

CATT PROGRESS REPORT

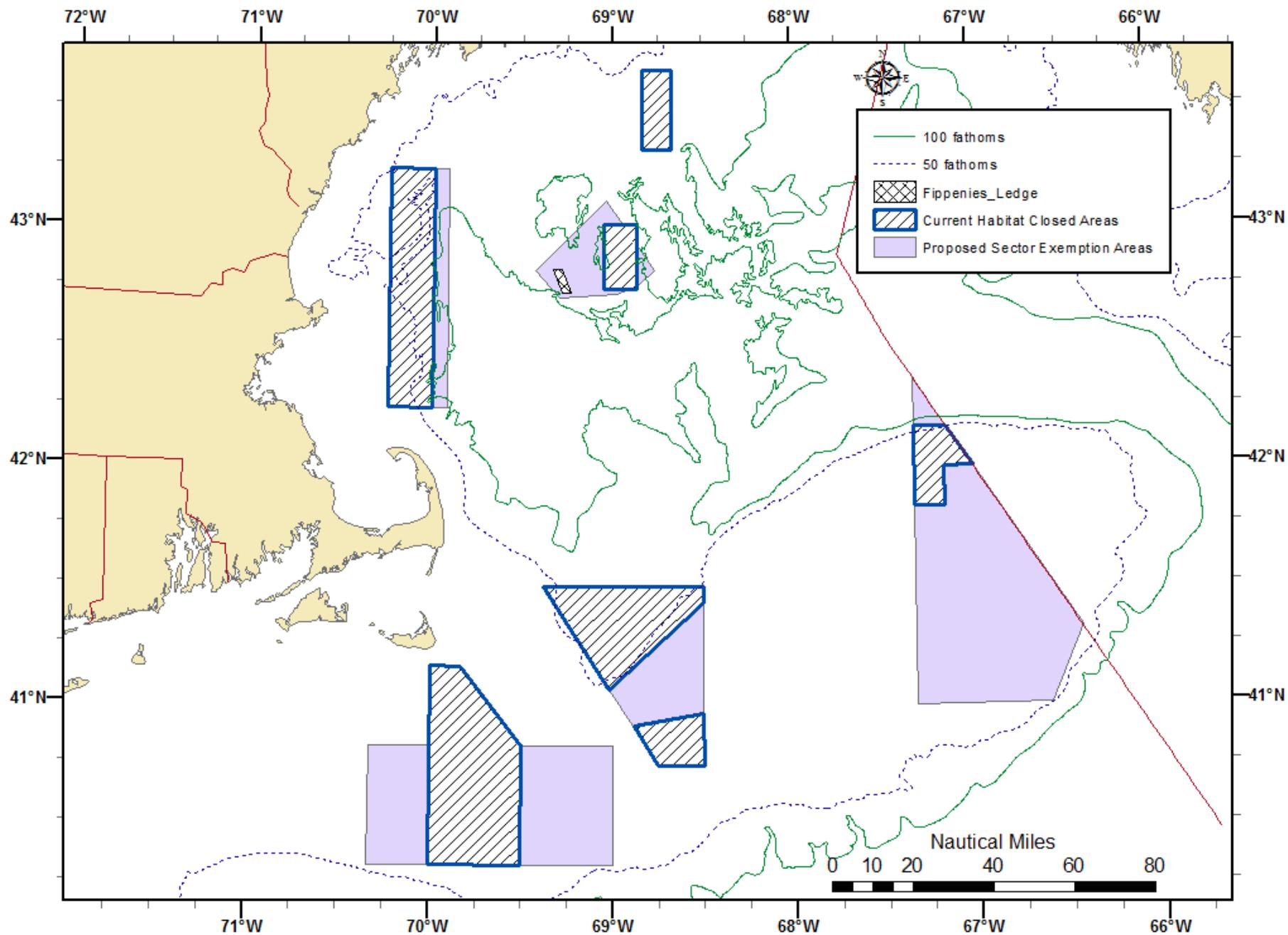
January 2013

Primary Goals of Groundfish Closed Area Management Adopted Nov 2012

- 1. Enhance groundfish fishery productivity**
- 2. Maximize societal net benefits from the groundfish stocks while addressing current management needs**

