Flyway Assessment of Offshore Wind Farm Impacts on Migratory Fishes

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PROJECT OVERVIEW

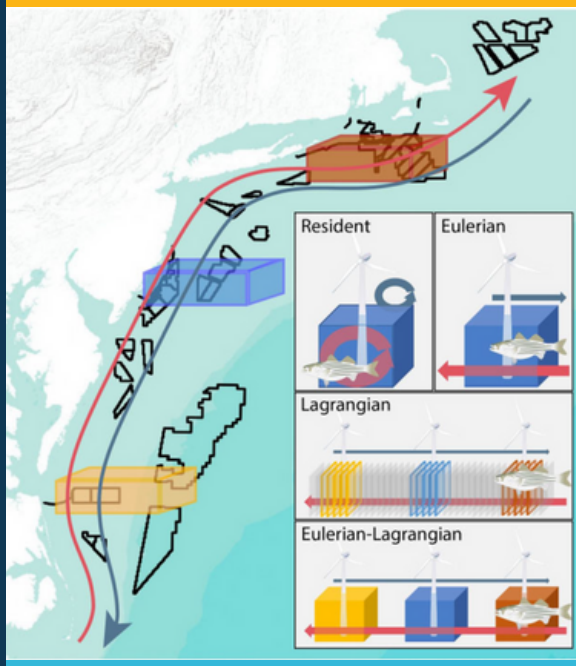
This project will use the **flyway concept** as a tool to track **how fast** and **where** marine animals move between habitats during different seasons. This can help understand how offshore wind projects might impact the regional movements of migratory marine animals. Data from **offshore wind telemetry nodes** and other networks will support these models.

Goals

- Obtain **10-year telemetry databases** for **sand tiger shark**, **Atlantic sturgeon**, and **striped bass**.
- **Model regional flyways** and test for effects of **oceanographic** and **climate variables**.
- Develop **flyway metrics** for test species that are **unbiased**, **meaningful**, and **readily communicated**.

Outcomes

- Better evaluate **regional offshore wind impacts** on **fishes** and other **migratory animals**.
- Evaluate how **offshore wind development** might affect **migration** and **stopover behaviors.**
- Capture **seasonal dynamics** to understand the influence of **climate** and **oceanographic change**.



Flyway construct: latitudinal seasonal migrations capture dominant migration pathways of diverse fauna and data types.

How the study works

- Obtain **access permissions** and **compile databases** for **test species telemetry records**.
- Model **multi-species** and **single species regional flyways** and test for **annual** and **seasonal** effects of **oceanographic** and **climate variables**.
- Extract **flyway metrics** and evaluate a set of **feasible flyway metrics** for test species.
- Summarize **baseline regional flyways** across multiple species.

ROSA
Regional Research & Monitoring

Why this matters

- Many **commercial**, **recreational**, and **protected species** are **highly migratory** requiring tools that **assess movement** at **broad scales.**
- The **flyway construct** is a way forward in **measuring seasonal migrations** to gain new insights to **large regional scale offshore wind impacts** on **migratory animals**.

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