



University of  
Zurich <sup>UZH</sup>

**ETH** zürich



PhD Program in Ecology

Universität Zürich  
Institut für Evolutionsbiologie  
und Umweltwissenschaften  
Winterthurerstrasse 190  
CH-8057 Zürich  
Telefon +41 44 635 47 73  
Email [phdecology@ieu.uzh.ch](mailto:phdecology@ieu.uzh.ch)  
<http://www.phd-ecology.uzh.ch>

## PROGRAM FALL TERM 2018



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An Aldabra giant tortoise (*Aldabrachelys gigantea*) starting its morning activities on an ephemeral pool in East Grande Terre island, Aldabra Atoll. A Pandanus stand can be observed in the background.

*“All have their worth and each contributes to the worth of the others.”*

— J.R.R. Tolkien, *The Silmarillion*

Contact

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Dear members,

We would like to warmly welcome our new students; **Iris Hordijk, Julia Maschler, Fanny Olsthoorn** and **Elena Plekhanova** who recently joined our PhD program.

We also warmly welcome **Dr. Piet Spaak** from Zooplankton Ecology and Evolution, Department Aquatic Ecology, EAWAG as a PI newly affiliated with the PhD Program in Ecology.

Congratulations to **Wilfredo Falcón, Aurélie Garnier, Ingrid Olivares** and **Ashwin Viswanathan** who successfully defended their PhD theses.

On the **13 September 2018** we will host the second Annual Meeting of the PhD Program in Ecology in RAA-G-01, Aula; Rämistrasse 59 Zurich. The program will include presentations by **Peter Reich** (University of Minnesota, USA), **Hanna Tuomisto** (University of Turku, Finland), **Simon Zeller** (Abteilungsleiter Natur und Landschaft, St. Gallen, Canton of St. Gallen, Switzerland, PhD Program in Ecology Alumni). Some of our students will present and a poster session will be held for new students.

The program is designed to encourage interaction between PhD students, PI's and invited speakers.

Thank you to **Wilfredo Falcón** for our cover photo.

Further information:

*Once common in many islands around the world, most populations of giant tortoises have faced extinction. Aldabra Atoll is home to the largest population of giant tortoises in the world and is their last bastion in the entire Indian Ocean. Aldabra giant tortoises are important ecosystem engineers, and are increasingly being used for rewilding purposes, with the aims of re-establishing biotic interactions and lost ecosystem functions in degraded islands. Seed dispersal is a particularly important ecosystem function that not only help plants move across the landscape, but also affects the plant population dynamics and community structure, and tortoises are emerging as important seed dispersers. For one of the components of this project, we investigated in situ the role of Aldabra giant tortoises as seed dispersers in the frugivore community of Aldabra, where they are endemic. We performed observations, recorded frugivory interactions with camera traps, and conducted fecal analyses, and analyzed the data from the community perspective using bipartite network theory. From 10 frugivore species interacting with 37 plants, surely enough, Aldabra giant tortoises emerged as important seed dispersers in the network. Together with other components of this project, this information will serve to inform the conservation and management of Aldabra Atoll, as well as to inform conservation and rewilding projects using Aldabra giant tortoises.*

We are excited to introduce the new course program and recent changes that makes the PhD Program in Ecology truly interdisciplinary and a cooperative platform for both the University of Zürich and ETH Zürich. We continuously update our list of offered courses and seminars and are open for suggestions.

*Students:*

We would like to remind you to keep updated about changes to the regulations for PhDs (Appended to this document and visit the website for more information <http://www.ieu.uzh.ch/en/teaching/phd/graduate.html>).

*PI's:*

We can assist you to find a qualified graduate student as we are the access point to all international students that apply for a PhD in Ecology within the Life Science Zurich Graduate School. The next recruiting round is in September 2018.

Please let us know about your *successes* which we can celebrate!

Please contact Debra Zuppinger-Dingley ([phdecology@ieu.uzh.ch](mailto:phdecology@ieu.uzh.ch)) directly for any questions, feedback or suggestions.

