

THURSDAY 2 FEBRUARY

8:00	WELCOME MORNING COFFEE BREAK	
8:50	WELCOME SPEECH BY JEAN-YVES HUMBERT, Aula, Room 210	
9:00	PLENARY TALK 1, Aula, Room 210	
	Catherine Peichel, University of Bern, Switzerland Genetic and molecular basis of phenotypic diversity in sticklebacks	
	EVOLUTION 1, Aula, Room 210	ECOLOGY 1, Auditorium Maximum, Room 110
10:00	Miguel Fortuna, University of Zurich Non-adaptive origin of evolutionary innovations in interacting networks of digital organisms	Santiago Soliveres, University of Bern Indicator ecosystem functions and the many dimensions of multifunctionality
10:15	Jhoniell Perdigón Ferreira, University of Zurich Fitness consequences of variation in exaggerated foreleg size of male <i>Drosophila prolongata</i>	Sofia Julia van Moorsel, University of Zurich Community selection increases biodiversity effects in a grassland experiment
10:30	Moritz Saxenhofer, University of Bern Provenance oblige - The consequence of adaptation on host range for an RNA virus	Gaurav Baruah, University of Zurich When can trait dynamics inform us about population decline?
10:45	Arnaud Gaigher, University of Lausanne Recolonization history and selection shape MHC diversity in the European barn owl (<i>Tyto alba</i>)	Marco Moretti, Swiss Federal Research Institute WSL Extending trait-based approaches to multi-trophic levels to assess ecosystem processes
11:00	COFFEE BREAK & POSTER SESSION (odd numbers)	
	CONSERVATION, Aula, Room 210	BEHAVIOUR, Audi Max, Room 110
11:45	Claudio Quilodrán, University of Geneva The impact of interspecific hybridization in conservation and evolution: a general model	Martina Andrés, University of Zurich Song type and syllable repertoire sizes correlate with the annual reproductive success and the extra-pair mating success of song sparrow males (<i>Melospiza melodia</i>)
12:00	Roel van Klink, University of Bern Using life-history traits to predict arthropod responses to grasslands management amid species pool influences	Maria Reyes-Contreras, University of Bern Early programming of the stress axis affects social behaviour and stress responsiveness in a cooperatively breeding cichlid fish
12:15	Sylvain Antoniazza, Swiss Ornithological Institute Decreases in the lowlands, increases at higher elevation – rapid changes in altitudinal distribution of breeding birds	Mélisande Aellen, University of Neuchatel Fishes match primates in their ability to delay gratification
12:30	Silvia Zingg, University of Bern and HAFL Integrating biodiversity conservation in temperate agricultural landscapes	Madeline Scriba, University of Lausanne & LMU Munich The effect of food quality during growth on spatial memory consolidation in adult pigeons
12:45	Malie Lessard-Therrien, University of Bern A balance between biodiversity and hay production in mountain semi-natural grasslands	Christof Meier, Swiss Ornithological Institute What makes Alpine swift ascend at twilight? Novel geolocators reveal year-round flight behaviour
13:00	LUNCH BREAK	
14:15	PLENARY TALK 2, Aula, Room 210	
	Peter Linder, University of Zurich, Switzerland The structure and origins of austral plant diversity: insights from the danthonioid grasses	
	EVOLUTION 2, Aula, Room 210	BIOINFORMATICS, Audi Max, Room 110
15:15	Xiang-Yi Li, University of Zurich Sexual reproduction as bet-hedging	Alexandre Guoy, University of Bern Detecting gene networks under selection in biological pathway
15:30	Manon Schweinfurth, University of Bern Reciprocity and kin selection - two alternative mechanisms underlying cooperation in Norway rats	Marco Galimberti, University of Fribourg Detecting selection from linked sites using an F-model
15:45	Irene Adrian-Kalchhauser, University of Basel Maternal mRNA is able to transmit temperature information across generations in wild fish	Diana Ivette Cruz-Dávalos, University of Bern The performance of in-solution capture-enrichment experiment for human Y chromosome
16:00	FLASH POSTER TALKS EVOLUTION, Aula, Room 210	FLASH POSTER TALKS ECOLOGY & CONSERVATION, Audi Max, R. 110

16:30

COFFEE BREAK & POSTER SESSION (flash talk posters)**SPECIATION AND DIVERSIFICATION, Aula, R. 210**

17:00 **Max Schmid**, *University of Zurich*
How does phenotypic plasticity affect population differentiation with gene flow?

