

Carrying out a Bachelor or Master thesis in the Biogeography and Conservation Biology Lab

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This guideline describes the supervision framework for a Bachelor or Master thesis at the Biogeography Lab as well as the major steps to be taken from discussing potential topics to submitting the thesis.

Is the Biogeography Lab the right place for me and my thesis? – Humankind is rapidly transforming the planet, triggering drastic losses in natural ecosystems and biodiversity. Identifying strategies for using natural resources sustainably while halting these losses is among the grandest challenge we face in the 21st century. Land use is central in this context, as humanity depends on it yet it is also the major driver of biodiversity loss. The overarching goals of the Biogeography Lab are to improve our understanding of where and why land use changes, how these changes impact biodiversity, and what characterizes sustainable land systems that balance human resource use and the conservation of biodiversity.

For carrying out a thesis in the Biogeography Lab, you should be interested in at least one of these questions. More broadly speaking, you should be keen on learning more about issues of global change and how it manifests in regions, about interactions between people and nature, and about understanding threats to biodiversity and how to confront them. In the Biogeography Lab, we typically work with quantitative and spatially-explicit tools, for example geostatistics, advanced regressions modelling, econometric models, GIS, remote sensing, habitat or population models, connectivity analyses, or systems' simulation tools. We work highly interdisciplinary, often in large and international teams, and the working language of our group is therefore English.

For a successful thesis in our group, you should feel broadly comfortable with the thematic and methodological research mode outlined above. A thorough knowledge in basic statistics and GIS is mandatory for most topics we offer and a thesis with us will be most beneficial if you have visited our classes.

Finding a topic for a thesis – A thesis can be carried out with different motivations, for example with the goal to deepen your knowledge of a particular field or a particular methodological approach, or to get insights into ongoing research in our working group. While we do not expect you to approach us with a ready-to-go thesis topic, we do expect that you have reflected on what, thematically or methodologically, you would like to put into focus in your thesis. Both our [classes](#) and our ongoing [research projects](#) (and [publications](#)) could be starting points for thinking about this. The theses we offer are typically part of a research project, and thus you would be working closely with a postdoc or PhD student in our group. If you already have a specific and well-defined thesis topic in mind, for example a topic that arose from an internship at an NGO or a research institute, the main question will be whether

we can meaningfully supervise and evaluate this thesis. Another limiting factor, for all kinds of theses, is the number of theses that we are already supervising when you approach us.

The next step: writing a thesis proposal – Once we have agreed on a topic, a thesis proposal is written that includes (i) the background and rationale (i.e., motivation), (ii) research questions and clear objectives, (iii) a research plan that provides a summary of the planned analyses for each objective, what data is needed for them, and what the expected outcome will be. This proposal should typically be 2-5 pages and can consist of bullet points – the idea is to arrive at a ‘cooking recipe’ that will guide you through the rest of the thesis. Once a proposal is accepted, the thesis should be officially registered (i.e., started) with the study board ([Prüfungsbüro, Fr. Schwedler](#)). At this point, you are also expected to write a ‘newsflash’ for the lab’s [newspage](#) – a 4-5 line summary of the thesis with a photo or graph¹. Moreover, we would like you to give a flashtalk (max. 5mins) in our colloquium to get feedback on your idea from the group.

During the thesis – While working on your thesis, report on your progress, particularly if you run into major problems or if you would like to discuss main results and their interpretation. For a thesis carried out within a research project, such feedback should be primarily obtained from the respective postdocs or PhD students. Once first results are obtained, you should present them in the colloquium – ideally at a point in time when you can still incorporate the feedback you will get there.

Writing your thesis should be an ongoing process, avoid ‘writing it all up’ in a rush during the very end. The most important characteristic of a high-quality thesis is that it is consistently so – from motivating the research question to discussing the results in light of other research. Plan in the necessary time to get to this level of depth – and do not trade off another analysis for a well-written discussion section!

The format of the thesis itself is regulated in your [Studien- und Prüfungsordnung](#). We encourage theses that are written in English and, at the MSc/MA level, are in the form of a research paper. [Guidelines for the latter](#), especially regarding the length of the thesis, have been specified by the examination board (Prüfungsausschuss).

Submitting your thesis – You submit your thesis once it is ready (or the deadline approaches). In case you need a quick review that is shorter than the time allocated in the respective study program, for example because of a pending job offer or fellowship application, please contact us *early on* to discuss this. Once you have submitted your thesis, we would also like you to prepare a short summary (this can be the abstract) of your thesis with one or two key figures and/or photos¹ for our webpage.

Summary of steps to a successful thesis in the Biogeography Lab

1. Think about the thematic or methodological focus of your thesis and discuss this with us
2. Write a thesis proposal
3. Once we have agreed on a topic and outline, register the thesis
4. Present the thesis’ idea in the colloquium (flashtalk) and write a newsflash for the website
5. During the thesis: report on progress and get in touch when there are problems.
6. Towards the end: present first results and interpretations in the colloquium

¹ Use only your own photos/figures or photos/figures without copyright restrictions. Always give the source for photos and figures.

July 2015

7. Once the final thesis is submitted, write a half-page summary with one or two key figures/photos for the webpage
8. Celebrate!