



II Joint Congress on Evolutionary Biology Montpellier 2018, France

August 18-22, 2018



Presenting major new insights in Evolutionary Biology

Find out more at:
elifesci.org/evolutionarybio

eLife publishes outstanding articles in all areas of the life and biomedical sciences and we especially welcome studies that present major new insights into patterns and processes in any field of evolutionary biology.

Why authors choose eLife for their best work:

- Working scientists make all editorial decisions
- Collaborative review process limits revisions
- All research is published openly without delay

Senior Editors



Patricia Wittkopp
University of Michigan



Aviv Regev
Broad Institute



Diethard Tautz
Max Planck Institute for
Evolutionary Biology



Ian Baldwin
Max Planck Institute for
Chemical Ecology

TABLE OF CONTENTS

| | |
|--|----|
| Welcome..... | 04 |
| In memoriam..... | 05 |
| Information..... | 06 |
| Conference information..... | 06 |
| Congress area map..... | 09 |
| City map..... | 10 |
| Corum maps..... | 12 |
| Plenary talks..... | 14 |
| Other special events sponsored by societies..... | 15 |
| Workshops..... | 20 |
| Other meetings..... | 23 |
| Social events..... | 24 |
| Outreach..... | 25 |
| List of symposia..... | 26 |
| Program..... | 31 |
| Program at a glance..... | 31 |
| Sunday, August 19..... | 32 |
| Monday, August 20..... | 38 |
| Tuesday, August 21..... | 46 |
| Wednesday, August 22..... | 54 |
| Poster list..... | 63 |
| Session 1 August 19-20, 2018..... | 63 |
| Session 2 August 21-22, 2018..... | 86 |

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. Accompanying 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.workforcewindow.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/>

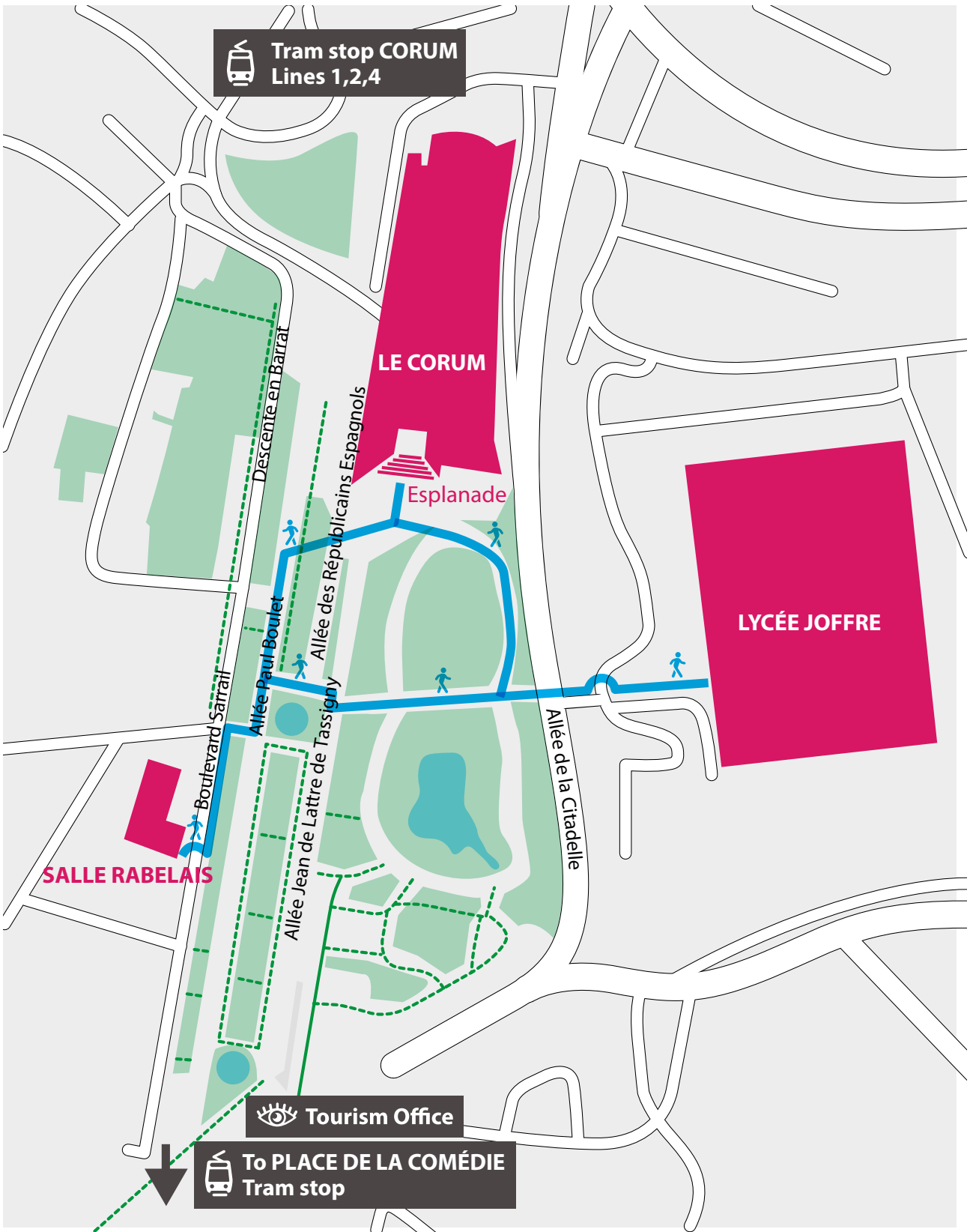
TAM PASS

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.

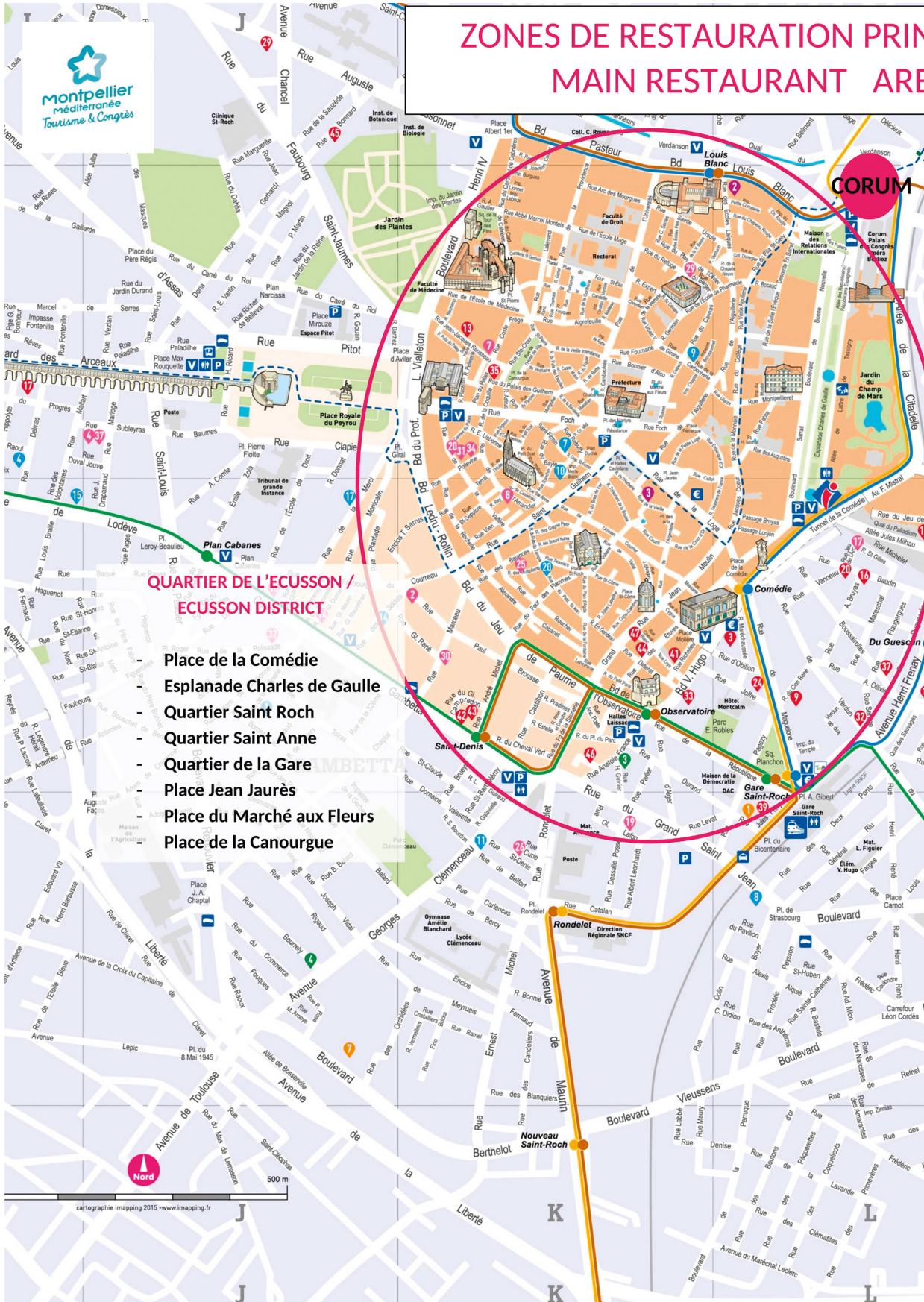
ENVIRONMENTAL IMPACT

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/>).