17:15 **Carmela Doenz**, *EAWAG and University of Bern*
Sympatric alpine charr diversity: origin from a hybrid swarm?

17:30 **Barbara Keller**, *University of Zurich*
Reproductive barriers and hybridization between co-flowering heterostylous primroses: integrating experimental and genomic approaches

17:45 **Florian Moser**, *University of Bern*
Genomic divergence as a result of ecological disruptive selection: Evidence from haplochromine cichlids

18:00 **Moritz Muschick**, *EAWAG and University of Bern*
Fossils and ancient DNA shed light on the evolution of East African cichlids

18:15 **Yanis Bouchenak-Khelladi**, *University of Zurich*
Frequent and parallel habitat transitions as driver of unbounded radiations: the African Restionaceae

PLANT-ANIMAL INTERACTIONS, Audi Max, R. 110

Yannik Staedler, *University of Vienna*
The importance of 3D flower shape and its modularity in complex plant-pollinator interactions

Hasan Candan, *University of Bern*
Differences in pollinator-plant networks of high and low altitude

Emma Morgan, *ETH Zurich*
Tracing coco de mer's reproductive history: pollen and nutrient limitation reduce fecundity

Tobias Züst, *University of Bern*
Plant chemical defense indirectly mediates aphid performance via interactions with tending ants

Brigitte Marazzi, *Mus. canton. di storia naturale Lugano*
Extrafloral nectary-mediated ant-plant interactions in temperate zones: Insights from the Swiss southern Alps

Michael Eisenring, *Agroscope, University of Bern*
Reduced Caterpillar Damage Benefits *Lygus hesperus* on Bt Cotton

18:30

Walk to Natural History Museum, Bernastrasse 15, Bern

19:00-

DARWIN DINNER & PARTY, AT THE NATURAL HISTORY MUSEUM OF BERN

24:00

Darwin Talk by Tom Wenseleers, *University Leuven, Belgium*

The evolution of conflict and cooperation: from insects to human societies and beyond

FRIDAY 3 FEBRUARY

8:00 **WELCOME MORNING COFFEE BREAK**

9:00 **PLENARY TALK 3, Aula, Room 210**

Andrew Balmford, *University of Cambridge, UK*
Feeding the world without costing the earth

LIFE HISTORY, Aula, Room 210

10:00 **Juan Pablo Busso**, *University of Zurich*
Healthier or bigger? Trade-off mediating male dimorphism in the black scavenger fly *Sepsis thoracica* (Diptera: Sepsidae)

10:15 **Kathrin Garschall**, *University of Lausanne*
Overexpression of the DNA repair factor dPrp19 reduces DNA damage and extends *Drosophila* life span

10:30 **Arunas Radzvilavicius**, *UCL and University of Zurich*
Selection for mitochondrial quality drives evolution of the immortal germline and the aging soma

10:45 **Jan-Niklas Runge**, *University of Zurich*
Free-living house mice carrying a selfish genetic element are more likely to emigrate

BIOGEOGRAPHY, Audi Max, Room 110

Emmanuel Fronhofer, *EAWAG & University of Zurich*
Biotic interactions and the eco-evolutionary dynamics of range expansions

Patrick Rohner, *University of Zurich*
Global macroecology of size, sexual size dimorphism, dispersal and range size in drosophilids

Sandra Brügger, *University of Bern*
FROZENFIRE – A millennium of European fire, vegetation and pollution history from a high alpine ice core in the Swiss Alps

