Connectivity & Dispersal of Black Sea Bass with Offshore Wind

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PROJECT OVERVIEW

This project will study how **offshore wind farms** may **impact black sea bass in Southern New England.** Scientists will collect samples from larvae, juveniles, and adults from several locations to learn about their **development, dispersal,** and **settlement** which will inform better **regional ecosystem monitoring** and **management practices.**

Goals

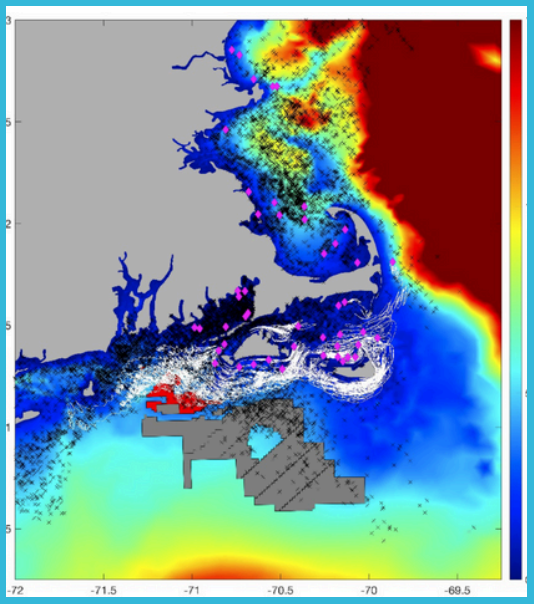
- Study how **young black sea bass spread** and **move** around Southern New England at **increasing spatial scales.**
- Identify if windfarms will be a **source** or **sink** for this species.
- Determine how **connected black sea bass aggregations** are between **turbines** and **windfarms** compared to the broader region.

Outcomes

- Improve understanding of **year-to-year changes** in **dispersal patterns**.
- Support ongoing **fisheries monitoring surveys** and serve as a **model** for other species within and near windfarm areas.

Why this matters

- This **genetic parentage work** builds on and improves current **fisheries monitoring**.
- The project outputs will help **inform future fisheries monitoring** inother **wind lease areas**.
- Black sea bass are an **important species** and a better understanding of where they might be found will benefit both **management** and **fisheries**.



Settlement locations (black crosses) for BSB larvae released between May 14, 2022 and June 14, 2022 from 47 potential spawning locations (magenta diamonds) and tracked for a 28 day duration.

How the study works

- This study will use an **interdisciplinary approach** to develop **individual based models (IBM)** to show how many **larvae** from Southern New England **reach** and **settle** in **wind farm areas** under different buildout scenarios.
- Improve current larval dispersal models by **incorporating genetic parentage data.**
- **Adult, juvenile and larval fish** will be collected from across the region to study how **connected** different areas are.

ROSA
Regional Research & Monitoring

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