## Guidelines for the PhD thesis at the Department of Ecoscience

According to the 'Rules and regulations' of the Graduate School for Technical Sciences (GSTS), "a PhD thesis may be formed as a monograph, or it may include a number of manuscripts or papers in different stages of completion that are related to the topic of the PhD project". In the natural and technical sciences, it is customary that the PhD thesis consists of a number of scientific manuscripts, although submission of a monograph is also allowed.

The Department of Ecoscience (ECOS) recommends that, as a rule, the PhD thesis is based on three full-length manuscripts that have either already been published or are publishable in internationally recognized journals. This means that the PhD thesis will normally include three or more papers or manuscripts at different stages of completion, relating to the topic of the PhD project. All manuscripts should have a scientific quality that aligns with the expectations for peer-reviewed publications, and at least three of the manuscripts should be first-authored by the PhD student. Further, the PhD thesis must include the following elements, not necessarily in this order:

- Front page, including title, student's name, supervisors, assessment committee.
- Preface, e.g. including context of the PhD project, funding etc.
- Acknowledgements. This section is not required but is often quite extensive in PhD theses.
- Table of contents.
- Summary in English (1 page).
- Summary in Danish (1 page.
- List of manuscripts included and their status.
- A synopsis of typically 20-30 pages, including the following:
  - A general introduction describing the academic field of study, including references to existing knowledge along with the purpose/aim of the project and a brief description of the proposed research questions and/or hypotheses.
  - A brief description of materials and methods, and an assessment/discussion of the applied methodologies.
  - A summary of main results, potentially also representing parts that are not included in the attached articles/manuscripts, but still has scientific merit in relation to the PhD topic.
  - A critical review section in which the PhD student relates the entirety of their own work and results to the state-of-the-art within the field. The PhD student must demonstrate an up-to-date knowledge hereof and be able to put this knowledge into a broader perspective. The review section should demonstrate the student's ability to find, synthesize and critically evaluate information from various sources. The section should also document skills in terms of paraphrasing and citation.
  - $\circ \quad \hbox{Conclusion and account of further research perspectives}.$
- A clear description of the student's own contributions to the work, including an outline of the student's role in writing manuscripts or papers included in the thesis.

Material from the progress report in connection with the qualifying exam may be reused in the PhD thesis, but must be clearly stated as such, for example by stating in the thesis introduction, that, "in accordance with GSTS rules, parts of this thesis were also used in the progress report for the qualifying examination".

If published articles or submitted manuscripts are included in the thesis, you must ensure that you have permission from the publisher to reproduce these in the thesis. The procedure for obtaining permission depends on the publisher and can be found via the journal's webpage.

The PhD thesis should normally be written in English, but the Head of the PhD School may allow the PhD student to write the PhD thesis or parts of it in another language, if agreed between the student and the main supervisor.

Printed copies of the PhD thesis must be available for the defence, or in principle eight days before. The thesis available for the defence must in principle be identical to the version submitted for assessment. However, the PhD student may incorporate small corrections and changes provided that a detailed description of these corrections and changes is included as well. At ECOS, PhD students are responsible for arranging printing of their thesis, and costs can be covered by project funding or by the department.

## Online publishing through E-books platform

If you are interested in publishing your PhD thesis or other material, the Royal Danish Library in Aarhus offers an online publication service through their E-books platform. This service will enable you to provide Open Access to your research and still maintain author's rights for your PhD thesis.

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