With best regards,



Prof. Dr. Owen Petchey  
Program director



Dr. Debra Zuppinger-Dingley  
Program Coordinator

# 1. COURSE OVERVIEW

## SUBJECT- SPECIFIC MATTERS

Department	Course	LH	ECTS
IEU	ECO392 Classic Papers in Ecology and Evolutionary Biology Journal Club	28	2

## METHODS

Department	Course	LH	ECTS
IEU	ECO 338 Ecological Controversies Summer School	28	2
IEU	ECO 336 Gardening Techniques & Field Equipment	-	-

## TRANSFERABLE SKILLS

Department	Course	LH	ECTS
IEU	ECO 302 English Academic Journal Writing	28	2

## RESEARCH SEMINARS

Department	Seminar	LH	ECTS
EE	ECO 401 Presentation/Organization at Zurich Interaction Seminar (or equivalent)	-	1
IEU	BIO 605 Seminar for evolutionary biology and environmental studies	-	-
IEU	BIO 606 BEEES Seminar (Behavior, Ecology, Environment and Evolution)	-	-

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IEU: Department of Evolutionary Biology and Environmental Studies

EM: Institute of Terrestrial Ecosystems, EE: Experimental Ecology

14 LH (lesson hours) = 1 ECTS = 30 hours of work (including preparation, participation, homework). ECTS credits are given according to the standards of European Credit Transfer System. BIO605 & BIO606 are not bookable and are recommended to be attended by all PhD students.

## 2. COURSE DESCRIPTION: SUBJECT-SPECIFIC MATTERS

**ECO 392**

### **Classic Papers in Ecology and Evolutionary Biology**

Course tutor	Prof. Jordi Bascompte and Dr. Miguel A. Fortuna
Date / Time	Every Monday, 15:00-17:00 HS2018 17 September – 10 December 2018. No journal club on 17 December.
Place	TBA
Content	<p>Through a series of carefully chosen readings, students will be exposed to classic work in ecology and evolutionary biology. This is a list of must-read papers for anyone who wants to have a historical perspective of the field. Students should write a short report of each paper prior to the group discussion and post it in Slack. During the discussion, each paper will be introduced by one student. The last lecture will be devoted to relating these papers and finding emerging topics. One seminar summarized on one side of A4. The summary should include brief descriptions of:</p> <ul style="list-style-type: none"><li>- The background of the presenter's research and its relevance to your thesis</li><li>- The aims of the research</li><li>- The methods used</li><li>- The key results</li><li>- A discussion of most important conclusions and implications (especially in reference to your own thesis)</li><li>- A few key supporting references for published aspects of the work and/or references in the literature made by the speaker.</li></ul> <p>Active participation throughout the course.</p>
ECTS credits	Active participation and full attendance during the course is needed to obtain 2 ECTS credit.
<b>Registration</b>	<p>Module booking <a href="mailto:phdecology@ieu.uzh.ch">phdecology@ieu.uzh.ch</a>, include your Surname, Name, student number, email address, PhD program and your institution.</p> <p>Priority will be given to students registered in the PhD Program in Ecology, however other PhD students may attend if there are available places.</p>

## COURSE DESCRIPTION: METHODS

<b>ECO 338</b>	<b>Ecological Controversies Summer School</b>
Course tutor	Dr. Dylan Childs (Uni Sheffield, UK), Dr. Stephan Munch (UCSC, USA), John DeLong (University of Nebraska, USA), Dr. Katja Rasanen (Eawag, CH), Dr. Blake Matthews (Eawag, CH), Prof. Owen Petchey (UZH, CH)
Date / Time	22 October - 26 October 2018, 9:00 – 17:00
Place	Eawag Kastanienbaum (Accommodation Provided).
Content	<p>The theme of the summer school will be “Controversies in Ecology”. Now and again, ecologists shake off any reputation as tree-hugging, always-getting-along-well, aligned-in-cause. Instead, they get involved in a good ‘ole disagreement, flinging barbs back and forth in the journals, and elsewhere.</p> <p>Students will:</p> <ul style="list-style-type: none"><li>- Develop and present their deep understanding of a controversy.</li><li>- Increase their synthetic and critical thinking competencies.</li><li>- Think creatively about resolving controversies.</li><li>- Probe the role of controversies for diverse impacts of research.</li><li>- Increase skills across diverse dissemination pathways.</li></ul> <p>Students should already have experience related to:</p> <ul style="list-style-type: none"><li>- Searching for important relevant literature.</li><li>- Reading and interpreting literature.</li><li>- Constructing a research proposal.</li><li>- Using diverse methods of presenting findings.</li></ul>
ECTS credits	Active participation in the course is needed to obtain 2 ECTS credit points.
<b>Registration</b>	<p>Module booking <a href="mailto:phdecology@ieu.uzh.ch">phdecology@ieu.uzh.ch</a>, include your Surname, Name, student number, email address, PhD program and your institution.</p> <p>Priority will be given to students registered in the PhD Program in Ecology, however other PhD students may attend if there are available places.</p>

