UNIVERSITÄT BERN

Institut für
Pflanzenwissenschaften

Jahresbericht

1. August 2016 - 31. Juli 2018

Titelbild: Pseudogenization and resurrection of a speciation gene

Das AN2 Protein bestimmt die Blütenfarbe in Petunia. In der weissen P. axillaris (links) wurde das AN2 Gen im Verlauf der Evolution durch eine 1 bp Deletion inaktiviert. In der violetten P. secreta (rechts) wurde das Leseraster, durch eine weitere Deletion von 2 bp, wiederhergestellt. Das Bild in der Mitte zeigt, wie experimentelle Inaktivierung des AN2 Gens in P. secreta, den Verlust der Blütenfarbe bewirkt.

Bild: Roman Köpfli

1. INSTITUT FÜR PFLANZENWISSENSCHAFTEN

1.1. VORWORT

Auch in den akademischen Jahren 2016/2017 und 2017/2018 war das IPS wiederum sehr aktiv und wir freuen uns, die zahlreichen Aktivitäten und Entwicklungen in diesem für zwei Jahre kombinierten Jahresbericht zu dokumentieren.

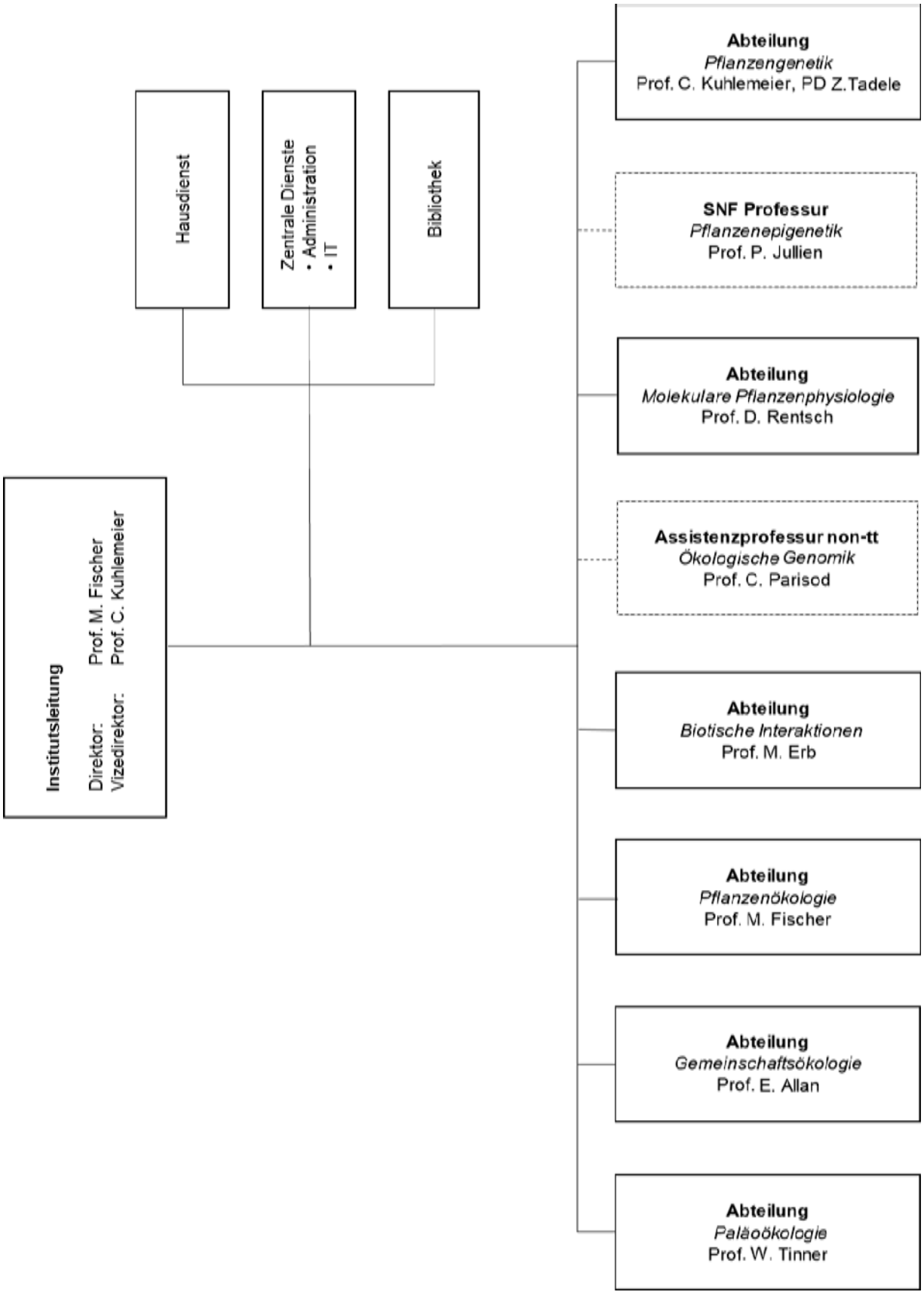
Auf der Ebene der Professoren hat es Veränderungen gegeben und das Institut hat wichtige Entscheidungen getroffen. Im Sommer 2017 verabschiedeten wir David Newbery, Leiter der Abteilung Vegetationsökologie, der emeritiert wurde. Wir danken David für seine Aktivitäten in Forschung, Lehre und akademischer Selbstverwaltung und für seinen Einsatz für die quantitative Ökologie und die tropische Ökologie. In der Berichtsperiode wurden die Professoren Matthias Erb und Eric Allan zu Extraordinarien und Prof. Willy Tinner zum Ordinarius befördert. Im Sommer 2017 wurde Christian Parisod zum Assistenzprofessor non-tenure-track für Ökologische Genomik berufen. Frau Prof. Pauline Jullien kam ebenfalls im Sommer 2017 als SNF-Professorin non-tenure-track für Epigenetik ans IPS. Somit sind wir in der ganzen Breite der Pflanzenbiologie, vom Molekül bis zum Ökosystem und Fragen des globalen Wandels, hervorragend aufgestellt.

Auch in dieser Berichtsperiode hat das IPS weiterhin an Reputation gewonnen. Dies wird durch eine aktive Publikationstätigkeit und durch weithin sichtbare Publikationen in besonders namhaften und qualitativ hochstehenden internationalen Zeitschriften illustriert. Besonders erfreulich ist, dass gleich mehrere Abteilungen solche Erfolge erzielen konnten. Dies unterstreicht, dass das IPS in allen Disziplinen sehr gut aufgestellt ist. Auch gratulieren wir Oliver Heiri, der auf eine Professur nach Basel berufen wurde. Huang Wei und Bart Schimmel stiessen als Marie Sklodowska-Curie Fellows zu uns. Erwähnenswert ist auch die Veröffentlichung des von uns geleiteten und koordinierten Zustandsberichts des Weltbiodiversitätsrats IPBES zu Biodiversität und Ökosystemleitungen in Europa und Zentralasien. Auch in der Einwerbung von Drittmitteln ist das IPS weiterhin sehr erfolgreich. Neben vielen SNF-Projekten seien hier im Speziellen folgende Projekte genannt: Die Züchtung klimaadaptierter Zwerghirse (Tef)-Sorten von Zerihun Tadele, die Interfakultäre One-Health Initiative - koordiniert von Matthias Erb, der ERC-Advanced Grant von Cris Kuhlemeier sowie die von mir koordinierten Biodiversitätsexploratorien. Neben der äusserst erfreulichen Seite dieser erfolgreichen Entwicklungen, führen diese allerdings auch dazu, dass wir platzmässig langsam an unsere Grenzen stossen.

Für das Engagement aller Mitarbeitenden und Studierenden, das den Erfolg des IPS möglich und sinnvoll macht, danke ich allen herzlich.

Markus Fischer

1.2. ORGANISATION



1.3. MITARBEITERINNEN UND MITARBEITER

(Stand 31.7.2018)

Allan	Eric	Gemeinschaftsökologie	Professor
Arens	Kirsten	Molekulare Pflanzenphysiologie	Doktorandin
Attisani	Fernanda	Hausdienst	Raumpflegerin
Ball	Christopher	Zentrale Dienste	Forschungsgärtner
Berardi	Andrea	Pflanzl. Entwicklungsbiologie	Assistentin**
Beringer	Marc	Pflanzenökologie	MSc Student
Berset	Jean Daniel	Biotische Interaktionen	Laborant
Binaghi	Marta	Pflanzl. Entwicklungsbiologie	Doktorandin**
Blösch	Regula	Pflanzl. Entwicklungsbiologie	Laborantin**
Bolland	Alexander	Paläoökologie	Doktorand*
Bolliger	Ralph	Pflanzenökologie	Doktorand**
Boltshauser−Kaltenrieder	Petra	Paläoökologie	Assistentin
Bonini	Andrea	Biotische Interaktionen	Hilfsassistent
Bonnet	Diane	Pflanzliche Entwicklungsbiologie	Praktikantin
Bont	Zoe	Biotische Interaktionen	Doktorandin*
Brügger	Sandra	Paläoökologie	Doktorandin*
Bürli	Sarah	Pflanzenökologie	Doktorandin**
Caggia	Veronica	Biotische Interaktionen	Praktikantin
Cannarozzi	Gina	Crop Breeding & Genomics	Oberassistentin**
Cappelli	Seraina	Gemeinschaftsökologie	Doktorandin*
Choudury	Rimjhim	Ökologische Genomik	Doktorandin
Conda	Sanela	Hausdienst	Raumpflegerin
Dolder	Christine	Bibliothek	Bibliothekarin
Eggenberg	Stefan	Pflanzenökologie	Assistent
Erb	Matthias	Biotische Interaktionen	Professor
Ernst	Viona	Molekulare Pflanzenphysiologie	Hilfsassistentin
Esfeld	Korinna	Pflanzl. Entwicklungsbiologie	Oberassistentin
Fastner	Astrid	Molekulare Pflanzenphysiologie	Assistentin**
Felipe	Maria	Gemeinschaftsökologie	Postdoktorandin**
Fischer	Markus	Pflanzenökologie	Professor
Gfeller	Valentin	Biotic Interaction	Doktorand
Gobet	Erika	Paläoökologie	Wissenschaftl. Mitarbeiterin
Grudinska	Ieva	Gemeinschaftsökologie	Praktikantin
Guyer	Anouk	Biotische Interaktionen	Doktorandin
Haindrich	Alexander	Molekulare Pflanzenphysiologie	Doktorand*
Hanemian	Mathieu	Pflanzl. Entwicklungsbiologie	Postdoktorand*
Hasanbasic	Einisa	Hausdienst	Raumpflegerin
Heiri	Oliver	Paläoökologie	Dozent
Hinderling	Judith	Pflanzenökologie	Laborantin**
Hoch	Günter	Pflanzenökologie	E, Privatdozent
Hu	Lingfei	Biotische Interaktionen	Postdoktorand**
Huang	Wei	Biotische Interaktionen	Gast-Postdoktorand
Jäggi	Lea	Pflanzl. Entwicklungsbiologie	Laborantin
Jochum	Malte	Pflanzenökologie	Assistent*
Jullien	Pauline	Plant Epigenetics	Assoziierte Professorin*
Keller	Sebastian	Pflanzenökologie	Doktorand**

Kleinspehn	Clemens	Pflanzenökologie	Doktorand**
Komposch	Armin	Pflanzenökologie	Doktorand
Köpfli	Roman	Pflanzl. Entwicklungsbiologie	Informatikbetreuer
Kuhlemeier	Cris	Pflanzl. Entwicklungsbiologie	Professor
Kuslys	Lisa	Molekulare Pflanzenphysiologie	Laborantin
Laitinen	Mervi	Gemeinschaftsökologie	Praktikantin
Lotter	Andre	Paläoökologie	Dozent
Lüthi	Martina	Pflanzl. Entwicklungsbiologie	Doktorandin
Machado	Ricardo	Biotische Interaktionen	Assistent*
Mandel	Therese	Pflanzl. Entwicklungsbiologie	Laborantin
Marcisz	Katarzyna	Paläoökologie	Gast-Postdoktorandin
Mateo	Pierre	Biotische Interaktionen	Postdoktorand**
Maurer	Corina	Biotische Interaktionen	Praktikantin
Molina Venegas	Rafael	Pflanzenökologie	Postdoktorand*
Morales del Molino	César	Paläoökologie	Postdoktorand
Moser	Michel	Pflanzl. Entwicklungsbiologie	Doktorand*
Nacht	Silvia	Hausdienst	Raumpflegerin
Nwe	Thu Zar	Gemeinschaftsökologie	Doktorandin
Oberländer	Jana	Molekulare Pflanzenphysiologie	Assistentin**
Omara	Yvonne	Zentrale Dienste	Sekretärin
Parisod	Christian	Ökologische Genomik	Assistenzprofessor
Payne	Davnah	Pflanzenökologie	Postdoktorandin**
Penone	Caterina	Pflanzenökologie	Postdoktorandin**
Pfander	Marc	Biotiv Interactions	Assistent**
Pichon	Noémie	Gemeinschaftsökologie	Doktorandin*
Pichon	Vivien	Pflanzl. Enwicklungsbiologie	Praktikant
Prati	Daniel	Pflanzenökologie	Wissenschaftl. Mitarbeiter
Reinhardt	Didier	Pflanzl. Entwicklungsbiologie	E, Privatdozent
Renner	Marion	Pflanzenökologie	Doktorandin**
Rentsch	Doris	Molekulare Pflanzenphysiologie	Professorin
Rindisbacher	Abiel	Gemeinschaftsökologie	Doktorand
Robert Erb	Christelle	Biotische Interaktionen	Postdoktorandin*
Rodriguez	Helga	Zentrale Dienste	Sekretärin
Ruprecht	Peter	Hausdienst	Hausdienstleiter
Ryf	Sandra	Zentrale Dienste	Sachbearbeiterin
Salinas de Ayllon	Erika	Hausdienst	Raumpflegerin
Scheidegger	Christoph		E, Professor
Schenk	Noëlle	Hauskommission Botanik	Hilfsassistentin
Schläppi	Klaus	Biotische Interaktionen	Oberassistent
Schmidt	Lisanna	Pflanzenökologie	Assistentin
Schröder	Jens	Plant Epigenetics	Doktorand*
Schwörer	Christoph	Paläoökologie	Assistent
Sekulovski	Jasmin	Zentrale Dienste	Forschungsgärtnerin
Snethlage	Mark	Pflanzenökologie	Assistent**
Spehn	Eva Maria	Pflanzenökologie	Postdoktorandin**
Stampfli	Andreas		E, Privatdozent
Steinmann	Michael	Molekulare Pflanzenphysiologie	Assistent
Suter Grotemeyer	Marianne	Molekulare Pflanzenphysiologie	Laborantin
Tadele	Zerihun	Crop Breeding & Genomics	Dozent
Tenreira	Tracey	Pflanzl. Entwicklungsbiologie	Assistentin

Thönen	Lisa	Biotische Interaktionen	MSc Studentin
Tinner	Willy	Paläoökologie	Professor
Tirot	Louis	Plant Epigenetics	Doktorand*
Torre-Marin	Amor	Pflanzenökologie	Assistentin**
Tschanz	Martin	Hausdienst	Hauswart
Vincent	Hugo	Pflanzenökologie	Laborant
Vogiatzaki	Evangelia	Biotische Interaktionen	Laborantin*
von Ballmoos	Peter	Zentrale Dienste/Bibliothek	Informatikbeauftragter
Weichert	Annett	Crop Breeding & Genomics	Laborantin/Assistentin**
Wetter	Nichole	Biotische Interaktionen	Sekretärin
Widmer	Christina	Molekulare Pflanzenhysiologie	Forschungsgärtnerin
Wu	Anhui	Pflanzl. Entwicklungsbiologie	Postdoktorandin**
Yarahmadov	Tural	Pflanzl. Entwicklungsbiologie	Doktorand
Ye	Meng	Biotische Interaktionen	Postdoktorandin**
Zhang	Xi	Biotische Interaktionen	Doktorandin*
Zimmermann	Marlise	Gemeinschaftsökologie	Laborantin
Züst	Tobias	Pflanzenökologie	Ambizione*
Zwahlen	Christoph	Pflanzenökologie	Laborant/MSc Student

Legende

E *Externe Dozentin, externer Dozent*

* *Besoldung durch Nationalfonds*

** *Besoldung durch Drittkredite (ganz oder teilweise)*

1.4. INSTITUTSMITTEL IM ÜBERBLICK

2017

Kanton

Institutskredit pro Jahr	(1.1.2017 – 31.12.2017)	Fr.	279'900.--
Investitionskredit/Berufungskredit	(1.1.2017 – 31.12.2017)	Fr.	250'500.--
Personalpunkte	(3088 à Fr. 1300.--)	Fr.	4‘014‘400.--
	TOTAL	**Fr.**	**4‘544'800.--**

SNF und Drittkredite (Umrechnung pro Jahr)

SNF	Fr.	2'434'098.--
Drittkredite	Fr.	3'256'872.--
TOTAL	**Fr.**	**5'690’970.--**

Somit betragen die Mittel aus SNF-Projekten und Drittkrediten **55.5 %** der Gesamtmittel.

