



BEeS

The LifeWatch ERIC Biodiversity & Ecosystem
eScience Conference



Heraklion, 30 June - 3 July 2025

30 June 2025 | 15:00



Session: Tracking the Wild: Unlocking Insights into Animal Movement, Behaviour, and Biologging

2 July 2025 | 14:30-16:30



From Coasts to Continents: Coordinated Animal Tracking for Biodiversity Monitoring in European Waters

Presenter: Sarah McLean, Loughs Agency

The Importance of Coordination

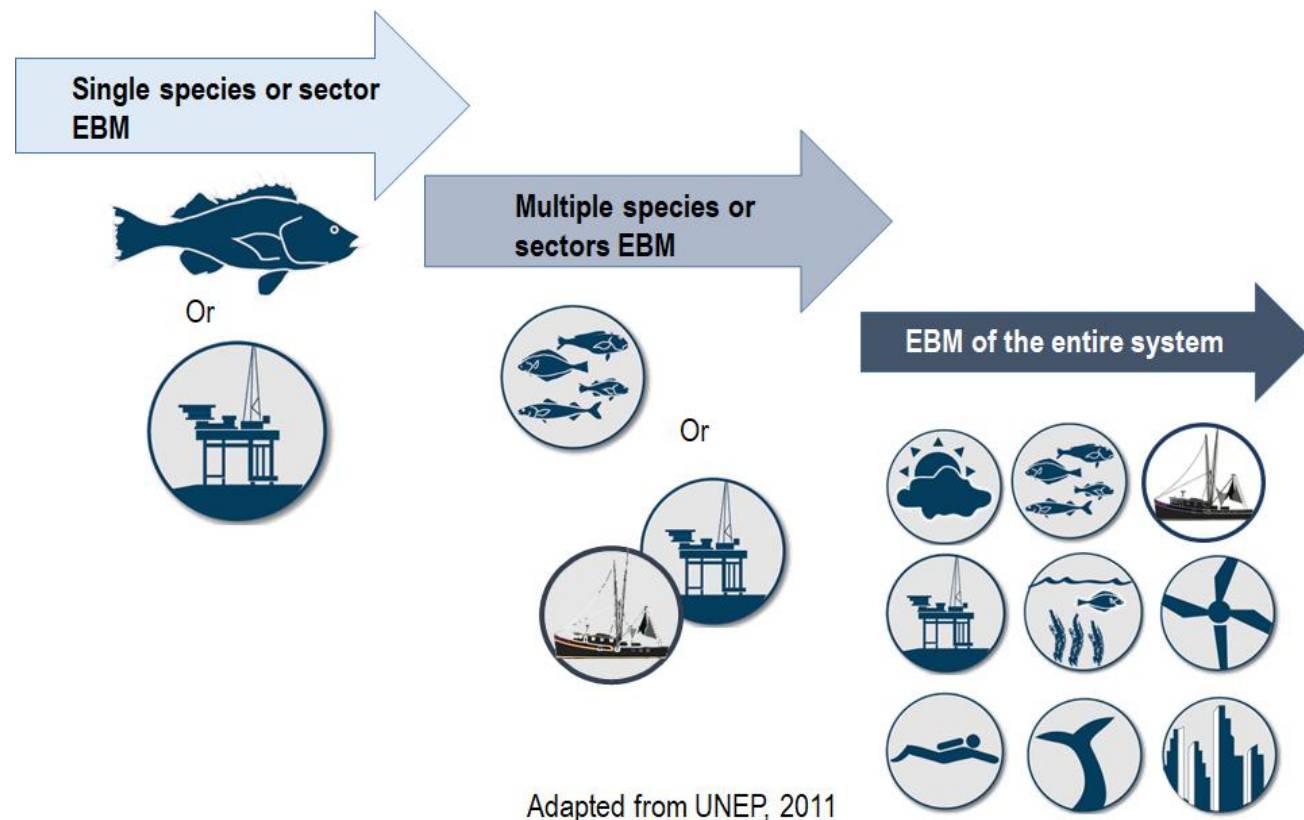
...Take Home Messages...

