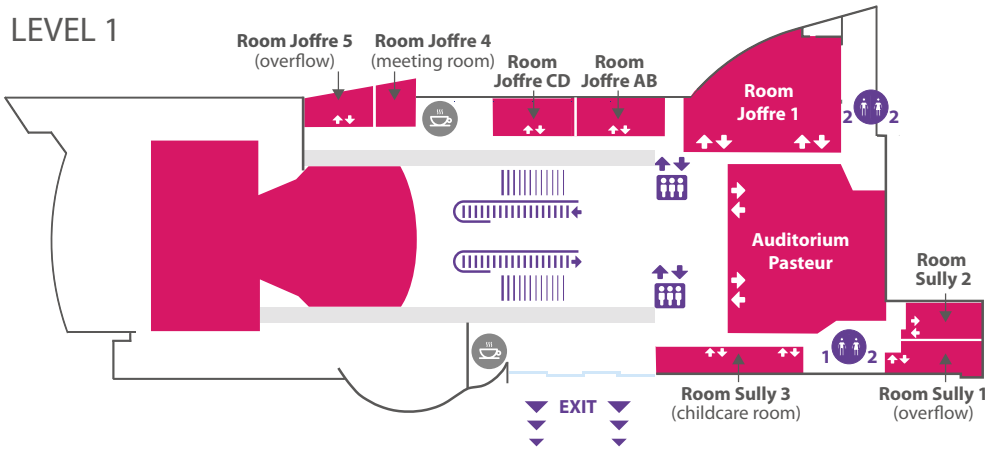


EXHIBITORS :

24. Alert Life Sciences Computing
06. ANR
19. BEACON
20. Brill
15. British Ecological Society
17. Cambridge University Press
16. eLife
21. ESEB 2019 / Turku, Finland
07. Frontiers
23. LOTEK WIRELESS
18. MDPI
13. OIKOS
08. Oxford University Press
09. Peer Community
14. Princeton University Press
03. Public Policy 'Take Action'
11. Royal Society Publishing
01. SFE²
05. Springer Nature
10. The New Phytologist Trust
12. University of Chicago Press
02. Yale University Press
22. Yxlon
04. WILEY

CORUM MAPS

LEVEL 1



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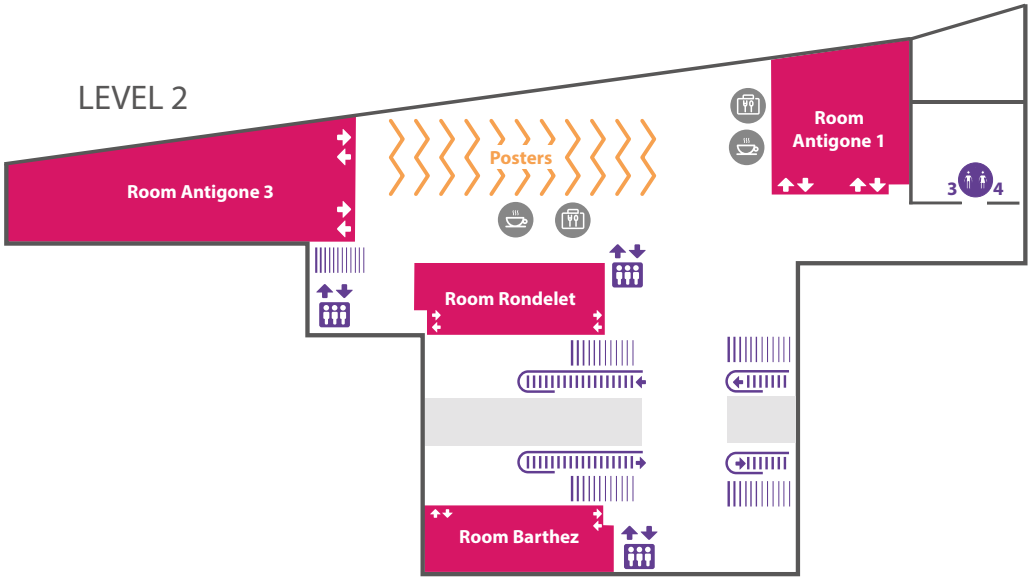

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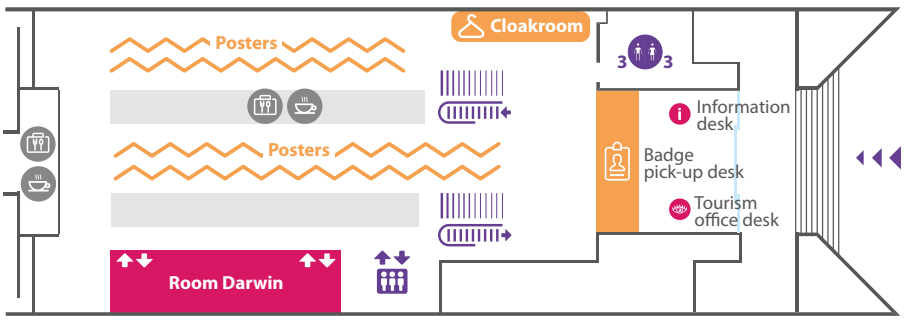

PLENARY TALKS

ESEB PRESIDENTS' AWARD

Sunday, August 19
09:10-10:10
Room: Berlioz

Loeske Kruuk (Australian National University)
Evolutionary dynamics and fitness in wild populations

ASN PRESIDENTIAL ADDRESS

Monday, August 20
08:30-09:25
Room: Berlioz

Sharon Strauss (University of California Davis)
Diversity and coexistence in close relatives, and reflections on 150 years of ASN

SSE STEPHEN JAY GOULD PRIZE

Monday, August 20
18:30-19:30
Room: Berlioz

Tim Birkhead (University of Sheffield)
The Most Perfect Thing: The Inside (and Outside) of a Bird's Egg

SSB PRESIDENTIAL ADDRESS

Tuesday, August 21
08:30-09:25
Room: Berlioz

Luke Harmon (University of Idaho)
Scaling the Tree of Life

SSE PRESIDENTIAL ADDRESS

Wednesday, August 22
08:30-09:25
Room: Berlioz

Hopi Hoekstra (Harvard University)
The genetic basis of behavioral evolution

OTHER SPECIAL EVENTS SPONSORED BY SOCIETIES

eseb
European Society for Evolutionary Biology

ESEB JOHN MAYNARD-SMITH PRIZE

Wednesday, August 22
16:10-17:10
Room: Berlioz

Every year the European Society for Evolutionary Biology distinguishes an outstanding young evolutionary biologist, less than 7 years away from PhD, with the John Maynard Smith Prize. The prize is named after John Maynard Smith (1920 – 2004), eminent evolutionary biologist, and author of many books on evolution, both for scientists and the general public.

2018 Recipient:

Siobhan O'Brian (ETH Zürich)
Understanding the ecology and evolution of microbial social interactions in a complex world

ESEB OFFICERS MEETING

Saturday, August 18
13:10-17:10
Room: Barcelone

OTHER SPECIAL EVENTS SPONSORED BY SOCIETIES

Society of Systematic Biologists

SSB ERNST MAYR AWARD – SYMPOSIUM S-02

Sunday, August 19
10:35-17:30
Room: Rabelais

The Ernst Mayr Award is given to the presenter of the outstanding student talk in the field of systematics at the annual meetings of the Society of Systematic Biologists (SSB). This is SSB's premier award and is judged by the quality and creativity of the research completed over the course of the student's Ph.D. program.

SSB COUNCIL MEETING

Saturday, August 18
Time: 13:10 - 17:10
Room: Louisville

SSB BUSINESS MEETING

Tuesday, August 21
Time: 17:30 - 18:10
Room: Einstein

Business meetings are open to all members of the Society

SSB SPONSORED POSTER SESSION

August 21
17:30-19:30
Level 0

SSB EXIT MEETING

Wednesday, August 22
Time: 12:50-14:15
Room: Louisville

OTHER SPECIAL EVENTS SPONSORED BY SOCIETIES

ASN VICE-PRESIDENT SYMPOSIUM - SYMPOSIUM S-03

Wednesday, August 22
09:30-17:30
Room: Berlioz

Advances through theory: an exploration of mathematical models in ecology and evolution.

*Organized by **Maria Servedio** (University of North Carolina)*
ASN Vice-President

ASN JASPER LOFTUS-HILLS YOUNG INVESTIGATORS AWARD

Wednesday, August 22
10:55-15:40
Room: Berlioz

The Jasper Loftus-Hills Young Investigators Award was established in 1984 to recognize outstanding and promising work by investigators who received their doctorates in the three years preceding the application deadline or who are in their final year of graduate school. Jasper Loftus-Hills (1946-1974) was an Australian biologist of exceptional promise, whose career was cut short just three years after receiving his degree when he was killed by a hit-and-run driver while tape-recording frog calls along a Texas highway.

2018 Recipients:

11h20-12h00:
***Rachael Bay** (UC Davis)*
Genomic forecasting of population adaptation to climate change.

12h00-12h40:
***Aaron Comeault** (University of North Carolina)*
Range expansion of the African fig fly (*Zaprionus indianus*) in North America: using a combined approach to test for local adaptation to extreme climates.

14h20-15h00:
Rachel Germain
(The University of British Columbia)
Ecology and evolution of biodiversity in spatially-structured landscapes.

15h-15h40:
***Gijsbert Werner** (University of Oxford)*
Evolutionary Drivers of Cooperation (Loss) in Deep Time.

ASN COUNCIL MEETING

Saturday, August 18
13:10-17:10
Room: Joffre 4

ASN SPONSORED POSTER SESSION

August 21
17:30-19:30
Level 2

ASN BUSINESS MEETING

Tuesday, August 21
17:30-18:10
Room: Antigone 3

Business meetings are open to all members of the Society

ASN EXIT MEETING

Wednesday, August 22
12:50-14:15
Room: Barcelone

OTHER SPECIAL EVENTS SPONSORED BY SOCIETIES

SSE W.D. HAMILTON AWARD – SYMPOSIUM S-01

Sunday, August 19
10:35-17:30
Room: Berlioz

The W. D. Hamilton Award for Outstanding Student Presentation will be given to a student who has presented an outstanding talk at the annual meeting. Finalists will present their papers during a day-long symposium of Hamilton award candidate talks.

SSE THEODOSIUS DOBZHANSKY PRIZE

Wednesday, August 22
09:30-10:30
Room: Berlioz

The Theodosius Dobzhansky Prize is awarded annually by the Society for the Study of Evolution to recognize the accomplishments and future promise of an outstanding young evolutionary biologist.The prize was established in memory of Professor Dobzhansky by his friends and colleagues and reflects his lifelong commitment to fostering the research careers of young scientists.

2018 Recipient:

Amanda Kyle Gibson *(Emory College of Arts and Sciences)*
Bloody-minded parasites: unraveling coevolution in natural and experimental populations.

SSE COUNCIL MEETING

Saturday, August 18
13:10-17:10
Room: Lycée Joffre Room Clio

SSE BUSINESS MEETING

Tuesday, August 21
17:30-18:10
Room: Darwin

Business meetings are open to all members of the Society

SSE SPONSORED POSTER SESSION

August 21
17:30-19:30
Level 3

SSE EXIT MEETING

Wednesday, August 22
12:50-14:15
Room: Joffre 4

OTHER SPECIAL EVENTS SPONSORED BY SOCIETIES

ASN-SSB-SSE JOINT EXECUTIVE MEETING

Saturday, August 18
08:50-10:50
Room: Lycée Joffre Room Clio

ASN-SSE-SSB-ESEB JOINT EXECUTIVE MEETING

Saturday, August 18
10:50-12:50
Room: Lycée Joffre Room Clio

ASN-SSB-SSE EXIT MEETING

Tuesday, August 21
12:50-14:15
Room: Joffre 4

WORKSHOPS

EVOKE HIGHER EDUCATION TEACHING WORKSHOP

Saturday, August 18
09:00-17:30
Lycée Joffre Room 016

Organizers: *Héloise Dufour, Alexa Warwick*
Looking for effective ways to share your excitement about evolution with your students? Higher education faculty and future faculty are invited to a workshop on teaching evolution before the Joint Congress in Montpellier. Learn about effective resources and methods for teaching evolution. This workshop is offered by the SSE Education Committee, EvoKE, and ESEB.

Registration for this event is now closed

MAKING SCIENCE GREAT AGAIN

Sunday, August 19
12:30-13:40
Room: Antigone 1

Organizers: *Maurine Neiman (University of Iowa), Stéphanie Meirmans (University of Amsterdam)*
Funding cuts. Science denialism. Open access. Tenure controversy. Implicit bias. Predatory journals. Preprint servers. Social media. Impact factors. Recent years are marked by new technologies and ideas that are rapidly changing science and scientific practice. These phenomena also influence and are influenced by the political and economic landscape.
In this workshop, we will have talks and discussions around these topical issues and invite all researchers to think and discuss along with us. Our goal is to inspire a constructive conversation about how to assess and improve the quality of scientific practice, especially in light of challenges to funding and in an increasingly competitive research and career environment.

The workshop will start with two presentations:
1) Allen Moore "Open publishing, impact, and the future"
2) Emily Jane McTavish «Cultivating community collaboration to build a sustainable Open Tree of Life"
3) Thomas Guillemaud (SA, INRA-CNRS-UCA, Sophia-Antipolis) and Denis Bourguet (CBGP, INRA, Montpellier), "PCI Evol Biol: free and transparent preprint reviews and recommendations in evolutionary biology".

The workshop will end with an active discussion with all workshop participants. For this discussion, we will, besides live interaction from the audience, also use a special digital software called "MeetingSphere", so please bring your laptop or iPad with you.

TAKE ACTION TO HELP SCIENCE INFLUENCE PUBLIC POLICY

August 19-22
during breaks
Room: Exhibition aera; booth

Organizer: *Janette Boughman*
Come to the **Public Policy 'Take Action'** Booth to find out how you can make a difference in how science is used by legislators and decision makers. You can take immediate action by signing petitions or writing letters to lawmakers. You can also gather information on how to effectively engage in public policy efforts in several nations and share your own insights and stories about effective action and pending legislative decisions. The booth is staffed during coffee breaks and poster sessions by evolutionary biologists turned activist from several nations.
This booth is sponsored by The Society for the Study of Evolution, the European Society of Evolutionary Biology, and the American Society of Naturalists. These societies are working together to provide a conduit through which individual scientists can find information and take action on important public policy decisions in their home countries, and make their voice heard more loudly by combining it with others.

DIVERSITY IN SCIENCE

Monday, August 20
13:00-14:00
Room: Joffre 1

Fundamental to building a diverse and inclusive community is recognizing the multiple aspects that comprise a person's identity - in age, gender, religion, race, ethnicity, sexual orientation, socio-economic status, language, etc. Brian Shimamoto, the Assistant Director of Housing and Dining Services Human Resources and a Training and Development Specialist at the University of Colorado, Boulder, will lead an interactive workshop to bring awareness to the multiple identities a person has and discuss how we can use this information to develop mentoring strategies. This will lead into a larger conversation about how our societies can address issues pertaining to diversity and inclusion. This event is sponsored by The Society for the Study of Evolution, the European Society of Evolutionary Biology, the American Society of Naturalists, and the Society for Systematic Biologists.

WORKSHOPS

MEET THE EDITORS

Monday, August 20
13:00-14:00
Room: Antigone 1

Organizer: *Barbara Mable (Heredity)*
Come ask chief editors of the leading journals in evolutionary biology pointed questions about topics of interest such as the steps of the editorial process, acceptance rates, most common reasons for decline, how to prepare an effective response to reviews, how to volunteer to help as a reviewer or board member, and/ or advantages of publishing in different types of journals, such as society-based journals or open access journals. Journals represented include the Journal of Evolutionary Biology (Wolf Blanckenhorn), American Naturalist (Dan Bolnick), Ecology and Evolution (Allen Moore), Evolution (Mohamed Noor), Evolution Letters (Jon Slate), Evolutionary Applications (Louis Bernatchez), Heredity (Barbara Mable, chair of session), Molecular Ecology (Loren Rieseberg), Proceedings B (Loeske Kruuk), and Systematic Biology (Laura Kubatko).

MEET WITH DFG AND ANR

Monday, August 20
12:50-14:00
Room: Antigone 3

Organizers: *Dorette Breitekreuz (DFG), Sonja Ihle (DFG), Isabelle Hippolyte (ANR), Antoine Morisot (ANR)*
Representatives of ANR (Agence Nationale de la Recherche) and DFG (German Research Foundation) will together give information on funding opportunities for national, international and joint projects involving ANR and DFG, on how to initiate and enhance French-German collaborations and on career opportunities in France and Germany. We will be joined by PIs from evolutionary biology from both countries who can tell you first-hand about the research landscape and how to set-up a successful proposal/career/collaboration. Have your lunch with us and exchange ideas about research and funding opportunities that connect the evolutionary biology communities in France and in Germany. We would love to hear from you where you see the potential for future French-German collaborations in evolutionary biology.

MEET ERC

Tuesday, August 21
12:50-14:00
Room: Antigone 1

Organizer: *Carmen García Fernández (European Research Council, ERC)*
Hear more about European Research Council and Funding opportunities in Europe for Scientists from Anywhere in the World. This workshop will address common misconceptions about ERC. Come and ask questions to ERC representatives and ERC grantees.

MEET WITH NSF

Tuesday, August 21
13:00-14:00
Room: Antigone 3

Organizer: *George W. Gilchrist (NSF)*
Hear more about funding of evolutionary biology research by US National Science Foundation and ask your questions to Dr. Stephanie Hampton (DEB Division Director), Dr. Leslie Rissler, Dr. George Gilchrist (both Evolutionary Processes program officers), and Dr. Chris Schneider (Systematics and Biodiversity Sciences program officer)

SELECTING A JOURNAL FOR YOUR RESEARCH

Tuesday, August 21
13:00-14:00
Room: Joffre 1

Organizer: *Helen Eaton (Royal Society)*
This session will cover the things that authors need to consider when selecting the best journal for their research, and how to prepare a manuscript for submission. It will provide early career researchers with the tools to make good decisions that will increase the chance of publication success.

WORKSHOPS

BUILDING YOUR RESEARCHER PROFILE

Wednesday, August 22
13:00-14:00
Room: Joffre 1

Organizer: *Jennifer Stokes (Taylor & Francis)*
This workshop will provide authors with the essential toolkit for raising their profile as a researcher. It will include tips on writing a review article, acting as a reviewer, and demonstrating the wider impact of their research. It will cover post-publication promotion - providing authors with the skills needed to successfully position and pitch their articles in an increasingly competitive online market and to raise their profile within the community.

MEET THE SFE²

Wednesday, August 22
13:00-14:00
Room: Antigone 1

Organizers: *Emmanuel Fronhofer (CNRS), Eric Imbert (University of Montpellier)*
Why do we need a joint and mixed society for both ecology and evolution?
Created in 1968, the French Society for Ecology aims to promote, encourage and develop ecology in every aspect, from fundamental ecology to the resolution of major environmental problems such as the decline of biodiversity and the effect of global changes. Although the Society has been dormant in the 1990's and 2000's, it recently made a comeback with an important scientific meeting in 2010 in Montpellier. Since then, the SFE has regularly organized biennial meetings (some in collaboration with the British Ecological Society) and thematic symposia.
Meanwhile, the French community of evolutionary biologists has organized itself around a bulletin and then an annual meeting since 1979, named «Le Petit Pois Déridé» (the unwrinkled pea, but «déridé» also means «cheered up» in French). Although very active in the organization of this regular event, evolutionary biologists were not affiliated to a French society of evolutionary biology.
Ecological and evolutionary processes are clearly intertwined, and it often makes no sense to study one while overlooking the other. Last year, the SFE made a bold move and recognized that the two communities should unite under a single banner, thereby naturally turning itself into the French Society for Ecology and Evolution (SFE²).
During this short meeting, we will present the actions of the SFE² (prizes, grants, newsletter, listserv) and engage in a discussion with the audience.

OTHER MEETINGS

EVOLUTIONARY APPLICATIONS EDITORIAL BOARD

Sunday, August 19
12:30-13:55
Room: Louisville

JOURNAL OF EVOLUTIONARY BIOLOGY EDITORIAL BOARD

Sunday, August 19
12:30-13:55
Room: Barcelone

SYSTEMATIC BIOLOGY EDITORIAL BOARD

Sunday, August 19
12:30-13:55
Room: Joffre 4

ECOLOGY LETTERS EDITORIAL BOARD

Monday, August 20
12:50-14:15
Room: Louisville

EVOLUTION LETTERS EDITORIAL BOARD

Tuesday, August 21
12:50-14:15
Room: Barcelone

EVOLUTION EDITORIAL BOARD

Tuesday, August 21
12:50-14:00
Room: Joffre 5

AMERICAN NATURALIST EDITORIAL BOARD

Tuesday, August 21
12:50-14:15
Room: Louisville

SOCIAL EVENTS

DIETARY RESTRICTIONS

A diversity of vegan and gluten-free options will be offered at all social events. Ask a waiter if you are unsure about options.

WELCOME RECEPTION

A welcome reception, open to all participants, exhibitors and accompanying persons will take place at the Lycée Joffre, on the Esplanade close to the Corum, from 7 pm to 8:30 pm on Saturday August 18th. You will need your conference badge to attend the welcome reception, so you need to register first.

NETWORK LUNCH

On Sunday August 19th, we are organizing a network lunch to foster interactions between researchers at different stages of their careers. The aim is to allow junior researchers (students/postdocs) to discuss various issues with more experienced researchers. Such issues may include hot topics in evolution, career paths, and academic life. It is of course also an opportunity for both students/postdocs and PIs to meet potential collaborators. During your online registration to the congress you were asked whether you wanted to participate to this network lunch. If your answer was positive you will be contacted by e-mail with further details.

POSTER SESSIONS/ SOCIAL MIXERS

Beverages (wine and non-alcoholic beverages) and light food will be provided during the poster sessions. Poster presenters will be able to retrieve a bottle of wine at the beginning of their session with a voucher and to then serve this wine to participants visiting their poster, as has become a convivial tradition at ESEB's meetings.

The culinary theme of the first poster session (Sunday August 19) will be Wine & Cheese.
The second poster session (Tuesday August 21) will be combined with the society mixers of ASN, SSE and SSB, which have sponsored this session. Different culinary themes ("Terre", "Mer", "Sud') will be displayed and different food will be served on levels 0, 2 and 3 of the Corum, where SSB, ASN and SSE will each respectively have an information stand. Visit the different levels to see different posters and learn more about the societies organizing this event.

BANQUET

The conference banquet will take place in the evening of Wednesday, August 22nd, at the Abbaye de Valmagne, which is about 50 minutes by bus west of Montpellier. We will offer bus transportation to and from the Abbaye. Buses will leave the Corum (ground floor, next to the exhibition hall) at regular intervals starting at 6pm, and they will start returning to the Corum from the Abbaye at 11pm until 4 am (buses will depart every hour). Plan an arrival in Montpellier an hour later. In order to access the banquet you will need both your badge and your banquet coupon – please do not forget them!

OUTREACH

The **second Joint Congress on Evolutionary Biology,** is an exciting opportunity to showcase the breadth of research in the field of Evolutionary Biology taking place in Montpellier. As such, different outreach activities, for the general public, are taking place in the city throughout 2018. Because of the target audience, these events (except the EvoKE workshop) are in French.

1. A 'Teaching Evolution in Schools' workshop for teachers (spring 2018 onwards)

Fifty nine biology high school teachers under the jurisdiction of the Academy of Montpellier, and 12 evolutionary biology researchers and lecturers, are participating in this workshop. Different academic articles showing natural selection will be used to produce teaching aids to facilitate the teaching of evolution in high schools. Come to the poster session on Sunday 19th August to talk with the teachers who attended, and see the transformation of academic research into school 'text book' examples of evolution.

2. A photo exhibition 'Species doing their evolution' at the zoo (July-August 2018)

A photography exhibition showing the diversity of living and fossil organisms that are used to study evolution in laboratories in Montpellier. This exhibition was curated by students studying evolution at the University of Montpellier.

3. EvoKE higher education teaching workshop (Saturday, August 18, 2018)

Higher education faculty and future faculty will discuss about effective resources and methods for teaching evolution. This workshop is offered by the SSE Education Committee, ESEB and EvoKE (https://evokeproject.org/). Subscription for this event is now closed

4. Public science lectures (Saturday, August 18, 2018 at 14.30)

Two lectures open to the general public will take place on the eve of the second Joint Congress on Evolutionary Biology at the 'Centre Rabelais'.

- 14h30-15h50 Léo Grasset (DirtyBiology) « Mèmes, Pokémons et Selfie sticks : de nouvelles façons de parler d'évolution »

Léo Grasset, a former student of the University of Montpellier, is the author of the popular outreach YouTube Channel DirtyBiology (500 000 subscribers).

- 16h-17h20 Laurent Keller (University of Lausanne): « La vie sociale comme base du succès écologique au cours de l'évolution »

Laurent Keller, past-President of ESEB, is the author of popular books on the evolutionary biology of social insects.

5. Researcher and general public speed dating/Meet the public (Monday 20th August)

Conference attendees will meet with members of the general public to answer questions about their research (and more) at the Rectorat de l'Académie de Montpellier. Subscription of conference attendees for this event is now closed. Registration of general public is open at https://www.facebook.com/OEvo18.