2018

Kanton

Institutskredit pro Jahr	(1.1.2018 – 31.12.2018)	Fr.	280’000.--
Investitionskredit/Berufungskredit	(1.1.2018 – 31.12.2018)	Fr.	256'700.--
Personalpunkte	(3065 à Fr. 1390.--)	Fr.	4‘260'350.--
	TOTAL	**Fr.**	**4‘797'050.--**

SNF und Drittkredite (Umrechnung pro Jahr)

SNF	Fr.	1'713'483.--
Drittkredite	Fr.	2'974'712.--
TOTAL	**Fr.**	**4’688'195.--**

Somit betragen die Mittel aus SNF-Projekten und Drittkrediten **49.4 %** der Gesamtmittel.

1.5. SNF UND DRITTKREDITE IM DETAIL

1.5.1. ABTEILUNG PFLANZLICHE ENTWICKLUNGSBIOLOGIE

Titel **Projektleiter/Mitgesuchsteller/ Mitarbeiter(innen)**	**Dauer**	**Geldgeber**	**Projektsumme**
Plant Growth in a changing environment II C. Kuhlemeier, P. Barbier de Reuille, A. Burian, M. Huflejt, Z. Tadele, R. Blösch, S. Robinson	63 Monate (1.4.2013-30.6.2018)	SystemsX.ch	Fr. 2‘994‘000.--
Tef Improvement Project: from the laboratory to the field Z. Tadele	132 Monate (1.7.2017-30.6.2028)	Syngenta Foundation for Sustainable Agriculture	Fr. 2’750’000.--
Identification of genes involved in the evolution of pollination syndromes C. Kuhlemeier, A. Amrad, H. Sheehan, H. Summers, M. Hanemiam, M. Moser	36 Monate (1.4.2015-31.9.2018)	SNF	Fr. 756'000.--
Reconstitution of pollinator-mediated speciation C. Kuhlemeier, A. Berardi, L. Jäggi, M. Lüthi, M. Binaghi	60 Monate (1.9.2017 31.8.2022)	ERC Advanced Grant	Fr. 2‘875‘000.--
Deciphering the supergene involved in pollinator-mediated speciation of the Petunia genus T. Tenreira	24 Monate (1.9.2018 – 31.8.2020)	EMBO long term fellowship	Fr. 131’382.--
Plant responses to herbivore natural enemies- Mechanisms and ecological relevance C. Robert	6 Monate (1.5.2018 – 30.10.2018)	UniBe Initiator Grant	Fr. 19‘982.--

1.5.2. ABTEILUNG PFLANZENEPIGENETIK

Titel **Projektleiter/Mitgesuchsteller/ Mitarbeiter(innen)**	**Dauer**	**Geldgeber**	**Projektsumme**
Methylome dynamics during Arabidopsis reproduction P. Jullien, L. Tirot, J. Schroeder	48 Monate (1.9.2017-31.8.2021)	SNF professorship	Fr. 1’574’058.--

1.5.3. Abteilung Molekulare Pflanzenphysiologie

Titel **Projektleiter/Mitgesuchsteller/ Mitarbeiter(innen)**	**Dauer**	**Geldgeber**	**Projektsumme**
Transporters of Trypanosoma brucei*: Phylogeny - Physiology - Pharmacology* P. Mäser, D. Rentsch, P. Bütikofer, E. Sigel, J. Pereira de Macêdo, A. Haindrich	45 Monate (1.6.2013-28.2.2017)	Sinergia // SNF	Fr. 1'600'000.--
Transporters for di- and tri-peptides in Arabidopsis D. Rentsch, K. Arens, A. Fastner	55 Monate (1.1.2014-31.7.2018)	SNF	Fr. 439'000.--
Simultaneous manipulation of source and sink metabolism form improved crop yield L. Sweetlove, R. Bock, A. Fernie, D. Rentsch, J. Martinis, J. Oberländer	36 Monate (1.9.2015-30.8.2018)	ERA-CAPS // SNF	Fr. 376'750.-- (Total € 1'484'200.--)
Improving nitrogen use efficiency in maize through functional characterization of amino acid transporters grant D. Rentsch, X. Li	24 Monate (1.11.2017-31.10.2018)	SSSTC	Fr. 39'900.--
Neutralization and re-activation of BXDs by the western corn rootworm C. Robert	9 Monate (1.1.2018 – 30.9.2018)	SNF 120 model	Fr. 17'501.--

1.5.4. Abteilung Ökologische Genomik

Titel **Projektleiter/Mitgesuchsteller/ Mitarbeiter(innen)**	**Dauer**	**Geldgeber**	**Projektsumme**
Evolution of duplicated genomes under environmental constraints C. Parisod, R.R. Choudhury, M. Beringer	48 Monate (1.9.2018-31.8.2022)	SNF	Fr. 619'700.--

1.5.5. ABTEILUNG BIOTISCHE INTERAKTIONEN

Titel **Projektleiter/Mitgesuchsteller/ Mitarbeiter(innen)**	**Dauer**	**Geldgeber**	**Projektsumme**
Plant volatile perception M. Erb	60 Monate (1.4.2017-31.3. 2022)	H2020-ERC-2016-STG	Fr. 2'200'000.--
Sugar wars: Glucose-mediated activation, neutralization and re-activation of defensive metabolites in a soil tritrophic system T. Turlings, J. Gershenzon, M. Erb, F. Kessller	36 Monate (1.10.2015-30.9.2018)	SNF Sinergia	Fr. 594'501.-- (Total Fr. 2'141'887.--)
RNAi-controlled multitrophic processing of plant secondary metabolites M. Erb	60 Monate (1.2.2015-31.1.2020)	SNF (ERC replacement)	Fr. 1'500'000.--
Latex secondary metabolites as determinants of root-herbivore foraging in nature M. Erb, Z. Bont, C. Robert	36 Monate (1.4.2014-31.3.2017)	SNF	Fr. 600'000.--
SCOPES: Understanding plant-mediated interactions between two major maize pests of Eastern Europe – From phytochemical patterns to management recommendations M. Erb, S. Tanaskovic, Z. Karpáti	44 Monate (1.5.2014-31.12.2017)	SNF	Fr. 195'000.--
Biosynthesis, transport and exudation of 1,4-benzoxazin-3-ones as determinants of plant biotic interactions M. Erb, I.S. Fomsgaard, M. Frey, G. Jander, J. Ton, C. Robert, L. Hu	36 Monate (1.2.2014-31.1.2017)	ERA-CAPS (FP7), DFG	Fr. 248'900.-- (Total: Fr. 1'748'250.--)
Dandelion: Taraxacum officinale as a new plant-herbivore model to study fitness benefits of root secondary metabolites M. Erb	48 Monate (1.3.2014-28.2.2018)	MC CIG (FP7)	Fr. 120'000.--
O-methylation of DIMBOA-Glc as a key regulator of herbivore resistance in maize and wheat B. Li	24 Monate (1.2.2016-31.1.2018)	SNF (Marie Heim-Vögtlin)	Fr. 240'770.--
Host services of the native plant root microbiota K. Schläppi, F. Silva Gutierrez	36 Monate (1.4.2016-31.3.2019)	SNF	Fr. 180'000.--

Associational resistance and neighbor recognition of in common dandelion roots W. Huang	19 Monate (1.3.2016-30.9.2017)	Research Executive Agency (Marie Skłodowska-Curie Individual Fellowships)	Fr.	206'160.--
Rice as a molecular model for the discovery of plant volatile receptors M. Erb, M. Ye	12 Monate (1.10.2016-30.9.2017)	SSSTC Exchange Grant	Fr.	30’000.--
Community consequences of novel toxic plant defenses: convergent evolution of cardenolides and alkaloids T. Züst	36 Monate (1.11.2015-31.10.2018)	SNF Ambizione	Fr.	599'939.--
Plant-derived benzoxazinoids as mediators of microbiome-dependent multitrophic health M. Erb, V. Gfeller	48 Monate (1.2.2018-31.1.2022)	One Health IFK	Fr.	806’129.--
One Health Coordination Unit Led by M. Erb	48 Monate (1.2.2018-31.1.2022)	One Health IFK (Uni Bern DM)	Fr.	972’875.--
Functioning of the plant microbiome in multitrophic health K. Schläppi, L. Thönen, V. Caggìa	48 Monate (1.2.2018-31.1.2022)	One Health IFK	Fr.	804’924.--
Microbiome diagnostics for sustainable agriculture K. Schläppi, M. van der Heijden (Agroscope), N. Bodenhausen (Fibl), J. Hess	36 Monate (1.3.2018-28.2.2021)	Gebert Rüf Foundation	Fr.	410’000.--
Functioning of the maize rhizosphere microbiota in aboveground insect resistance K. Schläppi, M. van der Heijden (Agroscope), M. Erb, S. Cadot	36 Monate (31.1.2016-31.12.2018)	Swiss State Secretariat for Education, Research and Innovation SERI	Fr.	180’000.--

1.5.6. ABTEILUNG PFLANZENÖKOLOGIE

Titel **Projektleiter/Mitgesuchsteller/ Mitarbeiter(innen)**	**Dauer**	**Geldgeber**	**Projektsumme**
Toward biodiversity-related opportunities for sustainable development: a global social-ecological mountain comparison M. Fischer, D. Payne, M. Snethlage, E. Spehn	12 Monate (1.1.2018-31.12.2018)	Future Earth	USD 72’684.--
Workshop - Challenges and promises of using predictive, spatially continuous variables in species distribution models: methods and applications D. Payne	1 Monat (1.-28.2.2018)	SNF Future Earth & European Space Agency	Fr. 16'900.-- (EUR 12’000.--)
Plant diversity and performance in relation to climate and land use on Mt. Kilimanjaro: communities, species, populations, ecological genetics M. Fischer, M. Renner, N. Mollel	36 Monate (1.1.2014-31.12.2016)	SNF	Fr. 260’400.--
Diversity effects on plant life-cycle characteristics and population structure as a base for understanding community assembly and stability M. Fischer, S. Keller, C. Kleinspehn	36 Monate (1.6.2014-31.5.2017)	SNF	Fr. 166’200.--
Teilprojekt mit Dr. Durka The role of tree and shrub diversity for production, erosion control, element cycling, and species conservation in Chinese subtropical forest ecosystems M. Fischer, Y. Zhang, J. Blum	48 Monate (1.2.2014-31.1.2018)	DFG	Fr. 195‘840.--
Pflanzendiversität und pflanzen-bezogene Prozesse im Rahmen des Schwerpunktprogramms “Biodiversitäts-Exploratorien M. Fischer, S. Blaser, B. Schmitt, F. Grassein, J. Hinderling, S. Keller, A. Ensslin, R. Delgado, H. Vincent, S. Boch, P. Dostal	47 Monate (1.2.2014-31.12.2017)	DFG	Fr. 807‘000.--

Pflanzendiversität und pflanzen-bezogene Prozesse im Rahmen des Schwerpunktprogramms „Biodiversitäts-Exploratorien“ D. Prati, D. Schäfer	47 Monate (1.2.2014-31.12.2017)	DFG	Fr.	207‘738.--
Synthesis Project 6: Scientific foundations of conservation and sustainable use of biodiversity and ecosystem services M. Fischer, R. Molina	24 Monate (1.2.2017-31.1.2019)	SNF	Fr.	375'940.--
Context-dependence of biodiversity effects and real-world perspective M. Fischer, J. Malte	24 Monate (1.5.2016 - 31.4.2018)	SNF	Fr.	243'700.--
Core project 5 – Pflanzendiversität und pflanzenbezogene Prozesse M. Fischer, J. Hinderling, S. Keller, M. Renner, R. Delgado, H. Vincent, C. Kleinspehn	36 Monate (14.12.2016-13.12.2019)	DFG	Fr.	665’150.--
Core project 5 – Pflanzendiversität und pflanzenbezogene Prozesse D. Prati	36 Monate (14.12.2016-13.12.2019)	DFG	Fr.	203’636.--
Core project 10 – Ökologische Synthese im Rahmen des Schwerpunktprogramms „Biodiversitäts-Exploratorien“ M. Fischer	36 Monate (14.12.2016-13.12.2019)	DFG	Fr.	203‘636.--
Core project 12 – Ökologische Synthese im Rahmen des Schwerpunktprogramms „Biodiversitäts-Exploratorien“ M. Fischer, C. Penone	36 Monate (6.2.2015-5.2.2018)	DFG	Fr.	386‘587.--
Global mountain biodiversity assessment coordination office 2015-2018 M. Fischer, E. Spehn, D. Payne	36 Monate (1.4.2015-31.3.2018)	SNF	Fr.	600‘000.--
Diversitas M. Fischer	36 Monate (1.4.2015-31.3.2018)	Diversitas	Fr.	69‘905.--

Regional Assessment and Biodiversity and Ecosystem services for Europe and Central Asia M. Fischer, A. Torre, A. Mader	41 Monate (1.8.2015-31.12.2018)	UNEP	Fr. 450’000.--
Mandat des IPBES Regional Assessment for Europe and Central Asia 2015-2018 M. Fischer, A. Torre, A. Mader	41 Monate (1.8.2015-31.12.2018)	BAFU	Fr. 350'000.--
Community consequences of novel toxic plant defenses: convergent evolution of cardenolides and alkaloids T. Züst	36 Monate (1.11.2015-31.10.2018)	SNF Ambizione	Fr. 599'939.--
Mountain biodiversity and the Sustainable Development Goals: knowledge for synergistic action M. Fischer, D. Payne, M. Snethlage, E. Spehn	48 Monate (1.11.2018-30.10.2022)	SNF	Fr. 599'532.--

1.5.7. Abteilung Gemeinschaftsökologie

Titel **Projektleiter/Mitgesuchsteller/ Mitarbeiter(innen)**	**Dauer**	**Geldgeber**	**Projektsumme**
Core project 12 – Ökologische Synthese im Rahmen des Schwerpunktprogramms „Biodiversitäts-Exploratorien“ E. Allan, M. Felipe-Lucia	36 Monate (6.2.2015-5.2.2018)	DFG	Fr. 386‘587.--
Disentangling the mechanisms by which global change affects ecosystem function: a multitrophic experimental approach E. Allan, S. Cappelli, N. Pichon	36 Monate (1.9.2015-31.8.2018)	SNF	Fr. 600'000.--
Core project 10 – Ökologische Synthese im Rahmen des Schwerpunktprogramms „Biodiversitäts-Exploratorien“ E. Allan	36 Monate (14.12.2016-13.12.2019)	DFG	Fr. 203‘636.--

1.5.8. ABTEILUNG PALÄOÖKOLOGIE

Titel **Projektleiter/Mitgesuchsteller/ Mitarbeiter(innen)**	**Dauer**	**Geldgeber**	**Projektsumme**
Exploring eight millennia of climatic, vegetational and agricultural dynamics on the Swiss Plateau by using annually layered sedimentary time series W. Tinner, E. Gobet, F. Rey	48 Monate (1.11.2013-31.10.2017)	SNF	Fr. 335‘245.--
Paläoökologische Untersuchungen am Zürichsee Hurden W. Tinner, A.F. Lotter, E. Gobet	24 Monate (1.1.2016-31.12.2017)	Kanton SZ, ZH	Fr. 60‘000.--
Paleo fires from high-alpine ice cores M. Schwikowski, W. Tinner, U. Lohmann, S. Wunderle, D. Colombaroli, E. Gobet, S. Brügger	48 Monate (1.1.2015-31.12.2018)	SNF	Fr. 1’875’779.--
Beyond lake settlements: Studying Neolithic environmental changes and human impact at small lakes in Switzerland, Germany and Austria A. Hafner, W. Tinner, H. Schlichtherle, T. Taylor, F. Rey, E. Gobet	36 Monate (1.10.2014-30.9.2017)	SNF, D-A-CH	Fr. 585‘844.-- (Total Fr. 2‘000‘000.--)
Responses of vegetation and prehistorical society to climatic changes in Ukraine W. Tinner, E. Nielsen, A. de Capitani	36 Monate (1.3.2016-28.2.2019)	SNF-SCOPES	Fr. 194’890.--
Palynologische Untersuchungen am Murtensee W. Tinner, P. Boltshauser-Kaltenrieder	12 Monate (1.1.2017-31.12.2017)	ETH/EAWAG	Fr. 25’000.--
Florfliegen-Wildbienen-Marienkäfer und ihre Bestäubungsökologie an Standorten in der Schweiz und Deutschland W. Tinner, E. Gobet	12 Monate (1.1.2017-31.12.2017)	Agroscope	Fr. 27'000.--

