

## University of Groningen

### Winter moth adaptation to climate change

van Dis, Natalie Elisabeth; van der Zee, Maurijn; Hut, R.A.; Wertheim, Bregje; Visser, Marcel

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# ESEB<sup>2019</sup> Turku • Finland

## PROGRAMME

The 2019 Congress of the European  
Society for Evolutionary Biology  
19 - 24 August 2019



#ESEB2019





3rd Floor Childcare/nursing, 2nd floor quiet/speaker rooms

Logomo-Hall

Cloakroom

Poster session and the exhibition

Logi1 Logi2

Goto33

Goto32

Goto31

Goto30

Teatro

Galleria

Outreach-stage

Entrance

Railwaytracks

Move1

Move2

# LOGOMO MAP

# TABLE OF CONTENTS

<b>WELCOME .....</b>	<b>4</b>
<b>CONFERENCE INFORMATION .....</b>	<b>5</b>
<b>CITY MAP .....</b>	<b>9</b>
<b>PLENARY SPEAKERS .....</b>	<b>10</b>
<b>SOCIAL EVENTS .....</b>	<b>12</b>
<b>SATELLITE EVENTS .....</b>	<b>14</b>
<b>LIST OF SYMPOSIA .....</b>	<b>17</b>

## **PROGRAM**

<b>PROGRAMME AT A GLANCE .....</b>	<b>19</b>
<b>- TUESDAY .....</b>	<b>20</b>
<b>- WEDNESDAY .....</b>	<b>26</b>
<b>- THURSDAY .....</b>	<b>34</b>
<b>- FRIDAY .....</b>	<b>38</b>
<b>- SATURDAY .....</b>	<b>46</b>

## **POSTER LIST**

<b>- SESSIONS TUESDAY .....</b>	<b>50</b>
<b>- SESSIONS FRIDAY .....</b>	<b>60</b>

<b>SPONSORS .....</b>	<b>70</b>
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# WELCOME

Dear colleagues,

It is a pleasure to welcome you to the Logomo entertainment centre in Turku, Finland, for the 17th Congress of the European Society for Evolutionary Biology! More than 1300 people have registered for the conference, of which 543 researchers are presenting their research in one of the oral sessions, and an additional 570 will present posters.

The five-day programme follows the traditional ESEB format with 35 themed symposia proposed by members of the ESEB community. As a new innovation, we have classified abstracts submitted to the Open Symposium into five broad sub-themes (36a. Sexual selection and reproductive strategies; 36b. Phylogeography, biogeography, Speciation, systematics; 36c. Species interactions; 36d. Genome Evolution; 36e. Phenotypic Evolution) that we hope will make it easier for delegates to identify sessions and talks matching their interests.

In line with ESEB values, we have also placed emphasis on achieving gender balance amongst speakers and ensuring the environmental impact of the meeting is minimized. 53.7% of all speakers, and 57.7% of invited speakers who reported their gender at registration are female (compared to 52.9% of all abstract submitters). To reduce environmental impact, we have minimized the use of plastic throughout the conference (meals and coffee are served with reusable crockery and cutlery, no plastic cups are on offer for water, no plastic cover for badges etc.) and have focused on sourcing food with a low carbon footprint (e.g. 2 days with vegetarian only, 2 days with locally sourced fish). The conference t-shirt and bag are also made from recycled cotton.

We have also arranged active outreach and social programs. Outreach includes a school children mini-conference that will bring over 40 high school students to Logomo on Thursday morning, while on the social side, the conference pub (Koulu a.k.a. "The Old School") will be open until 2am each day (kitchen open until 23:30). There is a large area upstairs reserved for congress participants where you can taste two of their craft beers that have been re-branded for the congress (Beer Reviewed and Drinkage Disequilibrium).

Finally, we would like to thank the 39 volunteers and the exhibitors and sponsors for helping to make this event possible, and we wish you all a productive, supportive and enjoyable meeting!

On behalf of the organizing and scientific committees

**Craig Primmer**  
(main organizer)

# CONFERENCE INFORMATION

## CONGRESS VENUE

The congress venue, Logomo, is a centre for culture, arts and creative economy operating from the defunct locomotive workshop near the main railway station, the bus station and close to Turku city centre. A pedestrian bridge provides access from the main railway station to Logomo. Walking from the Market Square (which unfortunately is currently under construction) to Logomo takes about 20 minutes (1.5 km). All session rooms are located on the ground floor, except for GOTO rooms, which are located on the third floor, accessible by elevator and Logomo Hall stairs.

## REGISTRATION AND INFORMATION

The registration & information desk will be open on Monday, August 19, from 15:00 until 20:00 on the entrance hall, and during the scientific programme on the following congress days, from 7:30 (Tue) and from 8:00 (Wed-Sat). Participant registration fees include attendance at the scientific sessions, coffee and lunch on the congress days as marked on the programme, congress bag, congress app, access to live stream of all sessions, as well as the Welcome reception on 19 August. Last minute registration is possible at the information desk.

## LUNCHES AND COFFEE

A cooked lunch on each day is included as a part of the congress registration fee. Coffee and tea are available all day (starting 30 mins before the first session commences), while additional snacks are served during the morning and afternoon breaks (except Saturday afternoon). To reduce the environmental impact of the meals we will serve vegetarian only options on two days, and two days will have locally sourced abundant fish as the meat source. All meals and drinks are served with reusable crockery and cutlery. For the refill water stations, we recommend bringing your own bottle. There is also a restaurant and a bar located in Logomo. Restaurant Kitchen is open daily 9:00-16:00 and Teatro bar is open on Monday 16:00-21:00, and on following days from 12:30 onwards.

## CONGRESS STAFF & VOLUNTEERS

Besides registration and info desk staff, there are congress volunteers who can be identified by their white congress T-shirts at the congress venue. Feel free to ask them for any assistance you may need.

## QUIET/REFLECTION ROOM

There is a quiet/reflection room available on the second floor (indicated with signs).

## SPEAKERS' PRACTICE ROOM

There is a speakers' room on the second floor (indicated with signs) where speakers can practice their talks. If you need to borrow a computer to practice in the room, please ask the info desk. There is a time reservation sheet on the room's door.

## CHILDCARE & NURSING ROOM

Childcare will be organized at the 3rd floor "backstage" rooms (take an elevator at the far end of the long hallway on the right side of the Logomo hall). Opening hours are Tue 8:30-17:45, Wed 8:45-17:45, Thu 8:45-13:00, Fri 8:45-17:45 and Sat. 8:45-16:15.

There is also a room for nursing or bottle feeding your child available on the second floor (indicated with signs). The room includes a shower and washbasin, a kitchen sink, refrigerator and microwave. A sign for indicating that the room is in use will be available if you wish to feed in private.

## PRESENTATIONS

Regular oral presentations will be 10 min long 3 additional minutes for discussions and then 2 minutes for changing rooms. Invited symposiums presentations will be 23 min long 5 minutes for discussion and 2 minutes for changing rooms. Presenters must follow the assigned times to ensure the eight concurrent sessions remain synchronised. Loud music will play during the 2 min transition to ensure speakers cannot speak overtime. The next speaker's timeslot starts as soon as the music stops. To enable the staff to handle the technical aspects in an efficient way, all presentations must be prepared according to the guidelines listed on the congress website.

## POSTER SESSIONS

There will be two poster sessions during ESEB2019 on two evenings (17:20-19:20), after the parallel symposia: Poster Session 1 on Tuesday, 20 August and Poster Session 2 on Friday, 23 August. Presenters can check their poster session in the programme on the congress website. Poster boards will be marked with poster codes. Poster presenters are required to be by their poster for at least one hour during the poster session designated to their poster. Poster presenters also have the opportunity to invite up to 3 attendees of their choice to visit their poster through the Postvites system. Poster presenters will serve wine to their poster visitors.

## POSTER PRIZES

There will be prizes awarded for the best student poster in both poster session one and poster session two (by public vote), as well as a “jury’s choice” poster prize chosen by members of the scientific committee that recognizes a student poster (across both poster sessions) that honestly and clearly presents complicated/non-significant/counter-intuitive results. The prizes will be announced at the closing ceremony.

## EvoKE OUTREACH STAGE

The EvoKE team is arranging a series of events to get evolutionary biology researchers more involved in outreach. These events will mostly be held during lunch breaks on the EvoKE outreach stage in the Teatro café and bar.

The events are listed under “Satellite events”.

The EvoKE (Evolutionary Knowledge for Everyone) network is funded by ESEB. EvoKE seeks to contribute to a world where people understand evolution and can use scientific knowledge and skills to make informed decisions that address societal problems thereby contributing to an inclusive, sustainable and resilient future. See <https://evokeproject.org/> for more details

## STREAMING

In order to encourage open science, and to allow people not able to attend ESEB2019 to have access to presentations, we are providing presenters the opportunity for their presentations to be live streamed and also available for viewing following the conference. All presenters are asked if they do not wish to give permission to allow the streaming and recording of their talk on the presentation upload form. Only those who have given the permission will be streamed/recorded.

## WIFI

In Logomo, the wifi network is LogomoPublic and password loGOMo2012.

## CONGRESS APP

Aboa Events Congress app is available for the ESEB2019 congress participants and it is free to download from Google Play and App Store. The Aboa Events app contains features such as abstracts, programme, information about the transportation service Föli, notifications about the possible updates in the programme, maps, venue information and other useful features.

## BUS (FÖLI) PASS

Delegates will receive complimentary weekly bus passes (QR-codes in the name badges) with FÖLI public transportation from Saturday 17th until Sunday 25th of August. FÖLI Turku region traffic allows you to use local bus services in the city of Turku, without limitation ([www.foli.fi](http://www.foli.fi)).

## NAME BADGE

Entrance to the congress venue and upstairs at the conference pub requires wearing your name badge. The conference dinner ticket, if you have purchased one, is also on your name badge, as well as FÖLI pass (QR code).

## DELEGATE BAGS

Delegate bags are made in the Turku Work Centre as a part of rehabilitative services for the special needs unemployed. Bags are made of waste fabric and other recycled materials, they all come in different colours and patterns. This new project is inspired by ESEB 2019, which it is the first congress to receive these bags. Take one if you like from the City of Turku stand in the lobby. Also city maps are available.

The Turku Work Centre will also have a pop-up shop in the lobby on Friday, 23 August at 12:00-16:30. They sell lovely handmade, local, Scandinavian style products, toys, wool socks, small purses and bags.

## PRINTING

There is no printing possibility at the venue of the congress. Your hotel may have a business centre where you can print. Closest printing place Niini, address Laivurinkatu 1, 20810 Turku, open 8:00-17:00 on weekdays.

## FIRST AID

If you need first aid, please contact any staff member or volunteer and you will be directed to first aid room.

## ELECTRICITY

There are sockets in the “street area” (furnished with tables and chairs) by the entrance hall. The Voltage: 220-240 Volts. Electrical sockets (outlets) in Finland are one of the two European standard electrical socket types: “Type C” Europlug and “Type E/F” Schuko.

## CITY OF TURKU

You can find useful information and get inspired about the city of Turku by visiting the congress website, [www.visitturku.fi/en](http://www.visitturku.fi/en) or the congress app Aboa Events.

## ENVIRONMENTAL IMPACT

In line with ESEB values, we have placed emphasis on ensuring the environmental impact of the meeting is as low as possible. For example, we provided details of strategies for reaching Turku without flying, as well as options for compensating flight carbon footprints. The City of Turku has also provided all delegates with a weekly bus pass free of charge for moving around the city.

Further, we have minimized the use of plastic throughout the conference (e.g. meals and coffee are served with reusable crockery and cutlery, no plastic cups are on offer for water, no plastic cover for badges etc.) and have focused on sourcing food with a low carbon footprint. There will be two vegetarian lunches and two lunches with locally sourced fish. Berries and herbs in salads come direct from the Finnish nature. The conference t-shirt and optional conference bag are also made from recycled cotton, and are sourced from local companies.

Finland offers the best quality water straight from a tap, so there is no need for bottled water. You can fill your own mug or bottle making use of the water filling stations in Logomo. Finland uses a deposit-based efficient return system for beverage bottles and cans, so do not throw them into trash, but return them to a store and get money back. Logomo also provides recycling centers for other waste.

## DIVERSITY OF PRESENTATIONS

In line with ESEB values, we have also placed emphasis on promoting diversity in gender, career stage and nationalities amongst speakers. 54% of all speakers, and 58% of invited speakers who reported their gender at registration are female (compared to 53% of all abstract submitters). ECR and mid-career scientists make up 84% of symposium organisers and 60% of invited speakers. 28 nationalities are represented amongst the symposium organisers and 19 amongst the 75 invited speakers.

## SOCIAL MEDIA POLICY

ESEB supports open communication of science. Therefore, in addition to offering a live streaming opportunity for all oral presentations, the default assumption is that information presented at the congress (in oral or poster format) may be reported and discussed, and images of slides posted, by attendees in social media and blogs unless presenters specifically state otherwise. If a presenter does not want information from their presentation to be broadcast and/or photographed they should make this clear in their talk/poster, for example by including one or both of the following images.



We expect delegates to respect the rights of presenters. Any clear breaches of this policy should be reported to the congress desk.

## CODE OF CONDUCT

The ESEB Congress is intended to foster the exchange of scientific ideas, providing participants with an opportunity to network with an international community of evolutionary biologists. ESEB is 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 behaviour 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 behaviour. Retaliation for reporting harassment is also unacceptable, as is reporting an incident in bad faith.

Please note that the use of certain language or images in oral or poster presentations may contravene the Code of Conduct if they represent disrespectful criticism of individuals or teams rather than valid criticism of their science, if they are seen to objectify or demean individuals or groups. It is important to recognise that sensitivity to such aspects of communication varies, and what might be acceptable or humorous to some people might not be to others.



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 without your consent.

Our external HR Adviser is Joanne Harding, at Workforce Window Ltd, a Human Resources 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.workforce-windowltd.co.uk](http://www.workforce-windowltd.co.uk)

To contact Joanne Harding, either send her an email ([joanne@workforcewindow.co.uk](mailto: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](mailto:office@eseb.org)) or phone/text her (+49 160 524 3050).

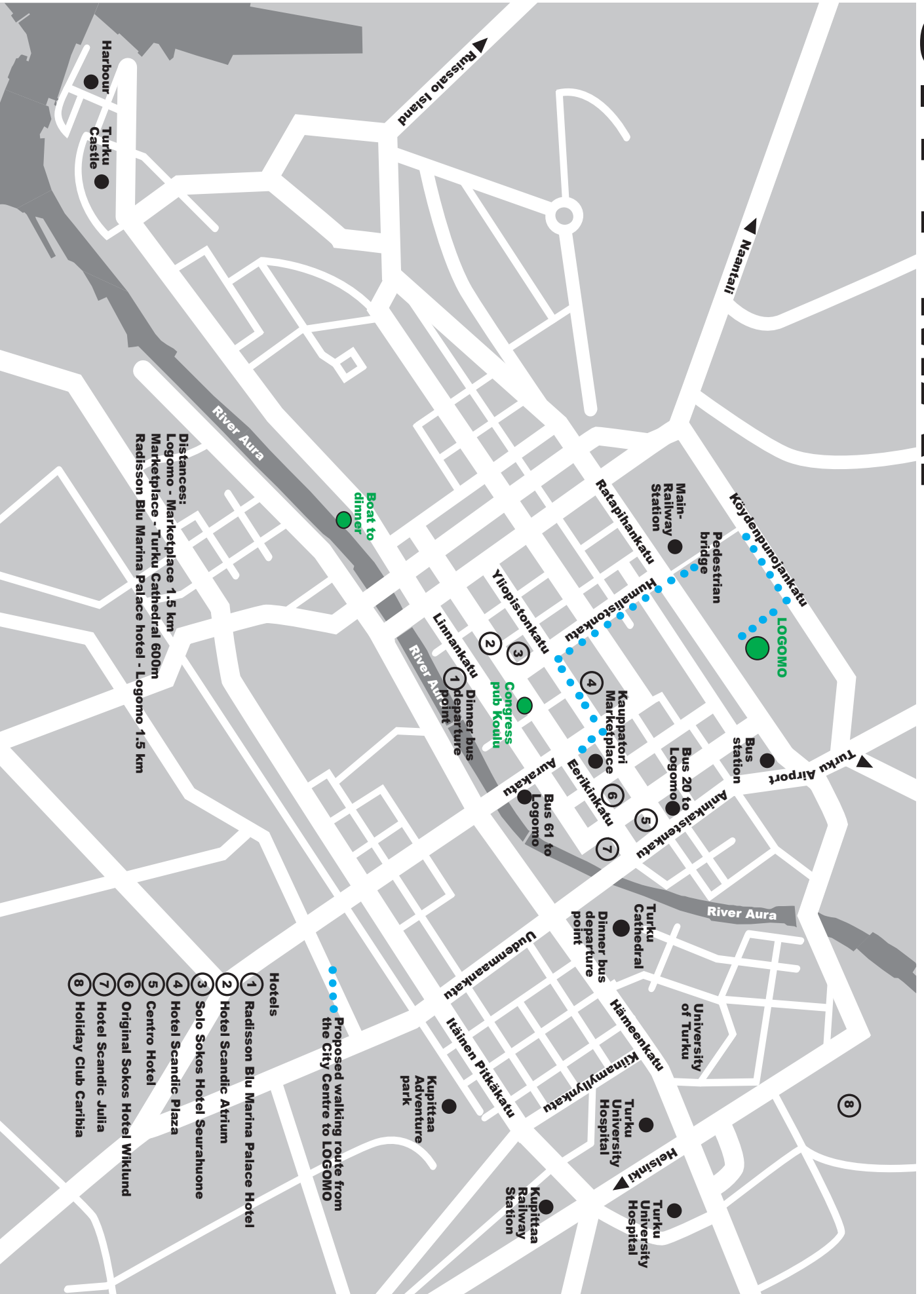
Workforce Window Ltd follow the General Data Protection Regulations and are registered with the Information Commissioners Office. The company has no other links with ESEB.

## **EXHIBITION**

Exhibition is open throughout the congress in the entrance hall. List of exhibitors:

1. Peer Community In
2. Guarant International
3. Frontiers
4. Wiley
5. Oxford University Press
6. Royal Society Publishing
7. Cambridge University Press
8. Current Zoology
9. The New Phytologist Trust
10. Nordic Society Oikos
11. University of Helsinki / HiLIFE
12. EvoKE - Outreach activities
13. ESEB organisation

# CITY MAP



# PLENARY SPEAKERS



**PAT MONAGHAN**

(Glasgow)

**Title: Bad beginnings and untimely ends: environments, telomeres and life history variation**

Tuesday, August 20

09.00-09.45 Room: LOGOMO HALL

Pat Monaghan is an evolutionary ecologist, based at the University of Glasgow, where she holds the Regius Chair in Zoology. She did her PhD at Durham University on seabird ecology, followed by work on the interactions between seabirds and fisheries management. She then began research on the effect of early life conditions in shaping individual life histories, involving studies at many different biological levels from physiology and molecular biology to ecology and behavioural biology. Her work is mainly on birds, with related work in other taxa. A current major focus is on telomere dynamics, and the extent to which this system of genome protection influences life history evolution and ageing patterns.



**SINEAD COLLINS**

(Edinburgh)

**Title: Understanding evolution in life-giving slime**

Wednesday, August 21

09.05-09.50 Room: LOGOMO HALL

Sinead Collins is a Reader at the Institute of Evolutionary Biology at the University of Edinburgh. Her research focuses on building the theory needed to predict trait evolution in large populations of photosynthetic microbes, particularly those in the ocean. To do this, she and her group use microbial experimental evolution, make models, and collaborate closely with marine microbiologists and oceanographers. Experimental evolution is a field that rarely considers marine systems, and Sinead has spent much of the past decade working with others to create a field of “marine microbial experimental evolution” that pulls together the strengths of marine and evolutionary biologists.



## DAVID QUELLER

(Washington)

**Title: Evolutionary conflict and molecular arms races in cooperative systems**

Thursday, August 22

09.05-09.50 Room: LOGOMO HALL

David Queller is a professor at Washington University in St. Louis. His dissertation investigated sexual selection and kin selection in plants. He subsequently worked for many years, together with Joan Strassmann, on social insects, showing the importance of relatedness in both cooperation and conflict. They later switched to studying social amoebas, especially the evolution of cheating in and its control by high relatedness, kin discrimination, pleiotropy, and resistance. His theoretical work includes methods for estimating relatedness, models of kin selection and other social forces, the evolution of eusociality via demographic advantages, evolutionary conflict, and fundamental theorems of natural selection.



## ANNA-LIISA LAINE

(University of Zurich, Helsinki University)

**Title: What keeps pathogens in check in the wild?**

Friday, August 23

09.05-09.50 Room: LOGOMO HALL

Anna-Liisa Laine is an evolutionary ecologist who is broadly interested in the eco-evolutionary feedback loops that drive species interactions. She is a professor of ecology at the University of Zurich, and a visiting professor at the University of Helsinki. She received her PhD at the University of Helsinki in 2005 and continued to do post doctoral research at the University of California, Santa Cruz, and CSIRO Canberra. Much of her work is focused on uncovering the mechanism that enable coexistence of host and their parasites in natural populations, and the mechanism which maintain diversity in host-parasite interaction traits. Currently, her work is addressing these questions within a community ecology framework.

## RASMUS NIELSEN

(UC Berkley/Copenhagen)

**Title: Human adaptation in time and space**

Saturday, August 24

09.05-09.50 Room: LOGOMO HALL



Dr. Nielsen's work is on statistical and population genetic analyses of genomic data, in particular methods for detecting natural selection, describing population genetic variation, inferring demography, and methods for association mapping. Much of his current research concerns statistical analysis of next-generation sequencing data, both in the context of medical genetics and population genetics. Many of the methods he has developed are heavily used by other researchers, including the phylogeny based methods for detecting positive selection implemented in PAML, the methods for inferring demographic histories implemented in the IM and IMa programs, the method for detecting selective sweeps implemented in the SweepFinder programs, and the methods for analysing Next Generation Sequencing (NGS) data implemented in ANGSD.

# SOCIAL EVENTS

## WELCOME RECEPTION

Monday, 19 August, 18:00-21:00

Join your colleagues for a welcome reception at the congress venue Logomo on Monday evening, at 18:00.

Finger food is served until 19:30. The event includes 2 complimentary drinks, one offered by the City of Turku. Additional drinks available for purchase until 21 after which we will move to the conference pub (Koulu).

## CONGRESS DINNER AT MOOMIN WORLD

Saturday, 24 August, 18:30-02:00

The congress will be concluded with the conference dinner held in Moomin World. This children's culture classic operates in Naantali, where the Archipelago Sea and Naantali's Old Town with its wooden houses meet.

Tove Jansson was a Finnish writer and a visual artist, whose Moomin characters are known all over the world. Moomin World is an ode to fairy tales and a tribute to Tove Jansson's imagination, located in south-west coast of Finland, in the island of Kailo, in Naantali. Moomin World can be reached within 20 minutes from the downtown of Turku.

Who knows, maybe we will get to meet the Moomins during the dinner, come along to spend a memorable evening!

### Bus transportation to dinner

Buses to dinner leave from two locations (see below) in short intervals between 17:15 and 17:40. Families with children are recommended to take the first bus in order to give them time to explore the island before larger crowds arrive:

1. Turku Cathedral, address Tuomiokirkonkatu 1
2. Hotel Radisson Blu Marina Palace, address Linnankatu 32

In Naantali, there is about 10 minute walk from the bus to Moominworld island. Congress volunteers will show the way.

Return buses will leave starting from 20.00 in about 30 minute intervals. All return buses will stop at Hotel Radisson Blu Marina Palace and near Turku Cathedral.

### Boat transportation (one way, return by bus)

If you have booked a ticket for the boat:

The boat leaves at 17:15 sharp from the River Aura, address: Läntinen Rantakatu 37

## RUNNING SOCIAL

Thursday, 22 August, at 07:00

A running social will be organized early Thursday morning, meeting in the front of the Cathedral (Tuomiokirkonkatu 1, 20500 Turku). The routes will follow the river Aura. We aim to have two groups (different paces and distances).

## FAMILY SOCIAL

Thursday, 22 August, at 15:00

A family social will be organized on Thursday afternoon at the Seikkailupuisto adventure park (Kupittaankatu 2, 20520 Turku; meeting point at the big moose statue ), and in case of rain, in a child-friendly museum of history Aboa vetus (Itäinen Rantakatu 4–6, 20700, Turku) at 15:00.

## LGBTQ SOCIAL

Friday, 23 August, at 19:30

The ESEB 2019 LGBTQ social will feature a collaboration with Turku Pride! Following the poster session on Friday August 23, we will meet near the main door in Logomo at 19:30 and head over to Saaristobaari (Aurakatu 14, Turku) together to grab a bite to eat and get to know each other. At 10pm, there will be a drag show (5€ cover) featuring Finland's fiercest underground drag and burlesque artists and DJ Slaya Bit. The show is the official Turku Pride pre-party, so let's get there early! For more information, please check @ESEB2019LGBTQ on Twitter or email [evolcongen1@gmail.com](mailto:evolcongen1@gmail.com) - the first 100 ESEB members attending the congress who RSVP by 22 August will get in free to the show.

## CONGRESS PUB

### Panimo ravintola Koulu

Address: Eerikinkatu 18 (the second floor of the restaurant is reserved for ESEB participants) Open every day 11:00-02:00, kitchen open until 21:30 (Mon-Thu), until 23:30 (Fri-Sat).

Look out for two evolutionary themed congress beers on tap in the upstairs bar of Panimoravintola Koulu; 'Beer Reviewed' and 'Drinkage Disequilibrium'. Our beer names were chosen following a twitter poll on a shortlist of names, whittled down from an extensive list of submissions of varying creativity (it turns out evolutionary biologists love both procrastinating and puns). Credit goes to Martin Seltmann who came up with 'Beer Reviewed' and Will Buswell for 'Drinkage Disequilibrium', as well as to Océane Liehrmann for the great logo adaptation and designs!