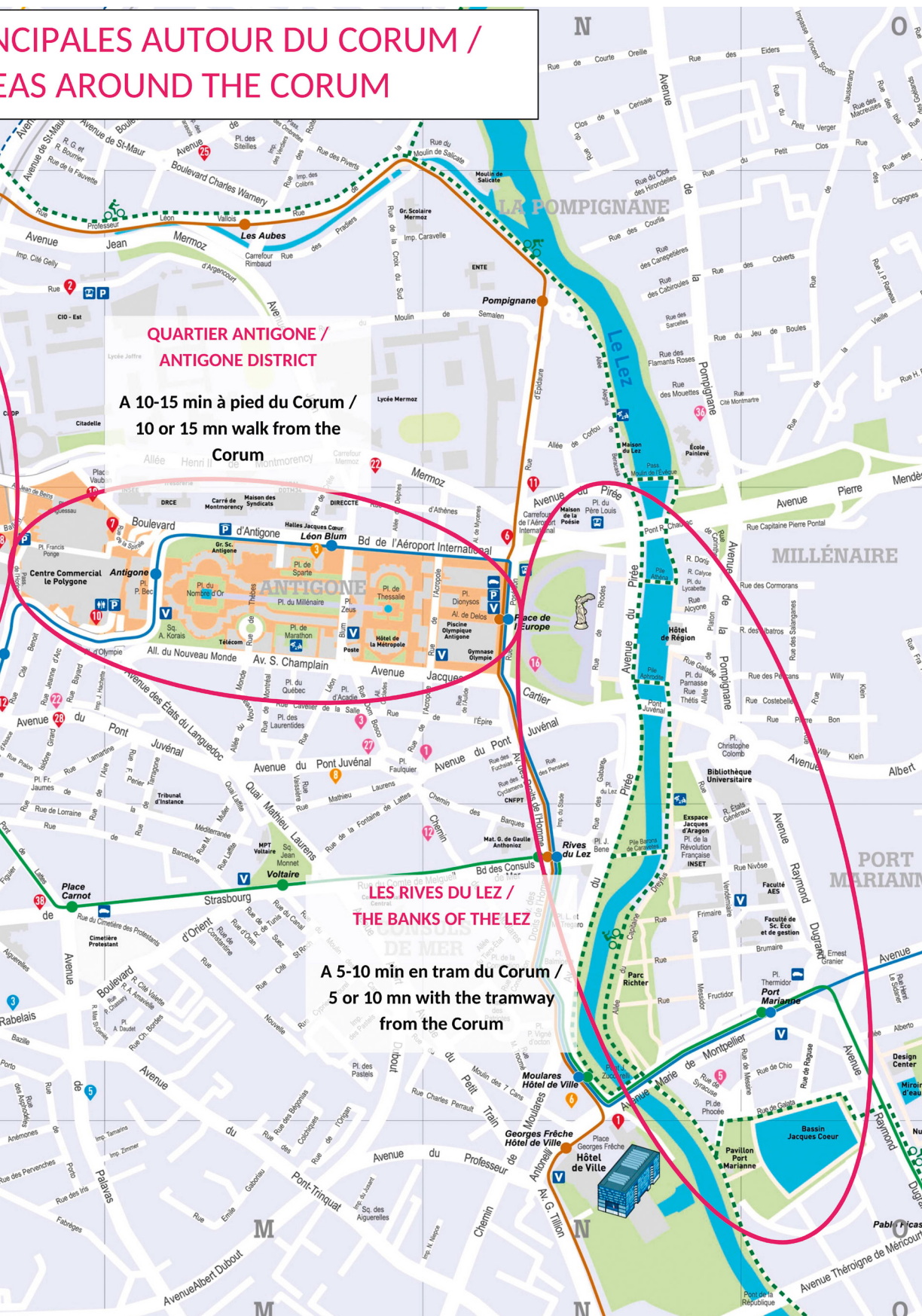
CONGRESS AREA MAP



CITY MAP

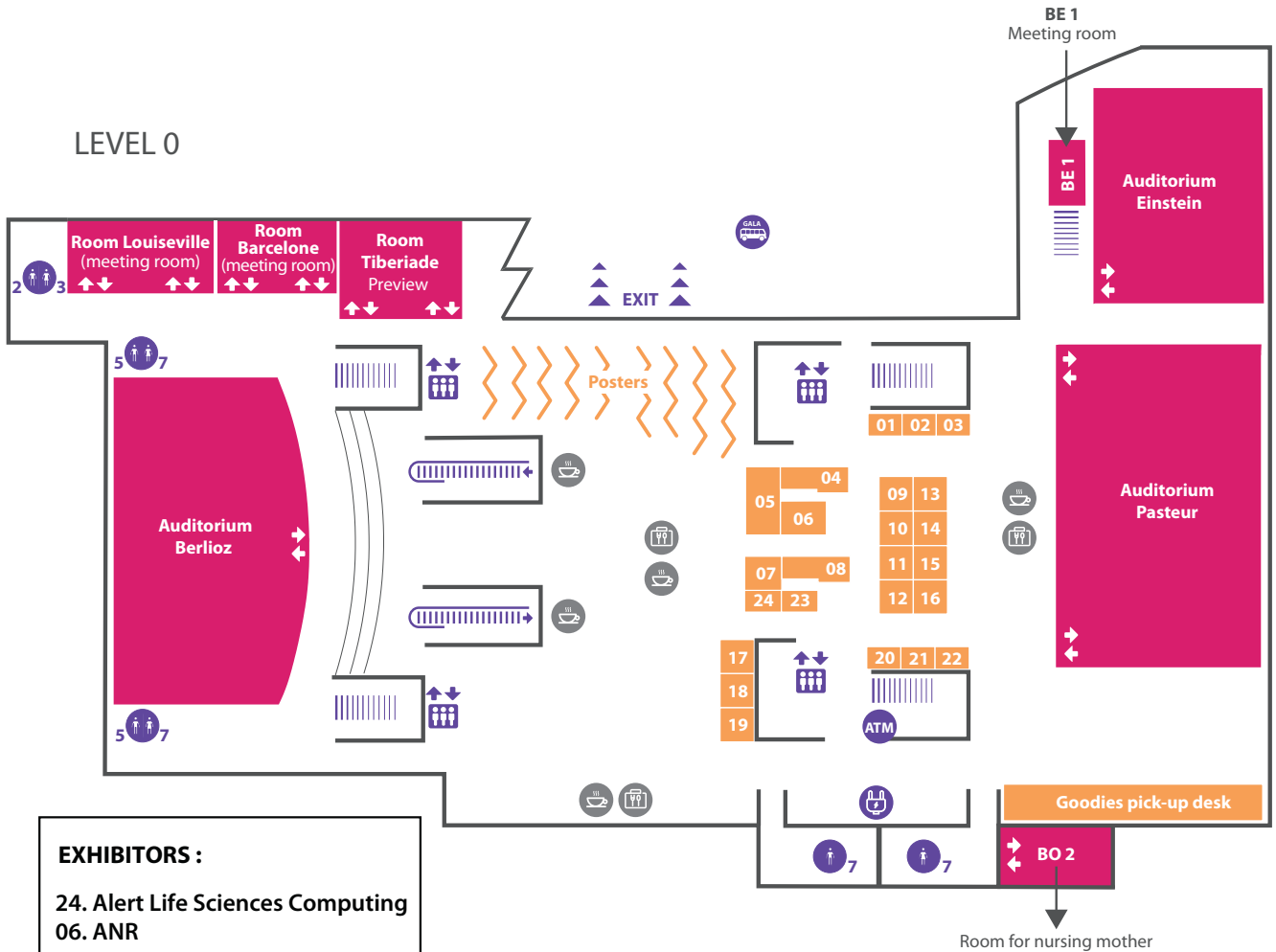


PRINCIPALES AUTOUR DU CORUM /
AREAS AROUND THE CORUM



CORUM MAPS

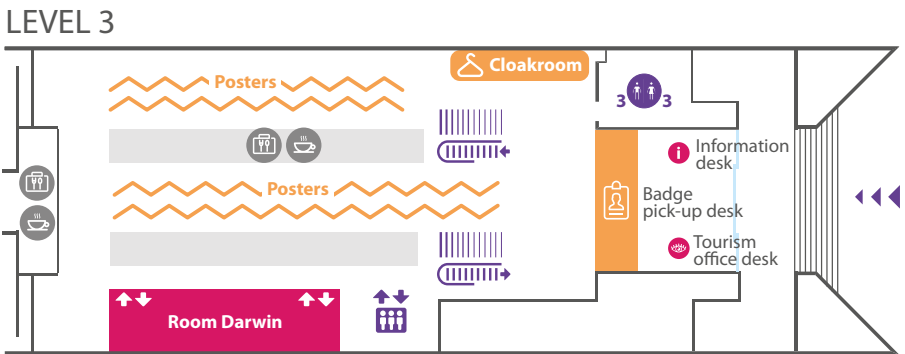
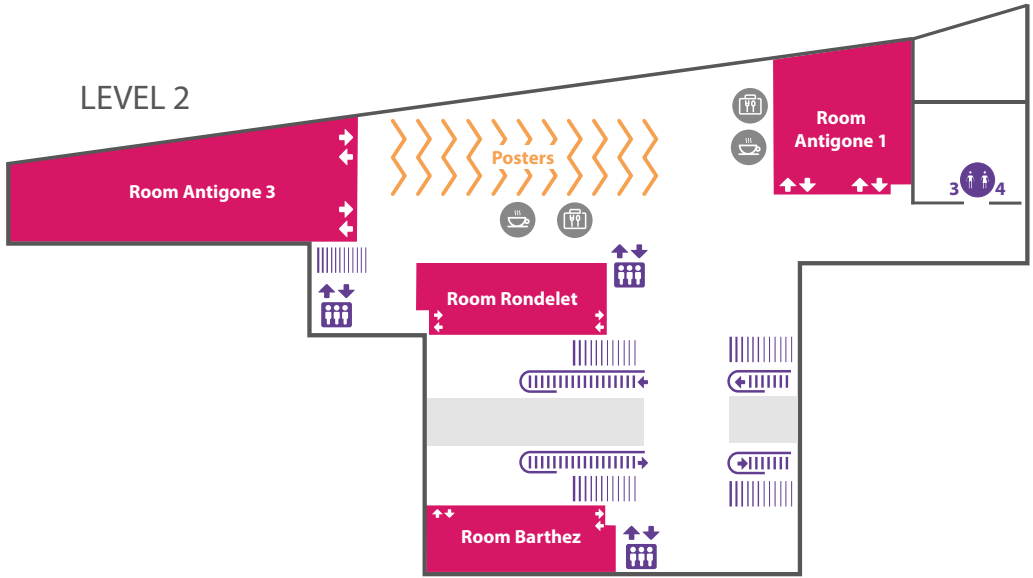
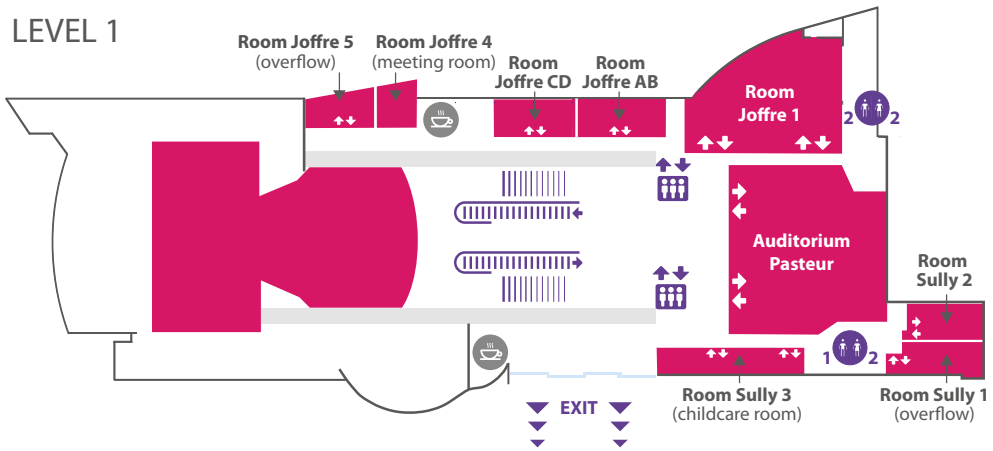
LEVEL 0



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



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 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:



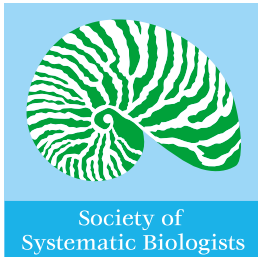
Siobhan O'Brian (ETH Zürich)

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



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

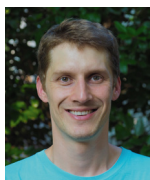
The Jasper Loftus-Hills Young Investigators Award was established in 1984 to recognize outstanding and promising work by investigators who received their doctorates in the three years preceding the application deadline or who are in their final year of graduate school. Jasper Loftus-Hills (1946-1974) 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 BUSINESS MEETING

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

Business meetings are open to all members of the Society

ASN SPONSORED POSTER SESSION

August 21
17:30-19:30
Level 2

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 Cléo

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: *Héloïse 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 area; 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 Dérivé» (the unwrinkled pea, but «dérivé» 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!

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) « Mêmes, 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 METAPOPOPULATIONS 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 SYMBIOTIC 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 Raghwan, 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, Liliána 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 Sadler*

Invited : *Melanie Debais-Thibaud*

S-25

THE MACROEVOLUTIONARY DYNAMICS OF FORM-FUNCTION RELATIONSHIPS

Chairs: *Christine Böhmer, Alexandra Housseye, 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 Larracuenta, 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 Censer, 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 Kooij*

Invited : *Stephen Wright*

S-54

FITNESS EFFECTS OF MUTATIONS

Chairs: *Charles Fenster, Courtney Murren*

Invited : *Ruth Shaw*

S-55

ECOLOGICAL AND EVOLUTIONARY GENOMICS OF POLYPLIIDY

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 McPeck*

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

JOURNAL OF GENERAL VIROLOGY
Publishing high-quality research at the forefront of virology



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 | Evoke | Registration |
| 09:00 | | | |
| 10:50 | | | |
| 13:10 | ASN council/ESEB officers/SSE council/SSB council | Evoke | Registration |
| 13:30 | | | |
| 14:30 | | | |
| 19:00 | Welcome reception | | |
| 20:30 | Welcome reception | | |

| 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 Biology 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 | POSTER Cocktail 1 (Posters will be displayed until Monday, August 20, 3:40 pm) |

| 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 | SSE Stephen Jay Gould Prize |

| 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 | 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) |

| 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 SFE ² - Building your 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 | Conference Dinner |

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-evolution- ary 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 | Mitochondrial incompatibilities promoted mitogenome evolution in a hybrid population S. Hirase | The genetic evolution of reproductively isolating male pheromone preference in <i>Drosophila simulans</i> and <i>sechellia</i> 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 <i>Clarkia</i> (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 Meranieae (Melastomataceae) A. Dellinger |
| 12:20 | LUNCH BREAK Making science great again (Antigone 1)- Evolutionary Applications editorial board (Louisville)- Journal of Evolutionary 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 <i>Capsella bursa-pastoris</i> 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: Coccothraupidae): divergence time, diversification rates and life strategy evolution in the light of amber inclusions I. Veà | 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 <i>Drosophila</i> telomere biology M. Levine | Climate drives lineage and morphological diversification in an adaptive radiation of <i>Hemidactylus</i> 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 <i>Silene</i> 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 <i>Zea mays</i> 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 Evolutionary Biology editorial board (Barcelona)- 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-evolution- ary 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 <i>Mimulus</i> 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 <i>Staphylococcus aureus</i> ? A. Papkou | The evolution of multiple mutualisms and mating system in <i>Tumera ulmifolia</i> 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 <i>Silene</i> 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 <i>Mycobacterium tuberculosis</i> strains from Georgia S. Gygli | An evolutionary winning hand: pollinator-mediated floral shape convergence in the tropical genus <i>Erythrina</i> (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 <i>Cryptoblepharus</i> 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 <i>Daphnia</i> E. Macke | Transposable elements affect the transcriptional regulation of stress response genes in <i>Drosophila</i> 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. Ogenfuss | 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 <i>Drosophila</i> 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-evolution- ary 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 adaptive 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 <i>Arabidopsis thaliana</i> 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 <i>E. coli</i> 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 <i>Heliosperma pusillum</i> (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. McPeck | Using fossils to date phylogenetic trees S. Klopstein | Distinct biogeographic origins of androgenetic lineages in <i>Corbicula</i> 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 <i>Pinus</i> 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 <i>Alainites muticus</i> in natural populations. M. Liegeois | Patterns of adaptive genetic variation across <i>Coffea canephora</i> 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 pimply 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 | Announcements (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 <i>Timema cristinae</i> 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 <i>Ophrys</i> L. Piñeiro Fernández | Predicting fitness changes over long time scales M. Wiser | Replicated landscape level epigenomics and genomics of two Greater Antillean trunk-ground <i>Anolis</i> 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 <i>Schistosoma haematobium</i> and <i>Schistosoma bovis</i> 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 | Annoncements (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 (<i>Sarcophilus harrisii</i>) 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 <i>Timema</i> stick insects R. Villoutreix | Suitable is not optimal: evaluating the adaptive potential and evolutionary optima of a threatened bird species (the hihi, <i>Notiomystis cincta</i>) 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 maintenance within populations C. Wheat | How the many facets of pleiotropy influence the efficiency of selection in <i>Drosophila melanogaster</i> C. Fraise | 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 <i>Drosophila</i> 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 (<i>Protea repens</i>) 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. Iwaskiewicz | The making and breaking of genetic correlations - lessons from <i>Silene</i> 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 <i>Heliconius</i> J. Lewis |
| 12:00 | Clusters of shared and unique genomic divergence across parallel instances of local adaptation in the marine snail <i>Littorina saxatilis</i> H. Morales | The Contribution of Adaptation and Environment to Population Dynamics, Range Size, and Niche Width in <i>Clarkia xantiana</i> 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 (<i>Quercus lobata</i>)? 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 <i>Arabidopsis</i> 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 murre (<i>Uria aalge</i>). 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 <i>Arabidopsis thaliana</i> 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 <i>Populus balsamifera</i> S. Keller | Is standing genetic variation for local adaptation concentrated in rear edge populations? A test of range limit theory in <i>Populus balsamifera</i> . 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 <i>Tillandsia</i> (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, <i>Rana arvalis</i> 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 <i>Arabidopsis alpina</i> P.W. Hughes | How to estimate kinship? J. Goudet | Fitness effects of new mutations in <i>Chlamydomonas</i> 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 meta-populations 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 <i>Heliconius</i> 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 <i>Arabidopsis thaliana</i> 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, <i>Boechnera stricta</i> 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 <i>Anolis</i> lizards C. Infante | Evolutionary responses to Global Warming over five decades of evolution M. Cuenca Cambroneiro | 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 <i>Escherichia coli</i> 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 <i>Arabidopsis thaliana</i> ? 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 Meta-populations 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. Akçay |
| 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 <i>Paramecium</i> 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 (<i>Melitaea cinxia</i>) M. Dileo | Adaptive coupling of diapause phenotypes in the apple maggot fly, <i>Rhagoletis pomonella</i> 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 <i>Drosophila melanogaster</i> 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 <i>Drosophila pseudoobscura</i> ? 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 <i>Drosophila</i> F. Mery | Phylogenetic 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 | <i>Drosophila</i> 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 <i>Heliconius</i> butterflies R. Merrill | Evolutionary responses to artificial selection on heat thermal resistance in <i>Drosophila subobscura</i> : 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 <i>B. napus</i> (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 <i>Heliconius</i> 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 <i>Plasmodium</i> 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 <i>Rhagoletis pomonella</i> 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 <i>Heliconius</i> 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 <i>Peromyscus</i> rodents K. Hook | Developmental mechanisms of beak shape evolution in Darwin's Finches M. Dobрева | 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 (Barcelona) - 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 <i>Acacia</i> 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. Tenailleon | 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 <i>Zymoseptoria tritici</i> , 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 macroevolution through OU processes P. Duchon | 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. Debais-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 <i>Drosophila melanogaster</i> 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 <i>Drosophila melanogaster</i> 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. Chirotto | 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, <i>Tamiasciurus hudsonicus</i> J. Robertson |
| 17:10 | Transcriptional patterns of a secondary sex trait in the sex-role reversed pipefish, <i>Syngnathus scovelli</i> 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 | Announcements | | | | | |
| 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 <i>E. coli</i> 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 (<i>Apis cerana</i>) 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 <i>Escherichia coli</i> 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 | Announcements | | | | | | |
| 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 (<i>Bombus lapidarius</i>) 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 | Cytosuclear 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 <i>Arnica montana</i> 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 <i>D. melanogaster</i> 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 (<i>Parus major</i>) 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 (<i>Phaulacridium vittatum</i>) S. Yadav | Did domestication of apple tree promoted speciation of its fungal pathogen, <i>Venturia inaequalis</i> ? 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 (<i>Zaprionus indianus</i>) 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 Millennia 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 <i>Astyanax mexicanus</i> 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. Côté | 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 <i>Trachemys</i> 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 <i>Daphnia magna</i> K.I. Brans | Transcriptomic underpinning of eusociality in the facultative eusocial sweat bee <i>Halictus rubicundus</i> A. Soro | Polyploidy and parasites: does polyploidy confer immune advantage 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 (<i>Coffea arabica</i>) through gene expression and metabolic pathway regulation analyses P. Lashermes | Climate change and limited distribution of California native plant <i>Arabis blepharophylla</i> (Brassicaceae) 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 homoeolog gene expression reshuffling shapes defense metabolism to insect herbivory in <i>Nicotiana</i> 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 (Louisville) | | | | | | |

WEDNESDAY, AUGUST 22

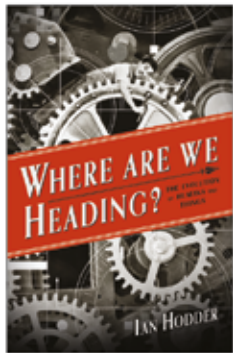
| | BERLIOZ | PASTEUR | EINSTEIN | SULLY 2 | JOFFRE 1 | JOFFRE AB |
|-------|---|---|--|---|--|---|
| 14:15 | ASN Jasper Loftus-Hills Young Investigators Award | S-46 Role of phenotypic plasticity in evolution: Where are we now? | S-42 From theory to genome-wide data: inferring selection, demography, 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 <i>C. elegans</i> matricide C. Braendle | Gene expression drives the evolution of dominance C. Hubert | Evolution of <i>Burkholderia</i> 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 <i>Mimulus</i> L. Fishman |
| 14:40 | | Cryptic genetic variation in natural populations and its contribution to genetic assimilation in <i>Drosophila melanogaster</i> 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 <i>Mimulus guttatus</i> 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 <i>Ishcnura elegans</i> 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 <i>Peromyscus</i> mice J. Velotta | Comparing Alternative Hypotheses on the Peopling of the American Arctic N.E. Altinisik | Convergent metabolic specialization through distinct evolutionary paths in <i>Pseudomonas aeruginosa</i> 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 (<i>Salmo trutta</i> , 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 <i>Pseudomonas</i> 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 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 <i>Chlamydomonas reinhardtii</i> 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 <i>Rana</i> reveal co-evolutionary dynamics of chytridiomycosis K. Mulder | How whole plastome phylogeny of <i>Dioscorea</i> 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 <i>Drosophila</i> 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 <i>Silene vulgaris</i> 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 <i>Pseudomonas aeruginosa</i> 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 (<i>Danaus plexippus</i>) 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 <i>Swertia</i> (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 <i>E. coli</i> and Yeast, in mono-culture and co-culture. M. McDonald | Eco-evolutionary dynamics in agriculture: a model in crop rotations M. Bargaúes Ribera | The evolution of ecophysiological traits related to drought stress in grapevines E. Forrester | Evolutionary Rescue G. Bell | Co-genomics of <i>Bacillus thuringiensis</i> parasites and <i>Tribolium castaneum</i> 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 | | | | | | |



The House of Owls
Tony Angell
Foreword by Robert Michael Pyle
Now in paperback

The Aliens Among Us
How Invasive Species Are Transforming the Planet—and Ourselves
Leslie Anthony

The Origins of Everything in 100 Pages (More or Less)
David Bercovici
Now in paperback

A Thousand and One Fossils
Discoveries in the Desert at Al Gharbia, United Arab Emirates
Faysal Bibi, Andrew Hill, and Mark Beech

Fine Lines
Vladimir Nabokov's Scientific Art
Edited by Stephen H. Blackwell and Kurt Johnson

Minds Make Societies
How Cognition Explains the World Humans Create
Pascal Boyer

Carnivore Minds
Who These Fearsome Animals Really Are
G. A. Bradshaw

On Being Human
Why Mind Matters
Jerome Kagan

House of Lost Worlds
Dinosaurs, Dynasties, and the Story of Life on Earth
Richard Conniff

Welcome to the Microbiome
Getting to Know the Trillions of Bacteria and Other Microbes In, On, and Around You
Rob DeSalle and Susan L. Perkins
Illustrated by Patricia J. Wynne
Now in paperback

Our Senses
An Immersive Experience
Rob DeSalle
Illustrated by Patricia J. Wynne

Writing Successful Science Proposals
Third Edition
Andrew J. Friedland, Carol L. Folt, and Jennifer L. Mercer
Paperback Original

The Great Apes
A Short History
Chris Herzfeld
Translated by Kevin Frey;
Foreword by Jane Goodall