FIRECO - Understanding long-term fire activity and fire ecology dynamics from Polish raised bog K. Marcisz, W. Tinner	12 Monate (1.9.2016-31.8.2017)	Swiss Government Excellence Scholarship	Fr.	42’000.--
Chironomid-based summer temperatures from the Eemian to the Holocene: Towards a European Temperature reconstruction covering the past 130'000 years O. Heiri	36 Monate (1.1.2017-31.12.2019)	SNF	Fr.	194’463.--

2. LEHRE

2.1. VORLESUNGEN UND PRAKTIKA

HERBSTSEMESTER 2016/17

***VERANSTALTUNG FAND NUR IN 2016 STATT / ** VERANSTALTUNG FAND NUR IN 2017 STATT**

BACHELOR IN BIOLOGIE (3. SEMESTER, AUCH FÜR STUDIERENDE MIT MINOR BIOLOGIE – FÜR DIE PRAKTIKA HABEN ANMELDUNGEN VON STUDIERENDEN MIT MAJOR BIOLOGIE SOWIE VON STUDIERENDEN MIT MINOR 60 ECTS BIOLOGIE PH-S2 ERSTE PRIORITÄT)

1528	Pflanzenökologie II, Vorlesung	Prof. M. Fischer PD G. Hoch
100265	Praktikum zu Pflanzenökologie II	Prof. M. Fischer PD G. Hoch
402950	Biodiversity and Ecosystem Services, Vorlesung	Prof. E. Allan
1530	Pflanzenphysiologie, Vorlesung	Prof. M. Erb Prof. D. Rentsch
100268	Praktikum zu Pflanzenphysiologie	Prof. M. Erb Prof. D. Rentsch

BACHELOR IN BIOLOGY, SPECIALISATION IN PLANT SCIENCES (5. SEMESTER)

10434	Advanced Plant Biology: Paleoecology. Lecture, Practical	Prof. W. Tinner Prof. O. Heiri
414752	Advanced Plant Biology: Plant-Herbivore Interactions / Pflanzenbiologie für Fortgeschrittene: Pflanzen-Herbivoren Interaktionen. Lecture, Practical	Prof. M. Erb
414756	Advanced Plant Biology: Plant-Herbivore Interactions/ Pflanzenbiologie für Fortgeschrittene: Pflanzen-Herbivoren Interaktionen. Lecture only	Prof. M. Erb
10437	Advanced Plant Biology: Plant Molecular Biology / Pflanzenbiologie für Fortgeschrittene: Pflanzliche Molekularbiologie. Lecture, Practical	Prof. C. Kuhlemeier PD Z. Tadele
10438	Advanced Plant Biology: Plant Molecular Biology / Pflanzenbiologie für Fortgeschrittene: Pflanzliche Molekularbiologie. Lecture only	Prof. C. Kuhlemeier PD Z. Tadele
10441	Advanced Plant Biology: Transport and Stress Physiology / Pflanzenbiologie für Fortgeschrittene: Transport- und Stressphysiologie. Lecture, Practical	Prof. D. Rentsch
10442	Advanced Plant Biology: Transport and Stress Physiology / Pflanzenbiologie für Fortgeschrittene: Transport- und Stressphysiologie. Lecture only	Prof. D. Rentsch
10446	Colloquium in Plant Biotic Interactions / Kolloquium zu «Biotische Interaktionen der Pflanzen»	Prof. M. Erb
10451	Colloquium in Plant Transport Physiology / Kolloquium in pflanzlicher Transportphysiologie	Prof. D. Rentsch

100263	Colloquium in Plant Sciences / Kolloquium in Pflanzenwissenschaften (Details s. Kapitel 2.2.)	Prof. E. Allan Prof. M. Erb Prof. M. Fischer Prof. O. Heiri Prof. C. Kuhlemeier Prof. D. Rentsch Prof. W. Tinner PD D. Colombaroli PD P. Stoll PD Z. Tadele
10584	Research Practical in Lichenology and Mycology / Forschungspraktikum in Lichenologie und Mykologie	Prof. C. Scheidegger
10585	Research Practical in Lichenology and Mycology, with bachelor work / Forschungspraktikum in Lichenologie und Mykologie, mit Bachelorarbeit	Prof. C. Scheidegger
10586	Research Practical in Molecular Plant Physiology / Forschungspraktikum in molekularer Pflanzenphysiologie	Prof. D. Rentsch
10587	Research Practical in Molecular Plant Physiology, with bachelor work / Forschungspraktikum in molekularer Pflanzenphysiologie, mit Bachelorarbeit	Prof. D. Rentsch
10588	Research Practical in Palaeoecology / Forschungspraktikum in Paläoökologie	Prof. W. Tinner Prof. O. Heiri
10589	Research Practical in Palaeoecology, with bachelor work / Forschungspraktikum in Paläoökologie, mit Bachelorarbeit	Prof. W. Tinner Prof. O. Heiri
10590	Research Practical in Plant Genetics and Development / Forschungspraktikum in Pflanzengenetik und pflanzlicher Entwicklungsbiologie	Prof. C. Kuhlemeier PD Z. Tadele
10591	Research Practical in Plant Genetics and Development, with bachelor thesis / Forschungspraktikum in Pflanzengenetik und pflanzlicher Entwicklungsbiologie, mit Bachelorarbeit	Prof. C. Kuhlemeier PD Z. Tadele
10592	Research Practical in Plant Ecology / Forschungspraktikum in Pflanzenökologie	Prof. M. Fischer
10593	Research Practical in Plant Ecology, with bachelor work / Forschungspraktikum in Pflanzenökologie, mit Bachelorarbeit	Prof. M. Fischer
104836	Research Practical in Plant Diversity	Prof. E. Allan
104837	Research Practical in Plant Diversity, with bachelor work	Prof. E. Allan
11405	Research Practical in Plant Insect Interactions / Forschungspraktikum in Pflanzen-Insekten Interaktionen	Prof. M. Erb
11406	Research Practical in Plant Insect Interactions, with bachelor work / Forschungspraktikum in Pflanzen-Insekten Interaktionen, mit Bachelorarbeit	Prof. M. Erb
10596*	Research Practical in Vegetation Ecology	Prof. D. Newbery

10597*	Research Practical in Vegetation Ecology, with bachelor work	Prof. D. Newbery
10601	Seminar in Stress Physiology / Seminar in Stressphysiologie	Prof. D. Rentsch
100206	Seminar in Plant Ecology / Seminar in Pflanzenökologie	Prof. E. Allan Prof. M. Fischer
9480	Global Change Ecology. Seminar	Prof. M. Fischer
431334	Independent Work in Plant Ecology / Selbständige Arbeit in Pflanzenökologie	Prof. E. Allan Prof. M. Fischer Prof. D. Newbery (2016) Prof. C. Scheidegger Prof. W. Tinner
100477	Lecture series in plant and animal conservation ecology	Prof. M. Fischer Prof. R. Arlettaz
10454	Mycology and Lichenology, excursion / Mykologie und Lichenologie, Exkursion	Prof. C. Scheidegger PD B. Senn-Irlet
397045	Mycology and Lichenology, lecture and practical / Mykologie und Lichenologie, Vorlesung und Praktikuim	Prof. Ch. Scheidegger PD B. Senn-Irlet
10459	Paleoecology and Paleoclimatology of the Alps and their forelands. Lecture	Prof. W. Tinner
100222	Statistical Analysis of Experiments for Ecologists. An Introduction to R. Lecture and exercises	Prof. M. Fischer
9968*	Themes in Vegetation Ecology 1: theory and philosophy. Seminar	Prof. D. Newbery
101457*	Themes in Vegetation Ecology 2: concepts and approaches. Seminar	Prof. D. Newbery
100224*	Matrix models and population viability analysis (PVA). Lecture / Matrixmodelle und Gefährdungsanalysen (PVA). Vorlesung	PD P. Stoll
103831*	The Ecology of Plant-Herbivore Interactions, lecture with seminar	Prof. D. Newbery
433644**	Plants in their environment. Proseminar	Prof. E. Allan Prof. M. Erb Prof. M. Fischer Prof. O. Heiri Prof. W. Tinner
434997**	Palaeoecology - Numerical tools and approaches. Block Course	Prof. O. Heiri
100246	Lecture series in ecology and evolution. Seminar	Prof. R. Arlettaz Prof. M. Fischer Prof. W. Tinner
100372	Courses in Plant Biology at the Universities Fribourg and Neuchâtel (BENEFRI) / Lehrveranstaltungen in Pflanzenbiologie im Rahmen von BENEFRI	Prof. M. Erb Prof. C. Kuhlemeier Prof. D. Rentsch

MASTER IN ECOLOGY AND EVOLUTION (SPECIALISATION IN PLANT ECOLOGY), MASTER IN MOLECULAR LIFE SCIENCES (SPECIALISATION IN PLANT PHYSIOLOGY) AND MASTER IN CLIMATE SCIENCES

103787	Journal club: Plant diversity. Seminar	Prof. E. Allan
2225	Laboratory Safety. Block course	Prof. D. Rentsch
11399	Molecular Genetics of Speciation in Plants. Block Course	Prof. C. Kuhlemeier
100173	Colloquium in Plant Genetics / Kolloquium in Pflanzengenetik	Prof. C. Kuhlemeier
100204	Seminar in Paleoecology and Paleoclimatology	Prof. W. Tinner Prof. O. Heiri

FRÜHJAHRSSEMESTER 2017/2018

***Veranstaltung fand nur in 2017 statt / ** Veranstaltung fand nur in 2018 statt**

BACHELOR IN BIOLOGIE (2. SEMESTER, AUCH FÜR STUDIERENDE MIT MINOR BIOLOGIE - FÜR DIE PRAKTIKA HABEN ANMELDUNGEN VON STUDIERENDEN MIT MAJOR BIOLOGIE SOWIE VON STUDIERENDEN MIT MINOR 60 ECTS BIOLOGIE PH-S2 ERSTE PRIORITÄT) UND BACHELOR IN PHARMAZIE (4. SEMESTER)

1526	Pflanzenbiologie, Vorlesung	Prof. C. Kuhlemeier Prof. D. Rentsch PD Z. Tadele
100274	Praktikum und POL zu Pflanzenbiologie Prof. D. Rentsch	Prof. C. Kuhlemeier
1532	Pflanzenökologie I, Vorlesung	Prof. M. Fischer
101714	Praktikum und POL zu Pflanzenökologie I	Prof. M. Fischer
24818	Pflanzenökologische Exkursionen mit Bestimmungsübungen - Grundkurs	Prof. M. Fischer

BACHELOR IN BIOLOGIE (4. SEMESTER)

1534	Vegetationsökologie, Vorlesung	Prof. W. Tinner Prof. D. Newbery (2017) PD A. Stampfli (2017) PD P. Stoll (2017)
101903	Praktikum zu Vegetationsökologie	Prof. W. Tinner Prof. D. Newbery (2017) PD A. Stampfli (2017) PD P. Stoll (2017)
409378	Pflanzenökologische Exkursionen mit Bestimmungsübungen für Fortgeschrittene	Prof. M. Fischer

BACHELOR IN BIOLOGY, SPECIALISATION IN PLANT SCIENCES (6. SEMESTER)

10433*	Advanced Plant Biology: Dynamics of Forest Communities and Ecosystems	Prof. D Newbery
439104**	Advanced Plant Biology: Ecological Genomics	Prof. C. Parisod
10435	Advanced Plant Biology: Plant Ecology / Pflanzenbiologie für Fortgeschrittene: Pflanzenökologie	Prof. M. Fischer
100263	Colloquium in Plant Sciences / Kolloquium in Pflanzenwissenschaften *(Details s. Kapitel 2.2.)*	Prof. E. Allan Prof. M. Erb Prof. M. Fischer Prof. O. Heiri Prof. P. Jullien Prof. C. Kuhlemeier Prof. C. Parisod Prof. D. Rentsch Prof. W. Tinner PD C. Colombaroli PD Z. Tadele
10451	Colloquium in Plant Transport Physiology / Kolloquium in pflanzlicher Transportphysiologie	Prof. D. Rentsch
431334	Independent Work in Plant Ecology / Selbständige Arbeit in Pflanzenökologie	Prof. E. Allan Prof. M. Fischer Prof. D. Newbery (2017) Prof. C. Scheidegger Prof. W. Tinner
10460	Plant Ecological Field Course / Pflanzenökologischer Feldkurs	Prof. M. Fischer
409378	Advanced Plant Ecological Excursion with Plant Identification / Pflanzenökologische Exkursionen mit Bestimmungsübungen für Fortgeschrittene	Prof. M. Fischer
10584	Research Practical in Lichenology and Mycology / Forschungspraktikum in Lichenologie und Mykologie	Prof. C. Scheidegger
10585	Research Practical in Lichenology and Mycology, with bachelor work / Forschungspraktikum in Lichenologie und Mykologie, mit Bachelorarbeit	Prof. C. Scheidegger
10586	Research Practical in Molecular Plant Physiology / Forschungspraktikum in molekularer Pflanzenphysiologie	Prof. D. Rentsch
10587	Research Practical in Molecular Plant Physiology, with bachelor work / Forschungspraktikum in molekularer Pflanzenphysiologie, mit Bachelorarbeit	Prof. D. Rentsch
10588	Research Practical in Paleoecology / Forschungspraktikum in Paläoökologie	Prof. W. Tinner Prof. O. Heiri
10589	Research Practical in Paleoecology, with bachelor work / Forschungspraktikum in Paläoökologie, mit Bachelorarbeit	Prof. W. Tinner Prof. O. Heiri
10590	Research Practical in Plant Genetics and Development / Forschungspraktikum in Pflanzengenetik und pflanzlicher Entwicklungsbiologie	Prof. C. Kuhlemeier PD Z. Tadele

10591	Research Practical in Plant Genetics and Development, with bachelor thesis / Forschungspraktikum in Pflanzengenetik und pflanzlicher Entwicklungsbiologie, mit Bachelorarbeit	Prof. C. Kuhlemeier PD Z. Tadele
10592	Research Practical in Plant Ecology / Forschungspraktikum in Pflanzenökologie	Prof. M. Fischer
10593	Research Practical in Plant Ecology, with bachelor work / Forschungspraktikum in Pflanzenökologie, mit Bachelorarbeit	Prof. M. Fischer
104836	Research Practical in Plant Diversity	Prof. E. Allan
104837	Research Practical in Plant Diversity, with bachelor work	Prof. E. Allan
10596*	Research Practical in Vegetation Ecology	Prof. D. Newbery
10597*	Research Practical in Vegetation Ecology, with bachelor work	Prof. D. Newbery
11405	Research Practical in Plant Insect Interactions / Forschungspraktikum in Pflanzen-Insekten Interaktionen	Prof. M. Erb
11406	Research Practical in Plant Insect Interactions, with bachelor work / Forschungspraktikum in Pflanzen-Insekten Interaktionen, mit Bachelorarbeit	Prof. M. Erb
439076**	Research Practical in Ecological Genomics.	Prof. C. Parisod
439077**	Research Practical in Ecological Genomics, with bachelor work	Prof. C. Parisod
10598	Seminar in Molecular Plant Physiology / Seminar in Molekularer Pflanzenphysiologie	Prof. D. Rentsch
100206	Seminar in Plant Ecology	Prof. M. Fischer Prof. E. Allan
*405068	The importance of biodiversity for sustainability, Seminar	Prof. E. Allan
100372	Courses in Plant Biology at the Universities Fribourg and Neuchâtel (BENEFRI) / Lehrveranstaltungen in Pflanzenbiologie im Rahmen von BENEFRI	Prof. M. Erb Prof. C. Kuhlemeier Prof. D. Rentsch

MASTER IN ECOLOGY AND EVOLUTION (SPECIALISATION IN PLANT ECOLOGY), MASTER IN MOLECULAR LIFE SCIENCES (SPECIALISATION IN PLANT PHYSIOLOGY) AND MASTER IN CLIMATE SCIENCES

11400	Molecular Plant Physiology	Prof. D. Rentsch
8172	Molecular Plant Biology	Prof. C. Kuhlemeier
2228*	Plant Metabolism, Lecture and Practical	Prof. D. Rentsch
100173	Colloquium in Plant Genetics / Kolloquium in Pflanzengenetik	Prof. C. Kuhlemeier
103787	Journal club: Plant diversity. Seminar	Prof. E. Allan
100204	Seminar in Paleoecology and Paleoclimatology	Prof. W. Tinner Prof. O. Heiri

