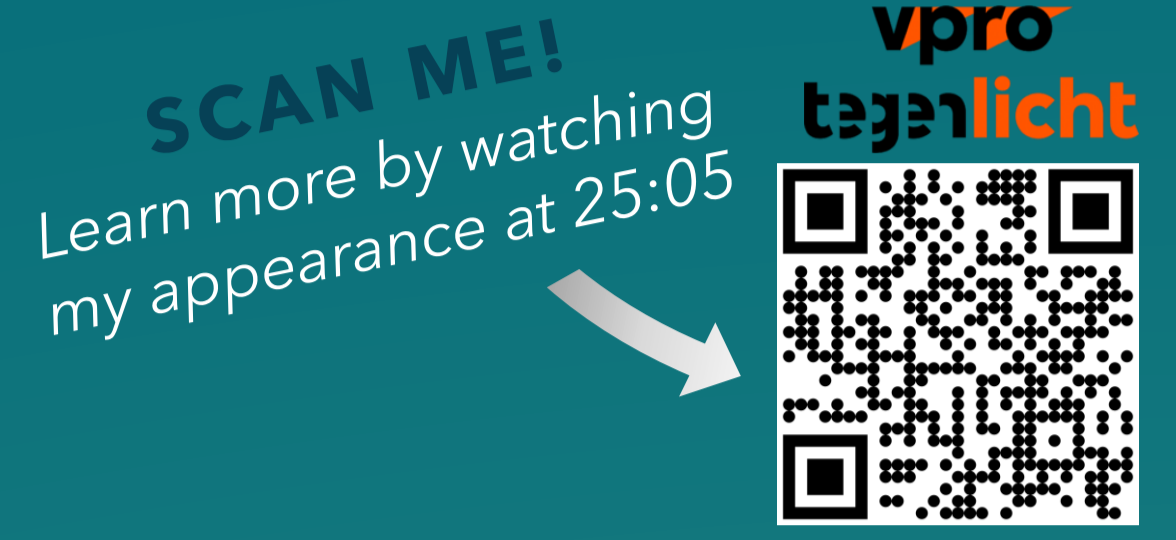




Swimway Waddenzee – Tracking fish migration and habitat selection in the Wadden Sea

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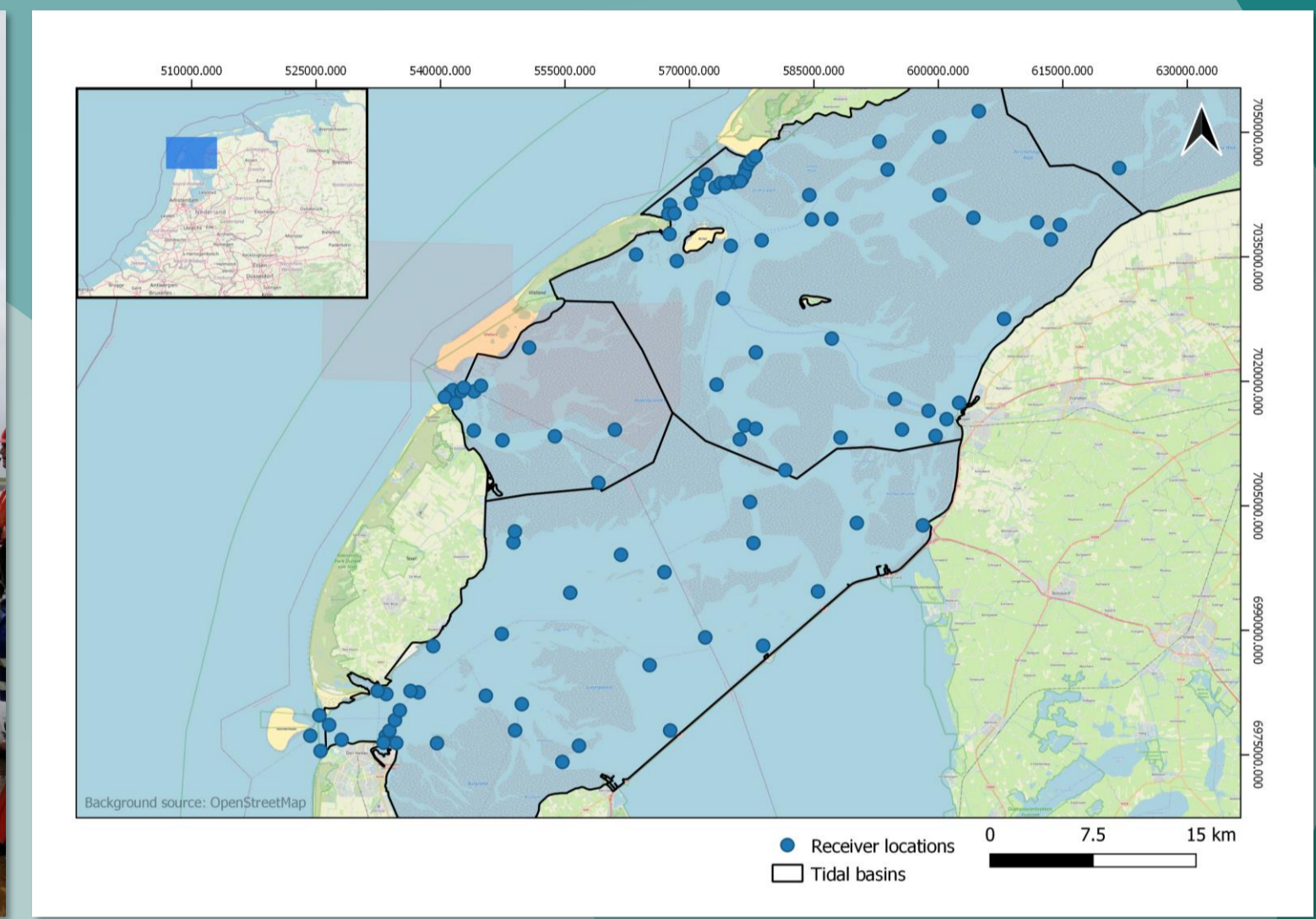


PROBLEM

Large fish are **declining** in the Wadden Sea with the exact **causes** remaining **uncertain**.