Panimoravintola Koulu (Brewery restaurant School in English) is a former elementary school, now Finland's largest brewery restaurant serving large selection of beers, wine and delicious food too!



# SATELLITE EVENTS

## **PEER COMMUNITY IN (PCI) - PEER COMMUNITY IN...THE BEGINNING OF A REVOLUTION IN OPEN ACCESS?**

Where: MOVE 1

When: Tuesday 20 August, 13:00-13:50 (lunch time)

Who: Researchers

Interested by discovering/joining/using the next generation publishing experiment with the "Peer Community In" (PCI, <https://peercommunityin.org>) project? In a few words: PCI is a non-profit scientific organization that aims to create specific communities of researchers reviewing and recommending, for free, unpublished preprints in their field (i.e. unpublished articles deposited on open online archives like arXiv.org and bioRxiv.org). Evaluations and recommendations by a PCI are free of charge for authors and readers. The first PCI, Peer Community in Evolutionary Biology (PCI Evol Biol), has been launched in 2017 and now counts >400 Editors. Other PCIs (eg PCI Ecology, PCI Paleontology, PCI Entomology...) have been created and several PCIs will probably open soon. Come along and meet Thomas Guillemaud & Denis Bourguet – co-funders of PCI – and many researchers already involved as editors @PCI Evol Biol. See also <https://youtu.be/4PZhpnc8ww0>, @PCIEvolBiol & @PeerCommunityIn.

## **THE EUROPEAN RESEARCH COUNCIL - FUNDING OPPORTUNITIES FOR BRIGHT MINDS**

Where: MOVE 1

When: Wednesday 21 August, 13:15-14:05 (lunch time)

Who: Researchers

Is an ERC grant for you? You will be explained what the European Research Council is, who can benefit from its funding opportunities and what to expect in the application and selection process. The ERC supports researchers performing interesting and ambitious fundamental research. This could be you!

The mission of the European Research Council is to encourage the highest quality research in Europe. The concept is simple: competitive individual funding for researchers with a great idea, across all fields. ERC grants are awarded through open competition to projects headed by starting and established researchers of any nationality and age, who are working or moving to work in Europe or an associated country. The sole criterion of choice is scientific excellence.

## **NETHERLANDS EVOLUTIONARY BIOLOGY GET-TOGETHER**

Where: Congress pub Panimoravintola Koulu, address: Eerikinkatu 18

When: Wednesday 21 August, 18:00-19:30

Who: All scientists working in the Netherlands or of Dutch origin

The Netherlands society for evolutionary biology (NLSEB) aims to build a community of all evolutionary biologists in the Netherlands. NLSEB therefore welcomes all scientists working in the Netherlands or from Dutch origin for drinks. Come and (re-)connect to Dutch evolutionary biology!

## **MEET THE EDITORS - A ROYAL SOCIETY PUBLISHING WORKSHOP**

Where: MOVE 1

When: Friday 23 August, 13:00-13:50 (lunch time)

Who: Everybody interested

Presenters: Editors from the Royal Society journals Proceedings B, Philosophical Transactions B and Biology Letters, including ESEB President Professor Nina Wedell.

Have you ever wondered what happens to a paper submitted to a Royal Society journal? This is your chance to find out. This one-off event offers an excellent opportunity to gain valuable insight into the peer review and processes behind the scenes at Royal Society Publishing. Come along and meet some of the highly experienced and reputable editors working for the Royal Society journals, and hear more about their expectations and top tips for compiling high quality articles. There will also be plenty of time to discuss topical publishing issues, and questions and feedback from the audience will be encouraged.

## **OUTREACH EVENTS**

### **- OPEN TO EVERYBODY INTERESTED IN OUTREACH**

#### **HOW TO FOSTER PUBLIC ENGAGEMENT AT CONFERENCES**

Where: Outreach Stage

When: Tuesday 20 August, 12:45-13:55 (lunch time)

In this session, you will be presented with a few examples of how outreach and public engagement were fostered at scientific conferences and participate to a brainstorming session on how to do in the future, to be able to go back home with plenty of concrete ideas! (Héloïse Dufour)

#### **A CITIZEN-SCIENCE WORKSHOP**

Where: GOTO 31 (3rd floor)

When: Tuesday 20 August, 12:45-13:55 (lunch time)

A citizen-science workshop showcasing an amazing and successful Droseau citizen-science initiative (Roberto Torres)

#### **HOW TO PITCH YOUR SCIENCE TO NON-SPECIALIST AUDIENCES**

Where: GOTO 31 (3rd floor)

When: Wednesday 21 August, 12:55-13:55 (lunch time)

In this workshop, you will get tips on how to discuss your science with non-specialist audiences and actually build and practice on YOUR pitch(es). (Héloïse Dufour)

#### **SCISPARKS, HOW TO ORGANISE SPEED MEETINGS IN HIGH-SCHOOLS**

Where: Outreach Stage

When: Friday 23 August, 12:45-13:55 (lunch time)

In this session, you will learn how to easily organise effective encounters between researchers and highschool students using speed-meetings, and how to get support to start your own. They are fun ways to create engaging links between students, teachers, and researchers! This session is also for you if you want to become part of a European coordinated activity dedicated to evolution! (Héloïse Dufour)



**ART-UP YOUR EVOLUTION**

Where: Outreach Stage

When: lunchtime + coffee-breaks + continued moderation throughout the conference on a flexible basis, lasts until the end of the last coffee break

Unleash your artistic side! Take the paint, crayons, paper, brushes and whatever else you need - and show us your artistic vision of your research, results - or yourself as a scientist! All materials will be provided - just come and express yourself. (Szymek Drobnik)

**COME AND MEET EvoKE!**

Where: Exhibition area

When: Throughout whole conference

Come share with us what outreach activities you are involved in and why! You will also learn about examples of activities you can get involved in or use. Last but not least, you will hear about EvoKE, the network aiming at Evolutionary Knowledge for Everyone, to get in touch with a diversity of people with the same goal!

# LIST OF SYMPOSIA

## S1. Trans generational plasticity in animals (Trans gen plast)

**Organisers:** Dalia Freitak, Olivia Roth

**Invited:** Marjo Saastamoinen, Seth Barribeau

## S2. Evolution in real time: experimental evolution approaches (Exp evol)

**Organisers:** Biljana Stojković, Uroš Savković, Mirko Đorđević

**Invited:** Göran Arnqvist, Tadeusz Kawecki

## S3. Exploring the role of nongenetic inheritance in evolution (Non-gen inherit)

**Organisers:** Pim Edelaar, Russell Bonduriansky, Troy Day

**Invited:** Itamar Lev, Sonia Sultan

## S4. Cognitive evolution and environment (Cognition)

**Organisers:** Antonin Crumiere, Manuel Nagel

**Invited:** Reuven Dukas, Gabrielle Davidson

## S5. Aging & Cancer through the lens of evolution (Aging & cancer)

**Organisers:** E. Yagmur Erten, Matthias Galipaud, Robert Noble

**Invited:** Vera Gorbunova, Joao Pedro de Magalhaes

## S6. Eco-evolutionary approach to the anti-microbial resistance problem (Anti-micro resist)

**Organisers:** Teppo Hiltunen, Lutz Becks

**Invited:** Danna R Gifford, Dan Andersson

## S7. Human-induced evolution (Human-induced)

**Organisers:** Miguel Baltazar-Soares, Kristien Brans, Christophe Eizaguirre

**Invited:** Fanie Pelletier, Mikko Heino

## S8. Genetics of small populations (Small pop gen)

**Organisers:** Alina Niskanen, Lumi Viljakainen, Henrik Jensen

**Invited:** Richard Frankham, Nancy Chen & Jane Reid (Externally sponsored)

## S9. Microbial genome and community evolution in food environments (Microbes & food)

**Organisers:** Jeanne Ropars, Ricardo Rodriguez de la Vega

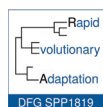
**Invited:** Delphine Sicard, John Gibbons

## S10. Rapid evolutionary adaption: potential and constraints (Rapid adapt)

**Organisers:** Carolin Wendling, Jürgen Gadau

**Invited:** Alison Feder, Lutz Becks

*The symposium is sponsored by the DFG priority program SPP1819*



## S11. Quantitative trait effect size distributions and their impact on evolutionary processes (Quant traits)

**Organisers:** Arild Husby, Anna Santure

**Invited:** John Kelly, Mirte Bosse

## S12. Quantifying selection and evolvability in wild plant populations: methods and measurements (Wild plant sel)

**Organisers:** Øystein H. Opedal, Rocío Pérez-Barrales

**Invited:** Benoit Pujol, Maria Clara Castellanos

## S13. Genetics and genomics of adaption (Adapt gen)

**Organisers:** Carmelo Fruciano, Paolo Franchini, Julia C. Jones

**Invited:** Kathryn Elmer, Henrique Teotónio

## S14. The mechanisms of evolutionary change: moving from genomic signatures to functional validation (Genome funct)

**Organisers:** Darren J. Parker, Nicola Cook

**Invited:** Alistair P. McGregor, Megan Neville

## S15. Tracing evolution through time using ancient DNA (Ancient DNA)

**Organisers:** Päivi Onkamo, Verena Schünemann, Elina Salmela

**Invited:** David Wegmann, Johannes Krause

## S16. Mito-nuclear interactions across levels of biological organisation (Mito-nuclear)

**Organisers:** Florencia Camus, Hernan Morales

**Invited:** Ronald S. Burton, Kristi Montooth

## S17. Selfish genetic elements (Selfish GEs)

**Organisers:** Robert Kofler, Kirsten A. Senti

**Invited:** Catherine Montchamp-Moreau, Arturo Mari-Ordóñez

## S18. The genetic architecture of polygenic adaption: sweeps, small shifts and everything in between (Polygen arch)

**Organisers:** Christian Schlötterer, Neda Barghi

**Invited:** Catherine Peichel, Joachim Hermisson

*The symposium is supported by Molecular Ecology*

**MOLECULAR ECOLOGY**

## S19. Gene-phenotype associations across evolutionary scales (Geno-pheno)

**Organisers:** Jo Baker, Stephen Montgomery, Francesco Cicconardi

**Invited:** Nicola Nadeau, Itay Mayrose

**S20. The evolutionary consequences of social transmission and animal culture****(Social trans)****Organisers:** Rose Thorogood, Neeltje Boogert  
**Invited:** Lucy Aplin, Sasha Dall**S21. Colour across the evolutionary spectrum: from production to perception** **(Colour)****Organisers:** Hugo Gruson, Amélie Fargevieille, Nicola Nadeau**Invited:** Edwige Moyroud, Martine Maan**S22. Evolution of host-plant use in arthropods** **(Host-plant)****Organisers:** Ernesto Villacis-Perez, Nicky Wybouw**Invited:** Silke Allmann, Noah Whiteman**S23. Parasite community dynamics and their role in the evolution of host immunity** **(Parasite comm dyn)****Organisers:** Tobias Lenz, Sébastien Calvignac-Spencer**Invited:** Anssi Karvonen, Elin Videvall**S24. Microbial evolution under biotic stress** **(Microbial stress)****Organisers:** Marie Vasse, Antoine Frenoy**Invited:** Olaya Rendueles, Ville-Petri Friman**S25. Assortative mating for quantitative traits: mechanisms, estimation and evolutionary consequences** **(Assort mating)****Organisers:** Niels Dingemans, Barbara Class**Invited:** Wolfgang Forstmeier, Roger Butlin**S26. Sexual conflict: linking behavior, genetics and ecology** **(Sex conflicts)****Organisers:** Kenyon Mobley, Jessica Abbott, Stephen De Lisle**Invited:** Jen Perry, Howard Rundle**S27. Design of social traits: genes, individuals and social groups** **(Social traits)****Organisers:** Gonçalo S. Faria, Thomas Hitchcock, Jasmeen Kanwal**Invited:** Susanne Shultz, Alan Grafen**S28. Evolutionary game theory: modern development and interdisciplinary applications** **(Game theory)****Organisers:** Xiang-Yi Li, Vlastimil Křivan, Christian Hilbe**Invited:** Katerina Stankova, Redouan Bshary**S29. Moving beyond a quantification of eco-evolutionary dynamics** **(Eco-evo)****Organisers:** Lynn Govaert, Marjolein Bruijning**Invited:** Jelena Pantel, Tim Coulson**S30. Eco-evolutionary feedback between pollinator behaviour and floral evolution****(Pollinator)****Organisers:** Mario Vallejo-Marin, Avery Russell  
**Invited:** Aimee Dunlap, Allan Ellis**S31. Life history evolution: bridging theory and data** **(Life history)****Organisers:** Piret Avila, Mauricio González-Forero**Invited:** Alexei Maklakov, Irja Ida Ratikainen**S32. Niche width evolution and its (mal)adaptive significance** **(Niche width)****Organisers:** Maud Charlery de la Masselière, Virginie Ravigné, Vincent Calcagno**Invited:** Claus Rueffler, Michael Singer**S33. Evolutionary ecology of ageing: from mechanisms to life-history consequences** **(Aging)****Organisers:** Sophie Reichert, Hannah Froy, Antoine Stier**Invited:** Sandra Bouwhuis, Tonia Schwartz**S34. Mathematical models in evolutionary biology** **(Math models)****Organisers:** Guy Cooper, Matishalin Patel, Tom Scott, Asher Leeks**Invited:** Hanna Kokko, Florence Débarre**S35. Evolution outreach projects: keep SCREAMing** **(Science Communication Research Empowers AMAZing outreach)** **(Evol outreach)****Organisers:** Dragana Cvetković, Szymon M. Drobniak**Invited:** Pedro Russo, Héloïse Dufour**36a. Sexual selection and reproductive strategies** **(Sex select & mating)****Organizers:** Natalie Pilakouta, Murielle Ålund, Colin Olito**36b. Phylogeography, biogeography, speciation, systematics** **(Phylogeog & syst)****Organizers:** Bjarki Eldon, Niklas Wahlberg**S36c. Species interactions** **(Spp interact)****Organisers:** Alexandre Figueiredo, Jos Kramer, Elisa Granato**36d. Genome evolution** **(Genome evol)****Organizers:** Alexander Nater, Wen-Juan Ma**36e. Phenotypic evolution** **(Phenotypic evol)****Organizer:** Dany Garant

# AT A GLANCE

# PROGRAMME

## MONDAY AUGUST 19

15.00 18.00	Registration
18.00 21.00	Welcome reception

## TUESDAY AUGUST 20

7.30	Registration
8.30	Opening of conference and practical information
9.00 9.45	<b>Keynote I Pat Monaghan</b> , Bad beginnings and untimely ends: environments, telomeres and life history variation
10.00	<b>SYMPOSIUM</b> S10: Rapid Adapt, S31: Life History, S34: Math Models, S8: Small pop gen, S7: Human-induced, S23: Parasite com dyn, S18: Polygen arch, S32: Niche width
11.00	Coffee & Exhibition & Outreach
11.30	<b>SYMPOSIUM</b> S10: Rapid Adapt, S31: Life History, S34: Math Models, S8: Small pop gen, S7: Human-induced, S23: Parasite com dyn, S18: Polygen arch, S32: Niche width
12.30	Lunch & Exhibition & Satellite events/outreach
14.00	<b>SYMPOSIUM</b> S10: Rapid Adapt, S31: Life History, S34: Math Models, S8: Small pop gen, S7: Human-induced, S23: Parasite com dyn, S18: Polygen arch, S20: Social trans
15.30	Coffee & Exhibition & Outreach
16.00 17.15	<b>SYMPOSIUM</b> S10: Rapid Adapt, S31: Life History, S36d: Genome evol, S8: Small pop gen, S7: Human-induced, S36e: Phenotypic evol, S36b: Phylogeog & syst, S20: Social trans
17.20 19.20	<b>POSTER SESSION I</b>

## WEDNESDAY AUGUST 21

08.55	ESEB initiatives and practical information
9.05 9.50	<b>Keynote II Sinead Collins</b> , Understanding evolution in life-giving slime
10.00	<b>SYMPOSIUM</b> S10: Rapid Adapt, S31: Life History, S34: Math Models, S14: Genome funct, S33: Aging, S4: Cognition, S35: Evol outreach, S11: Quant traits
11.00	Coffee & Exhibition & Outreach
11.30	<b>SYMPOSIUM</b> S10: Rapid Adapt, S31: Life History, S34: Math Models, S14: Genome funct, S33: Aging, S4: Cognition, S35: Evol outreach, S11: Quant traits
12.45	Lunch & Exhibition & Satellite events/outreach
14.15	<b>SYMPOSIUM</b> S13: Adapt gen, S21: Colour, S6: Anti-micro resist, S14: Genome funct, S17: Selfish GEs, S4: Cognition, S25: Assort mating, S22: Host-plant
15.45	Coffee & Exhibition & Outreach
16.15 17.30	<b>SYMPOSIUM</b> S13: Adapt gen, S21: Colour, S6: Anti-micro resist, S14: Genome funct, S17: Selfish GEs, S33: Aging, S25: Assort mating, S22: Host-plant

## THURSDAY AUGUST 22

08.55	ESEB initiatives and practical information
9.05 9.50	<b>Keynote III David Queller</b> , Evolutionary conflict and molecular arms races in cooperative systems
10.00	<b>SYMPOSIUM</b> S13: Adapt gen, S21: Colour, S26: Sex conflict, S3: Non-gen inherit, S29: Eco-evo, S6: Anti-micro resist, S12: Wild plant sel, S16: Mito-nuclear
11.00	Coffee & Exhibition & Outreach
11.30	<b>SYMPOSIUM</b> S13: Adapt gen, S21: Colour, S26: Sex conflict, S3: Non-gen inherit, S29: Eco-evo, S7: Human induced, S12: Wild plant sel, S16: Mito-nuclear
12.45	Lunch & Exhibition & Satellite events/outreach
13.45 18.00	Excursions

## FRIDAY AUGUST 23

8.55	ESEB initiatives and practical information
9.05 9.50	<b>Keynote IV Anna-Liisa Laine</b> , What keeps pathogens in check in the wild?
10.00	<b>SYMPOSIUM</b> S13: Adapt gen, S2: Exp evol, S26: Sex conflict, S15: Ancient DNA, S27: Social traits, S1: Trans gen plast, S19: Geno-pheno, S24: Microbial stress
11.00	Coffee & Exhibition & Outreach
11.30	<b>SYMPOSIUM</b> S13: Adapt gen, S2: Exp evol, S26: Sex conflict, S15: Ancient DNA, S27: Social traits, S1: Trans gen plast, S19: Geno-pheno, S24: Microbial stress
12.30	Lunch & Exhibition & Satellite events/outreach
14.00	<b>SYMPOSIUM</b> S13: Adapt gen, S2: Exp evol, S26: Sex conflict, S15: Ancient DNA, S27: Social traits, S1: Trans gen plast, S19: Geno-pheno, S24: Microbial stress
15.30	Coffee & Exhibition & Outreach
16.00 17.15	<b>SYMPOSIUM</b> S13: Adapt gen, S2: Exp evol, S26: Sex conflict, S3: Non-gen inherit, S27: Social traits, S36b: Phylogeog & syst, S36c: Genome evol, S36c: Spp interact
17.20 19.20	<b>POSTER SESSION II</b>

## SATURDAY AUGUST 24

8.55	ESEB initiatives and practical information
9.05 9.50	<b>Keynote V Rasmus Nielsen</b> , Human adaptation in time and space
10.00	<b>SYMPOSIUM</b> S13: Adapt gen, S2: Exp evol, S36a: Sex select & mating, S28: Game theory, S27: Social traits, S30: Pollinator, S9: Microbes & food, S5: Aging & cancer
11.00	Coffee & Exhibition & Outreach
11.30	<b>SYMPOSIUM</b> S13: Adapt gen, S2: Exp evol, S36a: Sex select & mating, S28: Game theory, S27: Social traits, S30: Pollinator, S9: Microbes & food, S5: Aging & cancer
12.45	Lunch & Exhibition
13.30	ESEB members meeting
14.30	<b>Incoming president's address, Ophelie Ronce</b> , Integrating niche evolution with life history theory can help us better understand the consequences of climate change
15.10	Leg stretching break
15.20	<b>JMS award winner 2019, Karl Grieshop</b> , Sexual conflict and the maintenance of genetic variance in fitness
15.50 16.20	Closing ceremony
18.30 02.00	Congress dinner at Muuminworld

**LOGOMO HALL**

**TEATRO**

**GALLERIA**

**LOGI1**

7.45

**REGISTRATION**

8.30

**OPENING OF CONFERENCE AND PRACTICAL INFORMATION**

9.00

**KEYNOTE I** Pat Monaghan, Bad beginnings and untimely ends: environments, telomeres and life history variation

**S10: RAPID ADAPT**

**S31: LIFE HISTORY**

**S34: MATH MODELS**

**S8: SMALL POP GEN**

10.00

**S10.01**

Slowing the rapid evolution of HIV drug resistance  
**A. Feder**

**S31.01**

Why do organisms age: Beyond energy trade-offs  
**A. Maklakov**

**S34.01**

Why you might want to care about population regulation, no matter what your question is  
**H. Kokko**

**S8.01**

What sizes are required for populations to be genetically viable? Re-evaluation of the 50/500 rules  
**R. Frankham**

10.30

**S10.02**

Host virus coevolution – demography versus selection in the face of multiple stressors  
**L. Becks**

**S31.02**

Co-evolution of life history traits in variable environments  
**I. I. Ratikainen**

**S34.02**

Reconciling different modelling approaches in evolutionary theory  
**F. Débarre**

**S8.02**

Genetic and fitness consequences of dispersal in a small pedigreed population  
**N. Chen**

11.00

**COFFEE & EXHIBITION & OUTREACH**

(Art up your evolution, Outreach stage, Teatro lobby)

11.30

**S10.03**

Tracking viral life history during experimental coevolution with their hosts  
**E. J. P. Lievens**

**S31.03**

Ageing and the fecundity/longevity trade-off in social insects: a comparative approach  
**J. Korb**

**S34.03**

Does ecology matter in evolutionary models?  
**B. Ashby**

**S8.03**

Complexities of inbreeding, outbreeding and inbreeding depression in a song sparrow meta-population  
**J. Reid**

11.45

**S10.04**

Rapid resource use specialisation leads to increased virulence in plant pathogenic *Ralstonia solanacearum*-bacterium  
**L. Mikonranta**

**S31.04**

The effect of environmental stress on ageing in social insects  
**V. Rau**

**S34.04**

Individual-based models improve understanding of evolutionary dynamics: examples from female multiple mating and dispersal  
**G. Bocedi**

**S8.04**

Genetic load accumulation from the perspective of post-bottleneck populations of Galapagos Mockingbirds.  
**J. Vlček**

12.00

**S10.05**

Changes in allelic frequencies of *Brassica rapa* under experimental evolution with selection by bumblebees  
**L. Frachon**

**S31.05**

The cost of longevity: Transgenerational effects of parental lifespan extension under dietary restriction  
**E. Ivimey-Cook**

**S34.05**

Dynamic invariance of evolutionary models  
**J. Otsuka**

**S8.05**

Patterns of genetic variation across the genome in bottlenecked populations of Eurasian and Iberian lynx  
**J. A. Godoy**

12.15

**S10.06**

The genomics of rapid adaptation to climate change: host preference evolution increases short-term ecological resilience  
**J. Bridle**

**S31.06**

Social context does not modulate age fitness effects in *Drosophila melanogaster*  
**Z. Sultanova**

**S34.06**

Predicting evolution: combining developmental biology and quantitative genetics  
**L. Milocco**

**S8.06**

Founder-specific inbreeding depression in an island bird population  
**P. Nietlisbach**

12.30

**LUNCH & EXHIBITION & SATELLITE EVENTS / OUTREACH**

**Satellite events**

Peer Community in (PCI) – Peer Community In ... the beginning of a revolution in Open Access?, MOVE 1 at 13:00-13:50  
How to foster public engagement at conferences, Outreach Stage in Teatro lobby at 12:45-13:55  
A citizen-science workshop, GOTO 31 at 12:45-13:55  
Art-up your evolution, Outreach Stage, Teatro lobby