26396	Quaternary Climate Change and Terrestrial Ecosystems: Concepts and Observations	Prof. W. Tinner Prof. M. Grosjean
419300*	Quantitative analyses of paleoecological data using R. Block Course	PD D. Colombaroli
10446	Colloquium in Plant Biotic Interactions / Kolloquium zu «Biotische Interaktionen der Pflanzen»	Prof. M. Erb
10452	Holocene Vegetation History of the Central and Southern Alps. Field course	Prof. W. Tinner
8173	Paleoclimatological and Paleoecological Excursion to the Swiss Plateau and the Alps. Block Course	Prof. W. Tinner Prof. M. Grosjean
440297**	Seminar in Landscape Genetics	Prof. C. Parisod

2.2. KOLLOQUIEN

HERBSTSEMESTER 2016

KOLLOQUIUM IN PFLANZENWISSENSCHAFTEN

26. September 2016	Dr. Andrea E. Berardi, IPS *Pigment evolution at the micro and macroevolutionary scales* Organiser: Prof. Dr. C. Kuhlemeier
17. Oktober 2016	Dr. Koen Verhoeven, Netherlands Institute of Ecology *Genetics and Epigenetics of* Taraxacum officinale Organiser: Prof. Dr. M. Erb
24. Oktober 2016	Dr. Paul Fransz, Swammerdam Institute for Life Sciences, University of Amsterdam *Molecular, genetic and evolutionary analysis of a paracentric inversion in* Arabidopsis thaliana Organiser: Prof. Dr. C. Kuhlemeier
31. Oktober 2016	Dr. Pauline E. Jullien, ETH Zürich *Regulation of gene expression during* Arabidopsis *reproduction* Organiser: Prof. Dr. M. Fischer
14. November 2016	Dr. Andreas Koutsodendris, Heidelberg University, Germany *Climate and ecosystem variability in SE Europe during the past 500 ka: The Tenaghi Philippon archive revisited* Organiser: Prof. Dr. O. Heiri
21. November 2016	Dr. Peter Buchner, Rothamsted Research, UK *The challenge of improving nutrient uptake and use efficiency in wheat – The complexity of N, P, S and micronutrient uptake and transport* Organiser: Prof. Dr. D. Rentsch
28. November 2016	Prof. Dr. Philippe della Casa, Universität Zürich *Modeling Bronze Age Site Catchments and Economic Space in the Swiss Central Alps* Organiser: Prof. Dr. W. Tinner
5. Dezember 2016	Prof. Dr. W. Stanley Harpole, German Centre for Integrative Biodiversity Research (iDiv) *Resource co-limitation, productivity, and diversity* Organiser: Prof. Dr. E. Allan

12. Dezember 2016 Dr. Michael Raissig, Stanford University
Developmental innovations to stomatal form and function in grasses
Organiser: Prof. Dr. C. Kuhlemeier

19. Dezember 2016 Prof. Dr. Stefanie Jacomet, Universität Basel
The environment of (pre)historic settlements - reconstruction approaches on the basis of archaeobotany
Organiser: Prof. Dr. W. Tinner

AUSSERORDENTLICHE KURSE

21. Oktober 2016 Prof. Dr. James Grace, Wetland and Aquatic Research Center, U.S. Geological Survey
The Great Productivity-Diversity Debate: Looking back and looking forward
Organiser: Prof. Dr. M. Fischer

FRÜHJAHRSSEMESTER 2017

KOLLOQUIUM IN PFLANZENWISSENSCHAFTEN

27. Februar 2017 Dr. Stefan Töpfer, Centre for Agriculture and Biosciences International (CABI)
Inundative and classical biological control of the invasive alien western corn rootworm Diabrotica v. virgifera
Organiser: Prof. Dr. M. Erb

6. März 2017 Dr. Will Fletcher, University of Manchester
Holocene perspectives on the climatic vulnerability of the endangered Atlantic cedar in the Middle Atlas, Morocco
Organiser: Prof. Dr. W. Tinner

13. März 2017 Dr. Ulrich Hammes, University of Regensburg
Amino acid cycling: impact on yield, pathogen success and development
Organiser: Prof. Dr. D. Rentsch

20. März 2017 Dr. Paolo Cherubini, WSL Birmensdorf
Mediterranean tree-ring ecophysiology
Organiser: Prof. Dr. W. Tinner

27. März 2017 Prof. Dr. Catherine Peichel, Institute of Ecology and Evolution
Genetic and molecular basis of adaptation in threespine sticklebacks
Organiser: Prof. Dr. C. Kuhlemeier

3. April 2017 Dr. Sybille Unsicker, MPI-CE
*The Chemical Ecology of Black Poplar (*Populus nigra*)*
Organiser: Prof. Dr. M. Erb

10. April 2017 Prof. Dr. Merijn Kant, University of Amsterdam
Mechanisms of plant defense induction and suppression by spider mites
Organiser: Prof. Dr. M. Erb

24. April 2017 Prof. Dr. Alistair Seddon, University of Bergen
The Ecological Time Machine
Organiser: Prof. Dr. W. Tinner

1. Mai 2017	Dr. Jose Jiménez-Gómez, IJPB Versailles *Using Next Generation Sequencing to identify genes important for adaptation in Arabidopsis and domestication in tomato* Organiser: Prof. Dr. C. Kuhlemeier
8. Mai 2017	Dr. Eric Harvey, EAWAG Dübendorf *Biotic interactions as modulators of global change effects* Organiser: Prof. Dr. E. Allan

AUSSERORDENTLICHE KURSE

22. Juni 2017	Dr. Barbara George-Jaeggli, University of Queensland *A marriage made in heaven: Matching high-throughput genotyping with high-throughput phenotyping to lift crop yields* Organiser: Prof. Dr. D. Rentsch

HERBSTSEMESTER 2017

KOLLOQUIUM IN PFLANZENWISSENSCHAFTEN

2. Oktober 2017	Prof. Dr. David Eldridge, University of New South Wales, Australia *Herbivore activity as a driver of ecosystem structure and function* Organiser: Prof. Dr. E. Allan
9. Oktober 2017	Prof. Dr. Christian Parisod, IPS *Radiation of duplicated genomes under environmental challenges* Organiser: Prof. Dr. C. Parisod
23. Oktober 2017	PD Dr. Alexandra Weigelt, University of Leipzig *Does resource partitioning drive biodiversity effects? Evidence from the Jena Experiment* Organiser: Prof. Dr. E. Allan
30. Oktober 2017	Dr. Jörg Romeis, Agroscope Reckenholz *Assessing the environmental impact of insect-resistant transgenic plants* Organiser: Prof. Dr. M. Erb
6. November 2017	Dr. Bérangère Leys, Kansas State University *Consequences of nutrient availability on long-term vegetation dynamics* Organiser: Prof. Dr. W. Tinner
13. November 2017	Prof. Dr. Daniel Croll, University of Neuchâtel *How plant pathogens evolve the ability to cause disease in agricultural ecosystems* Organiser: Prof. Dr. M. Erb
20. November 2017	Dr. Pascal-Antoine Christin, University of Sheffield *Lateral gene transfers fueled recurrent transitions to major ecological innovations* Organiser: Prof. Dr. C. Parisod
27. November 2017	Prof. Dr. Laure Weisskopf, University of Fribourg *The smell of bacteria and its impact on plant growth and health* Organiser: Prof. Dr. M. Erb
4. Dezember 2017	Dr. Richard Maycock, Dow AgroSciences *Current and future global perspectives in crop protection* Organiser: PD Z. Tadele

11. Dezember 2017	Prof. Dr. Julia Vorholt, ETHZ *The leaf microbiota: disassembling and rebuilding to explore plant microbe interactions* Organiser: Prof. Dr. D. Rentsch
18. Dezember 2017	Dr. Anita Narwani, EAWAG Dübendorf *Phyt to compete: algal responses to competition for resources* Organiser: Prof. Dr. E. Allan

FRÜHJAHRSSEMESTER 2018

KOLLOQUIUM IN PFLANZENWISSENSCHAFTEN

19. März 2018	Dr. Marie Barberon, University of Lausanne *Nutrient transport in roots* Organiser: Prof. Dr. M. Erb
9. April 2018	Dr. Chi Tam Nguyen, University of Lausanne *Cellular insight of Glutamate Receptor-Like proteins controlling long distance signalling in a wounded plant* Organiser: Prof. Dr. D. Rentsch
16. April 2018	Dr. Martin Fischer, ETH Zurich *Plant genomics of adaptation to highly heterogeneous Alpine environments* Organiser: Prof. Dr. C. Parisod
23. April 2018	Dr. Graciela Gil Romera, Instituto Pirenaico de Ecologia, CSIC, Zaragoza *Long-term environmental drivers of the Afromontane vegetation belt in Ethiopia* Organiser: Prof. Dr. W. Tinner
30. April 2018	PD Dr. Daniele Colombaroli, Royal Holloway University London *Palaeoecology as a guide for ecosystem management and biodiversity conservation* Organiser: Prof. Dr. W. Tinner
7. Mai 2018	Dr. Ilia J. Leitch, Royal Botanic Gardens, Kew, UK *Plant genome size diversity and evolution* and Prof. Andrew R. Leitch, Queen Mary University of London, UK *Genome Size and Polyploidy: their interaction with nutrients and herbivores* Organiser: Prof. Dr. C. Parisod
14. Mai 2018	Prof. Dr. Tom Crowther, ETH Zürich *Exploring the ecological drivers of carbon cycling at a global scale* Organiser: Prof. Dr. E. Allan
28. Mai 2018	Dr. Ignacio Rubio-Somoza, Centre for Research in Agricultural Genomics (CRAG), Barcelona *Plant micro RNAs at the development-defence interface* Organiser: Prof. Dr. P. Jullien

AUSSERORDENTLICHE KURSE

22. Februar 2018	Dr. Ryohei Thomas Nakano, Max Planck Institute for Plant Breeding Research *Modular traits and emergent properties of* Arabidopsis thaliana *core root microbiota* Organiser: Prof. Dr. M. Erb
22. Februar 2018	Dr. Joelle Schläpfer Sasse, Lawrence Berkeley National Laboratory *Do plant exudates shape the root microbiome?* Organiser: Prof. Dr. D. Rentsch
12. Juni 2018	Prof. Dr. Gary Schenk, University of Queensland, Australia *Function and Mechanisms of Binuclear Metallohydrolases: from Antibiotic Degradation to Pesticide Detoxification* Organiser: Prof. Dr. D. Rentsch
19. Juni 2018	Prof. Dr. Jared Ali, Pennsylvania State University, USA *Plant Defense and Multi-trophic Chemical Ecology: Tales of plant interactions with the animals that want to eat them* Organiser: Prof. Dr. M. Erb
16. Juli 2018	Prof. Dr. Sonia Gazzarrini, University of Toronto, Canada *Hormonal and environmental regulation of seed development and germination* Organiser: Prof. Dr. D. Rentsch

2.3. ABSCHLÜSSE

2.3.1. BSC

Bürki Tala (Prof. M. Erb), da Silva Sandro (Prof. C. Parisod), Hofmann Tobias (Prof. E. Allan), Inniger Hannah (Prof. M. Erb), Kipf Pascal (Prof. E. Allan), Piller Silvan (Prof. D. Rentsch), Pulver Valentin (Prof. M. Erb), Roberti-Maggiore Giotto (Prof. M. Fischer), Röckel Nora (PD Z. Tadele), Ruiz Célia (Prof. M. Erb), Schenk Noëlle (Prof. C. Kuhlemeier), Schnell Mirjam (Prof. D. Rentsch), Schuller Jil (Prof. M. Fischer), Stirnemann Alex (Prof. D. Newbery), Thönen Lisa (PD Z. Tadele), Wälchli Jan (Prof. M. Erb), Zahnd Cedric (Prof. E. Allan)

2.3.2. MSC

Abegglen Roman (Prof. W. Tinner/ PD D. Colombaroli)	*Modern pollen representation of Mediterranean vegetation along an altitudinal gradient in Sicily*
Bühler Bettina (Prof. M. Erb)	*Secondary metabolite hijacking by a specialist root herbivore: Is iron the key?*
Ernst Viona (Prof. D. Rentsch)	*The genetic basis associated with growth on dipeptides in an* Arabidopsis thaliana *MAGIC population*
Gassner Sylvia (Prof. W. Tinner)	*20,000 years of interactions between climate, vegetation and land-use in Northern Greece*
Gfeller Valentin (Prof. M. Erb)	*Chemical and molecular characterization of root-emitted volatiles in Centaurea stoebe and their role in belowground plant-plant interactions*
Grünig Sandra (Prof. M. Fischer/ Prof. C. Parisod)	*Hybrid origin and population structure of* Pulmonaria helvetica
Gubler Moritz (Prof. W. Tinner)	*Fine-scale temperature measurements provide microclimatic evidence for the northernmost glacial refuge for temperate trees south of the Alps*
Heer Nico (Prof. M. Fischer)	*Testing for plant community patterns along 10 elevational transects in grasslands and forests of the Swiss Alps using species response curves*
Jäggi Lea (Prof. C. Kuhlemeier)	*The genetic and molecular basis of floral tube color in the genus Petunia*
Kuster Philipp (Prof. D. Rentsch)	*Molecular characterization and functional analysis of two ANT1-like transporters of Arabidopsis thaliana*
Léchot Jonas (Prof. M. Fischer)	*Enhanced land-use efficiency in a polyculture of lettuce, maize, melon and tomato*
Magoye Electine (PD Z. Tadele)	*Genome Structure and Phylogeny of Eragrostis Species*
Massa Samuel (Prof. M. Fischer)	*The need for species specific savanna tree allometric equations: Ozoroa insignis, Lannea schimperi, Sclerocarya birrea and Combretum zeyheri*
Michel Joëlle (Prof. M. Fischer)	*Fungal leaf pathogens on native and alien species in the Botanical Garden*
Piller Silvan (Prof. D. Rentsch)	*Functional characterization of* Trypanosoma brucei *amino acid transporters TbAAT2.1,TbAAT2.2, TbAAT2.3 and TbAAT10.2*

Roder Thomas (Prof. M. Erb)	*The Role of Melolontha melolontha Glucosidases in the Interaction with a Major Defensive Metabolite of Taraxacum officinale*
Rubeli Aline Delphine (Prof. M. Fischer)	*Herbivore performance and preference in relation to leaf damage and plant abundance*
Eggenberger Sebastian (Prof. W. Tinner)	*Millennial multi-proxy reconstruction of oasis dynamics near the Jordanian Dead Sea*
Stirnemann Alex (Prof. C. Scheidegger)	*Niche Differentiation and Genetic Structure of* Bactrospora dryinain *Swiss Hardwood Floodplain and Coppice-with-Standards Forests*
Süsstrunk Pascal (Prof. M. Fischer)	*Methods for the control of six invasive plant species*
Ursenbacher Stefan (Prof. O. Heiri)	*Influence of deep-water oxygen concentration on the distribution of aquatic invertebrate remains in sediments from small lakes in Switzerland*
Zwahlen Christoph (Prof. M. Fischer)	*Diversity patterns of vascular plants and orthopterans along five elevation gradients in semi-natural grasslands and forests in the Northern Alps of the Bernese Oberland, Switzerland*
Zwimpfer Elias (Prof. M. Erb)	*Do neighbour plants matter? A study about neighbourhood effects and how they affect plant –herbivore interactions below ground*

2.3.3. DOKTORATE

Adolf Carole (Prof. W. Tinner)	*Calbrating fire and vegetation proxies across large geographic and climatic gradients for quantitative environmental reconstructions*
Delgado Manzanedo Ruben (Prof. E. Allan/ Prof. M. Fischer)	*Drivers of adaptation and intra-specific variability in dominant tree species*
Kebede Dejene (Prof. C. Kuhlemeier)	*Next Generation Sequencing of Eragrostis Species*
Moser Michel (Prof. C. Kuhlemeier)	*Next generation sequencing reveals the genomic structure of Petunia*
Rey Fabian (Prof. W. Tinner)	*Exploring eight millennia of climatic, vegetational and agricultural dynamics on the Swiss Plateau by using annually layered sedimentary time series*
Schäfer Deborah (Prof. M. Fischer)	*Diversity-stability relationships in temperate grasslands and forests of differing land-use intensities*
Vincent Hugo (Prof. M. Fischer)	*Experimental comparisons among very rare to widespread plant species of Switzerland*

2.3.4. HABILITATION

Dr. D. Colombaroli (Prof. W. Tinner)	*Linking fire, human impact and plant diversity across multiple temporal and spatial scales*
Dr. Oliver Heiri (Prof. W. Tinner)	*Using biotic proxies for the reconstruction of past environments*

