Fisheries Conflicts with Sand Dredging:

Baselines in the New York Bight

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Introduction

Increased demand for sand for construction has lead to an interest in dredging for sand in deeper (≤30m) federal waters. This leads to several areas of potential conflict with fisheries in federal waters:

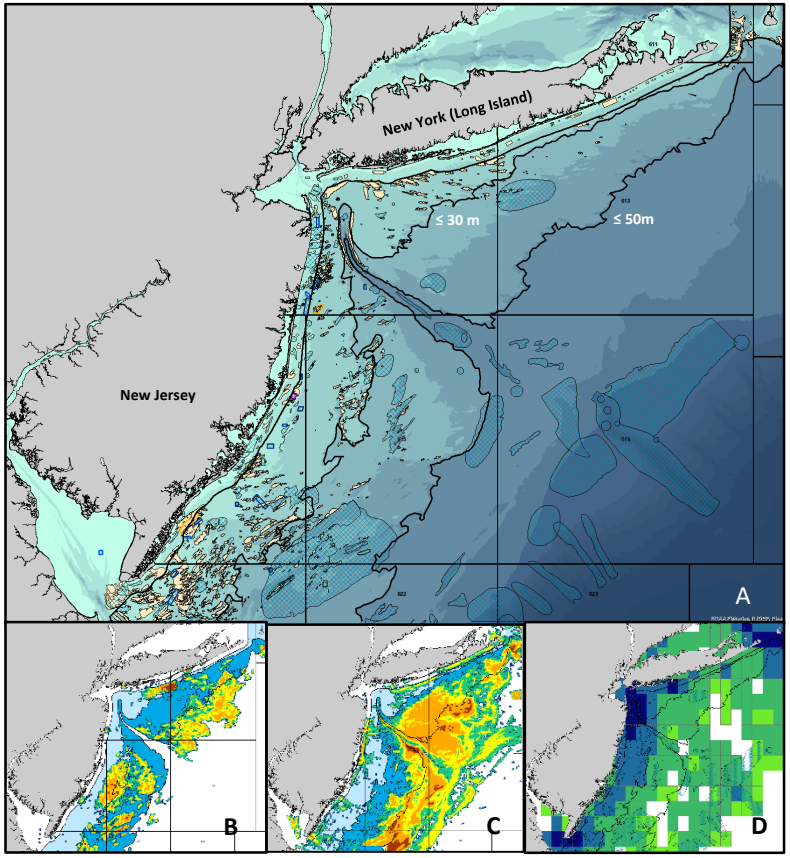
- Direct space-use conflicts where fishing activity and sand extraction overlap
- Indirect conflict via impacts to Essential Fish Habitat (EFH)

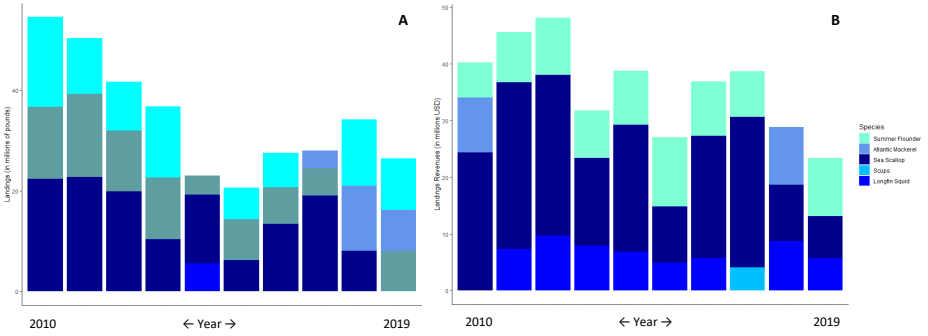
As part of a combined literature review and data synthesis to evaluate the possible impacts of sand dredging, we sought to establish a baseline of New York Bight (NYB)-specific commercial and recreational fishing activity to better evaluate potential for direct and indirect conflicts.

Methods

Fisheries approach: Establish baseline of NYB-specific fishing activity.

- Identify most economically important species
  - Statistical area-specific landings and revenues from the Atlantic Coastal Cooperative Statistics Program (ACCSP).
- Identify important fishing areas and potential for future space-use conflicts.
  - Vessel monitoring system (VMS) data for commercial vessels travelling < 4 kts from MARCO
  - Vessel trip report (VTR) data for recreational fishing vessels, identified "prime recreational fishing grounds" from the Mid-Atlantic Regional Council on the Ocean's (MARCO) Mid-Atlantic Ocean Data Portal.





Results

Figure 1. (Top, middle) (A) The study area overlaid with depth contours, ACCSP statistical areas, prime recreational fishing grounds (blue crosshatched polygons), and modeled sand shoals (tan polygons). (B) Commercial fishing activity for Atlantic Surfclam and ocean quahog. (C) Commercial fishing activity for Atlantic sea scallop. (D) Recreational party and charter boat fishing activity. Blue tiles represent more intense fishing activity, green less intense.

Figure 2. (Bottom) Annual top three species in terms of commercial landings (A; by landings volume) and commercial revenues (B; by landings revenue) for the period 2010 – 2019.

Conclusions

Immediate space-use conflicts with commercial fisheries limited within 30m depth contour

- **Notable exception:** Atlantic Surfclam and ocean quahog fishery

Space-use conflicts possible with recreational fisheries where prime, sand feature-based fishing grounds are concerned.

Sand extraction-fisheries conflict is more likely to be based upon environmental impacts to fisheries.

Important Considerations

The impacts of sand extraction are cumulative with other regional fisheries stressors', namely climate change and offshore wind energy development.

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