Rui Fernandes, *University of Lausanne*
Measuring the effects of error accumulation on performance metrics of species distribution models and stacked assemblages

11:00 **COFFEE BREAK & POSTER SESSION (even numbers)**

PHYLOGENETICS AND GENOMICS, Aula R. 210

11:45 **Morgane Roth**, *ETH Zurich*
Using wild tomato endosperm transcriptomes to assess the involvement of genomic imprinting in seed failure and reproductive isolation

12:00 **Amaury Avril**, *University of Lausanne*
Transmission ratio distortion at a supergene controlling ant social organization

12:15 **Madlen Stange**, *University of Zurich*
Bayesian divergence time estimation and skull shape evolution in sea catfishes (Ariidae)

12:30 **Fanny Pouyet**, *University of Bern*
Biased gene conversion drives codon usage in human and precludes selection on translation efficiency

12:45 **Zuzana Hofmanová**, *University of Fribourg*
Early farmers from across Europe directly descended from Neolithic Aegeans

ECOLOGY 2, Audi Max, Room 110

Marcisz Katarzyna, *University of Bern*
Tiny but powerful – testate amoebae as indicators of past environmental changes

Luis J Gilarranz, *University of Zurich*
Anthropogenic effects are associated to a lower persistence of marine food webs

Roman Alther, *EAWAG*
Fluvial network structure shapes amphipod communities of Switzerland

Cyril Matthey-Doret, *University of Lausanne*
Comparative ecology of sexual and asexual parasitoid wasps

Seraina Cappelli, *University of Bern*
Leaf pathogenic fungi in grassland communities

13:00 **LUNCH BREAK**

14:15 **PLENARY TALK 4, Aula, Room 210**

Rosemary Gillespie, *University of California, Berkeley, USA*
Island time and the interplay between ecology & evolution in species diversification

SYSTEMATICS, Aula, Room 210

15:15 **Pablo Duchen**, *University of Fribourg*
Inference of evolutionary jumps in large phylogenies using Levy processes

15:30 **Tamara Spasojevic**, *University of Bern & NMBE*
Leave no stone unturned: challenges in Ichneumonidae palaeontology

15:45 **Jana Flury**, *University of Bern & NMBE*
The unexpectedly high diversity of the genus *Occidozyga* on Borneo

16:00 **Rafaella Garbin**, *University of Fribourg*
Using polymorphic characters to reconstruct the phylogeny of geoemydid turtles

PHYSIOLOGY, Audi Max, Room 110

Steffen Hahn, *Swiss Ornithological Institute*
Impact of chronic malaria infection on aerobic performance in migratory birds

Nicolas Fasel, *University of Lausanne*
Blood fatty acid composition and its influence on bat metabolism

Lucas Marques da Cunha, *University of Lausanne*
Maternal allocation of carotenoids increases tolerance to bacterial infection in brown trout

Vincent Somerville, *University of Basel*
Methylome wide association study of two mating season phenotypes in a wild Round Goby population

16:15 **AWARD CEREMONY & CONFERENCE CLOSING, Aula, Room 210**

POSTERS (Flash Talks are highlighted with *)

BIOGEOGRAPHY

1	Camille Christe	Zelkova in East Asia: a story of demographic expansions and hybridization
2	Elisa Giaccone	Interactions between geomorphology and vegetation in the Vaud Alps: first investigations
3	Antoine Guisan	RECHALP A support platform for transdisciplinary research in the Alps of the Canton de Vaud
4	Nora Hohmann	The extent, direction and temporal dynamics of gene flow in an introgression zone in the genus <i>Arabidopsis</i>
5*	Stella Huynh	Are polyploids ecologically and genetically different from their diploid progenitors: The case of <i>Aegilops</i> spp.
6	Serge Buholzer	An identification key for habitats in the agricultural landscape
7	Eliane Meier	A new approach for measuring α - and β -diversity of plants in agricultural landscapes by an indicator species-based index
8	Carlos Stefano Reyna	Exploring the relationship between genetics, morphology and geography in human populations
9	Martin A. Schäfer	Wing shape clines of yellow dung flies originate from biogeographic history and local adaptation on different continents
10	Christoph Schwörer	Holocene treeline changes in the Canadian Cordillera are controlled by climate and local topography