Where Are We Heading?
The Evolution of Humans and Things
Ian Hodder

Hubbard Brook
The Story of a Forest Ecosystem
Richard T. Holmes and Gene E. Likens

Feats of Strength
How Evolution Shapes Animal Athletic Abilities
Simon Lailvaux

Belonging on an Island
Birds, Extinction, and Evolution in Hawai'i
Daniel Lewis

Think Tank
Forty Neuroscientists Explore the Biological Roots of Human Experience
Edited by David J. Linden

Where Song Began
Australia's Birds and How They Changed the World
Tim Low

Babies of Technology
Assisted Reproduction and the Rights of the Child
Mary Ann Mason and Tom Ekman

Mapping the Heavens
The Radical Scientific Ideas That Reveal the Cosmos
Priyamvada Natarajan
Now in paperback

Managing the Wild
Stories of People and Plants and Tropical Forests
Charles M. Peters
A co-publication with The New York Botanical Garden

The First Domestication
How Wolves and Humans Coevolved
Raymond Pierotti and Brandy R. Fogg

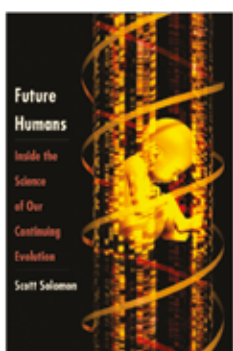
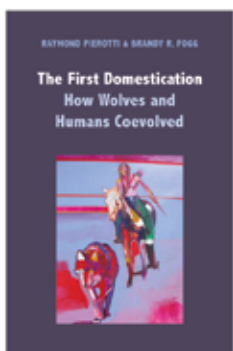
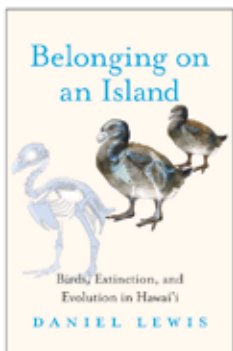
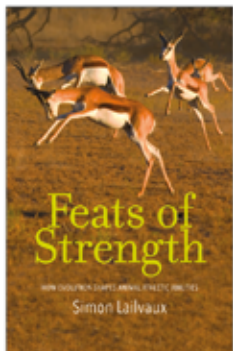
Against the Grain
A Deep History of the Earliest States
James C. Scott
Now in paperback

Stepping in the Same River Twice
Replication in Biological Research
Edited by Ayelet Shavit and Aaron M. Ellison
Foreword by W. John Kress

Exploration and Discovery
Treasures of the Yale Peabody Museum of Natural History
David K. Skelly and Thomas J. Near
Photography by Robert Lorenz
Now in paperback

Future Humans
Inside the Science of Our Continuing Evolution
Scott Solomon

Culture, Genes, and the Welfare of Others
David Sloan Wilson
Now in paperback



FISHES OF THE WESTERN NORTH ATLANTIC

Part 1: Lancelets, Cyclostomes, Sharks

Part 2: Sawfishes, Guitarfishes, Skates and Rays, Chimaeroids

Part 3: Soft-rayed Bony Fishes: Orders Acipenseroidae, Lepisosteidae, and Isospondyli

Part 4: Soft-rayed Bony Fishes: Orders Isospondyli and Giganturoidei

Part 5: Orders Iniomi and Lyomeri

Part 6: Orders Heteromi (Notacanthiformes), Berycomorphi (Beryciformes), Xenoberyces (Stephanoberyciformes), Anacanthini (Gadiformes)

Part 7: Order Iniomi (Myctophiformes)

Part 8: Order Gasterosteiformes

Part 9, Volume 1: Orders Anguilliformes and Saccopharyngiformes

Part 9, Volume 2: Leptocephali

Part 10: Order Beloniformes: Needlefishes, Sauries, Halfbeaks, and Flyingfishes

Memoir II

The Elementary Chemical Composition of Marine Organisms

A.P. Vinogradov

All titles in paperback and POD

POSTER LIST

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 Papadopoulos

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 sciuriform 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 "diplome": 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

Phylogenetic 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

Cancelled

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

Cancelled

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 Vos

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 genomics 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

P-0134

Cancelled

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

Cancelled

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 METAPOPOPULATIONS 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

Evolutionary inference from QST - FST comparisons: local features and altitude in snapdragon plants
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 Raghvani

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 Censer

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

P-0173

Cancelled

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

P-0175

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

P-0177

Prevalence, Diversity and Transmission of a Denguevirus 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

P-0187

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

P-0189

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 coevolutionary relationship between the sexually deceptive *Cryptostylis* orchids and their duped pollinator

Amy Martin

P-0193

Cancelled

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

P-0195

Genetic correlations between traits influence mutualistic coevolutionary dynamics in unexpected ways

Ana Paula Assis

P-0196

Cooperate-and-radiate co-evolution between ants and plants

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

P-0199

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 Platscheck

P-0204

Evolution of floral scents in a nursery pollination mutualism

Martine Hossaert-Mckey

P-0205

Contrasting patterns of specialization in closely related host-symbiont interactions

Maren Friesen

S-34 EXPERIMENTAL AND THEORETICAL STUDIES OF THE ORIGINS AND CONSEQUENCES OF DIVERSIFICATION

P-0206

Insights from Fisher's geometric model: different environmental scenarios for their chances of leading to speciation

Ryo Yamaguchi

P-0207

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

Magdalena San Roman

P-0208

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

Alexa Sadier

P-0209

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

Rachael Graham

P-0210

Diversification patterns in armored scale insects: the case of the puparium

Mayrolin Garcia

P-0211

Structured populations allow mutator invasions due to increased clonal interference

*Katrina Harris***P-0212**

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

*Kathryn Stewart***P-0213**The importance of host specialization in insecticide resistance of the green peach aphid *Myzus persicae**Christophe Plantamp***P-0214**

Ecological opportunity and mate choice interact in model adaptive radiations

*Jörgen Ripa***P-0215**

Erosion of phylogenetic signal of niches through eco-macroevolutionary feedback

*Andreas Prinzing***P-0216**

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

*Winter Beckles***P-0217**

Cancelled

P-0218

Cancelled

P-0219

Bacteriophage spatial structure selects on motile bacteria

*Michael Blazanin***P-0220**

The effects of diversity levels and spatial structure on diversification during community assembly

*Aidan Fielding***P-0221**

Dead stuff matters: how bacterial necromass facilitates evolution

*Heather Kittredge***P-0222**

Describing sympatry and character displacement

Heather Rich

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

P-0223

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***P-0225**

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

*Josselin Clo***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?

*Shenglin Liu***P-0229**Heterozygosity-fitness correlations under environmental stress in a population of grayling (*Thymallus thymallus*) under relaxed selection*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

P-0234

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

P-0240

Cancelled

P-0241

Early stage competition of post-traumatic vectored founder colonies of yeast

Simone Dupuy

P-0242

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

Manpreet Dharmi

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 Sarmiento 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

P-0249

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

Stephen Montgomery

S-64 RAPID EVOLUTIONARY RESPONSES TO GLOBAL CHANGE

P-0250

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 adaptation 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

Patrik Rödin Mörch

P-0311

Gene flow, translocation and local adaptation in Norway spruce

Martin Lascoux

P-0312

Landscape genomics of valley oak (*Quercus lobata*) reveals genes involved in local climate adaptation at multiple spatial scales

Paul Gugger

P-0313

Microgeographic and climatic adaptation of Ethiopian indigenous chicken: A genome-wide analysis

Adriana Vallejo

P-0314

Among population differences for water-use efficiency, growth and phenology traits in *Q. robur* and *Q. petraea* mixed stands

Oliver Brendel

P-0315

Multi-scale local adaptation in the presence of micro-environmental heterogeneity

François Lefèvre

P-0316

Natural variation of leaf secondary metabolites and underlying genetics in European white oaks

Benjamin Brachi

P-0317

A genomics time study of five regions colonized by mountain pine beetle: 2005-2016

*Kirsten Thompson***S-07 SOCIAL EVOLUTION AND KIN SELECTION:
CONFRONTING NATURE WITH THEORY****P-0318**

The evolution of social life in family groups

*Joel Meunier***P-0319**

Effects of genetic relatedness of conspecific neighbour on interspecific competition

*Akira Yamawo***P-0320**

Cancelled

P-0321The multi-dimensionality of social interactions in *Pseudomonas* communities*Jos Kramer***P-0322**

The sociobiology of programmed cell death in the unicellular world

*Pierre Durand***P-0323**

Colony relatedness asymmetry and kin selection in diploidiploid termites: confronting nature with theory

*Andrea Luchetti***P-0324**Siderophores-mediated cooperation and cheating in the opportunistic pathogen *Burkholderia cenocepacia**Santosh Sathe***P-0325**Effects of plant relatedness on intraspecific interactions in the annual legume *Medicago truncatula**Sara Tomiolo***P-0326**

Coping with harsh environments and the emergence of cooperation

*Julian Melgar***P-0327**

Interspecific aggregation of necrophagous Diptera larvae

*Larissa Komo***P-0328**

Within-population genetic mixing strategies drive panmixia in a highly social seabird

*Lucy Garrett***P-0329**

Genotype mixtures as a tool to develop sustainable agriculture? Elucidating the mechanisms that drive genotypic interactions in crops

*Hélène Fréville***P-0330**

Why cheat? Social parasitism in a cooperatively breeding cuckoo

*Christina Riehl***P-0331**

Human language: selfish or altruistic?

*Thomas Hitchcock***P-0332**

Impact of genetic relatedness and social environment on intersexual behaviour in a cichlid fish

*Timo Thuenken***P-0333**

Farming plant cooperation in crops

*Germain Montazeaud***P-0334**

A signature of kin selection on genomic data due to genetic linkage and background selection

*Jeremy Van Cleave***P-0335**

Mutitrophic interactions constrain plant-microbe mutualism

*Alexandre Jousset***S-12 THE EVOLUTION OF RESISTANCE****P-0336**

Hypermutators facilitate multi-drug resistance evolution

*Danna Gifford***P-0337**Ionizing Radiation Resistance in Experimentally Evolved *Escherichia coli* Populations*Michael Cox***P-0338**

Understanding rapid evolution of insecticide resistance using historical pest genomes

*Angela Mcgaughran***P-0339**

Do hosts outsource pathogen resistance to symbionts?

*Jan Hrcak***P-0340**Probing the evolutionary robustness of anti-virulence treatments targeting iron uptake in *Pseudomonas aeruginosa**Rolf Kuemmerli***P-0341**

Malaria drug resistance and vector transmission

*Manon Villa***P-0342**Characterising the evolution of ivermectin resistance in the parasitic worm *Haemonchus contortus**Chris Illingworth***P-0343**

Asymmetric damage partitioning: to die, to sleep, perchance to persist

*Audrey Proenca***P-0344**

Evolution of resistance through indirect selection across life stages

*Julie Collet***P-0345**

Quantifying the impact of a periodic presence of antimicrobial on resistance evolution in a homogeneous microbial population of fixed size

*Anne-Florence Bitbol***P-0346**Experimental evolution of antibiotic resistance in *Acinetobacter baumannii**Christopher Marshall*

P-0347

Anthropogenic increases in sodium alter life history and stress tolerance in two butterfly species
Megan Kobiela

P-0348

Genetic background modulates the fitness effects of antimicrobial resistance elements in *Escherichia coli*
Alex Wong

P-0349

Integron's shuffling power does not increase adaptability to antibiotic pressure in mobile integrons
Celia Souque

P-0350

Focussing on resistance to front-line drugs is the most effective way to combat the antimicrobial resistance crisis
Luke McNally

P-0351

The effect of mismatch in codon usage preference on horizontally transferred antibiotic resistance
Caroline Rose

P-0352

Trans-generational transcriptomic response to natural and xenobiotic chemicals in a specialist aphid
Stephanie Birnbaum

P-0353

Ecological drivers of the evolution of antibiotic resistance
Nick Davies

P-0354

The roles of history, chance and adaptation in the evolution of antimicrobial resistance
Alfonso Santos-Lopez

P-0355

Negative epistasis in between resistances accelerates compensation of multiple resistant bacteria
Paulo Durão

P-0356

Is there a link between bitterness and toxicity of aversive compounds in *Drosophila melanogaster*?
Perrine Colombi

P-0357

Genome-wide scanning of parasitic nematode populations to detect anthelmintic drug resistance loci
Janneke Wit

P-0358

Compensation for antibiotic resistance in the mammalian gut
Luís Cardoso

P-0359

The effect of drug dose and duration on the evolution of resistance in an in-vivo model
Monica Acosta

P-0360

Assaying bacterial growth traits for understanding antibiotic resistance across environments
Ana-hermina Ghenu

P-0361

Evolutionary rescue from antibiotic stress affects public goods strategies in the bacterium *Pseudomonas aeruginosa*
Charlotte Rosher

P-0362

Molecular epidemiology and short term evolution of antimicrobial resistance in *Klebsiella pneumoniae* isolates
Garcia-Gonzalez Neris

S-20 HOW PREDICTABLE IS EVOLUTION?

P-0363

Host-parasite coevolution in fluctuating environments: combining theory and experiments.
Charlotte Ferris

P-0364

How predictable is evolution of populations with contrasting history? A study across biological levels
Pedro Simões

P-0365

The predictability of evolution in experimental pea aphid populations
Lucas Nell

P-0366

Prediction of antibiotic resistance from gene content and population structure
Danesh Moradigaravand

P-0367

Repeatability in the evolution of parasitoid infectivity
Alice Dennis

P-0368

The predictability of evolution tested using experiments with Trinidadian guppies
Kiyoko Gotanda

P-0369

Frequencies of environmental fluctuations modulate speed and costs of thermal adaptation in a globally distributed marine diatom
Elisa Schaum

P-0370

Adaptive genetic redundancy in *Drosophila* is driven by a vast reservoir of quantitative trait loci
Neda Barghi

P-0371

Double bind or double duty? Identifying evolutionary trade-offs using deep mutational scanning.
Olivia Kosterlitz

P-0372

The steepness of environmental gradients predicts rates of niche macroevolution
Frank Schurr

P-0373

Ecological specialization and macroevolutionary patterns: First test of resource-use hypothesis in marine vertebrates (Cetacea, Mammalia)
Fernando Blanco

P-0374

Can competition cause rapid niche adaptation?
Determining a timeline for ecological character displacement.

Jennifer Cocciardi

P-0375

Massively parallelized experimental evolution reveals pervasive genetic assimilation of early non-genetic adaptation

Simon Stenberg

P-0376

Jump then climb: can rearrangements predict the occurrence of mutational bursts?

Guillaume Beslon

P-0377

Environmental drivers of phenotypic differentiation in a livebearing fish (*Phalloptychus januarius*, Hensel 1868)

Francesco Santi

P-0378

How does an adaptive radiation begin?
Contingency and determinism in *Anolis sagrei* ecological specialization

Colin Donihue

P-0379

The role of chance in determining mating success

Hope Klug

P-0380

Evolution of the genes encoding the human ligands and receptors in the animal tree of life

Anna Grandchamp

P-0381

The Origins Center: A Dutch nationwide initiative for research on the prediction of evolution

Meike Wortel

P-0382

Historical contingency influences convergent evolution of multicellularity in yeast

Joleen Khey

P-0383

Phenotypic change in response to introduced predators and competitors: a field experiment with *Anolis* lizards

Timothy Thurman

P-0384

The importance of mechanisms for evolutionary predictions

Franjo Weissing

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

P-0385

Characterizing gene expression through the lens of low-complexity sequences.

Zachery Dickson

P-0386

What? Their genome is evolving! Active retrotransposons imply recent structural dynamism in avian genomes

James Galbraith

P-0387

Do transposable elements provide genomic plasticity in the absence of sex in devastating plant-parasitic nematodes?