LIST OF SYMPOSIA

S-01
SSE W. D. HAMILTON AWARD SYMPOSIUM

Organized by the Society for the Study of Evolution
Chair: *Joel Mcglothlin*

S-02
SSB ERNST MAYR AWARD SYMPOSIUM

Organized by the Society of Systematic Biologists
Chairs: *Tracy Heath, Emily Jane Mctavish*

S-03
ASN VICE-PRESIDENT SYMPOSIUM: ADVANCES THROUGH THEORY: AN EXPLORATION OF MATHEMATICAL MODELS IN ECOLOGY AND EVOLUTION

Organized by the American Society of Naturalists
Chair: *Maria Servedio*
Invited : *Mark Kirkpatrick, Emma Goldberg, Hanna Kokko, Erol Akcay, Sarah Otto*

S-04
EVOLUTION ON THE EDGE: ECO-EVOLUTIONARY DYNAMICS, RANGE EXPANSION, AND LOCAL ADAPTATION

Chairs: *Laurent Excoffier, Maria Orive, Stephan Peischl, Eric Petit*
Invited : *Michael Whitlock*

S-05
EVOLUTION IN METAPOPULATIONS AND STRUCTURED POPULATIONS: A SYMPOSIUM IN HONOR OF ILKKA HANSKI, ISABELLE OLIVIERI AND DAVE MCCAULEY

Chairs: *Robert Holt, Michael Whitlock*
Invited : *Anna-liisa Laine*

S-06
MICROGEOGRAPHIC ADAPTATION AND ADAPTIVE LANDSCAPE GENOMICS

Chairs: *Delphine Grivet, Ivan Scotti*
Invited : *Andrew Eckert*

S-07
SOCIAL EVOLUTION AND KIN SELECTION: CONFRONTING NATURE WITH THEORY

Chairs: *Florence Débarre, John Pannell, Nicolas Rode, Rubén Torices*
Invited : *Susan Dudley*

S-08
SOCIAL BEHAVIOUR AND EVOLUTION IN THE OMICS ERA

Chairs: *John Bruce, Melanie Ghoul, Jaime Grace, Philip Johns*
Invited : *Sandra Breum Andersen*

S-09
MECHANISMS OF COMMUNICATION AND RECOGNITION IN SOCIAL EVOLUTION

Chair: *Christina Riehl*
Invited : *Sraah Kocher, Jonathan Green*

S-10
MAJOR TRANSITIONS IN INDIVIDUALITY AND LEVELS OF SELECTION

Chairs: *Guy Cooper, Asher Leeks, Matishalin Patel*
Invited : *Laurent Keller*

S-11
MULTI-LEVEL SELECTION AND THE ORIGINS OF LIFE

Chairs: *David Baum, Niles Lehman, Michael Travisano*
Invited : *Wim Hordijk*

S-12
THE EVOLUTION OF RESISTANCE

Chairs: *François Blanquart, Julia Kreiner*
Invited : *Claudia Bank*

S-13
PATHOGEN EVOLUTION DURING CHRONIC INFECTION - TOWARDS EVOLUTIONARY DISEASE MANAGEMENT

Chairs: *Alexandre Jousset, Rees Kassen, Friman Ville-Petri, Alex Wong, Wei Zhong*
Invited : *David Guttman*

S-14
NEW HORIZONS IN HOST-PARASITE CO-GENOMICS AND CO-EVOLUTION

Chairs: *Nadia Aubin-Horth, Sebastien Calvignac-Spencer, Dieter Ebert, Peter Fields, Tobias Lenz*

S-15
EVOLUTIONARY IMMUNOLOGY: TRADEOFFS AND MECHANISMS

Chairs: *Jessie Abbate, Randolph Nesse, Frank Rühli, Jamie Winternitz*
Invited : *Scott Edwards*

LIST OF SYMPOSIA

S-16
PARASITE AND SYMBIONT NICHES: HOST SPECIFICITY AND BEYOND

Chairs: *Liana Burghardt, Shan Huang, Andrew Park, Corlett Wood*
Invited : *Amy Pedersen*

S-17
EVOLUTIONARY EPIDEMIOLOGY ACROSS MULTIPLE SCALES

Chairs: *Chris Illingworth, Ryosuke Iritani, Katrina Lythgoe, Jayna Raghwani, Senay Yitbarek*
Invited : *James Lloyd-Smith*

S-18
EVOLUTION OF HOSTS AND PARASITES WITH THEIR MICROBIOMES: A PROBLEM OF UNFAITHFUL RELATIONSHIPS

Chairs: *Nolwenn M. Dheilly, Angela Douglas, Joaquín Martínez Martínez, Hinrich Schulenburg*
Invited : *Brendan Bohannan*

S-19
THE EVOLUTION OF MUTUALISMS AND THEIR EVOLUTIONARY IMPACT ON BIODIVERSITY

Chairs: *Guillaume Chomicki, Liliana Dávalos, Sharlene Santana, Marjorie Weber*
Invited : *Naomi Pierce*

S-20
HOW PREDICTABLE IS EVOLUTION?

Chairs: *Troy Day, Sally Otto*
Invited : *Michael Lässig*

S-21
IN VIVO, IN VITRO, IN SILICO EXPERIMENTAL EVOLUTION. CONVERGENCE AND INSIGHTS INTO EVOLUTION

Chairs: *Guillaume Beslon, Dominique Schneider*
Invited : *Richard Lenski*

S-22
THE MOLECULAR BASIS OF CONVERGENT EVOLUTION: SHARED AND UNIQUE FEATURES

Chairs: *Darrin Hulsey, Suzanne Mcgaugh, Marie Semon, Yoel Stuart*
Invited : *Graham Coop*

S-23
FROM DEVELOPMENT TO FUNCTION: WHAT DOES DRIVE MORPHOLOGICAL CONVERGENCES?

Chairs: *Helder Gomes Rodrigues, Sophie Pantalacci*
Invited : *Karen Sears*

S-24
EVOLUTION AND DEVELOPMENT IN DEEP TIME, MERGING INSIGHTS FROM PALEONTOLOGY AND DEVELOPMENTAL BIOLOGY

Chairs: *Ryan Felice, Alexa Sadier*
Invited : *Melanie Debiais-Thibaud*

S-25
THE MACROEVOLUTIONARY DYNAMICS OF FORM-FUNCTION RELATIONSHIPS

Chairs: *Christine Böhmer, Alexandra Houssaye, Brandon Kilbourne, Martha Muñoz, Josef Uyeda*
Invited : *Stephanie Pierce*

S-26
HORIZONTAL TRANSFER OF GENETIC MATERIAL: ITS VECTORS, PATTERNS AND ECO-EVOLUTIONARY CONSEQUENCES

Chairs: *Gilbert Clément, Richard Cordaux, Ellie Harrison, Alvaro San Millan, Caroline Wendling*
Invited : *Matthias Fischer*

S-27
MOVING BEYOND POINT MUTATIONS: THE ROLE OF STRUCTURAL GENOMIC VARIATION IN ADAPTATION AND NOVELTY

Chairs: *Eyal Ben-David, Emma Berdan, Alejandro Burga, Claire Mérot, Maren Wellenreuther*
Invited : *Luisa Orsini*

S-28
THE ROLE OF REPETITIVE GENETIC ELEMENTS IN GENOME EVOLUTION AND ADAPTATION AND SPECIATION

Chairs: *Frédéric Brunet, Amanda Larracuente, Matthias Weissensteiner*
Invited : *Cedric Feschotte*

S-29
COMPARATIVE AND MECHANISTIC PHYLOGEOGRAPHY IN THE BIG DATA ERA

Chairs: *Roberta Damasceno, Katherine Marske, Andrea Paz, Cynthia Riginos*
Invited : *Leslie Rissler*

S-30
NOVEL APPROACHES IN PHYLOGENETIC COMPARATIVE METHODS FOR MODELLING TRAIT EVOLUTION

Chairs: *Cecile Ane, Julien Clavel, Michael Collyer, Alejandro Gonzalez Voyer, Antigoni Kaliontzopoulou, Susana Magallon*
Invited : *Dean Adams*

LIST OF SYMPOSIA

S-31
NEW APPROACHES TO PHYLOGENOMICS
Chairs: *Vincent Daubin, Nicola De Maio, Laura Eme, Carolin Kosiol*
Invited : *Andrew Roger*

S-32
COMPARING PHYLOGENETIC TREES: WHY AND HOW?
Chairs: *Jeremy Brown, Sylvain Charlat, Damien De Vienne, Robert Thomson*
Invited : *Celine Scornavacca*

S-33
ECOLOGICAL MODELS OF MACROEVOLUTION
Chairs: *Jonathan Drury, Matthew Pennell*
Invited : *Etienne Rampal*

S-34
EXPERIMENTAL AND THEORETICAL STUDIES OF THE ORIGINS AND CONSEQUENCES OF DIVERSIFICATION
Chairs: *Vaughn Cooper, Caroline Turner*
Invited : *Michael Travisano*

S-35
COMBINING FOSSILS AND PHYLOGENIES IN STUDIES OF DIVERSIFICATION
Chairs: *Fabien Condamine, Daniele Silvestro*
Invited : *Charles Marshall*

S-36
ECOLOGICAL AND GENETIC MECHANISMS UNDERLYING BALANCED POLYMORPHISMS
Chairs: *Mathieu Joron, Annabel Whibley*
Invited : *Clemens Küpper*

S-37
SYSTEMATICS RESEARCH IN AFRICA: IMPACT FOR MILLIONS
Chairs: *Laura Boykin, Laura Kubatko*
Invited : *Joseph Ndunguru*

S-38
SPECIES IN THE THEORY OF EVOLUTION: FROM CONCEPTS TO METHODS AND APPLICATIONS
Chairs: *Sarah Samadi, Amir Yassin*
Invited : *Alessandro Minelli*

S-39
LATE STAGES IN SPECIATION: EVOLUTION OF STRONG REPRODUCTIVE ISOLATION IN THE PRESENCE OF GENE FLOW
Chairs: *Roger Butlin, Jonna Kulmuni, Kay Lucek, Vincent Savolainen, Anna Westram*
Invited : *Robin Hopkins*

S-40
TOWARDS AN INTEGRATED UNDERSTANDING OF GENOMIC AND PHENOTYPIC DIVERGENCE
Chairs: *Reto Burri, Violaine Llaurens, David Marques, Richard Merrill, Marina Rafajilovic, Mark Ravinet*
Invited : *Stuart Baird*

S-41
CONSEQUENCES OF HYBRIDIZATION: FROM SWAMPING TO SPECIATION
Chairs: *Meredith Cenzer, Aaron Comeault, Joana Meier, Anna Runemark*
Invited : *Molly Schumer*

S-42
FROM THEORY TO GENOME-WIDE DATA: INFERRING SELECTION, DEMOGRAPHY, GENE FLOW AND ADMIXTURE
Chairs: *Frédéric Austerlitz, Kimberly Gilbert, Nathaniel Sharp, Paul Verdu*
Invited : *Mattias Jakobsson*

S-43
ANCIENT DNA STUDIES OF ADAPTIVE PROCESSES THROUGH TIME
Chairs: *Andrew Foote, Eline Lorenzen*
Invited : *Gemma Murray*

S-44
GENE REGULATORY EVOLUTION IN NATURAL POPULATIONS
Chairs: *David Lowry, Mikhail Matz, Alexander Mikheyev, Claire Morandin*
Invited : *Jenny Tung*

S-45
THE EVOLUTION OF COMPLEX TRAITS AND POLYGENIC ADAPTATION: WHERE DO WE STAND?
Chairs: *Shannon Beston, Juliette De Meaux, Frédéric Guillaume, Matthew Walsh*
Invited : *Catherine Peichel*

LIST OF SYMPOSIA

S-46
ROLE OF PHENOTYPIC PLASTICITY IN EVOLUTION: WHERE ARE WE NOW?

Chairs: *Cameron Ghalambor, Patricia Gibert*
Invited : *Carl Schlichting*

S-47
THE THEORY OF FITNESS LANDSCAPES: WHERE IS THIS PATH TAKING US?

Chairs: *Claudia Bank, Alexandre Blanckaert, Ines Fragata*
Invited : *Richard Goldstein*

S-48
EPIGENETICS AND ADAPTATION

Chairs: *Oliver Bossdorf, Martin Laporte, Jérémy Le Luyer, Koen Verhoeven*
Invited : *Christoph Grunau*

S-49
THE MAKING AND BREAKING OF GENETIC CONSTRAINTS

Chairs: *Max Reuter, Julia Saltz*
Invited : *Lynda Delph*

S-50
EVOLVABILITY: A UNIFYING CONCEPT IN EVOLUTIONARY BIOLOGY

Chairs: *Thomas Hansen, Christophe Pelabon*
Invited : *Mihaela Pavlicev*

S-51
CAUSES AND CONSEQUENCES OF RECOMBINATION RATE EVOLUTION

Chairs: *Marie Cariou, Beth Dumont, Bret Payseur, Fanny Pouyet*
Invited : *Mohamed Noor*

S-52
NEW DIRECTIONS IN SEX CHROMOSOME EVOLUTION

Chairs: *Jessica Abbott, Bengt Hansson, Daniel Jeffries, Paul Saunders*
Invited : *Beatriz Vicoso*

S-53
EVOLUTION OF REPRODUCTIVE SYSTEMS

Chairs: *Tanja Schwander, Casper Van Der Kooi*
Invited : *Stephen Wright*

S-54
FITNESS EFFECTS OF MUTATIONS

Chairs: *Charles Fenster, Courtney Murren*
Invited : *Ruth Shaw*

S-55
ECOLOGICAL AND EVOLUTIONARY GENOMICS OF POLYPLOIDY

Chairs: *Malika Ainouche, Olivier Panaud*
Invited : *Jonathan Wendel*

S-56
MANIFESTATION AND RESOLUTION OF SEXUAL CONFLICT

Chairs: *Catherine Peichel, Alison Wright*
Invited : *Craig Primmer*

S-57
MODES OF INHERITANCE AND GENOMIC CONFLICTS

Chairs: *Arvid Ågren, Hanna Johannesson*
Invited : *Lila Fishman*

S-58
CAUSES OF MALADAPTATION: ENVIRONMENTAL CHANGE, DEMOGRAPHY, INBREEDING AND GENETIC CONSTRAINTS

Chairs: *Daniel Bolnick, Steven Brady, Anne-Laure Ferchaud, Charles Perrier*
Invited : *Andrew Hendry*

S-59
TOWARDS A UNIFIED BIOLOGY OF POPULATIONS: INTEGRATING ECOLOGY, EVOLUTION AND DEMOGRAPHY

Chairs: *Ron Bassar, Timothée Bonnet, Erik Postma, Matthew Wolak*
Invited : *Joseph Travis*

S-60
EVOLUTIONARY RESCUE

Chairs: *Richard Gomulkiewicz, Ruth Hufbauer, Ane Marlene Myhre, Joost Raeymaekers*
Invited : *Stephanie Carlson*

S-61
THE EVOLUTION OF COMMUNITY ECOLOGY

Chairs: *Lynn Govaert, Mark Urban*
Invited : *Mark McPeek*

LIST OF SYMPOSIA

S-62
EXPERIMENTAL EVOLUTION IN THE CONTEXT OF ECOSYSTEMS
Chairs: *Sijmen Schoustra, Mark Zwart*
Invited : *Jeff Gore*

S-63
EVOLUTION IN AN URBANIZING WORLD
Chairs: *Anne Charmantier, Adrien Frantz, Julien Gasparini, Marc Johnson*
Invited : *Marta Szulkin*

S-64
RAPID EVOLUTIONARY RESPONSES TO GLOBAL CHANGE
Chairs: *Moises Exposito-Alonso, Carol Eunmi Lee, Johannes Scheepens, François Vasseur*
Invited : *Stanford Petrov*

S-65
DOMESTICATION: HUMAN-INDUCED EVOLUTION
Chairs: *Allowen Evin, Laurent Frantz, Greger Larson*
Invited : *Maud Tenaillon*

S-66
CELEBRATING 10 YEARS OF EVOLUTIONARY APPLICATIONS AND A LOOK TO THE FUTURE
Chairs: *Louis Bernatchez, Britt Koskella*
Invited : *Frédéric Thomas*

S-67
EVOLUTION-SMART AGRICULTURE: BREEDING AND PROTECTION
Chairs: *Kevin Carolan, Jérôme Enjalbert, Isabelle Goldringer, Nichola Hawkins*
Invited : *Alexey Mikaberidze*

S-68
THE ECOLOGY AND EVOLUTION OF CANCER
Chairs: *Frédéric Thomas, Beata Ujvari*
Invited : *Robert Gatenby*

S-69
EVOLUTIONARY PHYSIOLOGY
Chairs: *Mathieu Buoro, Jacques Labonne, Matthew Macmanes, Sylvie Oddou-Muratorio*
Invited : *Lauren O'Connell*

S-70
FLORAL EVOLUTION: BREEDING SYSTEMS, POLLINATORS, AND BEYOND
Chairs: *Johanne Brunet, Diane Byers, Eric Imbert, Yuval Sapir, Jürg Schönenberger, Yannick M Staedler*
Invited : *Nina Sletvold*

S-71
HUMAN EVOLUTIONARY BIOLOGY
Chairs: *Ruth Mace, Michel Raymond*
Invited : *Andrea Migliano*

S-72
VIRUS EVOLUTION
Chairs: *Lucie Etienne, Gonzalo Moratorio*
Invited : *Nels Elde*

S-73
EXPLORING LIFE HISTORY EVOLUTION ACROSS MULTIPLE SCALES
Chairs: *Christoph Haag, Kevin Healy, Tom Reed, Robin Waples*
Invited : *Robert Ricklefs*

S-74
UNDERSTANDING MATE PREFERENCES AND MATING SYSTEMS: FROM GENETICS TO BEHAVIOR
Chairs: *Natasha Bloch, Iulia Darolti*
Invited : *Molly Cummings*

S-75
PUBLIC COMMUNICATION? DON'T SHOUT... SCREAM (SCIENCE COMMUNICATION RESEARCH EMPOWERS AMAZING) OUTREACH
Chairs: *Olaf Bininda-Emonds, Xana Sá-Pinto, Jory Weintraub*
Invited : *Carole Jahme*

S-76
EVOLUTIONARY MANAGEMENT OF WILD POPULATIONS
Chairs: *Didier Aurelle, Bruno Fady*
Invited : *Sean Hoban*

S-77
THE EVOLUTION OF COGNITION: THE INTERPLAY OF INDIVIDUAL AND ENVIRONMENTAL FACTORS
Chairs: *Laure Cauchard, Blandine Doligez*
Invited : *Alexis Chaine*

S-78
OPEN SYMPOSIUM
Chairs: *Pierre-Olivier Cheptou, Nicolas Galtier, Thomas Lenormand, Carole Smadja, Céline Teplitsky*

PROGRAM AT A GLANCE

SATURDAY AUGUST 18

08:50	ASN-SSB-SSE joint executive meeting			
09:00		Evoke		
10:50	ASN-SSB-SSE-ESEB joint executive meeting			
13:10	ASN council/ESEB officers/SSE council/SSB council			
13:30			Registration	
14:30				Outreach
19:00	Welcome reception			
20:30				

SUNDAY AUGUST 19

07:30	Registration
08:30	Welcome introduction to the conference
09:10	**PLENARY** ESEB Presidents' Award
10:10	**COFFEE BREAK**
10:35	**SYMPOSIA** S-01/S-02/S-53/S-35/S-41/S-04/S-40/S-28/S-25/S-18/S-12/S-70/S-31
12:20	**LUNCH BREAK** - Making science great again - Evolutionary Applications editorial board - Journal of Evolutionary Biology editorial board - Systematic Biologoly Editorial board Networking lunch
13:55	**SYMPOSIA** S-01/S-02/S-53/S-35/S-41/S-04/S-40/S-28/S-25/S-18/S-12/S-70/S-31
15:40	**COFFEE BREAK**
16:05	**SYMPOSIA** S-01/S-02/S-53/S-35/S-41/S-04/S-23/S-66/S-06/S-45/S-20/S-48/S-61
17:30	**POSTER** Cocktail 1 (Posters will be displayed until Monday, August 20, 3:40 pm)
19:30	

MONDAY AUGUST 20

08:15	Announcements
08:30	**PLENARY** ASN Presidential Address
09:25	**SYMPOSIA** S-22/S-03/S-58/S-36/S-41/S-04/S-23/S-66/S-06/S-45/S-20/S-48/S-61
10:50	**COFFEE BREAK**
11:15	**SYMPOSIA** S-22/S-03/S-58/S-36/S-41/S-04/S-49/S-32/S-06/S-45/S-20/S-48/S-61
12:40	**LUNCH BREAK** - Meet DFG and ANR - Meet the editors - Diversity in Science - Ecology Letters editorial board
14:15	**SYMPOSIA** S-22/S-03/S-05/S-19/S-78/S-64/S-49/S-32/S-39/S-52/S-07/S-54/S-29
15:40	**COFFEE BREAK**
16:05	**SYMPOSIA** S-22/S-03/S-05/S-19/S-78/S-64/S-75/S-11/S-39/S-52/S-07/S-54/S-29
18:30	**SSE Stephen Jay Gould Prize**
19:30	

TUESDAY AUGUST 21

08:15	Announcements
08:30	**PLENARY** SSB Presidential Address
09:25	**SYMPOSIA** S-74/S-51/S-73/S-30/S-78/S-64/S-44/S-47/S-68/S-17/S-27/S-77/S-50
10:30	**COFFEE BREAK**
10:55	**SYMPOSIA** S-74/S-51/S-73/S-30/S-78/S-64/S-44/S-47/S-68/S-17/S-27/S-77/S-50
12:40	**LUNCH BREAK** - Meet NSF - Meet ERC - Selecting a journal for your research - ASN-SSB-SSE exit meeting - Evolution Letters editorial board - Evolution editorial board American Naturalist editorial board
14:15	**SYMPOSIA** S-74/S-56/S-34/S-59/S-78/S-64/S-10/S-72/S-16/S-38/S-24/S-09/S-71
15:40	**COFFEE BREAK**
16:05	**SYMPOSIA** S-74/S-56/S-34/S-59/S-42/S-46/S-10/S-72/S-16/S-38/S-24/S-09/S-71
17:30	**SOCIETIES MIXERS** ASN Business meeting, SSE Business meeting, SSB business meeting **AND POSTER** cocktail 2 (Posters will be displayed until Wednesday, August 22, 2:40pm)
19:30	

WEDNESDAY AUGUST 22

08:15	Announcements
08:30	**PLENARY** SSE Presidential Address
09:25	SSE Theodosius Dobzhansky Prize **SYMPOSIA** S-76/S-69/S-15/S-42/S-46/S-65/S-55/S-63/S-08/S-33/S-21/S-26
10:30	**COFFEE BREAK**
10:55	ASN Jasper Loftus-Hills Young Investigators Award **SYMPOSIA** S-76/S-69/S-15/S-42/S-46/S-65/S-55/S-63/S-08/S-33/S-21/S-26
12:40	**LUNCH BREAK** - Meet the SFE² - Building you researcher profile - ASN exit meeting - SSE exit meeting - SSB exit meeting
14:15	ASN Jasper Loftus-Hills Young Investigators Award **SYMPOSIA** S-76/S-69/S-75/S-42/S-46/S-13/S-37/S-60/S-14/S-43/S-57/S-62
15:40	**COFFEE BREAK**
16:05	ESEB John Maynard-Smith Prize **SYMPOSIA** S-76/S-69/S-67/S-42/S-46/S-13/S-37/S-60/S-14/S-43/S-57/S-62
17:10	Closing ceremony
18:00	Bus departure for conference dinner 18h-19h (level 0)
19:00	Conference Dinner
04:00	

