# **NorTrack**

## The Northeast Atlantic Marine Tracking Network

DURATION	BUDGET
1/04/2024 - 30/06/2027	211 420 €

PROJECT DESCRIPTION

#### Context

The Northeast Atlantic Marine Tracking Network (NorTrack) project addresses the critical need for a cohesive marine animal tracking system in the Northeast Atlantic (NEA) region, including the Irish Sea, the English Channel, and the North Sea. This region is economically significant and ecologically diverse, but it faces severe threats from climate change and human activities such as fishing, shipping, and offshore development. Rapid warming over the past 50 years has further stressed these ecosystems.

NorTrack aims to leverage advancements in aquatic telemetry technology to fill data gaps on species distribution and movement, crucial for effective management and conservation. The project aligns with the EU Biodiversity Strategy for 2030 and the EU Green Deal, focusing on adaptive management to address the biodiversity crisis.

By coordinating tagging and tracking efforts at a basin scale, NorTrack will enhance data sharing and archiving, integrating local and regional initiatives into a broader network. This effort represents a major step in the European Tracking Network's strategy, supporting marine spatial planning and fisheries policy with updated, actionable data.

#### **General Objectives and Underlying Research Questions**

The primary objective of NorTrack is to establish a pan-European infrastructure for tracking marine animals to support biodiversity conservation and sustainable management. The project seeks to address three key research questions:

- 1. How can cooperative infrastructure efforts address major ecological challenges in the NEA?
- 2. How can data archiving maximize impact and enable long-term integrative analysis?
- 3. Can international coordination of infrastructure deployments improve our ability to address pressing biodiversity questions?

These questions aim to enhance our understanding of marine animal movements, inform policy, and improve the management of marine resources in the face of climate change and other stressors.

#### Methodology

NorTrack's methodology involves four work packages: management, infrastructure deployment, data management, and communication. The infrastructure deployment includes installing acoustic arrays and tagging various marine species to monitor their movements. Data collected will be archived in the European Tracking Network (ETN - https://www.europeantrackingnetwork.org/en) database, ensuring it is accessible for long-term use. Collaboration with projects like STRAITS (Strategic Infrastructure for Improved Animal Tracking in European Seas, EU Horizon Europe, https://europeantrackingnetwork.org/en/straits) and DTO-Track (Digital Twin of the Ocean: Animal Tracking, https://www.europeantrackingnetwork.org/en/dtotrack) will enhance data collection and analysis.

The project also emphasizes stakeholder engagement through workshops and meetings, integrating feedback into research and dissemination efforts. By combining telemetry data with oceanographic and climate data, NorTrack will provide a comprehensive understanding of marine animal behavior and habitat use.



### NorTrack

#### **Potential Impact**

The research will bring significant and promising advancements in marine biodiversity conservation and fisheries management. The project will generate critical data on species distribution and movements, aiding in the identification of priority conservation areas and informing marine spatial planning. By fostering international collaboration, NorTrack aims to create a scalable and enduring tracking infrastructure that can adapt to changing environmental conditions. The data and insights from NorTrack will support the EU Green Deal and Biodiversity Strategy 2030, contributing to sustainable ocean management and the protection of marine ecosystems.

#### **Expected Final Research Results**

NorTrack expects to include a robust dataset on marine animal movements in the NEA, new insights into the impacts of climate change on marine biodiversity, and enhanced methodologies for marine tracking and data sharing. The project will produce peer-reviewed publications, policy briefs, and educational materials to disseminate findings to a wide audience. The establishment of a coordinated tracking network will set a precedent for future marine research initiatives, providing a valuable model for integrating technology, data, and stakeholder engagement to address complex ecological challenges.

#### **CONTACT INFORMATION**

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#### **LINKS**

https://europeantrackingnetwork.org/en/nortrackhttps://twitter.com/AquaticTrackinghttps://www.instagram.com/aquatictracking/