Djampa Kozłowski

P-0388

Interplay between response to viral infections and transposable element control in *Drosophila*

Marlène Roy

P-0389

Amplified and polymorphic *Wolbachia* *cidA-cidB* genes govern the diversity of crossing types in the *Culex pipiens* mosquito

Manon Bonneau

P-0390

DNA methylation landscapes supports the genomic shock hypothesis in Lake Whitefish species complex

Martin Laporte

P-0391

Epi(genomic) environmental stress response in *Drosophila*

Cristina Vieira

P-0392

Diversity and evolution of transposable elements in insects

Malte Petersen

P-0393

Well-behaved transposable elements despite drastic demographic changes in the Mediterranean grass *Brachypodium distachyon*

Christoph Stritt

P-0394

Non-B DNA affects polymerization speed and error rate in sequencers and living cells

Wilfried Guiblet

P-0395

The impact of transposable elements on ecotypic differentiation of a lichen-forming fungus along altitudinal gradients

Francesco Dal Grande

P-0396

Host range expansion and genetic plasticity drive the trade-off between integrative and extrachromosomal mobile genetic elements

Jean Cury

P-0397

Comparative analysis of genomic repeat content in acridid grasshoppers reveals phylogenetic similarities as well as unexpected differences

Abhijeet Shah

P-0398

Organization of insect genomes driven by active transposable element families

Anna-Sophie Fiston-Lavier

P-0399

High inter- and intraspecific turnover of heterochromatin-associated repeats in great apes

Kateryna Makova

S-36 ECOLOGICAL AND GENETIC MECHANISMS UNDERLYING BALANCED POLYMORPHISMS

P-0400

Mosquito resistance, insecticide selection and copy number variations

Pierrick Labbé

P-0401

Temporal fluctuations of the environmental and polymorphism of flowering strategies in gorse (*Ulex europaeus*)

Anne Atlan

P-0402

Ecological and evolutionary dynamics of female mating polymorphisms in insects: frequency-dependence, sexual conflict and assortative mating

Erik Svensson

P-0403

The role of sexual conflict in maintenance of alternative reproductive tactics

Madilyn Gamble

P-0404

Genomics of an adaptive balanced inversion polymorphism in a seaweed fly

Claire Mérot

P-0405

Trans-species polymorphisms in an aquatic invertebrate

Luca Cornetti

P-0406

A genome-wide scan for genes under balancing selection in the three-spined stickleback (*Gasterosteus aculeatus*)

Doko-Miles Thorburn

P-0407

One gene to fool them all: characterization of the doublesex gene in regulation of mimetic phenotypes in *Papilio polytes*

Riddhi Deshmukh

P-0408

The Evolution of Color Polymorphism in the Lacertidae

Kinsey Brock

P-0409

Mapping the genetic basis of a phenotypic radiation in the mimic poison frog through population-scale exome sequencing

Tyler Linderoth

P-0410

A clinal inversion in *Drosophila* represents a life-history supergene

Esra Durmaz

P-0411

The owl and moon: A tale on moonlight selection for alternative colour forms in the barn owl

Luis M. San-Jose

P-0412

Depths of deception: the evolution of upstream regulators of deceptive signal expression in an escalated arms race

Shahab Zareyan

P-0413

Emergence of a floral colour polymorphism by pollinator-mediated overdominance

Roman Kellenberger

P-0414

Shared ancestry or striking convergence? doublesex controls mimicry across multiple swallowtail butterflies

Daniela Palmer

P-0415

Inheritance, distribution, and genetic differentiation in a Neotropical polymorphic beetle species, *Chelymorpha alternans*

Lynette Strickland

P-0416

The evolution of the social chromosome supergene across native fire ant populations

Rodrigo Pracana

P-0417

Ecology and the evolution of color polymorphism in the side-blotch lizard, *Uta stansburiana*

Danielle Edwards

S-39 LATE STAGES IN SPECIATION: EVOLUTION OF STRONG REPRODUCTIVE ISOLATION IN THE PRESENCE OF GENE FLOW

P-0418

Can the "two rules of speciation" prevent gene flow at late stages of species formation? Insights from a grasshopper hybrid zone

Ricardo Pereira

P-0419

Incipient speciation in a dinoflagellate: genetic divergence, phenotypic divergence and reproductive isolation

Mickael Le Gac

P-0420

Joint evolution of species recognition and habitat preference driven by reinforcing selection

Daisuke Kyogoku

P-0421

The interplay between Wolbachia and host-associated reproductive barriers among populations of *Tetranychus urticae*

Miguel Cruz

P-0422

The Swiss Alpine whitefish radiation – first steps in understanding the genomic basis of adaptation and speciation

Rishi De-Kayne

P-0423

Coevolution of male and female mate choice can hamper speciation

Thomas Aubier

P-0424

A genome-wide diversification analysis of *Rhagoletis cerasi* sympatric host-plant ecotypes

Vid Bakovic

P-0425

Drivers of reproductive isolation in wall lizards inferred from comparative analysis of contact zones

Catarina Pinho

P-0426

Adaptive specialization by introgression promotes sympatric speciation in fall armyworms

Kiwoong Nam

P-0427

Reproductive barriers in a parasitic wasp
Marie Pollmann

P-0428

The many population genetic and demographic routes to islands of genomic divergence
Claudio Quilodran

P-0429

Maintaining species boundaries under historical gene flow: genomic consequences of introgression across the *Podarcis hispanicus* complex
Guilherme Caeiro-Dias

P-0430

Modes of reproductive isolation and their genetic architecture depend on geography in a pair of *Heliconius* butterflies
Neil Rosser

P-0431

The role of transient geographic isolation and environmental gradients in the ongoing speciation process of the Atlantic deep-sea vent mussels
Camille Thomas-Bulle

P-0432

Barriers to gene flow and speciation in the yellow-rumped warbler
Daniel Pierce

S-40 TOWARDS AN INTEGRATED UNDERSTANDING OF GENOMIC AND PHENOTYPIC DIVERGENCE

P-0433

Selection on pigmentation genes leads to rapid phenotypic evolution in a finch radiation
Leonardo Campagna

P-0434

Polygenic selection on parallel phenotypic divergence precludes complete genomic parallelism within Nearctic *Coregonus* sister-species complex
Clément Rougeux

P-0435

A flicker of hope: genomic data distinguish phenotypically distinct birds despite low levels of divergence
Stephanie Aguilon

P-0436

A genomic view of differentiation and admixture history between subspecies of the house mouse (*Mus musculus*)
João Pedro Marques

P-0437

Evidence for neutral and adaptive genomic divergences in an insular tree (*Coffea mauritiana*) faced to contrasted environments at small spatial scale
Edith Garot

P-0438

Population genomics of parallel clines in iridescent structural colour in *Heliconius* butterflies
Emma Curran

P-0439

Transcriptome sequencing reveals genomic adaptations to life at high elevations in Ethiopian frogs
Jacobo Reyes-Velasco

P-0440

Hybridization pattern comparison between population pairs of two mimetic butterfly species, *Ithomia salapia* and *Oleria onega* (Nymphalidae: Danaeinae)
Jeremy Gauthier

P-0441

The genomic architecture of female ornament evolution
Erik Enbody

P-0442

Genomic analysis of Hawaiian picture-wing *Drosophila* species shows evidence for introgression, positive selection and gene copy number changes associated with host-plant switching and reproductive isolation
Donald Price

P-0443

Understanding the genomic basis of parallel adaptive divergence using hybrid zone analysis
Anja Marie Westram

P-0444

Survival in the intertidal: The evolution of adaptive genetic divergence in sibling species of mollusc
Shane Lavery

P-0445

Selection on *Epas1*, a regulator of oxygen homeostasis, contributes to adaptive hypoxia signaling in deer mice
Rena Schweizer

P-0446

Genetic basis of a key sympatric speciation trait in cichlids
Anna Fiona Feller

P-0447

The genomic landscape underlying the sexually selected introgression in wall lizards
Weizhao Yang

P-0448

Molecular evolution of sensory genes in an adaptive radiation of New World bats
Kalina Davies

P-0449

Tracing back the evolutionary history of adaptive radiation genes through the tangled web of cichlids
Joana Meier

P-0450

Evolution and genetic basis of plumage color in the bi-colored fairywrens (*Malurus*)
Simon Yung Wa Sin

S-41 CONSEQUENCES OF HYBRIDIZATION: FROM SWAMPING TO SPECIATION

P-0451

Cancelled

P-0452

Origin and evolution of two homoploid hybrid species in the Canary island endemic genus *Argyranthemum* (Asteraceae)
Oliver White

P-0453

Examining the role of introgressive hybridization on novel host-plant use in a recent evolutionary radiation of grasshoppers
Victor Noguerales

P-0454

A genomic insight on the species boundaries in *Hyles euphorbiae* spurge hawkmoths
Anna Hundsdorfer

P-0455

Rapid evolution of post-zygotic isolating barriers and the identification of the first stable hybrid zone in gecko lizards
Brendan Pinto

P-0456

Fitness of *Rhinanthus* species and their hybrids: consequences for the fate of mixed populations
Renate Wesselingh

P-0457

The intricate species boundary between *Veronica spicata* and *V. orchidea* (Plantaginaceae)
Jannes Höpke

P-0458

Maintaining species distinctness: distinguishing between introgressable and shielded genomic regions in the hybridising harlequin flies *Chironomus riparius* and *C. piger*
Dennis Lüders

P-0459

Admixture and fast speciation in species complexes of phytophagous Hymenoptera and Orthoptera: A MuseOMICS approach
Oliver Hawlitschek

P-0460

Hybridization between two annual plant species: does introgression always happen in the same genomic regions, or does it vary among populations?
Khaled Mirzaei

P-0461

Microbiota diversity in two wild interbreeding species
Emmanuel Guivier

P-0462

Hybridization and Adaptation to Changing Environments with *Saccharomyces cerevisiae*
Ciaran Gilchrist

P-0463

Fine-scale ancestry switching across the genomes of wild hybrid mice
Megan Frayer

P-0464

Genomic investigation of parallel hybrid speciation in *Phlox*
Benjamin Goulet

P-0465

Genomics of reproductive isolation in ecologically divergent Amazonian tree species
Rowan Schley

P-0466

Evolution of salt-water tolerant species in the *Anopheles gambiae* complex from a comparative genomic perspective
Michael Fontaine

P-0467

Analysing pre- and post-zygotic barriers in haploid diploid species
Myriam Valero

P-0468

Genomic haplotype block sizes support a recent origin of hybrid *Cottus* in the River Rhine
Thijs Janzen

P-0469

The potential for satyrization as a novel method of pest control
Stewart Leigh

P-0470

Cancelled

P-0471

Complementary approaches towards understanding the consequences of natural hybridization in daffodils
Gonzalo Nieto Feliner

P-0472

On the interplay between hybridization, diversification, geography and sexual selection: A case study with Corvids (Passeriformes: Corvides)
Cristian Roman-Palacios

P-0473

Inter-specific gene flow favors diversification at multiple taxonomic levels in the clownfish (Amphiprioninae) adaptive radiation: insights from the *A. akallopisos* group
Joris Bertrand

P-0474

Genetic conflicts over sexual reproduction in hybridogenetic beetles
Susanne Dobler

P-0475

Fine-scale mapping of local ancestry across Africanized honeybee genomes collected across a broad geographic gradient
Daniela Zarate

P-0476

Relative role of chromosomal inversions and other recombination suppression mechanisms to divergence with gene flow in an Australian wildflower
Saphira Schroers

P-0477

Interspecific gene flow when chromosome numbers differ – the case of *Erebia* butterflies
Kay Lucek

P-0478

Population genomics of *Daphnia galeata*
Stuart Dennis

P-0479

Strong introgression of Major Histocompatibility Complex genes between two newt species: evidence from multiple hybrid zones
Katarzyna Dudek

P-0480

Has historical introgression impacted the evolution of hybrid incompatibilities between populations of the Arctic plant *Draba nivalis* (Brassicaceae)?

Michael Nowak

P-0481

Genome-wide sequence information reveals multiple past hybridizations that shaped the ancestors of wheat

Jonathan Brassac

P-0482

Colonization and introgression patterns in the Central European house mouse hybrid zone

Milos Macholan

P-0483

Interpreting signatures of selection at introgressing colour pattern loci in mimetic *Heliconius* butterflies

Markus Möst

P-0484

Hybridization leading to adaptive radiation in clownfish

Sarah Schmid

P-0485

Ancient variation, hybridisation, and large structural variants contributed to adaptive divergence in the Lake Malawi cichlid radiation

Hannes Svartal

P-0486

Comparative genomics of experimental hybrids reveal potential host specificity genes in *Microbotryum*

Dominik Begerow

P-0487

Genome-wide analysis of differentiation and introgression in a pair of hybridizing hummingbirds

Elisa Henderson

P-0488

Effects of secondary contacts with gene flow on epidemiological success of a fungal pathogen

Ellen Guitton

P-0489

Introgression at late stages of speciation – analysis of replicated transects in two hybrid zones between the Carpathian and smooth newts

Piotr Zielinski

P-0490

Rampant genome-wide admixture across the *Heliconius* adaptive radiation

Krzysztof Kozak

S-45 THE EVOLUTION OF COMPLEX TRAITS AND POLYGENIC ADAPTATION: WHERE DO WE STAND?

P-0491

Modern, archaeological, and paleontological DNA analysis of a marine gastropod from Caribbean Panama

Alexis Sullivan

P-0492

Environmentally regulated development as habitat selection and its consequences for plastic life histories

Kathleen Donohue

P-0493

The genomic basis of athletic performance and navigation in racing pigeons

Malgorzata Gazda

P-0494

Tracking signatures of response over 20 generations of selection for long leg length in mice

Layla Hiramatsu

P-0495

Natural Variation of Gene Regulatory Networks in *Arabidopsis thaliana*

Arthur Korte

P-0496

AraBreed: experimental evolution of ecophysiological trade-offs in *Arabidopsis thaliana*

François Vasseur

P-0497

Evolutionary potential of aggressiveness traits in the poplar rust fungus, *Melampsora larici-populina*

Agathe Maupetit

P-0498

Evolution of eye size and head morphology between *Drosophila americana* and *D. novamexicana*

Micael Reis

P-0499

The genetic basis of adaptive seed color and size variation in wild sunflowers

Marco Todesco

P-0500

Dissecting intraspecific variation in compound eye size in *Drosophila melanogaster* via integration of genome, transcriptome and phenotype data

Amel Chtioui

P-0501

The genetics of lifespan and other life history traits reveal pleiotropy and physiological trade-offs

Joost Van Den Heuvel

P-0502

An exploration of cold tolerance mechanisms across the *Drosophila* genus

Nicola Cook

P-0503

Reconstructing evolutionary changes in life history traits after island colonization

Célia Neto

P-0504

The genetic and neural basis of behavioral evolution: nesting in *Peromyscus* mice

Caitlin Lewarch

P-0505

Evolution of the eye and head gene regulatory network between closely related *Drosophila* species

Elisa Buchberger

P-0506

The influence of migration on adaptation in natural populations of *Drosophila melanogaster*

Ozan Kiratli

P-0507

Selective sweep mapping using a unique Nordic horse model reveals a potential regulatory element important for adaptation to harness racing performance

Gabriella Lindgren

P-0508

A cis-regulatory mutation in SWS1 opsin is associated with its differential expression in African cichlids

Sri Pratima Nandamuri

P-0509

Variation and genomic basis of *Fraxinus excelsior* (common ash) susceptibility to *Hymenoscyphus fraxineus* (ash dieback) throughout Britain

Jonathan Stocks

P-0510

Evolution and molecular mechanisms of photoreceptor transmutation

Ryan Schott

S-48 EPIGENETICS AND ADAPTATION

P-0511

The correlation between population size and epigenetic variation in *Phyteuma spicatum* (Campanulaceae)

Franziska Patzold

P-0512

Is epigenetic variation the key to success in seagrass clones?

Alexander Jueterbock

P-0513

The convoluted pathways of nongenetic inheritance

Russell Bonduriansky

P-0514

Towards the control of parasitic diseases through epimutagenesis of invertebrate vectors

Nelia Luviano

P-0515

Transgenerational response to early microbial exposure in the Pacific oyster *Crassostrea gigas*

Manon Fallet

P-0516

Plasticity and epigenetic modification as a form of bet-hedging in a highly variable environment

Cynthia Chang

P-0517

Food, sex and epigenetics: drivers of chipmunk population dynamics

Christelle Leung

P-0518

DNA methylation prediction in the gene body by means of CpG/e ratios in a eukaryotic pan-species study

Benoît Aliaga

P-0519

How do epigenetic changes affect invasion ability of an iconic vertebrate invader?

Lee Rollins

P-0520

Epigenetic modifications in response to environmental constraints: study of shade avoidance response in *Antirrhinum majus*

Delphine Gourcilleau

P-0521

Variation in DNA methylation related to timing of breeding in the great tit (*Parus major*) in response to temperature

Melanie Lindner

P-0522

Integrating large-scale genetic, epigenetic and phenotypic data from natural populations of *Plantago lanceolata* to understand the influence of land use on intraspecific diversity and adaptation

Bence Gaspar

P-0523

Experimental parasite infection affects DNA methylation in sticklebacks

Konstantinos Sagonas

P-0524

Epigenetic and genetic mechanisms of trained adaptation to global warming in corals

Jeremie Vidal-Dupiol

P-0525

Whole genome population epigenetic variation across a climatic gradient in a spider species with extremely low genetic diversity

Jesper Bechsgaard

P-0526

Global DNA methylation patterns play a role in the adaptation to different environments in long-living plants

Carlos Rodriguez Lopez

P-0527

TGIP and the role of nucleic acid methylating enzymes (DNMTs) in the red flour beetle

Nora Schulz

P-0528

Between-generation phenotypic and epigenetic stability in a clonal snail suggests an inherited environmental response

Mark Smithson

P-0529

When DNA methylation matters: transgenerational inheritance of environmentally induced traits

Britany Morgan

P-0530

Thermal acclimation by epigenetic regulation of energy balance in the Wild guinea pig

Alexandra Weyrich

P-0531

Epigenetic regulation of the transgenerational response to environmental change in bovine liver and mammary tissue

Amy Skibieli

P-0532

Genomic Imprints as Carriers of Epigenetic Information

Bram Kuijper

P-0533

Molecular evolution of the DNA methyltransferase gene family in vertebrates

Karen Bobier

S-49 THE MAKING AND BREAKING OF GENETIC CONSTRAINTS**P-0534**Decoupled evolution of floral traits and their phenotypic covariances in *Salvia**Santiago Benitez-Vieyra***P-0535**

A gene network responsible for a male genital structure also patterns a potentially coevolving female genital trait

*Eden Mcqueen***P-0536**

Rapid breakdown of genetic correlations in Trinidadian guppies using experimental intercrosses

*Laura Stein***P-0537**

Genetic architecture and the evolution of variational modularity

*Diogo Melo***P-0538**Genomic underpinnings of a genetic tradeoff between mutualism and parasitism in the legume *Medicago truncatula**Corlett Wood***P-0539**

Evolution of transgenerational plasticity: theory and inference

*Stephen Proulx***P-0540**

Developmental system properties drive mouse molar evolution along a genetic line of least resistance

*Sophie Pantalacci***S-53 EVOLUTION OF REPRODUCTIVE SYSTEMS****P-0541**

Anisogamy and heterospory: parallel reproductive transitions, parallel adaptive advantages

*Martin Burd***P-0542**

Influence of sexual conflict on reproductive mode and fecundity in a facultative parthenogen

*Mercedes Burns***P-0543**

How inflorescence architecture influences sexual systems: patterns and causes

*Marcos Mendez***P-0544**

Extreme variation in female frequency of a prairie plant: genetic drift and selection

*Diane Byers***P-0545**

Evolution of sperm proteins and non-fertilizing sperm in two Lepidoptera with different mating systems

*Andrew Mongue***P-0546**

Selection for sex in a quantitative trait model

*Eloise Vanhoenacker***P-0547**When do the males disappear? – Hunting for traces of missing males via the sex determination cascade in the flea beetle *Altica lythri**Kim Rohlfing***P-0548**

Mutation rate evolution in partially selfing and partially asexual organisms

*Denis Roze***P-0549**

Why would females produce males whose DNA is not passed on to females?