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
7.45	<b>REGISTRATION</b>			
8.30	<b>OPENING OF CONFERENCE AND PRACTICAL INFORMATION</b>			
9.00	<b>KEYNOTE I</b> Pat Monaghan, Bad beginnings and untimely ends: environments, telomeres and life history variation			
	<b>S7: HUMAN-INDUCED</b>	<b>S23: PARASITE COM DYN</b>	<b>S18: POLYGE ARCH</b>	<b>S32: NICHE WIDTH</b>
10.00	<b>S7.01</b> Hunting regulation and the dynamic of selection in large mammals <b>F. Pelletier</b>	<b>S23.01</b> Dynamics of parasite co-infections – why do they matter? <b>A. Karvonen</b>	<b>S18.01</b> Genetic and genomic architecture of polygenic adaptation in lake-stream sticklebacks <b>C. Peichel</b>	<b>S32.01</b> Evolutionary diversification driven by competition for resources - does organismal complexity matter? <b>C. Rueffler</b>
10.30	<b>S7.02</b> Fisheries-induced evolution in the wild and in the lab <b>M. Heino</b>	<b>S23.02</b> Dual transcriptomics of avian malaria <b>E. Videvall</b>	<b>S18.02</b> Polygenic adaptation: The adaptive architecture of a quantitative trait <b>J. Hermisson</b>	<b>S32.02</b> Colonizations and host shifts cause diversification of preference and expansion of diet breadth <b>M. Singer</b>
11.00	<b>COFFEE &amp; EXHIBITION &amp; OUTREACH</b> (Art up your evolution, Outreach stage, Teatro lobby)			
11.30	<b>S7.03</b> Anthropogenic hybridization between red deer and sika in Kintyre results in many backcrossed individuals <b>S. E. McFarlane</b>	<b>S23.03</b> Virulence-transmission relationships under competition in the spider mite <i>Tetranychus urticae</i> <b>A. Duncan</b>	<b>S18.03</b> Proper Treatment of Haplotype Structure and LD Reduces Error in Sequence Data Analysis <b>S. Belohlavy</b>	<b>S32.03</b> Habitat choice meets thermal niche specialization: competition with specialists may drive suboptimal preferences in generalists <b>S. Jacob</b>
11.45	<b>S7.04</b> Evolutionary rescue through hybridization triggered by predator introduction in a <i>Daphnia</i> population <b>K. Enberg</b>	<b>S23.04</b> Wolbachia incidence and host shift in scale insects <b>E. Sanaei</b>	<b>S18.04</b> Genetic redundancy fuels polygenic adaptation in <i>Drosophila</i> <b>R. Kofler</b>	<b>S32.04</b> Expression of phenotypic plasticity in multi-dimensional environments <b>N. Schtickzelle</b>
12.00	<b>S7.05</b> The Global Urban Evolution Project: Parallel Adaptation To The World's Urban Jungles <b>M. Johnson</b>	<b>S23.05</b> Characterization of the human pathogen peptidome and specialization in peptide binding among MHC class-I alleles <b>O. Özer</b>	<b>S18.05</b> Response from standing variation at linked loci in the highly polygenic/ infinitesimal limit. <b>H. Sachdeva</b>	<b>S32.05</b> Not a generalist after all? Life history genomic regions explain differences in Atlantic salmon diet. <b>T. Aykanat</b>
12.15	<b>S7.06</b> Contrasting body-size shifts in urban communities <b>T. Merckx</b>	<b>S23.06</b> How decreased parasite diversity affects host immunity: Approaching "Old Friends" with the cavefish, <i>Astyanax mexicanus</i> <b>R. Peuß</b>	<b>S18.06</b> Detecting the signature of epistatic selection in subdivided populations <b>K. Csilléry</b>	<b>S32.06</b> Are differences in incubation behavior and niche use linked in two sympatric flycatcher species? <b>P.M. Sirkkä</b>
12.30	<b>LUNCH &amp; EXHIBITION &amp; SATELLITE EVENTS / OUTREACH</b>			
	<b>Satellite events</b>			
	Peer Community in (PCI) – Peer Community In ... the beginning of a revolution in Open Access?, MOVE 1 at 13:00-13:50			
	How to foster public engagement at conferences, Outreach Stage in Teatro lobby at 12:45-13:55			
	A citizen-science workshop, GOTO 31 at 12:45-13:55			
	Art-up your evolution, Outreach Stage, Teatro lobby			

# TUESDAY, AUGUST 20

## LOGOMO HALL

## TEATRO

## GALLERIA

## LOGI1

### S10: RAPID ADAPT

### S31: LIFE HISTORY

### S34: MATH MODELS

### S8: SMALL POP GEN

14.00	<p><b>S10.07</b> Regulatory networks link phenotypic plasticity to evolvability <b>F. Weissing</b></p>	<p><b>S31.07</b> Limits to post-reproductive fitness benefits in humans <b>S. Chapman</b></p>	<p><b>S34.07</b> Free-riding, exclusion, and congestion in a sequential teamwork dilemma <b>J. Peña</b></p>	<p><b>S8.07</b> Genetic diversity and connectivity in wetland plant meta-populations depend on the degree of clonality <b>S. Donna Lozada-Gobilard</b></p>
14.15	<p><b>S10.08</b> Assessing genetic constraints on the evolution of plasticity in multiple stressor environments <b>A. Hudak</b></p>	<p><b>S31.08</b> Child volunteers in World War II have accelerated reproduction and higher lifetime reproductive success <b>R. Lynch</b></p>	<p><b>S34.08</b> Selection and Polymorphism at Two Loci <b>H. Spencer</b></p>	<p><b>S8.08</b> Effects of non-random mating and Haldane's Sieve on floral polymorphisms in plant metapopulations <b>J. Pannell</b></p>
14.30	<p><b>S10.09</b> Evolution of physiological plasticity and selection from balanced polymorphisms during rapid habitat invasions <b>C.E. Lee</b></p>	<p><b>S31.09</b> The antagonistic pleiotropy riddle for populations along the slow-fast continuum <b>C. Coste</b></p>	<p><b>S34.09</b> Modeling antimicrobial cycling, mixing, and combination therapy: Why is it so difficult to draw conclusions? <b>H. Uecker</b></p>	<p><b>S8.09</b> Fitness, life-histories, and ageing in small populations of Daphnia <b>C. Haag</b></p>
14.45	<p><b>S10.010</b> Plasticity in evolutionary potential under environmental variation in a population of pied flycatchers, <i>Ficedula hypoleuca</i> <b>J. Le Vaillant</b></p>	<p><b>S31.010</b> Live fast, die old: Oxidative stress as a potential mediator of an unexpected life-history evolution <b>N. Tüzün</b></p>	<p><b>S34.010</b> The evolution of self-incompatible mating types <b>J. Christie</b></p>	<p><b>S8.010</b> Understanding contemporary levels of genetic diversity in populations of silver fir (<i>Abies Alba Mill.</i>) <b>B. Trubenová</b></p>
15.00	<p><b>S10.011</b> Impact of maternal genetic effects on the evolutionary potential of a red deer population <b>J. Gauzere</b></p>	<p><b>S31.011</b> Does the life history response to dietary restriction persist with infection or injury? <b>E. Savola</b></p>	<p><b>S34.011</b> Kin selection of function-valued traits <b>P. Avila</b></p>	<p><b>S8.011</b> On the generality of the diploid male vortex in parasitoids with single-locus complementary sex determination <b>E. Nonaka</b></p>
15.15	<p><b>S10.012</b> Somatic mutation and cell lineage selection during vegetative growth promotes rapid adaptation in plants <b>J. Schwach</b></p>	<p><b>S31.012</b> Diet-based developmental plasticity and fitness in a detritivorous isopod (<i>Asellus aquaticus</i>) <b>M. Lürig</b></p>	<p><b>S34.012</b> Emergence of diverse life cycles and life histories at the origin of multicellularity <b>M. Staps</b></p>	<p><b>S8.012</b> Genomic signatures of critically-endangered bird Chinese Crested Tern (<i>Thalasseus bernsteini</i>) <b>G. Chen</b></p>
15.30	<p><b>COFFEE &amp; EXHIBITION &amp; OUTREACH</b> (Art up your evolution, Outreach stage, Teatro lobby)</p>			

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
	<b>S7: HUMAN-INDUCED</b>	<b>S23: PARASITE COM DYN</b>	<b>S18: POLYGE ARCH</b>	<b>S20: SOCIAL TRANS</b>
14.00	<p><b>S7.07</b> Anthropogenic Pb driving selection in urban adapted population of <i>Drosophila subobscura</i> <b>A. Patenković</b></p>	<p><b>S23.07</b> The determinants of pathogen communities in wild plant populations <b>H. Susi</b></p>	<p><b>S18.07</b> Selective sweep at at QTL in a randomly fluctuating environment <b>L.-M. Chevin</b></p>	<p><b>S20.01</b> Animal Culture in Changing Environments <b>L. Aplin</b></p>
14.15	<p><b>S7.08</b> Going to the dogs? – Human-induced evolution in the grey wolf <b>M. Pilot</b></p>	<p><b>S23.08</b> Population genomics of <i>Gyrodactylus bullatarudis</i> reveals molecular basis of adaptation to the host <b>M. Konczal</b></p>	<p><b>S18.08</b> Wild wild test: Release-recapture genomic experiment reveals within-generation polygenic adaptation in stickleback fish <b>T. Laurentino</b></p>	
14.30	<p><b>S7.09</b> Genomics of adaptation of <i>Penicillium</i> fungi used for blue cheese and dry-cured meat production <b>A. Branca</b></p>	<p><b>S23.09</b> Within-host pathogen diversity: how it forms and what are the fitness consequences for the host <b>S. Sallinen</b></p>	<p><b>S18.09</b> The genomic basis of parallel adaptation <b>A. M. Westram</b></p>	<p><b>S20.02</b> Does cultural transmission evolve because it is Lamarckian? <b>S. Dall</b></p>
14.45	<p><b>S7.010</b> House sparrows evolved human commensalism with the development of agriculture <b>M. Ravinet</b></p>	<p><b>S23.010</b> Disease-induced diversity of a crustacean iridescent virus <b>V. G. Faria</b></p>	<p><b>S18.010</b> Contemporary Atlantic salmon domestications reveal the architecture of polygenic adaptation <b>N. J. Barson</b></p>	
15.00	<p><b>S7.011</b> Can angling-induced evolution be counteracted by releasing hatchery-reared fish? <b>A. Vainikka</b></p>	<p><b>S23.011</b> Manipulated geographic mosaics: disentangling prevalence of infection and strength of selection <b>F. Feijen</b></p>	<p><b>S18.011</b> Efficiency of outlier methods for detecting loci involved in a polygenic trait under divergent selection <b>L. Bouteille</b></p>	<p><b>S20.03</b> How do predators use social information about defended prey in the wild? <b>L. Hämäläinen</b></p>
15.15	<p><b>S10.012</b> Rapid niche expansion in European whitefish following a eutrophication-induced species collapse <b>A. Jacobs</b></p>	<p><b>S23.012</b> Fitness effects of wild <i>Drosophila</i> viruses <b>M. Wallace</b></p>	<p><b>S18.012</b> Genomic prediction from pool-seq to understand ash dieback susceptibility in <i>fraxinus excelsior</i> <b>C. Metheringham</b></p>	<p><b>S20.04</b> Payoff- and sex-biased social learning interact in a wild primate population <b>E. van de Waal</b></p>
15.30	<p><b>COFFEE &amp; EXHIBITION &amp; OUTREACH</b> (Art up your evolution, Outreach stage, Teatro lobby)</p>			



## LOGOMO HALL

## TEATRO

## GALLERIA

## LOGI1

### S10: RAPID ADAPT

### S31: LIFE HISTORY

### S36d: GENOME EVOL

### S8: SMALL POP GEN

16.00	<p><b>S10.013</b> Environmental integrons, drivers of microbial adaptation in an acidic extreme environment <b>E. Sandoval-Quintana</b></p>	<p><b>S31.013</b> The evolution of variance control <b>M. Bruijning</b></p>	<p><b>S36d.01</b> Extreme differences in recombination rate between the genomes of a solitary and a social bee <b>J. Jones</b></p>	<p><b>S8.013</b> Eco-Evolutionary feedbacks between genetic diversity and varying population sizes can lead to an extinction vortex <b>P. Nabutanyi</b></p>
16.15	<p><b>S10.014</b> Predicting adaptive evolution in heterogeneous environments from standing genetic variation <b>J. Engelstädter</b></p>	<p><b>S31.014</b> Life history evolution under cancer risk: linking cell-level strategies to organismal traits <b>E. Y. Erten</b></p>	<p><b>S36d.02</b> Shared ancient sex chromosomes in varanids, beaded lizards, and alligator lizards <b>M. Rovatsos</b></p>	<p><b>S8.014</b> Demography affects the likelihood of genetic convergence and our ability to detect it in nature <b>J. Whiting</b></p>
16.30	<p><b>S10.015</b> Beneficial mutations have greater fitness effects at higher temperatures, supporting the temperature-selection speed hypothesis <b>X.-L. Chu</b></p>	<p><b>S31.015</b> Insulin-like growth factor 1 and the evolution of vertebrate life histories <b>J. Lodjak</b></p>	<p><b>S36d.03</b> Germline-restricted chromosomes are widespread in songbirds and contain dozens of developmental genes <b>A. Suh</b></p>	<p><b>S8.015</b> High population divergence at small spatial scales – the joint role of population size and migration <b>A. Nair</b></p>
16.45	<p><b>S10.016</b> Mechanisms of rapid adaptive responses to arid environments in long-lived organisms <b>O. Razgour</b></p>	<p><b>S31.016</b> Maturation probability and condition correlate genetically for a major-effect locus (vgll3) in Atlantic salmon <b>P. V. Debes</b></p>	<p><b>S36d.04</b> Rearranged and relocated: chromosome-level assemblies and comparative genomics of two pelagic freshwater herring species <b>L. Milec</b></p>	<p><b>S8.016</b> Mechanisms and consequences of balancing selection in a model cyclic parthenogen living in ephemeral habitats <b>A. Bergland</b></p>
17.00	<p><b>S10.017</b> Predicting adaptive dynamics in different habitats using ancestral trait values and demographic events <b>V. Ravi Kumar</b></p>	<p><b>S31.017</b> Adult male size in a sexually dimorphic spider depends on genetic factors and food availability <b>S. Quiñones-Lebrón</b></p>	<p><b>S36d.05</b> Epigenetic modification associated with ZEB2 provides a key evidence for the human evolution <b>J.-E. Lee</b></p>	<p><b>S8.017</b> Bypassing summary statistics: a deep learning approach to infer population size history <b>T. Sanchez</b></p>
17.20 19.20	<b>POSTER SESSION I</b>			

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
	<b>S7: HUMAN-INDUCED</b>	<b>S36e: PHENOTYPIC EVOL</b>	<b>S36b: PHYLOGEO &amp; SYST</b>	<b>S20: SOCIAL TRANS</b>
16.00	<p><b>S7.013</b></p> <p>Evolution in salmon life-history induced by direct and indirect effects of fishing</p> <p><b>Y. Czorlich</b></p>	<p><b>S36e.01</b></p> <p>Exploring patterns of additive genetic, mutational and environmental (co)variance across traits</p> <p><b>J. G. King</b></p>	<p><b>S36b.01</b></p> <p>Global diversification patterns of crangonid shrimps (Decapoda, Caridea, Crangonidae)</p> <p><b>K. H. Chu</b></p>	<p><b>S20.05</b></p> <p>Cultural Transmission of Mating Preferences in Fruit Flies</p> <p><b>S. Nöbel</b></p>
16.15	<p><b>S7.014</b></p> <p>Harvest-associated selection and population density effects in fisheries-induced evolution</p> <p><b>A. Crespel</b></p>	<p><b>S36e.02</b></p> <p>Dissecting phenotypic integration and connecting micro- and macro-evolutionary time scales</p> <p><b>C. Fruciano</b></p>	<p><b>S36b.02</b></p> <p>Evo-devo approach to study asexual development and whole body regeneration: insights from tunicates</p> <p><b>S. Tiozzo</b></p>	<p><b>S20.06</b></p> <p>A new perspective of social population networks in a reproductive context</p> <p><b>M. Plaza</b></p>
16.30	<p><b>S7.015</b></p> <p>Understanding the effect of multiple anthropogenic stressors on freshwater organisms from an evolutionary perspective</p> <p><b>M. Cuenca Cambroner</b></p>	<p><b>S36e.03</b></p> <p>An integrated approach to understanding the evolution of flight and wing shape in heliconius butterflies</p> <p><b>L. Queste</b></p>	<p><b>S36b.03</b></p> <p>Phylogeography of a widespread spider: admixture across geographical barriers shapes the diversification of <i>Gasteracantha cancriformis</i></p> <p><b>F. C. Salgado-Roa</b></p>	<p><b>S20.07</b></p> <p>On social transmission, individual agency, and a generalised theory of adaptive evolution</p> <p><b>P. Edelaar</b></p>
16.45	<p><b>S7.016</b></p> <p>Selection for small size affects the pace-of-life syndrome in medaka impacting the invertebrate community</p> <p><b>B. Diaz Pauli</b></p>	<p><b>S36e.04</b></p> <p>Intraspecific variation in floral scent in the perennial herb <i>Arabis alpina</i></p> <p><b>H. Petrán</b></p>	<p><b>S36b.04</b></p> <p>Incipient hybrid speciation in young and rapidly speciating neotropical cichlid fish?</p> <p><b>M. Olave</b></p>	<p><b>S20.08</b></p> <p>Social network structure and infectious disease transmission in group-living animals</p> <p><b>M. Silk</b></p>
17.00	<p><b>S7.017</b></p> <p>Applying the Anna Karenina principle to the bank vole gut microbiota in a disturbed environment</p> <p><b>A. Lavrinienko</b></p>	<p><b>S36e.05</b></p> <p>Evolution of fork tails in aerial insectivorous birds</p> <p><b>M. Hasegawa</b></p>	<p><b>S36b.05</b></p> <p>Patterns consistent with Darwin's corollary in a <i>Ficedula</i> flycatcher hybrid zone</p> <p><b>C. Segami Marzal</b></p>	<p><b>S20.09</b></p> <p>Social transmission in avian brood parasitism systems</p> <p><b>D. Campobello</b></p>
17.20 19.20	<b>POSTER SESSION I</b>			

**LOGOMO HALL**
**TEATRO**
**GALLERIA**
**LOGI1**

8.55

**ESEB initiatives and practical information**

9.05

**KEYNOTE II** Sinead Collins, Understanding evolution in life-giving slime

**S10: RAPID ADAPT**
**S31: LIFE HISTORY**
**S34: MATH MODELS**
**S14: GENOME FUNCT**

10.00

**S10.018**

Disparate signatures of rapid adaptation and genomic divergence in Nicaraguan Midas cichlid fishes  
**A. Nater**

**S31.018**

Evolutionary constraints persist through a major life history event: metamorphosis  
**J. Collet**

**S34.013**

Extended haplodiploidy hypothesis  
**P. Rautiala**

**S14.01**

Differences in tartan underlie the evolution of male genital morphology between *Drosophila* species  
**A. P. McGregor**

10.15

**S10.019**

Using whole genome sequences of newly introduced populations reveals rapid genetic adaptation in Trinidadian guppies  
**M. van der Zee**

**S31.019**

Disparity in diapause and its effects on insect movement  
**V. Bhaumik**

**S34.014**

Evolution of the irreversible somatic differentiation  
**Y. Gao**

10.30

**S10.020**

Genetics and genomics of parallel evolution without gene flow  
**Y. Yamasaki**

**S31.020**

Locally adapted plasticity maintains geographic variation in life history strategies in a butterfly  
**O. Lindestad**

**S34.015**

Flows of information in evolution  
**A. Pocheville**

**S14.02**

Understanding the neural circuits that encode sex-specific behaviours in *Drosophila melanogaster*  
**M. Neville**

10.45

**S10.021**

A tale of many flounders: the genomics of rapid adaptation in *Platichthys* spp.  
**P. Momigliano**

**S31.021**

Constrained evolution of instar-level characteristics of larval growth in Lepidoptera  
**S. Kivelä**

**S34.016**

Abstraction for dealing with the multiple realizability of evolution: the ultimate constraint of computation  
**A. Kaznatcheev**

11.00

**COFFEE & EXHIBITION & OUTREACH**

(Art up your evolution, Outreach stage, Teatro lobby)

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
8.55	<b>ESEB initiatives and practical information</b>			
9.05	<b>KEYNOTE II</b> Sinead Collins, Understanding evolution in life-giving slime			
	<b>S33: AGING</b>	<b>S4: COGNITION</b>	<b>S35: EVOL OUTREACH</b>	<b>S11: QUANT TRAITS</b>
10.00	<p><b>S33.01</b> Understanding senescence and trans-generational parental age effects in a long-lived seabird <b>S. Bouwhuis</b></p>	<p><b>S4.01</b> Evolutionary biology of expertise <b>R. Dukas</b></p>	<p><b>S35.01</b> The public and researchers: It's complicated <b>P. Russo</b></p>	<p><b>S11.01</b> Inversions as large effect loci in quantitative genetics <b>J. Kelly</b></p>
10.30	<p><b>S33.02</b> Senescence in reptiles: from mechanisms to life-history consequences <b>T. Schwartz</b></p>	<p><b>S4.02</b> The interplay between environment, gut microbiome and host cognition <b>G. Davidson</b></p>	<p><b>S35.02</b> Willing to promote evolutionary knowledge for everyone? Join communities! <b>H. Dufour</b></p>	<p><b>S11.02</b> The clawprint of selection in wildlife and livestock genomes <b>M. Bosse</b></p>
11.00	<b>COFFEE &amp; EXHIBITION &amp; OUTREACH</b> (Art up your evolution, Outreach stage, Teatro lobby)			

## LOGOMO HALL

## TEATRO

## GALLERIA

## LOGI1

### S10: RAPID ADAPT

### S31: LIFE HISTORY

### S34: MATH MODELS

### S14: GENOME FUNCT

11.30	<p><b>S10.022</b> Genomic divergence of rapidly evolving populations of Italian wall lizards <b>A. Štambuk</b></p>	<p><b>S31.022</b> Sex-specific effects of maturation timing on reproductive fitness in wild Atlantic salmon <b>K. Mobley</b></p>	<p><b>S34.017</b> Transcriptional cross-talk varies between regulatory networks designs <b>T. Friedlander</b></p>	<p><b>S14.03</b> Functional significance and evolutionary mechanisms of VMAT1 genetic variants underlie psychological diversity in humans <b>D. Sato</b></p>
11.45	<p><b>S10.023</b> Characterising genetic diversity and differentiation in multiple phenotypes of a marine invasive species <b>M. Prentice</b></p>	<p><b>S31.023</b> Predation risk drives the evolution of placentas in live-bearing fish populations (family Poeciliidae) <b>A. Hagemayer</b></p>	<p><b>S34.018</b> Evolutionary dynamics of plasticity in a mechanistic gene-network model <b>A. Odorico</b></p>	<p><b>S14.04</b> The genomic and transcriptomic basis of carotenoid-based sexual dichromatism in Finches <b>M. Gazda</b></p>
12.00	<p><b>S10.024</b> Why does male-biased gene expression evolve so rapidly? <b>R. Griffin</b></p>	<p><b>S31.024</b> Individual differences in carry-over effects on fitness: the role of personality <b>S. M. Harris</b></p>	<p><b>S34.019</b> Flexible, realistic, fast evolutionary simulations with SLiM <b>B. Haller</b></p>	<p><b>S14.05</b> The evolution of lifespan: from whole genomes to SNPs <b>K. Hoedjes</b></p>
12.15	<p><b>S10.025</b> Testing the factors promoting recurrent, convergent, and rapid adaptation in a wild insect <b>J. Rayner</b></p>	<p><b>S31.025</b> Environmental drivers of phenotypic selection in a small passerine species <b>M. Gamelon</b></p>	<p><b>S34.020</b> What can machine learning teach us about evolutionary ecology data? <b>J. Morimoto</b></p>	<p><b>S14.06</b> Molecular diversity and developmental expression of the master regulator doublesex in the sexually dimorphic <i>Papilio polytes</i> <b>R. Deshmukh</b></p>
12.30	<p><b>S10.026</b> Identifying the evolutionary dynamics and genetics of rapid evolutionary rescue in <i>Callosobruchus maculatus</i> <b>A. Rêgo</b></p>	<p><b>S31.026</b> Evolutionary consequences of cryptobiosis on male reproduction <b>M. Vecchi</b></p>	<p><b>S34.021</b> Speciation, extinction and environmental change: from fossil data to mathematical modelling <b>J. Toivonen</b></p>	<p><b>S14.07</b> Key physiological genes important for freshwater adaptation and life history evolution in sticklebacks <b>A. Ishikawa</b></p>
12.45	<b>LUNCH &amp; EXHIBITION &amp; SATELLITE EVENTS / OUTREACH</b>			
	<p><b>Satellite events</b></p> <p>The European Research Council – funding opportunities for bright minds, MOVE 1 at 13:15-14:05</p> <p>How to pitch your science to non-specialist audiences, GOTO31 at 12:55-13:55</p> <p>Art-up your evolution, Outreach Stage in Teatro lobby</p>			

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
	<b>S33: AGING</b>	<b>S4: COGNITION</b>	<b>S35: EVOL OUTREACH</b>	<b>S11: QUANT TRAITS</b>
11.30	<p><b>S33.03</b></p> <p>Sex-biased ageing in the invertebrate <i>Tigriopus californicus</i> and the role of mito-nuclear interactions <b>S. Edmands</b></p>	<p><b>S4.03</b></p> <p>A social perspective on the microbiota-gut-brain axis: ants as a model organism <b>S. Teseo</b></p>	<p><b>S35.03</b></p> <p>Melanogaster Catch The Fly: a citizen science project on adaptation genomics <b>J. Gonzalez</b></p>	<p><b>S11.03</b></p> <p>The response of a population to a change in optimum <b>N. Barton</b></p>
11.45	<p><b>S33.04</b></p> <p>Sex differences in functional and reproductive senescence in African annual killifish <b>M. Reichard</b></p>	<p><b>S4.04</b></p> <p>Benefits of working memory depend upon forage availability for bumblebees (<i>Bombus terrestris</i>) <b>E. Leadbeater</b></p>	<p><b>S35.04</b></p> <p>evALLution: can we make fundamental evolution concepts accessible to the blind community? <b>T. G. Laurentino</b></p>	<p><b>S11.04</b></p> <p>Disentangling the roles of mutation, selection, and genetic drift, on cis- and trans- regulatory evolution <b>M. Hill</b></p>
12.00	<p><b>S33.05</b></p> <p>How the queen manages to stay young: orchid bee queens maintain young transcriptomes throughout life <b>A. Séguret</b></p>	<p><b>S4.05</b></p> <p>Selective social information use in the nest choice of solitary bees <b>O. Loukola</b></p>	<p><b>S35.05</b></p> <p>Science and Community: evolutionary facts for an inclusive society <b>J. R. Torres Miranda</b></p>	<p><b>S11.05</b></p> <p>Dissecting evolution of adaptive traits in Arabidopsis after island colonization <b>C. Neto</b></p>
12.15	<p><b>S33.06</b></p> <p>Long live the queen: eusociality and the evolutionary theory of ageing <b>B. H. Kramer</b></p>	<p><b>S4.06</b></p> <p>Environmental complexity and the correlated evolution of (social) behaviour and (social) cognition <b>S. A. M. Varela</b></p>	<p><b>S35.06</b></p> <p>Evolution in action – project: How to impact society through science and art education? <b>C. Lindstedt</b></p>	<p><b>S11.06</b></p> <p>Genomic Prediction in a wild mammal population <b>J. Slate</b></p>
12.30	<p><b>S33.07</b></p> <p>Extreme lifespan extension in tapeworm-infected ants facilitated by increased care and upregulation of longevity genes <b>S. Foitzik</b></p>	<p><b>S4.07</b></p> <p>Heritability and co-variation among cognitive abilities in pheasants; an animal model approach <b>E. Langley</b></p>	<p><b>S35.07</b></p> <p>The “WOW effect” of Evolution <b>T. Adnađević</b></p>	<p><b>S11.07</b></p> <p>Beyond large-effect loci: large-scale GWAS reveals mixed large-effect and polygenic architecture of Atlantic salmon age-at-maturity <b>M. Sinclair-Waters</b></p>
12.45	<b>LUNCH &amp; EXHIBITION &amp; SATELLITE EVENTS / OUTREACH</b>			
	<p><b>Satellite events</b></p> <p>The European Research Council – funding opportunities for bright minds, MOVE 1 at 13:15-14:05 How to pitch your science to non-specialist audiences, GOTO31 at 12:55-13:55 Art-up your evolution, Outreach Stage in Teatro lobby</p>			