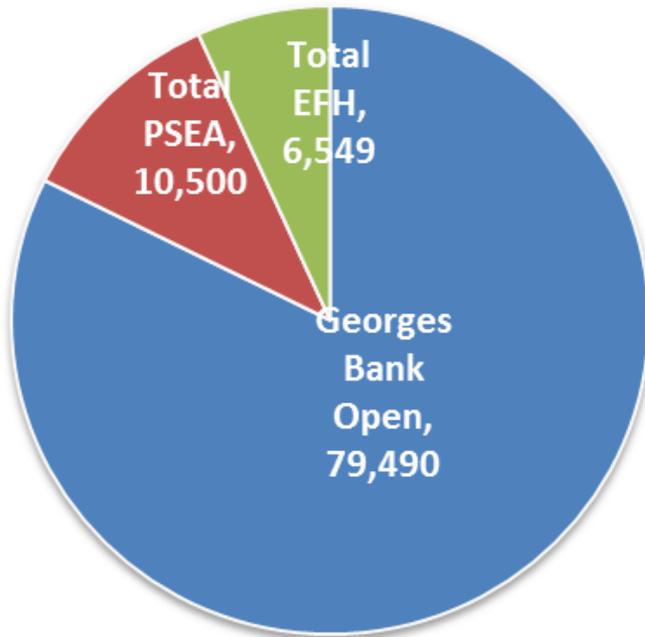
Objectives for Groundfish Closed Area Management

1. Improved spawning protection; including protection of localized spawning contingents or sub-populations of stocks
2. Improved protection of critical groundfish habitats
3. Improved refuge for critical life history stages
4. Improved access to both the use and non-use benefits arising from closed area management across gear types, fisheries, and groups. These benefits may arise from areas designed to address other three groundfish closed area objectives.

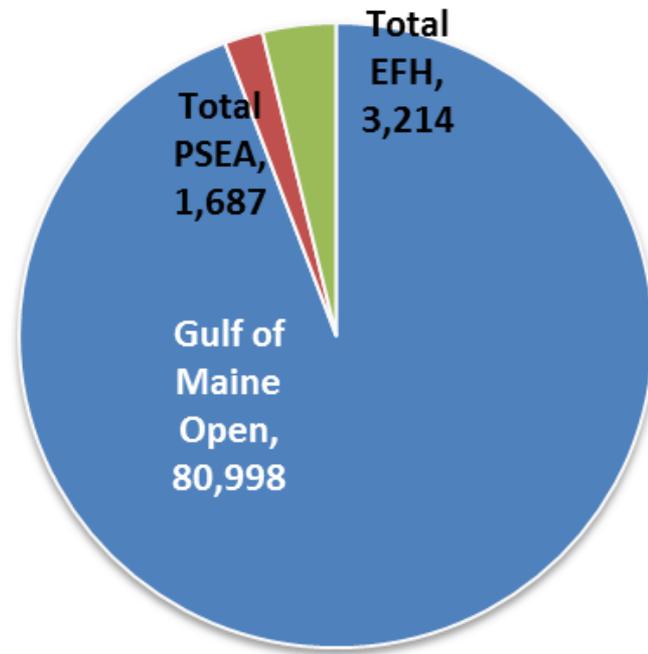


Area (nm²)