*Marie Delattre***P-0550**

Is genital evolution driven primarily by sexual conflict in vertebrates?

*Patricia Brennan***P-0551**

Comparative genomics of bdelloid rotifers

*Reuben Nowell***P-0552**Genomic signatures of natural selection on genes involved in pollen competition in *Arabis alpina**Juanita Gutiérrez***P-0553**

Evolution of divergent male ejaculates and the emergence of early reproductive barriers

*Martin Garlovsky***P-0554**

Metapopulation dynamics in bdelloid rotifers: rapid dispersal mitigates long-term costs of asexuality

*Christopher Wilson***P-0555**Why produce males when your daughters are parthenogenetic? The case of *Mesorhabditis**Pierre-henri Gouyon***P-0556**

Rapid turnover of life-cycle-related genes in the brown algae

*Agnieszka Lipinska***P-0557**

A molecular tango in the coevolution of sperm and egg in abalone

*Joshua Schraiber***P-0558**Genetic basis and timing of the loss of self-incompatibility in *Capsella orientalis**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**

Sex and parasites: how host-parasite dynamics can influence the maintenance of sex

Susana Freitas

P-0562

Do recombinations replace sex in the anciently asexual bdelloid rotifers?

*Marie Cariou***P-0563**

Genome-wide patterns of gene expression under Paternal Genome Elimination (PGE): Parent-of-origin-specific transcriptome analysis of two pseudohaplodiploid species

*Andrés De La Filia***P-0564**Tree, Sex and Size: Ecological determinants of male versus female fecundity in the long-lived plant *Fagus sylvatica**Sylvie Oddou-Muratorio***P-0565**

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

*Blake Fauskee***P-0566**Relatively low inbreeding depression may help explain the transition to selfing in North American *Arabidopsis lyrata**Marc Stiff***P-0567**

RNAseq analyses highlight candidate genes important for the evolutionary shift to viviparity in Salamandra

Guillermo Velo-Antón

S-54 FITNESS EFFECTS OF MUTATIONS

P-0568Network architecture and the cumulative effects of spontaneous mutations on the *C. elegans* metabolome*Lindsay Johnson***P-0569**Mutation-selection balance in the evolution of *Daphnia* eye size*Jeff Dudycha***P-0570**

Cancelled

P-0571

Fitness effects of mutations in intrinsically disordered regions (IDRs) and ordered regions (ODRs): Evaluation in vivo of the mutational robustness of IDRs and ODRs within a viral protein

*Guillaume Lafforgue***P-0572**

Biological determinants of the distribution of fitness effects (DFE) of new mutations in corvids

*Fidel Botero-castro***P-0573**Higher-order genetic interactions in multicellular organism *Caenorhabditis elegans**Katarzyna Toch***P-0574**

Investigating evolutionary innovation in yeast heat shock protein 90

*Pamela Cote-Hammarlof***P-0575**

Estimating drug resistance transmission fitness

costs of multi-drug resistant tuberculosis

*Julija Pecerska***P-0576**

Diminishing-returns epistasis among random beneficial mutations in a multicellular fungus

*Sijmen Schoustra***P-0577**

Indirect genetic and direct effects of sexual selection on mutation rate

*Julian Baur***P-0578**

Inferring pleiotropy and distribution of fitness effects from resequencing and association studies

*Thomas Bataillon***P-0579**The mutational spectrum and genetic composition of *Marasmius oreades* fairy rings*Markus Hiltunen***P-0580**

The impact of protein architecture on adaptive evolution

*Ana Filipa Moutinho***P-0581**

The underestimated effects of mitochondrial genome mutations

*Ralph Dobler***P-0582**

Finding the COUSIN (COdon Usage Similarity INdex)

*Jérôme Bourret***P-0583**Identification of co-evolving groups in biochemically important amino acids of proteins from *Escherichia coli**Muhammad Bilal Haider*

S-66 CELEBRATING 10 YEARS OF EVOLUTIONARY APPLICATIONS AND A LOOK TO THE FUTURE

P-0584

Human-induced evolution of parasite life histories

*Adele Mennerat***P-0585**

Bridging the gap between evolutionary and conservation biology: the case of a precious octocoral threatened by global change, the Mediterranean red coral

*Didier Aurelle***P-0586**

Are the genetic risks of captive breeding to wild populations exacerbated by climate change? A case study with a pedigreed population of Atlantic salmon

Ronan O'sullivan

S-67 EVOLUTION-SMART AGRICULTURE: BREEDING AND PROTECTION

P-0587

Dealing with diversity – how to improve control of rapidly evolving plant pathogens

Petteri Karisto

P-0588

Assessing the durability and efficiency of landscape-based strategies to deploy plant resistance to pathogens

Loup Rimbaud

P-0589

Genomic analysis of adaptive diversity in lentil using exome capture

Ezgi Ogutcen

P-0590

Clonal variation in the thermal tolerance of insecticide-resistant and susceptible English grain aphids

Beth Moore

S-70 FLORAL EVOLUTION: BREEDING SYSTEMS, POLLINATORS, AND BEYOND

P-0591

Colours of confetti: The role of non-pollinator selection agents in flower colour polymorphisms of *Rhodohypoxis baurii* var. *confecta*

Courtney Gardiner

P-0592

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

Åsa Lankinen

P-0593

Exploring the developmental and genetic basis of complex petal morphologies in bee- and hummingbird-pollinated *Aquilegia* (columbine)

Molly Edwards

P-0594

Losing sweetness: insights into reduced nectar in the selfing syndrome

Irene Liao

P-0595

Reconstitution of pollinator-mediated speciation in *Petunia*

Martina Lüthi

P-0596

Sweet genes are made of STYLISH – members of the STYLISH gene family control both style and nectary development in the buttercup family (*Ranunculaceae*)

Ya Min

P-0597

Differential phenotypic selection on floral odours in three orchid taxa growing in distinct environments

Nina Joffard

P-0598

Evolution of floral integration during the transition to self-fertilization in *Solanum* (*Androceras* section)

Aimé Rubini Pisano

P-0599

Intra-specific social effects on floral display and reward investment

Rubén Torices

P-0600

Evolutionary convergence of visual and olfactory signals in a guild of night-blooming flowers pollinated by hawkmoths of southern South America

Marcela Moré

P-0601

Higher iridescent-to-pigment optical effect in flowers facilitates learning, memory and generalisation in foraging bumblebees

Doris Gomez

P-0602

Tracing the temporal stages of flower shape evolution in a tropical orchid radiation

Silvia Artuso

P-0603

Differential interspecific pollen transfer effects on female fitness of two co-flowering bat-pollinated species in the genus *Burmeistera* (*Campanulaceae: Lobelioideae*)

Juan Isaac Moreira-Hernandez

P-0604

Corolla shape of specialist and generalists evolved under distinct evolutionary constraints but of similar strength in Antillean *Gesneriaceae*

Simon Joly

P-0605

The impact of mutualists on the geographical distribution of plants

Karl Duffy

P-0606

Changes in floral volatiles mediated by pollinators and herbivores during experimental evolution

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

P-0609

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

Julie Faure

P-0610

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

P-0613

Preemptive selfing as a barrier to reduce costs of hybridization

April Randle

SESSION 2 AUGUST 21-22, 2018

LEVEL 0

S-24 EVOLUTION AND DEVELOPMENT IN DEEP TIME, MERGING INSIGHTS FROM PALEONTOLOGY AND DEVELOPMENTAL BIOLOGY**P-0614**

When development meets mechanical forces: new insights into the morphogenesis of the vertebral column in birds
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**P-0619**

Integrative, comparative phylogeography of Iberian amphibians
Inigo Martinez-Solano

P-0620

Rivers as barriers across space, time and species in Amazonia
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

P-0629

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

P-0637

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

P-0638

Exploring mechanisms of diversification in an advanced group of tropical snakes endemic to the island of Madagascar

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

Phylogenetic comparative methods for evaluating the evolutionary history of interdigital membrane, habitat and dynamics of the climate niche in the genus *Bolitoglossa* (Caudata: Plethodontidae)

Aldemar Acevedo

P-0642

Brand upon the brain

Joseph Brown

P-0643

A fast likelihood method to reconstruct and visualize ancestral scenarios of character evolution

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 speciation change in the evolution of bird plumage colouration

Raphaël Scherrer

P-0647

New comparative models for the study of diploidization and diversification

Rosana Zenil-Ferguson

P-0648

Evolutionary elaboration and innovation of island avifaunas

Gavin Thomas

P-0649

Using comparative phylogenetics to discern effects of species interactions on trait evolution

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

P-0652

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

Jan-niklas Nuppenau

P-0653

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

Takao Suzuki

P-0654

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?

P-0655

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

Marius Wenzel

P-0656

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

Deise Goncalves

P-0657

Spectral signature of gene family trees

Leonardo De Oliveira Martins

P-0658

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

Wade Dismukes

P-0659

Cancelled

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

P-0661

Ecology of diversification changes predictably with phylogenetic scale

Antonin Machac

P-0662

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

Renske Onstein

P-0663

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

P-0673

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
Ishtiaq 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

P-0680

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

P-0686

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

P-0687

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

P-0688

Cancelled

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***P-0690**

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

Origin of mutations in the voltage gated sodium channel gene family related to resistance to neurotoxins (BTX, PTX and HTX) in snakes (*Erythrolamprus* sp.) predators of toxic frogs in the family Dendrobatidae

*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***P-0699**

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 Schiwitz***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 Resetaarits***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***P-0721**

Cancelled

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 quantitative species identification method based on ancient DNA

*Evangelos Antonios Dimopoulos***P-0736**

Evolution of Antigen Processing Genes in salamanders

*Gemma Palomar***P-0737**

Cancelled

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 Unterwieser***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-0767Genetic 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-0771To 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-0775Comparison 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-0776Evidence for a growth-defense trade off in invasive *Centaurea solstitialis*

Elizabeth Carpenter

P-0777Mitochondrial 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

Sex-biased infection: a role for vectors?

Camille-sophie Cozzarolo

S-16 PARASITE AND SYMBIONT NICHES: HOST SPECIFICITY AND BEYOND**P-0781**Evolution at low taxonomic level among weevils and their host plants: interaction between the genera *Trichobaris* and *Datura*

Marisol De La Mora Curiel

P-0782

Host-association and environmental gradients interactively determine the population genomic structure of a parasitic plant through their impacts on reproductive traits

Kelsey Yule

P-0783

The interplay between host community structure and pathogen life-history constraints in driving the evolution of host-range shifts

Kenichi Okamoto

P-0784

High diversity and low genetic structure of feather mites inhabiting a phenotypically variable host

Antón Pérez-rodríguez

P-0785The evolution of host specificity in the zombie-ant fungus *Ophiocordyceps unilateralis*

Nappol Kobmoo

P-0786

What does limit the spatial range expansion of emerging parasites? An empirical test quantifying the role of environmental constraints and host genotypes in a freshwater parasite

Eglantine Mathieu-bégné

P-0787*Arbuscular mycorrhizal* fungi promote coexistence and niche divergence of sympatric palm species on a remote oceanic island

Vincent Savolainen

P-0788

Host specificity of ectoparasitic bat flies (Diptera: Streblidae and Nycteribiidae) from Bats of Belize and Brazil

Alexis Brown

P-0789

Defining the avian malaria niche; identifying the geographic and phylogenetic determinants of parasite community assembly in two thrush congeners

Naima Starkloff

P-0790

The cost of generalism and definitive host diet breadth influence intermediate host specificity in helminth parasites

Andrew Park

P-0791

Host heterogeneity and the evolution of parasites

Elisa Visher

P-0792

Co-diversification history of ticks and their microbiome

Florian Binetruy

P-0793

Temporal shifts in host specialisation hinder the speciation process in generalist seabird tick *Ixodes uriae*
Karen Mccoy

P-0794

Host-parasite secondary contacts: barriers and introgression
Joëlle Goüy De Bellocq

P-0795

Cancelled

P-0796

Cancelled

P-0797

Snake and lizard gut microbiome metacommunities across host communities with variable diversity
Iris Holmes

P-0798

Environmental factors impacting the growth and transcriptome of *Mycobacterium ulcerans*
Daniel Sanhueza

P-0799

Rapid evolution of compatibility to novel heritable microbes in the melanogaster subgroup of drosophilids.
Joanne Griffin

P-0800

Variation in phylogenetic signal of microbial communities along the gastrointestinal tract of wild rodents
Mark Swanson

P-0801

Specialization of the parasite *Serratia marcescens* in genetically heterogeneous population of *Caenorhabditis elegans* hosts
Signe White

S-17 EVOLUTIONARY EPIDEMIOLOGY ACROSS MULTIPLE SCALES

P-0802

Multiple infections favour more virulent parasites
Mircea Sofonea

P-0803

BADTRIP: Bayesian Reconstruction of Transmission within Outbreaks using Genomic Variants
Nicola De Maio

P-0804

The evolution of antibiotic resistance in a structured host population
François Blanquart

P-0805

Genomic epidemiology of Zika virus in the Americas
Julien Thézé

P-0806

Stochastic variation during the initial phase of bacterial infection predicts the probability of survival in *D. melanogaster*
David Duneau

P-0807

Why does a bacterium blush? The causes & consequences of plastic pigment production in a highly-virulent bacterial pathogen
Nina Wale

P-0808

Spatial and temporal processes shape patterns of genetic variation in a wild-plant pathogen interaction
Luke Barrett

P-0809

PHYLOSCANNER: Inferring Transmission from Within- and Between-Host Pathogen Genetic Diversity
Chris Wymant

P-0810

Linking genetic variation in disease resistance and tolerance with heterogeneity in disease spread
Pedro Vale

P-0811

Hard versus soft selection driving parasite virulence evolution and genetic diversity in the spider mite *Tetranychus urticae*
Alison Duncan

P-0812

Pathogen Population Structure Can Explain Hospital Outbreaks
Pierre Cristofari

P-0813

Evolutionary dynamics of infections composed of multiple distantly related pathogens: effects of competition and original antigenic sin
Ailene Macpherson

P-0814

Understanding patterns of individual variation in mosquitoes and malaria parasites using low-input and single-cell RNA-seq
Virginia Howick

P-0815

What happens in the vector does not stay in the vector: how parasite within-vector dynamics can impact within-host strategies
Amber Hoi

P-0816

Genome evolution in a globally emerging amphibian pathogen
Thomas Jenkinson

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

P-0817

Beyond reversion: evolutionary epidemiology of vaccine-derived poliovirus transmission
Michael Famulare

P-0818

Social plasticity and speciation: How does the social environment affect pre- and post-mating sexual isolation in fruit flies?
Lucas Marie-Orleach

P-0819

Early developmental temperatures and phenotypic plasticity: a meta-analysis
Daniel Noble

P-0820

The role of phenotypic plasticity on population differentiation

Max Schmid

P-0821

A comparative study of the role of sex-specific condition dependence in the evolution of sexually dimorphic traits

Patrick Rohner

P-0822

Fitness Consequences of Natal and Breeding Diet: A Test of The Silver Spoon and Thrifty Phenotype Hypotheses

Kerianne Wilson

P-0823

Adaptive potential to novel condition driven by global climatic change: a case of a potential biocontrol agent of the invasive weed *Ambrosia artemisiifolia*

Maria Litto

P-0824

Assessing the role of acclimation and adaptation in thermal performance curves

Heidi Joan Maclean

P-0825

Evidence for plasticity, but not local adaptation, in invasive Japanese knotweed (*Reynoutria japonica*) across a broad latitudinal range

Acer Vanwallendael

P-0826

How does condition dependence for sexually dimorphic traits evolve during rapid adaptation?

Maria Pesevski

P-0827

Phenotypic plasticity in bluefin killifish as a function of lighting environment: multiple traits respond to variation at multiple scales

Becky Fuller

P-0828

Can you trust what you see? Socially-cued anticipatory plasticity and the emergence of the social ratchet

Elizabeth Lange

P-0829

Population differences in adaptive plasticity implies variation in evolutionary rescue potential in a marine intertidal invertebrate

Pierre De Wit

P-0830

Phenotypic plasticity of life history traits in seed beetle during the experimentally induced host shift

Uros Savkovic

P-0831

Female responses to social and sexual environments in *Drosophila melanogaster*

Emily Fowler

P-0832

Is there a transgenerational shade avoidance response in the snapdragon *Antirrhinum majus*?

Mathilde Mousset

P-0833

Plastic responses to conflicting cues: picking the greater of two evils?