**ECO 336****Gardening Techniques & Field Equipment**

Course tutor	Matthias Furler, PD Dr. Pascal Niklaus, Department of Evolutionary Biology and Environmental Studies, University of Zurich, Winterthurerstrasse 190, CH-8057 Zurich.
Duration and time	Appointments can be arranged individually
Place	University of Zurich Irchel, IEU glasshouse and garden
Content	· At the start of the PhD work it is often unclear what different equipment for field and garden work is available at the institute. With this course we aim to close the gap. Our Department staff explain what field equipment we have available, introduce you to garden techniques and the general rules and regulations for the IEU glasshouse. Later you can contact them directly on an individual basis and receive advice, whenever needed.
ECTS credits	None
<b>Registration</b>	Please contact: <a href="mailto:matthias.furler@ieu.uzh.ch">matthias.furler@ieu.uzh.ch</a>

## TRANSFERABLE SKILLS

<b>ECO 302</b>	<b>English Academic Journal Writing</b>
Course tutor	Ryan DeLaney
Date / Time	21-23 November 2018 and 22 -23 January 2019, 9:00 – 17:00
Place	TBA
Content	<p>In this workshop, participants will learn to structure and compose an academic journal article in English. The focus will be on the academic writing style and academic language. The workshop will be held in two phases. During the three-day first phase, participants will analyze the structure of an academic journal article and gain first-hand experience in translating their research into such a text. A key goal will be the production of precise, clear, and concise academic English in the participants' own journal articles. Exercises in academic writing will be implemented, and the participants will gain experience in crafting their own texts with input from an experienced native speaker of English.</p> <p>After a one-month break, the two-day second phase of the workshop will take place. During the month before the second phase, participants will have the opportunity to work on their own journal articles, which will be discussed, analyzed, and edited during the final two days. The second phase of the workshop will focus on linguistically refining the participants' texts with input from each other as well as the instructor. Finally, after the second phase has concluded, every participant will be invited to submit a selection of up to 1,500 words from his or her article to be proofread by the instructor.</p>
ECTS credits	All participants are required to send a writing sample to Ryan DeLaney ( <a href="mailto:info@ryandelaney.de">info@ryandelaney.de</a> ) by 5 November 2018. Active participation throughout the course and full attendance during the course is needed to obtain 2 ECTS credit points.
<b>Registration</b>	<p>Module booking <a href="mailto:phdecology@ieu.uzh.ch">phdecology@ieu.uzh.ch</a>, include your Surname, Name, student number, email address, PhD program and your institution.</p> <p>Priority will be given to students registered in the PhD Program in Ecology, however other PhD students may attend if there are available places.</p>

## RESEARCH SEMINARS

### ECO 401

### Zurich Interaction Seminar

### Experimental Ecology: Population Biology and Genetics

Organization	Jan-Niklas Runge ( <a href="mailto:jan-niklas.runge@ieu.uzh.ch">jan-niklas.runge@ieu.uzh.ch</a> UZH, Department of Evolutionary Biology and Environmental Studies) and Bonnie Qian ( <a href="mailto:bonnie.qian@env.ethz.ch">mailto:bonnie.qian@env.ethz.ch</a> , ETHZ, Institute of Integrative Biology).
Duration and time	Every second week, start on Monday 19 September 2016. For details and an overview of the running program see: <a href="http://www.eco.ethz.ch/news/zis">http://www.eco.ethz.ch/news/zis</a>
Place	University of Zurich Irchel or ETHZ. Room to be announced.
Content	PhD students will receive a credit point for active participation (including a talk) at the Zurich Interaction Seminar or an equivalent series. A credit points will also be given to students who organize a seminar series or a conference themselves.
ECTS credits	1
<b>Registration</b>	ETH students register at <a href="#">myStudies</a> for the course <i>Experimental Ecology: Population Biology and Genetics</i> , number <a href="#">551-0740-00L</a> . UZ students: ZIS is officially registered in the <a href="#">PhD program in Ecology</a> under the name of <a href="#">ECO401</a> .