3. FORSCHUNG

3.1. FORSCHUNGSPROJEKTE

3.1.1. ABTEILUNG PFLANZLICHE ENTWICKLUNGSBIOLOGIE (C. KUHLEMEIER, Z. TADELE)

BESTÄUBUNGSÖKOLOGIE

In unserem Forschungsprojekt über die Bestäubungsökologie in der Gattung *Petunia* werden die Arten *P. axillaris*, *P. integrifolia* und *P. exserta* im Labor gekreuzt. Auch wenn sie am gleichen Standort wachsen, hybridisieren diese Arten in der Natur nur selten, vermutlich, weil sie von unterschiedlichen Tieren bestäubt werden; *P. axillaris* von Nachtfaltern, *P. integrifolia* von Bienen und *P. exserta* von Kolibris. In gezielten Kreuzungsprogrammen wurden Populationen von rekombinanten Pflanzen gezüchtet, welche sich in einzelnen Aspekten des Bestäubungssyndroms wie Farbe, Duft, Nektarbildung und Blütenarchitektur von den Eltern unterscheiden. Im vergangenen Jahr wurden mehrere Gene gefunden, welche die Unterschiede in der Blütenfarbe und in der Duftemission zwischen tagesaktiven und nachtaktiven Bestäubern erklären. *(CK)*

TEF IMPROVEMENT PROJEKT

Lange Zeit wurde *Eragrostis tef*, ein afrikanisches Getreide, welchem eine grosse Bedeutung bezüglich Agronomie und Ernährung zukommt, aus Sicht der Forschung und Entwicklung stark vernachlässigt. In den letzten zehn Jahren hat das „Tef Improvement Project“ (TIP), mit Unterstützung der Syngenta Stiftung für Nachhaltige Landwirtschaft sowie der Universität Bern, grosse Fortschritte bei der Verbesserung von Tef, dem wichtigsten Grundnahrungsmittel in Äthiopien, gemacht. Das Hauptproblem von Tef ist der lange, schwache Stängel, der das Umfallen der Pflanzen begünstigt und somit den Ertrag drastisch reduziert. Demzufolge ist das Hauptziel des TIPs die Züchtung kleinwüchsiger Teflinien. Die bisher aus dem TIP hervorgegangenen Kandidatenlinien erreichten grosse Aufmerksamkeit. So führte die Kreuzung dieser Kandidaten aus Bern mit regional angepassten Tef-Varietäten in Äthiopien zur ersten Varietät, die gegen das Umfallen tolerant ist und unter dem Namen *Tesfa* seit Anfang 2017 erhältlich ist. Zurzeit wird diese neue Tef-Varietät von Bauern im zentral nördlichen und zentral östlichen Teil von Äthiopien angebaut. Des Weiteren wurde ein langfristiger Partnerschaftsvertrag, mit einer Laufzeit bis zum Jahr 2028, zwischen der Syngenta Stiftung für Nachhaltige Landwirtschaft und der Universität Bern unterzeichnet. *(ZT)*

(CK) Cris Kuhlemeier
(ZT) Zerihun Tadele

3.1.2. Abteilung Pflanzenepigenetik (P. Jullien)

Sexual reproduction is a hallmark in the life cycle of many organisms: it ensures the proper inheritance of traits and allows adaptation. Intricate modifications of epigenetic landscapes occur during and around fertilization to establish zygotic totipotency, while maintaining genome integrity. DNA methylation dynamics are more complicated than previously assumed and might require multiple layers of reinforcing mechanisms to avoid the accumulation of possibly deleterious mutation and/or epi-mutations. Our group aims at deciphering the cell-specific dynamics of the methylome during reproduction and, hence, at gaining insight into how the methylome is stably maintained without suppressing diversity.

Characterization of epigenome maintenance during reproduction with the study of novel cell type-specific actors of the pathway.

Several actors of DNA methylation pathways were previously shown to exhibit cell-specific expression in reproductive tissue, however functional analysis of them remains incomplete. We are currently characterizing these unexplored players of the DNA methylation pathway such as the DNA methyltransferases MET2a/2b and MET3 which are specifically expressed in the female gamete and in the endosperm after fertilization. We are using microscopy, genetic, molecular biology as well as genomics techniques to investigate the function of those genes during reproduction. In addition, as all reproductive organs arose from the plant meristems, we are also investigating the expression of those pathways in the plant stem cells using 3D imaging.

Study of the influence of surrounding tissues on the zygotic methylome focusing on the function and mechanisms of small RNAs movement.

In plants, small RNA molecules are known to targets de novo DNA methylation. Small RNAs are also known to move from cell-to-cell as well as systemically via the plant vascular system. In this project, we are studying the influence exerted by surrounding tissues in the maintenance of proper zygotic DNA methylation during sexual reproduction. More precisely, we are interested in determining whether small RNA molecules move from maternal tissue to silence gene expression in the gametes or the embryo. We are using multiple cell-specific sensors to detect small RNA movement within plant reproductive organs. Using Viral suppressor of gene silencing, we are also suppressing the small RNA pathway in different reproductive cell type to investigate their effect on the plant embryo and methylome.

3.1.3. Abteilung Molekulare Pflanzenphysiologie (D. Rentsch)

Transporter und deren Bedeutung für die Stickstoffverteilung

Stickstoff ist für Wachstum und Ertrag von Pflanzen essentiell und wird unseren Kulturpflanzen in der Regel in Form von Dünger zugeführt. Die übermässige oder falsch abgestimmte Verwendung von Dünger führt jedoch zur Auswaschung von (anorganischem) Stickstoff, und damit unter anderem zu Beeinträchtigungen anderer Ökosysteme. Die Pflanze kann Stickstoff in anorganischer Form aufnehmen aber auch organische Verbindung wie Aminosäuren sowie kleinere und grössere Peptide nutzen. Unsere Forschung untersucht die Rolle verschiedener Transporter für die Aufnahme und Verteilung von organischem Stickstoff in der Pflanze.

Untersuchungen verschiedener Arabidopsis-Linien und Mutanten zeigten grosse Unterschiede im Wachstum auf Peptiden als Stickstoffquelle. Dies weist auf eine unterschiedliche Regulation des Transports und/oder des Metabolismus hin. Wir versuchen derzeit die Gene zu identifizieren, die für diese Unterschiede verantwortlich sind. Ausserdem testen wir die Rolle von Aminosäure- und Peptidtransportern für den Export von organischem Stickstoff aus den Vakuolen und dem Langstreckentransport aus den Wurzeln oder Blättern in die Samen. Neben der Modellpflanze *Arabidopsis thaliana*, verwenden wir für diese Studien auch Tomatenpflanzen.

Kirsten Arens, Viona Ernst, Astrid Fastner, Lisa Kuslys, Philipp Kuster, Jacopo Martinis, Jana Oberländer, Doris Rentsch, Marianne Suter Grotemeyer

Transport von Aminosäuren in Trypanosoma Brucei

Trypanosoma brucei (Verursacher der Schlafkrankheit) sind Parasiten mit einem Wirtswechsel zwischen Insekten und Wirbeltieren. In Zusammenarbeit mit anderen Forschungsgruppen untersuchen wir die Eigenschaften von Aminosäuretransportern. Interessanterweise, und im Gegensatz zu den bisher charakterisierten pflanzlichen und vielen tierischen Transportern, sind einige dieser Aminosäuretransporter sehr selektiv. Wir konnten zeigen, dass es in *T. brucei* zwei Ornithintransporter gibt, wobei einer selektiv für Ornithin ist und der andere Ornithin und Histidin transportiert. Wird der Ornithintransport reduziert, führt dies zu erhöhter Sensitivität gegenüber Eflornithin, welches erfolgreich als Wirkstoff gegen *T. brucei gambiense* eingesetzt wird. Gleichzeitig wird jedoch die Sensitivität gegenüber eines weiteren Wirkstoffes (Suramin) reduziert.

Alexander Haindrich, Juan Pereira de Macêdo, Silvan Piller, Doris Rentsch, Michael Steinmann

3.1.4. Abteilung Ökologische Genomik (C. Parisod)

The overarching question of the significance of genome dynamics on the origin of so called evolutionary innovations as well as new species is investigated through several complementary projects. We are particularly interested in the overlooked role of mutations such as duplication and transposition of coding as well as non-functional genes on the survival of plants under changing environments. Our projects use a combination of high-throughput genomics and computational procedures in natural as well as experimental populations of various model systems to address the molecular and ecological ramifications of trait variation among individuals.

In the framework of the interdisciplinary project GeneScale (https://www.wsl.ch/en/projects/genescale.html), genome resequencing in the model species *Arabis alpina* identifies candidate adaptive loci associated with environmental features at microsites, highlighting how genome evolution and natural selection operates at very high resolution under alpine conditions.

Analyses of genetic variation within and among *Aegilops* wild wheats are not only mapping available resources for wheat breeding, but further showing that genome dynamics induced by intragenomic conflicts promotes the evolution of new species.

Our new project integrates these lines of research and emphasizes on an emerging model system, *Biscutella laevigata*, to unravel the genomic substrate of adaptive radiation in the Alps. Genomic and transcriptomic surveys in populations along elevation transects are deciphering how duplicated genes interact with parasitic transposable elements to drive the evolution of stress-responding genes and shape highly redundant plant genomes under new environmental constraints.

3.1.5. Abteilung Biotische Interaktionen (M. Erb)

Die Interaktionen zwischen Pflanzen und Umwelt bestimmen deren Fitness und Ertrag. Unsere Gruppe untersucht die Strategien der Pflanzen die ihnen ermöglichen, biotischen und abiotischen Stressfaktoren zu widerstehen. Dabei konzentrieren wir uns im Speziellen auf die Rolle von Pflanzensekundärstoffen in den Interaktionen zwischen Pflanzen, Herbivoren und Mikroben.

1,4-Benzoxazin-3-one als bestimmende Faktoren in der Interaktion zwischen Mais und dem Maiswurzelbohrer

Der Maiswurzelbohrer *Diabrotica virgifera virgifera* ist der wahrscheinlich kostspieligste Insektenschädling dieses Planeten. Wir untersuchen inwiefern sich *D. virgifera* an die Pflanzenverteidigung von Mais angepasst hat und entwickeln Methoden, um dieser Anpassung entgegenzuwirken. In den letzten Jahren konnten wir dokumentieren, dass einer bestimmten Klasse von Sekundärstoffen, 1,4,-benzoxazin-3-one (BXDs), eine zentrale Rolle in der Interaktion zwischen der Pflanze und dem Insekt zukommt, da sie dem Insekt die Orientierung im Wurzelraum ermöglichen. In einem interdisziplinären Ansatz analysieren und manipulieren wir nun i) die Biosynthese von BXDs in Mais, ii) deren Transport in die Rhizosphäre, und iii) deren Metabolisierung durch *D. virgifera*. Dies ermöglicht uns, deren Rolle in der Interaktion zwischen der Pflanze und der Rhizosphäre im Detail zu verstehen.

Latex Sekundärstoffe des Löwenzahns und deren Rolle in der Resistenz gegen wurzelfressende Frassfeinde

Mehr als 10% aller Landpflanzen besitzen spezialisierte Zellen oder Zellverbände, sogenannte Lacticiferen, die mit hochaktiven Sekundärstoffcocktails gefüllt sind. Bis heute gibt es jedoch nur wenige systematisch funktionelle Studien, die die Rolle dieser Zellen in der Pflanzenresistenz analysieren und dokumentieren. Wir haben den Löwenzahn *Taraxacum officinale* als molekular ökologisches System etabliert, um die Rolle von Latex Sekundärstoffen in der Resistenz gegen wurzelfressende Frassfeinde zu erforschen. Der Latex von *T. officinale* enthält drei Hauptklassen von Sekundärstoffen. Deren Biosynthese analysieren und manipulieren wir nun mittels RNA Interferenz. Der Engerling *Melolontha melolontha*, der bevorzugt an Löwenzahn frisst, dient uns als Insektenmodell, um die Rolle der Sekundärstoffe als Abwehrsubstanzen zu verstehen. Zu diesem Zweck etablieren wir nicht zuletzt auch eine Reihe neuer Methoden, um den Engerling im Boden zu verfolgen und sein Frassverhalten zu visualisieren.

3.1.6. Abteilung Pflanzenökologie (M. Fischer)

We integrate ecological and evolutionary sciences to assess the causes and consequences of global change. In particular, we study the drivers of biodiversity change, the consequences of these changes for ecosystem functions and services, for human societies, and resulting conservation measures. We do so by performing basic and applied plant research, syntheses, comparative studies, experiments, surveys and assessments across scales and environments, and by engaging at the interface between science and policy. Accordingly, the Plant Ecology Lab works in several related areas of interest: plant ecology, biodiversity and conservation, ecological synthesis, and biodiversity-related assessment.

Plant Ecology

We are broadly interested how the performance of plants, including both individual species and plant communities, responds to different natural and anthropogenic drivers. We combine comparative studies comparing plant diversity or individual plant fitness along environmental gradients (e.g. elevation, land use) with experimental studies, in which we manipulate components of the environment that influence plants. Furthermore, we also experimentally manipulate the diversity of plants to study consequences of diversity change for plant performance. Individual projects involve:

- The Botany Project of the Biodiversity Exploratories (also see Synthesis below)
- The effect of altitude on plant diversity along elevational gradients in the Swiss Alp
- The Jena-Experiment on the influence of plant diversity on plant species performance
- The “Schynige Platte”-experiment on the legacy effect of fertilization on plant diversity in an Alpine grassland
- The population biology of invasive plant species
- The conservation biology of rare plant species
- Plant-soil feedback studies on the effect of plants on soil mutualistic and antagonistic microbes

Biodiversity and Conservation

In collaboration with the Botanical Garden of the University of Bern we study different aspects of plant biodiversity, global change ecology and the ex-situ conservation and re-introduction of rare plant species. Further important part of our work is to communicate the fascination for plants and the importance of biodiversity and plant conservation to the greater public. For this purpose, we build on the plant collections that we continuously maintain and develop, including the living plant collection at the Botanical Garden and the collection in the Herbarium of the University of Bern.

Ecological Synthesis

The Biodiversity Exploratories research platform (www.biodiversity-exploratories.de), led by us, coordinates research efforts on land use, biodiversity and ecosystem functioning in a common study design and data can therefore be directly linked and compared. Within this large project, in close collaboration with the Community Ecology section of the IPS, we perform biodiversity synthesis and investigate how land use intensification affects biodiversity and species interactions, and how biodiversity and land-use intensity affect ecosystem functioning and services. We also catalyse synthesis efforts of others by spreading the concepts and statistical methods for synthesis across the entire Biodiversity Exploratories.

Beyond that, we are involved in further synthesis activities with several international partners.

Biodiversity-related Assessment

In combination of expertise on physical and human geography, forestry, wildlife ecology, mountain biodiversity, social-ecological science, and science-policy interfaces we generate synthesis knowledge in support of innovative and sustainable solutions for nature and people.

Three core mandates of the group are its contribution to the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), the hosting of the scientific secretariat of the Permanent Senate Commission on Fundamental Issues of Biological Diversity of the German Research Foundation (DFG), and the coordination of the Global Mountain Biodiversity Assessment (GMBA). Some recent and current projects include:

- Mountain biodiversity and the Sustainable Development Goals: knowledge for synergistic action
- Toward biodiversity-related opportunities for sustainable development: a global social-ecological mountain comparison
- Technical Support Unit of the IPBES - Regional Assessment for Europe and Central Asia
- Scientific secretariat of the Permanent Senate Commission on Fundamental Issues of Biological Diversity of the German Research Foundation (DFG)

3.1.7. Abteilung Gemeinschaftsökologie (E. Allan)

Coexistence

An active research line of the Biodiversity group is to better understand the mechanisms that allow species to coexist in nature, and for that we use vascular plants and mosses as study systems. We are trying to understand how frequently intransitivity (absence of competition hierarchy) occurs and how it promotes coexistence. For this we use manipulative experiments and analysis of co-occurrence data.

A second line of research aims to understand the role of natural enemies such as herbivores in maintaining coexistence. We are running field and greenhouse experiments testing for interactions between herbivore impact and plant competition and how this varies depending on species abundance.

Santiago Soliveres, Anne Kempel, Eric Allan

Global change, Biodiversity and Ecosystem services

Biodiversity Exploratories - This is a large German program looking at relations between environmental change, biodiversity and ecosystem functioning, in both forests and grasslands. The project has generated some uniquely comprehensive datasets and we are involved in synthesis analysis of these (in collaboration with the section «Plant Ecology», s. 3.1.6.). We look at effects of land-use intensification on biodiversity at multiple trophic levels and at the effects of biodiversity loss on ecosystem functioning and service delivery.

Maria Felipe Lucia, Santiago Soliveres, Abiel Rindisbacher, Eric Allan

PaNDiv: is a new experiment set up in Münchenbuchsee to test the mechanisms by which nitrogen deposition affects ecosystem function. In grasslands nitrogen deposition can directly affect functioning through changes to soil chemistry but can also indirectly alter functioning because it results in a loss of plant diversity, a shift in plant functional composition towards fast growing species and a shift in multitrophic interactions. We test the relative importance of these mechanisms and look for interactions between them by factorially manipulating plant species richness, plant functional compositon, nitrogen addition and fungal pathogen exclusion.