Ivan Gomez-Mestre

P-0834

Phenotypic plasticity drives phenological change in a declining Arctic colony of Black Guillemots

Andrew Sauve

P-0835

Evolution of the agonistic behavior as a first response to the recent interspecific competition between the invasive species –*Anolis cristatellus*– and the native –*Anolis oculatus*– in Dominica

Claire Dufour

P-0836

Role of nutrition in facilitating plastic responses to environmental stress

Teresa Kutz

P-0837

Costs and consequences of within-family variability in gene expression in a caterpillar

Kristin Sikkink

P-0838

Local adaptation and the macroevolutionary dynamics of phenological plasticity

Stephen De Lisle

P-0839

Intra- and transgenerational carry-over effects on behavioural reaction norms of the freshwater snail *Physa acuta* in response to predation

Juliette Tariel

P-0840

An empirical test for a zone of canalization in thermal reaction norms

Erlend Fossen

P-0841

Influence of environmental heterogeneity on the evolution of phenotypic plasticity and bet-hedging

Zuzana Sekajova

P-0842

Development under complex environments: effects of temperature fluctuations on thermally plastic traits

Yara Rodrigues

P-0843

Do changes in phenology alter the environment experienced, fitness, and natural selection on other traits?

Michelle D'aguillo

P-0844

The evolution of the mutation rate and the effect of phenotypic plasticity under scenarios of directional environmental change: an individual-based eco-evolutionary model

Daniel Romero Mujalli

P-0845

Cancelled

P-0846

Maternal care influences adaptive craniofacial development in African cichlids

Tiffany Armstrong

P-0847

Role of phenotypic plasticity in the evolution of ageing

Suzanne Bonamour

P-0848

Adaptive explanations for the evolution of phenotypic plasticity during adolescence
Matthias Galipaud

P-0849

Experimental evolution of adaptive plasticity in a temporally varying environment
Peter Conlin

P-0850

Adapting the animal model to disentangle genetic and non-genetic causes of phenotypic similarity in a wild population of plants
Benoît Pujol

P-0851

Cancelled

P-0852

Related traits, unrelated plasticity? Early environment independently shifts phenotypic reaction norms in locomotor traits in a clonal fish
Kate Laskowski

P-0853

Genotypic variation in the inducibility and stability of parental effects
Mariano Alvarez

P-0854

Cancelled

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

P-0855

Environmental drivers of fluctuating selection in a small passerine
Marlène Gamelon

P-0856

Statistical methods for estimating multivariate, multiphasic, fluctuating selection
Jarle Tufto

P-0857

Can local measures predict global properties of fitness landscapes?
Luca Ferretti

P-0858

Regulated landscape: integrate ecology
Géza Meszéna

P-0859

Efficient search on experimental fitness landscapes
Sam Sinai

P-0860

Cliff-edged fitness landscapes make complex genetic diseases inevitable
Randolph Nesse

P-0861

Computational complexity is an ultimate constraint on evolution
Artem Kaznatcheev

P-0862

Dynamic fitness landscapes in fluctuating environments
Manzhu Kang

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

P-0863

Demographic insights from the integration of pedigree reconstruction and capture-mark-recapture methods in seasonal-breeding species
Gregorio Sánchez-Montes

P-0864

Evolution diminishes the density dependence and sex bias in dispersing populations via behavioral plasticity
Abhishek Mishra

P-0865

The role of rapid evolution in species coexistence
Jaime Mauricio Anaya-Rojas

P-0866

Are r and K genetically correlated?
Sara Magalhães

P-0867

Preference and performance : bridging individual behaviour and population dynamics during adaptation
Vrinda Ravi Kumar

P-0868

Genotypes, environments and random shit, linking individual heterogeneity to population dynamics in *E. coli*
Ulrich Steiner

P-0869

Non transitivity of fitness and the emergence of correlations between traits in seasonal environments: a modeling approach
Judith Legrand

P-0870

Understanding the adaptive value of complex burrowing behavior in oldfield mice
Nicole Bedford

P-0871

Stabilizing correlational selection in an artic ungulate
Håkon Holand

P-0872

A challenging youth – Survival in young Buzzards
Chantal Stock

P-0873

A unified framework to account for unobserved heterogeneity in demography, epidemiology, ecology, and evolution
Gabriela Gomes

P-0874

Linking individual variation in plant functional traits to demography using a trait-based integral projection model
Harmony Dalglish

P-0875

Individual genetic diversity strongly influences habitat use
Aurelio Malo

S-60 EVOLUTIONARY RESCUE

P-0876

Evolutionary rescue over a fitness landscape
Yoann Anciaux

P-0877

Adaptive Potential and Realized Changes in Fitness in Natural Populations

*Mason Kulbaba***P-0878**

Evolutionary rescue and the evolution of dispersal

*Matteo Tomasini***S-62 EXPERIMENTAL EVOLUTION IN THE CONTEXT OF ECOSYSTEMS****P-0879**

The ecology and evolution of plasmid-mediated antimicrobial resistance (pAMR) transfer in the microbiome

*Sarah Duxbury***P-0880**

Domestication of microbial community in action: a participatory research and multidisciplinary study of sourdough bread

*Delphine Sicard***P-0881**

Phage selection can constrain pathogen disease dynamics via resistance-virulence trade-offs in the plant rhizosphere

*Ville-Petri Friman***P-0882**Investigating the potential specialization of the pest *Drosophila suzukii* to different host fruits*Laure Olazcuaga***P-0883**

The effect of community composition on the strength of microbial eco-evolutionary feedbacks.

*Jean Vila***P-0884**

The repeatability of host-parasite (co)evolution across experimental ecosystems over both space and time: quantifying the influences of genetics and environment

*Stuart Auld***P-0885**

Cancelled

S-63 EVOLUTION IN AN URBANIZING WORLD**P-0886**

Winter range expansion of a hummingbird is associated with urbanization and supplementary feeding

*Emma Greig***P-0887**Landscape genomics of white-footed mice (*Peromyscus leucopus*) along an urban-to-rural gradient in the New York City metropolitan area*Linelle Ann Abueg***P-0888**

Nest height is affected by lamppost lighting proximity in urban great tits

*Marie-Jeanne Holveck***P-0889**

Different urban-related stressors drive rapid trait evolution in different life stages in a damselfly

*Nedim Tüzün***P-0890**

Influence of urbanization on pollination success and plant fitness

*Ruth Rivkin***P-0891**Experimental selection of zinc tolerance and hyperaccumulation in *Noccaea caerulea**Hélène Frérot***P-0892**

Urban-driven evolution of thermal tolerance and its fitness consequences in acorn ants: parallel and non-parallel responses across three cities

*Ryan Martin***P-0893**

Are urban ecotypes explained by divergent reproductive selection?

*Aude Caizergues***P-0894**

Urban Evolution Mid-Stride: Morphology, Performance, and Fitness of Urban Lizards

*Kristin Winchell***P-0895**

Urban evolution under the sea: studying hybrid zones between port and sea mussels

*Nicolas Bierne***P-0896**

The effect of urbanization on birdsong evolution: a large-scale spatiotemporal analysis of citizen-science song recordings

*Abigail Searfoss***S-73 EXPLORING LIFE HISTORY EVOLUTION ACROSS MULTIPLE SCALES****P-0897**

Evolutionary ecology of fast seed germination – a tradeoff between high risk and high speed

*Gudrun Kadereit***P-0898**

Testing antagonistic pleiotropy hypothesis using reverse evolution protocol on age-specific selected lines of seed beetle

*Mirko Djordjevic***P-0899**

Thermal niche changes across different life history stages of tropical Bromeliaceae

*Dirk Albach***P-0900**

Cancelled

P-0901

Life in cold blood: Does metabolic rate predict lifespan and lineage diversification?

*Fonti Kar***P-0902**Genetic quality affects the rate of male and female reproductive ageing differently in *Drosophila melanogaster**Martin Brengdahl*

P-0903

Eco-evolutionary dynamics of migratory fish: when to migrate to the ocean?

*Catalina Chaparro Pedraza***P-0904**

Understanding the impact of environmental fluctuations on the plasticity of reproductive traits and their consequences for life history evolution

*Joel Pick***P-0905**

Longevity, wealth and reproduction in a 19th century population

*Ioanna Visviki***P-0906**Probing the effects of mtDNA haplotype and Wolbachia infection on the magnitude and direction of genetic trade-offs between growth and lifespan in *Drosophila melanogaster**Ilaria Venturelli***P-0907**

Brain size and longevity in a life history context: a macroevolutionary approach in birds

*Dante Jiménez Ortega***P-0908**

The role of life history in the evolution of colour patterns in Australian chrysolines

*Eunice Tan***P-0909**

Just walk away: evolution of directional bias in dispersal

*Aurélie Coulon***P-0910**

Loci contributing to local adaptation across a cline in two butterflies

*Peter Pruesscher***P-0911**

Body size and nest predation in Passerines

*Maria Del Mar Unzeta***P-0912**

Linking physiological and behavioural senescence with late-life fitness in wild mammals

*Hannah Froy***P-0913**

The genetic basis of morphological and behavioral island syndrome traits in deer mice

*Felix Baier***P-0914**

How the queen can afford to have it all: proximate mechanisms behind the reversal of the longevity/fecundity trade-off in a facultative eusocial orchid bee

*Alice Séguret***P-0915**

A comparative analysis of species-specific selection for vital rates across the tree of life

*Edward Iwimey-cook***P-0916**

The coevolution of lifespan and reversible plasticity

*Irja Ratikainen***P-0917**

Macro-evolutionary responses to animal construction: avian nest building and diversification

*Catherine Sheard***P-0918**

Cancelled

P-0919

Evaluation of the demographic buffering hypothesis: empirical evidence and challenge

*Christoffer Høyvik Hilde***S-76 EVOLUTIONARY MANAGEMENT OF WILD POPULATIONS****P-0920**

Low coverage sequencing of thousands of individuals barcoded samples clarifies fine-scale population structure and evolutionary genomics of a marine exploited fish species

*Anne-Laure Ferchaud***P-0921**Population genetic structure in the European lobster (*Homarus gammarus*) using a novel SNP panel: implications for connectivity, stock management and traceability*Tom Jenkins***P-0922**

On the importance of testing species-genetic diversity correlation (SGDC): an empirical case study on amphibians from Eastern Italian Alps

*Cristiano Vernesi***P-0923**Mitogenomic evidence of cryptic diversity in the threatened fish *Arapaima* (Teleostei, Osteoglossiformes): implications for conservation and aquaculture*Christelle Tougard***P-0924**Evolutionary Significant Units among the Caucasian Pitviper (*Gloydius halys caucasicus* Nikolsky, 1916) in northern Iran*Atefeh Asadi***P-0925**

Range shift potential in plants: the role of local adaptation and life history

*Emily Moran***P-0926**Defining management units for the fire salamander in the face of an expanding pathogen, the chytrid fungus *Batrachochytrium salamandrivorans**Kathleen Preißler***P-0927**

Spatial structure as a confounding effect for heritability estimates in endangered hihi populations

*Alexis Rutschmann***P-0928**Conservation genetics and genomics of the endangered tortoise *Testudo hermanni**Roberto Biello***P-0929**

Conservation implications of feeding ecology distribution for endangered loggerhead turtles

*Sahmorie Cameron***P-0930**

Cancelled

P-0931

Revealing cryptic connectivity patterns using introgression signals in a high gene flow species
Pierre-Alexandre Gagnaire

P-0932

Patterns of within and between-population genetic diversity across a riverine network submitted to anthropogenic pressure: a comparative approach to describe the amerindian multi-species fishery of the Upper-Maroni in French Guiana (South America)
Chrystelle Delord

P-0933

Cancelled

P-0934

Latitudinal variation in sensitivity to *Batrachochytrium dendrobatidis* infection in two amphibians
Sara Meurling

P-0935

The *Abies alba* genome project: a new genomic resource for a sensitive species
Elena Mosca

P-0936

Rare or elusive ? Characterization of deep-diving whale populations from genetic data
Amélia Viricel

P-0937

Very low dispersal in an invasive species metapopulation drives its populations towards extinction
Nadège Bélouard

P-0938

Defining connectivity and adaptation capacity of exploited octopus and shrimp populations across the Mediterranean
Iva Sabolic

P-0939

Evolutionary history of the Roan antelope
Margarida Gonçalves

P-0940

Genetic monitoring suggests overexploitation of prey species has influenced evolution of age at maturity in Atlantic salmon
Yann Czorlich

P-0941

Good-genes signaling in iteroparous species: testing predictions about first-time spawners
Christian De Guttery

P-0942

Conserving biodiversity: is species diversity an effective proxy for intrapopulation genetic diversity?
Janice Bossart

P-0943

Effect on anthropogenic disturbances on symbiotic community composition: a case study from lichens
Garima Singh

P-0944

Using genomic data to advice fisheries management: understanding the genetics of the sandeel in the North Sea
Belen Jimenez Mena

P-0945

Artificial barriers prevent genetic recovery of small isolated populations of a low mobility freshwater fish
Bertrand Gauffre

P-0946

Disentangling neutral and adaptive processes shaping current pattern of genetic structure in *Hyla molleri*: implications for population management under climate change
Patrícia Guedes

P-0947

Genetic variation and differentiation in tropical and temperate maples along their American geographic range
Yalma Vargas-Rodriguez

P-0948

Genetic diversity and population structure in a genus of subterranean freshwater isopods in the Edwards Aquifer, Texas, United States
William Coleman

LEVEL 3**S-08 SOCIAL BEHAVIOUR AND EVOLUTION IN THE OMICS ERA****P-0949**

Diversification of public goods as a response to cheating
Alexandre Figueiredo

P-0950

Ant phylogenomics based on the genome sequencing of 65 species
Jonathan Romiguier

P-0951

Leveraging phylogenetic history and comparative genomics to study the evolution of social behavior in treehoppers
Micah Fletcher

P-0952

An ancient and eroded supergene underlies social organization across *Formica* ants
Alan Brelford

P-0953

A multi-omics approach to the study of avian parental care
Matthew Macmanes

P-0954

Divergent gene expression profiles in the brains of alternative behavioural helper types in a cooperative breeder
Claudia Kasper

P-0955

Inactivity of the Red King shapes evolution of social genes in a social amoeba
Janaina Lima De Oliveira

P-0956

Brain metabolic features associated with behavioral traits and domestication

*Vita Stepanova***P-0957**

Uncovering the molecular and cellular mechanisms that influence sperm cooperation

*Heidi Fisher***S-09 MECHANISMS OF COMMUNICATION AND RECOGNITION IN SOCIAL EVOLUTION****P-0958**

Using common scents: chemosignaling with symbiotic microbes in songbirds

*Danielle Whittaker***P-0959**

Who are you? No kin discrimination during egg care in the European earwig

*Sophie Van Meyel***P-0960**

Division of labour and coordination in social microbes

*Guy Cooper***P-0961**

Potential role of gut symbionts in scent production and kin recognition in estrildid finches

*Öncü Maracı***P-0962**Kin selection and competition in larval *Drosophila**Sally Le Page***P-0963**

Tags, norms, and emergence of collective identity

*Bryce Morsky***P-0964**Pteridine based color predicts fitness in pre-hibernation collared lizards (*Crotaphytus collaris*)*Jodie Wiggins***S-10 MAJOR TRANSITIONS IN INDIVIDUALITY AND LEVELS OF SELECTION****P-0965**

The evolution of multicellular complexity

*Roberta Fisher***P-0966**

Quantifying natural selection at all spatial scales

*Hilje Doekes***P-0967**

Identifying representative species for understanding the origins of multicellularity in eukaryotes

*Maria Svensson Coelho***P-0968**

Sociality drives diversification rates in sweat bees (Halictidae)

*Fernando Villanea***P-0969**

Experimental evolution of cheating in fungi under low relatedness conditions

*Alexey Grum-Grzhimaylo***S-21 IN VIVO, IN VITRO, IN SILICO EXPERIMENTAL EVOLUTION CONVERGENCE AND INSIGHTS INTO EVOLUTION****P-0970**

Tracking genome-wide and genetic content of inversion changes in populations of contrasting history

*Marta Antunes***P-0971**Mechanisms of Experimentally-Evolved Ionizing Radiation Resistance in an *E. coli* Population after 50 Rounds of Selection*Steven Bruckbauer***P-0972**

Modelling bacteria-phage interactions driving predation and horizontal gene transfer of antibiotic resistance genes

*Jorge Sousa***P-0973**

Experimental evolution of collective action despite genetic conflict and free riding in a bacterial biofilm

*Neal Jähren***P-0974**

Experimentally evolving better partners: rapid evolution of cooperative traits in rhizobia associating with choosy legumes

*Rebecca Batstone***P-0975**

Retromutagenesis as a mechanism for adaptive evolution in non-growing bacteria

*Ida Lauritsen***P-0976**Experimental evolution of cancer in the filamentous fungus *Aspergillus nidulans**Krithi Nandimath***P-0977**

Bridge That Gap! – Insights from a long-term evolution experiment (LTEE) using strictly host-dependent bacteria

*Paul Herrera***P-0978**

Emergent cross-feeding interactions in Virtual Microbes

*Jeroen Meijer***P-0979**

Highly convergent co-evolution of bacterial predators and prey

*Marie Vasse***P-0980**

Short-term molecular dynamics of an evolving population

*Anton Nekrutenko***P-0981**

Transformation via natural competence evolves absent a nutritive benefit in changing environments in digital organisms

Rosangela Canino-Koning

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

P-0982

Cancelled

P-0983

Endogenous Viral Elements (EVEs) in bat genomes and transcriptomes

Ilya Levantis

P-0984

Bacteriophages drive the dynamics of mobile and non-mobile resistance in populations of *Pseudomonas fluorescens*

