

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

### Can the capacity for phenotypic plasticity in temperature tolerance explain Northward migration of Hermit crabs?

**Research group:** ECOSPHERE

**Hosting laboratory:** CGB

**Promotor(s):** Gudrun De Boeck

**Daily supervision:** Gudrun De Boeck

Increasing temperatures have caused migrations to higher latitudes in marine (in)vertebrates. At our yearly field excursions to the marine station in Wimereux, we have observed a clear shift in occurrence from the common hermit crab *Pagurus bernhardus* to the small hermit crab *Diogenes pugilator*. During this period, average temperature has increased but also summer heatwaves have been more common. With this research, we want to examine whether this change in occurrence is linked to their thermal tolerance for acute (heatwave) scenario's and/or chronically increased temperature preference. The research will involve field collection trips and respirometry as well as behavioural choice experiments in the lab.



*Diogenes pugilator*, the small hermite crab, has moved Northwards and is replacing the common hermit crab *Pagurus bernhardus*.

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  - Possession of driver's license B is  needed,  recommended,  not needed
  - Possession of certificates needed:  FELASA C,  other: .....



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