Noémie Pichon, Seraina Cappelli, Thu Zar Nwe, Tosca Mannall, Eric Allan

We also look at the effects of other diversity dimensions on ecosystem functioning in a mesocosm experiment that manipulates plant functional and phylogenetic diversity. Exclusions of insects and fungal pathogens test mechanism by which these diversity dimensions could affect ecosystem functioning.

Jil Schuller, Eric Allan

Woody Weeds - We are involved in a collaborative project, involving Swiss and African partners, looking at the effect of invasion by woody species on ecosystem service provision. We look at impacts of two problem invaders (Prosopis sp. and Lantana camara) on ecosystem service provision in pastoral communities in Kenya, Ethiopia and Tanzania. We aim to link ecological data with socio-economic data to predict impacts of continuing invasion on rural livelihoods.

Theo Linders, Eric Allan

FunDivEurope - This project explores the functional consequences of biodiversity in European forests. A key element of the project is a network of plots established in mature forests, along a diversity gradient. In collaboration with the section «Plant Ecology» (s. 3.1.4.) we are involved in synthesis of the datasets generated by this project and also in looking at local adaptation to climate in trees. Seedlings from different climatic provenances were planted on each plot, to determine whether the expression of local adaptation is affected by forest diversity.

Rubén Delgado Manzanedo, Eric Allan

Swiss Biodiversity Monitoring - The Swiss Biodiversity Monitoring programme surveys the diversity of plants, butterflies and birds in a network of plots across Switzerland. Plots are resurveyed every 5 years to monitor changes in biodiversity. We are involved in analysing patterns of functional and phylogenetic diversity using these datasets in collaboration with Valentin Amrein and Tobias Roth (University of Basel) and Peter Pearman (University of the Basque Country).

Eric Allan

3.1.8. Abteilung Paläoökologie (W. Tinner, O. Heiri)

Klimaänderungen und Ökosystemdynamik im Mittelmeergebiet

In diesem SNF-Projekt sammeln wir an 40 Seen in Europa, von der Arktis bis nach Sizilien und von Portugal bis in die Ukraine, den Holzkohle-Influx (Anzahl Partikel/cm^2/Jahr) in Sedimentfallen und vergleichen diesen mit Fernerkundungsdaten. Die Kalibration sollte es erlauben, die Feuergeschichte besser zu rekonstruieren. Gleichzeitig erfassen wir die Pollenvielfalt, Vergleiche mit Vegetationsdaten sollen zu besseren Rekonstruktionen der Biodiversität führen. Zudem arbeiten wir mit Sedimentarchiven von Standorten im immergrünen Vegetationsgürtel Italiens sowie von Standorten aus den Alpen und dem Apennin, um die dortige Vegetations- und Klimageschichte zu rekonstruieren. Die neuen Klimareihen werden in ein dynamisches Landschafts- und Vegetationsmodell integriert. Unser Ansatz der Paläodaten mit dynamischen Modellen kombiniert erlaubt es, bestehende Hypothesen zur Dynamik der Mittelmeervegetation zu testen und die Reaktionsweise der Mittelmeerökosysteme auf starke Klimaänderungen und Landnutzung besser zu verstehen. Zudem werden diese Untersuchungen numerische Voraussagen der künftigen (klima- und landnutzungs-bedingten) Vegetationsveränderungen in Europa ermöglichen. *(WT, PH, EG, CA, TP)*

Paläoökologische Beiträge zur Archäologie

Am Zürichsee untersuchen wir beim Seedamm Hurden in Zusammenarbeit mit der Stadtarchäologie Zürich und dem Kanton Schwyz die Wechselwirkungen zwischen Vegetationsentwicklung, Umweltveränderungen und prähistorischer Landnutzung. Das Ziel ist dabei herauszufinden, wie sich prähistorische Verkehrsknotenpunkte wie der Seedamm auf die Umwelt ausgewirkt haben. Gleichzeitig fokussieren wir uns auf die Rekonstruktion der damaligen Landnutzung, die diese erstaunliche vorgeschichtliche Leistung, den Brückenschlag über den Zürichsee vor über 3000 Jahren (mit über 200000 Holzpfählen), ermöglichte. *(WT, AFL, EG)*

Untersuchung Neuer jährlich aufgelöster Vegetations- und Umweltarchive im Berner Mittelland

Jährlich aufgelöste Archive sind in Europa sehr selten. Wir haben in diesem SNF-Projekt zwei neue Archive entdeckt, die über weite Teile der letzten 7500 Jahre jährliche Schichten ausweisen, sogenannte Warven. Mit dieser sensationellen Entdeckung ergibt sich die einmalige Gelegenheit, die Vegetations- und Umweltprozesse des Mittellandes mit jährlicher bis saisonaler Auflösung über die Jahrtausende zu rekonstruieren. Es handelt sich dabei um den Moossee in der Agglomeration der Stadt Bern und um den Burgäschisee an der Kantonsgrenze zu Solothurn. In einem ersten Schritt widmet sich das Projekt der Rekonstruktion der Vegetations- und Landnutzungsgeschichte. Das Projekt ist in einem grossen trinationalen SNF-DFG-FWF Projekt eingebettet, in dem Archäologen und Paläoökologen aus Deutschland, Österreich und der Schweiz interdisziplinär zusammenarbeiten, um die Wechselwirkungen zwischen den prähistorischen Gesellschaften und ihrer Umwelt zu untersuchen. (*FR, EG, WT)*

Vegetations- und Nutzungsgeschichte der Ukraine

Nach langjährigen Forschungen in der Nord- und Südostukraine, sind wir dran, die Vegetations- und Nutzungsgeschichte der Südwest- und Mittelukraine mit modernen paläoökologischen Ansätzen zu rekonstruieren. Die meisten in der Ukraine verfügbaren Untersuchungen stammen aus der Sowjetzeit und sind methodisch veraltet. In unserem Team, das auch aus Archäologen aus der Ukraine und der Schweiz besteht, untersuchen wir die komplexen Abhängigkeiten zwischen Klima, Vegetation und prähistorischen Kulturen in der Kornkammer Europas. Insbesondere gehen wir der offenen Frage nach, ob die Landwirtschaft vor über 8000 Jahren auch über die ukrainische Route (und nicht nur über die griechische Route) in Europa eingeführt wurde. *(CS, EG, WT)*

Feuer und Vegetationsgeschichte aus Eisarchiven

In Zusammenarbeit mit dem PSI Villigen, der ETH Zürich und dem Geographischen Institut der Universität Bern untersuchen wir Gletschereiskerne aus drei Kontinenten (Europa, Asien, Südamerika) zur Rekonstruktion der Feuer- und Vegetationsgeschichte der letzten 2000 Jahre. Die Eiskerne stammen aus drei Kontinenten und biogeographischen Regionen, welche entweder stark zu den globalen Feueremissionen beitragen oder aus denen neue sehr gute Daten für die Kalibration der Eiskerndaten zur Verfügung stehen. Ziel ist ein besseres Verständnis der globalen Zusammenhänge zwischen Bränden, Klima, Landnutzung und Verschmutzung. (*SB, EG, CS, WT)*

Langfristige Ökosystem- und Klimaveränderungen in Zentraleuropa

In Zusammenarbeit mit der Universität Heidelberg und der Université de Franche-Comté werden Seesedimente untersucht, die die Übergänge zwischen der heutigen Warmzeit, der letzten Eiszeit und der vorangegangenen Warmzeit umfassen. Anhand von aquatischen und terrestrischen Indikatoren wird die Wechselwirkung zwischen langfristigen Klimaveränderungen und Ökosystemveränderungen untersucht, sowie, mithilfe von Fossilien von klimasensitiven Arten, die Temperaturentwicklung über die Jahrtausende rekonstruiert. *(OH, AB)*

Florfliegen, Wildbienen, Hummeln, Marienkäfer und ihre Bestäubungsökologie an Standorten in der Schweiz und Deutschland

In Zusammenarbeit mit der Agroscope Zürich wird die Bestäubungsökologie verschiedener Insekten unter Einbezug von Standortfaktoren und ändernder Saisonalität untersucht. *(EG, WT)*

(CA)	Carole Adolf	*(FR)*	Fabian Rey
(SB)	Sandra Brügger	*(AB)*	Alexander Bolland
(AFL)	André F. Lotter	*(OH)*	Oliver Heiri
(EG)	Erika Gobet	*(TP)*	Tiziana Pedrotta
(CS)	Christoph Schwörer	*(WT)*	Willy Tinner

3.2. PUBLIKATIONEN

3.2.1. WISSENSCHAFTLICHE PUBLIKATIONEN IN REFERIERTEN INTERNATIONALEN ZEITSCHRIFTEN

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3.2.3. Übrige Publikationen

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Schwörer, C; Gobet, E: Das lange Gedächtnis der Moore. aqua viva. Die Zeitschrift für Gewässerschutz 2016(3): 38-40, 2016.

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4. AKTIVITÄTEN

4.1. TEILNAHME AN KONGRESSEN UND TAGUNGEN

Allan, E.	8.-12.8.2016	Ecological Society of America Annual Meeting, Fort Lauderdale, Florida	R	*Ecosystem functioning is driven by biodiversity and abundance at multiple trophic levels*
Allan, E.	20.-22.9.2016	Ecosystem Service Partnership Conference, Antwerp	R	*Land use intensification alters multifunctionality via loss of biodiversity and changes to functional composition*
Allan, E.	10.10.2016	Invited Seminar, University of Basel	R	*Land use biodiversity and ecosystem functioning: a multitrophic perspective*
Allan, E.	1.-4.11.2016	Community Assembly Workshop	T	
Allan, E.	12.-15.12.2016	British Ecological Society Annual Meeting, Liverpool	V	*Co-organiser of special session "Intransitive competition and species coexistence"*
Allan, E.	2.-3.2.2017	biology17, Bern	T	*(member of organization committee)*
Allan, E.	20.-24.2.2017	Biodiversity Exploratories Annual Meeting, Wernigerode	R	*How does land use affect the abundance of functionally important species?*
Allan, E.	11.-14.12.17	British Ecological Annual Meeting 2017, Ghent	R	*Effects of multitrophic changes in species composition and richness on ecosystem functioning*
Allan, E.	20.-23.2.2018	Annual meeting of German Biodiversity Exploratories, Wernigerode	R	*Effects of multitrophic changes in species composition and richness on ecosystem functioning*
Allan, E.	26.2.-1.3.2018	Coexistence and Ecosystem functioning workshop at iDiv Leipzig	T	
Berardi, A.E.	26.9.2017	Colloquium in Plant Sciences, IPS, Bern	R	*Pigment evolution at the micro and macro-evolutionary scales*
Berardi, A.E.	15.-18.3.2018	World Petunia Days, Amsterdam, Netherlands	R	*Genetic architecture of floral scent in a reversal to bee pollination*
Binaghi, M.	15.-18.3.2018	World Petunia Days, Amsterdam, Netherlands	R	*Investigating flower morphology with the help of natural hybrids*
Bont, Z.	2.-6.7.2017	16th International Symposium on Insect-Plant Relationships Tours, France	P	*A herbivore tag-and-trace system reveals contact and density-dependent repellence of a root toxin*

Brügger, S.	4.-9.9.2016	40th International Moor Excursion, Switzerland	R	*FrozenFire – a contribution to Paleo Fires, land use and vegetation dynamics from a high-alpine ice core over the last millennium*
Brügger, S.	2.-3.2.2017	Biology 17, the annual Swiss conference on ecology, evolution, systematics and conservation, Bern, CH	R	*FROZENFIRE – A millennium of European fire, vegetation and pollution history from a high alpine ice core in the Swiss Alps*
Brügger, S.	5.2.2017	Seminar at Center for Ice and Climate, Niels Bohr Institute, Copenhagen, Denmark	R	*FrozenFire*
Brügger, S.	11.4.2017	PAGES workshop Siberian Federal University, Krasnoyarsk, Russia	R	*FROZENFIRE – 5000 years of fire, vegetation and pollution history from a high alpine ice core in the Mongolian Altai*
Brügger, S.	20.4.2017	Colloquium at Institute of Water and Environ-mental Problems (IWEP), Barnaul, Russia	R	*FrozenFire – Palynology in ice*
Brügger, S. et al.	23.-28.4.2017	European Geosciences Union General Assembly 2017, Vienna	P	*Implementing microscopic charcoal in a global climate-aerosol model*
Brügger, S.	26.4.2017	LUC Seminar - Laboratory of Environmental Chemistry, PSI, Villigen, CH	R	*Frozen Nature – The contribution of palynology to the reconstruction of paleo fire, land use and vegetation dynamics from high-alpine ice cores*
Brügger, S. et al.	9.-13.5.2017	5th PAGES OSM Meeting, Zaragoza, Spain	P	*Climate, land-use change and fire activity in Central Asia during the past 6,000 years and its relation to volcanic and solar activity*
Brügger, S.	18.-19.11.2017	14th Swiss Geoscience Meeting, Geneva, CH	P	*FROZENFIRE – A high-alpine ice core record to assess vegetation and fire dynamics in Western Europe over the last millennium*
			P	*FROZENFIRE – 5000 years of fire, vegetation and pollution history from the Mongolian Altai*
Brügger, S.	14.-19.3.2018	Symposium on Cryosphere and Biosphere, International Glaciological Society (IGS), Kyoto, Japan	R	*FrozenNature: the contribution of palynology to reconstruct large-scale paleo fire and vegetation dynamics from high-alpine ice cores*

Brügger, S.	19.4.2018	19th Swiss Global Change Day, Bern	P	*5500 years of frozen vegetation and fire dynamics in the Mongolian Altai*
Brügger, S.	19.-23.6.2018	Polar 2018 - Where the Poles come together, SCAR & IASC Conference, Davos, CH	R, P	*European Alpine Glacier reveals one Millennium of Fire and Vegetation Dynamics* *Five Millennia of Environmental Dynamics from an Ice Core in the Mongolian Altai*
Cappelli, S.	2.-3.2.2017	Biology17, Bern, CH	R	*Pathogenic fungi in a grassland experiment*
Cappelli, S.	11.-14.12.2017	British Ecological Annual Meeting 2017, Ghent	P	*PaNDiv - Impact of Global Change on Pathogenic Fungi in a Grassland*
Cappelli, S.	1.-2.2.2018	Biology18, Neuchâtel	P	*PaNDiv - Impact of Global Change on Pathogenic Fungi in a Grassland*
Choudhury, R.R.	5.-7.2.2018	Arabis Symposium 2018, Cologne, DE	R	*Adaptive significance of transposable elements in natural populations of Arabis alpina*
Ensslin, A.	1.-2.3.2018	Jahrestreffen der AG Erhaltungskulturen, Potsdam, DE	R	*Ex-situ Erhaltung und Wiederansiedlung gefährdeter Blütenpflanzen*
Ensslin, A.	7.-11.5.2018	EUROGARD, Lissabon, Portugal	R	*Ex-situ plant conservation and reintroduction by botanic gardens*
Erb, M.	7.9.2016	1st INRES-Minisymposium: Life in the underground- biotic and abiotic interactions in soil, Bonn, DE	R	*Secondary metabolites as determinants of root-herbivore interactions*
Erb, M.	14.-16.9.2016	Workshop COST Action FA 1405 “Plant-mediated communication between above and belowground foodwebs”, Leipzig, DE	R	*Mechanisms of plant-mediated interactions between leaf and root herbivores*
Erb, M.	25.-30.9.2016	XXV International Congress of Entomology (ICE2016), Orlando, USA	R	*An herbivore-induced plant volatile functions as a direct defense and within-plant priming signal*
Erb, M.	28.8.2016-1.9.2016	32nd Symposium of the European Society of Nematologists (ESN), Braga, Portugal	V	*Plant-mediated interactions between nematodes and other organisms*