CONSERVATION

11	Barbara Berli	Population genetic pattern and haplotype distribution of European Graylings (<i>Thymallus thymallus</i>) in the river Wiese, a tributary to the Rhine river in Basel
12	Frank Breiner	Optimising Ensemble of Small Models (ESM) for modelling rare species in conservation practice
13	Frank Breiner	Including environmental niche information to improve IUCN Red List assessments
14	Lauriane Dani	Effects of management intensification on land snail communities in Swiss traditionally managed mountain meadows
15	Sabine Fink	Riparian conservation under climate change: Predicting colonization of restored areas
16	Dominik Ganser	Can wildflower strips positively influence pollinator visits and yield in adjacent pollinator dependent crops?
17	Ségolène Humann-Guillemot	Sub-lethal effect of a neonicotinoid insecticide in the house sparrow.
18*	Darina Koubinova	Conservation biology of specific biotic interactions: the case of the lycaenid butterfly <i>Maculinea alcon</i>
19	Yasemin Kurtogullari	The influence of Nardion grassland degradation on orthopterans in the Bernese Pre-Alps
20*	Guillaume Lavanchy	Long-term effects of wetland mowing on breeding birds: evidence from a 30-year experiment
21	Marion Renner	Natural forest regeneration at Mt. Kilimanjaro
22*	Stefanie Roder	Spatial relationship between recolonizing wolves and their ungulate prey

ECOLOGY

23	Diogo Antunes	Early social and predator experience affect reproductive performance in a cooperatively breeding fish.
24	Cindy Bregnard	Host specificity and vertebrate complement system in the Lyme disease context
25	Imanol Cabana	Genetic differentiation in environmental space: a study with two closely related species of lizards
26	Simona Colosio	Individual variation in the sickness behavior of coral reef damselfish
27	Camille Demairé	Do cleaner wrasse obey biological market rules when servicing their client fishes?
28*	Philip Dermond	Ontogenetic and environmental influence on inter- and intrapopulation differences in timing of migration
29	Lucía DeSoto	On the relationship between resilience of growth to drought and future mortality risk in trees
30	Valeria Di Cola	ecospat: an R package for spatial analysis and modeling species distributions.
31	Oliver Dosch	Habitat complementation in a salamander with a complex life cycle
32	Petr Dostal	More constant rather than plastic species are the winners of anthropogenic changes: implications for ecosystem functioning
33	Yasmin Emery	Proximate mechanisms underlying alternate behavioral strategies in the facultative cleaning goby <i>Elacatinus prochilos</i>
34	Anne-Laure Fragnière	Effect of soil management on different trophic levels in Swiss vineyards
35	Dolores Genné Vizcardo	Competition between strains of the Lyme disease pathogen in the tick vector.
36	Simone Giavi	Changes of nocturnal plant-pollinator interactions due to artificial light at night
37	Ziyu Guan	Current state of freshwater phytoplankton diversity and ecosystem functioning research