# WEDNESDAY, AUGUST 21

## LOGOMO HALL

## TEATRO

## GALLERIA

## LOGI1

### S13: ADAPT GEN

### S21: COLOUR

### S6: ANTI-MICRO RESIST

### S14: GENOME FUNCT

14.15	<p><b>S13.01</b> Adaptation and evolution of alternative reproductive modes <b>K. Elmer</b></p>	<p><b>S21.01</b> Painting by numbers: understanding the eco-evo-devo mechanisms of petal patterning <b>E. Moyroud</b></p>	<p><b>S6.01</b> Mutators drive evolution of resistance to multiple antibiotics during single-drug and combination treatment <b>D. R. Gifford</b></p>	<p><b>S14.08</b> Effects of random coding sequences on Escherichia coli <b>D. Bhawe</b></p>
14.30				<p><b>S14.09</b> Colour encoded in innate immune gene? Accumulating evidence for Hamilton-Zuk 'Good genes' in great tits <b>M. Vinkler</b></p>
14.45	<p><b>S13.02</b> Natural selection explains parallel evolution of locomotion bias, genetic drift variable interdependence of component traits <b>H. Teotónio</b></p>	<p><b>S21.02</b> Colour vision and the origin of species: what you see is who you are? <b>M. Maan</b></p>	<p><b>S6.02</b> Unstable antibiotic resistance <b>D. Andersson</b></p>	<p><b>S14.010</b> Applying gene manipulation approaches for characterizing the evolution, dynamics and complexity of venom production <b>Y. Moran</b></p>
15.00				<p><b>S14.011</b> Molecular mechanisms and evolution of a novel floral volatile biosynthesis in wild tobacco <b>S. Xu</b></p>
15.15	<p><b>S13.03</b> Parallel clines in iridescence in butterfly co-mimics despite different levels of genomic divergence and selection <b>E. Curran</b></p>	<p><b>S21.03</b> Inter-chromosomal coupling between vision and pigmentation genes during genomic divergence <b>O. Puebla</b></p>	<p><b>S6.03</b> To establish, or not to establish – testing the probability of antibiotic resistance emergence <b>M. Saebelfeld</b></p>	<p><b>S14.012</b> Molecular and phenotypic characterization of roo elements inserted in a unique insertional cluster <b>M. Merenciano</b></p>
15.30	<p><b>S13.04</b> Population genomics in a case of rapid, parallel adaptation: Cape Verde Islands <i>Arabidopsis thaliana</i> <b>A. Fulgione</b></p>	<p><b>S21.04</b> Fine-mapping of color variation in a butterfly shed light on the evolution of supergenes <b>P. Jay</b></p>	<p><b>S6.04</b> Repeatable ecological dynamics govern antibiotic response of experimental microbial community <b>J. Cairns</b></p>	<p><b>S14.013</b> The contribution of novel genes to the development of novel traits <b>R. Arbore</b></p>
15.45	<p><b>COFFEE &amp; EXHIBITION &amp; OUTREACH</b> (Art up your evolution, Outreach stage, Teatro lobby)</p>			

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
	<b>S17: SELFISH GEs</b>	<b>S4: COGNITION</b>	<b>S25: ASSORT MATING</b>	<b>S22: HOST PLANT</b>
14.15	<p><b>S17.01</b></p> <p>X chromosome drive and intragenomic conflict: a textbook case in <i>Drosophila simulans</i> <b>C. Montchamp-Moreau</b></p>	<p><b>S4.08</b></p> <p>Community diversity affects categorization by foragers: implications for signal evolution <b>D. Kikuchi</b></p>	<p><b>S25.01</b></p> <p>Assortative mating from humans to birds – the role of mate choice <b>W. Forstmeier</b></p>	<p><b>S22.01</b></p> <p>Getting tuned: Understanding specificity in plant volatile signaling <b>S. Allmann</b></p>
14.30		<p><b>S4.09</b></p> <p>Widespread learned predator recognition and amphibian resilience to alien predators <b>N. Polo-Cavia</b></p>		
14.45	<p><b>S17.02</b></p> <p>Recognition and silencing of active retrotransposons in <i>Arabidopsis</i> <b>A. Mari-Ordonez</b></p>	<p><b>S4.010</b></p> <p>Anti-predatory behaviour, sensory systems and brain transcriptomics in Icelandic threespine stickleback adapting to turbid environments <b>M. Ålund</b></p>	<p><b>S25.02</b></p> <p>Assortative mating, sexual selection and their consequences for gene flow in <i>Littorina</i> <b>R. Butlin</b></p>	<p><b>S22.02</b></p> <p>Genome engineering as a tool for studying host plant specialisation <b>N. Whiteman</b></p>
15.00		<p><b>S4.011</b></p> <p>Cognitive ontogeny: environmental effects on brain size divergence in developing sunfish ecotypes <b>C. Axelrod</b></p>		
15.15	<p><b>S17.03</b></p> <p>Evolutionary dynamics of transposable elements in asexual bdelloid rotifers <b>R. Nowell</b></p>	<p><b>S4.012</b></p> <p>Experimental support for the mosaic brain evolution hypothesis <b>S. Fong</b></p>	<p><b>S25.03</b></p> <p>Decomposing social genetic effects on phenology and assortative mating in a long-lived seabird <b>M. Moiron</b></p>	<p><b>S22.03</b></p> <p>Effect of plant inhibitory proteins on pectinases in herbivorous beetles <b>W. Häger</b></p>
15.30	<p><b>S17.04</b></p> <p>Molecular dissection of a natural transposable element invasion <b>C. Schlötterer</b></p>	<p><b>S4.013</b></p> <p>Annual predation risk relates to the direction of selection for brain size in the wild <b>M. Öst</b></p>	<p><b>S25.04</b></p> <p>Reproductive isolation driven by ecological adaptation in <i>Gambusia hubbsi</i> <b>V. Pärssinen</b></p>	<p><b>S22.04</b></p> <p>Beyond target-site insensitivity - the role of ABCB transporters in adaptations to cardiac glycosides <b>S. Dobler</b></p>
15.45	<p><b>COFFEE &amp; EXHIBITION &amp; OUTREACH</b> (Art up your evolution, Outreach stage, Teatro lobby)</p>			



## LOGOMO HALL

## TEATRO

## GALLERIA

## LOGI1

### S13: ADAPT GEN

### S21: COLOUR

### S6: ANTI-MICRO RESIST

### S14: GENOME FUNCT

16.15	<p><b>S13.05</b> Parallel evolution of reproductive timing in Atlantic and Pacific herring <b>E. Petrou</b></p>	<p><b>S21.05</b> To change or not to change: evolution of seasonal colour polymorphism in the least weasel <b>I. Miranda</b></p>	<p><b>S6.05</b> On the evolutionary ecology of multidrug resistance in bacteria <b>S. Lehtinen</b></p>	<p><b>S14.014</b> Evolution of male pregnancy reveals remodelling of vertebrate adaptive immunity <b>O. Roth</b></p>
16.30	<p><b>S13.06</b> Geographic heterogeneity in parallel evolution – three spined sticklebacks revisited <b>B. Fang</b></p>	<p><b>S21.06</b> Paint it red: co-option of MYB transcription factors shift color hue in a hummingbird-pollinated species <b>A. Berardi</b></p>	<p><b>S6.06</b> Associations between sensitivity to antibiotics and non-antibiotic antibacterials in natural and clinical escherichia coli isolates <b>A. Bischofberger</b></p>	<p><b>S14.015</b> Wide pleiotropic effects of melanin pathway genes on mating behaviour and life-history traits <b>V. Tyukmaeva</b></p>
16.45	<p><b>S13.07</b> Searching for signatures of genetic adaptation to climate in bank voles <b>R.Folkertsma</b></p>	<p><b>S21.07</b> More than meets the eye? Protective functions of red pigments in endemic Hawaiian damselflies <b>I. Cooper</b></p>	<p><b>S6.07</b> Microbiome suppresses growth and resistance evolution of Escherichia coli in a human gut microcosm <b>M. Baumgartner</b></p>	<p><b>S14.016</b> Evolution and function of the key digestive enzymes sucrase and maltase in vertebrates <b>D. Mendez-Aranda</b></p>
17.00	<p><b>S13.08</b> Assessing genomic vulnerability to climate change in Canada's northernmost freshwater fish, Arctic charr <b>K. K.S. Layton</b></p>	<p><b>S21.08</b> Mitochondria-targeted molecules determine the redness of thezebra finch bill <b>A. Cantarero</b></p>	<p><b>S6.08</b> Quantifying the impact of treatment history on plasmid-mediated resistance evolution in human gut microbiota <b>B. Tepekule</b></p>	<p><b>S14.017</b> Developmental mechanisms of Arctic charr (Salvelinus Alpinus) adaptive divergence <b>K. H. Kapralova</b></p>
17.15	<p><b>S13.09</b> Adapting to a warming world; the molecular basis of seasonal timing in a song bird <b>M. Visser</b></p>	<p><b>S21.09</b> Breaking the back of the parasite: reducing early-life burden affects nestling and adult feather colouration <b>E. Perez-Badas</b></p>	<p><b>S6.09</b> Variation in collateral sensitivity phenotypes of Escherichia coli across genotypes and growth environments <b>R. Allen</b></p>	<p><b>S14.018</b> ENHANCing the limb: from micro to macroevolution <b>J. P. L. Castro</b></p>

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
	<b>S17: SELFISH GE<sub>s</sub></b>	<b>S33: AGING</b>	<b>S25: ASSORT MATING</b>	<b>S22: HOST PLANT</b>
16.15	<p><b>S17.05</b> Kirc, a new superfamily of massive DNA transposons <b>A. A. Vogan</b></p>	<p><b>S33.08</b> Ageing in free-living great tits: multimarker evidence for age-related increase in oxidative and physiological stress <b>M. Těšický</b></p>	<p><b>S25.05</b> A theoretical study of the effects of assortative mating on adaptive potential under climate change <b>C. Godineau</b></p>	<p><b>S22.05</b> Interactions between metal-based and organic defences: Alternative weapons against spider mites attacking tomato plants <b>D. Prino Godinho</b></p>
16.30	<p><b>S17.06</b> T-lex3: an accurate tool to genotype and estimate population frequencies of transposable elements <b>M. Bogaerts Márquez</b></p>	<p><b>S33.09</b> Linking early-life environment to ageing rate: the role of prenatal thyroid hormones? <b>S. Ruuskanen</b></p>	<p><b>S25.06</b> The timing of attraction as a driver of species diversification in the fall armyworm <b>S. Hänniger</b></p>	<p><b>S22.06</b> Urban environments select for higher growth potential but lower herbivore resistance in <i>Arabidopsis thaliana</i> <b>J. Qu</b></p>
16.45	<p><b>S17.07</b> The selfish endosymbiont <i>Wolbachia</i> exploits the sex determination of its host to achieve maximal transmission <b>F. Chen</b></p>	<p><b>S33.010</b> Early-life environmental quality and variability reflected in telomere lengths and lifespan in a wild mammal <b>S.H.J. van Lieshout</b></p>	<p><b>S25.07</b> The genetics of visual preferences in a hybrid species <b>A. E. Hausmann</b></p>	<p><b>S22.07</b> Opposite Responses to Drought Induced Changes in Host Plant Quality within a Butterfly Metapopulation <b>A. Kahilainen</b></p>
17.00	<p><b>S17.08</b> Dynamics of prokaryotic cell differentiation during horizontal gene transfer <b>R. Miyazaki</b></p>	<p><b>S33.011</b> Fitness consequences of germline mutation accumulation: the hidden cost of lifespan extension? <b>E. Duxbury</b></p>	<p><b>S25.08</b> Factors mediating reproductive isolation between related species at contact zones <b>A. Kirschel</b></p>	<p><b>S22.08</b> Chemical defences in a <i>Heliconius</i> butterfly and its <i>Passiflora</i> host <b>A. Mattila</b></p>
17.15	<p><b>S17.09</b> Molecular evolution of the Greenbeard Social b supergene in the fire ant <i>Solenopsis invicta</i> <b>Q. Helleu</b></p>	<p><b>S33.012</b> Using Wild Crickets to test key predictions of life-history theories of senescence <b>T. Regenza</b></p>	<p><b>S25.09</b> Reinforcement and assortative mating between incipient outcrossing and selfing <i>Clarkia</i> species <b>D. Moeller</b></p>	<p><b>S22.09</b> From monophagy to oligophagy, ecological and genetic variation affect host-associated diversification of butterfly species <b>R. Mattos</b></p>

# THURSDAY, AUGUST 22

**LOGOMO HALL**

**TEATRO**

**GALLERIA**

**LOGI1**

8.55

**ESEB initiatives and practical information**

9.05

**KEYNOTE III** David Queller, Evolutionary conflict and molecular arms races in cooperative systems

**S13: ADAPT GEN**

**S21: COLOUR**

**S26: SEX CONFLICTS**

**S3: NON-GEN INHERIT**

10.00

**S13.010**

Altitude shapes local adaptation in *Heliconius* butterflies  
**G. Montejo-Kovacevich**

**S21.010**

Evolutionary decoupling of larval and adult colour in shield bugs: comparative and experimental evidence  
**I. Medina**

**S26.01**

Sexual conflict in ecological context in a semiaquatic bug  
**J. Perry**

**S3.01**

Transgenerational inheritance of small RNAs in *C.elegans*  
**I. Lev**

10.15

**S13.011**

An integrative perspective of adaptation to different altitudes in an alpine plant  
**A. Szukala**

**S21.011**

Red or dead: imperfect Müllerian mimicry between burnet and red, not yellow, wood tiger moths  
**B. Rojas**

10.30

**S13.012**

Bacterial adaptations – NOT what you thought  
**O. Avram**

**S21.012**

Beyond the 'red edge': does visual sensitivity to long wavelengths facilitate resource location in beetles?  
**L.-Y. Wang**

**S26.02**

The ecology of sexual conflict and the population genetic consequences of mate choice  
**H. Rundle**

**S3.02**

Inherited effects of parental environment: Multi-generation GxE and the unscripted phenotype  
**S. Sultan**

10.45

**S13.013**

Back to the future of bacterial population genomics  
**J. Cury**

**S21.013**

Iridescence as camouflage  
**K. Kjærnsmo**

11.00

**COFFEE & EXHIBITION & OUTREACH**

(Art up your evolution, Outreach stage, Teatro lobby)

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
8.55	<b>ESEB initiatives and practical information</b>			
9.05	<b>KEYNOTE III</b> David Queller, Evolutionary conflict and molecular arms races in cooperative systems			
	<b>S29: ECO-EVO</b>	<b>S6: ANTI-MICRO RESIST</b>	<b>S12: WILD PLANT SEL</b>	<b>S16: MITO-NUCLEAR</b>
10.00	<b>S29.01</b> Quantitative eco-evolutionary dynamics: Numerical signatures of varying sources of phenotypic novelty <b>J. Pantel</b>	<b>S6.010</b> Microbiota inoculum composition affects holobiont assembly and host growth in <i>Daphnia</i> <b>E. Decaestecker</b>	<b>S12.01</b> Evolvability, selection, and disrupting mechanisms in the wild: A roadmap for evaluating adaptive evolution <b>B. Pujol</b>	<b>S16.01</b> Effects of mitonuclear genomic interactions on ATP synthesis and developmental time <b>R. S. Burton</b>
10.15		<b>S6.011</b> Prophages increase bacterial fitness in the presence of high antibiotic concentrations <b>C. Wendling</b>		
10.30	<b>S29.02</b> When do eco-evolutionary feedbacks aid adaptation, and when do they hinder them? <b>T. Coulson</b>	<b>S6.012</b> Evolutionary rescue in the face of an arbitrarily moving optimum in asexuals <b>G. Martin</b>	<b>S12.02</b> Flower evolution in the wild under stable and changing pollination environments <b>M. C. Castellanos</b>	<b>S16.02</b> The impact of mito-nuclear interactions from OXPHOS to genome evolution <b>K. Montooth</b>
10.45		<b>S6.013</b> Do antibiotic treatments accelerate evolution? Population dynamics matter! <b>A. Frenoy</b>		
11.00	<b>COFFEE &amp; EXHIBITION &amp; OUTREACH</b> (Art up your evolution, Outreach stage, Teatro lobby)			

# THURSDAY, AUGUST 22

## LOGOMO HALL

## TEATRO

## GALLERIA

## LOGI1

### S13: ADAPT GEN

### S21: COLOUR

### S26: SEX CONFLICTS

### S3: NON-GEN INHERIT

11.30	<p><b>S13.014</b> Linking allele-specific expression and natural selection in wild populations <b>R. Laso-Jadart</b></p>	<p><b>S21.014</b> Variation in thin film structure produces diverse visual appearances in Christmas beetles (Scarabeidae - Rutelinae) <b>L. Ospina</b></p>	<p><b>S26.03</b> Ecology and sexual conflict drive the macroevolutionary dynamics of female-limited colour polymorphisms <b>B. Willink</b></p>	<p><b>S3.03</b> The ecological consequences and evolutionary potential of transgenerational temperature plasticity in <i>Mimulus</i> <b>J. Colicchio</b></p>
11.45	<p><b>S13.015</b> Linking a mutation to survival in wild mice <b>S. Laurent</b></p>	<p><b>S21.015</b> The hidden side of wing transparency in Lepidoptera <b>C. Pinna</b></p>	<p><b>S26.04</b> The role of alternative splicing in the evolution of sexual dimorphism <b>T. Rogers</b></p>	<p><b>S3.04</b> The role of epigenetic mechanisms in within and between generation phenotypic plasticity in <i>Neurospora crassa</i> <b>I. Kronholm</b></p>
12.00	<p><b>S13.016</b> The speciation supergene in wild <i>Petunia</i>: structure and evolution <b>T. Tenreira</b></p>	<p><b>S21.016</b> Different ways to make red flowers: Colour evolution in the New World Gesneriaceae <b>E. Ogutcen</b></p>	<p><b>S26.05</b> Inter-population variation in morphology reflects different trajectories of sexually antagonistic coevolution in a beetle <b>C. Koshio</b></p>	<p><b>S3.05</b> Genotype-specific integration of genetic, nongenetic and environmental cues shapes water flea development and life history <b>E. Harney</b></p>
12.15	<p><b>S13.017</b> Adaptation in the wild - a systems genetics approach using <i>Daphnia</i> <b>D. Becker</b></p>	<p><b>S21.017</b> Evolving rainbows: deriving a spectrum of phylogenetic signals in avian colour evolution <b>S. M. Drobniak</b></p>	<p><b>S26.06</b> Dynamics of sex biased gene expression during development in a hemimetabolous insect <b>J. Djordjevic</b></p>	<p><b>S3.06</b> DNA methylation facilitates adaptation to ocean salinity change <b>M. J. Heckwolf</b></p>
12.30	<p><b>S13.018</b> Contemporary natural selection on transcript abundance in wild brown trout <b>F. Ahmad</b></p>	<p><b>S21.018</b> Climate shapes near-infrared reflectance properties in birds and butterflies <b>D. Stuart-Fox</b></p>	<p><b>S26.07</b> Toxic males to gentle courtiers: evolutionary reduction in sexual antagonism due to shift in life-history <b>B. Nandy</b></p>	<p><b>S3.07</b> The role of DNA methylation in adaptation – social spiders as a case study <b>T. Bilde</b></p>
12.45	<b>LUNCH &amp; EXHIBITION &amp; SATELLITE EVENTS / OUTREACH</b>			
	<p><b>Satellite events</b> Art-up your evolution, Outreach Stage in Teatro lobby</p>			
13.45 18.00	<b>EXCURSIONS</b>			

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
	<b>S29: ECO-EVO</b>	<b>S7: HUMAN-INDUCED</b>	<b>S12: WILD PLANT SEL</b>	<b>S16: MITO-NUCLEAR</b>
11.30	<p><b>S29.03</b> Rapid Change in Mammalian Eye Shape Is Explained by Activity Pattern <b>J. Baker</b></p>	<p><b>S7.018</b> Fluctuating selection and enhancing diversity to overcome insecticide resistance evolution <b>R. Mangan</b></p>	<p><b>S12.03</b> Benefits of using non-linear path analysis for estimating natural selection <b>G. H. Bolstad</b></p>	<p><b>S16.03</b> Do mitolineages and sex-linked mitonuclear genotypes impact respiration, metabolic performance and hybrid fitness? <b>A. Pavlova</b></p>
11.45	<p><b>S29.04</b> Extinction and the temporal distribution of macroevolutionary bursts <b>S. De Lisle</b></p>	<p><b>S7.019</b> The consequences of domestication to the wheat microbiome biodiversity <b>E. Özkurt</b></p>	<p><b>S12.04</b> Does selection on plants defense strategies vary along a successional gradient? <b>A. Kalske</b></p>	<p><b>S16.04</b> Divergent mitochondrial and nuclear OXPHOS genes are candidates for genetic incompatibilities in Ficedula Flycatchers <b>A. Qvarnström</b></p>
12.00	<p><b>S29.05</b> Intraspecific variation alters ecological properties and fosters transgenerational carry-over effects as much as temperature variation <b>A. Raffard</b></p>	<p><b>S7.020</b> Climate change and Green Sea Turtle sex ratio: preventing possible extinction <b>J. Blechschmidt</b></p>	<p><b>S12.05</b> Measuring viability selection from prospective cohort mortality studies in wild plant populations <b>J. J. Robledo-Arnuncio</b></p>	<p><b>S16.05</b> The genetics of sex-biased hybrid incompatibility in Tigriopus californicus <b>E. Watson</b></p>
12.15	<p><b>S29.06</b> Density-dependent selection on exploration behaviour across multiple great tit populations <b>A. Mouchet</b></p>	<p><b>S7.021</b> Expanding thermal breadth facilitates adaptation of Daphnia to raising temperature <b>M. Dziuba</b></p>	<p><b>S12.06</b> Fitness consequences of hybridization between fully inbred lines from natural predominantly selfing populations <b>J. Clo</b></p>	<p><b>S16.06</b> SmithRNAs, a new arena for mito-nuclear interaction and coevolution <b>M. Passamonti</b></p>
12.30	<p><b>S29.07</b> Dynamic of introgression during density-dependent range expansion: European wildcats as a case study <b>C. S. Quilodrán</b></p>	<p><b>S7.022</b> Invasion success of the Asian tiger mosquito in Europe: pre-adaptation, post-introduction evolution, or both? <b>S. Sherpa</b></p>	<p><b>S12.07</b> Herbivory drives evolution of genetic architecture for plant defense and competition traits <b>A. Uesugi</b></p>	<p><b>S16.07</b> Mito-nuclear interactions in an emerging hybrid species - Insights from a time series transcriptomic study <b>E. Iwazskiewicz</b></p>
12.45	<b>LUNCH &amp; EXHIBITION &amp; SATELLITE EVENTS / OUTREACH</b>			
	<p><b>Satellite events</b> Art-up your evolution, Outreach Stage in Teatro lobby</p>			
13.45	<b>EXCURSIONS</b>			
18.00				

**LOGOMO HALL**

**TEATRO**

**GALLERIA**

**LOGI1**

8.55

**ESEB initiatives and practical information**

9.05

**KEYNOTE IV** Anna-Liisa Laine, What keeps pathogens in check in the wild?

**S13: ADAPT GEN**

**S2: EXP EVOL**

**S26: SEX CONFLICT**

**S15: ANCIENT DNA**

10.00

**S13.019**

The genetic and physiological basis of local adaptation across latitudinal range in 360 Arabidopsis accessions  
**Y. Yarkhunova**

**S2.01**

Replaying the tape of life: the experimental study of adaptive evolution in seed beetles  
**G. Arnqvist**

**S26.08**

The genetic architecture of sexually dimorphic traits: gene knock-outs and sex-specific genetic variance  
**W. van der Bijl**

**S15.01**

Modern tools for ancient Data: Quantifying evolution from paleogenomes  
**D. Wegmann**

10.15

**S13.020**

Repeated Genomic Signatures of Local Selection in Atlantic Salmon  
**V. Pritchard**

**S26.09**

Sex-specific transcriptomic responses to changes in the nutritional environment  
**F. Camus**