Erb, M.	7.10.2016	Molecular and Cellular Plant Physiology Symposium, Zürich, CH	R	*Plant Secondary Metabolites: From Biosynthesis to Function*
Erb, M.	3.-5.5.2017	2nd European Molecular Maize Meeting, Ghent, Belgium	R	*Maize secondary metabolites as plant toxins and defense signals*
Erb, M.	7.-9.6.2017	34th IPG Symposium on Root Biology, Columbia MO, USA	R	*Chemical signals as determinants of maize root-herbivore interactions*
Erb, M.	2.-6.7.2017	16th Symposium on Insect-Plant Interactions (SIP), Tours, France	V	*Insect Effectors and Plant Responses*
Esfeld, K.	9.-11.9.2016	World Petunia Days, Wittenberg, DE	R	*The comeback of colour: loss and gain of a pollination trait*
Felipe-Lucia, M.R. et al.	19.-23.9.2016	European Conference of the Ecosystem Services Partnership (ESP), Antwerpen, Belgium	V/R	*Effects of forest management on ecosystem structure and multifunctionality in European temperate forests* *Telecoupling mediates ecosystem services bundles through social interrelationships* *Disentangling the Pathways and Effects of Ecosystem Service Co-Production*
			V	
Felipe-Lucia, M.R.	1.-3.2.2017	Biology 17, the annual Swiss conference on ecology, evolution, systematics and conservation, Bern	V	
Fischer, M.	2.11.2016	Community Assembly Workshop - Exploratorien, Tübingen, DE	R	*Indroduction to the biodiversity Exploratories*
Fischer, M.	5.-8.12.2016	Convention for Biological Biodiversity, COP, Cancun Mexiko	T	
Fischer, M.	11.-13.1.2017	Summary for Policy Makers Meeting IPBES Regional Assessment, Frankfurt, DE	T	
Fischer, M.	16.-17.1.2017	Kick-off meeting Kilimanjaro DFG Research Unit, Frankfurt, DE	R	*Conservation and Sustainable use of Biodiversity and Ecosystem Services*

Fischer, M.	30.1.-3.2.2017	Eastern Europe meeting IPBES, regional meeting, Antalya	R	*Introduction to the IPBES Regional Assessment for Europe and Central Asia*
Fischer, M.	21.-24.2.2017	Biodiversity Exploratories annual meeting, Wernigerode, DE	R	*Diverse Präsentationen*
Fischer, M.	6.-10.3.2017	IPBES - 5th Plenary Meeting, Bonn, DE	T	
Fischer, M.	12.-14.3.2017	Project Presentation Swiss Embassy New Delhi, India	R	*Biodiversity and Ecosystem Services in the Himalaya-Hindukush*
Fischer, M.	5.5.2017	IPBES Swiss Information Event, Bern	R	*IPBES Regional Assessment for Europe and Central Asia*
Fischer, M.	22.6.2017	BAFU Anlass zur ökologischen Infrastruktur	T	
Fischer, M.	22.6.2017	Klimagarten, Botanischer Garten Bern	R	*Biodiversität und Klimawandel*
Fischer, M.	24.-28.7.2017	IPBES – third author meeting of the regional Assessment, Prague	R	*Diverse Präsentationen*
Fischer, M.	12.-13.9.2017	Future Earth - Natural Assets workshop, Bern	T	
Fischer, M.	21.9.2017	Senat der DFG, Bonn, DE	R	*DFG Senatskommission der Biodiversitäts-forschung*
Fischer, M.	24.-26.9.2017	Global Mountain Biodiversity Assessment – Steering Committee Retreat, Kappel am Albis, CH	V	
Fischer, M.	24.10.2017	Forum Biodiversität, fall meeting, Bern	V	
Fischer, M.	26.-27.10.2017	IPBES Multidisciplinary Expert Panel Meeting, Bonn, DE	T	
Fischer, M.	22.-24.11.2017	Biodiversity Exploratories - Steering Committee Retreat, Hinterzarten, DE	V	
Fischer, M.	11.-14.12.2017	GFÖ/British Ecological Society, Annual Meeting, Ghent, Belgium	R	*Land use biodiversity and ecosystem processes: insights from 10 years of Biodiversity Exploratories research*
Fischer, M.	15.-16.1.2018	Kilimanjaro DFG Research Unit, status seminar, Frankfurt, DE	T	

Fischer, M.	23.1.2018	Senatskommission für Grundsatzfragen der Biologischen Vielfalt, Gründungssitzung, Bonn, DE	V	
Fischer, M.	20.-23.2.2018	Biodiversity Exploratories annual meeting, Wernigerode, DE	R	*Diverse Präsentationen*
Fischer, M.	21.2.2018	Nationales IPBES Forum, Bonn, DE	R	*IPBES Regional Assessment for Europe and Central Asia*
Fischer, M.	6.-7.3.2018	Forum Biodiversität, spring meeting, Kappel am Albis	V	
Fischer, M.	17.-24.3.2018	IPBES – 6th plenary meeting, Medellin, Kolumbien	R	*Diverse Präsentationen*
Fischer, M.	30.5.2018	Collegium generale, Bern	R	*Alexander von Humboldt als Botaniker*
Fischer, M.	6.6.2018	Launch Event, IPBES Regional Assessment for Biodiversity and Ecosystem Services, Bern	R	*The IPBES Regional Assessment for Biodiversity and Ecosystem Services*
Fischer, M.	11.6.2018	EU-Kommission Brüssel	R	*The IPBES Regional Assessment for Biodiversity and Ecosystem Services*
Fischer, M.	25.-29.6.2018	IBPES Multidisciplinary Panel Expert Meeting, Bonn	T	
Fischer, M.	30.7.-3.8.2018	IPBES Global Assessment author meeting, Frankfurt, DE	T	
Gobet, E.	5.-10.9.2016	40th International Moor Excursion, Switzerland	R	*Vegetation historie at Burgäschisee*
Guyer, A.	2.-6.7.2017	16th International Symposium on Insect-Plant Relationships, Tours, France	P	*Natural enemies buffer interactive effects of root herbivory and climate change on plant performance*
Haindrich, A. et al.	4.-7.9.2016	BSP Trypanosomiasis and Leishmaniasis Seminar 2016, České Budějovice, Czech Republic	P	*Amino acid transporters of the AAT7 family facilitate uptake of neutral amino acids*
Haindrich, A. et al.	5.10.2016	Trypsli meeting, ICB, University of Bern, Bern, CH	R	*Amino acid transporters in* T. brucei

Haindrich, A.	11.-13.1.2017	34th Annual Swiss Trypanosomatid meeting, Leysin/VD, CH	P	*Increasing the knowledge on structure/function relationships of* Trypanosoma brucei *amino acid transporters using distant homology modelling*
Haindrich, A.	10.10.2017	10 years' anniversary: Cross Border Biological Chemistry Symposium, Johannes Kepler University Linz, Austria	P	*Increasing the knowledge on structure/function relationships of* Trypanosoma brucei *amino acid transporters using distant homology modeling*
Haindrich, A.	10.-12.1.2018	35th Annual Swiss Trypanosomatid Meeting, Leysin, CH	P	*An essential threonine uptake system in procyclic from* T. brucei
Haindrich, A.	31.1.2018	GCB symposium, Bern	P	*An essential serine/threonine uptake system in procyclic from* T. brucei
Hanemian, M.	3.9.2017	Solcuc2017, Valencia, Spain	P	*Identification of genes involved in natural variation of reproductive organ morphology in Petunia*
Heiri, O.	6.9.2016	40th International Moor Excursion, CH	R	*Invertebrate remains as indicators of past methane availability in lakes*
Heiri, O.	8.9.2016	40th International Moor Excursion, CH	R	*Chironomids as a proxy for temperature changes in the Alps*
Heiri, O.	16.2.2017	Symposium Geoecology, University of Basel, Basel, CH	R	*Tracking changing environments and ecosystems using biotic remains in lake sediments*
Heiri, O.	1.6.2017	Quaternary Research Association - Meeting on Developments in Quaternary Entomology and Environmental Reconstruction, Natural History Museum London, UK (via Skype)	R	*A personal view of SJ Brooks career in fossil chironomid research*
Heiri, O.	12.-15.6.2017	Pollen-Climate Model Intercomparison Project Workshop, Caux, Switzerland	R	*Terrestrial perspective*
Hu, LF.	12.-17.2.2017	Plant-Herbivore Interaction, Gordon Research Conference, CA, USA	P	*Secondary metabolite hijacked by a specialist root herbivore: Is iron the key?*
Hu, LF.	2.-6.7.2017	SIP 2017: 16th Symposium on Insect-Plant Interactions, Tours, France	R	*A root herbivore uses a siderophore to locate the most nutritious roots*

Jochum, M.	7.-8.2.2017	15 Years of the Jena Experiment, Jena, DE	P	*Bridging the gap: Linking the Jena Experiment to "real-world" ecosystems*
Jochum, M.	10.2.2017	Forum Biodiversität - SWIFCOB17, Bern	T	
Jochum, M.	21.-24.2.2017	14th Assembly of the Biodiversity Exploratories, Wernigerode, DE	P	*Bridging the gap: Linking the Jena Experiment to "real-world" ecosystems*
Jochum, M.	4.-6.4.2017	Jena Workshop Contrasting experimental findings of biodiversity services with real-world patterns, Jena, DE	T	
Jullien, P.E.	30.11.2017	Zürich-Basel Plant Biology Symposium, Zürich	T	
Jullien, P.E.	31.1.2018	SwissPLANT symposium 2018, Meiringen CH	R	*Cell-specific functional characterization of Arabidopsis ARGONAUTE 3*
Jullien, P.E.	2.2.2018	Swiss RNA Workshop 2018, Bern	R	*Cell-specific functional characterization of Arabidopsis ARGONAUTE 3*
Kuhlemeier, C.	23.6.2016	ASPB annual meeting Honolulu	T	
Kuhlemeier, C.	23.11.2017	Belo Horizonte, Brasil	R	*The genetics of pollinator-mediated speciation*
Kuhlemeier, C.	30.11.2017	Zürich-Basel Plant Biology Symposium, Zürich	R	*The genetics of pollinator-mediated speciation*
Kuhlemeier, C.	6.2.2018	Gordon Conference Pisa	R	*The genetics of pollinator-mediated speciation*
Kuhlemeier, C.	12.2.2018	University of Amsterdam	R	*The genetics of pollinator-mediated speciation*
Lüthi, M.	15.-18.3.2018	World Petunia Days, Amsterdam, Netherlands	R	*Reconstitution of pollinator-mediated speciation in Petunia*
Machado, R.	28.8.-1.9.2016	32nd Symposium of the European Society of Nematologists, Braga, Portugal	R	*Influence of maize secondary metabolites on the entomopatogenic nematode Heterorhabditis bacteriophora and its endobiotic bacteria Photorhabdus luminescens*
Machado, R.	6.-11.11.2016	Injury Perception and Immunity Across the Tree of Life, Guanajuato, Mexico	R	*Indole and Indole-3 acetic acid as danger signals in plant-herbivore interactions*

Machado, R.	22.11.2016	11th Plant-Insect Interactions Workshop. Leiden University. Leiden, Netherlands	R	*Jasmonate-induced changes in primary metabolism as modulators of plant-herbivore interactions*
Machado, R. et al.	12.-17.2.2017	Gordon Research Conference. Plant-Herbivore Interactions, Ventura, California, USA	P	*Auxin is rapidly induced by herbivore attack and regulates a subset of systemic, jasmonate-dependent defenses*
Machado, R.	2.-6.7.2017	16th International Symposium on Insect-Plant Relationships, Tours, France	R	*Jasmonate-mediated changes in primary metabolism as regulators of plant-herbivore interactions*
Parisod, C.	23.7.-1.8.2017	International Botanical Congress 2017, Shenzhen, China	R	*Retrotransposons and whole genome duplications shape genome (size) variation*
Parisod C.	30.8.-1.9.2017	Strasburger Workshop of the German Society of Plant Sciences, Bremen, Germany	R	*Conflicting interactions among transposable elements and the rise of reproductive isolation*
Payne, D.	5.-7.2.2017	GMBA Workshop: Informing Species Distribution Models and Essential Biodiversity Variables using Remote Sensing, Zürich	V	
Payne, D.	19.-21.4.2017	Macroecology in space and time, University of Vienna, Vienna, Austria	T	
Payne, D. / Spehn, E.	12.-13.9.2017	GMBA Workshop: Natural Assets Definition Workshop, Bern	V	*Co-Organizers of the workshop*
Payne, D.	29.9.-3.10.2017	Long-term Research in Alpine Areas Workshop, Obergurgl, Austria	R	*Global Mountain Biodiversity Assessment: Supporting Long-Term Ecological Research in Mountains*
Payne, D.	17.-18.11.2017	Swiss Geoscience Meeting, Davos	R	*GEO-GNOME: Global Mountain Explorer - Visualizing and comparing commonly applied mountain definitions*
Payne, D.	23.-25.5.2018	GEO-GNOME scoping workshop, Bern, CH	R	*Delineating Mountains*

Payne, D.	4.-8.6.2018	Mountain Futures, Kunming, China	V/R	*Towards biodiversity-related opportunities for sustainable livelihoods in mountains* *Land Systems for Mountain Futures: What role(s) should Global Change Programmes play in supporting transformative land and ecosystem biodiversity science for Sustainable Mountain Development?*
Payne, D.	27.-29.6.2018	Tech4Dev, Lausanne, CH	R	*Spatial biodiversity data platforms: current resources and future opportunities*
Penone, C.	8.-12.8.2016	Ecological Society of America Annual Meeting, Fort Lauderdale, Florida	R	*Dark diversity in temperate grasslands and forests along a land-use intensity gradient: A multi-trophic approach*
Penone, C.	1.-4.11.2016	Community Assembly Workshop, Exploratorien, Tübingen, DE	V	*Co-organizer of the workshop*
Penone, C.	2.-3.2.2017	biology17, Bern	T	
Penone, C.	20.-24.2.2017	Biodiversity Exploratories Annual Meeting, Wernigerode	R	*Synthesis Core project* *General assembly rules across trophic levels and land use intensity*
Pereira de Macèdo, J.	24.8.2016	Trypanosoma Meeting, Institute of Cell Biology, University of Bern	R	*Identification and functional characterization of ornithine transporters in* T. brucei *and their involvement in drug action*
Pereira de Macèdo, J. et al.	4.-7.9.2016	British Society for Parasitology (BSP) Trypanosomiasis and Leishmaniasis Seminar 2016, Budweis, Czech Republic	P	*Identification and functional characterization of ornithine transporters in* T. brucei *and their involvement in drug action*
Pereira de Macèdo, J.	11.-13.1.2017	34th Annual Swiss Trypanosomatid meeting, Leysin/VD, CH	P	*The high-affinity ornithine transporters of* Trypanosoma brucei *and their impact on eflornithine and suramin efficacy*
Pichon, N.	7.12.2016	Colloquium in Plant Sciences, IPS, Bern	R	*Ecosystem functioning in grassland: first results from the PaNDiv experiment*
Pichon, N., Cappelli, S.	11.-14.12.2016	BES Annual Meeting, Liverpool, UK	R	*Direct and indirect effects of nitrogen enrichment on grassland ecosystems functioning*

Pichon, N.	2.-3.2.2017	Biology17, Bern, CH	T	
Pichon, N.	16.2.2017	Invited speaker, Institute of landscape ecology, Münster, DE	R	*Direct and indirect effects of nitrogen enrichment on grassland ecosystems functioning, The PaNDiv Experiment first year results*
Pichon, N.	11.-14.12.2017	British Ecological Annual Meeting 2017, Ghent	R	*Individual and interactive effects of diversity, functional composition and nitrogen on grassland ecosystem functioning*
Pichon, N.	1.-2.2.2018	Biology18, Neuchâtel	R	*Individual and interactive effects of diversity, functional composition and nitrogen on grassland ecosystem functioning*
Rentsch, D.	23.8.2016	EMBO conference - The nitrogen nutrition of plants. Nitrogen 2016: Third International Symposium on the Nitrogen Nutrition of Plants, Montpellier, France	R	*Uptake and reallocation of organic N – The role of dipeptide transporters*
Rentsch, D.	11.12.2016	International Workshop: Nutrient stewardship & next-generation fertilisers, Heron Island, Great Barrier Reef, Australia	R	*Uptake and reallocation of organic N – The role of dipeptide transporters*
Rentsch, D.	11.-13.1.2017	34th Annual Swiss Trypanosomatid meeting, Leysin/VD, CH	T	
Rentsch, D.	16.-22.5.2017	China Agricultural University, Department of Plant Nutrition, Bejing, China - Invitation Prof. X. Li and Prof. F. Zhang	R	*Uptake and reallocation of organic N – The role of dipeptide transporters*
Rentsch, D.	10.-12.1.2018	35th Annual Swiss Trypanosomatid Meeting, Leysin, CH	T	
Rentsch, D.	31.1.-2.2.2018	SwissPlant 2018, Meiringen	P	*Identifying regulators of di- and tripeptide utilization in Arabidopsis*
Rey, F.	5.-10.9.2016	40th International Moor Excursion, Switzerland	R	*Vegetation histories at Burgäschisee, Moossee and Lauenensee*