Georges Bank

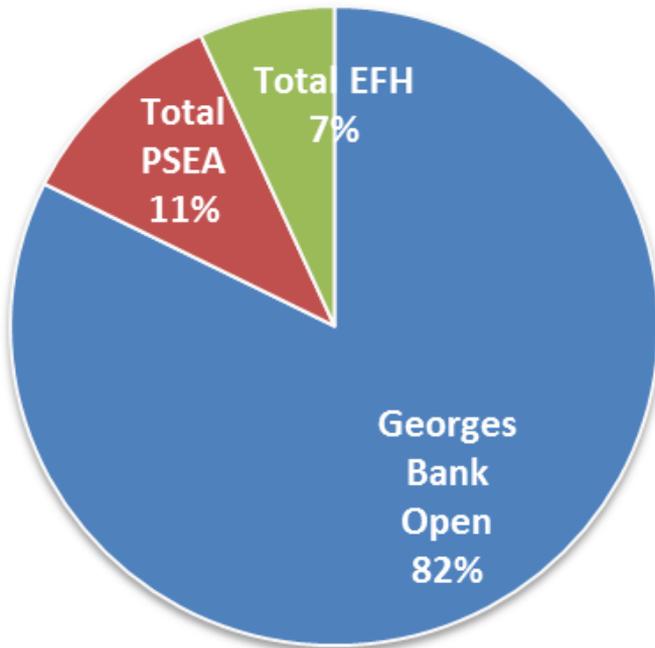


Gulf of Maine