- Application is key
- Marine monitoring must be on **appropriate** temporal and spatial scales
- Ecosystems do not end at jurisdictional boundaries



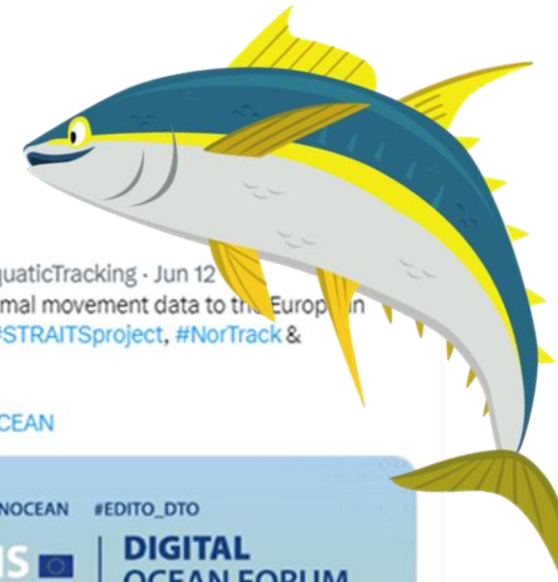
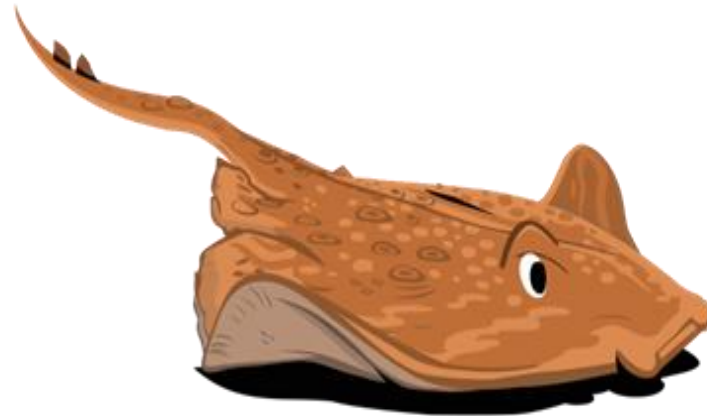
Towards an Ecosystem Based Approach

'system of **integrated management** of land, water, flora and fauna which **promotes conservation** and provides **evidence bases** for sustainable anthropogenic use. The ecosystem-based-approach recognizes that **humans are an integral part** of the ecosystem'



Research to Application

- Assessment of Management Requirements
- National and International Requirements
- Conservation and Marine Protected Areas
- Data Sharing
- Funding
- Expertise



European Tracking Network @AquaticTracking · Jun 12

ETN is thrilled to contribute its animal movement data to the European Digital Twin of the Ocean via the [#STRAITSproject](#), [#NorTrack](#) & [#DTOTrack](#)! 🐟🌊

[#DOF2024](#) [#EUDTO](#) [#MISSIONOCEAN](#)