Cagla Stevenson

P-0985

Recombination and selection in the evolution of the syphilis bacterium, *Treponema pallidum*

Fernando Gonzalez-Candelas

P-0986

Multiple horizontal transfers between vascular plants: donors known, vectors unknown

Judith Fehrer

P-0987

Diversified aerolysin toxins in the vector snail *Biomphalaria glabrata*: an innovative family of immune weapons acquired by horizontal transfer

Damien Lassalle

P-0988

Horizontal gene transfer in selfing and outcrossing *Caenorhabditis* nematode worms

Janna Fierst

P-0989

Natural competence for transformation is a major driver of genome diversity in *Bacillus subtilis*

Patricia Brito

P-0990

Evolved mobile genetic elements harboring multiplexed CRISPR enable *in situ* manipulation of gut microbiota

Avery Normandin

P-0991

Single-cell plasmid dynamics in fluctuating environments

Jose Carlos Ramon Hernández Beltrán

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

P-0992

Phylostratigraphy leads to high levels of false positives in *de novo* gene discovery

Claudio Casola

P-0993

Short template switch events explain mutation clusters in the human genome

Nick Goldman

P-0994

CRISPR/Cas9 targeted chromosomal rearrangements and genome shuffling in *Saccharomyces cerevisiae*

Aubin Fleiss

P-0995

Genomic and transcriptomic patterns of an adaptive clinal inversion in *Drosophila*

Martin Kapun

P-0996

Mitochondrial genome evolution in seabirds, the case of heteroplasmy and gene duplication in Procellariiformes

Lucas Torres

P-0997

Divergent patterns of copy number variation in natural populations of house mice (*Mus musculus domesticus*) along an environmental gradient

Katya Mack

P-0998

Tissue-specific expression of highly duplicated nuclear import genes in stalk-eyed flies (Diopsidae)

Sebastian Pohl

P-0999

Changing the fish eye view: The role of transposable elements in altering cichlid retinal gene expression

Karen Carleton

P-1000

A role for chromosomal rearrangements in ecotype evolution in *Littorina saxatilis*

Rui Faria

P-1001

Transcripts from the Ruff inversion: tissue-specific gene expression across three genetically determined male morphs

Jasmine Loveland

P-1002

Discovering and characterising deletions and duplications contributing to flower colour variation in *Antirrhinum* populations

Annabel Whibley

P-1003

Genomics of structural variation in *Arabidopsis thaliana* reveals a deep history in Africa and evidence for adaptive evolution

Mehmet Göktay

P-1004

Divergent evolution in the genomes of the closely-related European green lizards, *Lacerta viridis* and *L. bilineata* and implications for speciation

Rohit Kolara

P-1005

Genomic architecture drives individual-based cryptic genetic structure in Atlantic cod (*Gadus morhua*) ecotypes

Tony Kess

P-1006

Evolutionary strata and the stepwise evolution of a mimicry supergene

Paul Jay

P-1007

Origin and population distribution of major inversions in a marine fish species

Jakob Hemmer-Hansen

P-1008

Sequence and structure of the S-locus supergene controlling heterostyly in *Primula veris*

Giacomo Potente

P-1009

Comparative genomics of the X chromosome reveals structural and functional constraints during mammalian evolution

Kevin Bredemeyer

**S-42 FROM THEORY TO GENOME-WIDE DATA:
INFERRING SELECTION, DEMOGRAPHY, GENE FLOW
AND ADMIXTURE**

P-1010

Surviving despite genomic meltdown in the Italian brown bear: selection or contingency?

Giorgio Bertorelle

P-1011

Integrating genomic data and information on spatiotemporal landscape heterogeneity to test alternative demographic models in a Mediterranean grasshopper

María José González-Serna

P-1012

Human impacts on population demographic history and genetic variation of the dengue vector *Aedes aegypti* in the Caribbean

Stéphanie Sherpa

P-1013

Inferring the evolutionary history and demographic changes in an endangered butterfly in Europe from multi-locus markers

Laurence Despres

P-1014

Demographic history affects patterns of gene-language resemblance in Eurasia

Patricia Santos

P-1015

The selective and demographic history of Coho salmon

Quentin Rougemont

P-1016

Population genomics of green anole (*Anolis carolinensis*) reveals evolutionary forces shaping diversity in a reptile

Yann Bourgeois

P-1017

Population divergence time estimation using lineage label switching

Peter Beerli

P-1018

Temporal F_{st} genome scans: the case of partially selfing populations

Miguel Navascués

P-1019

Recombination rate and selection explain associative overdominance

Luis Mijangos

P-1020

Tracking short-term evolution in a pedigreed wild population

Nancy Chen

P-1021

Speciation process and heterogeneous demographics in late Pleistocene co-shaped different conservation status of Tragopan species in Himalayan Biodiversity hotspots

Yuying Lin

P-1022

Effect of fitness landscape, population structure and linkage disequilibrium on the detection of local adaptation

Bertrand Servin

P-1023

Modelling N_e to infer evolutionary trajectories from time series data

Carolina Barata

P-1024

Efficient inference of population genetic parameters and split-times using neutral or nearly neutral variation in *Drosophila*

Claus Vogl

P-1025

Investigation of the Neolithic transition along the Danube route using ancient DNA and spatially explicit simulations

Mathias Currat

P-1026

Long-term fluctuations of population size and the adaptive substitution rate

Nicolas Galtier

P-1027

Are nonsense alleles of *Drosophila melanogaster* genes under any selection?

Nadezhda Potapova

P-1028

measuring genetic differentiation from pooled population samples

Valentin Hivert

P-1029

Identifying signatures of allelic selection using a polymorphisms-aware model

Rui Borges

P-1030

How mutation rate variation drives heterogeneity of genetic diversity

Rob Ness

P-1031

Banana genomes are shaped by admixture and large structural variations

Guillaume Martin

P-1032

Local Ancestry Inference approaches to unravel plant genome mosaic: a simulation-based evaluation

Aurélien Cottin

P-1033

Estimation of partial population continuity and genetic contribution using spatially explicit simulations

Jeremy Rio

P-1034

A path integral method for analytically tractable inference of evolutionary dynamics

John Barton

P-1035

How much of genomic differentiation is repeatable?: a continent- and genome-wide comparison of patterns

Katherine Bell

P-1036

Unveiling the evolutionary history of a widespread passerine (*Troglodytes aedon/cobbi* species complex) in the southern Neotropics by integrating mitochondrial and genomic data

Dario Lijtmaer

P-1037

Genomics of adaptation to extreme cold temperature

Emiliano Trucchi

P-1038

Disentangling balancing selection from genetic drift in a temporally spaced data series

Andrea Brunelli

P-1039

Population genomic inference on the colonization history of the Hawaiian *Metrosideros* species complex

Elizabeth Stacy

S-43 ANCIENT DNA STUDIES OF ADAPTIVE PROCESSES THROUGH TIME

P-1040

Phylogeography and demography of the addax, a nearly extinct Saharan antelope

Elisabeth Hempel

P-1041

Estimating methylation levels in historic plant specimens

Sergio Latorre

P-1042

Testing for size-selective fishing induced evolution in New Zealand snapper (*Chrysophrys auratus*): an ancient DNA approach on a genomic scale

Tom Oosting

P-1043

Temporal structuring of Late Pleistocene cave bear populations in the Romanian Carpathians

Ioana Nicoleta Meleg

P-1044

Ancient genomes shed light on common bean (*Phaseolus vulgaris*) spatio-temporal patterns of domestication in South America.

Andrea Benazzo

P-1045

Determining Frequency Changes in Phenotype-Associated Alleles between Ancient and Modern-day Anatolian Populations

Evrin Fer

P-1046

Comparison of different models inferring selection from genomic time series data

Cyriel Paris

S-44 GENE REGULATORY EVOLUTION IN NATURAL POPULATIONS

P-1047

Novel approach to quantitative spatial gene expression uncovers cryptic evolution in the developing *Drosophila* eye

Sarah Signor

P-1048

Gene expression network for timing of reproduction

Veronika Laine

P-1049

The Evolution of Gene Expression in the Island Radiation of Hawaiian *Drosophila*

Samuel Church

P-1050

The genetic architecture of sexual dichromatism in a polymorphic population of African reed frog

Rayna Bell

P-1051

Phenotype prediction based on gene expression give insights into the genetic architecture of complex traits

Aurelien Chateigner

P-1052

Gene regulatory network evolution in the East African Cichlids

Will Nash

P-1053

Context dependent regulatory divergence in closely related *Drosophila* species

Nico Posnien

P-1054

Using structural equation modeling to dissect complex traits: a case study of avian physiological flexibility to cold acclimation

Maria Stager

P-1055

Evolution of dominance in butterfly wing pigmentation: Insights from gene expression data in *Heliconius numata*

H elo ise Bastide

P-1056

Linking developmental phenotypic plasticity and patterns of gene expression of marine mollusc larvae in response to climate change stressors

Ewan Harney

S-50 EVOLVABILITY: A UNIFYING CONCEPT IN EVOLUTIONARY BIOLOGY

P-1057

Evolvability and robustness: insights from pattern-formation models

Christine Mayer

P-1058

The standard genetic code facilitates exploration of the space of functional nucleotide sequences

Shubham Tripathi

P-1059

The evolvability of animal-pollinated flowers: towards predicting adaptation to novel pollinator communities

 ystein Opedal

P-1060Does developmental plasticity influence speciation?
*Tom Ezard***P-1061**The missing response to selection in monitored wild populations
*Benoit Pujal***P-1062**Cranial modularity and developmental constraint in dinosaur macroevolution
*Ryan Felice***P-1063**The evolutionary path of least resistance in the New World leaf-nosed bats
*Daniela Rossoni***P-1064**

Cancelled

P-1065Effects of phenotypic robustness on adaptive evolutionary dynamics and evolvability
*Emanuele Rigato***P-1066**Gene network robustness as a multivariate character
Arnaud Le Rouzic

S-51 CAUSES AND CONSEQUENCES OF RECOMBINATION RATE EVOLUTION

P-1067Sex-specific recombination influences genomic differentiation in sticklebacks
*Jason Sardell***P-1068**Characterisation of biased gene conversion in mouse recombination hotspots.
*Maud Gautier***P-1069**Genomic mousetrap: Meiotic transcription and nucleosome occupancy as potential drivers of recombination hotspots in *Mus musculus*
*Enrique Jimenez Schwarzkopf***P-1070**Recombination and sociality: comparing solitary and highly social bees
*Julia Jones***P-1071**High-resolution recombination mapping of sex chromosome-autosome fusions in the Japan Sea and blackspotted stickleback
*Matthew Josephson***P-1072**Genomic Characterization of Recently Diverged Sex Chromosomes in the Willow *Salix viminalis*
*Pedro Almeida***P-1073**Natural diversity at fine geographical scale of the recombination modifier *Prdm9* reveals contrasting evolutionary patterns in wild Robertsonian house mice
*Covadonga Vara***P-1074**Genome organization influences recombination rates in mammals
*Aurora Ruiz-Herrera***P-1075**Recombination rate variation in the unicellular alga *Chlamydomonas reinhardtii*
*Ahmed Hasan***P-1076**The manifold effects of meiotic recombination on repeat instability
*Irene Tiemann-Boege***P-1077**Estimating fine-scale recombination rates across diverging populations of *Anopheles gambiae*
Joel Nelson

S-52 NEW DIRECTIONS IN SEX CHROMOSOME EVOLUTION

P-1078Gene copy number variation and female-specific selection on the avian W chromosome
*Thea Rogers***P-1079**Sex-limited experimental evolution of sex-biased gene expression in a simultaneous hermaphrodite
*Aivars Cirulis***P-1080**Sex chromosome dosage compensation in turtles
*Nicole Valenzuela***P-1081**Sex chromosome evolution of birds—shared and contrasting patterns from paleognaths and passerines
*Qi Zhou***P-1082**Female limited X chromosome evolution in *Drosophila melanogaster*
*Yesbol Manat***P-1083**Phylogenomics of stickleback sex chromosomes
*Groves Dixon***P-1084**Contrasting sex chromosome degeneration and identification of y-linked sequence in two guppy sister species
*Jake Morris***P-1085**Evolution and developmental dynamics of sex-biased gene expression in three common-frog populations with various Y-chromosome differentiation levels
*Wen-Juan Ma***P-1086**Have sex determination mode and sexual size dimorphism coevolved?
*Antigoni Kaliontzopoulou***P-1087**A novel method for the detection of sex-linkage reveals young sex chromosomes in *Amborella*, the earliest diverging lineage of flowering plants
*Jos Käfer***P-1088**Retarded Y-degeneration in plants revealed by the estimation of the mutation rate in *Silene latifolia*
Marc Krasovec

P-1089

Houseflies as model for studying transitions in insect sex determination

*L. W. Beukeboom***P-1090**

The origin and turnover of poeciliid sex chromosomes

*Iulia Darolti***P-1091**

Evolution of gene dosage on the Z-chromosome of schistosome parasites: a snapshot of Ohno's hypothesis

*Marion Picard***P-1092**

Dosage compensation in sexual and asexual stick insects

*Darren Parker***P-1093**

Evolution of sex chromosomes in reptiles: shared ancestry or co-option?

*Michail Rovatsos***P-1094**

Evolution of sex chromosome in the Australasian side-neck turtles (Testudines: Chelidae): insights from cytogenetics and genomics

*Sofia Mazzoleni***P-1095**

Speciation with the Large Sex-chromosome Effect

*Christophe Dufresnes***P-1096**

RADSex: a new approach for RAD-Sequencing applied to sex-determination

*Romain Feron***P-1097**

Evolutionary dynamics of the W chromosome in caenophidian snakes

*Barbora Augstenová***P-1098**

The role of genetic drift in transitions between male and female heterogamety

*George Constable***P-1099**

Sex chromosome evolution in termites with different social complexities

*Ann Kathrin Huylmans***P-1100**

Evolutionary stability of sex chromosomes in lacertid lizards

*Jasna Vukic***P-1101**

Genetic analysis of eastern mosquitofish Y-linked pigmentation

*Verena Kottler***P-1102**

Sex determination, offspring sex and facultative asexuality in vertebrates

*Lukáš Kratochvíl***P-1103**

Evolutionary patterns of recently sex-linked genes in Sylvioidea birds

*Hanna Sigeman***P-1104**

Opposing patterns of interspecific and intraspecific differentiation in sex chromosomes and autosomes

*Peter Moran***P-1105**

Convergent recruitment of chromosomes for sex determination via an unprecedented rate of turnover in true frogs

*Guillaume Lavanchy***S-55 ECOLOGICAL AND EVOLUTIONARY GENOMICS OF POLYPLOIDY****P-1106**

The sunflower genome provides insights into Asterid evolution and relationships between paleopoloidization and the genetic architecture of a major breeding trait

*Helene Badouin***P-1107**

Cancelled

P-1108

Plant polyploidy enhances nodules traits and host benefit from the legume-rhizobia mutualism

*Nicole Forrester***P-1109**

Parasitic success without sex in root-knot nematodes: allopolyploid genomes might help them adapt

*Etienne Danchin***P-1110**Molecular evolution of meiosis in diploids and tetraploids of *Arabidopsis arenosa**Magdalena Holcová***P-1111**

Adaptation to harsh environment in Cyprinidae fish by recurrent polyploidization

*Baocheng Guo***P-1112**Unraveling biodiversity in the large apomictic polyploid *Ranunculus auricomus* plant complex with genomic, karyological and morphometric data*Kevin Karbstein***P-1113**Does the *Campanula rotundifolia* agg. benefit from being a polyploid complex? Long- and short-term effects of polyploidization*Kristýna Šemberová***P-1114**Polyploidy in eastern North American quillworts (*Isoetes* L.)*Elizabeth Zimmer***P-1115**Allele phasing is critical to revealing a shared allopolyploid origin of *Medicago arborea* and *M. strasseri* (Fabaceae)*Jonna Eriksson***P-1116**

Genotype and ploidy-specific effects of whole genome duplication in neo autopolyploids

Paula Kover

P-1117

The macro- and microevolutionary processes driving allopolyploid evolution in *Dactylorhiza* (Orchidaceae)

Thomas Wolfe

P-1118

Evolution of genes and genomes after whole-genome duplication in teleost fish

Elise Parey

P-1119

Parentally inherited adaptations that may broaden habitats of allopolyploids: Heavy metal hyperaccumulation and gene expression in *Arabidopsis kamchatica*

Timothy Paape

P-1120

Paradox of frequent evolution of self-compatibility in polyploid species: dominant mutation conferred epigenetically by a small RNA of the allopolyploid *Arabidopsis*

Kentaro Shimizu

P-1121

Comparative analysis between allopolyploid *Arabidopsis kamchatica* and its diploid progenitors reveals effects of polyploidy on genetic diversity and selection

Gwyneth Halstead-nussloch

P-1122

Can Structure and its ilk make sense of polyploid data?