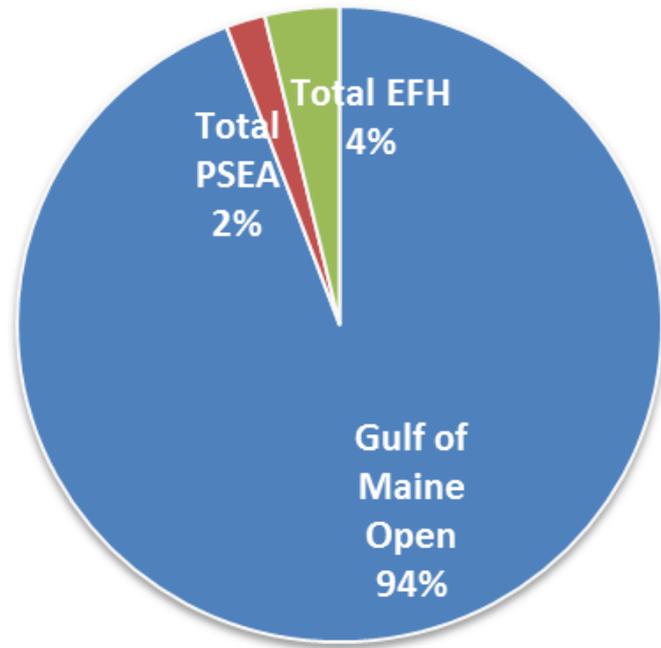


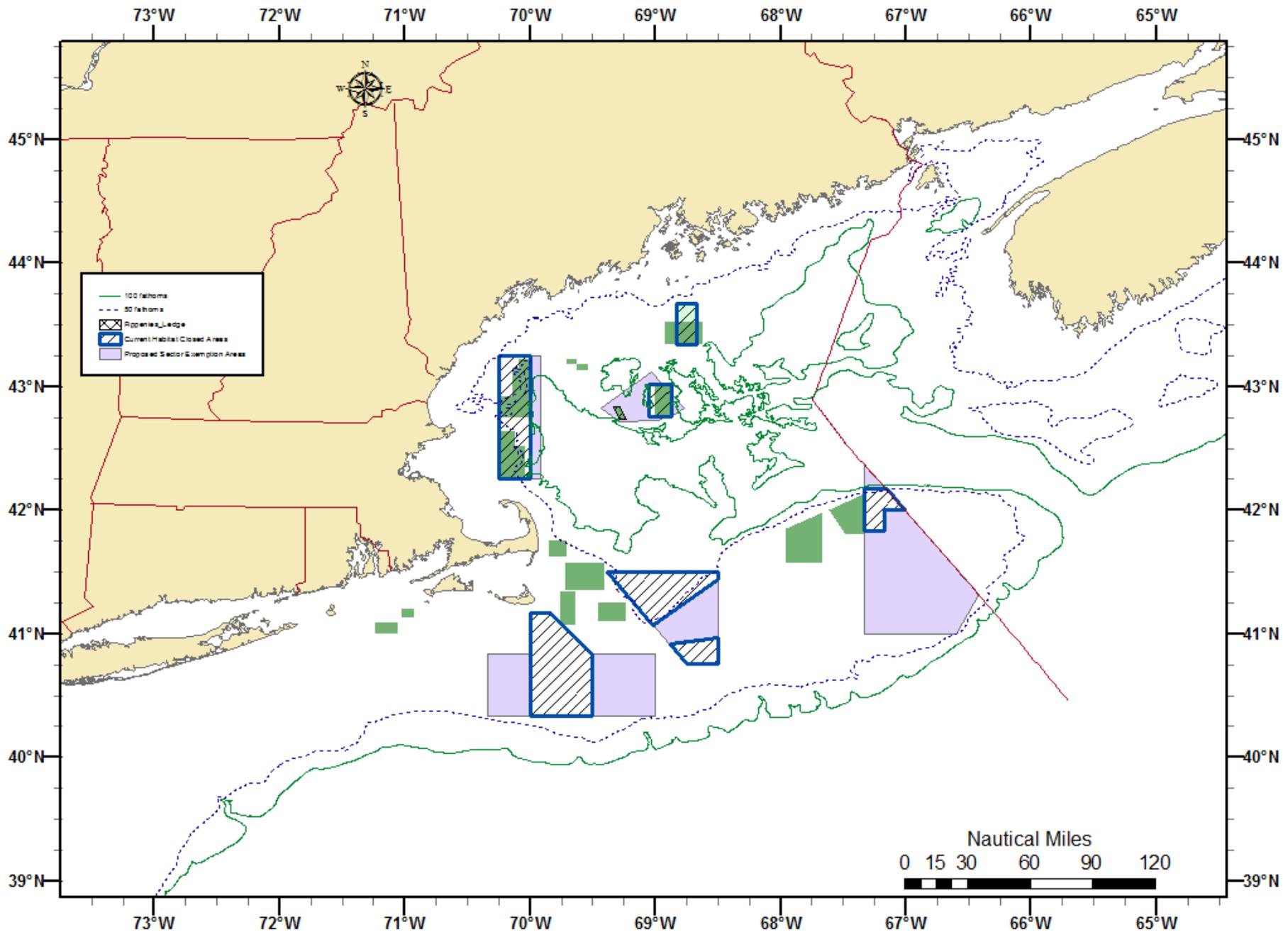
Area