**SEBES  
BIO 605**

**Seminar for Evolutionary Biology and Environmental Studies**

Organization	Department of Evolutionary Biology and Environmental Studies, University of Zurich, Winterthurerstrasse 190, CH-8057 Zurich
Duration and time	Every Thursday from 16:15–17:00
Place	University of Zurich Irchel, room TBA
Content	- For an overview of the running program visit: <a href="http://www.ieu.uzh.ch/seminars.html">http://www.ieu.uzh.ch/seminars.html</a>  - Attending the SEBES is strongly recommended for all students of the PhD Program in Ecology. For information about speaker invitations contact Maja Weilenmann.
ECTS credits	None
Information	M. Weilenmann ( <a href="mailto:maja.weilenmann@ieu.uzh.ch">maja.weilenmann@ieu.uzh.ch</a> )
<b>Registration</b>	No booking is required

**BEEES  
BIO 606**

**Behaviour, Ecology, Environment and Evolution Seminar**

Organization	Department of Evolutionary Biology and Environmental Studies, University of Zurich, Winterthurerstrasse 190, CH-8057 Zurich
Duration and time	Every Tuesday from 12:15–13:00
Place	University of Zurich Irchel, room TBA
Content	For an overview of the running program visit: <a href="http://www.ieu.uzh.ch/seminars.html">http://www.ieu.uzh.ch/seminars.html</a>  Attending the BEEES is recommended for all students of the PhD Program in Ecology. For information about speaker invitations contact Maja Weilenmann.
ECTS credits	None
Information	M. Weilenmann ( <a href="mailto:maja.weilenmann@ieu.uzh.ch">maja.weilenmann@ieu.uzh.ch</a> )
<b>Registration</b>	No booking is required

### 3. USEFUL LINKS

Useful links	<p>A selection of links that offer additional information about your PhD and cross institutional courses that are offered at University of Zurich and ETHZ:</p> <p><a href="http://www.ieu.uzh.ch/teaching/phd/graduate/links.html">http://www.ieu.uzh.ch/teaching/phd/graduate/links.html</a></p>
PhD program in Ecology	<p><a href="http://www.ieu.uzh.ch/en/teaching/phd/graduate.html">http://www.ieu.uzh.ch/en/teaching/phd/graduate.html</a></p>
Other courses LSZGS	<p>The LSZGS offers a variety of inter-disciplinary or soft skill courses. Students may attend these courses for free. For more information and for registration visit the website: <a href="http://www.lifescience-graduateschool.ch/index.php?id=96">http://www.lifescience-graduateschool.ch/index.php?id=96</a></p>
ZGSM	<p>Courses of the Zurich Graduate School in Mathematics can be attended for free (excluding courses where additional payments to all participants apply). For more information, visit: <a href="http://www.zurich-graduate-school-math.ch">http://www.zurich-graduate-school-math.ch</a></p>
PhD Programs	<p>Courses of all LSZGS PhD programs, such the partner programs Plant Science Centre and Evolutionary Biology. Students are free to take courses of other programs, however the number of participants might be limited and availability based on priority given to own members.</p> <p>Plant Science Centre: <a href="http://www.plantsciences.ch/education/graduate_study/courses_ps">http://www.plantsciences.ch/education/graduate_study/courses_ps</a></p>
UZH/ETHZ	<p>Students can take courses offered by their respective host institution where they are matriculated, for example the Graduate Campus UZH offers transferable skills for PhD candidates: <a href="http://www.ueberfachliche-kompetenzen.uzh.ch/phd_en.html">http://www.ueberfachliche-kompetenzen.uzh.ch/phd_en.html</a>, or the courses offered by ETHZ on teaching skills: <a href="http://www.usys.ethz.ch/education/doctorate/index_EN">http://www.usys.ethz.ch/education/doctorate/index_EN</a></p>
External courses	<p>Courses from external institutions can be attended in agreement with the thesis committee and the program coordinator.</p>

## 4. REGULATIONS OF THE PHD PROGRAM IN ECOLOGY

### 4.1 GENERAL INFORMATION

#### *Mission Statement*

The aim of the PhD Program in Ecology is to enhance the research competence of PhD students in the interdisciplinary field of ecology, and to support the education of transferable skills for a future career within or outside an academic institution.