Knowledge of fish life histories and behaviours is **insufficient** to determine causes and create **management solutions**.

METHODS



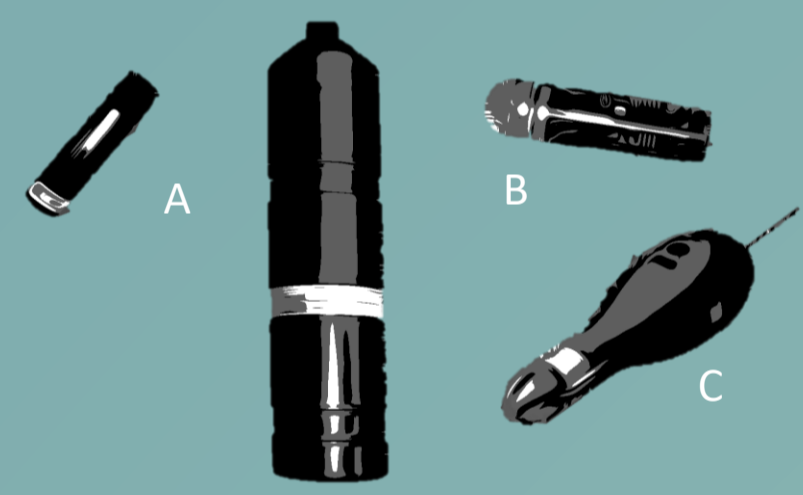
Recording movement data:
Acoustic receivers deployed on navigational buoys throughout the Western Dutch Wadden Sea

1.

Identify, capture and tag target species



Capture methods:
Gillnets (pictured), fykes, angling



Tag types:
A) acoustic (transmitter and receiver), B) archival, and C) satellite telemetry

2.

Record and collect movement data



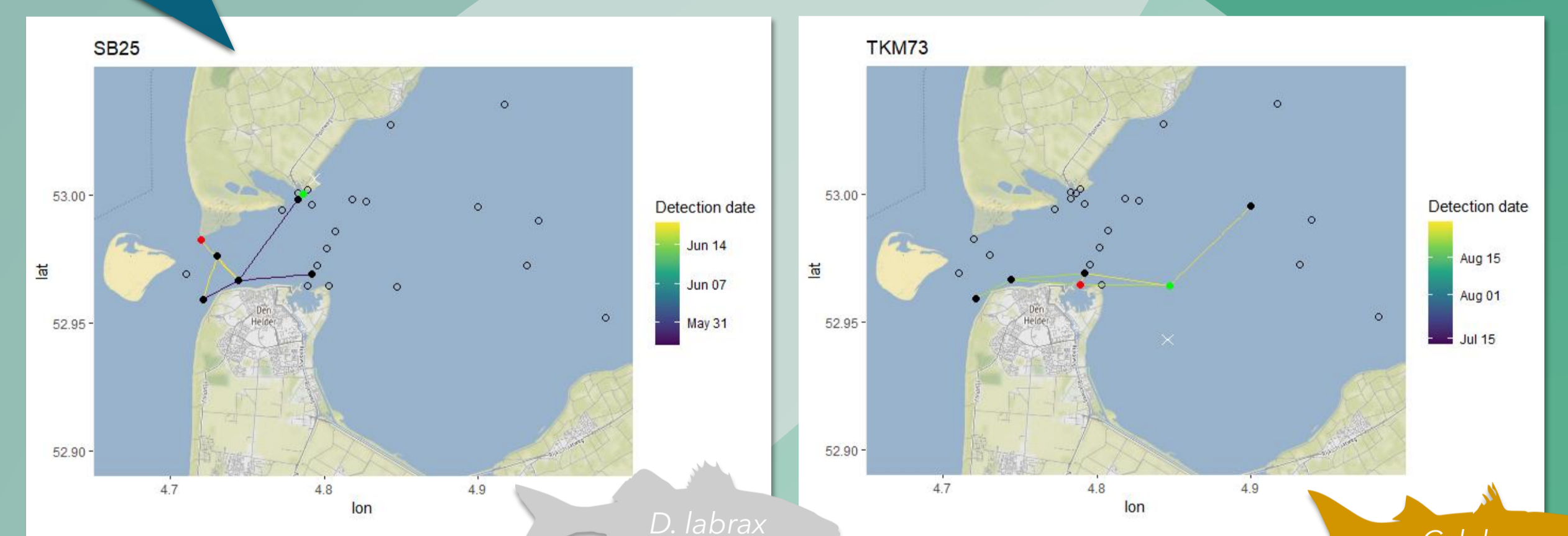
Data collection:
Acoustic detections are manually downloaded from all receivers every 6 months.

Question:

What role do the **Wadden Sea** and adjacent **marine** and **freshwater habitats** play in the lifecycles of large, **migratory** fish?

3.

Analyse recorded movement data



Individual fish movements:
These figures show the straight-line trajectories of individual tagged fish based on the timing of their detected presence near acoustic receivers.

● First detection
● Last detection
● Other detected locations
○ Receivers without detection of individual
X Tagging/release location

FUTURE DIRECTIONS

4.

Interpret the **causes, mechanisms, and ecological consequences** of fish movements

5.

Inform **fundamental knowledge, management, and conservation** policies

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BONUS SPECIES!