Call for Incentive Research Collaboration 2025 Laureate

Project BLUeDNA

Blue whales in the North Atlantic studied with new methods: Environmental DNA, DNA methylation and microbiome analysis

AURORA

Co-funded by the European Union

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UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II

PROJECT IDENTIFICATION

Project title:
Blue whales in the North Atlantic studied with new methods: Environmental DNA, DNA methylation and microbiome analysis.

Project acronym: BLUeDNA

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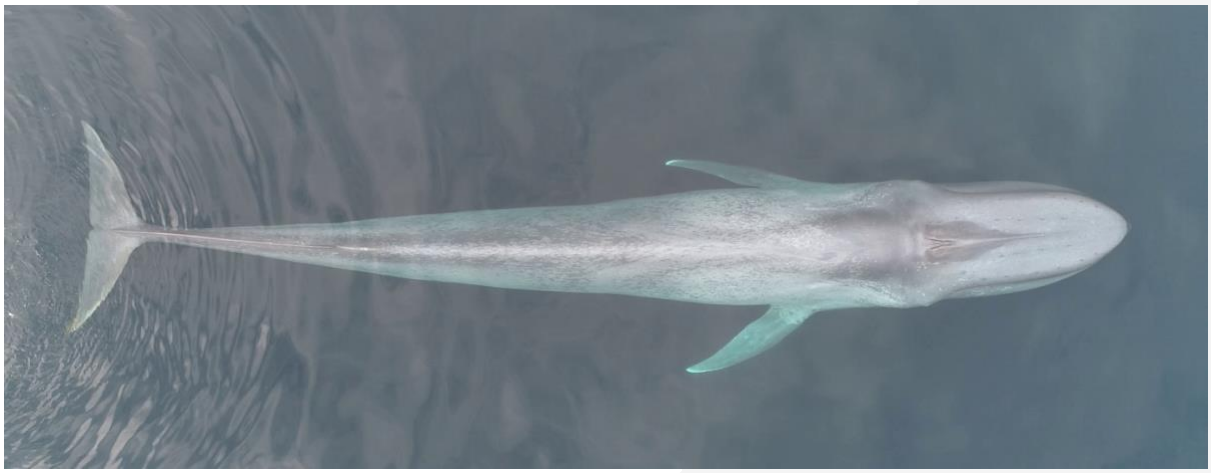
OBJECTIVE

One Objective is to interact and create a new and fruitful consortium of researchers from three countries and research facilities within the Aurora network. These future endeavours will also combine environmental DNA (eDNA) and biopsy samples of the endangered blue whales (*Balaenoptera musculus*) in the North Atlantic and at the same time employ photo-identification.

ILLUSTRATION OF THE PROJECT



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SOCIAL IMPACTS AND TARGETED SDG

This project aims to combine several methods to not only gain valuable knowledge of one of these giants, the blue whale, but also to find a cheaper, more effective and less invasive way to evaluate the biodiversity in an area as well as on individual level by avoiding using the effort and financially consuming sampling methods in the future. The blue whale is the largest animal currently living on Earth and is endangered in all its range. In the North Atlantic, blue whale samples are very limited and so is knowledge about these giants. Here we have given three scientific objectives, besides the collaborative network to investigate a) New non-invasive sampling way using eDNA: How much can we learn from a drop of water? b) Skin microbiome c) Ages of blue whales.

AURORA ADDED VALUE

The goal of Aurora actions is to build Research communities among the Aurora universities. In the proposed project: two team members are based at University of Iceland; one team member is at Innsbruck University in Austria and two team members are associated team members through Karazin Kharkiv National University in Ukraine. The team will work together through a new research field.