38	Hélène Hefti	How are fish distributed within swiss alpine and prealpine lakes ?
39	Franziska Keller	Weeds, their seed bank and seed predation in Swiss vineyards
40	Rassim Khelifa	Dynamics of global warming effects on the phenology of a widespread ectotherm
41	Clemens Kleinspehn	Small Scale Spatial Patterns in Experimental Grasslands
42	Isabelle Koenig	Functional diversity of peatland testate amoebae: finding relevant traits to assess the response of communities to ecological stress
43	Theo Linders	Understanding the newcomers: ecological and socio-economic impacts of woody invasive alien species in East Africa.
44	Hayat Madjoub	Don't overlook temperature fluctuations: Importance of Jensen's inequality in predicting thermal physiology of ectotherms
45	Neringa Mannerheim	Extreme sink and source manipulation experiment carried out in the large scale aeroponic system on the tropical tree <i>Ceiba pentandra</i>
46	Kristiina Mark	Fungal and algal diversity within lichens
47	Magali Meniri	Oxidative costs of compensatory growth in Seba's short-tailed bats
48	Sandro Meyer	Plant-galling arthropods in urban forests
49	Jenny Moore	Effect of adverse conditions in early life on exploratory behaviour of Seba's short tailed bat
50	Alejandra Parreno	Integration of feedbacks among global change drivers, biodiversity and ecosystem variables through meta-analysis.
51	Fausto Quattrini	Is schooling behaviour affected by lateralization; a study with three coral reef species
52	Josep Ramoneda	The physiological and root microbial ecology of wild and cultivated rooibos (<i>Aspalathus linearis</i>) populations
53	Carlos Rivera-Rivera	Body covering of bone and teeth: What does it take for it to emerge?
54	Robin Séchaud	Social huddling and physiological thermoregulation are related to melanism in the nocturnal barn owl
55	Sakshi Sharda	The influence of predator- induced maternal effects on offspring growth and anti-predator behaviours
56*	Magdalena Steiner	Effects of vegetation management on soil biodiversity, soil functions and grape quality in Swiss vineyards
57*	Mark Szenteczki	Microbial communities in Maculinea alcon caterpillars change following trophic shifts
58	Nasrin Tehrani	Spatial Predictions of Essential Biodiversity Variables: A bird perspective
59	Zegni Triki	Climate change negatively affects the ontogeny of cognitive performance in cleaner fish
60	Mukta Watve	Offspring presence modulates predator defence in parents
61	Samuel Wuest	Discrete genetic elements drive diversity effects in conspecific plant communities.

EVOLUTION		
62	Sophie Archambeault	The architecture of adaptation: a master mutation or a mass of mutations?
63*	Julian Baur	The evolution of an exaggerated male trait and wing morphology in two closely related Sepsid fly species
64	Anna Boila	Feeding ecology in Lake Tanganyika cichlids based on stable isotope analysis
65*	Timothée Bonnet	Contemporary evolution against apparent selection and its demographic consequences in a wild rodent population
66*	Luisa Bresadola	Genetic architecture of reproductive isolation and species differences in <i>Populus alba</i> and <i>P. tremula</i>
67*	Rimjhim Roy Choudhury	Adaptive significance of transposable elements in natural populations of <i>Arabis alpina</i>
68*	Mario Coiro	Fossil and macroevolution: a case study in the Cycadales
69	Luca Cornetti	Trans-lineage polymorphisms in <i>Daphnia magna</i>
70*	Ornela De Gasperin	Fitness costs associated with building and maintaining the burying beetle's carrion nest
71	Rishi De-Kayne	The genomic basis of adaptation in the Swiss Alpine whitefish radiation
72	Valérie Ducret	Sex-specific allelic transmission bias suggests sexual conflict at MC1R
73*	Cindy Dupuis	Metabolome analysis of flies adapted to chronic juvenile malnutrition
74*	Merten Ehmgig	The reinvention of "leaves" in leafless African Restionaceae – the adaptive value of leaf-like organs.
75*	Chrysavgi Ermeidou	No inbreeding avoidance despite reduced offspring survival in cooperative breeders
76	Nicolas Erzer	The causes and consequences of parental age effects on offspring survival in humans
77	Anna Feller	Genetics of functional novelty in interspecific cichlid hybrids
78	Joachim Frommen	Cooperatively breeding cichlids benefit from anti-predator vigilance