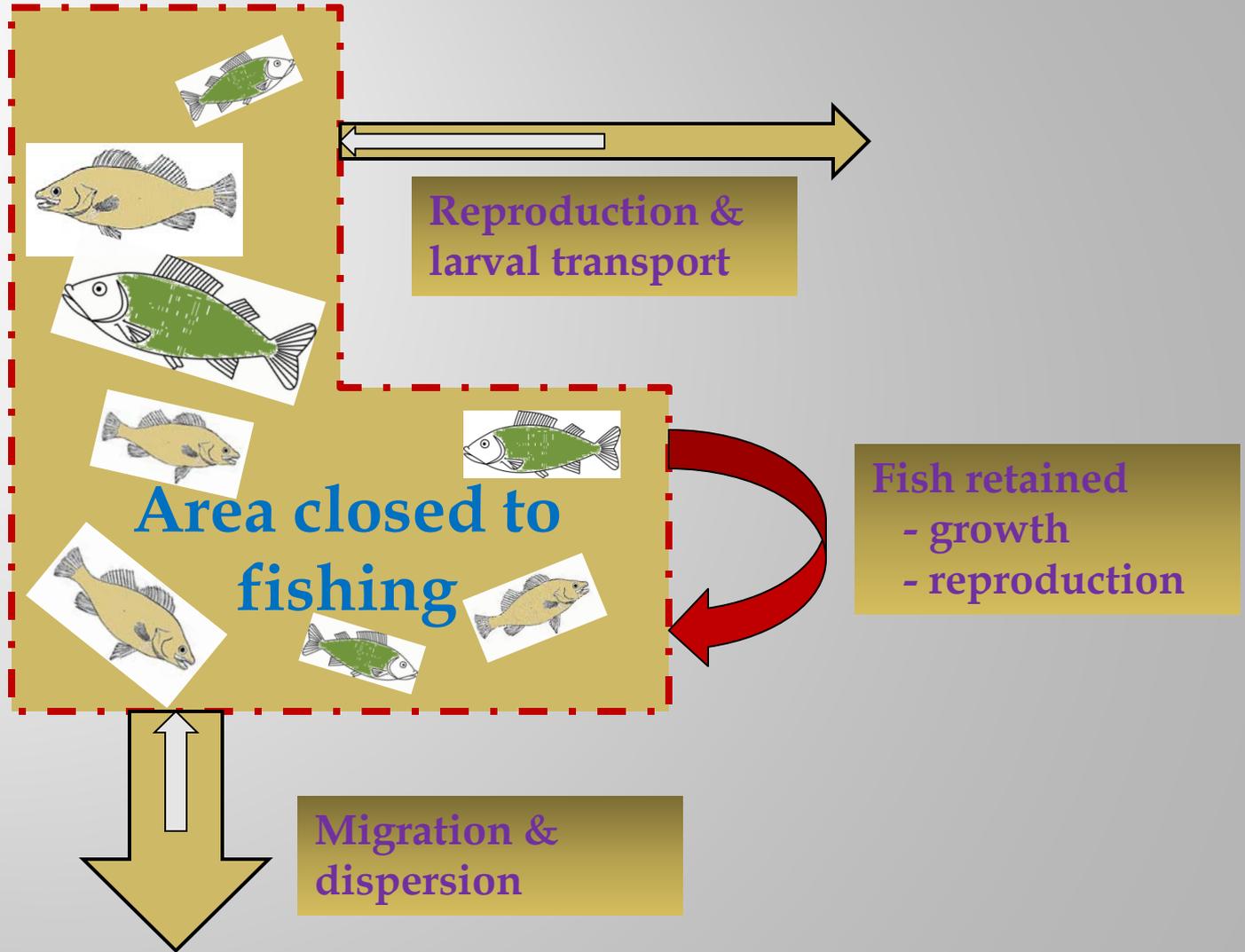
Georges Bank

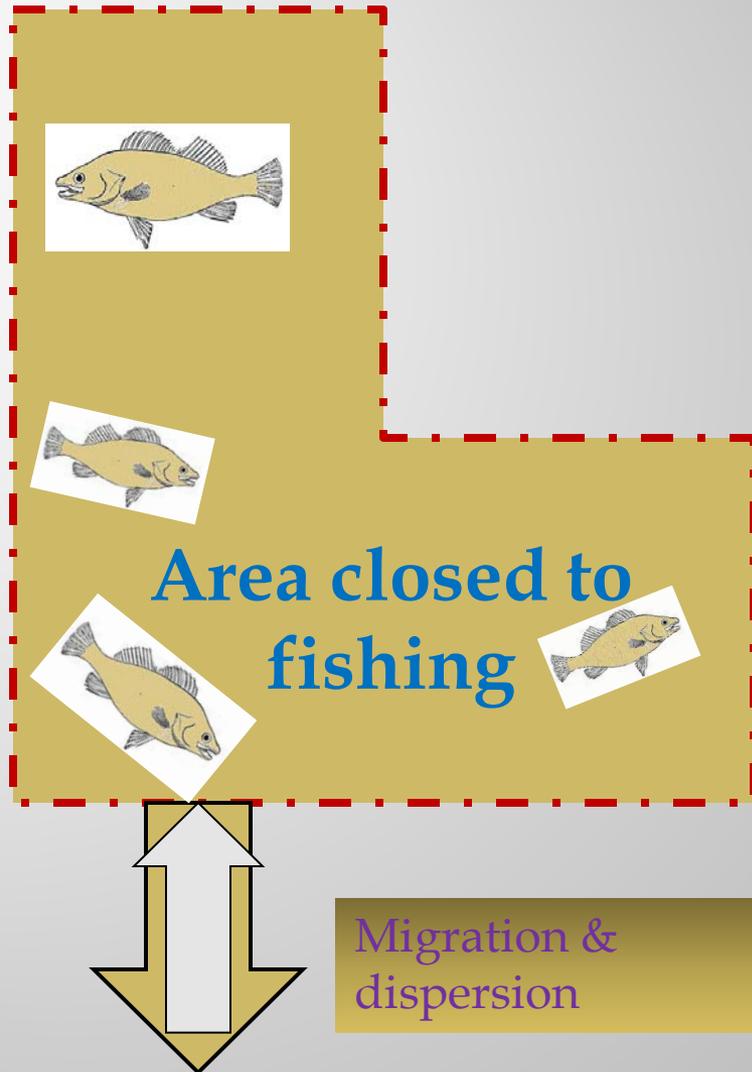


