



**Designação do projeto:** EDGEOMICS: Freshwater bivalves at the edge: adaptation genomics under climate-change scenarios

**Código do projeto:** PTDC/CTA-AMB/3065/2020

**Região de intervenção:** Norte

**Entidades beneficiárias:**

CIIMAR - Centro Interdisciplinar de Investigação Marinha e Ambiental (Líder do projeto)

ICETA - Instituto de Ciências, Tecnologias e Agroambiente da Universidade do Porto

Instituto Politécnico de Bragança

Universidade de Trás-os-Montes e Alto Douro

**Data de início:** 01-03-2021

**Data de conclusão:** 29-02-2024

**Custo total elegível:** 249.389,25 €

**Objetivos:**

During the last ten years, in a series of funded projects, the team has filled the gap of knowledge of Freshwater Mussels' (FM) evolutionary histories and biological features. Now, the present project will use an innovative multidisciplinary approach to test the adaptive genetic variation related to environmental variation in natural populations of FM. The aims of this project are to 1) assess genomic changes and responses associated with climatic adaptations 2) evaluate if adaptation is the factor that can mitigate the impact of climate regime variation 3) expand our understanding of neutral vs. adaptive genes. As we aim to identify the molecular kernel and functional pathways potentially involved in environmental stress response, three target FM species were selected based on their close evolutionary relationships, similarities in life-history traits, and with both drought (*U. delphinus* and *U. mancus*) and cold (*U. pictorum*) tolerances.

**Financiamento:**

**FCT**

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