10.30

**S13.021**

Dissecting the transcriptomic basis of phenotypic evolution in an aquatic keystone grazer  
**D. Frisch**

**S2.02**

Experimental adaptation to juvenile malnutrition: insights from and challenges of omics  
**T. Kawecki**

**S26.010**

Male sexual trait interacts with environment in determining female fitness  
**A. Plesnar-Bielak**

**S15.02**

The genetic history of the Plague: From the Stone Age to the 18th century  
**J. Krause**

10.45

**S13.022**

Genetic and morphological bases of a complex innovation – pelvic brooding in Sulawesi ricefishes  
**J. Schwarzer**

**S26.011**

Substantial sex differences in recombination in a threatened passerine with high levels of sexual conflict  
**A. Santure**

11.00

**COFFEE & EXHIBITION & OUTREACH**

(Art up your evolution, Outreach stage, Teatro lobby)

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
8.55	<b>ESEB initiatives and practical information</b>			
9.05	<b>KEYNOTE IV</b> Anna-Liisa Laine, What keeps pathogens in check in the wild?			
	<b>S27: SOCIAL TRAITS</b>	<b>S1: TRANS GEN PLAST</b>	<b>S19: GENO-PHENO</b>	<b>S24: MICROBIAL STRESS</b>
10.00	<b>S27.01</b> The evolutionary implications of sociality: Population structuring associated with shifts in life history and behavior <b>S. Shultz</b>	<b>S1.01</b> Stress responses within and across generations: From epigenetic regulation to selection in the wild <b>M. Saastamoinen</b>	<b>S19.01</b> Colour evolution in birds and butterflies: From macro to micro and back again <b>N. Nadeau</b>	<b>S24.01</b> Bacterial capsules as key referees in adaptation <b>O. Rendueles</b>
10.15				
10.30	<b>S27.02</b> Epistemology and non-discrimination: Inclusive fitness still on top <b>A. Grafen</b>	<b>S1.02</b> Insect immune memory, how does it work and why should we care? <b>S. Barribeau</b>	<b>S19.02</b> A phylogenetic framework for the detection of trait-dependent shifts in patterns of sequence evolution <b>I. Mayrose</b>	<b>S24.02</b> Phage-bacteria coevolution in the rhizosphere: Consequences for microbiome functioning and plant disease outbreaks <b>V.-P. Friman</b>
10.45				
11.00	<b>COFFEE &amp; EXHIBITION &amp; OUTREACH</b> (Art up your evolution, Outreach stage, Teatro lobby)			



**LOGOMO HALL**

**TEATRO**

**GALLERIA**

**LOGI1**

**S13: ADAPT GEN**

**S2: EXP EVOL**

**S26: SEX CONFLICT**

**S15: ANCIENT DNA**

11.30	<p><b>S13.023</b> Extreme morphological and genomic divergence underlies deep-water adaptation in Arctic charr (<i>Salvelinus alpinus</i>)morphs <b>T. Kess</b></p>	<p><b>S2.03</b> Larval resource competition alters capability of adult reproductive interference <b>W. Mukaimine</b></p>	<p><b>S26.012</b> Sexual conflict in the light of <i>Caenorhabditis</i> nematodes <b>J. Palka</b></p>	<p><b>S15.03</b> 6,500-year-old <i>Salmonella enterica</i> genomes link human-host adaptation to animal domestication <b>A. Herbig</b></p>
11.45	<p><b>S13.024</b> Exploring the joint effects of global and local selection on the emergence of reproductive barriers <b>G. Bisschop</b></p>	<p><b>S2.04</b> Microevolutionary genomic signatures of sexual selection <b>R. R. Snook</b></p>	<p><b>S26.013</b> Sex-specific adaptation to a high temperature in <i>Drosophila</i> <b>S.-K. Hsu</b></p>	<p><b>S15.04</b> 2,000-year-old pathogen genomes reconstructed from mummies provide insights into the health status of ancient Egyptians <b>J. Neukamm</b></p>
12.00	<p><b>S13.025</b> Genetic effects on phenotypic 'predictability' of guppy stress-response behaviour <b>P. M Prentice</b></p>	<p><b>S2.05</b> Experimental evolution study on <i>Drosophila melanogaster</i>: manifold consequences of adaptation to unfavourable diets <b>E. Iakovleva</b></p>	<p><b>S26.014</b> Sexual conflict over genes related to immunity: Evidence from a species with strong sexual selection <b>J. Roved</b></p>	<p><b>S15.05</b> Studying the evolution of host-associated microbiome through time using ancient dental calculus <b>K. Guschanski</b></p>
12.15	<p><b>S13.026</b> On (small) step at a time: Measuring adaptive potential of yeast populations under different stresses <b>I. Fragata</b></p>	<p><b>S2.06</b> Consequences of adaptation to juvenile malnutrition on adult metabolism <b>C. Dupuis</b></p>	<p><b>S26.015</b> Uncovering the role of sexually antagonistic selection on sex differences in immunity in <i>Drosophila melanogaster</i> <b>S. Sharda</b></p>	<p><b>S15.06</b> Von Linné to today: -omics-based investigations of fungal adaptations to extreme environments with herbarium specimens <b>B. H. Conlon</b></p>
12.30	<b>LUNCH &amp; EXHIBITION &amp; SATELLITE EVENTS / OUTREACH</b>			
	<p><b>Satellite events</b></p> <p>Meet the editors – a Royal Society Publishing workshop, MOVE 1 at 13:00-13:50</p> <p>SciSparks, how to organise speed meetings in high-schools, Outreach stage in Teatro lobby at 12:45-13:55</p>			

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
	<b>S27: SOCIAL TRAITS</b>	<b>S1: TRANS GEN PLAST</b>	<b>S19: GENO-PHENO</b>	<b>S24: MICROBIAL STRESS</b>
11.30	<p><b>S27.03</b></p> <p>The evolution of mechanisms to divide labour <b>G. Cooper</b></p>	<p><b>S1.03</b></p> <p>Does maternal behavioural plasticity facilitate the evolution of viviparity? <b>A. Pettersen</b></p>	<p><b>S19.03</b></p> <p>Gene expression evolution in Lake Tanganyika cichlid fishes: Novel insights through data integration <b>A. El Taher</b></p>	<p><b>S24.03</b></p> <p>Antibiotic stresses modify the evolution of <i>Pseudomonas aeruginosa</i> phage resistance <b>T. Dimitriu</b></p>
11.45	<p><b>S27.04</b></p> <p>Molecular signatures of kin selection: Are caste-associated genes nearly neutral? <b>G. Thompson</b></p>	<p><b>S1.04</b></p> <p>Paternal contribution to transgenerational plasticity of the freshwater snail <i>Physa acuta</i> in response to predation <b>J. Tariel</b></p>	<p><b>S19.04</b></p> <p>Differential gene expression underlying caste- and sex-specific gonad development in the honey bee (<i>Apis mellifera</i>) <b>D. Cavalcante Lago</b></p>	<p><b>S24.04</b></p> <p>Bacterial biodiversity drives the evolution of CRISPR-based resistance against phage <b>E. Alseth</b></p>
12.00	<p><b>S27.05</b></p> <p>Benefits of cooperation and its life-history costs in complex environments in a social pine sawfly <b>C. Lindstedt</b></p>	<p><b>S1.05</b></p> <p>Adaptive significance of Anticipatory Maternal Effects in <i>Drosophila melanogaster</i> <b>P. Kohlmeier</b></p>	<p><b>S19.05</b></p> <p>A genetic and evolutionary perspective on foot feathering in a domestic avian species <b>C. Bortoluzzi</b></p>	<p><b>S24.05</b></p> <p>Eco-evolutionary dynamics in a simple Cystic Fibrosis-like bacterial community treated with a low antibiotic concentration <b>J. Law</b></p>
12.15	<p><b>S27.06</b></p> <p>Dispersal strategies of sessile superorganisms: the evolution of dispersal in ants <b>S. Hakala</b></p>	<p><b>S1.06</b></p> <p>The role of genetic adaptation and phenotypic plasticity in response to changing salinity conditions <b>H. Goehlich</b></p>	<p><b>S19.06</b></p> <p>The molecular basis of phenotypic evolution across a genus: cold acclimation in <i>Drosophila</i> <b>N. Cook</b></p>	<p><b>S24.06</b></p> <p>The Evolutionary Design of the Type-6 Secretion System <b>W. Smith</b></p>
12.30	<b>LUNCH &amp; EXHIBITION &amp; SATELLITE EVENTS / OUTREACH</b>			
	<p><b>Satellite events</b></p> <p>Meet the editors – a Royal Society Publishing workshop, MOVE 1 at 13:00-13:50</p> <p>SciSparks, how to organise speed meetings in high-schools, Outreach stage in Teatro lobby at 12:45-13:55</p>			

**LOGOMO HALL**

**TEATRO**

**GALLERIA**

**LOGI1**

**S13: ADAPT GEN**

**S2: EXP EVOL**

**S26: SEX CONFLICT**

**S15: ANCIENT DNA**

14.00	<p><b>S13.027</b> Interplay of microbiome and transcriptome shapes fitness in response to environmental change <b>J. Beninde</b></p>	<p><b>S2.07</b> Experimentally altered sex ratios and the evolution of sex-specific life histories <b>J. Stångberg</b></p>	<p><b>S26.016</b> Sex-limited experimental evolution on a simultaneous hermaphroditic flatworm leads to differential responses of sex allocation <b>Q. Li</b></p>	<p><b>S15.07</b> The demographic history of woolly rhinoceros <b>E. Lord</b></p>
14.15	<p><b>S13.028</b> Identification of chromosome subpopulations by recombination differences <b>C. Ruiz-Arenas</b></p>	<p><b>S2.08</b> Evolution of reproductive efficiency in <i>Caenorhabditis elegans</i> under introduced obligatory outcrossing <b>W. Antof</b></p>	<p><b>S26.017</b> Intersexual conflict over seed size is stronger in more outcrossed populations of a mixed-mating plant <b>A. Raunsgard</b></p>	<p><b>S15.08</b> Discovering the Legacy of Atlantic cod exploitation using ancient DNA <b>G. Ferrari</b></p>
14.30	<p><b>S13.029</b> Understanding sex differences in crossing-over patterns <b>M. Kivikoski</b></p>	<p><b>S2.09</b> Parental care relaxes selection and increases genetic variation <b>S. Pascoal</b></p>	<p><b>S26.018</b> Coevolution of female fidelity and male help under interactions between intra- and inter-locus sexual conflict <b>Xiang-Yi Li</b></p>	<p><b>S15.09</b> The aboriginal heritage project and the modern human colonization of Australia <b>J. Teixeira</b></p>
14.45	<p><b>S13.030</b> Structural variants in a haplotype-resolved hybrid rabbit genome <b>E. Enbody</b></p>	<p><b>S2.010</b> Dynamic phenotypic plasticity evolves in response to experimental environmental predictability <b>C. Leung</b></p>	<p><b>S26.019</b> Sexual conflict and the diversity of warning patterns in <i>Heliconius</i> butterflies <b>M. Freire</b></p>	<p><b>S15.010</b> The population dynamics of eastern Siberia revealed by Lake Baikal region <b>H. Yu</b></p>
15.00	<p><b>S13.031</b> Positive selection on sociobiological traits in invasive fire ants <b>E. Privman</b></p>	<p><b>S2.011</b> The Genomics of Selfing in Maize (<i>Zea mays</i> ssp. <i>mays</i>): Catching Purging in the Act <b>A. Muyle</b></p>	<p><b>S26.020</b> Sexually antagonistic coevolution between the sex chromosomes of <i>Drosophila melanogaster</i> <b>C. Olito</b></p>	<p><b>S15.011</b> Genome-wide ancient-DNA investigation characterizes a genetic contact point in the Eneolithic southwestern Russia <b>K. Majander</b></p>
15.15	<p><b>S13.032</b> Genomic architecture underlying the evolution of a novel form of social organisation <b>R. Pracana</b></p>	<p><b>S2.012</b> Optimizing the power to identify the genetic basis of complex traits with E&amp;R studies <b>C. Vlachos</b></p>	<p><b>S26.021</b> Sexually-antagonistic selection on dispersal in a cooperatively-breeding bird <b>J. Green</b></p>	<p><b>S15.012</b> Genes and language in the prehistory of Uralic-speaking peoples <b>O. Vesakoski</b></p>
15.30	<p><b>COFFEE &amp; EXHIBITION &amp; OUTREACH</b> (Art up your evolution, Outreach stage, Teatro lobby)</p>			

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
	<b>S27: SOCIAL TRAITS</b>	<b>S1: TRANS GEN PLAST</b>	<b>S19: GENO-PHENO</b>	<b>S24: MICROBIAL STRESS</b>
14.00	<b>S27.07</b> Helping Results in Indirect Fitness Gains in Cooperative Birds <b>P. Downing</b>	<b>S1.07</b> Evolutionary insights into transgenerational effects of pesticides <b>V. Castaño-Sanz</b>	<b>S19.07</b> The evolutionary history of Alba, a trans-specific Alternative life history strategy <b>K. Tunström</b>	<b>S24.07</b> Long lasting infections select for poorly transmitted bacterial variants <b>M. Cambon</b>
14.15	<b>S27.08</b> The design of the social hierarchy in spotted hyenas <b>A. Courtiol</b>	<b>S1.08</b> Longer life span is associated with elevated immune activity in a seasonally polyphenic butterfly <b>T. Esperk</b>	<b>S19.08</b> Evolution of photoperiodic flowering and the VRN2/-CO9 genes in temperate Pooideae grasses <b>S. Fjellheim</b>	<b>S24.08</b> Lysed bacterial cells inhibit population growth in multiple bacterial species <b>F. Smakman</b>
14.30	<b>S27.09</b> Social organization in ungulates: revisiting Jarman's hypotheses <b>K. Szemán</b>	<b>S1.09</b> Trans-generational effects of prenatal thyroid hormones in a wild bird species <b>T. Sarraude</b>	<b>S19.09</b> The genetic underpinnings of bird beak shape morphological evolution on a macroevolutionary scale <b>T. Gossmann</b>	<b>S24.09</b> Artificial selection for cooperative degradation of toxins in small bacterial communities <b>B. Vessman</b>
14.45	<b>S27.010</b> The fitness benefits of living with kin in a long-lived, social mammal <b>E. Lynch</b>	<b>S1.010</b> The effect of early-life stress on DNA methylation and exploratory behaviour in wild great tits <b>B. Sepers</b>	<b>S19.010</b> Many options, few solutions: over 60 million years snakes converged on few optimal venom formulations <b>A. Barua</b>	<b>S24.010</b> The evolution of mass suicide in bacterial warfare <b>E. Granato</b>
15.00	<b>S27.011</b> Towards richer game-theoretical models: How does uncertainty about the social environment influence reproductive skew? <b>L. Olivier</b>	<b>S1.011</b> Symbiont-mediated maternal effects on pathogen resistance in the pea aphid, <i>Acyrtosiphon pisum</i> <b>M. Hasoon</b>	<b>S19.011</b> A codon model for associating phenotypic traits with altered selective patterns of sequence evolution <b>K. Halabi</b>	<b>S24.011</b> Positive linkage between public goods suggests that generalist producers prevail in natural <i>Pseudomonas</i> communities <b>J. Kramer</b>
15.15	<b>S27.012</b> Human behaviour in economic games/social-dilemmas: designed to benefit the group, or the actor? <b>M. Burton-Chellew</b>	<b>S1.012</b> Role of epigenetic mechanisms during evolutionary adaptation to chronic malnutrition <b>B. Erkosar</b>	<b>S19.012</b> Phylogenetic comparative approaches to uncover the genomic basis of species' phenotypic differences <b>M. Hiller</b>	<b>S24.012</b> Eco-evolutionary approach to species coexistence <b>T. Hiltunen</b>
15.30	<b>COFFEE &amp; EXHIBITION &amp; OUTREACH</b> (Art up your evolution, Outreach stage, Teatro lobby)			

**LOGOMO HALL**

**TEATRO**

**GALLERIA**

**LOGI1**

**S13: ADAPT GEN**

**S2: EXP EVOL**

**S26: SEX CONFLICT**

**S3: NON-GEN INHERIT**

16.00	<p><b>S13.033</b> Predation effects on fitness: genotype-phenotype mapping in <i>Daphnia</i> <b>M. Cordellier</b></p>	<p><b>S2.013</b> Identifying the mechanisms that underlie adaptation against oral bacterial infection in <i>D. melanogaster</i> <b>T. Paulo</b></p>	<p><b>S26.022</b> The genetic architecture of intra-locus sexual conflict in a pedigreed wild population <b>L. Peters</b></p>	<p><b>S3.08</b> What is 'non-genetic' inheritance? Insights from Molecular-Evolutionary Crosstalk <b>I. Adrian-Kalchhauser</b></p>
16.15	<p><b>S13.034</b> The contribution of pleiotropy to repeatable patterns of genomic divergence in threespine stickleback <b>D. Rennison</b></p>	<p><b>S2.014</b> Environmental heterogeneity disrupts the symmetry of host-parasite reciprocal selection, driving predictable variation in coevolutionary outcomes <b>S. Auld</b></p>	<p><b>S26.023</b> Sex differences in genetic underlying of personality traits <b>S. Kralj-Fišer</b></p>	<p><b>S3.09</b> Horizontal transmission and evolution of microbe-induced cooperation <b>O. Lewin-Epstein</b></p>
16.30	<p><b>S13.035</b> Independent evolutionary trajectories underlie winter coat colour polymorphism in mountain hares <b>I. Giska</b></p>	<p><b>S2.015</b> The feedback between selection and demography shapes coevolutionary genetic change <b>C. Retel</b></p>	<p><b>S26.024</b> Temperature as a modulator of sexual selection and sexual conflict <b>P. Carazo</b></p>	<p><b>S3.010</b> (In)exhaustible suppliers for evolution? Epistatic selection tunes the adaptive potential of non-genetic inheritance <b>S. Charlat</b></p>
16.45	<p><b>S13.036</b> Characterizing the genetic basis of adaptation to arid environments in <i>Drosophila melanogaster</i> European populations <b>V. Horvath</b></p>	<p><b>S2.016</b> The home advantage: Ancestral microbes aid host adaptation to novel environments <b>A. Agarwal</b></p>	<p><b>S26.025</b> Sex-biased gene expression is repeatedly masculinized in asexual females <b>D. Parker</b></p>	<p><b>S3.011</b> The impacts of epigenetic variation on the rate of speciation with gene flow <b>P. Greenspoon</b></p>
17.00	<p><b>S13.037</b> Combining drug metabolism phenotypes and genomic diversity to understand evolution in metabolism of exogenous substances <b>M. Mouterde</b></p>	<p><b>S2.017</b> Can parasite evolution reinforce the effects of climate warming? <b>J. Wolinska</b></p>	<p><b>S26.026</b> Contrasting rates of molecular evolution in reproduction-related genes in <i>Macrostomum</i> flatworms with different reproductive strategies <b>R. A. W. Wiberg</b></p>	<p><b>S3.012</b> Early-exposure to new sex pheromone blend alters mate preference in butterflies and in their offspring <b>E. Dion</b></p>
17.20 19.20	<b>POSTER SESSION II</b>			

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
	<b>S27: SOCIAL TRAITS</b>	<b>S36b: PHYLOGEO &amp; SYST</b>	<b>S36d: GENOME EVOL</b>	<b>S36c: SPP INTERACT</b>
16.00	<p><b>S27.013</b></p> <p>A trait-based approach to map behaviour across species</p> <p><b>M. E. Herberstein</b></p>	<p><b>S36b.06</b></p> <p>Admixture among North American Canids: coyotes, wolves and the beasts between</p> <p><b>A. Carmagnini</b></p>	<p><b>S36d.06</b></p> <p>Polyploidy and floral evolution in a highly variable, coevolving plant species</p> <p><b>K. Gross</b></p>	<p><b>S36c.01</b></p> <p>Herbivores and plant defences affect selection on plant reproductive traits more strongly than pollinators</p> <p><b>J. Santangelo</b></p>
16.15	<p><b>S27.014</b></p> <p>Bellicose bias: how sex differences in dispersal influence intrasexual aggression</p> <p><b>E. Bath</b></p>	<p><b>S36b.07</b></p> <p>Enriching conserved genomic elements to resolve relationships among sawflies</p> <p><b>W. Saskia</b></p>	<p><b>S36d.07</b></p> <p>Mutation-rate plasticity and the germline of unicellular organisms</p> <p><b>D. Aanen</b></p>	<p><b>S36c.02</b></p> <p>Evidence for a chemical arms race: Lessons from a chemical mimicry system of cuckoo wasps</p> <p><b>T. Schmitt</b></p>
16.30	<p><b>S27.015</b></p> <p>The Strategic Reference Gene: an organismal theory of inclusive fitness</p> <p><b>L. Fromhage</b></p>	<p><b>S36b.08</b></p> <p>ddRAD sequencing reveals the evolutionary history of the snail <i>Charpentieria itala</i> in the Southern Alps</p> <p><b>J. Xu</b></p>	<p><b>S36d.08</b></p> <p>Genomic introgression through newt hybrid zones – evidence from replicated transects</p> <p><b>P. Zieliński</b></p>	<p><b>S36c.03</b></p> <p>Mutualism mediates infection risk by an antagonist in experimental populations</p> <p><b>J. Eck</b></p>
16.45	<p><b>S27.016</b></p> <p>Genotype-by-environment interactions on sociability in threespine sticklebacks</p> <p><b>N. Pilakouta</b></p>	<p><b>S36b.09</b></p> <p>Environmental variables shaping the distribution and hybridization in <i>Heliconius</i> butterflies</p> <p><b>N. Rueda</b></p>	<p><b>S36d.09</b></p> <p>The role of chromosomal inversions in the speciation history of two <i>Drosophila virilis</i> group species</p> <p><b>N. Poikela</b></p>	<p><b>S36c.04</b></p> <p>Fitness trade-offs associated with host resistance in a natural insect host-ecto-parasite symbiosis</p> <p><b>M. Polak</b></p>
17.00	<p><b>S27.017</b></p> <p>Ecological and social constraints promote social evolution in the clown anemonefish</p> <p><b>R. Branconi</b></p>	<p><b>S36b.010</b></p> <p>Phylogenomics of the <i>Hyalella</i> (Amphipoda: Crustacea) species-flock in Lake Titicaca, High Andes</p> <p><b>F. Zapelloni</b></p>	<p><b>S36d.010</b></p> <p>Exposure to environmental radionuclides associates with altered metabolic and immunity pathways in a wild rodent</p> <p><b>J. Kesäniemi</b></p>	<p><b>S36c.05</b></p> <p>High conspecific density reduces hoarding success and affects sex-specific spatial distribution among wintering pygmy owls</p> <p><b>E. Koivisto</b></p>
17.20 19.20	<b>POSTER SESSION II</b>			

**LOGOMO HALL**

**TEATRO**

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**LOGI1**

8.55

**ESEB initiatives and practical information**

9.05

**KEYNOTE V** Rasmus Nielsen, Human adaptation in time and space

**S13: ADAPT GEN**

**S2: EXP EVOL**

**S36a: SEX & SELECT MATING**

**S28: GAME THEORY**

10.00

**S13.038**

The impact of protein architecture on adaptive evolution  
**A. F. Moutinho**

**S2.018**

The genetic and molecular bases of real-time bacterial tRNA evolution  
**J. Gallie**

**S36a.01**

How diversity in parental care evolves: a phylogenetic comparative study in amphibians  
**A. Furness**

**S28.01**

Improving treatment of metastatic cancers through evolutionary game theory  
**K. Stankova**

10.15

**S13.039**

Adaptation to high soil trace metal element concentrations in *Arabidopsis arenosa*  
**C. Sailer**

**S2.019**

Bacterial predator-prey coevolution selects on virulence-associated prey defences  
**R. Nair**

**S36a.02**

Cobreeding females adjust their reproductive decisions by investing more in eggs and less in care  
**J. Richardson**

10.30

**S13.040**

Regulatory evolution of metabolic adaptations in cavefish  
**N. Rohner**

**S2.020**

Forecasting experimental evolution in *Pseudomonas*  
**P. Lind**

**S36a.03**

Cannibalism rescues fitness impacts of skewed sex-ratios in red flour beetle *Tribolium castaneum*  
**I. Khan**

**S28.02**

N-player collaborative hunting in yellow yellow saddle goatfish (*Parupeneus cyclostomus*)  
**R. Bshary**

10.45

**S13.041**

True survivors: response to bat fungal pathogen varies according to exposure history  
**T. Lilley**

**S2.021**

Evolution of Multicellularity: Cheating Done Right  
**W. Veit**

**S36a.04**

Parental investment and sexual dimorphism in immunity  
**V. Revathi Venkateswaran**

11.00

**COFFEE & EXHIBITION & OUTREACH**

(Art up your evolution, Outreach stage, Teatro lobby)

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
8.55	<b>ESEB initiatives and practical information</b>			
9.05	<b>KEYNOTE V</b> Rasmus Nielsen, Human adaptation in time and space			
	<b>S27: SOCIAL TRAITS</b>	<b>S30: POLLINATOR</b>	<b>S9: MICROBES &amp; FOOD</b>	<b>S5: AGING &amp; CANCER</b>
10.00	<b>S27.018</b> Cooperative adaptations and exploitation resistance in social amoebae <b>J. Strassmann</b>	<b>S30.01</b> Preparedness and contra-preparedness in pollinator learning <b>A. Dunlap</b>	<b>S9.01</b> Domestication of microbial communities for bread making : insights from a participatory research project <b>D. Sicard</b>	<b>S5.01</b> Cancer resistance mechanisms in long-lived mammals <b>V. Gorbunova</b>
10.15	<b>S27.019</b> Siderophore investment strategies in <i>Pseudomonas aeruginosa</i> <b>S. Mridha</b>			
10.30	<b>S27.020</b> The social control of virulence and the mystery of defective viruses <b>A. Leeks</b>	<b>S30.02</b> Eco-evolutionary feedbacks between floral traits and pollinator behaviour in deceptive pollination interactions <b>A. Ellis</b>	<b>S9.02</b> The fungal genus <i>Aspergillus</i> as a model to study microbial domestication <b>J. Gibbons</b>	<b>S5.02</b> Evolutionary genomics, aging and cancer <b>J. P. de Magalhaes</b>
10.45	<b>S27.021</b> Evolutionary Forces Behind the Diversification of Public Goods in Bacteria <b>A. Figueiredo</b>			
11.00	<b>COFFEE &amp; EXHIBITION &amp; OUTREACH</b> (Art up your evolution, Outreach stage, Teatro lobby)			