SUNDAY, AUGUST 19

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
08:30	**Welcome Address** (Berlioz)					
09:10	**Plenary ESEB Presidents' Award** (Berlioz)					
10:10	**COFFEE BREAK**					
10:35	**S-01 SSE W. D. Hamilton Award Symposium**	**S-04 Evolution on the edge: eco-evolutionary dynamics, range expansion, and local adaptation**	**S-41 Consequences of hybridization: from swamping to speciation**	**S-40 Towards an integrated understanding of genomic and phenotypic divergence**	**S-12 The Evolution of Resistance**	**S-70 Floral evolution: breeding systems, pollinators, and beyond**
10:40	Evolution of pythons: understanding the remarkable morphological diversity behind the world's largest snakes **D. Esquerre**	Challenges at the range margin: Interactions between expansion load and heterogeneous selection **M. Whitlock**	The evolution of hybrid populations and genomes: insights from swordtail fish **M. Schumer**	Maintaining perspective in the study of speciation **S. Baird**	What do we need to predict the evolution of drug resistance? **C. Bank**	The context-dependence of pollinator-mediated selection **N. Sletvold**
11:00	Complex life histories and the resolution of ontogenetic conflict via metamorphosis **D. Goedert**	A mathematical model for a species facing both an environmental gradient and global warming **M. Alfaro**	Mitonuclear incompatibilities promoted mitogenome evolution in a hybrid population **S. Hirase**	The genetic evolution of reproductively isolating male pheromone preference in *Drosophila simulans* and *sechellia* **M. Shahandeh**	The stochastic emergence of antibiotic resistance: investigating environmental effects with experiments and theory **H. Alexander**	Divergent pollinator-driven evolution demonstrated by experimental evolution **F. Schiestl**
11:20	An empirically grounded model of speciation **A.J. Dagilis**	Maladapted gene flow determines range evolution **M. Urban**	Hybridisation as a driver of rapid speciation in non-native species **M. Vallejo-Marin**	Genomics of sexual isolation and reinforcement in a secondary hybrid zone between two subspecies of the house mouse **C. Smadja**	Adaptive modulation of antibiotic resistance through intragenomic coevolution **M. Bottery**	Experimental environmental change alters plant-pollinator interactions and seed set **K. Gallagher**
11:40	Study of the interactions of Zika virus with the antiviral responses by experimental evolution **V. Grass**	Life in Thin Air: The Effect of Aerobic Performance on High-Elevation Deer Mouse Survival **N. Senner**	A mechanistic model of assortative mating in a hybrid population **A. Goldberg**	Linking the genomic landscape of species divergence to intrinsic postzygotic barriers identified from experimental backcrosses. **M. Duranton**	Community evolutionary rescue in experimental freshwater ecosystems exposed to severe herbicide pollution **V. Fugère**	Do density and community context affect pollinator-mediated selection? A study of *Clarkia* (Onagraceae) communities in the southern Sierra foothills (Kern County, CA) **K. Eisen**
12:00	Detecting selection in bottlenecked populations **D. Leigh**	Is spatial sorting analogous to natural selection? **B. Phillips**	The intricate dynamics of hybrid speciation **A. Blanckaert**	The speciation continuum revisited: lessons from East African cichlids **A. Weber**	Epistasis and incomplete cross-resistance produce rugged and shifting adaptive landscapes in azole fungicide resistance **N. Hawkins**	Floral trait convergence and functional differentiation concomitant with pollinator shifts in Merianieae (Melastomataceae) **A. Dellinger**
12:20	**LUNCH BREAK** Making science great again (Antigone 1)- Evolutionary Applications editorial board (Louisville)- Journal of Evolutionry Biology editorial board (Barcelone)- Systematic Biology Editorial board (Joffre 4)- Networking lunch					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
08:30	**Welcome Address** (Berlioz)						
09:10	**Plenary ESEB Presidents' Award** (Berlioz)						
10:10	**COFFEE BREAK**						
10:35	**S-31 New approaches to phylogenomics**	**S-35 Combining fossils and phylogenies in studies of diversification**	**S-53 Evolution of reproductive systems**	**S-25 The macro-evolutionary dynamics of form-function relationships**	**S-18 Evolution of hosts and parasites with their microbiomes: a problem of unfaithful relationships**	**S-28 The role of repetitive genetic elements in genome evolution and adaptation and speciation**	**S-02 SSB Ernst Mayr Award Symposium**
10:40	Realism in phylogenetic models is essential for reconstructing early eukaryote evolution **A. Roger**	Trading places? identifying the fundamental differences between molecular phylogenies and the fossil record by asking what neontologists and paleontologists would find most striking if they switched places **C. Marshall**	Parental genomic legacy of mating system shifts in polyploid genome evolution in *Capsella bursa-pastoris* **S. Wright**	Unravelling the evolution of the mammalian backbone **S. Pierce**	Moving beyond metaphors in the study of host-associated microbiomes **B. Bohannan**	Transposable elements as catalysts of convergent evolution **C. Feschotte**	Comprehensive phylogeny of ray-finned fishes (Actinopterygii) based on transcriptomic and genomic data **L. Hughes**
11:00	Phylodynamics in structured populations: quantifying migration patterns and transmission fitness variation in pathogen epidemics **T. Stadler**	Mass extinction in tetraodontiform fishes linked to the Palaeocene-Eocene thermal maximum **D. Arcila**	Plant mating system transitions and convergent evolution of defence and pollination **S. Campbell**	Pleiotropic Jaw Morphology Links the Evolution of Mechanical Modularity and Feeding Convergence in Lake Malawi Cichlids **D. Hulsey**	Nutrient and dose dependent microbiome-mediated protection against a plant pathogen **B. Koskella**	Intragenomic conflict resulting from incomplete transposable element domestication **A.M. Dion-Côté**	A Machine-Learning Approach for Phylogenetic Model Selection **S. Abadi**
11:20	How much history can we learn from genetic data? **J. Palacios**	Reconciling neontology and paleontology in plant-sap feeding scale insects (Hemiptera: Coccomorpha): divergence time, diversification rates and life strategy evolution in the light of amber inclusions **I. Vea**	Repeated evolution of self-compatibility for reproductive assurance **S. Tusso**	150 million years of sustained increase in pterosaur flight efficiency **C. Venditti**	Host-microbes co-evolution can lead to increased cooperative behavior among the hosts **O. Lewin-Epstein**	Is there a role for DNA repeats in the 3D folding of metazoan genomes? **J. Mozziconacci**	Historical biogeography and the evolution of environmental niche in Datureae (Solanaceae) **J. Dupin**
11:40	Tree thinking vs network thinking: a new approach to reconstruct phylogenetic networks from SNP datasets applied to study the rapidly speciating crater lake cichlids from Nicaragua **M. Olave**	The Rise of the Age of Mammals? Total Evidence tip-dated trees and disparity models to assess the effect of the K-Pg extinction on mammalian evolution. **T. Guillerme**	Sexual conflict, facultative parthenogenesis and the true paradox of sex **N. Burke**	How did wasps come to walk through walls? Repeated evolution of a morpho-functional system to hunt deeply concealed hosts in parasitoid wasps (Hymenoptera: Ichneumonidae: Cryptini) **A. Perrard**	Do symbionts benefit from symbiosis?: comparative fitness of symbiotic and free-living bacteria **J. Garcia**	Intra-genomic conflict shapes Drosophila telomere biology **M. Levine**	Climate drives lineage and morphological diversification in an adaptive radiation of *Hemidactylus* geckos in South Asia **A. Lajmi**
12:00	Modeling and Analyzing Transcriptome Turnover During Organ Evolution **A. Thompson**	Ancient tropical extinctions contributed to the latitudinal diversity gradient **A. Sánchez Meseguer**	Breeding system and effective population size affect selection efficacy in the *Silene* genus **A. Muyle**	Adaptive shifts in the evolution of skull shape in bats (Chiroptera): signatures of dietary ecology and echolocation **J. Arbour**	Using evolutionary theory to predict microbes? effects on host health **C. Simonet**	Ecological determinants of transposable element survival in *Zea mays* **M. Stitzer**	Overhauling the phylogenetic origins and early evolution of lizards and snakes **T. Simoes**
12:20	**LUNCH BREAK** Making science great again (Antigone 1)- Evolutionary Applications editorial board (Louisville)- Journal of Evolutionry Biology editorial board (Barcelone)- Systematic Biology Editorial board (Joffre 4)- Networking lunch						

SUNDAY, AUGUST 19

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
13:55	**S-01 SSE W. D. Hamilton Award Symposium**	**S-04 Evolution on the edge: eco-evolutionary dynamics, range expansion, and local adaptation**	**S-41 Consequences of hybridization: from swamping to speciation**	**S-40 Towards an integrated understanding of genomic and phenotypic divergence**	**S-12 The Evolution of Resistance**	**S-70 Floral evolution: breeding systems, pollinators, and beyond**
14:00	Protecting the superorganism: how ants behave like an immune system to eradicate infections from the colony **C. Pull**	Is range expansion associated with reproductive isolation? A comparison of leading-edge and refugial populations **L. Galloway**	Female competition facilitates hybridization in sex-role reversed jacanas **S. Lipshutz**	The origins of underdominant chromosomal rearrangements: a case study in *Mimulus* **T. Nelson**	Mechanisms maintaining coexistence of antibiotic sensitivity and resistance cause high multidrug resistance frequencies **S. Lehtinen**	Genetic architecture of floral scent in a reversal to bee-pollination **A. Berardi**
14:20	The genetic basis of variation in phenotypic plasticity **K. Van Der Burg**	Accumulation of mutational load at the edges of a species range **Y. Willi**	Ecological "speciation" in a hantavirus triggered by host hybridization **G. Heckel**	Contributions of gene flow and selection to the genomic landscape of incipient lineages in an island bird **M. Gabrielli**	Can the genetic background of clinical isolates determine the emergence of resistance in *Staphylococcus aureus*? **A. Papkou**	The evolution of multiple mutualisms and mating system in *Turnera ulmifolia* **J. Laurich**
14:40	Genome divergence and gene flow through the speciation continuum: insights from suture zones of Australian birds. **J. Penalba**	The role of mitochondrial DNA in the evolutionary dynamics of fitness following population foundation **E. Milot**	Learning and memory deficiencies in hybrid chickadees as a potential postzygotic reproductive isolating barrier **A. Rice**	Modelling the genomic landscapes of divergence and gene flow **K. Lohse**	The molecular evolution in bacteria in response to sublethal antibiotics and predation **L. Becks**	The Role of Ecology in the Evolution of floral Traits in a wild Carnation **U. Walther**
15:00	Haploid selection in a predominantly diploid animal **G. Alavioon**	Microevolution at the leading edge of spatial expansion: the case of Sitka spruce **J. Elleouet**	The genomic consequences of massive accidental mitochondrial introgression in hares: evidence for the mother's curse? **F. Seixas**	Reproductive barriers and genetic divergence in *Silene* **X. Liu**	Can CRISPR gene drives spread in the wild? **P. Messer**	Physiological and biomechanical constraints in floral evolution **A. Roddy**
15:20	Strong reproductive isolation exists between diploids and tetraploids - but not between higher cytotypes - within polyploid complexes. **B. Sutherland**	Understanding the influence of growth dynamics in a range expanding host population on the invasion probability and intensity of infectious disease **L. Nørgaard**	Hybridizing wood ants allow testing for natural selection acting on genomic regions of divergence **J. Kulmuni**	The maintenance of alternative fitness peaks in the face of gene flow **D. Field**	Population genomics of multidrug-resistant *Mycobacterium* tuberculosis strains from Georgia **S. Gygli**	An evolutionary winning hand: pollinator-mediated floral shape convergence in the tropical genus *Erythrina* (Leguminosae) **G. Bilbao**
15:40	**COFFEE BREAK**					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
13:55	**S-31 New approaches to phylogenomics**	**S-35 Combining fossils and phylogenies in studies of diversification**	**S-53 Evolution of reproductive systems**	**S-25 The macro-evolutionary dynamics of form-function relationships**	**S-18 Evolution of hosts and parasites with their microbiomes: a problem of unfaithful relationships**	**S-28 The role of repetitive genetic elements in genome evolution and adaptation and speciation**	**S-02 SSB Ernst Mayr Award Symposium**
14:00	An Empirical Bayesian Method for Estimating Expression Conservations in Genome Evolution **X. Gu**	Probability density of phylogenies with fossils and diversification rates estimation **G. Didier**	Regular inbreeding in animals and plants (an underappreciated mating system) **L. Kirkendall**	To kick or not to kick? Intertwined evolution of swimming, morphology and microhabitat in the tree frogs family. **I. Caviedes-Solis**	The young adaptive radiation of Nicaraguan Midas cichlid fishes: testing the effects of phylogeny and ecology on their gut microbiomes **A. Härer**	Multiplatform assembly of a bird-of-paradise genome reveals rapid turnover of repetitive sequences on W chromosomes and near centromeres of birds **V. Peona**	Adaptive or non-adaptive radiation? The role of ecology during the continental radiation of *Cryptoblepharus* lizards **M. Blom**
14:20	Stepwise Bayesian phylogeny inference using RevBayes **S. Höhna**	Preservation rates and fossil phylogenies **J.L. Cantalapiedra**	Facultative use of sex for queen production in an ant: does inbreeding level of the queen matter? **C. Doums**	Comparative waterfall-climbing kinematics and performance of juvenile gobiid fishes: how conservative are novel functional behaviors? **R. Blob**	Host genotype shapes the assembly of both gut microbiota and surrounding bacterioplankton in the freshwater crustacean *Daphnia* **E. Macke**	Transposable elements affect the transcriptional regulation of stress response genes in *Drosophila* and humans **J. González**	Recalcitrance of avian divergence times and phylogenetic topology may be related to selection for reduced body size across the K-Pg boundary **J. Berv**
14:40	What can the branch lengths reveal about the reconstructed phylogeny? Minimum Variance Rooting and TreeShrink as new components in a phylogenetic reconstruction pipeline. **U. Mai**	Saga of the extinct giant kangaroos: ancient DNA and fossils combined to reveal the evolutionary history of macropods **M. Cascini**	Limited floral plasticity constrains the mating system **M. Koski**	Morphological convergence in bouldering frogs **M. Vidal-Garcia**	The interactions between an obligate killer pathogen and the microbiota of its hosts: a metabarcoding approach **M. Cambon**	A population-level invasion by transposable elements in a fungal pathogen **U. Oggenfuss**	Developing and evaluating an integrative model of species evolution accounting for fossilization and coalescence processes **H. Ogilvie**
15:00	Quantifying the contribution of external covariates to pathogen population dynamics in a birth-death framework **L. Du Plessis**	Comparison and evaluation of different approaches to dealing with fossil age uncertainty in divergence time estimation **J. Barido-Sottani**	Modelling the evolution of self-incompatible mating types **J. Christie**	A macro-evolutionary perspective on hind limb form and function in the Callitrichidae (Mammalia: Primates): endorsing an integrative approach for the study of locomotor adaptations **J. Nyakatura**	The evolution of the tetrapod gut microbiome **J. Sanders**	Evolutionary processes of satellite repeats in *Drosophila* **A. Clark**	Living and extinct dragons: incorporating fossils in monitor lizard macroevolution **I. Brennan**
15:20	Trait evolution on two or more trees **J. Degnan**	The Angiosperm Fossilized Birth-Death Process **S. Magallon**	The masking hypothesis in complex multicellular organisms with biphasic life cycles **P. Szovenyi**	Testing the link between bird beak shape, function and performance **E. Rayfield**	Understanding and conserving the mammalian and human gut microbial heritage **M. Groussin**	Initial Sequence Maps of Endogenous Human Centromeres **K. Miga**	Do more fossils improve divergence time estimates in molecular phylogenies? **T. Carruthers**
15:40	**COFFEE BREAK**						

SUNDAY, AUGUST 19

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
16:05	**S-01 SSE W. D. Hamilton Award Symposium**	**S-04 Evolution on the edge: eco-evolutionary dynamics, range expansion, and local adaptation**	**S-41 Consequences of hybridization: from swamping to speciation**	**S-23 From development to function: what does drive morphological convergences?**	**S-20 How Predictable is Evolution?**	**S-48 Epigenetics and adaptation**
16:10	Regulatory variation in pigmentation loci underlies balanced polymorphism in the wall lizard **P. Andrade**	Evolution during population spread affects plant performance in stressful environments **N. Lustenhouwer**	Speciation with panmixia? An extreme case of species reticulation **J. Mallet**	Developmental basis of morphological convergences during mammalian limb evolution **K. Sears**	Adaptive contingency: contrasting effects of environment and genetics generate a continuum of parallel evolution **Y. Stuart**	The relative weights of genetics and epigenetics in adaptative evolution **C. Grunau**
16:30	The genetic basis of a major evolutionary transition: from egg-laying to live-bearing in a squamate lizard **H. Recknagel**	Local adaptation and maladaptation in range margin populations of the highly selfing annual herb *Arabidopsis thaliana* **J. Ågren**	Genomic signals of balancing selection and hybrid zone dynamics in non-self recognition self-incompatibility systems in snapdragons **M. Pickup**	Convergent evolution of anti-bat sensory illusions in silkmoths **C. Hamilton**	Population size and the repeatability of antibiotic resistance evolution **A. De Visser**	Changes in gene DNA methylation and expression networks accompany caste specialization and ageing in a social insect **C. Morandin**
16:50	Complex evolutionary interactions between mating system and learned song in passerine birds **K. Snyder**	Adaptation during range expansion in selective landscapes **F. Moerman**	Genomic and geographic heterogeneity in a hybrid invasion of the endangered California tiger salamander: conservation management informed by real-time observation of natural selection in wild populations **E. McCartney-Melstad**	The hows and whys of wing transparency in mimetic Lepidoptera **C. Pinna**	Environmental similarity (mostly) leads to parallel evolution in experimentally evolved populations **C. Turner**	Genetic and epigenetic variation in the wild and their role in adaptation and experimental acclimation **M. Heckwolf**
17:10	Widespread adaptive diversification and cross-feeding in a Long-Term Evolution Experiment with *E. coli* **T. Jagdish**	Evolutionary history and adaptive capacity: predicting species range shifts in response to climate change **L. Bourgeaud**	Stocking accentuates genetic introgression of escaped farmed salmon in a wild salmon population **I. Hagen Arnesen**	Selection and development alter correlated structure evolution: lesser-eaten frog limbs **M. Womack**	Convergences of entire mammalian biotas **F. Mazel**	Convergent and adaptive processes driving parallel adaptation in *Heliosperma pusillum* (Caryophyllaceae) **O. Paun**
17:30	**Poster Cocktail** Session 1					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
16:05	**S-61 The Evolution of Community Ecology**	**S-35 Combining fossils and phylogenies in studies of diversification**	**S-53 Evolution of reproductive systems**	**S-06 Micro-geographic adaptation and adaptive landscape genomics**	**S-45 The evolution of complex traits and polygenic adaptation: where do we stand?**	**S-66 Celebrating 10 years of Evolutionary Applications and a look to the future**	**S-02 SSB Ernst Mayr Award Symposium**
16:10	The ecological dynamics of natural selection that differentiates consumers and resources (or why ecologists and evolutionists need to talk to each other more) **M. McPeek**	Using fossils to date phylogenetic trees **S. Klopfstein**	Distinct biogeographic origins of androgenetic lineages in Corbicula clams with a transition from sexuality to androgenesis through a meiotic disruption. **K. Van Doninck**	Fine-scale patterns of adaptive genetic variation: local adaptation and speciation within and across species of *Pinus* **A. Eckert**	The architecture of adaptation: a master mutation or a mass of mutations? **C. Peichel**	Evolution and cancer: Where are we and where should we go? **F. Thomas**	Exploring the power of Bayesian skyline episodic models to detect mass extinction events from phylogenies containing only extant taxa **V. Culshaw**
16:30	Feedbacks in evolutionary ecology **B. Matthews**	Understanding what drives variation in macroevolutionary patterns of phenotypic differentiation: a new comparative approach **J. Clavel**	What ecological factors favour asexual over sexual reproduction? A study on the facultatively parthenogenetic mayfly *Alainites muticus* in natural populations. **M. Liegeois**	Patterns of adaptive genetic variation across *Coffea canephora* **V. Poncet**	Rampant Purifying Selection Drives Singleton Variants to be Major Source of Heritability for Human Gene Expression **R. Hernandez**	Identifying adaptation during biogeographic transitions of a highly invasive plant **K. Dlugosch**	From the origin to the present: reconstructing and dating the tree of pimpliform parasitoid wasps **T. Spasojevic**
16:50	Modeling how ecological, evolutionary, and spatial dynamics interact together to shape oceanic plankton communities **B. Sauterey**	Generating the first complete family tree of the Cetacea **G. Lloyd**	Genomic architecture of transitions from dioecy to monoecy by experimental evolution of an annual plant **J.F. Gerchen**	Evolution of local adaptation in two ecologically divergent lineages of a Mediterranean lizard **A. Llanos-Garrido**	Biotic and abiotic tradeoffs influence selection on a biochemical polymorphism in a wild mustard species **L. Carley**	Climate change and the evolutionary challenge of Mediterranean biodiversity **B. Fady**	Integrating big data into systematics to unveil the evolution of tropical biodiversity **A. Zizka**
17:10	Divergence between populations and strong local adaptation may limit adaptive response to climate change with cascading effects on the community **A. Lackey**	Integrating models of fossil character evolution with stratigraphic range data **W. Pett**	Genomes gone wild: A tale of a(sex) and duplicity **M. Neiman**	Parallel adaptation to high soil concentrations of trace metal elements **C. Sailer**	Divergent selection on multiple genomic regions allows physiological divergence despite gene flow **J. Olofsson**	What have we learned about evolution from pesticide resistance? A synthetic overview and a look toward the future **R. Baucom**	Patterns of phenotypic evolution suggest an adaptive radiation in pelagic fishes in the earliest Cenozoic **H. Beckett**
17:30	**Poster Cocktail** Session 1						

MONDAY, AUGUST 20

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
08:15	**Annoucements** (Berlioz)					
08:30	**Plenary ASN Presidential Address** (Berlioz)					
09:25	**S-22 The molecular basis of convergent evolution: shared and unique features**	**S-04 Evolution on the edge: eco-evolutionary dynamics, range expansion, and local adaptation**	**S-41 Consequences of hybridization: from swamping to speciation**	**S-23 From development to function: what does drive morphological convergences?**	**S-20 How Predictable is Evolution?**	**S-48 Epigenetics and adaptation**
09:30	Population genomics of convergence **G. Coop**	Dynamics of species range shifts: intermediate speeds of environmental change impose most genetic load **K. Gilbert**	Exploring hybridization as an adaptation to rapidly changing environments **M. Kinney**	Convergent evolution of microcephalic sea snakes **E. Sherratt**	Predicting fast pathogen evolution **M. Lässig**	Population epigenetics in *Timema cristinae* stick-insects **C. Carvalho**
09:50	Ants and their rove beetle social parasites: convergent evolution of a complex symbiosis **J. Parker**	Another level of survival of the luckiest: How isolated features in the habitat invaded shape genetic diversity and the fate of mutations during range expansions for long times and at large distances. **W. Moebius**	Long-term replicate experimental hybrid populations show adaptive introgression in sunflowers. **G. Owens**	Locomotor performance and kinematics evolution in the transition to snake-like body shapes **P. Bergmann**	Comparative population genomics of herbicide resistance: mating system, ploidy, and mechanistic patterns of adaptation. **J. Kreiner**	Epigenetic gene silencing alters the mechanisms and rate of evolutionary adaptation **D. Stajic**
10:10	Ecological factors and genome structure contribute to repeatable patterns of genomic divergence in threespine stickleback **D. Rennison**	Range expansion increases genetic load and compromises adaptive evolution in an outcrossing plant **S. Gonzalez-Martinez**	Admixture between divergent lineages triggered fast ecological speciation in Lake Constance stickleback **D. Marques**	Parallel adaptation to pollinator attraction in *Ophrys* **L. Piñeiro Fernández**	Predicting fitness changes over long time scales **M. Wiser**	Replicated landscape level epigenomics and genomics of two Greater Antillean trunk-ground *Anolis* lizards **G. Wogan**
10:30	Convergent phenotypic evolution of the visual system via different molecular routes: how Neotropical cichlid fishes adapt predictably to novel light environments **J. Torres-Dowdall**	Asexuals take over the front of an invasion wave **A. Tilquin**	Is pathogens hybridization an emerging global threat? The case of *Schistosoma haematobium* and *Schistosoma bovis* parasites. **J. Kincaid-Smith**	Jumping spiders that mimic ants: quantifying morphology and locomotion in a mimicry system **P. Shamble**	A universal temperature dependence of mutational fitness effects **D. Berger**	Influence of the meditation practice on the epigenome: a pilot study **R. Chaix**
10:50	**COFFEE BREAK**					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
08:15	**Annoucements** (Berlioz)						
08:30	**Plenary ASN Presidential Address** (Berlioz)						
09:25	**S-61 The Evolution of Community Ecology**	**S-36 Ecological and genetic mechanisms underlying balanced polymorphisms**	**S-58 Causes of maladaptation: environmental change, demography, inbreeding and genetic constraints**	**S-06 Micro-geographic adaptation and adaptive landscape genomics**	**S-45 The evolution of complex traits and polygenic adaptation: where do we stand?**	**S-66 Celebrating 10 years of Evolutionary Applications and a look to the future**	**S-03 ASN Vice-President Symposium: Advances through theory: an exploration of mathematical models in ecology and evolution**
09:30	Parasites mediate eco-evo feedbacks: mechanisms and implications in Ecology **C. Eizaguirre**	Understanding the balancing effects of a ruff inversion **C. Küpper**	Maladaptation reconsidered **A. Hendry**	When one phenotype is not enough? divergent evolutionary trajectories govern venom variation in a widespread rattlesnake species **G. Zancolli**	DFTD-driven selection in the Tasmanian devil (*Sarcophilus harrisii*) **J.N. Hubert**	Rapid Evolutionary Responses to Catastrophic Anthropogenic Change **C.E. Lee**	Introduction **M. Servedio**
09:50	Rapid resource evolution mediates ecological and evolutionary responses of consumers to temperature change **M. Tseng**	Evolution of a supergene for crypsis in *Timema* stick insects **R. Villoutreix**	Suitable is not optimal: evaluating the adaptive potential and evolutionary optima of a threatened bird species (the hihi, *Notiomystis cincta*) using pedigree-based and molecular data. **P. De Villemereuil**	Genomic variation and trait differentiation reveal signatures of selection in an Australian foundation tree **C. Ahrens**	Polygenic adaptation: from sweeps to subtle frequency shifts **I. Höllinger**	Oncogenesis as a selective force: host-pathogen evolutionary arms-race in the face of a transmissible cancer **B. Ujvari**	Sex differences in recombination **M. Kirkpatrick**
10:10	Food-web complexity alters the fitness landscape of an insect herbivore **M. Barbour**	Genetic basis of a female-limited alternative life history switch and its maintence within populations **C. Wheat**	How the many facets of pleiotropy influence the efficiency of selection in *Drosophila melanogaster* **C. Fraisse**	Comparative landscape genomics of two coexisting stickleback species **J. Raeymaekers**	Decoupling between heterosis and inbreeding depression is evidenced in yeast's life history and proteomic traits **C. Dillmann**	Massively parallelized phenotyping as a novel evolutionary engineering platform for industrially relevant microbes **P. Ghiaci**	
10:30	Interaction of ecology and evolution in shaping species? range margins in a rainforest *Drosophila* **E. O'Brien**	The evolution of gametic compatibility in sea urchins in response to shifting patterns of sperm availability **D. Levitan**	Using large-scale genomics to unveil drivers of mutational load in vertebrates **T. Van Der Valk**	Linking genotype, phenotype and the climate in the common sugarbush (*Protea repens*) of South Africa **M. Akman**	Stabilizing fluctuating selection on wild red squirrels using 9 tonnes of peanut butter. **A. Mcadam**	BEAN_ADAPT: the genomics of adaptation during crop expansion of common bean **E. Bellucci**	Recombination promotes canalization against deleterious mutations in sexual haploid organisms **B.O. Bengtsson**
10:50	**COFFEE BREAK**						

