

Master Thesis projects

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If you can't beat them – eat them! **exploring the potential of invasive species as a sustainable food source**

Invasive species are a global problem. They frequently reach extremely high population densities, spread rapidly, and threaten native biodiversity. Many invasive species can be eaten by humans. Public media increasingly report examples of how local initiatives try to manage invasive species by human consumption. Scientific research in the context of such initiatives however, is lacking.



*From left to right: An aquarium picture of an invasive round goby (*Neogobius melanostomus*) circa 15cm in length. A 3-hour catch of round goby reported in by a recreational angler. An 'invader-dish' consisting of smoked and fried round goby served at a local social event in Basel.*

The round goby is an invasive fish species occurring in high densities in the River Rhine, where it threatens native species (Hirsch et al. 2016). It tastes good - we tried it ;) so there might be a potential to support regional food consumption and local stakeholders while at the same time mitigating the negative effect of the local round goby in the Rhine. We plan to explore this potential by asking:

What are opportunities and hurdles of using invasive gobies here in Basel as a sustainable food source?

Against this backdrop, we are announcing two interdisciplinary master thesis projects. Both projects are interconnected and have a clear applied focus, connecting to a locally relevant phenomenon:

Project 1 : Eating invaders pilot - Finding a framework for making the 'eating invaders' approach a successful management option for the round goby in Basel

This project has two aims, addressing (i) social science and (ii) natural science aspects. The first aim is to qualitatively explore the societal dimensions of the overall question. Therefore, it will be asked which practical questions are relevant to the purchasing and consumption behavior in the context of invasive species. The second part explores the natural science dimension. The aim is to develop a potential sustainable fisheries management of the local round goby population. For this, existing long-term data from scientific and recreational round goby catches can be used.

Project 2 : Eating invaders implementation - Developing possible pathways towards implementation of an 'eating invaders' approach in Basel

Aim: This project first aims to quantitatively assess the societal dimensions of the overall question. The second aim of the project is to explore more specifically the opportunities and hurdles of the implementation of the 'eating invaders' approach with a focus on the round goby in Basel.

Methods: Quantitative survey based on the questions concerning the societal and biological dimensions identified in the first project.

We offer:

- A guaranteed 'spot on the team' in an interdisciplinary working environment with regular group meetings together with 2-3 other master and PhD-students.
- Structured supervision with weekly reporting and feedback by your main supervisor within Man-Society-Environment / Mensch-Gesellschaft-Umwelt.
- Additional external supervision with by Prof. Max Bergman and researchers in his team (Department of Social Sciences, University of Basel)
- A unique and realistic opportunity to fill a research gap within the period of a master thesis by being embedded in an ongoing research project.

Starting date:

Flexible

Interested?

Then please contact:

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Cited references:

Hirsch et al. 2016 What do we really know about the impacts of one of the 100 worst invaders in Europe? *Ambio* 45(3): 267–279.