## LOGOMO HALL

## TEATRO

## GALLERIA

## LOGI1

S13: ADAPT GEN

S2: EXP EVOL

S36a: SEX & SELECT MATING

S28: GAME THEORY

11.30	<p><b>S13.042</b> Genomic introgression facilitated adaptation of European aspen to short growing seasons in northern Scandinavia <b>M. Rendón-Anaya</b></p>	<p><b>S2.022</b> Spatial selection and experimental evolution of parasite dispersal strategies <b>G. Zilio</b></p>	<p><b>S36a.05</b> How does the environment influence the expression of animal mate choice and sexual signalling? <b>L. Dougherty</b></p>	<p><b>S28.03</b> Microbial public goods games in a toxic environment: to degrade or to resist? <b>S. Shibasaki</b></p>
11.45	<p><b>S13.043</b> Hitch-hiking laterally-acquired genes contribute to delayed adaptation <b>J. Olofsson</b></p>	<p><b>S2.023</b> The effects of predation on body and fin morphology in replicated mesocosms <b>N. Alioravainen</b></p>	<p><b>S36a.06</b> Genetic architecture of reproductive performance in response to thermal stress <b>M. Zwoinska</b></p>	<p><b>S28.04</b> Adaptive dynamics in spatially structured populations <b>T. Priklopil</b></p>
12.00	<p><b>S13.044</b> Evidence that viruses, particularly SIV, drove genetic adaptation in natural populations of eastern chimpanzees <b>A. Andrés</b></p>	<p><b>S2.024</b> Reproductive interference as a driver of species exclusion and evolution in spider mites <b>M. Cruz</b></p>	<p><b>S36a.07</b> Experimental evidence for genetic and phenotypic effects of sexual selection on germline mutation rate <b>J. Baur</b></p>	<p><b>S28.05</b> Evolutionary Dynamics of Coordinated Cooperation <b>H. Ohtsuki</b></p>
12.15	<p><b>S13.045</b> The role of sRNA dominance modifiers in transitions to selfing in Capsella <b>J. Bachmann</b></p>	<p><b>S2.025</b> Multi dimensional niche evolution of a crop pest (<i>Callosobruchus maculatus</i>) under climate change <b>A. Leonard</b></p>	<p><b>S36a.08</b> Evolution of sexual signals in closely related frog species occurring in sympatry <b>S. Goutte</b></p>	<p><b>S28.06</b> Effects of uncertainty and learning on the behaviour predicted by evolutionary game theory <b>A. Higginson</b></p>
12.30	<p><b>S13.046</b> Environmentally dependent rewiring of epistatic networks and their contributions to quantitative trait plasticity <b>Y. Zan</b></p>	<p><b>S2.026</b> Eco-Evolutionary feedbacks in range expanding food webs: experimental evidence from small worlds <b>E. Fronhofer</b></p>	<p><b>S36a.09</b> Evolution of female promiscuity in songbirds <b>J. T. Lifjeld</b></p>	<p><b>S28.07</b> Reinforcement learning leads to bounded rationality in a public goods game <b>O. Leimar</b></p>
12.45	<b>LUNCH &amp; EXHIBITION</b>			
13.30	<b>ESEB members meeting</b>			
14.30	<p><b>Incoming president's address</b> Ophelie Ronce, Integrating niche evolution with life history theory can help us better understand the consequences of climate change</p>			
15.10	<b>Leg stretching break</b>			
15.20	<p><b>JMS award winner 2019</b> Karl Grieshop, Sexual conflict and the maintenance of genetic variance in fitness</p>			
15.50	<b>Closing ceremony</b>			
16.20	<b>Closing ceremony</b>			
18.30	<b>Congress dinner at Muuminworld</b>			
02.00	<b>Congress dinner at Muuminworld</b>			

	<b>MOVE1</b>	<b>MOVE2</b>	<b>LOGI2</b>	<b>GOTO33</b>
	<b>S27: SOCIAL TRAITS</b>	<b>S30: POLLINATOR</b>	<b>S9: MICROBES &amp; FOOD</b>	<b>S5: AGING &amp; CANCER</b>
11.30	<b>S27.022</b> Farming plant cooperation for more sustainable agriculture <b>G. Montazeaud</b>	<b>S30.03</b> Nectar chemistry changes pollinator behavior with implications for plant fitness <b>P. Jones</b>	<b>S9.03</b> Rapid pathogen resistance evolution can shape the biocontrol efficiency of plant growth promoting Pseudomonas bacteria <b>S. Clough</b>	<b>S5.03</b> Competition and cancer invasiveness in ageing landscapes <b>S. P. Castillo</b>
11.45	<b>S27.023</b> Cooperation and cheating among germinating spores <b>S. Pande</b>	<b>S30.04</b> Pollinator preference and flowering phenology: how to solve reproductive conflicts between species that share pollinators <b>R. Pérez-Barrales</b>	<b>S9.04</b> Study of the domestication in the blue cheese fungus Penicillium roqueforti <b>T. Caron</b>	<b>S5.04</b> Cancer evolution in hierarchal organised tissues <b>P. Ashcroft</b>
12.00	<b>S27.024</b> Social plasticity in the wild <b>K. Strickland</b>	<b>S30.05</b> Mimicry and competition drive flower colour polymorphisms in sunbird-pollinated Erica <b>A. Coetzee</b>	<b>S9.05</b> New model to assess genomic and functional effects of microbial domestication in food environments <b>K. Chacon-Vargas</b>	<b>S5.05</b> Choose your death: adaptive cell senescence predicts a late-life decrease of cancer prevalence <b>T. Tissot</b>
12.15	<b>S27.025</b> The evolution of social bet-hedging strategies <b>T. Aubier</b>	<b>S30.06</b> Foraging preferences of bees and birds – assessing the adaptive value of heteranthy in Merianieae flowers <b>A. Dellinger</b>	<b>S9.06</b> Water kefir: metagenomic analysis of a drinkable symbiotic communities of bacteria and yeast <b>J.-B. Boulé</b>	<b>S5.06</b> Lifelong telomere dynamics in wild Soay sheep <b>H. Froy</b>
12.30	<b>S27.026</b> Greenbeard genes: theory and reality <b>P. Madgwick</b>	<b>S30.07</b> Should I stay or should I go? Diascia plants frequently shift their Rediviva pollinators <b>B. Kahnt</b>	<b>S9.07</b> Characterisation of microbial communities on different apple varieties and orchard management practices <b>E. Britt</b>	<b>S5.07</b> Limited longevity in a finite world <b>J. Lehtonen</b>
12.45	<b>LUNCH &amp; EXHIBITION</b>			
13.30	<b>ESEB members meeting</b>			
14.30	<b>Incoming president's address</b> Ophelie Ronce, Integrating niche evolution with life history theory can help us better understand the consequences of climate change			
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# POSTER LIST

## POSTER SESSION TUESDAY 17.20-19.20

### 4. Cognitive evolution and environment

#### S4.P1

Do developmental changes in fitness trade-offs predict mechanosensory cues for escape-hatching decisions?

*Chloe Fouilloux*

#### S4.P3

Predator identification from salivary DNA left on artificial prey

*Daniela Rößler*

#### S4.P4

Ecology of cognitive evolution in Heliconiini butterflies

*Fletcher Young*

#### S4.P5

The sensory basis of distance estimation in a coral reef fish

*Cecilia Karlsson*

#### S4.P6

Visual specialisation and expansion of Heliconius mushroom bodies

*Stephen Montgomery*

#### S4.P7

Brain size affects responsiveness in mating behavior to variation in predation pressure and sex-ratio

*Alberto Corral-Lopez*

#### S4.P8

Proteomic profiling of cerebrospinal fluid in cognitively advanced birds: comparative approach

*Eleni Voukali*

#### S4.P9

Evolution of emotions and learning – a neural network model

*Magdalena Kozielska*

#### S4.P10

Artificial selection for schooling behaviour decreases individual learning ability in fish

*Regina Vega-Trejo*

#### S4.P11

The evolution of foraging innovation following colonisation of a less variable environment

*Gábor Herczeg*

#### S4.P12

Non-nestmate templates improve nestmate recognition

*Volker Nehring*

#### S4.P14

Effects of mating on female immune defence in a fruit fly

*Keiko Oku*

#### S4.P15

Head measures as promising indices of sensory capacity: a study on geometrid moths

*Juhan Javoiš*

#### S4.P16

Causes and consequences of individual variation in cognitive ability

*Krista van den Heuvel*

#### S4.P17

Decision-making in wild great tits, with real world consequences

*Shana Caro*

#### S4.P18

Norm followers, cheaters and costly signallers in a sport charity campaign

*Judit Mokos*

### 6. Eco-evolutionary approach to the antimicrobial resistance problem

#### S6.P1

Exploring the role of bacteria and phage genetic diversity for CRISPR-phage coevolution

*Jack Common*

#### S6.P2

Evolution of antibiotic resistance investigated by single cell genomics

*Manu Tamminen*

#### S6.P3

Ecology and evolution of plasmid-mediated antimicrobial resistance (pAMR) transfer in the chicken microbiome

*Sarah Duxbury*

#### S6.P4

Biotic stress response in Fagaceae: Focus on antimicrobial peptides

*Tetyana Nosenko*

#### S6.P5

Fight AMR evolution: predictive phage cocktails, plasmid-dependent phages and plasmids that re-sensitize bacteria to antibiotics

*Matti Jalasvuori*

#### S6.P6

Antibiotic resistance plasmids spread at diverse rates through recipient populations, in the absence of selection

*Fabienne Benz*

#### S6.P7

Evolutionary instability of collateral susceptibility networks in clinical *Escherichia coli* strains

*Vidar Sørum*

#### S6.P8

Fungal antimicrobial resistance towards termite mound defences

*Nils Peereboom*

#### S6.P9

Resistance management in a hospital setting: limited impact of a single drug intervention

*Clare Kinnear*

### 7. Human-induced evolution

#### S7.P1

Breeding in an agricultural land: effects on evolutionary potential of a wild bird population

*Dany Garant*

**S7.P2**

Toads respond to anthropogenic change by adjusting their chemical defence

*Bálint Üveges*

**S7.P3**

Cat behavior: an evolutionary perspective

*Milla Salonen*

**S7.P4**

Behavior and personality differences between cat breeds

*Salla Mikkola*

**S7.P5**

Is temperature-induced sterility important for predicting species' responses to climate change?

*Steven Parratt*

**S7.P6**

Intra-species diversification using "elite plants" reduces herbivory and increases resilience

*Tuuli-Marjaana Koski*

**S7.P7**

Genomic consequences of eutrophication induced speciation reversal in Alpine whitefish

*Philine Feulner*

**S7.P8**

Mining herbaria and roaming the forests: Land-use and climate change affect plant phenology

*Franziska Merle Willems*

**S7.P9**

Roles of acetylcholinesterase genes in organophosphate and carbamate resistance in *Leptinotarsa decemlineata*

*Aigi Margus*

**S7.P10**

Population genomic differentiation of the Asian longhorned beetle (*Anoplophora glabripennis*)

*Iris Häußermann*

**S7.P11**

Population genomics of the invasive Argentine ant

*Ida Holmberg*

**S7.P12**

Evolution of phenotypic variation of an invasive lizard following experimental introduction on small islands

*Amelie Fargevieille*

**S7.P13**

The ecological and genetic impact of interactions between domesticated and wild Atlantic salmon

*Joshka Kaufmann*

**S7.P14**

For better or for worse? How city life can alter the gut microbiome of species

*Bethan Littleford-Colquhoun*

**S7.P15**

Coping with change – how can chemical communication systems overcome disruptions?

*Emily Burdfield-Steel*

**S7.P16**

Winners and losers of the Anthropocene: evolutionary and ecological factors predict species invasion and extinction

*Jacintha Ellers*

**S7.P17**

Size-dependent harvesting modified the trophic niche of medaka *Oryzias latipes* in a mesocosm experiment

*Charlotte Evangelista*

**S7.P18**

Impact of host plant range on the evolution of insecticide resistance, and vice-versa, in insects

*Kristina Karlsson Green*

**8. Genetics of small populations****S8.P1**

Whole-genome sequencing helps unravel the evolutionary and demographic history of an endangered primate

*Catalina Gonda*

**S8.P2**

Clonal architecture in the endangered populations of the shrub birch *Betula humilis* Schrk

*Agnieszka Bona*

**S8.P3**

Assessing the genomic diversity and signatures of selection in Arabian Peninsula and African dromedary camels

*Hussain Bahbahani*

**S8.P4**

Is there a goose on the loose? Investigating introgression into the Swedish Lesser White-fronted Goose

*David Diez-del-Molino*

**S8.P5**

Genetic Structure of *Aedes albopictus* from Asia

*Jiyeong Shin*

**S6.P6**

Capturing genetic variation in natural and planted stands of *Picea abies* using probes and WGS

*Helena Eklöf*

**S8.P7**

Identification of the homogametic sex chromosome

*Charles Christian Riis Hansen*

**S8.P8**

Non-parallel evolution of pelvic reduction in nine-spine sticklebacks

*Petri Kempainen*

**S8.P9**

Genetic analyses of archaeological and historical barley grains

*Mia Lempiäinen-Avci*

**S8.P10**

Genetic consequences of geographical isolation: a case study of *Betula nana* in Poland

*Katarzyna Jadwiszczak*

**S8.P11**

Habitat change leads to shifting allopatric boundaries in coastal and pelagic island seabirds

*Robin Cristofari*

**S8.P12**

Selection efficiency in social and solitary Hymenoptera

*Arthur Weyna*

**S8.P13**

Genetic drift during a biological invasion

*Eric J. Petit*

**S8.P14**

Causes and consequences of TLR variation in a bottle-necked population

*Charli Davies*

**S8.P15**

Revisiting the role of inversions in maintaining genomic differentiation after secondary contact

*Marina Rafajlović*

**S8.P16**

Fitness consequences of dispersal in a house sparrow metapopulation

*Dilan Saatoglu*

**S8.P17**

Investigating adaptation in Swedish sand lizards

*Mette Lillie*

## 10. Rapid Evolutionary Adaptation: Potential and Constraints

**S10.P1**

Recipe for a rapid radiation: population divergence and repeated behavioral isolation through parallel genetic mechanisms

*Thomas Blankers*

**S10.P2**

Rapid adaptation of stress related traits in *Drosophila melanogaster* to seasonal changing environment

*Banu Sebnem Onder*

**S10.P3**

Understanding rapid evolution of insecticide resistance using genomic data from 100-year old pest moths

*Angela McLaughran*

**S10.P4**

Interspecific competition as a driver of ecological divergence in a songbirds secondary contact zone

*Camille Sottas*

**S10.P5**

Interaction between sex and gene flow modulates speed of adaptation during range expansions

*Felix Moerman*

**S10.P6**

Ecological opportunity promotes diversifying selection and facilitates rapid phenotypic divergence in Icelandic Arctic charr

*Matthew Brachmann*

**S10.P7**

Digging up rapidly evolved traits in Italian Wall lizard (*Podarcis siculus*)

*Óscar Mira*

**S10.P8**

Real-time evolution under climate warming: an experimental approach in populations of contrasting biogeographical history

*Pedro Simões*

**S10.P9**

Investigating the adaptive role of noise in gene expression

*Pierre Laye*

**S10.P10**

Is timing of spring arrival genetically controlled in a long-distant migrant?

*Miloš Krist*

**S10.P11**

Rapid phenotypic diversification among new stickleback populations created by a huge earthquake and subsequent tsunamis

*Takuya Hosoki*

**S10.P12**

Raccoon MHC diversity in native and introduced ranges: reduced allele diversity but not allele divergence

*Aleksandra Biedrzycka*

**S10.P13**

The evolution of the genetic architecture of traits under artificial selection

*Yvonne Wientjes*

**S10.P14**

Perceived risk affects the genetic integration of behaviour and morphology in two stickleback populations

*Niels J. Dingemans*

**S10.P15**

How to deal with environmental changes: Molecular characterisation of (non) genetic mechanisms on invasive species

*Pierre Marin*

**S10.P16**

Visual habitat choice in East African cichlids

*Elodie Wilwert*

**S10.P17**

Adaptive evolution and functional differentiation of testis expression genes in *Theria*

*Yukako Katsura*

**S10.P18**

Rapid evolution in highly fecund populations

*Bjarki Eldon*

**S10.P20**

The ghosts of evolutionary past: Phytoplankton's adaptive potential in a crowded changing world

*Maria Elisabetta Santelia*

**S10.P21**

Sympatric stickleback in space: the role of selection and gene flow

*Thijs M.P. Bal*

**S10.P22**

The role of inversions in driving local and sex-specific adaptation

*Filip Ruzicka*

**S10.P23**

Effects of fungicide on a nontarget species, Colorado Potato Beetle (*Leptinotarsa decemlineata*)

*Shahed Saifullah*

**S10.P24**

Investigation of immune response in a seasonal *Drosophila melanogaster* population

*Ekin Demir*

**S10.P25**

Genetic perspective of seasonal adaptation in *Drosophila phalerata*

*Chedly Kastally*

**S10.P26**

Adaptation to seasonal fluctuations in desiccation tolerance in a natural population of *Drosophila melanogaster*

*Nur Seda Coşkun*

**S10.P27**

Plasticity and epigenetic inheritance in the aphid parasitoid *Aphidius ervi*

*Mark Lammers*

**S10.P28**

Unexpected evolutionary dynamics of phenotypically important tandem repeats: a model of flocculin evolution in brewing

*Colette St. Mary*

## 11. Quantitative trait effect size distributions and their impact on evolutionary processes

**S11.P1**

Investigating genetic bases of hybrid sterility using wild-derived inbred strains from mouse hybrid zone populations

*Paigan Aspinall*

**S11.P2**

Genomic region including major seed dormancy QTL strongly contributes to local adaptation in *Arabidopsis thaliana*

*Giulia Zacchello*

**S11.P3**

Estimation of proportions of additive and non-additive genetic variance components

*Anna-Margarete Staehler*

**S11.P4**

Unravelling the mechanisms of population phenotypic changes: does individual differences matter for colonisation?

*Marion Nicolaus*

**S11.P5**

A polygenic network for pupation site choice behavior in *Drosophila melanogaster*

*Wenyu Zhang*

**S11.P6**

Genetic architecture of sexual dimorphism in the seed beetle *Callosobruchus maculatus*

*Philipp Kaufmann*

**S11.P7**

Reconstructing the evolutionary dynamics of a functional variant in a spatially distributed natural population

*Ahmed Elfarargi*

## 12. Quantifying selection and evolvability in wild plant populations: methods and measurements

**S12.P1**

Genomic quantification of selection on regions of open chromatin in *Capsella grandiflora*

*Robert Horvath*

**S12.P2**

Evolution of plant phenotypic plasticity to grassland management

*Anna Kirschbaum*

**S12.P3**

Linking dendroecology and association genetics in forest trees

*Katrin Heer*

**S12.P4**

Quantum speciation and genetic swamping in a range-limited Species

*Mitch Cruzan*

**S12.P5**

Assessing differences on evolutionary rates between haploid and diploid tissues in *Pinus sylvestris*

*Sandra Cervantes*

**S12.P6**

The effects of natural and artificial selection on seedling traits in Scots pine

*Outi Savolainen*

**S12.P7**

Using seed banks to investigate shifts in drought resistance in four Mediterranean herbs

*Robert Rauschkolb*

**S12.P8**

Evolutionary-based resilience of wild populations

*Ivan Scotti*

## 14. The mechanisms of evolutionary change: moving from genomic signatures to functional validation

**S14.P1**

Seasonal and allele-specific expression dynamics of a major age-at-maturity gene in Atlantic salmon

*Jukka-Pekka Verta*

**S14.P2**

*Six6* expression in Atlantic salmon suggests a role in the development of body shape

*Jacqueline Moustakas-Verho*

**S14.P3**

Dissecting the genetic architecture underlying mouth dimorphism in *Pristionchus pacificus* identifies a super-gene locus

*Mohannad Dardiry*

**S14.P4**

Association study reveals genes underlying flower size plasticity in *Arabidopsis thaliana*

*Roosa Laitinen*

**S14.P5**

From GWAS to function: expression patterns of age-at-maturity-associated genes in Atlantic salmon

*Johanna Kurko*

**S14.P6**

Genetic and nutrition effects on lipid amount and composition in juvenile Atlantic salmon

*Andrew House*

**S14.P7**

miRNA expression during the development of different Arctic charr morphologies

*Dagny A. Runarsdottir*

**S14.P8**

Understanding functional changes of cold acclimation using ribosomal footprint profiling

*Jenni Prokkola*

**S14.P9**

Functional validation of genes involved in fat storage in Atlantic salmon adipocytes using CRISPR

*Erica H Leder*

**S14.P10**

Bacteria-derived tail anchors target to discrete organelles when expressed in eukaryotic cells

*Cory Dunn*

**S14.P11**

Investigating germ cell specific gene expression across panarthropods

*Matthias Janeschik*

**S14.P12**

Functional investigation of plasticity in wing morph determination in a water strider

*Erik Gudmunds*

**S14.P13**

Unexpected fructan motifs in *Nardus stricta*: cloning, purification, and functional analysis of an invertase enzyme

*Camilla Lorange Lindberg*

**S14.P14**

Narrowing in on the Red Queen: QTL and fine mapping parasite resistance in *Daphnia magna*

*Maridel Fredericksen*

**S14.P15**

Genotype-phenotype mapping of skull development and adaptation in squamate reptiles

*Joni Ollonen*

**S14.P16**

The genetic underpinnings of bill length variation in great tits (*Parus major*)

*Judith Risse*

**17. Selfish genetic elements****S17.P1**

Sex chromosomes suppress vertical transmission of feminizing *Wolbachia* symbionts in an isopod

*Richard Cordaux*

**S17.P2**

The genetic basis of meiotic drive in *Podospira*

*S. Lorena Ament Velasquez*

**S17.P3**

Burst of transposable elements is associated with vertebrate differentiation

*Feng Shao*

**S17.P4**

Population genetics of a segregation distorter in fungal systems

*Ivain Martinossi-Allibert*

**S17.P5**

Do spider mites evolve antagonistic traits against cytoplasmic incompatibility induced by *Wolbachia*?

*Flore Zélé*

**S17.P6**

Contribution of TEs mobilization to tomato improvement

*Marisol Dominguez*

**S17.P7**

The extent of DNA transfer between plasmids and chromosomes in prokaryotes

*Ahmad Samer Kadib Alban*

**S17.P8**

Tracing the onset of the 'green beard' signal in fire ant *Solenopsis invicta*

*Qiaowei Pan*

**S17.P9**

Allorecognition genes in Basidiomycetes - a genetic stalemate?

*Benjamin Auxier*

**18. The genetic architecture of polygenic adaptation: sweeps, small shifts and everything in between****S18.P1**

Tracking allele trajectories over 20 generations of selection for long limbs in mice

*Layla Hiramatsu*

**S18.P2**

Genomic footprints of polygenic adaptation in *Theobroma cacao*

*Tuomas Hämmälä*

**S18.P3**

Natural selection and the lengths of fixed chromosomal inversions

*Tim Connallon*

**S18.P4**

Origin and dynamics of adaptive alleles in physiological adaptation in sticklebacks

*Jun Kitano*

**S18.P5**

A chromosomal rearrangement explains variation in age of seaward migration in Atlantic salmon

*Sarah Lehnert*

**S18.P6**

The resolution of genomic conflicts following admixture in a polygenic hybrid incompatibility model

*Flávia Schlichta*

**S18.P7**

Polygenic adaptation of a quantitative trait

*Benjamin Wölfl*

**20. The evolutionary consequences of social transmission and animal culture****S20.P1**

To be or not to be...when individual performance interacts with group composition

*Frederic Mery*

**S20.P2**

Role of different types of social information in learning to avoid aposematic prey

*Alice Exnerova*

**S20.P3**

Host group relatedness and social transmission of the gut microbiome: an experimental study on ostriches

*Hanna Bensch*

**S20.P4**

Informed movement: how information shapes the co-evolutionary outcomes of range-expansion

*Katja Rönkä*

**S20.P5**

Social information transfer during dispersal in *Zootoca vivipara*: mechanisms and implications for population dynamics

*Mathieu Brevet*

**S20.P6**

The Neolithic transition to large-scale societies is favoured by the co-evolution of cooperation and institutions

*Claire Guérin*

**S20.P7**

Evolution of personal and social immunity in the context of family life

*Michelle Ziadie*

## 21. Colour across the evolutionary spectrum: from production to perception

**S21.P1**

Patterns of sex-specific selection and inheritance of a colour pattern polymorphism in an Australian lizard

*Genevieve Matthews*

**S21.P2**

Examining the link between relaxed predation and bird colouration on islands

*Louis Bliard*

**S21.P3**

Sparring stomatopods: Do coloured patches signal weapon performance?