MONDAY, AUGUST 20

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
11:15	**S-22 The molecular basis of convergent evolution: shared and unique features**	**S-04 Evolution on the edge: eco-evolutionary dynamics, range expansion, and local adaptation**	**S-41 Consequences of hybridization: from swamping to speciation**	**S-49 The making and breaking of genetic constraints**	**S-20 How Predictable is Evolution?**	**S-48 Epigenetics and adaptation**
11:20	Convergent adaptation to extreme altitude in tropical east Africa **P. Flood**	Adaptation in pushed waves: how cooperation changes the edge **D. Fusco**	Ecological hybrid speciation in action. Annual cycle of local adaptation in an emerging hybrid species. **E. Iwaszkiewicz**	The making and breaking of genetic correlations - lessons from *Silene* **L. Delph**	Rescuing a population targeted by an artificial gene drive **F. Débarre**	Epigenetic signatures of fish domestication and the potential for epigenetic introgression between captive and wild populations **S. Consuegra**
11:40	Predictable genome-wide sorting of ancestral variation during parallel adaptation to two derived habitats in stickleback fish **Q. Haenel**	Is evolution a driver or passenger of range expansions? Insights from experimental evolution. **R. Hufbauer**	Under what conditions can hybridization trigger adaptive radiation? A simulation study **K. Kagawa**	Genetic correlations across genetically-determined and phenotypically plastic alternative reproductive tactics **J. Abbott**	Mitochondrial adaptation to hypoxic high altitude environments in birds **M.C. Estalles**	Epigenetic adaptation shapes population-level genomic landscapes in *Heliconius* **J. Lewis**
12:00	Clusters of shared and unique genomic divergence across parallel instances of local adaptation in the marine snail *Littorina saxatilis* **H. Morales**	The Contribution of Adaptation and Environment to Population Dynamics, Range Size, and Niche Width in *Clarkia xantiana* **D. Moeller**	Adaptive introgression contributes to a localized radiation of trophic specialist Caribbean pupfishes **E. Richards**	How evolution draws trade-offs (and escapes from them) **S. Bourg**	Local fitness landscapes predict yeast evolutionary dynamics in directionally changing environments **F. Gorter**	Does genetically-based and environmentally induced DNA-methylation affect gene expression and phenotypic plasticity in valley oak (*Quercus lobata*)? **V. Sork**
12:20	Recurrent virus domestication in parasitic wasps. **A.N. Volkoff**	Cannibalistic invaders: Invasion drives the evolution of cannibalistic behavior and costly plastic responses in cane toads **J. Devore**	Whole genome assembly of 21 Heliconiini butterfly species identifies introgression throughout radiation **N. Edelman**	How different types of genetic constraints stemming from the structure of genotype-phenotype map affect evolvability **J. Chebib**	Forecasting eco-evolutionary changes in natural populations: which species' traits matter? **F. Guillaume**	Epigenetic variation in *Arabidopsis* **M. Nordborg**
12:40	**LUNCH BREAK** Meet with DFG and ANR (Antigone 3) - Meet the editors (Antigone 1)- Diversity in Science (Joffre 1) Ecology Letters editorial board (Louisville)					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
11:15	**S-61 The Evolution of Community Ecology**	**S-36 Ecological and genetic mechanisms underlying balanced polymorphisms**	**S-58 Causes of maladaptation: environmental change, demography, inbreeding and genetic constraints**	**S-06 Micro-geographic adaptation and adaptive landscape genomics**	**S-45 The evolution of complex traits and polygenic adaptation: where do we stand?**	**S-32 Comparing phylogenetic trees: why and how?**	**S-03 ASN Vice- President Symposium: Advances through theory: an exploration of mathematical models in ecology and evolution**
11:20	The importance of evolutionary history for biodiversity-functioning relationships in general models of species coexistence **V. Calcagno**	Maintenance of a social polymorphism in the alpine silver ant **O. De Gasperin**	Experimental evolution reveals a costly adaptation in insect populations exposed to warmer thermal regimes. **R. Lewis**	Spatially-varying selection modulates genomewide patterns of additive polygenic variation in the panmictic American Eel **L. Bernatchez**	Phenotypic integration of behaviour and morphology in a wild bird population **M. Moiron**	Gene tree-species tree reconciliation... and more **C. Scornavacca**	Memory in trait macroevolution **E. Goldberg**
11:40	Rapid evolution of an annual plant species uncovers a very dynamic nature of coexistence **H. Nottebrock**	Diversification of a receptor-ligand interaction: how do new self-incompatibility alleles arise? **V. Castric**	Genetic correlations between reproductive rate and defense impede genetic rescue in a native monkeyflower **N. Kooyers**	Detecting Phenotypic and SNPs signatures of Local Adaptation in an endemic subspecies of Mangrove Warbler along an environmental gradient in Costa Rica **T. Chavarria Pizarro**	Genomic approaches to understanding the genetic architecture of antler morphology in red deer. **L. Peters**	Modeling tools for studying microbiota inheritance during host-microbiota co-evolution **B. Perez-Lamarque**	
12:00	Ecological feedback of rapid adaptive evolution on food-web interaction strength in the absence of community change **J. Pantel**	The genomic basis of an adaptive colour dimorphism in Atlantic common murres (*Uria aalge*). **A. Tigano**	Effect of prior selection history on the probability of population extinction **C. Parent**	Connectivity matters: integrating genomics with models of dispersal and selection yields new insights into population divergence in a Hawaiian waterfall-climbing goby. **K. Moody**	The genetic basis of multi-site plasticity and stochasticity in response to climate change in *Arabidopsis thaliana* **M. Taylor**	Ecological and evolutionary symbionts transmission in a termite-protist mutualism **C. Michaud**	The rate at which rapidly adapting populations cross fitness valleys **T. Kessinger**
12:20	Invading eco-evolutionary dynamics **J. P. Bernardes**	Rainbow trout genome assembly reveals a double inversion harbouring a complex polygenic switch for alternative life-history phenotypes **N. Barson**	Genomic prediction and phenotypic validation of climate change maladaptation in *Populus balsamifera* **S. Keller**	Is standing genetic variation for local adaptation concentrated in rear edge populations? A test of range limit theory in *Populus balsamifera*. **V. Chhatre**	Moving beyond single SNP approaches for understanding the genetic basis of complex traits: a case study in Atlantic salmon **M. Sinclair-Waters**	Inferring Trees from Trees **M. Wilkinson**	A new coalescent theory based on a non-Markovian Poisson process **S. Mashayekhi**
12:40	**LUNCH BREAK** Meet with DFG and ANR (Antigone 3) - Meet the editors (Antigone 1)- Diversity in Science (Joffre 1) Ecology Letters editorial board (Louisville)						

MONDAY, AUGUST 20

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
14:15	**S-22 The molecular basis of convergent evolution: shared and unique features**	**S-64 Rapid Evolutionary Responses to Global Change**	**S-78 Open symposium**	**S-49 The making and breaking of genetic constraints**	**S-07 Social evolution and kin selection: confronting nature with theory**	**S-54 Fitness Effects of mutations**
14:20	Agouti-related peptide 2 drives convergent evolution of stripe patterns across cichlid fish radiations **C. Kratochwil**	Population Genomics of Rapid Evolution **S. Petrov**	An animal without aerobic cellular respiration **D. Huchon**	How often do new mutations cause tradeoffs? **M. Sane**	Kin recognition, kin selection and group selection in plants **S. Dudley**	Fitness effects of mutations: setting the stage for evolutionary change **R. Shaw**
14:40	Is CAM metabolism a continuous trait promoting adaptive radiation in *Tillandsia* (Bromeliaceae)? Smoking guns from genomics, transcriptomics, and targeted metabolite profiling **M. De La Harpe**	Selection on phenotypic response to heat waves: context-dependence in relation to infection risk **O. Seppälä**	Meta-analysis reveals weak associations between intrinsic state and personality **P. Niemela**	Stamen evolution in the mustards: integrating natural and artificial selection, quantitative genetics, and comparative methods **J. Conner**	Indirect genetic effects and social evolution in complex networks **J. Mcglothlin**	Estimating the costs of all point mutations in the HIV-1 genome **P. Pennings**
15:00	Genomics of convergent limb loss evolution in squamates (lizards and snakes) **S. Lamichhaney**	Human induced change: multifarious adaptation of the moor frog, *Rana arvalis* to environmental acidification **K. Räsänen**	Non-genetic paternal effects in a species with no paternal care **V. Zeender**	Dense phenomic analysis of cranial modularity and evolution across living and extinct placental mammals **A. Goswami**	Party at the farm: crop domestication as social evolution in plants **R. Rubio De Casas**	Adaptive trajectories in the presence or absence of epistasis, in asexuals **G. Martin**
15:20	Morphological and behavioral evolution in forest deer mice **E. Hager**	Adaptive and spatial evolutionary mechanisms interact to shape climate driven range shifts **C. Weiss-Lehman**	The brother's curse: cost of elder siblings on subsequent offspring life-history trajectory in Asian elephants **S. Reichert**	Integrating functional genetics and demographic life history modelling: PERPETUAL FLOWERING 1 pleiotropically regulates flowering and seed traits in *Arabis alpina* **P.W. Hughes**	How to estimate kinship? **J. Goudet**	Fitness effects of new mutations in *Chlamydomonas* **P. Keightley**
15:40	**COFFEE BREAK**					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
14:15	**S-29 Comparative and mechanistic phylogeography in the big data era**	**S-19 The evolution of mutualisms and their evolutionary impact on biodiversity**	**S-05 Evolution in metapopulations and structured populations: A Symposium in honor of Ilkka Hanski, Isabelle Olivieri and Dave McCauley**	**S-39 Late stages in speciation: evolution of strong reproductive isolation in the presence of gene flow**	**S-52 New directions in sex chromosome evolution**	**S-32 Comparing phylogenetic trees: why and how?**	**S-03 ASN Vice-President Symposium: Advances through theory: an exploration of mathematical models in ecology and evolution**
14:20	Ensuring that integrative science is enabled in the age of "big data" **L. Rissler**	Ant symbioses: from parasitism to mutualism **N. Pierce**	Pathogen evolution in a highly dynamic metapopulation **A.L. Laine**	Selection and gene flow during the process of reinforcement **R. Hopkins**	Sex chromosome conservation and turnover in insects **B. Vicoso**	Random tanglegram partitions (Random TaPas): an Alexandrian approach to the cophylogenetic Gordian knot **J.A. Balbuena**	What will evolve? What can evolve? What could maybe have evolved, but didn't? **H. Kokko**
14:40	Concordance concepts in comparative phylogeography: statistical limits and their empirical consequences **L.L. Knowles**	Ecological roles sort diversification regimes during fruit dispersal network assembly **G. Burin**	Diversity from genes to ecosystems: A unifying framework to study variation across levels of biological organisation and spatial scales **O. Gaggiotti**	Towards understanding the impact of "genomic clashes" during advanced stages of speciation: coupling genomics with experiments **C. Lexer**	Sex chromosome evolution in lizards and snakes **T. Gamble**	Exploiting gene tree incongruence to date species trees **B. Boussau**	
15:00	Genetic connectivity among marine communities: a multi-species "genogeographic" analysis of New Zealand coastal species **V. Arranz Martinez**	Elucidating coevolutionary patterns of Panamanian figs and fig wasps in the genomic era **J. Satler**	Increases of butterfly diet breadth follow habitat colonization events **M. Singer**	piRNA mediated epigenetic silencing and post-zygotic isolation in *Heliconius* **A. Pinharanda**	Rise and fall of an ancient master sex determining gene in the Esociformes (Teleostei) **Q. Pan**	Illuminating the origin of the Haloarchaea through gene tree aware ancestral reconstruction **J. Martijn**	Eco-evolutionary dynamics under limited dispersal: ecological inheritance, altruism within and spite between species **C. Mullon**
15:20	Using natural phylogeographic experiments to contrast the predicted and empirical effects of life-history and place on genetic differentiation **M. Dawson**	Genetic basis of clownfish mutualisms with sea anemones **A. Marcionetti**	Inbreeding depression in a house sparrow metapopulation **A.K. Niskanen**	Sexual and natural selection act on "magic trait" during sympatric speciation of crater lake cichlid fish **A. Meyer**	Extraordinary diversity of cichlid fish sex chromosomes **T. Kocher**	Can we quantify cophylogeny? **M. Avino**	Games between the sexes over parental care **P. Iyer**
15:40	**COFFEE BREAK**						

MONDAY, AUGUST 20

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
16:05	**S-22 The molecular basis of convergent evolution: shared and unique features**	**S-64 Rapid Evolutionary Responses to Global Change**	**S-78 Open symposium**	**S-75 Public communication? Don't shout...SCREAM (Science Communication Research Empowers AMazing) outreach**	**S-07 Social evolution and kin selection: confronting nature with theory**	**S-54 Fitness Effects of mutations**
16:10	Accurate detection of convergent substitutions **C. Rey**	A viral model of adaptation under increasing thermal stress **S. Singhal**	Diversity and evolution of structures producing iridescent colours in hummingbirds **H. Gruson**	The do's and don'ts in evolution communication **C. Jahme**	Cooperation among kin in plant castrating fungi **A. Namias**	Relationship between spontaneous mutation and fitness of *Arabidopsis thaliana* assessed in natural environments **M. Rutter**
16:30	Parallel and non-parallel aspects of evolution in the repeated divergences of Arctic charr **K. Elmer**	Local adaptation in the context of climate change: Insights from field studies with the subalpine mustard plant, *Boechera stricta* **J. Anderson**	Was the Triassic-Jurassic extinction event a catalyst for tetrapod evolution? Findings from South Africa?s Karoo Basin (Stormberg Group). **P. Viglietti**	What can be done to promote Evolutionary Knowledge for Everyone? **T. Jenkins**	The complex interplay between colony growth, sex allocation conflict, and sexual selection: unexpected patterns of colony growth and reproduction **P. Avila**	Distribution of fitness effects among synonymous mutations in a gene under selection **R. Kassen**
16:50	Regulatory evolution, development, and convergence among *Anolis* lizards **C. Infante**	Evolutionary responses to Global Warming over five decades of evolution **M. Cuenca Cambronero**	The evolution of the temporal program of genome replication **G. Fischer**	Reconstructing and portraying the ancestral flower of angiosperms as a single image: lessons learned from a successful media story **J. Schönenberger**	Artificial selection shows that philopatry co-evolves with social behaviour in a facultatively eusocial weevil **M. Khadraoui**	The effect of environmental heterogeneity on the fitness of antibiotic resistant *Escherichia coli* **L. Clarke**
17:10	The 'island rule': multiple realms, multiple species, multiple times? multiple mechanisms? **L. Schiebelhut**	The dynamics of adaptive response under strong selection regime in small populations **A. Desbiez-Piat**	Conflict and the evolution of viviparity in vertebrates **Y. Saldívar Lemus**	Science communication with a complete tree of life explorer **J. Rosindell**	Rapid experimental evolution of sibling rivalry and sibling cooperation, facilitated by indirect genetic effects **R. Kilner**	Hidden impact of synonymous mutations on adaptation to new environments **I. Fragata**
17:30	Predictable evolution of Orthopteran cardenolide insensitivity **L. Yang**	How does stress influence de novo mutation rate, methylation and transcription in *Arabidopsis thaliana*? **J. Stapley**	Competition for mates and the improvement of nonsexual fitness **H. Rundle**	Sex & Bugs & Rock `n Roll - getting creative about public engagement **E. Sayer**	Social Entropy and the tragedy of the commons **L. Belcher**	Putting the M(utant) in phenoMe: results of a long-term distributed phenotyping effort **A. Strand**
17:50	Convergence, divergence, and connectivity in transcriptional mechanisms of parallel evolution **E. Fischer**	Spatial variation of fitness landscapes and selective pressures on budburst date for three temperate tree species **J. Gauzere**	Genetic underpinnings of molluscan radula innovation and its diversification in a radiation of freshwater snails **L. Hilgers**	Evaluating student prior knowledge of Evo-Ed Cases to connect biology across the curriculum **A. Warwick**	Within-genome and social epistasis both alter the phenotypic effects of mutations in a microbial cheating gene **K. Schaal**	Fitness effects of mutations contributing to variable gene expression in natural populations **P. Wittkopp**
18:10				Experimental Evolution of Drawings **J. Zandveld**		
18:30	**SSE Stephen Jay Gould Prize** (Berlioz)					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
16:05	**S-29 Comparative and mechanistic phylogeography in the big data era**	**S-19 The evolution of mutualisms and their evolutionary impact on biodiversity**	**S-05 Evolution in Metapopulations and Structured Populations: A Symposium in honor of Ilkka Hanski, Isabelle Olivieri and Dave McCauley**	**S-39 Late stages in speciation: evolution of strong reproductive isolation in the presence of gene flow**	**S-52 New directions in sex chromosome evolution**	**S-11 Multi-level selection and the origins of life**	**S-03 ASN Vice- President Symposium: Advances through theory: an exploration of mathematical models in ecology and evolution**
16:10	Using spatial and phylogeographic data to define areas of genetic differentiation for crop wild relatives conservation **A. Mastretta-yanes**	Wake up and smell the piper! Olfactory receptor repertoires reflect dietary specialization in bats **L.Yohe**	Classical metapopulation dynamics: the importance of eco-evolutionary feedbacks and habitat network structure **E. Fronhofer**	The genomic basis to reproductive barriers **A. Qvarnström**	The complex evolutionary history of brown algal sex chromosomes **S. Coelho**	Autocatalytic Sets and the Origin of Life **W. Hordijk**	Coevolution of social phenotypes with the context they evolve in **E. Akcay**
16:30	Emergent patterns of genetic diversity across the Indo-Pacific Ocean **L. Liggins**	Structural stability of complex ecosystems: effective competition theory and the role of mutualistic interactions in biodiversity maintenance **A. Pascual-García**	The interaction of spatial structure and clonality on adaptive evolution **M. Orive**	Are assortative mating and genital divergence driven by reinforcement? **J. Hollander**	Sex-chromosome evolution: what role for sexually antagonistic genes? **N. Perrin**	Emergent properties of autocatalytic networks **M. Steel**	
16:50	Beyond the concordance-discordance dichotomy: using genome-wide data to gain insights into the importance of scale in comparative phylogeography **A. Papadopoulou**	Evolutionary dynamics and biological activity of the symbiotic relationship result in limited diversity in Devil's gardens **P.J. Malé**	Stochastic population extinction, dispersal selection and evolutionary suicide in experimental microcosm populations of *Paramecium* **O. Kaltz**	The genomic basis for reproductive isolation in Lord Howe Island palms **O. Osborne**	Evolutionary strata on young mating-type chromosomes despite the lack of sexual antagonism **T. Giraud**	Predicting major lifeforms from the origin of replicating molecules **L. Witting**	Social evolution under demographic stochasticity **D. Mcleod**
17:10	Comparative phylogeography of arthropod communities through the lens of an island chronosequence **R. Gillespie**	Evolution of symbiont transmission in spatially and temporally conditional mutualisms **A. Brown**	A new modelling framework to address the eco-evolutionary dynamics of prospecting strategies in metapopulations **A. Ponchon**	Strong evidence of Bateson-Dobzhansky-Muller incompatibilities in white oaks shed light on the evolution of their reproductive barriers. **P. Garnier-Gere**	Estimating the impact of X-linked trans-regulatory variation on sex differences in autosomal gene expression **C. Kimber**	Sustainable cooperation and coevolution of encapsulated gene-encoding RNA replicators **R. Mizuuchi**	Theory in service of narratives in evolutionary biology **S. Otto**
17:30	An integrated model of population genetics and community ecology **I. Overcast**	Evolving bi-directional costly mutualism from pure byproduct consumption **W. Harcombe**	Scaling up the effects of inbreeding depression from individuals to metapopulations **E. Nonaka**	Transitions from single- to multi-locus processes during speciation **M. Schilling**	Impact of feminizing Wolbachia endosymbionts on the evolution of a male heterogametic system of sex chromosomes (XY-XX) **R. Cordaux**	Repurposing artificial ecosystem selection to study the emergence of evolvable chemical systems **L. Vincent**	
17:50	Comparative phylogeography: How dispersal rates influence beta diversity of species **J. Fenker**	Opposing selection on a cooperative trait in a keystone mutualism **C. Jander**	The ecological and evolutionary causes and consequences of dispersal in the Glanville fritillary butterfly (*Melitaea cinxia*) **M. Dileo**	Adaptive coupling of diapause phenotypes in the apple maggot fly, Rhagoletis pomonella **M. Calvert**	Extensive conservation and copy number variation of felid Y chromosome ampliconic gene families **W. Brashear**	The coexistence of RNA replicators and parasites in compartmentalized systems **A. Kun**	The population genetics of natural selection and spatial sorting during range expansions and range shifts **S. Peischl**
18:10						Parasites enhance RNA replicators through emergent multilevel selection **E.S. Colizzi**	
18:30	**SSE Stephen Jay Gould Prize** (Berlioz)						

TUESDAY, AUGUST 21

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
08:15	**Announcements** (Berlioz)					
08:30	**SSB Presidential Address** (Berlioz)					
09:25	**S-74 Understanding mate preferences and mating systems: from genetics to behavior**	**S-64 Rapid Evolutionary Responses to Global Change**	**S-78 Open symposium**	**S-44 Gene regulatory evolution in natural populations**	**S-27 Moving beyond point mutations: the role of structural genomic variation in adaptation and novelty**	**S-77 The evolution of cognition: the interplay of individual and environmental factors**
09:30	The neurogenomics of mate preference and the cognition connection **M. Cummings**	Climate adaptation in range shifting insects **L. Lancaster**	The effect of environmental heterogeneity, mating regime and the competitive environment on variance in reproductive success and the effective population size **A. Singh**	Linking gene regulation to evolution and behavior in wild baboons **J.Tung**	The role of genome structural variation on plastic and constitutive phenotypic divergence in multifarious environments **L. Orsini**	The evolution of cognition: agents of selection, fitness landscapes, and altitudinal effects on learning and flexibility. **A. Chaine**
09:50	The genetic and neural basis of female mate preferences isolating species. **A. Moehring**	Ecological and evolutionary factors underlying trait-dynamics affects predictability of population extinction. **G. Baruah**	Interchangeable parts: Functional replacement of mitochondrial tRNAs **J. Warren**	Adaptive landscapes of transcription factors and their in vivo binding sites **G. Schweizer**	Chromosome-wide footprints of selection underlie local adaptation despite extensive gene flow **N.O.Therkildsen**	Individual variation in territorial neighbour recognition learning and its consequences for reproductive success **M. Reichert**
10:10	What drives and maintains genetic variation in polyandry? **A. Sutter**	Adaptive responses in a warming Arctic: spatial and temporal genomic divergence in Arctic char **M. Hansen**	What limits speciation in the parasitic finches of Africa? **G. Jamie**	Natural variation affecting allele-specific expression in the Malpighian tubules of *Drosophila melanogaster* **A. Glaser-Schmitt**	Chromosomal rearrangements delineate extensive trans-Atlantic secondary contact in Atlantic salmon **S. Lehnert**	Predictable evolution towards larger brains in birds colonizing oceanic islands **F. Sayol**
10:30	COFFEE BREAK					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
08:15	**Announcements** (Berlioz)						
08:30	**SSB Presidential Address** (Berlioz)						
09:25	**S-50 Evolvability: a unifying concept in evolutionary biology**	**S-30 Novel approaches in phylogenetic comparative methods for modelling trait evolution**	**S-73 Exploring life history evolution across multiple scales**	**S-68 The ecology and evolution of cancer**	**S-17 Evolutionary Epidemiology across multiple scales**	**S-47 The theory of fitness landscapes: where is this path taking us?**	**S-51 Causes and Consequences of Recombination Rate Evolution**
09:30	How well can we predict the trait's selection response from the GP map? **M. Pavlicev**	Phylogenetic comparative methods for studying multivariate trait evolution: advances and retreats **D. Adams**	Evolution across the slow-fast continuum in avian life histories **R. Ricklefs**	Integrating evolutionary principles into cancer therapy **R. Gatenby**	Selection at multiple scales shapes the evolutionary emergence of novel pathogens **J. Lloyd-Smith**	Neutral landscapes, sequence entropy, and the rate of amino acid substitutions **R. Goldstein**	Is recombination rate locally adapted in *Drosophila pseudoobscura*? **M. Noor**
09:50	(How) does evolvability evolve? Insights from the Longshanks mouse selection experiment **C. Rolian**	Phylogenetic Comparative Methods on Species Networks **P. Bastide**	Short-sighted viral evolution and its implications for the establishment and maintenance of zoonotic pandemics **K. Lythgoe**	An interaction between cancer progression and social environment in *Drosophila* **F. Mery**	Phylodynamic assessment of intervention strategies for the West African Ebola virus outbreak **S. Dellicour**	Coadapted genomes and selection on hybrids: predicting hybrid fitness from interspecific genome composition. **A. Simon**	Convergent evolution of reduced recombination rate in wild guppy populations **V. Oostra**
10:10	Cross-sex genetic covariances limit the evolvability of complex traits **J. Sztepanacz**	A generalization of Brownian motion and the Ornstein-Uhlenbeck process for modeling complex evolutionary scenarios on phylogenies **F. Boucher**	The evolution of parental care and life history traits in amphibians **A. Furness**	Coevolution of somatic maintenance programs and mutation rates **J. Degregori**	Virulence at the front: spatial evolutionary epidemiology of spreading epidemics **S. Lion**	Resolving the paradox of evolvability with learning theory: How evolution learns to improve evolvability on rugged fitness landscapes **R. Watson**	Evolution of the Recombination Pathway in Mammals **A. Dapper**
10:30	**COFFEE BREAK**						