#### *Organization*

The program is governed by the program director and the associated research groups and is organized by the program coordinator. The associated research groups are experts in the field from the University of Zürich (UZH), the Swiss Federal Institute of Technology Zürich (ETH) and the affiliated organizations Eawag, Agroscope and WSL.

#### *Certificate*

PhD students of UZH and ETH participate during 4 years in the program. In addition to the UZH or ETH diploma the student will receive a certificate stating the successful participation in the PhD Program in Ecology. At UZH the certificate is needed to register for the thesis defense.

#### *Further information*

All documents, including the semester course program are available on the homepage: <http://www.phd-ecology.uzh.ch/>

### 4.2 ACCEPTANCE

#### *Application*

Candidates apply directly through the homepage of the Life Science Zurich Graduate School (LSZGS: <http://www.lszgs.ch/>) for admission to the PhD Program in Ecology (track 1). The official LSZGS interviews are organized in February and September, calendar week 6 and 36. Applications outside the official interviews (track 2) are possible if a student is employed in a PhD position. Please contact the coordinator of the PhD Program in Ecology [phdecology@ieu.uzh.ch](mailto:phdecology@ieu.uzh.ch).

#### *Acceptance interview*

Acceptance to the program is granted based on an interview. The interview includes a presentation by the candidate, followed by questions on the candidates scientific competences. At least three official representatives of the PhD Program in Ecology are present. A protocol of the interview will be signed by all members of the acceptance committee. The following requirements will be tested:

- training in Ecology / Environmental Sciences (equivalent to 10 ECTS) and in Mathematics (incl. Statistics) / Physics (together equal to 6 ECTS);
- evidence of excellent communication skills in English during the interview

Acceptance form: [http://www.phd-program.org/Documents\\_Ecology.zip](http://www.phd-program.org/Documents_Ecology.zip)

### *Fast track*

Fast track candidates of the Specialized MSc Environmental Sciences can enter the PhD Program in Ecology directly through a combined acceptance interview.

### *Admission*

Candidates are required to have a Master's degree or equivalent when they start their PhD. All candidates have to apply for admission and matriculation at the University of Zurich or ETH Zurich and fulfil the requirements of the respective host institution. A detailed description of the application and admission procedures can be found on the following web pages:

UZH: <http://www.mnf.uzh.ch/en/studies/students/doctoral-studies-at-mnf.html>

ETH: [http://www.rektorat.ethz.ch/doctorate/application/index\\_EN](http://www.rektorat.ethz.ch/doctorate/application/index_EN)

PhD students who successfully passed the acceptance interview have to submit their registration form to the program coordinator: [phdecology@ieu.uzh.ch](mailto:phdecology@ieu.uzh.ch)

## **4.3 THESIS COMMITTEE**

### *Formation of thesis committee*

The thesis committee ensures that PhD students receive the best possible supervision during the PhD and a mentoring for the academic or non-academic career beyond the PhD. It supports the PhD student with expertise and advice throughout the thesis work. In case of emerging problems that cannot be sorted out directly by a meeting between the student and the supervisor, the thesis committee members and/or the program coordinator should act as go-betweens. The members of the thesis committee are selected jointly by the thesis supervisor and the student at the start of the PhD, but not later than 6 months after the official date of employment. The thesis committee consists of 3-4 persons:

- The direct thesis supervisor (must be a member of the PhD Program in Ecology)
- The official thesis supervisor (must be a member of the Science Faculty (MNF) of the UZH or of D-BIOL / D-USYS of the ETHZ or have Promotionsrecht).  
This function is not required if the direct supervisor satisfies these criteria
- At least one additional member of the MNF UZH / D-BIOL ETH / D-USYS ETH (or a person with Promotionsrecht)
- At least one external member who has the right to supervise PhD students at his/her home institution

The committee selects a chairman for the thesis committee meeting, who must not be the PhD student's supervisor. The chairman checks that all committee members received the student reports and that both—the PhD student and the supervisor—have the opportunity to talk to the committee in absence of the other party.