*Amanda Franklin*

**S21.P4**

The molecular basis of continuous flower colour in *Onocyclus* irises

*Esther Senden*

**S21.P5**

The repeated evolution of wasp colour-pattern mimicry in hoverflies

*Tom Reader*

**S21.P7**

Uncovering the genomic basis of an aposematic colour polymorphism in the wood tiger moth

*Eugenie Charley Yen*

**S21.P8**

Potential and realized costs associated with ultraviolet signals in a lizard

*Arnaud Badiane*

**S21.P9**

Changing colour in a polluted environment

*Asma Althomali*

**S21.P10**

Sexual selection, predation, and the maintenance of polymorphic Y-linked colour genes in the Trinidadian guppy

*Josephine Paris*

**S21.P11**

Color evolution in European butterflies evolved via Darwin's, not Wallace's, model of evolution

*Christopher W. Wheat*

**S21.P12**

The genetics and condition-dependence of structural colour in mimetic *Heliconius* butterflies

*Melanie Brien*

**S21.P13**

Sexual selection predicts the rate and direction of colour evolution in a large avian radiation

*Christopher Cooney*

**S21.P14**

Micro-scale architecture of the blue tit feathers

*Katarzyna Janas*

**S21.P15**

Phenotypic variation in poison frogs: From predator perception to the molecular basis of color variation

*Heike Pröhl*

**S21.P16**

Carotenoid coloration signals a males' tendency to invest in parental care in passerines

*Alejandro Gonzalez-Voyer*

**S21.P17**

Genetics and selection of ventral colouration in oviparous and viviparous common lizards

*Hans Recknagel*

**S21.P18**

Evaluation of phenotypic resemblance across multiple mimicry rings in *Heliconius*

*Maria González-Rojas*

**S21.P19**

Revisiting male colour and opsin polymorphism along the predation regime continuum in the Trinidadian guppy

*Lengxob 'Lenny' Yong*

**S21.P20**

Stabilizing selection on individual, conspicuous colour pattern elements of an aposematic nudibranch

*Anne Winters*

**S21.P21**

Red and green plumage colouration in a wild x domestic intercross

*Jesper Fogelholm*

**S21.P22**

Continuous variation in scale ultrastructure in two *Heliconius* mimics

*Juan Enciso-Romero*

**S21.P23**

The effects of genetic and environmental factors on *Drosophila* body color components

*Lafuente Elvira*

**S21.P24**

"Fretted with golden fire": structural colouration based on micron and sub-micron structures in selected insects

*Dragana Cvetković*

**S21.P25**

Gene expression profiling of aposematism in *Anisomorpha* stick insects

*Victor Soria-Carrasco*

**S21.P26**

The evolutionary maintenance of ontogenetic colour polymorphism in wood frogs (*Rana sylvatica*)

*Debora Goedert*

**S21.P27**

Effect of natural and sexual selection on wing colour variation of butterflies

*Bhavya Dharmaraj*



## 23. Parasite community dynamics and their role in the evolution of host immunity

### S23.P1

Parasite-mediated sexual selection in moths  
*Ke Gao*

### S23.P3

Social antimicrobial wound care in a predatory ant  
*Erik Thomas Frank*

### S23.P4

Pathogens, species distribution and migration: molecular evolution of genes of immunity in cetaceans  
*Maria Luiza Andreani*

### S23.P5

Apparent manipulation: How parasites may modify their host's behaviour without using any tricks  
*Camilla Håkonsrud Jensen*

### S23.P6

Towards the understanding of zoonotic events in infectious diseases: Tracing animal reservoirs in Switzerland  
*Christian Urban*

### S23.P7

Humic-acid-driven escape from eye parasites  
*Kristina Noreikiene*

### S23.P9

Seasonal variation in endoparasite biodiversity with age and sex of semi-captive Asian elephant hosts  
*Carly Lynsdale*

### S23.P10

Invasions create competitors: How novel interactions among native and invasive parasites modify host parasite coevolution  
*K. Mathias Wegner*

### S23.P12

Thermal plasticity in immunity in association with different seasonal strategies for reproduction  
*Yara Rodrigues*

### S23.P13

Does gut passage help keep fungus-growing termite gardens disease free?  
*Leandro Guimaraes*

### S23.P14

Selection on MHC class II haplotypes in a free-living ruminant  
*Wei Huang*

### S23.P18

Less or more? Protective microbe density and defence against parasites  
*Georgia C Drew*

### S23.P19

Seasonal patterns of parasite infection and larval developmental mode variation in the polychaete *Pygospio elegans*  
*Anna-Lotta Hiillos*

## 25. Assortative mating for quantitative traits: mechanisms, estimation, and evolutionary consequences

### S25.P1

Hybridization reduces the variation of male sexual phenotype in F1 hybrids: A Meta-analysis  
*Keisuke Atsumi*

### S25.P2

Is assortative fertilisation after sperm competition driven by male environment or genetics in common bedbugs?  
*Jana Křemenová*

### S25.P3

Assortative mating based on circalunar and circadian timing of adult emergence in *Clunio marinus*  
*Sina Schirmer*

### S25.P4

Sperm fertilization capability is shaped by the gamete-level immunological incompatibility in humans  
*Annalaura Jokiniemi*

### S25.P5

Characterising genomic patterns of divergence underpinning reproductive isolation in the *Drosophila virilis* group  
*Leeban Yusuf*

## 31. Life history evolution: bridging theory and data

### S31.P1

Body size variation in European common lizards: a range-wide study of a wide-ranging species  
*Evgeny S. Roitberg*

### S31.P2

Reproductive costs in eastern grey kangaroo females, the bigger picture  
*Pauline Toni*

### S31.P3

Key to kangaroo siring success: be in the right place at the right time  
*Luca Montana*

### S31.P4

Optimal germination times in unpredictable environments: the importance of dormancy for among- and within-year variation  
*Hanna ten Brink*

### S31.P5

The evolution of reproductive diapause facilitates insect radiation into African savannahs during the late-Miocene  
*Sridhar Halali*

### S31.P6

Small eggs, large clutches and parental care: unexpected life-history evolution patterns in shield bugs  
*Shin-ichi Kudo*

### S31.P7

Individual variation and evolutionary potential of parasite traits in a songbird-tick system  
*Gerardo Fracasso*

**S31.P8**

Variation in lifetime reproductive strategies in a self-compatible hermaphrodite: combining field data with laboratory experiments

*Anja Felmy*

**S31.P9**

Life history evolution: the constraints of sexual plasticity

*Chiara Benvenuto*

**S31.P10**

Experimental removal of sexual selection turns males in to couch potatoes

*Martin Garlovsky*

**S31.P11**

Co-evolution of maternal thyroid hormones and life history strategies: comparative and experimental tests

*Bin-Yan Hsu*

**S31.P12**

Family dynamics and age-related patterns in marriage probability in historical human population

*Jenni Pettay*

**S31.P13**

Seasonality as a predominant control factor of the moult dynamics in birds – a meta-analysis

*Agnieszka Gudowska*

**S31.P14**

Natural and laboratory competition experiments between sexual and parthenogenetic polyclonal species of brine shrimp (*Artemia*)

*Robert Browne*

**S31.P15**

Within individual variance in foraging behaviour mediates the fitness consequences of broad scale climate phenomena

*Samantha Patrick*

**S31.P16**

Alternative reproductive strategies are associated with distinct queen and worker size in *Temnothorax rugatulus* ants

*Marina Choppin*

**S31.P17**

Thermal environment at the juvenile stage affects morph-specific offspring survival in a polymorphic damselfly

*Maarit Mäenpää*

**S31.P18**

The evolution of adult sex ratios in dragon- and damselflies

*Martin Alejandro Serrano-Meneses*

**S31.P19**

Waiting for love – Reproductive delay and assurance under fluctuating population density

*Chantal Stock*

**S31.P20**

Maternal resources, early-life care and life-history outcomes: why some mongooses are more equal than others

*Emma Vitikainen*

**S31.P21**

Lifespan in wild butterfly populations: genomic determinants and maintenance of standing variation

*Vicencio Oostra*

**S31.P22**

Aiming for the moon: Maintenance of local adaptation to tidal regime

*Runa Kvamme Ekrem*

**S31.P23**

Survival costs of sons and daughters in Asian elephants

*Vérane Berger*

**S31.P24**

Evolutionary trade-offs in antigen-presentation mediate risk for infection and autoimmunity

*Jatin Arora*

**S31.P25**

Dietary restriction, sexual selection, and the life history trade-off between reproduction and somatic maintenance

*Elisabeth Bolund*

**S31.P26**

A model for the evolution of interspecific obligate brood parasitism in fish

*Pierick Mougnot*

**32. Niche width evolution and its (mal) adaptive significance****S32.P1**

The evolution of habitat choice facilitates niche expansion

*Eva Kisdi*

**S32.P2**

Cumulative stress or acclimation? Thermal performance in all life stages of a thermal generalist butterfly

*Loke von Schmalensee*

**33. Evolutionary Ecology of Ageing: from mechanisms to life-history consequences****S33.P1**

Deleterious mutations show increasing negative effects with age in *Drosophila melanogaster*

*Martin Brengdahl*

**S33.P2**

RNAi screening of lifespan and fecundity genes in *Drosophila melanogaster* TOR and IIS pathways

*Daniel Pritchard*

**S33.P3**

Reversal of the fecundity-longevity trade-off across the spectrum of sociality in the bees

*Andreia Teixeira*

**S33.P4**

The effect of food restriction on ageing and fecundity in termite

*Silu LIN*

**S33.P5**

Pedigree-based estimation of germline mutation rate of Rhesus macaque (*Macaca mulatta*) linked to parental age

*Lucie Bergeron*

**S33.P6**

The evolutionary and developmental dynamics of life history

*Mauricio González-Forero*

**S33.P7**

The role of laying and hatching order in early-life telomere dynamics in a wild passerine

*Tiia Kärkkäinen*

**S33.P8**

The harsh life of annual killifish – new insights from natural demography and life history

*Milan Vrtilek*

**S33.P9**

Diversity of ageing patterns in a highly promiscuous songbird

*Eve Cooper*

**S33.P10**

Ant workers' susceptibility to paraquat induced oxidative stress in relation to age and reproductive status

*Megha Majoe*

**S33.P11**

Nutrient balance as a mechanism to understand the longevity/fecundity trade-off in ants

*Abel Bernadou*

**S33.P12**

Why do dietary restricted animals live longer? Testing the evolutionary theories

*Laura Travers*

**S33.P13**

Trade-off between reproductive effort and oxidative status as a response to warming in marine environment

*Ella von Weissenberg*

**S33.P14**

A theoretical investigation of the effect of early-life somatic damage levels on senescence rates

*Matthias Galipaud*

**S33.P15**

An evolutionary explanation for longevity in naked mole rats

*Robert Noble*

**S33.P16**

Is age just a number? The role of senescence in the fish populations' eco-evolutionary dynamics

*Silva Uusi-Heikkilä*

**S33.P17**

Contributions of sperm and seminal fluid to ejaculate senescence, and its amelioration via insulin signalling

*Irem Sepil*

## 34. Mathematical models in evolutionary biology

**S34.P1**

Evolutionary rescue and dispersal: the effect of habitat choice on successful adaptation

*Peter Czuppon*

**S34.P2**

Microbes can explain the evolution of paternal care

*Yael Gurevich*

**S34.P3**

Systemic consequences of reproductive strategies

*Laura Hildesheim*

**S34.P4**

Joint evolution of dispersal and connectivity

*Petteri Karisto*

**S34.P5**

Evolutionary and demographic consequences of temperature-induced masculinization: the role of sexual selection

*Edina Nemesházi*

**S34.P6**

Mutation bias in empirical genotype-phenotype landscapes

*Alejandro V Cano*

**S34.P7**

What phylodynamic skyline models can and cannot do

*Veronika Boskova*

**S34.P8**

Bet-hedging across generations can affect the evolution of variance-sensitive strategies within generations

*Thomas Ray Haaland*

**S34.P9**

Evolution of enzyme concentrations in metabolic pathways

*Charlotte Coton*

**S34.P10**

Horizontal transfer and phylogenetic calibration in linguistics: a Bayesian approach

*Luke Maurits*

**S34.P11**

Fitness versus risk: calculating a fitness-risk ratio that describes optimal seed heteromorphism

*P. William Hughes*

**S34.P12**

Life is not a long quiet river: modelling population genetic divergence when migration is fluctuating

*Vincent Calcagno*

**S34.P13**

Gene flow can also lead to a U-shaped site frequency spectrum

*Nina Marchi*

**S34.P14**

How does the occasional absence of resources for cooperation affect the evolution of direct reciprocity?

*Shun Kurokawa*

**S34.P15**

Coevolution in a hierarchically structured host-parasite metapopulation

*Robert Pascal Dünner*

**S34.P16**

Contrasting the impact of cytotoxic and cytostatic drug therapies on tumour progression

*Jani Anttila*

**S34.P17**

Sexual selection in space: The effect of spatial structure on sexual selection

*Maximilian Tschol*

**S34.P18**

Investigating the role of dispersal in African monarch butterflies and their male-killing endosymbiont

*Franziska Brenninger*

**S34.P19**

Modelling the killer T-cell and cancer cell sub-population dynamics under immuno- and chemotherapies

*Anni S. Halkola*

### 35. Evolution outreach projects: Keep SCREAMing (Science Communication Research Empowers AMazing outreach)

#### S35.P1

Connecting Mediterranean fishery stakeholders and scientists to resolve connectivity of fishery populations  
*Iva Sabolić*

#### S35.P2

A competition in evolution  
*Barbora Trubenova*

#### S35.P4

Evolution on the way - migrations with EvoCorner  
*Bojan Kenig*

#### S35.P5

Experimental evolution of *E. coli* resistance to starvation: a practical course for undergraduate students  
*Christine Dillmann*

#### S35.P6

Power of hands-on experience – DIY Biology and Bio-hacklabs in science outreach  
*Elzbieta Iwaszkiewicz*

#### S35.P7

Hidden in soil: DNA barcoding and teaching microscopic diversity of soil mites (Acari:Oribatida)  
*Riikka Elo*

### 36e. Phenotypic Evolution

#### S36e.P2

A time series model for estimating temporal variation in phenotypic selection  
*Yihan Cao*

#### S36e.P4

Morphological integration in a cannibalism reaction norm  
*Kinya Nishimura*

#### S36e.P5

Quantifying evolutionary bias from comparative datasets: a parametric bootstrapping approach for evolutionary covariance matrices  
*Junya Watanabe*

#### S36e.P6

Capture from the wild and its consequences for Asian elephant reproduction  
*Mirkka Lahdenperä*

#### S36e.P7

Local adaptation to photoperiod and the endogenous clock in *Daphnia*  
*Anke Schwarzenberger*

#### S36e.P8

Physiological responses to seasonal environmental variation in a long-lived mammal  
*Sophie Reichert*

#### S36e.P9

The chewing machine - evolution of mouth morphology in *Drosophila* larvae  
*Nuno Silva-Soares*

#### S36e.P10

The evolutionary trajectory of consistency in behavioural traits across ontogeny in fast-slow life histories  
*Will Sowersby*

#### S36e.P11

Fast Adaptive Plastic Responses to Diurnal Temperature Variation in an Arctic Specialist Arthropod  
*Natasja Krog Noer*

#### S36e.P12

Predicting ecological responses to global warming in *Iris pumila*: an open-topped chamber experiment  
*Katarina Hočevar*

#### S36e.P13

Assessing consequences of environmental stress on wild rodent gut health by transcriptomics, microbiomics and histology  
*Toni Jernfors*

#### S36e.P14

Age and environment (but not genetics) affect mitochondrial function in a wild bird species  
*Coline Marciau*

#### S36e.P15

Can female pheromone contribute to the co-existence of color morphs in a moth species?  
*Chiara De Pasqual*

#### S36e.P16

Decomposing phenotypic skew into genetic and environmental components reduces the predicted response to strong selection  
*Jarrod Hadfield*

#### S36e.P17

Evolution to temperate climates in the grass subfamily Poideae  
*Marian Schubert*

#### S36e.P18

Gender-specific variation in leaf shape under environmental stress in an understory forest perennial  
*Dragana Cvetković*

#### S36e.P19

The scent of divergence: chemical communication mediates reproductive isolation of two wood tiger moth populations  
*Cristina Ottocento*

#### S36e.P21

Colour distribution in hummingbird communities results from the interplay between selection for camouflage and communication  
*Hugo Gruson*

#### S36e.P22

Pheomelanin pigmentation and oxidative balance in Asian barn swallows  
*Emi Hasegawa*

# POSTER SESSION FRIDAY 17.20-19.20

## 1. Trans generational plasticity in animals

### S1.P1

Gametic plastic responses in thermally evolving lines of *Tribolium castaneum*  
*Ramakrishnan Vasudeva*

### S1.P2

Trans-generational plasticity and bet-hedging: A framework and a meta-analysis on insect diapause reaction norms  
*Jens Joschinski*

### S1.P3

Trans-generational effects of commensal microbiota on pupal production and body weight of a polyphagous fly  
*Binh Nguyen*

### S1.P4

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

### S1.P5

Epigenetic reprogramming during gametogenesis and embryogenesis of threespine stickleback: windows for adaptation to climate change?  
*Lisa Shama*

### S1.P6

Effects of immune priming on honeybee pollination  
*Matti Leponiemi*

### S1.P7

Prenatal programming of mitochondrial function: a potential mediator of transgenerational plasticity in animals?  
*Antoine Stier*

### S1.P8

Parental age effects on offspring telomere length in a natural avian population  
*Hannah Dugdale*

### S1.P9

Trans-generational effects of early developmental stress on morphology and reproductive performance in captive zebra finches  
*Yifan Pei*

### S1.P10

Maternal effects are the predominant source of in-traspecific variation in spider foraging traits  
*Jorge Henriques*

### S1.P11

Adaptation to climatic differences and the role of avian yolk thyroid hormones  
*Martje Birker*

### S1.P12

Thermal sensitivity and heat hardening capacity of *Drosophila melanogaster* vary during ontogeny  
*Neda Nasiri Moghadam*

### S1.P14

Phenotypic plasticity within and across generations in a polyphagous moth  
*Axel Rösivik*

## 2. Evolution in real time: experimental evolution approaches

### S2.P1

Natural selection drives leaf shape divergence in experimental populations of *Senecio latus* under natural conditions  
*Thomas Richards*

### S2.P2

Evolvability of orthologous genes (effect of global suppressors)  
*Hind Abdalaal*

### S2.P3

The Evolution of Aggression in Response to Sexual Selection in male and female *Drosophila melanogaster*  
*Danielle Edmunds*

### S2.P4

Does sex-specific selection change mating behaviour in a hermaphrodite?  
*Aivars Cirulis*

### S2.P5

Rapid evolution of reproductive morphology and fitness in a model pest insect  
*Rebecca Lewis*

### S2.P6

Female-limited X chromosome evolution and its effect on sperm competitiveness  
*Yesbol Manat*

### S2.P7

Non-consumptive effects drive rapid evolution in a prey population  
*Chao Zhang*

### S2.P9

Experimental evolution of biological control agents  
*Sara Magalhães*

### S2.P10

Sexual selection favoured higher offspring production via evolution of both male and female traits  
*Daisuke Kyogoku*

### S2.P11

Role of phenotypic plasticity for evolutionary adaptation: Experimental approaches using *Tribolium castaneum* and *Bacillus thuringiensis*  
*Ana Sofia Lindeza*

### S2.P12

Experimental adaptation to malnutrition reveals trade-off in extraction of protein versus sugar from diet  
*Fanny Cavigliasso*

### S2.P13

Sexually-selected male weapon causes gender load and increases the risk of extinction  
*Jacek Radwan*

### S2.P14

Experimental evolution for collagen invasion in cancer cell lines  
*Louise Johnson*

**S2.P15**

Combined effects of toxins on non-target dung breeding flies (Diptera: Sepsidae)  
*Natalia Gourgoulianni*

**S2.P16**

No evidence found for sexual conflict over cuticular hydrocarbons in female-limited X chromosome evolution experiment  
*Katrine K. Lund-Hansen*

**S2.P17**

Evolutionary ecology of multiple-interaction networks in bacterial communities  
*Marie Vasse*

**S2.P19**

Examining the selective potential of artificial light at night in *Drosophila melanogaster*  
*Lucy McLay*

**S2.P20**

Can we delimit individuals in species with blur concept of individuality?  
*Sundy Maurice*

**3. Exploring the role of nongenetic inheritance in evolution****S3.P1**

More than methylation: does pleiotropy drive the complex pattern of evolution of *dnmt1*?  
*Patricia Moore*

**S3.P2**

Sex-specific social learning in juvenile zebra finches  
*Boglárka Morvai*

**S3.P4**

Eco-cultural range expansion of modern humans in Paleolithic  
*Joe Wakano*

**S3.P5**

Indirect genetic effects genetic correlation contribute to the total heritable variance in parental care  
*Julia Schroeder*

**S3.P6**

Genetic and linguistic histories in Central Asia inferred using Approximate Bayesian Computations  
*Frédéric Austerlitz*

**S3.P7**

Offspring phenotype is shaped by the non-sperm fraction of semen  
*Jukka Kekäläinen*

**S3.P8**

Comparative epigenomics unravels the evolutionary landscape of insect DNA methylation  
*Panagiotis Provataris*

**S3.P9**

Differential maternal and paternal effects on offspring fitness traits  
*Valérian Zeender*

**S3.P10**

Plasticity, inheritance and epigenetics in plants: Can these be linked?  
*Morgane Van Antro*

**S3.P11**

Epigenetic contribution to phenotypic plasticity and biotic stress-induced memory in *Populus nigra*  
*Cristian Peña-Ponton*

**S3.P12**

Evolutionary and plastic cytosine methylation responses to embryonic rearing temperature in European grayling  
*Tiina Sävilamm*

**5. Aging & cancer through the lens of evolution****S5.P1**

Predicting tumor evolution and estimating its evolutionary unpredictability using cancer progression models  
*Ramon Diaz-Uriarte*

**S5.P2**

Extreme-downregulation of chromosome Y and male disease  
*Alejandro Caceres*

**9. Microbial genome and community evolution in food environments****S9.P1**

Microbial community dynamics in Gwell, a fermented milk specialty from Brittany. A participatory study  
*Lucas von Gastrow*

**S9.P2**

Triphosphate nucleotide transport by bacteria is constrained by the oxidative environment  
*Enrique Gonzalez-Tortuero*

**S9.P3**

Contributions of plasticity and evolution to trait change in a community context  
*Lynn Govaert*

**S9.P4**

Cheese shapes its *Penicillium* fungi  
*Jeanne Ropars*

**13. Genetics and genomics of adaptation****S13.P1**

Rapid divergence of a 'great speciator' following a human-mediated introduction  
*Ashley Sendell-Price*

**S13.P2**

Local continuous genetic Isolation-by-Environment in the threespine stickleback in the Baltic Sea following predator collapse  
*Casey Yanos*

**S13.P3**

Detecting deleterious variants in the pig  
*Martin Johnsson*

**S13.P4**

Inter- and intra-population gene expression variation in the fat body during *Drosophila melanogaster* development  
*Amanda Glaser-Schmitt*

**S13.P7**

Genomics of adaptation in the Alpine whitefish radiation  
*Rishi De-Kayne*

**S13.P8**

Genomics of Microphallus parasite adaptation to its host, *Potamopyrgus antipodarum*

*Natalia Zajac*

**S13.P9**

Metabolic Efficiency Variation Across Bird Families Measured with Relative Mitochondrial Abundance

*Sergio Andreu-Sánchez*

**S13.P10**

Convergent expansion in gene-families and their role on the blood-feeding diet in Insecta lineages

*Lucas Freitas*

**S13.P11**

Genomics of clinal adaptation with gene flow in parapatric lake-stream stickleback

*Quiterie Haenel*

**S13.P12**

Susceptibility to gapeworm parasite has both additive and dominant genetic components in house sparrows

*Sarah Lundregan*

**S13.P13**

The genomes of *Poeciliopsis retropinna* and *Poeciliopsis turubarensis* reflect differences in reproductive strategy

*Henri van Kruistum*

**S13.P14**

Comparative transcriptome profiling of *Triplophysa bleekeri* and *Triplophysa rosa*, reveals potential mechanisms of eye degeneration

*Qingyuan Zhao*

**S13.P15**

Winter moth adaptation to climate change: genetic changes in thermal plasticity of embryonic development rate

*Natalie E. van Dis*

**S13.P16**

Discovering genetic diversity and structural variation underlying local adaptation in Scots pine

*Tanja Pyhäjärvi*

**S13.P17**

Investigating genetic basis of geographic variation in innate immunity of a butterfly

*Naomi L.P. Keehnen*

**S13.P18**

A Flutter of Genomes: New and revised high quality genomic resources for 50 Heliconiini species

*Francesco Cicconardi*

**S13.P19**

Gene *Trf2* and the microbiome underpin the expression of dormancy in *Drosophila*

*Manolis Lirakis*

**S13.P20**

Disperse, acclimatise or adapt: seascape genomics along a thermal gradient

*Anna Muir*

**S13.P21**

The genetic basis of convergent adaptation to altitude in *Arabidopsis thaliana*

*Pádraic Flood*

**S13.P22**

Genomics of expanded avian sex chromosomes shows predisposition of certain chromosomes towards sex-linkage in vertebrates

*Hanna Sigeman*

**S13.P23**

Genome-wide effects of selection in two outcrossing plant species

*Tiina Mattila*

**S13.P25**

Nordic conquest: Post-glacial radiation and evolutionary history of lunar-rhythmic and lunar-arrhythmic reproduction in marine midges

*Nico Fuhrmann*

**S13.P26**

Natural Variation of defense response genes in *Arabidopsis thaliana* reveals evidence for balancing selection

*Mehmet Göktay*

**S13.P27**

The role of gene interactions and gene interaction networks in speciation

*Ina Satokangas*

**S13.P28**

Sex-specific alternative splicing in *Drosophila melanogaster*

*Julia Raices*

**S13.P29**

Linking genotype, phenotype, and environment to understand climate adaptation in the Glanville fritillary butterfly