TUESDAY, AUGUST 21

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
10:55	**S-74 Understanding mate preferences and mating systems: from genetics to behavior**	**S-64 Rapid Evolutionary Responses to Global Change**	**S-78 Open symposium**	**S-44 Gene regulatory evolution in natural populations**	**S-27 Moving beyond point mutations: the role of structural genomic variation in adaptation and novelty**	**S-77 The evolution of cognition: the interplay of individual and environmental factors**
11:00	The link between brain size, mate choice and sexual behavior in the guppy **A. Corral-Lopez**	Links between evolution, local adaptation, genetic change, and trait divergence during rapid evolution to multiple environmental drivers **S. Collins**	*Drosophila* microcosms: versatile tools to investigate the relevance of laboratory discoveries to the field **S. Fellous**	Speciation results from gene network evolution **C.H. Yang**	Multiple genomic rearrangements associated with wing pattern and male killing in a butterfly hybrid zone **S. Martin**	Avian spatial memory, exploration, and social information use along an urbanisation gradient **J. Morand-Ferron**
11:20	The genetics of visual mate preferences in *Heliconius* butterflies **R. Merrill**	Evolutionary responses to artificial selection on heat thermal resistance in *Drosophila subobscura*: how does heating rate influence the evolution of thermal-related traits? **L. Castañeda**	Innovation and conservation during mammalian organ development **M. Cardoso Moreira**	Molecular mechanisms and determinants of gene expression evolution in natural flycatcher populations **C.F. Mugal**	Impact of structural variations on the meiotic stability and plant fertility of the allotetraploid *B. napus* (oilseed rape) **M. Rousseau-Gueutin**	Tempo and mode of selection for enhanced cognition in Northern paper wasps **S. Miller**
11:40	Neuro-transcriptomic divergence between sympatric *Heliconius* **M. Rossi**	Life history determines vulnerability and capacity to adapt to more frequent and intense extreme weather events **C.A. Botero**	Lineage specific effects of infection by *Plasmodium* on host survival and senescence **J. Figuerola**	The role of sexual selection in the evolution of sex-specific genetic architecture **A. Wright**	Convergent evolution of complex structural rearrangements in two fungal meiotic drive elements **J. Svedberg**	Pathogens and immunocompetence shaping the evolution of cognition in birds? A comparative analysis **S. Ducatez**
12:00	An eye for beauty in a fish with colour-based mate choice? Assessing sensory drive, colour preferences and the genetics of colour vision in the Trinidadian guppy **B. Sandkam**	Slower environmental change can hinder adaptation from standing genetic variation **H. Teotonio**	The when, where, and how of brood parasitism in cuckoos - evolutionary pathways and historical biogeography of a classic system for antagonistic coevolution **K. Arbuckle**	The gene regulatory basis of phenological divergence in *Rhagoletis pomonella* **T. Powell**	Avian evolution of adaptive immunity - the role of endogenous retroviral elements in MHC gene expansion **M. Strandh**	Brain size selected fish give insights into the evolution of complex cognitive abilities. **S.D. Buechel**
12:20	The evolution and genetics of interspecific mate choice in two *Heliconius* butterflies **L. Southcott**	Coevolution of species' geographic range and ecological niche in a changing environment **J. Polechova**	The influence of sperm morphology on sperm aggregation and motility in *Peromyscus* rodents **K. Hook**	Developmental mechanisms of beak shape evolution in Darwin's Finches **M. Dobreva**	Complete characterization and population genetics of structural genomic variation in natural populations **M. Weissensteiner**	Cognitive abilities and neuronal plasticity of laboratory mice divergently selected for Basal Metabolic Rate: a test of the "Expensive Tissue" hypothesis **A. Goncerzewicz**
12:40	**LUNCH BREAK** Meet NSF (Antigone 3) - Meet ERC (Antigone 1) - Selecting a journal for your research (Joffre 1) - ASN-SSB-SSE exit meeting (Joffre 4) - Evolution Letters editorial board (Barcelone) - Evolution editorial board (Joffre 5) - American Naturalist editorial board (Louisville)					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
10:55	**S-50 Evolvability: a unifying concept in evolutionary biology**	**S-30 Novel approaches in phylogenetic comparative methods for modelling trait evolution**	**S-73 Exploring life history evolution across multiple scales**	**S-68 The ecology and evolution of cancer**	**S-17 Evolutionary Epidemiology across multiple scales**	**S-47 The theory of fitness landscapes: where is this path taking us?**	**S-51 Causes and Consequences of Recombination Rate Evolution**
11:00	A comparative analysis of empirical genotype-phenotype maps **J. Payne**	New phylogenetic methods to study niche evolution using distribution data: drought tolerance in *Acacia* as a case study **X. Hua**	Experimentally improved early-life conditions accelerate reproductive peak but reduce late-life reproduction and survival in a wild bird **F. Spagopoulou**	Peto's paradox: is cancer suppression an evolving trait? **L. Nunney**	Pathogen communities in wild plant populations at the agro-ecological interface **H. Susi**	How bottlenecks affect the study of fitness landscapes and evolutionary repeatability **J. Dench**	Adaptive evolution at a meiosis gene mediates species differences in the rate and patterning of recombination **C. Brand**
11:20	Populational models of developmental evolvability: towards an integrated theory of evolution **L. Nuño De La Rosa**	Variable rates methods for samples of trees **A. Meade**	Natural selection modulates the effects of ageing on sexual conflict **Z. Sultanova**	Inferring tumor phylogenies using single-cell sequencing data **L. Kubatko**	Modelling the evolution of generalist vs. specialist pathogens spreading on a clade of host species **N. Fortuna**	Mapping the topography of fitness landscapes across environments **T. Lenormand**	The Red-Queen model of recombination hotspots evolution **T. Latrille**
11:40	Nitrogen-fixing cyanobacteria optimize evolvability **S. Ares**	Contemporary ecological interactions improve models of past trait evolution **D. Stouffer**	Costly male ornaments are associated with fast life-histories **W. Sowersby**	The role of selection in shaping cancer's evolutionary potential: therapeutic implications **A. Nedelcu**	Sleeping with the devil: epidemiology, ecology and evolution of a transmissible tumour and its host **R. Hamede**	The mechanistic bases of epistasis. **O.Tenaillon**	Contrasting the influence of gBGC on adaptive statistics in primates and birds **M. Rousselle**
12:00	Understanding the evolvability of flowers: a grand perspective of floral shape modularity **Y. Staedler**	PhyBaSE: A phylogenetic Bayesian structural equation model approach to causal inference in comparative analyses **A. Von Hardenberg**	Evolution of the annual life history in flowering plants in the context of the environment **A. Humphreys**	An evolutionary perspective on cancer prevalence in non-human primates **V. Harris**	Resistance is useful? Exploiting resistance evolution to generate sustainable tools for malaria control. **P. Lynch**	Fitness Landscapes After Antibiotic Resistance **F. Spagnolo**	The recombination landscape of the fungal pathogen *Zymoseptoria tritici*, its evolution and its consequences on rapid adaptation **J. Dutheil**
12:20	A dictionary of genetic effects as a predictor of mutational evolvability **D. Houle**	The role of migration in speciation: linking micro and macroevoution through OU processes **P. Duchen**	The consequences of divergent evolution along the fast-slow continuum on behavior, metabolism and gene expression in a seed beetle **E. Immonen**	The evolutionary processes shaping the neoepitope landscape in growing tumours **E. Lakatos**	Antimicrobial drug therapy of infectious diseases: evolutionary rescue or extinction at multiple scales **H. Uecker**	On the deformability of an empirical adaptive landscape by microbial evolution **D. Bajic**	Why is genetic variation in individual recombination rate maintained in mammals? **S. Johnston**
12:40	**LUNCH BREAK** Meet NSF (Antigone 3) - Meet ERC (Antigone 1) - Selecting a journal for your research (Joffre 1) - ASN-SSB-SSE exit meeting (Joffre 4) - Evolution Letters editorial board (Barcelone) - Evolution editorial board (Joffre 5) - American Naturalist editorial board (Louisville)						

TUESDAY, AUGUST 21

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
14:15	**S-74 Understanding mate preferences and mating systems: from genetics to behavior**	**S-64 Rapid Evolutionary Responses to Global Change**	**S-78 Open symposium**	**S-10 Major transitions in individuality and levels of selection**	**S-24 Evolution and development in deep time, merging insights from paleontology and developmental biology**	**S-09 Mechanisms of communication and recognition in social evolution**
14:20	Reproductive isolation driven by pheromones in mimetic and closely related butterflies **M. Gonzalez**	Is adaptive potential even across species ranges? **J. Sexton**	Comparative analysis of rodent teeth challenges common views on the conservation of development. **M. Semon**	A single supergene underlies a shift from simple to complex family structure in fire ants **D. Queller**	Type 10 collagen and the evolution of mineralization processes in vertebrate development **M. Debiais-Thibaud**	Solitary bees reduce investment in communication compared with their social relatives **S. Kocher**
14:40	The role of visual adaption in cichlid fish speciation **S. Wright**	The nature of rapid evolutionary responses to a summer heatwave **F. Brunner**	Evolution of chemical defenses in butterfly mimetic communities **O. Sculfort**	The evolutionary origins of heredity during major egalitarian transitions in individuality **G. Doulcier**	From lungs to gas bladder: evolution of phenotypic novelty in ray-finned fishes **E. Funk**	The relation between R.A. Fisher's sexy-son hypothesis and W.D. Hamilton's greenbeard effect **G. Faria**
15:00	The seminal fluid proteome of passerines: insight into fertilization and the functional evolution of avian ejaculates **M. Rowe**	Rapid thermal evolution shapes the sensitivity to a pollutant: insights from resurrection ecology and experimental evolution **C. Zhang**	Adaptive death: Understanding the reproduction-lifespan trade-off by merging life-history theory with the evolutionary theory of ageing **J. Lohr**	Only family groups show evidence of complex sociality **P. Downing**	Molar replacement in mutant mice mirrors early mammalian evolution **C. Cyril**	It's all relative: population estimation enhances kin recognition in the Trinidadian guppy **M. Daniel**
15:20	The gene RIM underlies mate choice between Cosmopolitan and Zimbabwe *Drosophila* melanogaster populations. **G. Serrato Capuchina**	The genomic basis of environmental adaptation in house mice **M. Nachman**	What do Flight and Wing Shape say about the role of Ecology in the Speciation of Heliconiine Butterflies? **L. Queste**	Queen specialization promotes eusociality and eliminates parent-offspring conflict over helping **J. Peña**	Modelling gene gain and loss across the metazoan tree: are sponges degenerate? **J. Spillane**	Convergent evolution of genetic kin recognition and the predictive power of evolutionary theory **O. Gilbert**
15:40	**COFFEE BREAK**					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
14:15	**S-71 Human evolutionary biology**	**S-59 Towards a unified biology of populations: Integrating ecology, evolution and demography**	**S-34 Experimental and theoretical studies of the origins and consequences of diversification**	**S-16 Parasite and symbiont niches: host specificity and beyond**	**S-38 Species in the Theory of Evolution: from concepts to methods and applications**	**S-72 Virus Evolution**	**S-56 Manifestation and resolution of sexual conflict**
14:20	Hunter-gatherers social structure: a window into the evolution of human cumulative culture **A. Migliano**	The ecology of density-dependent selection **J.Travis**	Foundations of evolutionary innovation **M.Travisano**	Linking macroecological patterns and microecological processes in multi-host parasite systems **A. Pedersen**	Evolvability, modularity and innovation: an evo-devo perspective on the evolution of diagnostic characters between closely related species **A. Minelli**	Evolution of large DNA viruses:The secrets of gene thieves **N. Elde**	Sex dependent dominance in a large effect locus for age at maturity: empirical evidence for a contribution to sexual conflict resolution in Atlantic salmon? **C. Primmer**
14:40	Grandmother effects in a pre-industrial human population: assessing the potential for cooperation to improve inclusive fitness **P. Bergeron**	The evolutionary significance of density-dependence **B.E. Saether**	Recombining your way out of trouble: Genetic mechanisms of hybrid fitness under environmental stress **R. Stelkens**	Evolutionary relationships among hosts predicts mortality of infectious diseases **M. Farrell**	The artful practice of exclusivity-limited species delimitation **D. Baum**	Viral host adaptation: allelic and fitness variation during host switching **O. Ayansola**	Humans, beetles and the importance of sex-specific dominance reversal **G. Arnqvist**
15:00	How to model biological markets - the case of human fairness **F. Geoffroy**	Density-dependent selection and the limits of relative fitness **J. Bertram**	In Silico Coevolution Drives Diverse and Structured Communities **L. Zaman**	Host and habitat specialization of avian blood parasites within an oceanic island **C. Loiseau**	Are we underestimating the number of plant species in the tropics? New insights from population genetics approaches applied on African forest trees **O. Hardy**	Prior temperature selection determines (mal)adaptation of RNA viruses at thermal extremes **P.Turner**	Natural variation at a single locus generates sexual antagonism in a sexually-selected trait **S. Chenoweth**
15:20	Archaic introgression in modern humans: a polygenic view **A. Gouy**	Local adaptation and eco-evolutionary feedbacks shape population dynamics and persistence **S. Rudman**	Does developmental plasticity promote phenotypic diversification? **A. Rago**	Parasite sharing in wild hoofed mammals and their predators: the effects of phylogeny, range overlap, trophic links and sampling bias **P. Stephens**	Systematics in the speciation grey zone: disentangling relationships in a recent plant radiation in light of hybridization and introgression. **S. Jacobs**	Measuring the genetic interaction between virus and insect during the course of natural infection **C. Saleh**	Detecting and quantifying the contribution of sex-of-offspring-antagonistic transmission distortion to intra locus sexual conflict **E. Lucotte**
15:40	**COFFEE BREAK**						

TUESDAY, AUGUST 21

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
16:05	**S-74 Understanding mate preferences and mating systems: from genetics to behavior**	**S-46 Role of phenotypic plasticity in evolution: Where are we now?**	**S-42 From theory to genome-wide data: inferring selection, demography, gene flow and admixture**	**S-10 Major transitions in individuality and levels of selection**	**S-24 Evolution and development in deep time, merging insights from paleontology and developmental biology**	**S-09 Mechanisms of communication and recognition in social evolution**
16:10	Chromosomal inversions modulate male traits **E. Berdan**	Reevaluating the role of phenotypic plasticity in evolution **C. Schlichting**	Inferring the evolution of early humans from complete genome sequences **M. Jakobsson**	Generalism vs specialism as alternative strategies in facultative endosymbioses **M. Sørensen**	Exploring the interplay between development and morphological evolution in early amphibians **C. Perez-Ben**	Kin-selected helping and incest avoidance using vocal recognition in a cooperatively breeding bird **A. Leedale**
16:30	Evolution of mating systems and sex roles in birds: comparative analyses of the effects of life history and social environment **A. Gonzalez Voyer**	Morphological novelty emerges from pre-existing phenotypic plasticity **N. Levis**	An evolutionary compass for genome-wide associations demonstrates selection across human phenotypes **N. Zaitlen**	Past ecological and evolutionary conditions influence transitions to multicellularity **M. Lindh**	Morphological evolution and modularity of the caecilian skull **C. Bardua**	Social olfactory learning in honeybees **H. Cholé**
16:50	Male manipulation of the female post-mating response in Drosophila melanogaster **B. Hollis**	Resurrection ecology reveals high flexibility of genetic covariance matrices following strong selection **L. Govaert**	Distinguishing among complex models of modern humans evolution through a new ABC framework **S. Ghirotto**	Life cycle structure shapes the path to an evolutionary transition in individuality **E. Libby**	The PGC specification hypothesis: the shaping of vertebrate natural history through evolvability and extinction **A. Johnson**	Importance of social information in vocalizations of a territorial rodent, *Tamiasciurus hudsonicus* **J. Robertson**
17:10	Transcriptional patterns of a secondary sex trait in the sex-role reversed pipefish, Syngnathus scovelli **A. Anderson**	Selection on thermal plasticity facilitates adaptation of city lizards to urban heat islands **S. Campbell-Staton**	Identifying the neutrally evolving fraction of the human genome to infer demography and selection **F. Pouyet**	The molecular hallmarks of superorganismality in eusocial wasps **M. Bentley**	The evolution of a morphological novelty - leaves **B. Ambrose**	Kin discrimination in communal breeders: insights from house mice **J. Green**
17:30	**SOCIETIES MIXERS** ASN Business meeting (Antigone 3), SSE Business meeting (Darwin), SSB business meeting (Einstein) **AND Poster Cocktail** Session 2					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
16:05	**S-71 Human evolutionary biology**	**S-59 Towards a unified biology of populations: Integrating ecology, evolution and demography**	**S-34 Experimental and theoretical studies of the origins and consequences of diversification**	**S-16 Parasite and symbiont niches: host specificity and beyond**	**S-38 Species in the Theory of Evolution: from concepts to methods and applications**	**S-72 Virus Evolution**	**S-56 Manifestation and resolution of sexual conflict**
16:10	McSwan, a new method to detect and date past and recent ages of natural selection in the case of a hard sweep. Application to Europeans: importance of the latest glacial period in shaping adaptation **R. Tournebize**	The effect of life history on the predictability of selection in autocorrelated stochastic environments **O. Cotto**	Protozoan predation as a potential driver of cell shape diversification in bacteria. **H. Hendrickson**	On host use evolution and diversification **M. P Braga**	Evolutionary response to climate change from origination to extinction in a planktonic foraminifera lineage **A. Brombacher**	Long-read sequencing reveals the full diversity and structure of host sequences integrated into AcMNPV baculovirus genomes during infection **V. Loiseau**	Clarifying the population genetics and empirical predictions for sex-specific genomic differentiation under antagonistic selection **K. Kasimatis**
16:30	Genetic diversity and demographic history of Sub-Saharan human populations based on genome-wide data **G. Breton**	Coexistence and intraspecific variation **A. Senthilnathan**	Trait evolution and missing tradeoffs during population divergence **D. Agashe**	Host specificity of foliar fungal endophytes across North American forests **R. Oono**	Species delimitation of a highly polymorphic Neotropical banner- winged damselfly Polythore (Insecta:Odonata) **M. Sanchez Herrera**	Baculovirus Adaptation in Varying Environment **E. Herniou**	Sexual conflict through Mother's Curse and Father's Curse **J.A. Ågren**
16:50	Mother tongues? Using genetic data to inform a global study of sex-biased cultural transmission of language **N. Creanza**	Evolution of intermediate phenotypes in the threespine stickleback **S. Blain**	Experimental evolution of parasitic feather lice reveals a magic trait that triggers ecological speciation **S. Villa**	Host specificity in the legume-rhizobia mutualism impacts invasion success of legumes **T. Harrison**	Species as falsifiable hypotheses : from morphology to NGS data **Y. Naciri**	On the evolution of multipartite viruses: genome segmentation as a mechanism for rapid adaptation to heterogeneous environments **M. Zwart**	Evolution of sex-biased gene expression in the most sexually dimorphic flowering plants **M. Scharmann**
17:10	The role of learning in human cooperation in public goods games - a comparative study of 129 articles **M. Burton-Chellew**	Linking life history theory, population genetics and population ecology using evolutionary demography: a matrix population model approach. **C. De Vries**	The role of eco-evolutionary dynamics in host-range expansion **L. Bono**	Defensive symbionts as determinants of parasite host range and specialization **C. Vorburger**	Field investigations, growing museum collections and increasing availability of molecular data and sequencing technologies are contributing to understand the evolution of the herpetological diversity of Madagascar **A. Crottini**	Experimental evolution of chikungunya virus to study emerging variants and the impact of defective genomes on evolution. **M. Vignuzzi**	Sexual conflict, plasticity and resistance **T. Chapman**
17:30	**SOCIETIES MIXERS** ASN Business meeting (Antigone 3), SSE Business meeting (Darwin), SSB business meeting (Einstein) **AND Poster Cocktail** Session 2						

WEDNESDAY, AUGUST 22

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
08:15	Annoucements					
08:30	Plenary SSE Presidential Address					
09:25	**SSE Theodosius Dobzhansky Prize**	**S-46 Role of phenotypic plasticity in evolution: Where are we now?**	**S-42 From theory to genome-wide data: inferring selection, demography, gene flow and admixture**	**S-65 Domestication: human-induced evolution**	**S-33 Ecological models of macroevolution**	**S-21 In vivo, in vitro, in silico experimental evolution. Convergence and insights into evolution**
09:30	Bloody-minded parasites: unraveling coevolution in natural and experimental populations **A. Kyle Gibson**	Role and Evolution of Adaptive Plasticity during the Colonization of Novel Environments **F. Aubret**	Haplotype structure obscures inference from sequence data **N. Barton**	How the evolutionary forces shape the genetic variation of domestic plant genomes? **M. Tenaillon**	The limits of ecological limits to diversification **R. Etienne**	Evolutionary insights from the *E. coli* long-term evolution experiment **R. Lenski**
09:50		Evolution without standing genetic variation: transgenerational plastic effects accumulate under constant selective pressure **A. Sentis**	Multiple loci drive high-altitude adaptation in the Eastern honey bee (*Apis cerana*) **S. Montero-Mendieta**	The evolution of human-commensalism in house sparrows **M. Ravinet**	Darwin's principle of divergence and the controls of macroevolutionary rates **R. Aguilée**	Evolutionary instability of genomic mutation rate in rapidly adapting asexual *Escherichia coli* populations with high mutation rates: empirical investigations of both lethal selection and soft selection. **M. Eghbal**
10:10		Combining transcriptomic and fitness data to study plastic and evolved responses to environmental changes **E. Koch**	Signatures of selective sweeps with arbitrary dominance and self-fertilisation **M. Hartfield**	Using complete genome sequences to infer domestication history of crop plants **P. Cubry**	Evolution of mutualistic and antagonistic interactions: interplay between mimicry and competition for hostplant in clearwing butterflies communities **M. Elias**	The surprising creativity of digital evolution: a collection of anecdotes from the evolutionary computation and artificial life research communities **D. Misevic**
10:30	**COFFEE BREAK**					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
08:15	Annoucements						
08:30	Plenary SSE Presidential Address						
09:25	**S-26 Horizontal transfer of genetic material: its vectors, patterns and eco-evolutionary consequences**	**S-15 Evolutionary immunology: tradeoffs and mechanisms**	**S-69 Evolutionary Physiology**	**S-63 Evolution in an urbanizing world**	**S-08 Social behaviour and evolution in the omics era**	**S-55 Ecological and evolutionary genomics of polyploidy**	**S-76 Evolutionary management of wild populations**
09:30	Genomic mobility of the virophage mavirus and its eco-evolutionary implications **M. Fischer**	Subtle signatures of selection and coevolution in whole genome studies of hosts and pathogens **S. Edwards**	Pick your poison: the physiology of toxin sequestration in poison frogs **L. O'Connell**	Wild vertebrate phenotypic and fitness clines in replicated urbanisation gradients **M. Szulkin**	Of mice and smell: evolution of the olfactory genome and its consequences for the social behavior of wild mice **J.M. Lassance**	The wondrous cycles of polyploidy in plants **J. Wendel**	Why and how to use computational simulations for evolutionary based management **S. Hoban**
09:50	Domestication of a behaviour-manipulating virus in parasitic wasps **J. Varaldi**	Life history of infections **P. Schmid-Hempel**	The Genetic and Physiological Basis of Adaptation to Divergent Habitats **D. Lowry**	Adaptation to urbanization in the red-tailed bumblebee (*Bombus lapidarius*) as suggested by a genome-wide SNP scan **P.Theodorou**	Variation in female mate preferences associated with differences in early neurogenomic response in the sensory-processing and decision-making components of the guppy brain **N. Bloch**	Genome size and chromosomal ploidal level - selection pressures under nitrogen and phosphorus limitation **A. Leitch**	Integrating populations genetics in the management of Marine Protected Areas: complementary insights from the study of two habitat-forming octocorals in the Catalan Sea. **J.B. Ledoux**
10:10	Horizontal Gene Transfer and Introgression: key mechanisms of adaptation of yeast to its ecological niches **V. Galeote**	Parallel evolution of fibrosis in stickleback confers resistance to tapeworms at a severe cost to female fecundity **D. Bolnick**	Adaptive shifts in heat shock protein gene expression profiles predict upper thermal limits in eastern forest ants **A. Nguyen**	Metropole ecology makes male mating displays more attractive to females **W. Halfwerk**	How social evolution changes behavioural repertoires in African cichlids, a comparison using quantitative computational behavioural decomposition **A. Jordan**	Cytonuclear interactions overcome inter-genomic conflict resulting from interspecific hybridization and genome doubling **J. Ferreira De Carvalho**	Contribution of genetics for implementing population restoration of the threatened *Arnica montana* through plant translocation **F. Van Rossum**
10:30	**COFFEE BREAK**						