### *Thesis committee meeting*

At least once a year the PhD student organizes a meeting with the thesis committee. The PhD student distributes the relevant documents before the meeting to all members. The results of the meeting will be protocolled and signed by the committee members. After the thesis committee meeting, the PhD student submits the thesis meeting report to the coordinator of the PhD Program in Ecology.

Thesis Meeting Report: [http://www.phd-program.org/Documents\\_Ecology.zip](http://www.phd-program.org/Documents_Ecology.zip)

The following time-plan should be followed:

- The first meeting takes place 3–6 months after the official start to discuss the research plan and to sign the doctoral agreement.

#### *Research plan*

Prior to the first meeting, the PhD student has to submit to all committee members and to the program coordinator a research proposal of ~2000 words (excluding references) describing his/her proposed project. The research proposal should be written in the form of a grant application and include:

- title or working title of the dissertation;
- a description of the research project, including the background of the research field, preliminary results, planned experiments, potential pitfalls and solutions;
- a timeline of the thesis, including mile-stones and a roadmap.

In case of unsatisfactory performance, the PhD student can repeat the proposal defense within three months. Should the PhD student fail a second time, he/she will be expelled from the program. The accepted proposal should be signed by the thesis committee at the end of the first meeting and the original submitted together with the Doctoral Agreement to the coordinator of the PhD Program in Ecology.

#### *Doctoral agreement*

The doctoral agreement outlines the expectations from the student and the thesis committee at the start of the PhD. The form should be filled out and signed at the first thesis committee meeting and should be submitted together with the research plan to the coordinator of the PhD Program in Ecology. The information should be updated in the subsequent meetings and any changes have to be communicated to the coordinator of the PhD Program in Ecology. The following points should be addressed in the doctoral agreement:

- Members of the thesis committee
- Curriculum, including planned internal and external lectures, seminars and courses
- Contribution to teaching (see below)

Doctoral agreement:

<http://www.ieu.uzh.ch/en/teaching/phd/graduate/links.html>

- Second meeting after 18 months and third meeting after 30 months to present results and evidence of progress. For all subsequent meetings, the PhD student has to submit to the committee members and to the program coordinator a progress report (up to 1000 words) two weeks before the meeting. The progress report can be substituted by a manuscript, provided that the PhD student's contribution is significant and clearly identifiable.
- Final meeting 6 months before registration for the exam.

#### 4.4 CURRICULUM

##### *Structure*

PhD students attend program courses for a minimum of 12 ECTS credit points during their PhD; these are subdivided into four categories (see table below). The internal courses are communicated to all members of the program before semester start and they are listed in the UZH online semester plan “Vorlesungsverzeichnis”: <http://www.vorlesungen.uzh.ch>

PhD students at ETH and other Swiss universities have to first register as “Gaststudent” at UZH to book courses directly, or alternatively contact the program coordinator until the registration is approved. Registration as “Gaststudent” at UZH:

[http://www.uzh.ch/studies/application/mobilitaet/applyhsudoktorat\\_en.html](http://www.uzh.ch/studies/application/mobilitaet/applyhsudoktorat_en.html)

Registered PhD students from all Swiss universities can book courses through the “Modulbuchung” at UZH and the earned ECTS will be automatically accredited to the “Leistungsausweis” at their home university. Registration for courses through “Modulbuchung” at UZH: [http://www.students.uzh.ch/booking\\_en.html](http://www.students.uzh.ch/booking_en.html)

##### *Scientific Integrity Course:*

The Scientific Integrity course is compulsory for all Life Science Zurich Graduate PhD students. The course must be completed in the first year of their PhD. This regulation is in effect from 1 February 2016.

Internal courses, seminars and lectures of the four categories can be complemented with courses from the LSZGS graduate school, partner PhD programs and the UZH or ETH. In agreement with the program coordinator and the thesis committee PhD students can also attend external courses. PhD students must collect a certificate for courses that are not booked through the institutional systems of UZH (Modulbuchung: see above) or ETH (myStudies) and get them accredited to their student account by the respective faculty (UZH) or department (ETH). In case of doubt the thesis committee will decide about the accountability

and allocation of ECTS credits. One ECTS corresponds to a total work load of 30 hours (incl. preparation and homework). Oral/poster contributions can be each accredited with one ECTS and need to be certified by the PhD supervisor.

