

*The [ECOSPHERE research group](#) aims to study aquatic and valley ecosystems that are continuously challenged by natural and anthropogenic stressors. The research focuses on acquiring fundamental and applied knowledge at different levels of structural and functional organisation in order to underpin environmental management decisions.*

## MASTER THESIS SUBJECT 2024-2025

### Impact evaluation of the Chinese mitten crab traps on ecosystem recovery

Research group: ECOSPHERE

Hosting laboratory: CDE

Promotor(s): Prof. dr. Jonas Schoelynck ([jonas.schoelynck@uantwerpen.be](mailto:jonas.schoelynck@uantwerpen.be))

Daily supervision: Heleen Keirsebelik



*Catch of the day: ~5000 crabs removed from the ecosystem at once. But does it has any effect for the ecosystem?*

- This topic mostly contains  literature study,  lab work,  field work,  experimental work,  GIS,  numerical modelling,  other: datasets
- Possession of driver's license B is  needed,  recommended,  not needed
- Possession of certificates needed:  FELASA C,  other: .....



**Summary:** Since 2018, the Flemish Environment Agency has placed a trap on the Kleine Nete River. This trap was specifically designed to trap Chinese mitten crabs. These crabs are an invasive species in Europe, causing a lot of ecological and economic damage in freshwater waterways. Since 2018, the trap on the Kleine Nete has caught over 2 million crabs already, reducing significantly the population in the upstream watershed. Because of its success, the trap has been installed on 5 extra locations in Flanders. More locations are planned, also abroad.

However, we don't know how effective this trap has been for the recovery of the ecosystem. In this thesis, we will compare data on macrophytes (aquatic vegetation) and macro-invertebrates before and after the placement of the traps. Data will mainly be derived from various publicly available dataset (e.g., VMM) but we will also gather own data in the field. The student will also contribute to the crab monitoring of that year.

This thesis thus has a very strong applied focus and will have direct impact on water management in Flanders and abroad. The student needs to feel comfortable working with existing datasets and to find its way in it. Fieldwork is only a limited part of the thesis. This thesis is part of the Clancy project: <https://www.interregnorthsea.eu/clancy>

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