EDITO - European Digital Twin Ocean and 5 others

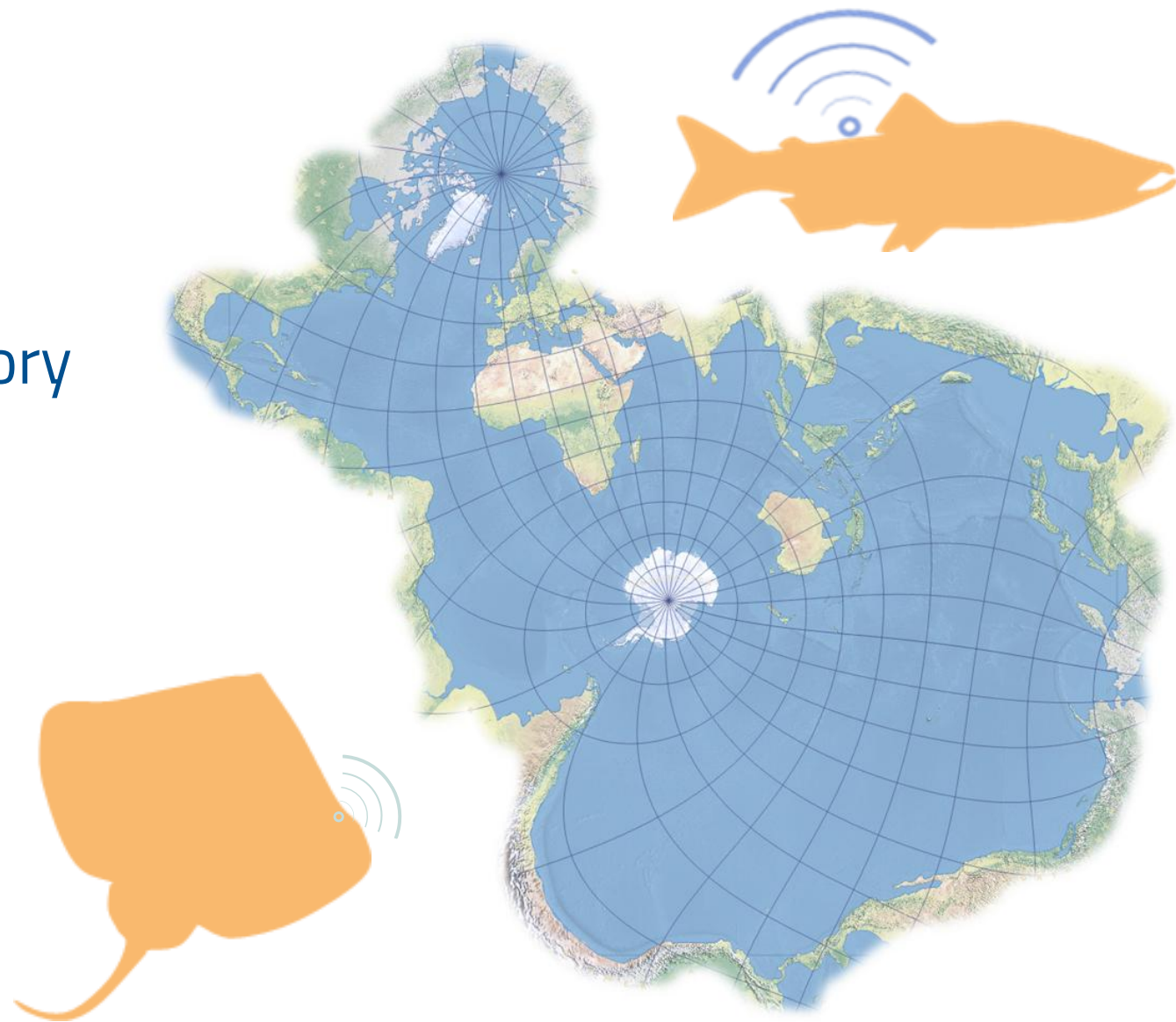


Scale Matters

Highly mobile and migratory species