79	Athene Giesen	Patterns of postzygotic isolation reveal possible hybridization between two closely related dung fly species in nature with sterile male but fertile female hybrids
80	Sofia Grize	The mosaic of karyotypes in Swiss house mouse populations: backcrossing restores karyotype and fertility of chromosomal hybrids in one generation
81	Quiterie Haenel	Scanning the threespine stickleback genome for signatures of adaptation to replicated basic versus acidic habitats
82	Doriane Hebinger	Basal cortisol response to food shortage in early life: introduction of an experimental study conducted on captive bats
83	Melanie Hiltbrunner	Using NGS technology to reveal evolutionary dynamics of RNA viruses
84	Katja Hoedjes	The genomic basis of experimental evolution of aging in <i>Drosophila</i> : how individual SNPs affect lifespan
85	Christian Rellstab	Local adaptation remains local: environmental associations of climate-related candidate SNPs in <i>Arabidopsis halleri</i> using an independent population set
86	Srignanakshi Iyer	Evolution of pheromone mimics in sexually deceptive orchids <i>Ophrys</i>
87	Dario Josi	Strategic adjustment of helping behaviour in the cooperatively breeding cichlid <i>Neolamprologus savoryi</i>
88	Claudia Kasper	Patterns of neural activation during helping in a cooperative breeder
89	Telma G. Laurentino	Into the genomic wild: exploring real-time selective allele frequency shifts, in Stickleback, through a release experiment
90	Nicolás Lichilín	Occurrence and evolution of six sexual development genes in Lake Tanganyika cichlid species
91	Sylvain Losdat	Effects of an early-life stress exposure on adult resistance to oxidative stress, plumage color and sperm performance
92	Kay Lucek	The genomic landscape of incipient speciation in the presence and absence of intrinsic barriers
93	Mattia Maldonado	Females of the cooperatively breeding cichlid fish <i>Neolamprologus pulcher</i> show size dependent mating preferences
94	Jennifer McClung	The language of cooperation: Shared intentionality drives variation in helping as a function of group membership
95	Médéric Mouterde	Using ADME genes to explore modern human evolution between Africa and Eurasia.
96	Claudio Müller	Speciation or not: Two ecologically divergent populations of <i>Astatoreochromis alluaudi</i>
97	Jon Andreja Nuotclà	How do ambrosia beetles decide when to leave home?
98	Giselle Perazzo	Morphological divergence among populations of the livebearing fish <i>Jenynsia multidentata</i> (Anablepidae, Cyprinodontiformes) along a salinity degree
99*	Fausto Quattrini	Does the presence of an odd individual affect group choice by coral reef fishes?
100	Jelena Rajkov	Adaptive divergence in East African cichlid fish: testing for pre- and postzygotic reproductive barriers
101	Cas Retel	Adaptive genetic changes in rapidly coevolving host and virus populations.
102	Aude Rogivue	Environmental factors driving local adaptation in the Alpine Brassicaceae <i>Arabis alpina</i>
103	Kolja Smailus	Testing for reproductive isolation between two geographically and genetically distant populations in the haplochromine cichlid <i>Astatotilapia burtoni</i>
104	Hirokazu Tanaka	Effect of the helpers on breeders" condition in the cooperatively breeding cichlid <i>Neolamprologus obscurus</i>
105	Goeury Thomas	From SSO to NGS in HLA population studies: deciphering the fine nucleotide diversity of full HLA genes in the Mandenka from Senegal
106*	Anaïs Tilquin	Asexuality takes over the front of invasion waves: a new explanation for geographic parthenogenesis
107	Vera Uva	First complete species-level molecular phylogeny of Barn Owls and allies (Strigiformes: Tytonidae)
108	Sacha Zahnd	Ecological predictors of social organization in the Alpine silver ant
109*	Brad Reil	Male × male × female interactions in <i>Drosophila melanogaster</i>
SYSTEMATICS		
110*	Tommy Andriollo	Gene flow within and among species of <i>Plecotus bats</i> in the Alpine range
111	Laura Kamp	Phylogeography of the middle spotted woodpecker <i>Leiopicus medius</i>