

Dissertation Examples: Environmental Science

About this document

This PDF lists 5 **environmental science dissertation examples** and thesis examples (2019–2025), each a complete, openly licensed document you can read in full, with a note on what it does well and who it is useful for. Use them to see how a finished dissertation is structured and argued at your level before you write your own.

By [Derek Jansen](#) (MBA) · Reviewed by [Eunice Rautenbach](#) (DTech) · Grad Coach · October 2026

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Environmental science dissertations

1. Social Behavior and the Ecology of Infectious Disease

Leah Valdes · Ph. D., Entomology · Cornell University · 2025 · 147 pages

Basic science that lands a practical recommendation without pretending that was the point all along.

APPROACH Field experiment, Behavioral ecology

WHY WE PICKED IT

A behavioral-ecology doctorate on how the social lives of bees shape disease transmission in plant-pollinator-pathogen communities. The findings are about social behavior and epidemic outcomes; the applied contribution, an effective and cost-effective way to reduce pathogen transmission in managed pollinators, follows from them rather than driving them.

If your supervisor has asked about impact and you are worried that answering will distort your research questions, this shows the honest order. Its introduction is also a good example of establishing why a system matters ecologically and economically before narrowing to a mechanism.

[Read the full dissertation](#) · [Original record](#)

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2. Reframing Ecological Identity: Ecological Management Practices and Social-Ecological Systems Resilience in the Mid-Hills of Nepal

Jessie Hughes · M.S., Natural Resources · Cornell University · 2024 · 191 pages

APPROACH Survey instrument, Qualitative

WHY WE PICKED IT

The Master's-length environmental entry, and the one to read when **your instrument does not work and you have to say so**. Hughes administered an established Environmental Identity scale to smallholder farmers and herders in the mid-hills of Nepal. They scored below the global average, and simultaneously

demonstrated, through the rest of her analyses, that they see themselves as an integrated part of their social-ecological system.

Rather than reporting the low scores and moving on, she concludes that the scale is not fit for purpose with resource-proximate communities and argues why. A negative finding about your own measure is the hardest thing to write up honestly, and it is often the most useful thing in the document. Also a good model of building instruments collaboratively with participants.

[Read the full dissertation](#) · [Original record](#)

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3. Environmental DNA for Assessing Species Richness, Genetic Diversity, and Species Abundance

Kara Andres · Ph. D., Ecology and Evolutionary Biology · Cornell University · 2022 · 276 pages

APPROACH Experiment, Field experiment

WHY WE PICKED IT

The best example here of validating a method in stages, and worth reading whatever your field if you are introducing a technique your examiners may not trust. Andres wants to know whether environmental DNA, the genetic material shed into water, can measure not just which species are present but their genetic diversity and abundance.

She does not simply apply it. She tests it in a mesocosm, a controlled tank where the true answer is known; then in a field experiment, checking eDNA estimates against tissue-based genetics from the same population; then in natural conditions, comparing abundance estimates against images from an autonomous underwater vehicle. Each stage checks the method against an independent measure, and the conclusion states the remaining limitations rather than declaring the technique proven. That is how a methodological claim is earned.

[Read the full dissertation](#) · [Original record](#)

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4. Nuts and Bolts: Spatial Statistical Model Development for Fisheries

Elizabeth Paige Duskey · Ph. D., Natural Resources · Cornell University · 2020 · 214 pages

APPROACH Simulation, Spatial statistics

WHY WE PICKED IT

The statistical-modeling entry, and its lesson is one most quantitative students never hear: **build simulations before you touch the real data**. Duskey develops spatial models for fisheries and does it by generating biologically and ecologically informed simulations first, using them to test which model structures can recover a known truth. Her own summary of why is the line to take away: it "constrains the infinite realm of possibilities to a manageable set of choices based in reality".

If you are staring at a modeling decision with no principled way to choose, this is the method. The substantive finding matters too: fine-scale trend in Atlantic sea scallops may be far larger than a conventional sequential approach suggested.

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5. Advancing Regional Water Supply Portfolio Management and Cooperative Infrastructure Investment Pathways under Deep Uncertainty

Bernardo Carvalho Trindade · Ph. D., Civil and Environmental Engineering · Cornell University · 2019 · 297 pages

APPROACH Scenario analysis

WHY WE PICKED IT

Read this if **your contribution is a tool** and you are unsure whether that counts. Carvalho Trindade built WaterPaths, an open-source modeling framework for regional water infrastructure decisions, and the dissertation treats the software as a research contribution rather than as an implementation detail, including a deliberately designed test case, the hypothetical "Sedento Valley", offered as a shared benchmark other researchers can use.

That is a generous and unusual move, and it is what turns a tool into a contribution. It is also a strong model for **deep uncertainty**: the work is explicitly about making decisions when the future cannot be forecast, which is a framing more theses need and few name.

[Read the full dissertation](#) · [Original record](#)

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How to use an example dissertation

An example is a map of how one study was put together, not a template to copy. These four steps get the most out of one.

- 1. Read the abstract and the contents first.** They show the shape of the whole document before you spend an hour in it.
Recommended reading: [Dissertation and thesis structure](#)
- 2. Read the chapter you are writing next.** Look at how it opens, how it is organized under headings, and how it ends.
Recommended reading: [How to write the methodology chapter](#)
- 3. Check the level and the field.** A doctoral thesis goes further than a master's dissertation, and fields differ in what they expect.
Recommended reading: [What is a dissertation?](#)
- 4. Follow your own handbook over any example.** Where an example and your program disagree, your program wins.
Recommended reading: [Every example in the collection](#)

Used this way, two or three good examples teach you more than any amount of general advice.