Categories	ECTS
Subject-specific matters (incl. special lectures)	3
Methods	3
Transferable skills	3
Research seminars (incl. oral/poster contributions)	2
Free choice	1
Total	(min. 12)

Additional courses the program accepts:

– Graduate School courses

The LSZGS offers a variety of interdisciplinary and soft-skill courses. Students may attend these courses for free. For more information and for registration visit the website: <http://www.lifescience-graduateschool.ch/index.php?id=96>. Courses of the Zurich Graduate School in Mathematics can be attended for free (excluding courses where additional payments to all participants apply). For more information visit: <http://www.zurich-graduate-school-math.ch>

– Courses of all LSZGS PhD programs, such as the partner programs Plant Science Centre and Evolutionary Biology. Students are free to take courses of other programs; however, the number of participants might be limited and availability based on priority given to own members.

– Courses offered by UZH/ETH

Students can take courses offered by their respective host institution where they are matriculated, for example the Graduate Campus UZH offers transferable skills for PhD candidates: [http://www.ueberfachliche-kompetenzen.uzh.ch/phd\\_en.html](http://www.ueberfachliche-kompetenzen.uzh.ch/phd_en.html), or the courses offered by ETH on teaching skills: [http://www.usys.ethz.ch/education/doctorate/index\\_EN](http://www.usys.ethz.ch/education/doctorate/index_EN)

– Courses from external institutions

In agreement with the thesis committee and the program coordinator.

### *Teaching hours*

The PhD student and the supervisor list the planned teaching hours in the doctoral agreement. PhD students at MNF UZH have to report planned and absolved teaching hours to the “Fachbereich Biologie / Geowissenschaften”. Teaching hours include the support of lectures on the Bachelor/Master level, exam supervision and correction, and others. Teaching at the Science Education Center (within the disciplines of life science, mathematics, physics, chemistry, geography and biology)

can be accredited as teaching hours. Total hours are between 100-420 hours.  
Teaching hours form: <http://www.biologie.uzh.ch/Studium/Doktorat.html>

#### *Certificate*

In addition to the UZH/ETH Diploma, the PhD student receives a certificate from the PhD Program in Ecology stating the successful participation in the program. The certificate will be signed by the program director, coordinator and the supervisor and is needed to register for the thesis defense.

### **4.5 THESIS DEFENSE**

#### *Registration*

The PhD student has to submit and defend a thesis describing his/her original research carried out during the course of the PhD studies. The thesis defense complies with the rules of the host institution:

- UZH <http://www.mnf.uzh.ch/en/studies/regulations-information-sheets/doctoral-studies.html>
- ETH [http://www.rektorat.ethz.ch/doctorate/admin/doc\\_exam/index\\_EN](http://www.rektorat.ethz.ch/doctorate/admin/doc_exam/index_EN)

The thesis committee decides whether the PhD student has passed or not. In exceptional cases, the committee can recommend the students for distinction to the UZH/ETH. This recommendation has to be accompanied by two letters of reference from external reviewers. Distinction is intended for top ~5% of PhD students. The final degree is conferred by either the UZH or the ETH, depending on the academic affiliation of the research group.

The date and title of the defense must be communicated to the program coordinator no later than one week in advance.

#### *Data backup*

Together with the registration for the doctoral examination the PhD student has to hand over the thesis and the complete data used to produce the thesis, including meta information and where necessary analysis scripts, on a data storage medium to the coordinator of the PhD Program in Ecology.

## 4.6 PRESENTATIONS AND PUBLICATIONS



For any oral/poster presentation it is recommended to use this logo. <http://www.ieu.uzh.ch/en/teaching/phd/graduate/links.html>

### *Confidentiality*

The exchange of scientific data and unpublished results is fundamental for the PhD Program in Ecology. Such information is strictly confidential and should not be shared prior to publication by any of its members. The protection of intellectual property as outlined by the associated institutions needs to be assured.