WEDNESDAY, AUGUST 22

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
10:55	**ASN Jasper Loftus-Hills Young Investigators Award**	**S-46 Role of phenotypic plasticity in evolution: Where are we now?**	**S-42 From theory to genome-wide data: inferring selection, demography, gene flow and admixture**	**S-65 Domestication: human-induced evolution**	**S-33 Ecological models of macroevolution**	**S-21 In vivo, in vitro, in silico experimental evolution. Convergence and insights into evolution**
11:00	Introduction **K. Donohue**	Life history adaptation and plasticity in a changing climate **J. Schmitt**	The mystery of the U-shaped spectra **G. Achaz**	Integrating paleogenomic and morphological data to refine our understanding of sunflower domestication **N. Wales**	An empirical model for understanding the relationship between biotic interactions, lineage evolution and community evolution **L.H. Liow**	Coupling in vitro and in silico approaches to analyze the eco-evolutionary dynamics of body size **M. Malerba**
11:20	Genomic forecasting of population adaptation to climate change **R. Bay**	Genetic basis of inter-genotype variation for thermal plasticity in *D. melanogaster* **E. Lafuente**	A new maximum likelihood method for quantifying the mutation and selection pressures on INDELs and SNPs and its application to the great tit (*Parus major*) genome **H. Barton**	The complex origins of the date palm resolved by a combination of genomics, seed morphometrics and archaeology **M. Gros-Balthazard**	Evidence of competition in avian seed-eater communities across the globe **A. Chira**	Uncovering the phenotypic fitness landscape of microbes adapting to novel environments **G. Kinsler**
11:40		Comparative transcriptomics reveals the molecular mechanism behind developmental plasticity in Spadefoot Toads **H.C. Liedtke**	Landscape genomics of a widespread agricultural pest, the wingless grasshopper (*Phaulacridium vittatum*) **S. Yadav**	Did domestication of apple tree promoted speciation of its fungal pathogen, *Venturia inaequalis*? **C. Lemaire**	Understanding the effect of competition during adaptive radiations: an integrated model of phenotypic and species diversification **L. Aristide**	Evolution of growth arrest in Virtual Microbes and adaptation to the long-term evolutionary experiment **B. Van Dijk**
12:00	Range expansion of the African fig fly (*Zaprionus indianus*) in North America: using a combined approach to test for local adaptation to extreme climates **A. Comeault**	Testing the connection between phenotypic plasticity and the rate of adaptation using Daphnia-fish experimental evolution **M. Packer**	iSMC: An integrative model for population genomics inference **G. Valares Barroso**	Tracking Six Millenia of Horse Selection, Admixture and Management with Complete Genome Time-Series **L. Orlando**	Trait-Mediated Community Assembly Models Identified through Machine Learning and Approximate Bayesian Computation **M. Ruffley**	Reversing rate-adaptation with water-in-oil emulsions **K. Van Raay**
12:20		The evolution of phenotypic plasticity when environments fluctuate in time and space **J. Gomes King**	Using the psi-coalescent to infer selective sweeps **R. Harris**	The pulse of domestications in the Fertile Crescent: phenotypic, biogeographic, and ecological insights into the evolution of legumes in the Old World **S. Manafzadeh**	Modeling biotic interactions in the estimation of origination, dispersal and extinction rates from the fossil record **D. Silvestro**	Developmental mode and the evolution of multicellularity **J. Pentz**
12:40	**LUNCH BREAK** Meet the SFE2 (Antigone 1) - Building you researcher profile (Joffre 1) - ASN exit meeting (Barcelone) SSE exit meeting (Joffre 4) - SSB exit meeting (Louisvilel)					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
10:55	**S-26 Horizontal transfer of genetic material: its vectors, patterns and eco-evolutionary consequences**	**S-15 Evolutionary immunology: tradeoffs and mechanisms**	**S-69 Evolutionary Physiology**	**S-63 Evolution in an urbanizing world**	**S-08 Social behaviour and evolution in the omics era**	**S-55 Ecological and evolutionary genomics of polyploidy**	**S-76 Evolutionary management of wild populations**
11:00	Widespread adaptive horizontal gene transfer in grasses **L. Dunning**	Approaching "Old Friends" with a new model: How pathogen diversity shaped the adaptation of *Astyanax mexicanus* to the cave **R. Peuß**	Intertidal fish shows thermal acclimation despite living in a rapidly fluctuating environment **C. Da Silva**	Adaptive and non-adaptive divergence in wild fish populations under global change **J. Côte**	Sociogenomics of social parasitism in wasps (Hymenoptera, Vespidae) **F. Lopez-Osorio**	Apomixis and polyploidy in plant evolution: a successful couple **E. Hörandl**	From microendemic to invasive species: range changes, fundamental niche, and evolutionary genomics of *Trachemys* turtles **E. Vázquez-Domínguez**
11:20	Collateral sensitivity to antibiotics as a cost of horizontal gene transfer **D. Baltrus**	Disentangling microbe dependent and independent inducible immune dynamics and their contribution to the evolution of optimal immune responses **A. Tate**	Both selection and gene flow shape the remarkable thermal generalist performance curve of a widespread estuarine copepod: the importance of an integrated perspective on thermal adaptation. **M. Sasaki**	Big City Life: genotypic trait differentiation in life history, stress physiology, heat tolerance, and pace-of-life in response to urbanization in *Daphnia magna* **K.I. Brans**	Transcriptomic underpinning of eusociality in the facultative eusocial sweat bee *Halictus rubicundus* **A. Soro**	Polyploidy and parasites: does polyploidy confer immune advanage in Corydoradinae catfishes? **E. Bell**	Rescuing plant populations: understanding the effects of three types of rescue in a self-incompatible plant **F. Encinas-Viso**
11:40	Horizontal gene transfer within the human gut at the scale of individual lifetime **M. Poyet**	An evolutionary perspective on the systems of adaptive immunity **V. Müller**	Trade-off between growth and reproduction in a long-lived plant **V. Journé**	Evolution of plasticity in the city: urban acorn ants can better tolerate more rapid increases in environmental temperature **S. Diamond**	Genes associated with social interactions in ants tend to be taxonomically restricted and to experience relaxed evolutionary constraint **M. Warner**	Genome evolution after whole genome duplication in 32 Brassicales species **T. Kent**	Natural ecological disturbance drives adaptive divergence in highly connected golden perch: implications for fisheries management and resilience to climate change **L. Beheregaray**
12:00	Antibiotic resistance and the evolution of virus-mediated horizontal gene transfer **A. Burmeister**	Genetics and selection of helminth-specific immune responses in a wild mammal population **A. Sparks**	Physiological plasticity in response to high-altitude hypoxia and the evolutionary potential for upward range expansion in the Common Wall Lizard **E. Gangloff**	What drives the divergence of urban populations? Natural selection versus plasticity versus habitat choice **A. Baños-Villalba**	Population Genetics of Allorecognition in the Social Amoeba **E. Ostrowski**	Insights into the evolution of an allopolyploid (*Coffea arabica*) through gene expression and metabolic pathway regulation analyses **P. Lashermes**	Climate change and limited distribution of California native plant *Arabis blepharophylla* (Brassicaeae) **N. Le**
12:20	Plasmid phylogenetic reconstruction and the spread of antibiotic resistance. **A. Ledda**	Multiple infections and the dramatic increases in virulence during influenza epidemics and experimental evolution **R. Costa**	Cavefish Metabolic Adaptation: Hungry, Fat, and Healthy **N. Rohner**	Comparative cityscape genetics: What facilitates gene flow and admixture of local hybrid swarms in urban lizard populations? **J. Beninde**	Use of genomics to identify social interactions in a population of pathogenic bacteria **S. Breum Andersen**	Joining forces in allopolyploids: Non-stochastic homoleog gene expression reshuffling shapes defense metabolism to insect herbivory in *Nicotiana* allopolyploids **E. Gaquerel**	Can evolutionary biology help better predict the risks associated with gene drive population control? **N. Rode**
12:40	**LUNCH BREAK** Meet the SFE2 (Antigone 1) - Building you researcher profile (Joffre 1) - ASN exit meeting (Barcelone) SSE exit meeting (Joffre 4) - SSB exit meeting (Louisvilel)						

WEDNESDAY, AUGUST 22

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
14:15	**ASN Jasper Loftus-Hills Young Investigators Award**	**S-46 Role of phenotypic plasticity in evolution: Where are we now?**	**S-42 From theory to genome-wide data: inferring selection, demography, gene flow and admixture**	**S-13 Pathogen evolution during chronic infection - towards evolutionary disease management**	**S-43 Ancient DNA studies of Adaptive Processes through Time**	**S-57 Modes of inheritance and genomic conflicts**
14:20	Ecology and evolution of biodiversity in spatially-structured landscapes **R. Germain**	The molecular basis underlying genetic assimilation of *C. elegans* matricide **C. Braendle**	Gene expression drives the evolution of dominance **C. Hubert**	Evolution of *Burkholderia* in the cystic fibrosis lung **D. Guttman**	Natural selection shaped the rise and fall of passenger pigeon genomic diversity **G. Murray**	Chromosome gone wild: the consequences of centromere-associated drive in *Mimulus* **L. Fishman**
14:40		Cryptic genetic variation in natural populations and its contribution to genetic assimilation in *Drosophila melanogaster* **S. Marzec**	Modelling demographic and adaptive histories in a case of rapid parallel adaptation. **A. Fulgione**	Competitive suppression of bacteriocin resistance using a biotherapeutic approach **A. Bhattacharya**	Detecting polygenic adaptation in human evolution using ancient DNA **F. Racimo**	The role of parental conflict in hybrid seed inviability within the *Mimulus guttatus* species complex **J. Coughlan**
15:00	Evolutionary Drivers of Cooperation (Loss) in Deep Time **G. Werner**	Canalization or plasticity? Quantitative genetics of male sexual morphology in the damselfly *Ischnura elegans* **M. Mäenpää**	Stable polymorphisms due to seasonally fluctuating selection and their genetic footprint **M. Wittmann**	Zika virus evolution during prolonged infection **F. Frentiu**	Selection trajectories of genetic variants underlying domestic animal traits **E. Irving-Pease**	Asexual reproduction drives reduction of transposable element load **J. Bast**
15:20		Non-adaptive plasticity contributes to hypoxia adaptation across independently derived high-altitude *Peromyscus* mice **J. Velotta**	Comparing Alternative Hypotheses on the Peopling of the American Arctic **N.E. Altinisik**	Convergent metabolic specialization through distinct evolutionary paths in *Pseudomonas aeruginosa* **R. La Rosa**	Tracking selection in time-series population genomic data using ABC random forests **V. Pavinato**	Population genetics of meiotic drive and its suppression **C. Veller**
15:40	**COFFEE BREAK**					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
14:15	**S-62 Experimental evolution in the context of ecosystems**	**S-67 Evolution-smart agriculture: breeding and protection**	**S-69 Evolutionary Physiology**	**S-60 Evolutionary rescue**	**S-14 New horizons in host-parasite co-genomics and co-evolution**	**S-37 Systematics Research in Africa: Impact for millions**	**S-76 Evolutionary management of wild populations**
14:20	Building microbial communities from the bottom up **J. Gore**	Managing adaptation of crop pathogens to chemical and genetic control measures: insights from population modelling and field data **A. Mikaberidze**	Hormone-driven transgenerational trait divergence: linking adaptive personality extremes to glucocorticoid signalling variation **K. Sorby**	Evolutionary rescue in nature - case closed or jury still out? **S. Carlson**	Molecules of resistance: using proteomics to understand host-parasite interactions **M. Fredericksen**	Translating upstream science into impact and benefit for the poor **J. Ndunguru**	Genome-wide human-mediated hybridization in the brown trout (*Salmo trutta, L*) using ancestry tracts: a matter of time **M. Leitwein**
14:40	Predicting evolution in diverse microbial communities **T. Barraclough**	Rapid pathogen resistance evolution can shape the antibacterial activity of plant growth promoting *Pseudomonas* bacteria **S. Clough**	Impact of environment on senescence patterns: genetic, physiological and demographical approaches to understand diversity across the living world **C. Depeux**	Genetic variation alters the impact of environmental autocorrelation on extinction risk in an experimental system **M. Rescan**	Neutral genomic signatures of host-parasite coevolution **S. John**	Capitalising on next generation sequencing technique to generate molecular information for viruses infecting crops in Africa: the case of common bean bean and sweet potato crops **D. Mbanzibwa**	From seascape genomics to community ecology: comparing the physical factors structuring genetic diversity within a bioengineer species of the coralligenous habitats with those structuring the species composition of the coralligenous community **A. de Jode**
15:00	The emergence of microbial community variability in similar environments **S. Estrela**	Finding conditionally neutral alleles to harness "harmless" local adaptation in a common bean breeding dataset **A. Macqueen**	Gene regulatory mechanisms underlying the evolutionary loss of a polygenic trait **M. Lammers**	Adaptation to high concentrations of drug depends on ploidy in yeast **J. Ono**	Enough of streamlining: vertical transmission allows microsporidia to evolve unorthodox genomic features and become ecologically successful **K. Haag**	An evolutionary window into plant-human interactions for medicinal purposes in Benin, West Africa **K.Yessoufou**	Conservation genomics and evolutionary potential of a threatened freshwater fish from southeastern Australia **C. Brauer**
15:20	Ecological and evolutionary genetic responses to long-term experimental soil warming **J. Blanchard**	The evolutionary biology of free-living transgenic plant populations **N. Ellstrand**	Limits on the evolution of photosynthetic and stomatal physiology: Insights from artificial selection **C. Caruso**	The effect of sex on the extinction dynamics and evolutionary rescue of *Chlamydomonas reinhardtii* experimental populations depends on the rate of environmental change **N. Petkovic**	Combined sequence capture data targeting host immunity and pathogen virulence genes in chytrid-infected frogs across the genus *Rana* reveal co-evolutionary dynamics of chytridiomycosis **K. Mulder**	How whole plastome phylogeny of *Dioscorea* genus helped to delimit yam wild relatives? complex **N. Scarcelli**	Large scale translocation interferes with natural range expansion in Corkwing wrasse. **E. Faust**
15:40	**COFFEE BREAK**						

WEDNESDAY, AUGUST 22

	BERLIOZ	PASTEUR	EINSTEIN	SULLY 2	JOFFRE 1	JOFFRE AB
16:05	**ESEB John Maynard-Smith Prize**	**S-46 Role of phenotypic plasticity in evolution: Where are we now?**	**S-42 From theory to genome-wide data: inferring selection, demography, gene flow and admixture**	**S-13 Pathogen evolution during chronic infection - towards evolutionary disease management**	**S-43 Ancient DNA studies of Adaptive Processes through Time**	**S-57 Modes of inheritance and genomic conflicts**
16:10	Understanding the ecology and evolution of microbial social interactions in a complex world **S. O'Brien**	Plastic response co-opted by evolutionary change: evidence from experimental evolution in *Drosophila* **T. Kawecki**	Inferring sex-specific demographic history from SNP data **R. Vitalis**	Using cross-resistance to aid the rational design of phage therapy cocktails **R. Wright**	Tracking plant phenology and genetic diversity during environmental change using contemporary and historical samples **P. Lang**	The crosses between geographically distant populations of *Silene vulgaris* replace gynodioecy with hermaphroditism **H. Storchova**
16:30		Recent adaptation to novel temperature fluctuations results in maladaptive thermal plasticity **A. Leonard**	A method for simultaneously estimating demography and intra-genomic variation in the effective population size and the mutation rate **K. Zeng**	Mapping adaptive trajectories leading to persistent infection by *Pseudomonas aeruginosa* **J. Bartell**	Back to the future in a petri dish: origin and impact of resurrected microbes in natural populations **E. Decaestecker**	Selfish sex ratio distorters and individual fitness maximisation **T. Scott**
16:50				Within-host phylodynamics give insight into virologic failure in undetectable viremia **J. Joy**	Tracking Six Millenia of Horse Selection, Admixture and Management with Complete Genome Time-Series **A. Fages**	The Impact of Polyandry on Rodent Pest Control via Synthetic Gene Drive **A. Manser**
17:10	**Closing Ceremony**					
18:00	**Bus departure for conference dinner 18h-19h ground floor (level 0)**					
19:00	**Conference Dinner**					

	JOFFRE CD	ANTIGONE 1	ANTIGONE 3	BARTHEZ	RONDELET	SALON DARWIN	RABELAIS
16:05	**S-62 Experimental evolution in the context of ecosystems**	**S-67 Evolution-smart agriculture: breeding and protection**	**S-69 Evolutionary Physiology**	**S-60 Evolutionary rescue**	**S-14 New horizons in host-parasite co-genomics and co-evolution**	**S-37 Systematics Research in Africa: Impact for millions**	**S-76 Evolutionary management of wild populations**
16:10	Selection experiment with natural undefined communities containing lactic acid bacteria **A. Groenenboom**	Taking control of virus adaptation by choosing host plant genotype **B. Moury**	Divergence in metabolic plasticity in response to seasonal rearing conditions among migratory and non-migratory populations of Monarch butterflies (*Danaus plexippus*) **C. Julick**	Temporal variation, dispersal, and the scope for evolutionary rescue **R. Holt**	Co-genomic signature of rapid antagonistic co-evolution **P. Feulner**	Origin and radiation of African *Swertia* (Gentianaceae): evidence from plastid and nuclear ribosomal DNA variation **T. Wondimu**	Evolutionary management of Pacific salmon **M. Ford**
16:30	Evolution destabilizes pair-wise interactions in microbial communities exposed to fluctuating environments **A. Rodriguez Verdugo**	The ongoing evolution of maize landraces and their wild relatives by gene flow from modern inbred lines **I. Rojas**	Large-scale survey of gene expression in response to xeric environment adaptation in rodents **D. Chalopin**	Evolutionary rescue amidst environmental stress depends on the life-history traits under selection. **A.C. Vinton**	"Evolutionary arms-races" between hepadnaviruses and their host receptor: implication for pathogenicity and cross-species transmissions in primates and bats **S. Jacquet**	Colonization, diversification and connectivity in the extremely fragmented African "Sky Island" flora **A.G. Seid**	Implementing genetic criteria into species conservation for the European Habitats Directive **J. Mergeay**
16:50	Experimental evolution of *E. coli* and Yeast, in mono-culture and co-culture. **M. Mcdonald**	Eco-evolutionary dynamics in agriculture: a model in crop rotations **M. Bargués Ribera**	The evolution of ecophysiological traits related to drought stress in grapevines **E. Forrestel**	Evolutionary Rescue **G. Bell**	Co-genomics of *Bacillus thuringiensis* parasites and *Tribolium castaneum* hosts after experimental coevolution **J. Kurtz**	The genetic diversity and structure of schistosome parasite populations before and after drug administration **C. Faust**	Systematic conservation planning for intraspecific genetic diversity **I. Paz-Vinas**
17:10	**Closing Ceremony**						
18:00	**Bus departure for conference dinner 18h-19h ground floor (level 0)**						
19:00	**Conference Dinner**						

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SESSION 1 AUGUST 19-20, 2018

LEVEL 0

FROM RESEARCH PAPERS TO CLASSROOMS: EXEMPLIFYING NATURAL SELECTION IN HIGH SCHOOL

12 posters presented by French high school teachers.

S-22 THE MOLECULAR BASIS OF CONVERGENT EVOLUTION: SHARED AND UNIQUE FEATURES

P-0001
Parallel genomic architecture underlies repeated sexual signal divergence in Hawaiian Laupala crickets
Thomas Blankers

P-0002
Chitinase (CHIA) genes provide genomic footprints of a post-Cretaceous dietary radiation in placental mammals
Christopher Emerling

P-0003
Revelation of the Genetic Basis for Convergent Innovative Anal Fin Pigmentation Patterns in Cichlid Fishes
Langyu Gu

P-0004
Using genomic data to investigate the genetic underpinnings of color morph variation in Black-headed Bulbuls (*Pycnonotus atriceps*) of Southeast Asia
Subir Shakya

P-0005
Convergent regulatory evolution and the origin of flightlessness in palaeognathous birds
Tim Sackton

P-0006
Parallel speciation with gene flow: snapshots from Amazonia
Christine Bacon

P-0007
Parallel adaptation to serpentine challenge in *Arabidopsis arenosa*
Veronika Konecna

P-0008
Sex, poison and the genetic basis of convergent phenotypes in Drosophila
Amir Yassin

P-0009
Adaptive convergent evolution in genes related with blood-feeding in hematophagous Diptera
Lucas Freitas

P-0010
The evolution of seasonal coat colour change in hares and jackrabbits
Mafalda Sousa Ferreira

P-0011
The genomic basis for convergent evolution of carnivory in shrew rats
Emily Roycroft

P-0012
Comparing the genetic basis of structural colour in mimetic Heliconius butterflies
Melanie Brien

P-0013
The origins of anthropogenic adaptation in Silene uniflora
Alexander Papadopulos

P-0014
Investigating the genetic basis of adaptation to heavy metal contamination
Daniel Wood

P-0015
The role of genetic drift, gene flow and selection in the formation of parallel clines
James Santangelo

P-0016
Life in the trees: the genetics of repeated evolution of long whiskers in deer mice
Jacob Gable

P-0017
Genomic basis of convergent plumage evolution associated to dry habitats in a diverse radiation of Neotropical birds
Gustavo Bravo

P-0018
Multiple disease-related genes implicated in tolerance to malaria in a Hawaiian honeycreeper
Loren Sackett

P-0019
Testing for convergent signatures of selection in Arctic plants
Siri Birkeland

P-0020
Genome-wide convergence during evolution of mangroves from woody plants
Shaohua Xu

P-0021
Population genomics of parallel evolution in dwarf forms of Arctic charr in Iceland
Han Xiao

P-0022
Journeys to the centre of the Earth: convergent transcriptional changes in isopod surface-to-subterranean habitat transitions
Laura Grice

P-0023
Are supergenes required for intra-specific variation of social organisation?
Emeline Favreau

P-0024
Repeated evolution of insular dwarfism across three species of reptiles: A study of convergence across hierarchical levels of organization
Tonia Schwartz

P-0025
Genomics of parallel local adaptation in two North American woodpeckers
Lucas Rocha Moreira

P-0026
The genomic basis of color patterns in Lake Malawi cichlids
Jan Gerwin

P-0027
Adaptive introgression and the traits affecting species differentiation in Heliconius butterflies
Mathieu Joron

P-0028
Comparative knock-out of WntA across 14 mimetic and divergent Heliconius butterflies.
W. Owen Mcmillan

S-23 FROM DEVELOPMENT TO FUNCTION: WHAT DOES DRIVE MORPHOLOGICAL CONVERGENCES?

P-0029
Convergent genetic changes in carnivorous plants
Kenji Fukushima

P-0030
Fleshy seeds in Gymnosperms and fleshy fruits in Angiosperms, a case of convergent evolution?
Cecilia Zumajo

P-0031
Developmental bias drives convergent evolution and facilitates trophic diversification in Amazonian electric fish
Kory Evans

P-0032
Evolution of the mandibular canal in convergently evolved placental mammals with reduced dentition
Sergio Ferreira Cardoso

P-0033
A study of morphological convergence in the nasal cavity of ant-eating and termite-eating mammals
Mark Wright

P-0034
Frequency-dependence shapes the adaptive landscape of imperfect Batesian mimicry
Susan Finkbeiner

P-0035
Shifting to a new place: influence of developmental timing on life-history schedules in Order Carnivora
Cybil Cavalieri

P-0036
Developmental and morphological changes associated to flowering time shifts produced during divergent selection experiments in maize
Adrienne Ressayre

P-0037
Cancelled

P-0038
Convergent evolution of an extreme dietary specialisation: a study of olfactory system in rodents
Quentin Martinez

P-0039
Cancelled

P-0040
Adaptations for relative larger brains in hummingbird skulls
Diego Ocampo

P-0041
The complexities of morphological and functional convergence in bipedal desert rodents
Talia Moore

S-25 THE MACROEVOLUTIONARY DYNAMICS OF FORM-FUNCTION RELATIONSHIPS

P-0042
Interspecific phenotypic variability in the marsupial skeleton. Does it reflect developmental constraints?
Alberto Martin-serra

P-0043
A novel method infers tetrapod posture using proportional limb robusticity
Jonah Choiniere

P-0044
Form and Function in Turtle Phylogeny
Gerardo Antonio Cordero

P-0045
Ontogenetic development of skull shape in Bothrops jararaca, with special emphasis on the pit organ and the venom gland
Kristin Mahlow

P-0046
Why are bird sperm screw-shaped? How a trade-off between swimming speed and structural integrity could explain sperm morphology
Hanna N. Støstad

P-0047
Evolution of carnivoran carnassial (Mammalia, Carnivora) using 3D geometric morphometrics in a phylogenetic framework
Sergio Daniel Tarquini

P-0048
Evolution of morphologies and associated behaviours: how geometric morphometrics and kinematics can spread light on the evolution of Morpho butterflies wings
Camille Le Roy

P-0049
Drivers and constraints of shape evolution in the vertebral column of Felidae (Carnivora, Mammalia)
Marcela Randau

P-0050
Macroevolutionary dynamics of sea urchin body shape and the origins of morphological novelty
Nicolas Mongiardino Koch

P-0051
Iterative evolution of terrestriality within mudskippers (Gobiidae: Perciformes) and alternative morphological solutions to axial rigidity.
Scott Steppan

P-0052
Adaptive convergence in sciuromorph rodent femoral shape depends on locomotor behavior
Jan Woelfer

P-0053
Morpho-functional trade-off between physiology and flying ability
Fanny Pagès

P-0054
Serial homology, Horseshoe effect, and the evolution of the carnivoran backbone
Borja Figueirido

P-0055
Ecological convergence and morphological divergence: multiple adaptive peaks in grazing squirrels
Donald Swiderski

P-0056
Gecko eye size evolution is driven by diel activity pattern and habitat clutter
Lars Schmitz

P-0057
Morphological variation and the line of least resistance in neotropical rodents.
Barbara Maria De Andrade Costa

P-0058
Flowers in space – an angiosperm-wide morphospace study based on extant taxa, fossils, and ancestral reconstructions.
Marion Chartier

S-31 NEW APPROACHES TO PHYLOGENOMICS

P-0059
Comparative phylogeography and evolutionary dynamics of central African rain forests
Andrew Helmstetter

P-0060
Phylogenomics of archival DNA
Nicolas Straube

P-0061
Combining phylogenomics with ribosomal profiling to detect overlapping genes in bacteria
Zachary Ardern

P-0062
Identifying patterns of rapid radiation in phylogenomics
Eren Ada

P-0063
Quantifying the rate of transmission of antibiotic resistance genes using phylodynamic models
Jana Sanne Huisman

P-0064
Analysis of discrete trait evolution on reticulate phylogenies
Cecile Ane

P-0065
Comparison of relaxed-clock models using the Bayesian model selection implemented in MCMCTree
Sandra Álvarez-carretero

P-0066
A comparative study of phylogenetic reconstruction based on mode and tempo of gene evolution
Khidir Hilu

P-0067
Recombination-aware phylogenomics improves species tree inference and resolves difficult phylogeny problems.
Bill Murphy

P-0068
Inferring the role of hybridization/introgression in brown algal (Fucus spp.) diversification from a phylogenomic perspective
Susana Almeida