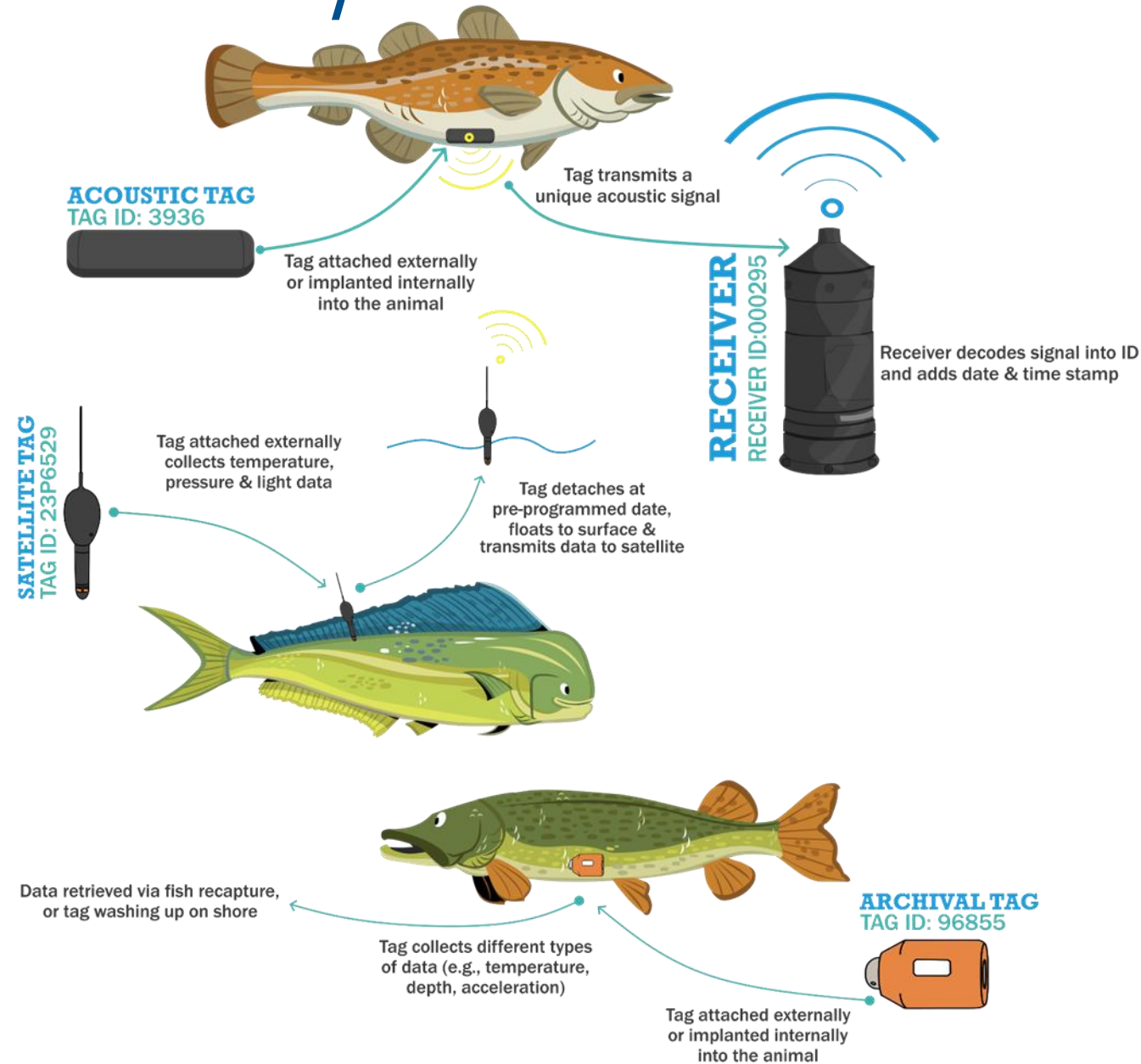
Life history and lifespan considerations

Jurisdictional boundaries



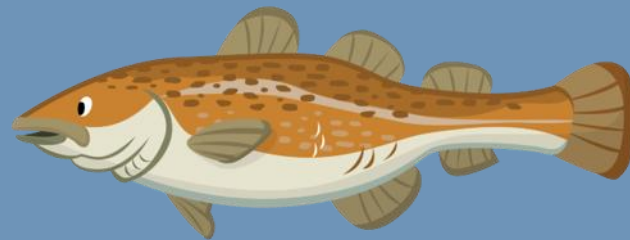
What is Acoustic Telemetry?