*Michelle DiLeo*

**S13.P30**

Non-neutral impact of synonymous mutations: example of an antibiotic resistance gene expressed in human cells

*Marion AL Picard*

**S13.P31**

White to brown and back: circannual genic regulation of coat colour change in snowshoe hares

*João Pimenta*

**S13.P32**

Integration of proteomic data into constraint-based models reveals the molecular bases of yeast life-history trade-offs

*Marianyela Petrizelli*

**S13.P33**

Muller's Ratchet and the Long-Term Fate of Chromosomal Inversions

*Alexandre Blanckaert*

**S13.P34**

Cross-temperature comparisons of gene expression between heat tolerant and heat sensitive *Brachionus* species

*Sofia Paraskevopoulou*

**S13.P35**

Genomic basis of rapid parallel ecological adaptation to heterogeneous environments

*Hernan Morales*

**S13.P37**

Chance and predictability: the genomic basis of convergent dietary specializations in an adaptive radiation

*Joel Vizueta*

**S13.P38**

Co-speciation in bed bug *Wolbachia*  
*Ondřej Balvín*

**S13.P39**

The genomic basis of humic substance-driven adaptation in Eurasian perch  
*Mikhail Ozerov*

**S13.P40**

Mito-jay-nomics: Signatures of environmental adaptation in the first assembled mitogenomes from New World Jays (*Corvidae*)  
*Katia Bougiouri*

**S13.P41**

Effects of selection on haplotypes and genealogy trees of subdivided populations  
*Yichen Zheng*

**S13.P42**

Genomics of feralization processes on Hawaiian and Bermudan chickens  
*Maria Luisa Martin Cerezo*

**S13.P43**

Keeping pace with fast environmental changes, a science-based approach for sustainable Cork Oak forests  
*Octávio Paulo*

**S13.P44**

Detection of phylogenetically-informative SNPs in human Y-chromosome from next-generation sequencing data  
*Koji Ishiya*

**S13.P45**

Identifying the genomic and sex-specific characters underlying recombination rate variation  
*Suvi Ponnikas*

**S13.P46**

Transposable Elements as agents of adaptation in the invasive species *Drosophila suzukii*?  
*Vincent Merel*

**S13.P47**

Local adaptation of phenotypic plasticity: pupal diapause in the butterfly *Pieris napi*  
*Peter Pruißscher*

**S13.P48**

Repetitive DNA: a force shaping karyotype evolution in blue butterflies (*Lycaenidae*, *Lepidoptera*)  
*Martina Dalikova*

**S13.P49**

Transcriptomes from four Iberian *Squalius* fish species indicate stronger positive selection in Mediterranean climate type  
*Carlos Ramirez*

**S13.P50**

Evolution of AT/GC content in vertebrates  
*Radka Symonova*

**S13.P51**

The role of host plant in symbiosis stability of Arbuscular mycorrhizal fungi  
*Shadi Eshghi Sahraei*

**S13.P52**

Heritability of intra-individual variation in body temperature in the wild yellow-necked mouse, *Apodemus flavicollis*  
*Rohan Raval*

**S13.P53**

Landscape genomics of the wood decay fungus *Phellogilus nigrolimitatus*  
*Jørn Henrik Sønstebo*

**S13.P54**

Comparative genomics and lineage specific adaptations in *Lepidoptera*  
*Karin Näsval*

**S13.P55**

Genomic architecture of divergence between parasitic and non-parasitic lamprey ecotypes  
*Ahmed Souissi*

**S13.P56**

New Insights into the Genetic Basis and Evolutionary History of Lactase Persistence in Africa  
*Alessia Ranciaro*

**S13.P57**

Complete plastid genome sequence of African nightshade (*Solanum scabrum*) and its comparative plastomics across Solanales  
*Gaurav Sablok*

**S13.P58**

Antagonistic coevolutionary selection patterns in the *Galerucella-Asecodes* host-parasitoid system  
*Xuyue Yang*

**S13.P59**

Icefish genome reveals key role of mitochondria for a life without hemoglobin at sub-zero temperature  
*Chiara Papetti*

**15. Tracing evolution through time using ancient DNA****S15.P1**

Distinguishing among complex evolutionary models using unphased whole-genome data through Approximate Bayesian Computation  
*Maria Teresa Vizzari*

**S15.P2**

Ancient DNA screening from Finnish Stone Age sediments  
*Sanni Peltola*

**S15.P3**

Archaeological sediments from Finland as a source for ancient microbiomes  
*Enrique Rayo*

**S15.P4**

Mitochondrial DNA from Iron Age to present in Eastern Fennoscandia  
*Sanni Översti*

**S15.P5**

Inferring population dynamics of the genera *Oryx* and *Addax* using modern and historical DNA  
*Elisabeth Hempel*

**S15.P6**

The first historic *Treponema pallidum* genomes from Colonial Mexico  
*Aditya Kumar Lankapalli*



**S15.P7**

Temporal and spatial insights into the genomic evolution of *Yersinia pestis* through comparative analysis

*Aida Andrades Valtueña*

**S15.P8**

Optimization of double-stranded library preparation methods for ancient and degraded DNA

*Marianne Dehasque*

**S15.P9**

Ancient DNA provides insights into the population history of the reindeer

*Matti Heino*

## 16. Mito-nuclear interactions across levels of biological organisation

**S16.P1**

The role of selection in maintaining sympatric mito-nuclear variation in *Drosophila subobscura*

*Pavle Erić*

**S16.P2**

Mitochondrial Haplotypes and Gene Expression in Laying Hens

*Elisabeth HempelClara Heumann-Kiesler*

**S16.P3**

A new layer of genetic regulation in the mitochondrial genome: small mitochondrial RNAs

*Andrea Pozzi*

**S16.P4**

The mtDNA-encoded COX2 protein: bivalves have the longest

*Eric Pante*

**S16.P5**

Sex-specific effects of candidate Trojan Female Technique haplotype on fertility in pest species *Acanthoscelides obtectus*

*Lea Vlajnić*

**S16.P6**

How mitochondrial genetic variation affects longevity in *Drosophila melanogaster*

*Ekta*

**S16.P7**

Mito-nuclear interactions in innate immunity and life-history traits

*Tiina Salminen*

**S16.P8**

Mitochondrial Diseases and Compensated Pathogenic Deviations

*Abhilesh Dhawanjewar*

**S16.P9**

Ancestry Package - Merging uniparental and autosomal genetic histories into one picture

*Vladimir Bajić*

## 19. Gene-phenotype associations across evolutionary scales

**S19.P1**

Identifying host genomic regions influencing microbial traits in mice

*Shauni Doms*

**S19.P2**

Convergence, common ancestry and novelty: Genomics of sex chromosome diversity in cichlid fishes

*Astrid Böhne*

**S19.P3**

Evolution of vernalization response in the PACMAD clade of the grass family (Poaceae)

*Martin Paliocha*

**S19.P4**

Natural selection on immune defence: a genome-wide gene expression analysis

*Teo Cereghetti*

**S19.P5**

Phenotypic associations of arbuscular mycorrhizal fungi to their taxonomy

*Merce Montoliu-Nerin*

**S19.P6**

The relationship between the genotypic and phenotypic variation in ringed seals

*Mia Valtonen*

## 22. Evolution of host-plant use in arthropods

**S22.P1**

Host plant phytochemicals influence life history of butterfly *Papilio polytes* apparently effecting recent host shift

*Sarika Baidya*

**S22.P2**

Nutritional dimension underlying symbiosis stability in the leafcutter ant system

*Antonin Crumière*

**S22.P3**

Effects of gossypol, a toxic cotton secondary metabolite, on two generalist herbivores

*Corinna Krempf*

**S22.P4**

Escalating evolutionary responses to pollen predation

*Mario Vallejo-Marin*

**S22.P5**

Host-herbivore dynamics in a changing climate

*Erik van Bergen*

**S22.P6**

Summer drought changes the host plant quality and impacts its insect herbivore

*Ana Salgado*

**S22.P7**

Eavesdropping trees: phylogeny affects to the reaction of VOCs emitted by the neighbouring tree

*Elina Mäntylä*

**S22.P8**

A model of how defense trait interactions shape the evolution of defense following enemy loss

*Martijn L. Vandegehuchte*

**S22.P9**

Maize resistance to herbivores: life-cycles synchronisation matters

*Christine Dillmann*

**S22.P10**

Species traits limit changes in voltinism to climate warming in moths and butterflies

*Tiit Teder*

**S22.P11**

Do host availability and interspecific competition affect habitat selection?

*Maud Charlery de la Masselière*

**24. Microbial evolution under biotic stress****S24.P1**

Rapid loss of CRISPR-mediated herd immunity from bacterial populations

*Sean Meaden*

**S24.P2**

Local adaptation of the gut microbiome of *Daphnia magna* under cyanobacterial stress

*Shira Houwenhuysse*

**S24.P3**

Ecology, death (by lysis) and evolutionary history – the trinity disentangled

*Luisa Listmann*

**S24.P4**

Tracing mobile adaptive traits within complex microbial communities at single-cell resolution

*Reetta Penttinen*

**S24.P6**

Microbiome localization and dynamics in blood feeding insects

*Giampiero Batani*

**S24.P7**

Effects of long-term exposure to ionizing radiation on Chernobyl's treefrogs and its microbiome

*Javier Edo Varg*

**26. Sexual conflict: linking behavior, genetics and ecology****S26.P1**

Molecular evolution in the “double-clonal” longhorn crazy ant

*Hugo Darras*

**S26.P2**

The evolution of sperm gigantism in *Caenorhabditis* nematodes – causes and consequences

*Rebecca Schalkowski*

**S26.P3**

Differential gene expression is associated with mating-type chromosomes degeneration in the absence of sexual antagonism

*Wen-Juan Ma*

**S26.P4**

Finding thresholds to separate sexual conflict and sex-specific selection in sex-biased genes

*Benjamin Furman*

**S26.P5**

Coevolution of female fidelity and male help under interactions between intra- and inter-locus sexual conflict

*Xiang-Yi Li*

**S26.P6**

Intralocus sexual conflict on the X chromosome

*Thomas Hitchcock*

**S26.P7**

Kin selection and sexual conflict: the role of kin discrimination and patterns of dispersal

*Gonçalo S. Faria*

**S26.P8**

Condition-dependence and intensity of sexual conflict in the mite *Sancassania berlesei*

*Aleksandra Łukasiewicz*

**S26.P9**

Sons that lose their father's genes: Sexual conflict over gene expression and inheritance

*Laura Ross*

**S26.P10**

Parallel sexual selection processes in both sexes: a test using tardigrades

*Sara Calhim*

**S26.P11**

Sex-specific dominance for fitness at a sexually antagonistic insecticide resistance locus

*Andreas Sutter*

**S26.P12**

Sex-biased gene expression, sexual antagonism and levels of diversity in the collared flycatcher genome

*Ludovic Dutoit*

**S26.P13**

Sex differences in gene expression across multiple tissues in Lake Tanganyika cichlids

*Nicolás Lichilín*

**S26.P15**

Paternity uncertainty and asymmetric information about extra-pair copulations

*Agnieszka Rumińska*

**S26.P17**

Population genomics of the pseudoautosomal region in primates

*Juraj Bergman*

**S26.P18**

Sex-biased gene expression in a sexually dimorphic viviparous fish

*Yolitzí Saldívar Lemus*

**S26.P19**

Mechanisms of sexual conflict resolution and evolution of sexual dimorphism

*Gemma Puixeu*

**S26.P20**

Sexual conflict amongst gut microbial symbionts over vertical transmission

*Justinn Renelies-Hamilton*

**S26.P21**

Mate choice evolves in response to selection pressure by alteration of sex ratio

*Tejinder Singh Chechi*

**S26.P22**

Patterns of Nucleotide Diversity and Linkage Disequilibrium along the Ostrich Pseudoautosomal Region

*Homa Papoli Yazdi*

**S26.P23**

A hybridogenetic beetle with a skewed sex ratio: genetic conflicts, mate choice or Wolbachia?

*Kim Rohlfing*

**S26.P24**

Sexually antagonistic loci in the facultatively anadromous brown trout, *Salmo trutta*

*Joe Colgan*

**S26.P25**

Sex-specific cellular immunity in wild birds: a meta-analytic approach

*José Valdebenito*

**S26.P27**

Mutual sexual cannibalistic behavior: female and male of wood-feeding cockroach eat the wings each other

*Haruka Osaki*

**S26.P28**

Ecology of sex differences in parasite infection in populations of wild wood mice

*Saudamini Venkatesan*

**S26.P29**

High-resolution recombination mapping of sex chromosome-autosome fusions in two stickleback species

*Matthew Josephson*

## 27. Design of social traits: genes, individuals, and social groups

**S27.P1**

Competition paves the way for extortionate strategies in the Prisoner's Dilemma - an economic experiment

*Manfred Milinski*

**S27.P2**

Determining selection patterns in canonical and novel immune genes across different social lifestyles in bees

*Lauren Mee*

**S27.P3**

Correlational selection and the shape of social polymorphism

*Charles Mullan*

**S27.P4**

Cooperation persists despite genetic differentiation in a native, geographically widespread unicolonial ant

*Jonathan Brown*

**S27.P5**

The provisioning rules underpinning group-level performance in cooperative birds

*Fumiaki Nomano*

**S27.P6**

Extended maternal care enhances brood survival and may be precursor to sociality in *Euglossa viridissima*

*Anna Friedel*

**S27.P7**

Molecular mechanisms of socially mediated behavioral changes in ant queens

*Romain Libbrecht*

**S27.P9**

Molecular regulation of social organization and the evolution of alternative reproductive strategies in ants

*Marah Stoldt*

**S27.P10**

How can division of labour in social insects evolve?

*Daniel Elsner*

**S27.P11**

Negotiation and enforcement: an experimental test of pay-to-stay

*Lorenzo Arduini*

**S27.P12**

Early-life manipulation of the stress axis affects learning abilities in cooperative breeders

*María Reyes-Contreras*

**S27.P13**

*Bacillus subtilis* interstrain DNA exchange and its effects on evolution of social discrimination

*Katarina Belcijan*

**S27.P14**

The physiological function of oxytocin/vasopressin-like peptide, inotocin in social insects, ants

*Akiko Koto*

**S27.P15**

The true nature of conflict in public goods cooperation

*Laurie Belcher*

**S27.P16**

Kin competition affects kin-biased behaviour in a cichlid fish

*Timo Thünken*

**S27.P17**

Altruistic bet-hedging in an arid zone cooperative breeder

*Pablo Capilla-Lasheras*

## 28. Evolutionary Game Theory: Modern development and interdisciplinary applications

**S28.P1**

The cancellation effect at the group level

*Aslihan Akdeniz*

**S28.P2**

The effect of spatial heterogeneity on evolution in spatial models

*Kalle Parvinen*

**S28.P3**

Strict and soft assessment rules in cooperation: reputation comes on foot and leaves on horseback

*Martijn Egas*

## 29. Moving beyond a quantification of eco-evolutionary dynamics

**S29.P1**

Extremely slow ecological dynamics of intragenomic sequence populations

*Frederic Bertels*

**S29.P2**

Comparative study of the morphological and physiological adaptations of three Actinopterygii species to sandy substrates

*Jérôme Caneï*

**S29.P3**

Can salmon carcasses drive evolutionary changes in their offspring? An experimental approach

*Neil Metcalfe*

**S29.P4**

Delayed climatic drivers of life-history and long-term population viability in Asian elephants

*John Jackson*

**S29.P5**

Uncovering the epigenetic contribution of plant response to herbivore

*Anupoma Troyee*

**30. Eco-evolutionary feedback between pollinator behaviour and floral evolution****S30.P1**

How natural selection drives and maintains floral colour variation: irises, pollinators and beyond

*Yuval Sapir*

**S30.P2**

The nature of interspecific interaction and coevolutionary patterns, as illustrated by the fig microcosm

*Ai-Ying Wang*

**S30.P3**

Evolution of floral shape in Pelargonium (Geraniaceae)

*Sara J. van de Kerke*

**S30.P4**

Back to purple: Restoration of floral color in Petunia and its impact on pollinator behavior

*Martina N. Lüthi*

**S30.P5**

Smells like death: how bacteria might mediate carrion mimicry in Araceae

*Andrew Matthews*

**Open symposium****S36.P1**

The scientific impact of gender in ecology and evolutionary biology

*Marina Papadopoulou*

**36a. Sexual selection and reproductive strategies****S36a.P1**

Mating system, reproductive success and the opportunity for sexual selection in bluntnose klipfishes (*Clinus cottoides*)

*Martinus Scheepers*

**S36a.P2**

Guppy boldness is associated with higher reproductive success, but not due to condition-dependence

*Magdalena Herdegen-Radwan*

**S36a.P3**

Sociosexual Networks: social structure and sexual selection under the focus of Network Theory

*David Pablo Quevedo Colmena*

**S36a.P4**

Costs and benefits of multiple mating in a species with first male sperm precedence

*Leonor R Rodrigues*

**S36a.P5**

No support for the fitness-associated sex hypothesis in natural populations of facultatively sexual *Daphnia*

*Isobel Booksmythe*

**S36a.P6**

The influence of parental isolation on offspring proactive-reactive personality axis

*Tiffany Armstrong*

**S36a.P7**

Reciprocity and partner symmetry in egg-trading hermaphrodites

*Maria-Cristina Lorenzi*

**S36a.P8**

Short-term changes in DNA methylation shape timing of reproduction in great tits (*Parus major*)

*Melanie Lindner*

**S36a.P9**

Environmental variation in sex-specific fitness in a simultaneous hermaphrodite

*Jessica Abbott*

**S36a.P10**

Effects of warming climate on evolutionary potential of reproductive timing in boreal passerines

*Emma Vatka*

**S36a.11**

The individuality in stability: Intra-individual variation in birdsong and how it relates to male quality

*Alexander Hutfluss*

**S36a.P12**

Within-pair reproductive success drives the opportunity for sexual selection in a genetically promiscuous migratory songbird

*Ryan Germain*

**S36a.P13**

Does animal personality define within-individual behavioural variation? A meta-analysis

*Gergely Horváth*

**S36a.P14**

How heterospecific mating influences the adaptive value of guarding versus roaming in spider mite songbird

*João Alpedrinha*

**S36a.P15**

Mate fidelity in a polygamous shorebird, the snowy plover (*Charadrius nivosus*)

*Naerhulan Halimubieke*

**S36a.P16**

Personality and locomotion in wall lizards - alternative strategies of colour morphs

*Lekshmi Bhuvanendran Pillai Sreelatha*

**36b. Phylogeography ,biogeography, speciation, systematics****S36b.P1**

Pattern of genetic diversity and population structure in silver butter catfish from African river system

*Adeniyi C. Adeola*

**S36b.P2**

Southern and northern populations of *Drosophila obscura* show similar pattern of mtDNA variation

*Mihailo Jelić*

**S36b.P3**

The Demography of Divergence in the Non-Adaptive Radiation of Chorthippus Grasshoppers

*Zachary Nolen*

**S36b.P4**

Populations genomics of Royal and Macaroni penguins across the Southern Ocean

*María José Frugone*

**S36b.P5**

Evolutionary perspective in management of exploited marine fishery resources – what about the octopus?

*Iva Sabolić*

**S36b.P6**

The genetic history of modern humans in Siberia: a bacterial perspective

*Noemi De Serio*

**S36b.P7**

To be or not to be *Padogobius*

*Jasna Vukić*

**S36b.P8**

Hybridization as a consequence of climate change in *Argia* damselflies

*Angela Nava-Bolanos*

**S36b.P9**

Molecular systematics of the family Sepiidae

*Nik Lupše*

**S36b.P10**

Climate Change, Models and Niches: Future inferences on range shifts of the European Woodpeckers

*Utku Perktas*

**S36b.P11**

An integrative approach to genus delimitation in a new jumping spider lineage from the Andes

*Asceneth Charry*

**S36b.P12**

How Quaternary sea level change mediates evolutionary history on subtropical coasts of Kentish plover complex

*Nan Zhang*

**S36b.P13**

Comparative phylogeography of a marine bivalve based on male- and female-type mitochondrial DNA

*Amelia Viricel*

**S36b.P14**

Divergence and speciation in the Greater and Lesser Sand-plover complex

*Chentao Wei*

**S36b.P15**

Testing evolutionary forces maintaining a clinal inversion polymorphism

*Esra Durmaz*

**S36b.P16**

Mitochondrial gene order of an archigregarine shows similarities to divergent Apicomplexa

*K. Emily Knott*

**S36b.P17**

First approximations of demographic history and structure in the African golden wolf

*Carlos Sarabia*

**S36b.P18**

Investigating genetic differentiation in an Afro-Palaeartic migratory bird species using genome-wide SNPs

*Céline Kowalczyk*

**S36b.P19**

Microinversions on the evolutionary path connecting human and primates

*Nadezhda Potapova*

**S36b.P20**

Effects of geology, and climate on the biogeography of freshwater snail family Viviparidae in India

*Maitreya Sil*

**S36b.P21**

Integrative taxonomy reveals the Himalayan langurs as one species *Semnopithecus schistaceus*, Hodgson 1840

*Kunal Arekar*

**S36b.P22**

Using habitat suitability models to understand diversification within *Philisca tripunctata* in Argentina and Chile

*María Pia Pacheco*

**S36b.P23**

Inter- & intra-specific call variation between two closely related microhylid frog species from the Indian subcontinent

*Megha Srigyan*

**S36b.P24**

Within-river genetic population structure in an important Atlantic salmon population

*Antti Miettinen*

**36c. Species interactions****S36c.P1**

It's about time: how host circadian rhythms affect malaria transmission

*Mary Westwood*

**S36c.P2**

Aiding the Red Queen: A hidden link in the mutualistic interaction between squirrels and pines

*Roberta Bisconti*

**S36c.P3**

Parasite load reveal condition-dependent selection for local adaptation in a wild population

*Miguel Gomez*

**S36c.P4**

Immunity, parental care and response to infection in a burying beetle

*Tom Ratz*

**S36c.P5**

Habitat-dependent and parallel evolution of parasite resistance in geographically distinct river-lake three-spined stickleback pairs

*Christoph Gahr*

**S36c.P6**

Looking for introgression: is STRUCTURE a solution?

*Sara Ravagni*

**S36c.P7**

Association mapping after common-garden migration experiment reveals candidate genes for migration propensity in brown trout

*Alexandre Lemopoulos*

**S36c.P8**

Genetic trade-offs between parasite defence mechanisms in salmonid hosts

*Ines Klemme*

**S36c.P9**

Diversity of the mosquito microbiome: matching ecology and epidemiology

*Sonia M. Rodríguez-Ruano*

**S36c.P10**

Fungus-growing termites prioritise protecting their fungal garden over themselves

*Nick Bos*

**S36c.P11**

Role of symbiotic bacteria in the efficacy of wood tiger moth defence fluids

*Liam Murphy*

**S36c.P12**

Childhood infections in a pre-health care society: epidemic dynamics and the impact of vaccination

*Michael Briga*

**S36c.P13**

Village rich parishes decreased smallpox and pertussis mortality, but increased measles mortality in pre-health-care Finland

*Michael Briga*

**36d. Genome Evolution****S36d.P1**

X chromosome characterisation in a damselfly and its role in divergence in contemporary hybrid zones

*Janne Swaegers*

**S36d.P2**

Divergence of cuticular hydrocarbons in a plump bush-cricket species group of the genus *Isophya* (Orthoptera)

*Hasan Sevgili*

**S36d.P4**

Antimicrobial peptide (AMP) variation along a latitudinal gradient in two ranid species

*Maria Cortázar-Chinarro*

**S36d.P5**

Rearvisr: an R package to detect, classify, and visualize genome rearrangements

*Doro Lindtke*

**S36d.P6**

Evolution of sex chromosomes in boas and pythons: a molecular-cytogenetic perspective

*Barbora Augstenová*

**S36d.P7**

A Draft genome of *Ischnura elegans* (Odonata) characterizes X chromosome, sex-biased genes and dosage compensation

*Pallavi Chauhan*

**S36d.P8**

The strength of GC biased gene conversion is conserved across two passerine species

*Henry Barton*

**S36d.P9**

Assessing the social consequences of cell death on bacterial public goods cooperation via single-cell tracking

*Özhan Özkaya*

**S36d.P11**

Sex chromosomes are conserved across cockroaches

*Katerina Vasileiadou*

**S36d.P12**

When the species name is not a reproductive barrier: cases of interspecific hybridization in turtles

*Sofia Mazzoleni*

**S36d.P13**

Little evidence for switches to environmental sex determination and sex-chromosome turnovers in lacertid lizards

*Lukáš Kratochvíl*

**S36d.P14**

Codon usage preference similarities between viruses infecting humans and their host(s)

*Zachary Bailey*

**S36d.P15**

Metapopulation genetic dynamics of brown trout (*Salmo trutta*) in a sub-arctic transnational riverine system

*Cornelya F.C. Klütsch*

**S36d.P16**

Intraspecific variability and heritability of personality traits in the micro-wasp *Trichogramma evanescens*

*Silène Lartigue*

**S36d.P17**

Structural variants and repetitive elements in the genome of the Glanville fritillary butterfly

*Daniel Blande*

**S36d.P18**

Genomics of divergence between multiple flycatcher species

*Madeline A Chase*

**S36d.P19**

Investigating the genetic mechanisms of sex determination and differentiation in lampreys

*Guillaume Evanno*

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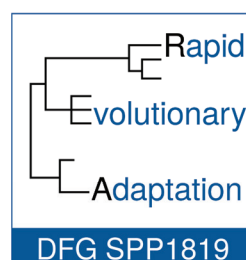
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