P-0069
Comparative genomics of the Asgard superphylum
Eva Fernandez Caceres

P-0070
Modelling structural constraints on protein evolution via side-chain rotamers
Umberto Perron

P-0071
GHOST: Recovering historical signal from heterotachously-evolved sequence alignments
Stephen Crotty

P-0072
Reconstructing LECA's "duplome": the phylogenetic origins and order of gene duplications during eukaryogenesis
Julian Vosseberg

P-0073
METHIS : Complex demographic histories of admixed populations reconstructed with Approximate Bayesian Computations
Paul Verdu

P-0074
Evolutionary patterns and processes of high Andean blueberries (Vaccinieae: Ericaceae)
Edgardo Ortiz

P-0075
Gene congruence, phylogenetic signal and data quality as results of methodological choices in tunicate phylotranscriptomics
Paul Simion

P-0076
Phylogenomics of Shearwaters: comparing Sequence Capture versus Restriction Site Associated DNA Sequencing for Shallow Systematics
Joan Ferrer Obiol

P-0077
Developing new methods for phasing alleles from NGS data and an assessment of the importance of these data for accurate phylogenetic inference.
William Booker

P-0078
Phylogenomics of South American spiny rats (Echimyidae): capture and resolution power of nuclear exons
Maxime Courcelle

P-0079
Evolutionary history of penguins: phylogenomic and biogeographic inference of the extant penguin genera (Aves: Spheniscidae)
Flávia Fernandes

P-0080
The cousins of fungi: a macroevolutionary view of nucleariids and opisthosporidians
Guifré Torruella

P-0081
Phylodynamic inference without an explicit sampling process model
Timothy Vaughan

S-35 COMBINING FOSSILS AND PHYLOGENIES IN STUDIES OF DIVERSIFICATION

P-0082
Endothermy, climatic niche evolution and the distribution of vertebrate diversity
Jonathan Rolland

P-0083
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P-0084
Detecting shifts in diversification rates from phylogenetic trees
Odile Maliet

P-0085
Paleontological data, comparative method and the study of the evolutionary radiation of hominoid primates
Guido Rocatti

P-0086
Integrating fossil and genomic datasets for phylogenetic analyses of Ruminantia (Mammalia, Artiodactyla)
Faysal Bibi

P-0087
Mapping the macroevolutionary landscape of dinosaurs
Roger Benson

P-0088
Diversification and biogeographic history of the Malvales (Rosids, Angiosperms) based on extant and fossil species
Rebeca Hernández-Gutiérrez

P-0089
Phylogenetic vs. fossil-based methods of evolutionary community assembly: High extinction rates may conceal early shifts in immigration rates
Torsten Hauffe

P-0090
Fossil calibrated phylogenies reveal patterns of diversification in leaf-mining moths
Carlos Lopez Vaamonde

P-0091
Integrating phenotypic and DNA sequence data to reconstruct systematic relationships of fossil and extant cervids (Ruminantia, Mammalia)
Nicola S. Heckeberg

P-0092
Phylogenomics and diversification of chondrichthyan fishes across time, space, and clades
Lei Yang

P-0093
A macroevolutionary look at the history of fishes in coral reefs
Francesco Santini

P-0094
Regarding scales from Triassic-Jurassic boundary sediments; The oldest lepidopterans
Timo Van Eldijk

P-0095
Frog shells through time: a dialogue between mitogenomics and palaeontological data
Malcolm Sanders

P-0096
Phylogeny and diversification rates of squirrels (Sciuridae, Mammalia)
Iris Menéndez

P-0097
The wanderer glyptodont: how fossils can affect macroevolutionary patterns
Soledad De Esteban-Trivigno

P-0098
Revisiting the origin of the floral groundplan of Pentapetalae (eudicots, angiosperms) through total evidence analysis of extant and fossil species
Andrea López

P-0099
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P-0100
Biogeographic history of widespread freshwater fish clades: what does the fossil record tell us?
Alessio Capobianco

P-0101
Global diversity of moths through the phylogenomic lens: divergences in life histories traits cause contrasted patterns of temporal and spatial diversification
Pierre Arnal

P-0102
DateLife: Leveraging databases and analytical tools to reveal the dated Tree of Life
Luna Luisa Sanchez Reyes

P-0103
Combining fossils and molecules to infer relationships among odonates
Robert Erickson

LEVEL 2

S-03 ASN VICE- PRESIDENT SYMPOSIUM: ADVANCES THROUGH THEORY: AN EXPLORATION OF MATHEMATICAL MODELS IN ECOLOGY AND EVOLUTION

P-0104
Modeling *Aedes albopictus* response to control methods based on sterilized males release.
Marion Haramboure

P-0105
Balanced flower size polymorphism through antagonistic pleiotropy
Keely Brown

P-0106
A dynamic game theoretical model predicts variance in choosiness when mate availability fluctuates
Louise Chevalier

P-0107
From the proximate and ultimate drivers of animal space use to their population-level consequences
Louise Riotte-lambert

P-0108
A theoretical model of the social evolution of virulence in *Bacillus thuringiensis*
Matishalin Patel

P-0109
Modelling the influence of parental effects on gene network evolution
Andreas Odorico

P-0110
On the predictability of infectious disease outbreaks
Samuel Scarpino

P-0111
Mate limitation and sex ratio evolution
Jussi Lehtonen

P-0112
No pain no gain: Information acquisition is bounded by substitutional load
Ryan Mcgee

P-0113
Intrinsic limits to gene regulation by global crosstalk
Tamar Friedlander

P-0114
How the coevolution of traits affects evolutionary outcomes in a consumer-resource model
Paula Vasconcelos

P-0115
Maternal Effects via Genes, Environment or Phenotype: Same or Different?
Rebecca Hoyle

P-0116
Pleiotropy, cooperation and the social evolution of genetic architecture
Miguel Dos Santos

S-04 EVOLUTION ON THE EDGE: ECO-EVOLUTIONARY DYNAMICS, RANGE EXPANSION, AND LOCAL ADAPTATION

P-0117
Selection signatures along environmental gradients during a damselfly range expansion
Rachael Dudaniec

P-0118
Genomic signatures of parallel adaptation along a climatic gradient on the northern edge of the white-footed mouse (*Peromyscus leucopus*) distribution
Alan Garcia-Elfring

P-0119
Local adaptation towards alpine environments in diploid and polyploid populations of *Arabidopsis arenosa*
Guillaume Wos

P-0120
Spatial expression patterns of immune genes suggest enemy release in an animal invader
Daniel Selechnik

P-0121
Genome-wide signals of local adaptation and drift reveal multiple mechanisms of lineage divergence during a rapid songbird radiation
Guillermo Friis

P-0122
Gene presence-absence polymorphism in castrating anther-smut fungi: recent gene gains and phylogeographic structure
Fanny Hartmann

P-0123
The effects of local adaptation on ecosystem response to climate change
Ned Fetcher

P-0124
Understanding contemporary levels of genetic diversity in populations of silver fir (*Abies alba*)
Eniko Szep

P-0125
High genetic diversity increases the potential of adaptation to novel environmental conditions in a recently introduced Ambrosia biocontrol candidate to Europe
Sarah Bouchemousse

P-0126
Invasive species replacement caused extensive accidental mitochondrial DNA introgression in hares
José Melo-Ferreira

P-0127
Flatfish comparative genomic in a transition zone: example of the Baltic Sea
Alan Le Moan

P-0128
How habitat dependent dispersal affects the evolution of niches
Charlotte Sophie Sieger

P-0129
Parallel origin of alpine ecotypes in wild Arabidopsis populations
Filip Kolar

P-0130
Local adaptation of Swiss stone pine (*Pinus cembra*) to changing climate at the timberline
Benjamin Dauphin

P-0131
Population genomics of infamous invader in a less infamous invasion: *Rhinella marina* (the cane toad) in Florida
Cinnamon Mittan

P-0132
Causes of species range limits: the impact of drift load on population performance assessed in a species-wide transplant experiment
Antoine Perrier

P-0133
Predicting natural selection and fitness under climate change in *Arabidopsis thaliana* populations
Moises Exposito-Alonso

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P-0135
Multiple island dispersals and the evolution of insular dwarfism in an Aegean snake
Evanthia Thanou

P-0136
Genetic diversity and sexual reproduction in edge populations of the kelp species *Laminaria digitata*
Christophe Destombe

P-0137
Narrow thermal tolerance and low dispersal drive higher speciation in tropical mountains
Kelly Zamudio

P-0138
Selfing at the range edge? The effects of habitat heterogeneity and recent range expansion
Carly Prior

P-0139
Adaptation in regionally diverse, experimentally evolved strains of *Saccharomyces cerevisiae*: the effects of similar selection pressures on varying genetic backgrounds
Kelly Thomasson

P-0140
Life-history trait variation across shifting geographic ranges: a comparative study on plant species
Mathilde Latron

P-0141
Eco-evolutionary dynamics of dispersal and female multiple mating during range expansion
Greta Bocedi

P-0142
Genomic divergence of rapidly evolving populations of Italian wall lizards
Anamaria Stambuk

P-0143
Dispersal evolution during range expansion drives the emergence of highly contrasting functional, ecological and genetic networks between front and core
Rebekka Allgayer

P-0144
Adaptive divergence among natural plant populations in a context of range expansion
Manuel De Pedro

P-0145
The spatial structure and history of genomic variation as revealed by GBS in a generalist perennial shrub, *Eriogonum umbellatum* (Polygonaceae)
Peter Pearman

P-0146
Abiotic stress constrains Eco-Evo feedback and local adaptation
Loukas Theodosiou

P-0147
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P-0148
A population comparison of innate and acquired host plant preferences in a moth, *Spodoptera littoralis*
Kristina Karlsson Green

P-0149
Fine-mapping a quantitative trait locus for local adaptation to cold in *Drosophila ananassae*
Annabella Königer

P-0150
Demographic history of *Pinus pinaster* at the Northern range of its distribution: what can we learn from ABC models?
Camille Lepoittevin

S-05 EVOLUTION IN METAPOPULATIONS AND STRUCTURED POPULATIONS: A SYMPOSIUM IN HONOR OF ILKKA HANSKI, ISABELLE OLIVIERI AND DAVE MCCAULEY

P-0151
The Guatemalan tubermoth: *Tecia solanivora* (Lepidoptera, Gelechiidae) genetic structuring in Colombia: a possibility of a metapopulation according to nuclear and mitochondrial markers
Clara Saldamando

P-0152
Adaptive introgression of disease resistance in a recent plant colonization
Alba Gonzalez Hernando

P-0153
The effects of dispersal and selection on temporally variable genetic structure in a marine fish
Joshua Thia

P-0154
Dispersal and its fitness consequences in a house sparrow metapopulation - identifying "cryptic" dispersers using a genetic assignment method
Dilan Saatoglu

P-0155
Accounting for genetic groups with heterogeneous additive genetic variances in the animal model
Stefanie Muff

P-0156
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Sara Marin

P-0157
Influence of population structure on population size estimations: Recent developments on the notion of Inverse Instantaneous Coalescence Rate
Willy Rodriguez

P-0158
The emergence and evolutionary fate of diversity under soft and hard selection
Patrick Chen

P-0159
Unexpected contribution of multigene genetic architecture, low heritability, and high phenotypic plasticity to evolutionary potential in metapopulations
Mikhail Matz

P-0160
Effects of anthropogenic disturbances on the genetic diversity of a rare, carnivorous plant species across its entire range
Irene Martín Rodríguez

P-0161
Evolutionary Dynamics of chronic HCV infection
Jayna Raghwani

P-0162
Home ground advantage: local spawners have higher fitness over foreign dispersers in an Atlantic salmon metapopulation
Kenyon Mobley

P-0163
Interactions between inbreeding and dispersal in a house sparrow meta-population
Sina Bohm

P-0164
The IICR (inverse instantaneous coalescence rate) as a summary of genomic diversity: insights into demographic inference and model choice
Olivier Mazet

P-0165
Local adaptation of behavioral traits in a coevolved system
Lina Arcila Hernández

P-0166
The effects of dispersal costs on dispersal evolution in a changing landscape
Delphine Ducros

P-0167
Local adaptation in dispersal in multi-resource landscapes
Meredith Cenzer

P-0168
Gene flow patterns in a tropical marine fish in the context of a Continent-Island model
Ilkser Erdem Kiper

P-0169
The influence of spatial ecology and metapopulation processes on the evolutionary trajectories of social phenotypes
Antonio Rodrigues

P-0170
From RNA world to proteins: A transient era of amino acid coenzymes inferred from protein catalytic centres
Ádám Radványi

P-0171
The role of catalytic promiscuity in prebiotic evolution
Balazs Konnyu

P-0172
Positive effects of natural within-group diversity on spore productivity of a cooperative microbe
Samay Pande

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P-0174
Low migration across internally diverse groups of social bacteria under selection during cooperative motility and development results in reduced within-group antagonism
Lisa Freund

S-18 EVOLUTION OF HOSTS AND PARASITES WITH THEIR MICROBIOMES: A PROBLEM OF UNFAITHFUL RELATIONSHIPS

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Transcriptomic changes underlying reduced dependence on microbiota in malnutrition adapted Drosophila populations
Berra Erkosar

P-0176
The Role of Multilevel Selection in the Evolution of Microbial Communities
Simon Van Vliet

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Prevalence, Diversity and Transmission of a Densovirus in *Culex pipiens*-Wolbachia system
Mine Altinli

P-0178
Temporal pathogen heterogeneity influences evolution of microbe-mediated protection
Anke Kloock

P-0179
Multi-generational passaging and adaptation of the phyllosphere microbiome on genetically distinct hosts
Norma Morella

P-0180
The role of parasites and microbiota in adaptive divergence of an East African cichlid fish
Jelena Rajkov

P-0181
Ecology and sociality shape the wild primate gut microbiome
Riana Minocher

P-0182
Genome and mobilome dynamics of *Lactobacillus kunkeei* in micropopulations of honeybees
Andrea Garcia Montaner

P-0183
Evolution of stickleback microbiomes during repeated colonisations of lake and river habitats
Adrienne Kerley

P-0184
Environmental specificity in Drosophila-bacteria symbiosis
Robin Guilhot

P-0185
Microbial gut communities in the recent ecological diversification of a New Zealand cicada lineage that has lost obligate endosymbionts
Diler Haji

P-0186
Beyond nutrition: host-microbiota interactions drive shifts in the behavioural phenotypes of cockroaches
Thorben Sieksmeyer

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The negative outcome of microbial adaptation in a consumer/resource interaction system
Ivo Chelo

P-0188
Selection on novel host-mutualist interactions: is Wolbachia-mediated protection against Dengue virus evolutionarily stable?
Suzanne Ford

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Microbiota characterization in planorbids snail, vector of bilharziosis agent, *Schistosoma spp.*
Camille Huot

P-0190
Community ecology of the vaginal microbiome: the importance of host-microbe interactions
Carmen Lia Murall

P-0191
Iron-driven host-microbiota coadaptation: an influence factor in *Mycobacterium tuberculosis* infection?
Jessica Ojong

P-0192
The adaptability and resilience of a successful introduced pest aphid can be explained by functional symbioses
Daniela Sepúlveda

P-0194
Why don't orchid pollinators go extinct? The persistence of the costly coevloutionary relationship between the sexually deceptive Cryptostylis orchids and their duped pollinator
Amy Martin

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S-19 THE EVOLUTION OF MUTUALISMS AND THEIR EVOLUTIONARY IMPACT ON BIODIVERSITY

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Genetic correlations between traits influence mutualistic coevolutionary dynamics in unexpected ways
Ana Paula Assis

P-0196
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Katrina Kaur

P-0197
Interaction games explain persistence of mutualistic partners with varying degrees of investment
Paula Lemos-Costa

P-0198
Genetic diversity of the symbiont as a driver of the holobiont differentiation in the temperate sea-anemone *Anemonia viridis* ?
Barbara Porro

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Coming and ceasing to be: Evolution of recent mutualistic associations in aphid endosymbionts
Alejandro Manzano Marín

P-0200
Speciation in Figs and their pollinating fig-wasps along the Mount Wilhelm elevational transect, Papua New Guinea
Daniel Souto

P-0201
The influence of evolutionary processes that occur outside of biotic interactions on social evolution
Liana Burghardt

P-0202
Phylogeography of Fig Wasps: Effects of Ecological and Climatic change on the *Ficus petiolaris* and Fig Wasp System
Kevin Quinteros

P-0203
Effects of biotic and abiotic ecological factors on a desert fig-fig wasp mutualism
Finn Piatscheck

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Evolution of floral scents in a nursery pollination mutualism
Martine Hossaert-Mckey

P-0205
Contrasting patterns of specialization in closely related host-symbiont interactions
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Insights from Fisher's geometric model: different environmental scenarios for their chances of leading to speciation
Ryo Yamaguchi

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An enormous niche construction and cross-feeding potential in bacterial metabolism
Magdalena San Roman

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Evidence for multifactorial processes underlying phenotypic variation in bat visual opsins during noctilionoids diversification
Alexa Sadier

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The genomics of parallel adaptation in *Macaronesian Echium* (Boraginaceae)
Rachael Graham

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Structured populations allow mutator invasions due to increased clonal interference
Katrina Harris

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Eco-Evo-Devo? Associations between gut microbiome and male alternative mating tactics
Kathryn Stewart

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The importance of host specialization in insecticide resistance of the green peach aphid *Myzus persicae*
Christophe Plantamp

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Ecological opportunity and mate choice interact in model adaptive radiations
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Erosion of phylogenetic signal of niches through eco-macroevolutionary feedback
Andreas Prinzing

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Habitat partitioning and signal divergence among non-native bark anoles in South Florida
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Michael Blazanin

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Aidan Fielding

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Dead stuff matters: how bacterial necromass facilitates evolution
Heather Kittredge

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Heather Rich

S-58 CAUSES OF MALADAPTATION: ENVIRONMENTAL CHANGE, DEMOGRAPHY, INBREEDING AND GENETIC CONSTRAINTS

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A genomic perspective on the evolution in small populations of island endemic birds
Thibault Leroy

P-0224
Genetic architecture of inbreeding in *Caenorhabditis remanei*
Paula Adams

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Periodic bottlenecks can impede both adaptation to selection conditions and maladaptation to novel ones despite entailing greater variation
Yashraj Chavhan

P-0226
Effect of predominant selfing on genetic variance and adaptation to environmental change
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P-0227
African ROH Drive Enrichment of Deleterious Alleles in a Sample of Admixed Individuals
Zachary Szpiech

P-0228
Dual postglacial recolonization in a threespine stickleback system: Reproductive isolation caused by intrinsic genomic incompatibilities?
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Lucas Marques Da Cunha

P-0230
Modeling the role of seed banks in a changing world: a reservoir of adaptive or maladaptive genetic variation?
Konstantinos Theodorou

P-0231
The relative importance of selection, drift and self-fertilization on shaping the mutation load and inbreeding depression in small populations
Diala Abu Awad

P-0232
Demographic reconstruction and mutation accumulation in genomes of seal species with dramatically different population histories
Stephen Gaughran

P-0233
Mutation load from slightly deleterious effects at many loci may be countered by beneficial mutations of larger effect, even when linkage disequilibrium restricts adaptation
Joseph Matheson

S-61 THE EVOLUTION OF COMMUNITY ECOLOGY

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Resource dispersion shapes dispersal phenotype and community assembly in fig wasp communities
Vignesh Venkateswaran

P-0235
Manipulate biotic neighborhood to facilitate adaptation to abiotic stress: Do phylogenetically distant neighborhood select for more tolerant oak genotypes?
Mickael Pihain

P-0236
Investigating niche evolution using skull morphology of fossil & modern Antelope (Bovidae): A geometric morphometric approach
Joshua Tyler

P-0237
Eco-evolutionary dynamics in natural phytoplankton populations
Romana Limberger

P-0238
Implications of coevolution of agriculture and resource foraging for the maintenance of species diversity and community structure
Aurore Picot

P-0239
Eco-evolutionary dynamics in plant-pollinator systems: implication for diversity maintenance
Avril Weinbach

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P-0241
Early stage competition of post-traumatic vectored founder colonies of yeast
Simone Dupuy

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Genomic diversity of a nectar yeast clusters into metabolically, but not geographically distinct lineages
Manpreet Dhami

P-0243
Abiotic environmental stressors affect host local adaptation
Elena Horas Martin

P-0244
Complex interactions between ecological, evolutionary, and environmental processes explain island biodiversity dynamics
Juliano Sarmento Cabral

P-0245
Eco-evolutionary dynamics during relaxation time
Ludmilla Figueiredo

P-0246
Diversity of protective microbial flora and the evolution of an invading plant pathogen
Lauri Mikonranta

P-0247
Habitat selection, specialization, species sorting, community assembly and local adaptation in colonizing organisms
William Resetarits

P-0248
The role of locomotor mode in lineage turnover and persistence among Indo-Australian rats and mice
Jonathan Nations

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Ecological interactions indirectly shape patterns of brain evolution in a community of mimetic butterflies
Stephen Montgomery

S-64 RAPID EVOLUTIONARY RESPONSES TO GLOBAL CHANGE

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The diversity of adaptive trajectories in regional strains of *Saccharomyces cerevisiae* in response to the selective pressure of pseudo-digestion
Kelly M. Thomasson

P-0251
Testing for range-wide rapid evolution to drought
Daniel Anstett

P-0252
Adaptation to stress in annual *Brachypodium spp.* along the aridity gradient in Israel
Shira Penner

P-0253
Genomic data reveal a loss of diversity in two species of tuco-tucos (genus Ctenomys) following a volcanic eruption
Jeremy Hsu

P-0254
Putting the heat on insect reproduction: understanding how heatwaves impact male fertility
Kris Sales

P-0255
Rapid evolution in phenotypic traits and changes in genome-wide gene expression in *Brassica rapa* in response to natural drought
Elena Hamann

P-0256
A fast native genetic response to bio-invasion
Elodie Chapuis

P-0257
A small-mutation limit for adaption to a moving optimum
Michael Kopp

P-0258
Rapid evolution of winter coat colour in mountain hares from the Faroe Islands
Iwona Giska

P-0259
Phenotypic plasticity reduces immediate overheating costs of climate change at the expense of selection
Elvire Bestion

P-0260
The rate of contemporary evolution in ten wild vertebrate populations
Timothée Bonnet

P-0261
Microevolutionary adaptation and population genomic zonation in *Fragilariopsis kerguelensis*, a main silicate sinker of the Southern Ocean
Ute Postel

P-0262
Warming costs more than cooling: evolution of temperature size rule patterns in an experimental common garden population of medaka
Ayala Loisel

P-0263
Evolutionary changes at key ion transporters during freshwater invasions by the copepod *Eurytemora affinis* and across the Arthropoda
Guy Charmantier

P-0264
Rapid parasite-driven evolution of alternative migratory tactics in brown trout *Salmo trutta*: a modelling study
Adam Kane

P-0265
The relative contribution of multiple agents on selection on laying date in a Mediterranean population of pied flycatchers
Justine Le Vaillant

P-0266
Chronicle of an invasion: genomic signature of the introduction and expansion of *Pseudorasbora parva* in Europe
Miguel Baltazar-Soares

P-0267
The use of an ecologically divergent species to understand responses of the climate change in the Atlantic Forest
Nicole Veto

P-0268
The effects of the 2011 Western Australia marine heat wave on the genetic diversity and structure of two canopy-forming temperate seaweed species
Carlos Frederico Gurgel

P-0269
When the neighborhood matters: contextual selection on germination time in native and exotic California grasses
Joseph Waterton

P-0270
Allele shifts under laboratory selection and local adaptation to low salinity in Baltic Mytilus hybrids (*M. edulis, M. trossulus*)
Loreen Knöbel

P-0271
Interacting effects of climate change and landscape fragmentation: does matching habitat choice changes predictions on species persistence?
Félix Pellerin

P-0272
Intraspecific adaptive divergence in physiological responses to temperature and herbivory along an elevation gradient
James Buckley

P-0273
Predicting the thermal dependency of host-pathogen interactions.
Pepijn Luijckx

P-0274
A genetic basis for fisheries-induced life history changes in flatfish
Filip Volckaert

P-0275
Could Mexico City peripheral forests adapt to tropospheric ozone pollution?: a transcriptome analysis of sacred fir (*A. religiosa*) in a natural setting
Verónica Reyes-Galindo

P-0276
How will physiological and life-history responses to a changing ocean determine marine species persistence and distribution?
Gloria Massamba N'siala

P-0277
Rapid evolution of multicellular yeast in response to heat stress
Josie Griffin

P-0278
Limited potential for adaptation to common pesticides in brown trout (*Salmo trutta*)
David Nusbaumer

P-0279
Genomics of rapid niche expansion in whitefish following a eutrophication-driven species collapse
Arne Jacobs

P-0280
More and smaller resting-eggs along a gradient for pollution by metals: dispersal, dormancy, detoxification strategies in Daphnia?
Gabrielle Ringot

P-0281
Evolutionary changes in sessile oak in response to climate change since the "Little Ice Age" in three French forests
Dounia Saleh

P-0282
Potential for evolutionary response to combined stressors in distinct populations of lake charr?
Laura Garaud

P-0283
Evidence for adaptation in the absence of standing genetic variation
Kimberley Lemmen

P-0284
how to face aliens: phenotypic plasticity and rapid evolution drive response to invasive predators in a threatened frog
Andrea Melotto

P-0285
Costs and benefits of early flowering in the winter annual *Leavenworthia stylosa*
Christopher Herlihy

P-0286
The impact of temperature and water availability on floral traits and floral scent in the Rocky Mountain columbine, *Aquilegia coerulea*
Johanne Brunet

P-0287
Evolutionary potential and constraint in introduced ragweed populations
John Stinchcombe