Patrick Meirmans

P-1123

Using statistical phylogenomics to time ancient polyploidy events: an example from the Malvaceae

Justin Conover

P-1124

Assessing intra- and interspecific hybridization of three freshwater fish species (*Labeobarbus spp.*) against a background of polyploidy

Connor Stobie

P-1125

Patterns of molecular evolution among subgenomes in mesohexaploids: the Brassicaceae's case

Céline Poux

P-1126

Simulating meiotic instability and chromosome copy number variation in neo-allotetraploid populations

Michael Chester

P-1127

Repeated Patterns of Gene Loss After an Ancient Whole Genome Duplication Event in Ash Trees

Josiah Seaman

S-56 MANIFESTATION AND RESOLUTION OF SEXUAL CONFLICT

P-1128

Genome-wide search for parent-of-origin gene expression and methylation in the bumblebee; *Bombus terrestris*

Hollie Marshall

P-1129

Cross-sex genetic correlation does not extend to sexual size dimorphism in spiders

Eva Turk

P-1130

Conflict and the Evolution of Sexual Dimorphism in the Trinidadian Guppy

Alex Landy

P-1131

Evolutionary stasis of the pseudoautosomal region in Strepsirhine primates

Gabriel Marais

P-1132

Characterization of intralocus sexual conflict and its resolution

Gemma Puixeu Sala

P-1133

Co-evolution between the male and female reproductive tracts of the Cabbage White butterfly *Pieris rapae*

Melissa Plakke

P-1134

Inversions help maintain sexually antagonistic balanced polymorphism

Christopher McAllester

P-1135

How gene-by-environment interactions affect the evolution of female choice under sexual antagonism?

Xiang-Yi Li

P-1136

A two-locus population genetics model for the resolution of intra-locus sexual conflict

Manas Samant

P-1137

Condition alters the degree of sex-biased gene expression

Antonino Malacrinò

P-1138

Response of lifespan and ageing in *Drosophila melanogaster* to evolutionary manipulation of sexual conflict and nutrition

Wayne Rostant

P-1139

Sex-biased genes and rapid adaptation

Nathan Bailey

P-1140

An evo-devo approach to understand the resolution of sexual conflict from gene expression to morphology

Augustin Le Bouquin

P-1141

Rates of molecular evolution in reproduction-related genes in the free-living flatworm genus *Macrostomum*

R. Axel W. Wiberg

P-1142

From sex to societies: How sex conflict informs the evolution of ant social supergenes

Carlos Martinez Ruiz

P-1143Exploring the environmental dependence of sexual conflict using *Drosophila*

Allan Debelle

P-1144

Sex-specific dominance facilitates the evolution and maintenance of very high allelic diversity at a sexually antagonistic locus

Mattias Siljeström

S-57 MODES OF INHERITANCE AND GENOMIC CONFLICTS**P-1145**A fungal toxin gene is responsible for meiotic drive in the model fungus *Podospora anserina*

Aaron Vogan

P-1146X-chromosome meiotic drive in *Drosophila simulans*: A QTL approach reveals the complex polygenic determinism of Paris drive suppression.

Cécile Courret

P-1147

Complex history and differentiation patterns of the t-haplotype, a mouse meiotic driver

Reka Kelemen

P-1148Intra- and interspecific variation in transposable element activity in *Daphnia*

Sarah Schaack

P-1149

Reviewing model assumptions for genomic imprinting theory

Petri Rautiala

P-1150

The sexual preferences of selfish sex chromosomes

Pavitra Muralidhar

S-65 DOMESTICATION: HUMAN-INDUCED EVOLUTION**P-1151**

The carob tree at the crossroad of domestication center and refugia hypotheses

Alex Baumel

P-1152Are *Penicillium* fungi from dry-cured meat special?

Ying-chu Lo

P-1153Temporal and spatial dynamics of genetic diversity of pearl millet *Cenchrus americanus* in Senegal

Katina Olobo

P-1154

Mapping quantitative trait loci in Red Jungle Fowl - Low weight selection chicken line F2

Christina Rochus

P-1155

Understanding Guinea fowl domestication : new insights from the first whole genome assembly and the pool sequencing of wild and domestic populations from Europe and Africa

Simon Boitard

P-1156

Behavioural correlations of the domestication syndrome are present in ancient, but weak in modern, dog breeds

Christina Hansen Wheat

P-1157

Time-dependent molecular evolution in ancient genomes of domesticated animals

Audrey Lin

P-1158

Exploring heterogeneous origins of domesticated barley using targeted resequencing

Artem Pankin

P-1159

The road to sorghum domestication: evidence from nucleotide diversity and gene expression patterns

Concetta Burgarella

P-1160Repeated domestication of melon (*Cucumis melo*) in Africa and Asia and a new close relative from India

Hanno Schaefer

P-1161

Evidence for rapid adaptation to the tropics in Creole cattle genomes

Daniel Pitt

P-1162

Selection, gene flow and introgression during and after the domestication of eggplant (aubergine)

Mark Chapman

P-1163

Domestication history of the cultivated tomato reveals re-domestication from wild-like populations

Hamid Razifard

P-1164

Comparative demographic study: reconstructing the evolutionary history of the Solanaceae family to better understand the domestication process and outcome.

Stéphanie Arnoux

P-1165

Rapid evolution of feral fowl from Bermuda and Kauai

Eben Gering

P-1166Domesticated lineages of *S. cerevisiae* from fermented food environments present customized genome with selective footprints

Jean-Luc Legras

S-68 THE ECOLOGY AND EVOLUTION OF CANCER**P-1167**

Can birds beat cancer?

E. Yagmur Erten

P-1168

Natural selection in Tumor Suppressor Genes: a evolutionary approach in the study of cancer resistance in Cetaceans

Daniela Tejada Martinez

P-1169

The evolution of resistance and tolerance to cancer

Tazio Tissot

P-1170

An inclusive theory about competition and cancer treatment: What to do with patients that respond «poorly» to initial treatment

Elsa Hansen

P-1171

Quantifying evolution in human cancers with genomics

Marc Williams

P-1172

Contagious clam cancer: Evolution at the intersection of cancer and infectious disease

Michael Metzger

P-1173

Cellular degradation and cancer form an inescapable double bind in multicellular organisms

Paul Nelson

P-1174

The effect sizes of somatic mutations in cancer and their application in predicting resistance to chemotherapy

Vincent Cannataro

P-1175

The Immunogenic Bottleneck: Get Lucky or Get Smart

Chandler Gatensbee

P-1176

Mutation-selection models for inferring the distribution of centrosome numbers in populations of cancer cells

Marco Louro

P-1177

Mathematical modeling for evolution in cancer

Luis Almeida

S-69 EVOLUTIONARY PHYSIOLOGY

P-1178

Eco-evolutionary physiology of environmental stress: is corticosterone a "magic link" in rapid adaptive divergence of the moor frog (*Rana arvalis*)?

Jelena Mausbach

P-1179

Genetics and Plasticity of Metabolic Physiology across Development of *Drosophila*

Omera Matoi

P-1180

Evolution of allometric scaling: limited evolutionary potential for the mass-dependence of metabolic rate

Julian Beaman

P-1181

Evolution of CAM (Crassulacean Acid Metabolism) in the eponymous Crassulaceae family

Thibaud Messerschmid

P-1182

Telomere attrition of an ectotherm reduced in warm environments

Luisa Fitzpatrick

P-1183

The relationship between avian microbiota and stress physiology along an urban-rural gradient.

Sophia S. Carryl

P-1184

Lineage-specific coluporin expansion and adaptation to haematophagy in the vampire snail *Colubraria reticulata*

Maria Vittoria Modica

P-1185

Linking body size, metabolic rate and mode of locomotion to scavenging abilities

Kevin Healy

P-1186

Nature, nurture and telomeres: a cross fostering experiment with chicks of old and young common gulls

Tuul Sepp

P-1187

Mating status, sex and genotype influence dietary choices in *Drosophila melanogaster*

Florencia Camus

P-1188

Genetic mechanisms underlying a diet induced change in the reproduction-longevity trade-off in the milkweed bug *Oncopeltus fasciatus*

Kevin Moore

P-1189

Adaptive responses of black poplar (*Populus nigra L.*) to contrasted environments : first results of leaf and root traits from seedlings of different genetic origins grown in an original reciprocal transplant experiment in large volume container.

Marlene Lefebvre

P-1190

Building large genotype spaces through physiological models

Etienne Rajon

P-1191

Do glucocorticoid hormones respond to selection in free-living North American red squirrels?

Sarah Guindre-Parker

P-1192

Spatio-temporal molecular physiology and genetic diversity dynamics *in situ* : large scale insights into multiple dinoflagellate blooms

Gabriel Metegnier

P-1193

Basal metabolic rate and body temperature are decoupled in mammalian evolution

Jorge Avaria-Llautureo

P-1194

birth and death of evolutionarily young sensory neural circuits

Roman Arguello

P-1195

Adaptation to juvenile malnutrition: trade-off with adult performances

Cindy Dupuis

P-1196

Urbanization and bird coloration

Mathieu Giraudeau

P-1197

Physiological mechanisms for buffering against rising temperatures in a species with temperature dependent sex determination

Emma Lockley

P-1198

Population density and physiological implications of fisheries-induced evolution within a simulated fishery

Amélie Crespel

P-1199

Complexity of physiological adaptation to cyanide and the genomes of specialist herbivores

Elise Lauterbur

P-1200

Pigmentation plasticity enhances crypsis in larval newts: associated metabolic cost and background choice behaviour

Nuria Polo Cavia

P-1201

Are telomeres good indicators of environmental stress? Answers from lizard altitudinal gradients

Nina Serén

S-71 HUMAN EVOLUTIONARY BIOLOGY

P-1202

The causes of age-dependent dizygotic twinning in humans

Wade Hazel

P-1203

The impact of subsistence strategies on human genetic diversity

Michela Leonardi

P-1204

Genetic conflict, preeclampsia, and signals of selection in humans

Kyle Summers

P-1205

How sexual selection and phonetic symbolism shape French first names

Alexandre Suire

P-1206

From disorganized equality to efficient despotism: How demographic increase and cost of organisation lead to the evolution of hierarchy in human societies

Cedric Perret

P-1207

The molecular basis of a prostate-specific gene expression difference between humans and chimpanzees, and its relevance for sexual selection in hominids

Michael Jensen-Seaman

P-1208

Hostility toward snakes and a phylogenetic perspective on the evolution of weaponry in primates

Harry Greene

P-1209

The building of states: how sustainable elite class and institutions can evolve from chiefdoms

Claire Guerin

P-1210

Using ADME genes to explore modern human evolution between Africa and Eurasia

Médéric Mouterde

P-1211

Humans and chimpanzees display opposite patterns of diversity in arylamine N-acetyltransferase genes, pointing to divergent functions in the two species of these highly homologous genes

Estella Poloni

S-72 VIRUS EVOLUTION

P-1212

Parallel evolution of henipavirus glycoproteins

Irene Hoxie

P-1213

Within-host evolutionary dynamics of dengue virus in its mosquito vector *Aedes aegypti*

Sebastian Lequime

P-1214

Predicting the trajectory of in-host viral evolution

Lindi Wahl

P-1215

Evaluation of the impact of population dynamics on viral trees topologies

Lucia Barzilai

P-1216

Origin and evolution of papillomavirus (onco) genes and genomes

Anouk Willemsen

P-1217

Determining the impact of innate immune pathway on viral diversity and evolution

Vanesa Mongelli

P-1218

Contrasting selective patterns across the genome of a segmented vector-borne virus in a reassortment hotspot

Maude Jacquot

P-1219

Deep sequence variation and global-scale evolution of parvovirus over 40 years

Colin Parrish

P-1220

Understanding the coevolution of host-virus-virophage populations under controlled selection scenarios

Ana Del Arco

P-1221

Synergistic coinfection and the diversity of viral infections

Asher Leeks

P-1222

Variations of genes copy number in populations of Bluetongue-virus

Yannis Moreau

P-1223

Deciphering retroviral clonality in non-human primates naturally co-infected with different exogenous retroviruses : STLV-1, SIV-1 and spumavirus

Brice Jegado

S-74 UNDERSTANDING MATE PREFERENCES AND MATING SYSTEMS: FROM GENETICS TO BEHAVIOR**P-1224**

Convergent evolution of nuptial gift chemistry correlated with antagonism in harvestman mating systems

Sarah Boyer

P-1225

Jealous females? Female competition over paternal care in a wild promiscuous primate

Alice Baniel

P-1226

Insights into sexual selection and sexual conflict garnered from the manipulation of mating system and spatial population structure: an empirical study using experimental evolution

Francisco Garcia-Gonzalez

P-1227The phenotypic and genetic basis of plasticity in female preference in relation to male song components in the cricket *Gryllus firmus*

Lauren Conroy

P-1228

The genetic basis of differences in the reproductive system of bonobos and chimpanzees, and a catalog of their lineage-specific mutations

Martin Kuhlwilm

P-1229Chemical signalling and female mate choice in *Heliconius* butterflies

Kathy Darragh

P-1230Evolutionary shifts in sexually-selected signaling colors of *Sceloporus* lizards

Cristina Romero Diaz

P-1231

Condition-dependency in female choosiness can resolve the paradox of the lek and accelerate the process of adaptive evolution!

Tristan Long

P-1232

The Efficient Coding Hypothesis and the Evolution of Signal Design

Samuel Hulse

P-1233

Testing sexual selection hypotheses with genomic methods: insights from a Neotropical singing mouse

Tracy Burkhard

P-1234

Mutilation of female genitalia: implications of fitness costs and female mate preference for its evolution

Pierick Mougnot

P-1235

The sex life of a Caribbean lizard: the evolutionary roles of multiple-paternity and reproductive skew in a small, insular population

Jeanette Moss

P-1236Intrinsic male quality versus genetic compatibility: Mate choice of *Drosophila melanogaster*

Stefan Lüpold

P-1237Analysis of male contest behaviour in a recently described species of stalk-eyed fly from Borneo, *Teleopsis pallifacies*

Jaime Grace

P-1238Genetic basis of female mating receptivity in *Drosophila prolongata*

Yurika Hitoshi

P-1239The clinal pattern of sexual isolation in *Littorina saxatilis*

Samuel Perini

P-1240

Cancelled

P-1241Female responses to conspecific and heterospecific male wing pheromones in *Heliconius* butterflies

Kelsey Byers

P-1242

Unravelling the evolution of in-flight mating in thynnine wasps using 3D micro-CT imaging

Tom Semple

P-1243

Mate choice evolution - time to see the forest for the trees

Zofia Prokop

P-1244Heterozygosity and mating strategies in the terrestrial isopod *Armadillidium vulgare*

Sylvine Durand

P-1245Using computer vision for quantifying mate preference: a case study with *Heliconius* butterflies

Chi-Yun Kuo

P-1246

Do sexual selection metrics conform to Bateman's principles in a wind-pollinated herb?

Jeanne Tonnabel

P-1247

Influence of mc4r genotype, social environment, and sexual phenotype on alternative reproductive behavior of swordtail fish

Sylvia F Garza

P-1248

Context in courtship: the role of leptin in decision-making about social investment in singing mice

Erin Giglio

P-1249Social Network and Pedigree Analysis of UK Greater Horseshoe Bats (*Rhinolophus ferrumequinum*)

Holly Mennell

S-75 PUBLIC COMMUNICATION? DON'T SHOUTSCREAM (SCIENCE COMMUNICATION RESEARCH EMPOWERS AMAZING) OUTREACH**P-1250**

MUTATOR: Using puzzles and computer games to teach mutation biology

Matt Rutter

P-1251

The world of Hopfs - a small bedtime story about evolution

Jan Heuschele

P-1252

Moving evolution education forward: A systematic analysis of literature to identify gaps in collective knowledge for teaching

Michelle Ziadie

P-1253

CodeMyPlant: when high schools rally scientists to barcode the flora of Geneva

Camille Christe

S-77 THE EVOLUTION OF COGNITION: THE INTERPLAY OF INDIVIDUAL AND ENVIRONMENTAL FACTORS

P-1254

Nocturnality and the evolution of the optic tectum in marine fishes

Dan Warren

P-1255

Impact of group composition on foraging behaviors in *Drosophila*

Mathieu Kunetz

P-1256

Variation in associative learning across Heliconiini butterflies

Fletcher Young

P-1257

The evolution of behavioural innovativeness: Exaptation or adaptive specialization?

Daniel Sol

P-1258

Cognitive senescence is related to age-related decline in reproductive success and survival in a natural population of great tit *Parus major*

Laure Cauchard

P-1259

Artificial selection on shoaling behavior leads to changes in brain anatomy, cognition and life history

Alexander Kotrschal

P-1260

Aposematic prey trying to be invisible? Predator cognition processes behind protection conferred by transparency

Monica Arias

P-1261

Evolution of relative brain size and life-history in killifishes

Simon Eckerström-Liedholm

P-1262

Evolution of brain shape in the mustelid adaptive radiation

Ani Hristova



arbor
biosciences

formerly MYcroarray

Experts in Targeted Sequencing

INTRODUCING
v4 Chemistry &
Streptavidin Beads
Included in Kit



my Baits®

TARGETED SEQUENCING KITS

- Complimentary Probe Design Service
- Compatible with Any NGS Library Prep
- Predesigned Kits for Immediate Shipment
- Custom Kits for Unique Organisms



my Reads®

NGS SERVICES FOR TARGETED SEQUENCING

- Experimental Design Services
- Project Management by Dedicated Scientists
- Best-in-Class Library Preparation and Enrichment
- Sequencing on Illumina® and PacBio®

ArborBiosci.com | info@arborbiosci.com | +1 734-998-0751 | Follow us on Twitter: @ArborBio

Arbor Biosciences, myBaits and myReads are trademarks of Arbor Biosciences. Illumina and PacBio are trademarks of Illumina and Pacific Biosciences respectively.

SPONSORS & PARTNERS

MAJOR PARTNERS



GOLD SPONSOR



nature
ecology & evolution



BRONZE SPONSORS

OTHER PARTNERS



EXHIBITORS