Rey, F.	22.-28.10.2016	XIV International Palynological Congress, Salvador, Brazil	R	*Exploring vegetational and agricultural dynamics during the Neolithic (7000-4200 BP) on the Swiss Plateau by using annually layered sedimentary time series*
Rey, F.	20.-24.3.2017	International Open Workshop - Socio-Environmental Dynamics over the Last 12,000 Years: The Creation of Landscapes V, Kiel, Germany	R	*Vegetational and agricultural dynamics during the Neolithic (7000-4200 BP) on the Swiss Plateau*
Robert, C.	12.-17.2.2017	Plant-Herbivore Interaction, Gordon Research Conference, CA, USA	R	*The Western Corn Rootworm Stabilizes, Integrates and Reactivates Plant Secondary Metabolites to Protect Itself Against Entomopathogenic Nematodes*
Robert, C.	2.-6.7.2017	SIP 2017: 16th Symposium on Insect-Plant Interactions, Tours (France)	P	*Transfer of stabilized and reactivated plant toxin derivatives to the third and fourth tropic level protects the western corn rootworm from its natural enemies*
Snethlage, M.	14.3.2017	Horizon 2020: Associated!, Bern CH	T	
Schroeder, J.	2.2.2018	Swiss RNA Workshop 2018, Bern	T	
Schwörer, C.	18.-19.11.2016	14th Swiss Geoscience Meeting, Geneva, CH	R	*Holocene treeline changes in the Canadian Cordillera are controlled by climate and local topography*
Schwörer, C.	2.-3.2.2017	Biology17, Bern, CH	P	*Holocene treeline changes in the Canadian Cordillera are controlled by climate and local topography*
Schwörer, C.	11.4.2017	18th Swiss Global Change Day, Bern, CH	P	*Projected climate change impacts on mountain forests in the Simmental (Swiss Alps)*
Schwörer, C.	9.-13.5.2017	5th PAGES OSM Meeting, Zaragoza, Spain	P	*Neolithic and Bronze Age Pastoralism affect mountain forest dynamics in the Swiss Alps*
			R	*Tracking Holocene genetic variability of Swiss mountain forests using ancient DNA*
Tadele, Z.	30.8.2016	20th EUCARPIA General Congress, Zurich	R	*Breeding towards improving African indigenous crops: the case of tef*

Tadele, Z.	25.10.2016	Symposium on tef: the cereal that feeds Ethiopia, ETH Zurich	R	*Improving an African orphan crop through public-private partnership*
Tadele, Z.	8.12.2016	GCRF Symposium on Crop Improvement, Edinburgh, UK	R	*Technology generation to dissemination: lessons learned from the Tef Improvement Project*
Tadele, Z.	13.12.2016	CDE General Assembly, Bern	R	*Crop Breeding and Genomics Research for Development: link to CDE*
Tadele, Z.	27.6.2017	Seed Pelleting and Dissemination Workshop, Addis Ababa, Ethiopia	R	*Tef Improvement Project: promoting productivity through R&D*
Tadele, Z.	28.-30.11.2017	J4th Global Science Conference On Climate Smart Agriculture, Johannesburg, South Africa	T	
Tadele, Z.	25.-26.1.2018	Tef Biotechnology Workshop, Addis Ababa, Ethiopia	R	*Tef Improvement Project: promoting productivity through R&D*
Tadele, Z.	31.1.-2.2.2018	Swiss Plant Symposium, Meiringen	P	*Promoting productivity of an orphan crop tef through tackling key constraints*
Tadele, Z.	12.6.2018	Debre Zeit, Ethiopia	R	*Application of genetic and genomic tools to improve tef*
Tenreira, T.	15.-18.3.2018	World Petunia Days, Amsterdam, Netherlands	R	*Towards the identification of genes specifying differences in floral organ morphology between wild Petunia species*
Tinner, W.	24.9.2016	Castagne e vino, dall'antichità a oggi, Museo di Angera, Italia	R	*I boschi dell'Insubria dal paleolitico alla vegetazione antropica dell'epoca romana*
Tinner, W.	28.10.2016	Annual ECOGEN meeting University of Tromsø, Norway	R	*Bernese contributions to the reconstruction of the vegetation history of the Alps*
Tinner, W.	25.11.2016	Centenary (1916-2016) of pollen analysis and the legacy of Lennart von Post' symposium, Royal Swedish Academy of Sciences, Stockholm	R	*The Legacy of prehistoric vegetation disturbance in Europe*
Tinner, W.	13.2.2017	OCCR Plenary, University of Bern	R	*Warm Mediterranean mid-Holocene summers*

Tinner, W.	6.4.2017	Lessons learnt from paleoscience on a possible 1.5-2°C warmer world in the future, University of Bern	R	*Paleoecological lessons on species and vegetation responses to a 1.5 – 2 °C warmer world*
Tinner, W.	4.-9.9.2017	IME, Pleistocene and Holocene environmental changes on the Massif Central uplands (F)	T	
Tinner, W.	6.-7.6.2018	Universität Giessen (DE)	R	*Paleoecological insights on species and vegetation responses to a warmer world*
			R	*Natürliche und anthropogene Umweltveränderungen in Sizilien in prähistorischer und historischer Zeit im globalen Kontext*
Tirot, L.	30.11.2017	Zürich-Basel Plant Biology Symposium	T	
Tirot, L.	2.2.2018	Swiss RNA Workshop 2018, Bern	T	
Zhang, X.	2.-6.7.2017	SIP 2017: 16th Symposium on Insect-Plant Interactions, Tours, France	P	*The wolf in sheep's clothing: Entomopathogenic nematodes attract their insect herbivore hosts by manipulating plant and cadaver odors*

Legende
R = Referat
P = Posterpräsentation
V = Vorsitz / (Mit-)Veranstalter
T = Teilnahme

4.2. IPS ALS GASTGEBER

12.-13. September 2017	IPBES Summary for Policymakers writing meeting Organizers: M. Fischer, A. Torre-Marin (IPS/IPBES Technical Support Unit)
8.-9. November 2017	IPBES Europe and Central Asia assessment uptake event Organizers: M. Fischer, E. Spehn, A. Torre-Marin (IPS/IPBES Technical Support Unit)
13. Dezember 2017	Informing Species Distribution Models and Essential Biodiversity Variables using Remote Sensing Organizer: D. Payne (IPS/Global Mountain Biodiversity Assessment)
5.-9. Februar 2018	Natural Assets Definition Workshop Organizers: D. Payne and E. Spehn (IPS/Global Mountain Biodiversity Assessment), G. Wuelser, A. de Bremont, C. Krug
6.-7. Juni 2018	Hosted five delegates from Bangladesh which include directors of agricultural institutes and director to Prime Minister office Organizer: Z. Tadele (IPS)

4.3. AUSZEICHNUNGEN

Brügger, S.	Winner of the SEP-NGB-Prize for young scientists from the Swiss Snow, ice and Permafrost Society researchers for the best poster presentation, 14th Swiss Geoscience Meeting, Geneva, CH
Brügger, S.	Winner of Early Career Poster Award: Section Europe and Russia, Polar 2018 conference
Brügger, S.	Best Poster Price in category Geosphere/Biosphere, 19th Swiss Global Change Day, Bern
Erb, M.	Teacher of the Year 2017, Departement Biologie, Universität Bern
Sheehan, H.	Fakultätspreis für die beste Dissertation, Universität Bern

4.4. MEDIENPRÄSENZ

Allan, E.	1. Dezember 2016	**Bieler Tagblatt** Artikel (Intensive Nutzung mäht Artenvielfalt nieder)
Brügger, S.	23. Juni 2018	**Radio SRF2 – Wissenschaftsmagazin** Beitrag (Eiskalte Geschichten)
Erb, M.	28. Oktober 2016 15. Dezember 2016 23. Januar 2017 9. Februar 2017	**Radio SRF 1** **Simmental Zeitung** **Der Bund** **Berner Zeitung – Online / Thuner Tagblatt** Artikel und Radiobeitrag (Pressereaktionen und Interviews bezüglich zugesprochenem ERC «Starting Grant» und zum Forschungsschwerpunkt «Perception of Plant Volatiles», die Suche nach Duftstoffrezeptoren in Pflanzen)

Erb, M.	7. Dezember 2016	**Horizonte Forschungsmagazin – SNF** Artikel (Chirurgische Kriegsführung von Mais)
Erb, M.	30. April 2017	**Schweizer Bauer – Online** Artikel (Der Forscher und der Biobauer)
Erb, M.	29. August 2017	**BERNpunkt** Interview («Bern hat eine Diversität, die Platz gibt im Kopf»)
Erb, M.	27. November 2017 28. November 2017 3. Dezember 2017	**physorg.com** **technologynetworks.com** **schweizerbauer.ch** Artikel (Pressereaktionen zu Press Release: Maisschädling schlägt Mais mit dessen eigenen Waffen)
Erb, M.	17. Mai 2018	**deutschlandfunk.de** Artikel (Pflanzen-Duftstoffe: Aus Lockstoff wird Abwehrmittel – oder auch nicht)
Erb, M.	18. Juli 2018	**Radio SRF 1** Beitrag («Wir suchen sozusagen die ‹Pflanzennase›»)
Fischer, M.	4. September 2016	**SonntagsZeitung** Artikel (über den Wert einer hohen Artenvielfalt für Natur Gesellschaft und Bauern: Mehr als schöne Wiesen)
Fischer, M.	13. September 2016	**Radio SRF 1** Interview (Kein Raum für Artenschutz?)
Fischer, M.	15. Juni 2017	**Le Courrier - Online** Artikel (Biodiversité - Plaidoyer pour une nature artificielle)
Fischer, M.	27. Juni 2017	**Jungfrau Zeitung (+ div. Online Plattformen, Berner Oberland)** Artikel (Pressereaktionen zu Hauptversammlung Alpengarten Schynige Platte: Vielfältige Pflanzenwelt seit 90 Jahren)
Fischer, M.	17. Juli 2017	**srf.ch / SRF Schweizer Radio und Fernsehen Online** Artikel (Interview zu Studie zum Massentiersterben: «Die Ergebnisse sind schockierend»)
Fischer, M.	26. August 2017 2. September 2017 7. September 2017	**Berner Zeitung / Thuner Tagblatt** **Schweizer Bauer** **Der Gartenbau** Artikel (Pressereaktionen zu Alpengarten Schynige Platte: Führung im Rahmen der CO2 -Konferenz)
Fischer, M.	1. September 2017 22. September 2017 26. September 2017	**Jungfrau Zeitung** **Die Südostschweiz** **Berner Zeitung** Artikel (Beim Überleben kommt es auf die Grösse an)
Fischer, M.	23. März 2018 24. März 2018 28. März 2018 31. März 2018	**Der Bund (Print)** **Le Temps (Print)** **umweltdialog.de** **zeitpunkt.ch** Artikel (Pressereaktionen zu Zustandsbericht des Weltbiodiversitätsrates IPBES)
Fischer, M.	25. Juni 2018	**Jungfrau Zeitung** Artikel (Alpengarten Schynige Platte: «Aufrichte» zwischen Bergblumen)

Heiri, O.	7. Februar 2017 8. Februar 2017 16. Februar 2017	**Der Bund / St. Galler Tagblatt** **Aargauer Zeitung – Online** **Div. Zeitungen Online: Berner Zeitung / Berner Oberländner / BZ Basel / Blick / Höfner Volksblatt / La Liberté / Lichtensteiner Volksblatt / Limmattaler Zeitung / Luzerner Zeitung / Marcher Zeitung / Nidwaldner Zeitung / Obwaldner Zeitung / Ostschweiz am Sonntag / Rheinzeitung / Urner Zeitung / Wiler Zeitung** Artikel (Pressereaktionen zu «Berner Studie rehabilitiert Klimamodelle»)
Robert, CAM	2. Dezember 2017 21. Dezember 2017	**Der Standard** **deutschlandfunk.de** Artikel (Warum ein gefährlicher Bioinvasor mit Würmern nicht zu stoppen ist)
Robinson, S.	21. November 2017 6. Dezember 2017	**Research & Development (rdmag.com)** **seeddaily.com** Artikel (Robotic Device Tracks Plant Growth at the Cellular Level)
Schwörer, C.	6. April 2017	**Der Bund / Radio BeO** Radio-Beitrag und Artikel (Walliser Vieh weidete bereits vor 7000 Jahren im Berner Oberland)
Schwörer, C.	2. Mai 2017	**Berner Zeitung / Berner Oberländer** Artikel (Geotop Faulenseemoos)
Spehn, E.	5. April 2018	**Der Bund** Artikel/Zitat(Gipfelstürmer der anderen Art)
Tadele, Z.	2016 und 2017	**CropLife International – croplife.org** Interview (Food Heroes)
Tadele, Z.	11. Oktober 2017	**ChemieXtra** Artikel (Das Projekt zur Verbesserung der Zwerghirse Tef wird fortgesetzt)
Tadele, Z.	2018	**Syngenta Foundation for Sustainable Agriculture** Beitrag (Review 2016-2018: Breeding new hope into a little-known crop)
Tadele, Z.	Mai 2018	**BBC Amharic** Beitrag (Tef and intellectual property rights)
Tadele, Z.	11. Juli 2018	**New Breeding Techniques Platform (nbtplatform.org)** Artikel (Plant biotechnology as an innovative response to social challenges)
Tinner, W.	7. März 2018	**Schweizerische Zeitschrift für Forstwesen** Artikel (Invasionen und Zusammenbrüche von Baumarten nach der Eiszeit)

5. BEHÖRDEN, KOMMISSIONEN UND BERATERTÄTIGKEIT

Allan, E.

- Associate Editor *BMC Ecology*
- Associate Editor *Journal of Ecology*

Erb, M.

- Councilor *International Society of Chemical Ecology*
- Editorial Board *Current Opinion in Insect Science*
- Editorial Board *Journal of Chemical Ecology*

Fischer, M.

- Nationaler Forschungsrat, Schweizerischer Nationalfonds, Mitglied
- Marie-Heim Vögtlin-Kommission für Biologie und Medizin, Schweizerischer Nationalfonds, Präsident
- Schweizerische Botanische Gesellschaft (Vorstand)
- Forum Biodiversität der SCNAT (Präsident)
- DFG Senatskommission für Biodiversitätsforschung (Vorsitzender)
- Koordinator des von der Deutschen Forschungsgemeinschaft DFG geförderten Infrastrukturschwerpunktprogramms 1374 Exploratories for large scale and long-term functional biodiversity research
- Co-Chair IPBES Assessment for Europe and Central Asia
- Member Multidisciplinary Expert Panel IPBES
- Chair, scientific steering committee, Global Mountain Biodiversity Assessment
- Direktor Botanischer Garten Bern
- Fachkommission Naturschutz der Volkswirtschaftsdirektion des Kantons Bern (Mitglied)
- Dr. Karl Bretscher-Stiftung (Stiftungsrat)
- Stiftung InfoFlora (Stiftungsrat)
- Albrecht von Haller-Stiftung (Stiftungsrat)
- Alpengarten Schynige Platte (Vorstand)
- Associate Editor *Journal of Plant Ecology*
- Associate Editor *Alpine Botany*
- Editorial Board *Biological Conservation*
- Editorial Board *Basic and Applied Ecology*

Gobet, E.

- Naturforschende Gesellschaft Bern (Vorstand)

Heiri, O.

- Associate Editor *Journal of Paleolimnology*
- Akademie der Naturwissenschaften Schweiz (SC-NAT), Plattform Biologie, Präsidiumsmitglied

Kuhlemeier, C.

- Editor Plant Physiology
- Coordinator SystemsX.ch Plant Growth in a Changing Environment 2

Parisod, C.

- Associate Editor *Alpine Botany*
- Associate Editor *Genetica*
- Associate Editor *Plant Systematics and Evolution*
- Advisory Board *New Phytologist*
- Societé Botanique Suisse (Vorstand)

Prati, D.

- Editorial Board *Basic and Applied Ecology*

Rentsch, D.

- SNF-Forschungskommission der Universität Bern

Schäfer, D.	• Bernische Botanische Gesellschaft (Vorstand)
Soliveres, S.	• Editorial Board *Journal of Arid Environments*
Tadele, Z.	• Principal Investigator, Tef Improvement Project, Bern • Adjunct Associate Professor, Addis Ababa University, Institute of Biotechnology • Member, CDE (Center for Development and Environment), University of Bern • Guest Editor, Planta Journal • Editor, Book on 'Grasses as Food and Feed'
Tinner, W.	• Co-Präsident PAGES (Past Global Changes, ein globales Forschungsprogramm von Future Earth) • Associate Editor *Vegetation History and Archaeobotany* • Editorial Board *Review of Palaeobotany and Palynology* • Editorial Board *Alpine and Mediterranean Quaternary* • Vorstand Naturforschende Gesellschaft in Bern • Convenor of International Mire Excursion (IME) • Präsident Studienausschuss phil.-nat. Fakultät Universität Bern • Wissenschaftlicher Ausschuss Oeschger Zentrum für Klimaforschung, Vertreter Fachbereich Biologie
Robert, CAM	• Advisory Board New Phytologist

Institut für Pflanzenwissenschaften
Universität Bern
Altenbergrain 21
3013 Bern
031 631 49 11
www.ips.unibe.ch