P-0288
Adaptation of seed beetles to fluctuating temperatures
Elena Berg

P-0289
Signatures of selection revealed by population analyses of bumblebee genomes
Joe Colgan

P-0290
Variable environments and the evolution of specialists, generalists and bet-hedgers
Thomas Haaland

P-0291
Project Baseline: Securing genetic materials for gauging plant evolutionary response to global change.
Arthur Weis

LEVEL 3

S-06 MICROGEOGRAPHIC ADAPTATION AND ADAPTIVE LANDSCAPE GENOMICS

P-0292
Habitat-related evolutionary divergence in the common chaffinch (*Fringilla coelebs*) within La Palma (Canary Islands): Phenotypic and genomic evidence
María Recuerda

P-0293
Divergent selection on polygenic traits: simulation and detection
Lea Bouteille

P-0294
Population genomic structure of two mutualistic ant-species across French Guiana
Juliane Hartke

P-0295
Population history and adaptive landscape of the invasive arbovirus vectors *Aedes aegypti* and *Aedes albopictus*
Kelly Bennett

P-0296
Landscape genomics at the scale of populations for *Chaetodipus nelsoni* within a desert ecosystem in the Mapimi Biosphere Reserve
Gissella Pineda

P-0297
Divergent Selection in Two Senecio Sister Species on Mount Etna Revealed by Altitudinal Cline Analyses
Edgar Wong

P-0298
Genomic signatures of environmental selection despite near-panmixia in summer flounder
Jennifer Hoey

P-0299
Adaptation of the pseudo-metallophyte Arabidopsis halleri to metal-polluted soils – linking environmental, genomic, and phenotypic information
Christian Rellstab

P-0300
Microgeographic adaptation to precipitation? – Studies in co-occurring theropytic plant species at ecological range edges
Birgit Gemeinholzer

P-0301
Soil environment is a key driver of adaptation in *Medicago truncatula*: new insights from landscape genomics
Jimena Guerrero

P-0302
Adaptive landscape genomics and malaria across replicate island populations
Claire Armstrong

P-0303
Genomic signature of adaptive divergence despite strong non-adaptive forces on edaphic islands
Jing Wang

P-0304
Genomic signatures of selection suggest fine-scale local adaptation in Atlantic salmon
Victoria Pritchard

P-0305
Seascape genomics of a commercially important mollusc- integrating population genetics, genomics and marine LiDAR data
Adam Miller

P-0306
Phenotypic integration and adaptation in Aleppo pine
Ricardo Alia

P-0307
Biological soil crusts as unique microecosystem represent a suitable model system to address taxonomy and ecotypification of microalgal key players
Karin Glaser

P-0308
A global population sample of wheat powdery mildew provides insight into the genome evolution and intra-species diversity
Alexandros Georgios Sotiropoulos

P-0309
Evolutionary history of tropical tree species complexes: species delimitation and adaptive genetic variation in the Brazil nut clade (Lecythidaceae)
Myriam Heuertz

P-0310
Population genomics of local adaptation under high gene flow in an amphibian population network
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Martin Garlovsky

P-0554
Metapopulation dynamics in bdelloid rotifers: rapid dispersal mitigates long-term costs of asexuality
Christopher Wilson

P-0555
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Pierre-henri Gouyon

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Joshua Schraiber

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Jörg Bachmann

P-0559
Genetic structure and temporal dynamics of selfing populations under neutral processes
Margaux Jullien

P-0560
Experimental evidence for the negative effects of self-fertilization on the adaptive potential of populations
Elsa Noël

P-0561
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Susana Freitas

P-0562
Do recombinations replace sex in the anciently asexual bdelloid rotifers?
Marie Cariou

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Andrés De La Filia

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Tree, Sex and Size: Ecological determinants of male versus female fecundity in the long-lived plant *Fagus sylvatica*
Sylvie Oddou-Muratorio

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Polyploidy and apomixis: examining range-wide genotypic diversity in a New World desert fern
Blake Fauskee

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Marc Stift

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Lindsay Johnson

P-0569
Mutation-selection balance in the evolution of Daphnia eye size
Jeff Dudycha

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Guillaume Lafforgue

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Biological determinants of the distribution of fitness effects (DFE) of new mutations in corvids
Fidel Botero-castro

P-0573
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Katarzyna Toch

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Pamela Cote-Hammarlof

P-0575
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Julija Pecerska

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Sijmen Schoustra

P-0577
Indirect genetic and direct effects of sexual selection on mutation rate
Julian Baur

P-0578
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Thomas Bataillon

P-0579
The mutational spectrum and genetic composition of *Marasmius oreades* fairy rings
Markus Hiltunen

P-0580
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Ana Filipa Moutinho

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Ralph Dobler

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Jérôme Bourret

P-0583
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Muhammad Bilal Haider

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Adele Mennerat

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Didier Aurelle

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Petteri Karisto

P-0588
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Loup Rimbaud

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Ezgi Ogutcen

P-0590
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Beth Moore

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Courtney Gardiner

P-0592
Can the presence of sexual selection cause divergence in mating system-related floral traits and reproductive organs?
Åsa Lankinen

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Molly Edwards

P-0594
Losing sweetness: insights into reduced nectar in the selfing syndrome
Irene Liao

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Martina Lüthi

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Ya Min

P-0597
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Nina Joffard

P-0598
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Aimé Rubini Pisano

P-0599
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Rubén Torices

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Marcela Moré

P-0601
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Doris Gomez

P-0602
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Silvia Artuso

P-0603
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Juan Isaac Moreira-Hernandez

P-0604
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Simon Joly

P-0605
The impact of mutualists on the geographical distribution of plants
Karl Duffy

P-0606
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Sergio Ramos

P-0607
The floral evolution of buzz-pollinated plants
Lucy Nevard

P-0608
Do nonspecialist bird pollinators exert enough selective pressure to retain ornithophilous floral traits?
Javier Fuertes-Aguilar

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Is flower shape adapted to the beak shape of pollinators? A love story in the West Indies Gesneriaceae
Julie Faure

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Interspecific pollen transfer as evolutionary driver of floral phenotypic variation in Linum
Rocio Perez-Barrales

P-0611
A phylogenomic framework to study the role of floral, pollination, and ecological traits in aroid diversification
Alejandro Zuluaga

P-0612
Depauperated pollinator diversity limits current but not potential evolution of floral traits
Maria Clara Castellanos

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Preemptive selfing as a barrier to reduce costs of hybridization
April Randle

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Christine Böhmer

P-0615
A common evolutionary path of least resistance in distant conodont assemblages
Louise Souquet

P-0616
Intra- and interspecific tooth shape variation in sharks: phenotypic plasticity and developmental constraints on tooth evolution
Fidji Berio

P-0617
Identification of the evolutionary conserved regulatory element controlling the primary jaw joint formation in zebrafish
Tatjana Haitina

P-0618
Diversification of axial body plan and its underlying developmental mechanisms in a clade of extinct marine reptiles
Laura Soul

S-29 COMPARATIVE AND MECHANISTIC PHYLOGEOGRAPHY IN THE BIG DATA ERA

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Inigo Martinez-Solano

P-0620
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Renata Pirani

P-0621
Exploring the role of past environmental change on the diversification patterns of *Ursus* bears
Carlos Luna

P-0622
Comparative population genomics to understand the role of habitat persistence in population structure and demographic history of insular lineages
Emmanouil Meramveliotakis

P-0623
Genome-wide data sheds light on amphibian diversification in the coastal forests of Eastern Africa
Chris Barratt

P-0624
Leveraging genetic simulation against high-throughput sequence data to reconstruct the spread of an invasive crustacean across the Pacific Coast of North America
Eric Dexter

P-0625
Synchronous diversification of parachuting frogs (Genus *Rhacophorus*) on Sumatra and Java
Kyle O'Connell

P-0626
Does ecological divergence promote speciation across a biogeographic barrier?
Edward Myers

P-0627
Evolutionary analysis of two land planarian mitogenomes inhabiting the threatened Brazilian Atlantic forest
Marta Álvarez-Presas

P-0628
Testing a biogeographical hypothesis of diversification in the Central Valley of California: Is the trans-valley leak a recurrent phenomenon?
Hanna Algora

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Phylogeography, cryptic diversity and macroevolution
Craig Moritz

P-0630
Demographic history and molecular adaptation of the *Pinus halepensis-brutia* complex
Sanna Olsson

P-0631
Genetic diversity of Potato Cyst Nematode in its native area : a novel phylogeographic study using low and high density markers and different geographic scales
Romain Thevenoux

P-0632
Evolutionary history of sympatric rainbow skinks from the Australian Monsoonal Tropics
Ana Catarina Afonso Silva

P-0633
Diversification and biogeographic link between the Andean and Atlantic Forests: a comparative study with passerines
Natalia Trujillo-Arias

P-0634
Assessing population co-expansion for Amazonian forest bird assemblages during climatic cycles of the Pleistocene: contrasting regions with different climatic history
Lais Coelho

P-0635
The impact of ranging behaviour on genetic structure and diversity in mammals
Gisela Kopp

P-0636
Comparative Phylogeography and Adaptive Genomics in the Atlantic Forest, Brazil using genome-wide SNP and spatially explicit climatic data
Laura Bertola

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Comparative Phylogeography of Trans-Andean Freshwater Fishes Based on Genome-Wide Exon Capture
Melissa Rincon

P-0638
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Arianna Kuhn

P-0639
Population genomics, distribution models, and fossil pollen data reveal the impact of past climate changes in the Araucaria Forest of southern Brazil
Mariana Vasconcellos

S-30 NOVEL APPROACHES IN PHYLOGENETIC COMPARATIVE METHODS FOR MODELLING TRAIT EVOLUTION

P-0640
Fifty Shades of Brown: Evolution of plumage brightness in a large clade of non-ornamented Neotropical passerines
Rafael Marcondes

P-0641
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Aldemar Acevedo

P-0642
Brand upon the brain
Joseph Brown

P-0643
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Sota Ishikawa

P-0644
Testing the adequacy of trait-dependent speciation and extinction models with posterior predictive checks
William Freyman

P-0645
The role of experimental phylogenies for improving comparative phylogenetic methods
Jaiber J. Solano Iguaran

P-0646
Sexual selection and speciational change in the evolution of bird plumage colouration
Raphaël Scherrer

P-0647
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Rosana Zenil-Ferguson

P-0648
Evolutionary elaboration and innovation of island avifaunas
Gavin Thomas

P-0649
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Mihir Umarani

P-0650
On the need for phylogenetic natural history
Josef Uyeda

P-0651
Graphs in phylogenetic comparative analysis: Anscombe's quartet revisited
Liam J. Revell

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Cold tolerance evolution in the context of biogeographic history in the Pooideae, a major subfamily of grasses (Poaceae)
Jan-niklas Nuppenau

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Component-based phylogenetic comparative methods: Understanding the evolutionary process of complex adaptive traits
Takao Suzuki

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A Bayesian phylogenetic ANCOVA: Dealing with uncertainty in the study of carnivoran limb coevolution
Jesualdo Arturo Fuentes-González

S-32 COMPARING PHYLOGENETIC TREES: WHY AND HOW?

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Phylogenomic signatures of speciation and phylogeography in a species complex of sympatric intertidal isopods (*Jaera albifrons*)
Marius Wenzel

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Phylogenomics of rosids: incongruence between gene trees and species trees refutes the "single locus" hypothesis of plastid genomes
Deise Goncalves

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Spectral signature of gene family trees
Leonardo De Oliveira Martins

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Evaluating methods of detecting hybridization using a macroevolutionary simulator of phylogenomic data
Wade Dismukes

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P-0660
Three discordant phylogenies of the North American marmots (Rodentia: Sciuridae): signals from nuclear DNA, mtDNA, and ultra-conserved elements
Kendall Mills

S-33 ECOLOGICAL MODELS OF MACROEVOLUTION

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Ecology of diversification changes predictably with phylogenetic scale
Antonin Machac

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Fruit colour as a driver for the evolution of trichromatic primate diversity
Renske Onstein

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Effect of ants on bird species diversity pattern along an elevational gradient in eastern Himalaya
K Supriya

P-0664
detecting local diversity-dependence in diversification
Liang Xu

P-0665
The rise of angiosperms pushed conifers to extinction
Fabien Condamine

P-0666
Ecological diversification patterns of *Pteronotus* bats
Tania Garrido

P-0667
Linking niche modelling and phylogenetics to explore diversification processes
Matthew Larcombe

P-0668
How consistent are macroevolutionary and community ecology patterns of interspecific competition?
Marina Costa Rillo

P-0669
Slow diversification, long-term morphological and ecological stasis of a successful fern clade
Oriane Loiseau

P-0670
Host plant architecture and evolution of aposematism in larval Lepidoptera
Moria Robinson

P-0671
Ecological Niche Modeling: Shall we finally reach a common ground between Elton and Grinnell?
Marianna Simoes

P-0672
Evolution of butterfly wing colour pattern at macroevolutionary scale: from clear to aposematic wings and backwards
Violaine Llaurens

S-37 SYSTEMATICS RESEARCH IN AFRICA: IMPACT FOR MILLIONS

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A cryptic hexaploid lineage within the African plant species *Helichrysum odoratissimum* and potential implications for traditional medicine
Kelsey Glennon

P-0674
Varying rates of evolution in the Heat Shock Protein 90 (HSP90) gene of the *Bemisia tabaci* species complex
Tonny Kinene

P-0675
Phylogenomics and evolutionary insights of Bean common mosaic necrosis virus and Cowpea aphid borne mosaic virus
James Wainaina

P-0676
Phylogeny and systematics of African Melastomateae (Melastomataceae)
Marie Claire Veranso-Libalah

P-0677
Phylogeny and historical biogeography of the genus *Nemopterella* Banks 1910 (Neuroptera: Nemopteridae: Nemopterinae) from South Africa
Ishtiag Abdalla

P-0678
Diversity and evolution of the genus *Allium L.* (Amaryllidaceae) in Algeria (North Africa): karyosystematic review and new insights on endemism
Thinhinan Khedim

P-0679
Incipient domestication of an indigenous tree species? Interplay between farmers' strategies, local cultivation practices and intraspecific diversity of safou tree (*Dacryodes edulis*) in West Cameroon
Aurore Rimlinger

S-38 SPECIES IN THE THEORY OF EVOLUTION: FROM CONCEPTS TO METHODS AND APPLICATIONS

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Historical introgression drives pervasive mitochondrial admixture between species of pelagic sharks
Shannon Corrigan

P-0681
Phylogeny and systematics of the longhorn beetle genus *Rhytiphora* (Coleoptera: Cerambycidae)
Lauren Ashman

P-0682
Pheromones differ more than eco-morphology in a cryptic species complex of Australian lizards
Stephen Zozaya

P-0683
Sex-Biased Dispersal Obscures Species Boundaries in Integrative Species Delimitation Approaches
Jonas Eberle

P-0684
Using exon capture phylogenomics to explore closely related species in the sea slug genus *Chromodoris*
Kara Layton

P-0685
Newly discovered diversity in the Mexican leopard frogs
E. Anne Chambers

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Genomic patterns of differentiation at different stages of the continuum speciation in the *Orestias* genus (Teleostei; Cyprinodontidae)
Pamela Morales

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Integrating state-of-the-art genomic and morphological tools to disentangle the taxonomy and biogeography of the long-nosed armadillo species complex (genus *Dasypus*)
Lionel Hautier

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P-0689
Testing the hypothesis of allopatric speciation through biogeographical disjunction in three species of African carnivores (aardwolf, bat-eared fox, and black-backed jackal)
Rémi Allio

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What drives genetic divergence in seabird populations? The example of *Puffinus lherminieri* complex
Lucas Torres

P-0691
Sex pheromones - magic bullet for species delimitation and their power in systematics
Christian König

P-0692
Population dynamics of Ordovician conodonts (*Oepikodus evae, O. intermedius, and O. intermedius robustus*) in the San Juan Formation, Argentine Precordillera
Gisella Della Costa

P-0693
Genomic-based species delimitation in the Neotropical *Ectatomma ruidum* complex (Formicidae: Ectatomminae)
Rubi Meza

P-0694
Is higher taxonomy even scientific?
Johannes Neumann

P-0695
A snail tale of the American distribution of *Galba* species
Pilar Alda

S-78 OPEN SYMPOSIUM

P-0696
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Valeria Ramirez Castaneda

P-0697
Combining incidence and sequence data via ABC phylodynamics
Samuel Alizon

P-0698
Nocturnal giants: inferring the sensory ecology of elephant birds from digital brain reconstructions
Christopher Torres

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The Genomic Observatories Metadatabase
Cynthia Riginos

P-0700
Exaggerated foreleg size in males of *Drosophila prolongata* and its fitness consequences
Jhoniel Perdigon Ferreira

P-0701
Coordinated plastic responses to match colour and colour preference in a model of seasonal crypsis
Erik Van Bergen

P-0702
Niche dynamics in alpine plants in response to changes in climate since the Last Glacial Maximum
Da Pan

P-0703
First Efficient Transfection in Choanoflagellates using Cell-Penetrating Peptides
Frank Nitsche

P-0704
Evolutionary processes of Neotropical plants occurring in naturally fragmented inselberg populations
Clarisse Palma Da Silva

P-0705
Morphology, systematics and autecology of choanoflagellates from the Atacama Desert
Sabine Schiwitza

P-0706
Evolution of intraspecific postzygotic reproductive isolation in Arctic and Mediterranean plants
A. Lovisa S. Gustafsson

P-0707
Deep molecular characterization of cercozoan diversity and community composition in the canopy region of a floodplain forest using Illumina high-throughput sequencing
Susanne Walden

P-0708
Co-option of complex molecular system in bacterial membranes
Rémi Denise

P-0709
The 400 million year evolutionary drive to small testes in vertebrates
Joanna Baker

P-0710
Tracking the diversification of *Limonium* (sea lavenders) in space and time
Konstantina Koutroumpa

P-0711
The regulation of apoptosis in a extreme resistant organism, the bdelloïd rotifer A.vaga: the loss of p53 as an evolutive adaptive process to survive extreme stresses?
Veronique Baumlé

P-0712
Evolution of flight morphology in butterfly mimicry rings
Dipendra Nath Basu

P-0713
Dummies can do it: conditional egg reciprocation with numerical matching of egg clutches in polychaete worms
Laura Picchi

P-0714
How interspecific competition influences sociality across a guild of body-snatching trematodes
Emlyn Resetarits

P-0715
Patterns of paleo- and neo-endemism of Neotropical amphibians, birds, and mammals in the Dry-Diagonal (Cerrado, Caatinga, and Chaco)
João Tonini

P-0716
Derivation and evolutionary implications of a novel framework that covers all the mechanisms to increase performance, and that is valid across scientific disciplines
Pim Edelaar

P-0717
Inbreeding and sex allocation in hermaphroditic metapopulations
Camille Roux

P-0718
Age-related variations of health parameters in the Asian elephant
Vérane Berger

P-0719
Environmental variability and within-individual flexibility in parent-offspring communication
Shana Caro

P-0720
Modelling the evolution of *Sigmodontinae rodent* molars
Ana Rosa Gomez Cano

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P-0722
Evolution of the Cryptophyte Phycobilin Beta Subunit
Patrick D. Mckenzie

P-0723
Exploring the fitness consequences of alternative life history strategies in two congeneric butterfly species
Amara Garza

P-0724
Microstructure, chemistry, and skeletal distribution of medullary bone in Neornithes
Aurore Canoville

P-0725
Evolution of body color and color pattern in geckos
Ylenia Chiari

P-0726
The influence of the sex composition of a social group on individual boldness in sticklebacks
Nicolle Demandt

P-0727
Aging by perception costs of reproduction can magnify sexual selection
Pau Carazo

P-0728
Evolution of an enzyme in a multigene family : the enigmatic role of Amyrel, a paralog of alpha-amylase in flies
Jean-Luc Da Lage

P-0729
Macroevolutionary routes to becoming a biodiversity hotspot
Javier Igea

P-0730
Allele frequency difference AFD is superior to FST as measure of genetic population differentiation
Daniel Berner

P-0731
Phylogenomic analysis of cetaceans using target sequence capture
Michael Mcgowen

P-0732
Sociality of spore germination in natural isolates of a soil bacterium
Yuen-tsu Nicco Yu

P-0733
Natural selection and phenotypic integration of above and belowground traits
Courtney Murren

P-0734
A glimpse into the origins of ammonia oxidizing Thaumarchaeota
Sophie Abby

P-0735
From higher-order organisms to microbes: a novel quantative species identification method based on ancient DNA
Evangelos Antonios Dimopoulos

P-0736
Evolution of Antigen Processing Genes in salamanders
Gemma Palomar

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P-0738
Color diversity and species diversity in dragonflies and damselflies (Odonata)
Seth Bybee

P-0739
Evolution of an emerging infectious pathogen following a host shift
Luc Tardy

P-0740
The potential for coevolution among cannibals suggested by the genetic architecture of conspicuousness and behavioral syndromes
Jorge Henriques

P-0741
A comparative analysis of carotenoid-consistent color distribution across non-passerine birds
Sarah Davis

P-0742
Phylogenomics of New Guinean Begonia
Hannah Wilson

P-0743
Phylogenomics, selection and dietary divergence in bats
Joshua Potter

P-0744
The evolution of Asian Ranid species with gastromyzophorous tadpoles (Amphibia, Anura)
Umilaela Arifin

P-0745
Mechanisms of early separation in a single population of *Nasonia vitripennis*
Pawel Malec

P-0746
Should I stay or run away? Flexible maternal brood care in Snowy Plovers *Charadrius nivosus*
Krisztina Kupán

P-0747
Atlantic forest butterflies help to understand diversification patterns and processes on montane habitats
Luiza Magaldi

P-0748
Molecular trophic ecology: high-throughput sequencing opens a window into diet evolution
Joanna Larson

P-0749
New perspective on phasmids systematics: molecular phylogeny on nuclear and mitochondrial data reveals taxonomic inconsistency.
Giobbe Forni

P-0750
Plant adaptation to different altitudes impacts herbivorous insect evolutionary dynamics
Karim Ghali

P-0751
Biogeography, dispersal, and diversification in high diversity, niche conservative plant lineages
John Paul

P-0752
Traces of anticipatory maternal effects
Pinar Kohlmeier

P-0753
Trade-off between increased mating opportunities and survival in a wild insect?
Stefano Tiso

P-0754
Social mobility, societal stability, and evolution: a new insight from dynamics in the social structure of two macaque species
Lixing Sun

P-0755
Mortality cost of parasites in wild bird populations
Jose Valdebenito

LEVEL 2

S-13 PATHOGEN EVOLUTION DURING CHRONIC INFECTION - TOWARDS EVOLUTIONARY DISEASE MANAGEMENT

P-0756
Do bacterial pathogens have smaller genomes than their non-pathogenic relatives?
Jane Charlesworth

P-0757
Intra-patient Mycobacterium tuberculosis strain dynamics – A 12 year M/XDR-TB treatment history
Lindsay Tucker

P-0758
Subinhibitory concentrations of antibiotics promote coexistence in model Cystic Fibrosis-like polymicrobial communities
Jack Law

P-0759
Bacteria-bacteria killing during chronic lung infection
Daniel Unterweger

P-0760
Is there local adaptation of the microbiome in a panmictic large distribution host population?
Mark Gillingham

P-0761
An experimental investigation of the effect of antibiotic removal on the persistence of antibiotic resistant *Pseudomonas aeruginosa*
James Kavanagh

S-14 NEW HORIZONS IN HOST-PARASITE CO-GENOMICS AND CO-EVOLUTION

P-0762
Timing malaria transmission with mosquito fluctuations
Romain Pigeault

P-0763
Cancelled

P-0764
Does the host genotype influence within-host selection and symbiont density?
Alexis Bénard

P-0765
The evolution of mutation rate in an antagonistic coevolutionary model with maternal transmission of parasites
Leithen Mgonigle

S-15 EVOLUTIONARY IMMUNOLOGY: TRADEOFFS AND MECHANISMS

P-0766
Swimming with the red queen: adaptive evolution of a ZP-domain glycoprotein in galaxiid fishes
Graham Wallis

P-0767
Genetic diversity and evolution of the toll-like receptor signaling pathway in mallards (*Anas platyrhynchos*)
Elinor Jax

P-0768
Trade-off between tolerance and resistance to haemoparasite infections in birds: an experimental approach with anti-parasite medication
Elena Arriero

P-0769
Assessing the Darwinian costs of mounting an adaptive immune response
Dominik Schmid

P-0770
Highly parallel evolution of within- and trans-generational immune memory in an insect
Imroze Khan

P-0771
To defend yourself from predators or pathogens? Trade-offs between chemical defense and immune defense in a *Heliconius* butterfly
Anniina L. K. Mattila

P-0772
Phylogenetic approaches to identify clonal lineages in the adaptive immune system
Felix Breden

P-0773
A constitutive immune defense improves the survival to a natural pathogen in an insect model
Caroline Zanchi

P-0774
Macro- and micro-evolutionary selection dynamics acting on immune genes across the Pieridae family (Lepidoptera)
Naomi Keehnen

P-0775
Comparison of spleen transcriptomes of two rodent species reveals the immunological basis of interspecific variation in resistance to the tick-transmitted bacterium *Borrelia afzelii*
Xiuqin Zhong

P-0776
Evidence for a growth-defense trade off in invasive *Centaurea solstitialis*
Elizabeth Carpenter

P-0777
Mitochondrial genome effects on humoral and cellular innate immune responses in *Drosophila*
Tiina Salminen

P-0778
Evolution of a neglected trait between life history and immunology: maternal antibody persistence
Thierry Boulinier

P-0779
Variation in immune performance and interactions with a viral pathogen in North American herbivores (Lepidoptera: Nymphalidae) utilizing native and novel host plants
Nadya Muchoney

P-0780
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Simon Eckerström-Liedholm

P-1262
Evolution of brain shape in the mustelid adaptive radiation
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