- Uses acoustic signals ('pings')
- Detected by acoustic receivers
- Each tag = specific set of 'pings' and a specific ID
- Tags come in different sizes depending on size of the animal
- Different types of tags depending on research purpose



Tracking at Scale is GREAT

- Clearer understanding of long-term behaviours
- More holistic view of species life histories
- Clearer understanding of ecological changes/trends
- Targeted, robust management plans
- Collaboration and additional novel research



STRAITS

We're tracking aquatic life across
four major swimways in Europe

EU INVESTMENT **3.500.000€**

**TRACKING FISH
MOVEMENTS**



**LISTENING
FOR CETACEANS & THE BROADER
SOUNDSCAPE**



**MEDITERRANEAN
SEA**

**NORTH
SEA**

**IRISH
SEA**

**BALTIC
SEA**

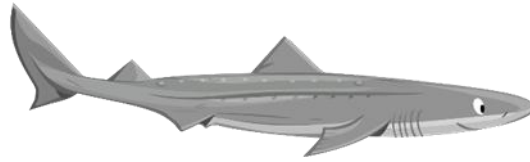
**BLACK
SEA**



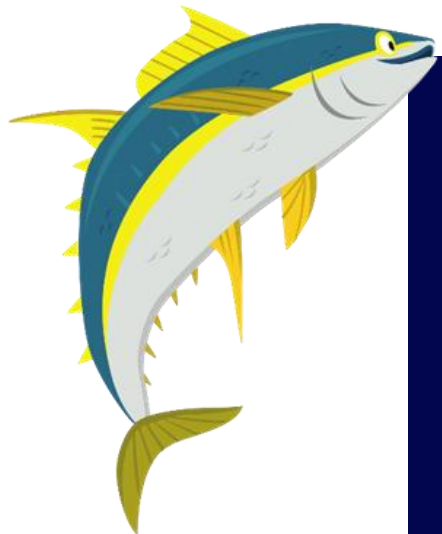
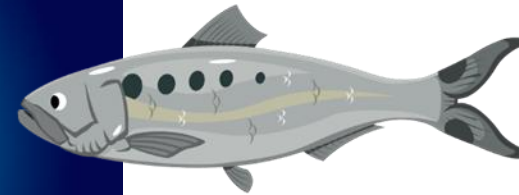
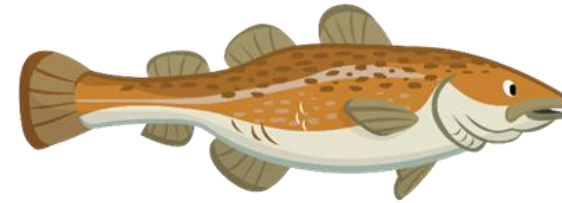
NorTrack



DTOTrack

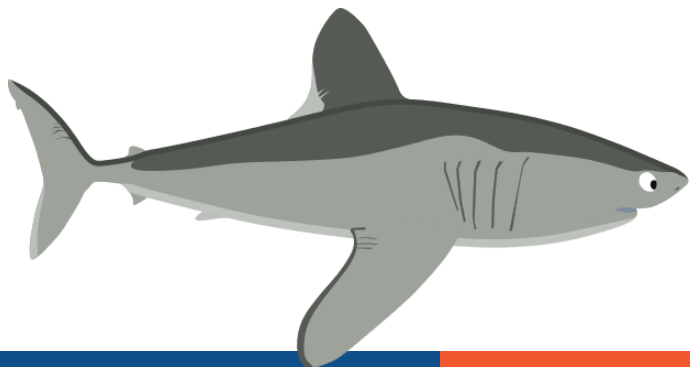


- Coordinated tracking of multiple marine species
- Instrument offshore infrastructure
- Digital Twin of North Sea



Lessons: An Integrated Approach

- Require more than just 'where' need 'why' – **Multi-sensor**
- Must be accessible to all – **Open-protocol**
- Monitoring must not be restricted by jurisdictional boundaries – **Cross-border**
- Research must be impactful – **Appropriately Scaled**



www.europeantrackingnetwork.org/projects

Find out
more here



Thank you!



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Questions? sarah.mclean@loughs-agency.org

*Want to get involved?: email to our communications
manager (Kim Birnie- Gauvin) at kbir@aquadtu.dk*