Gulf of Maine

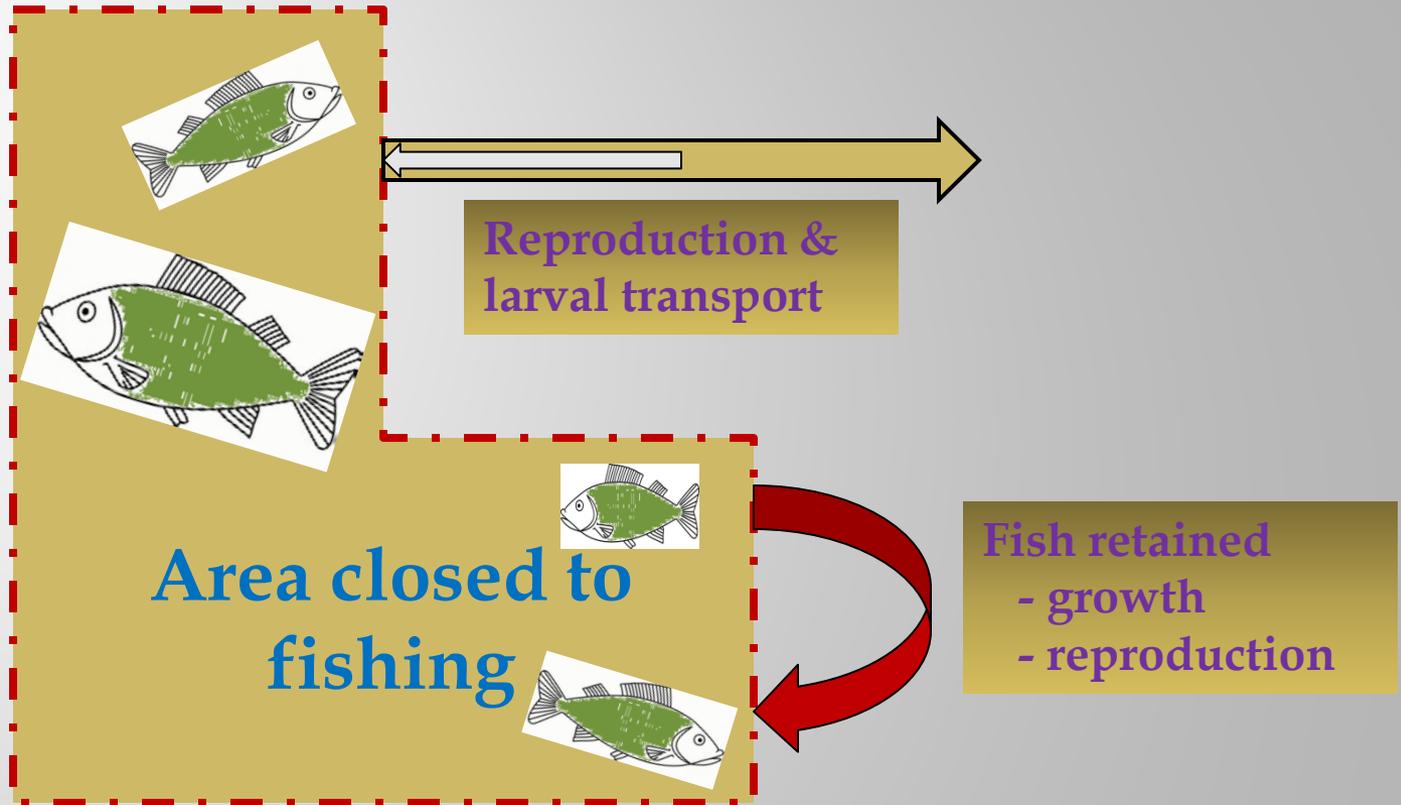




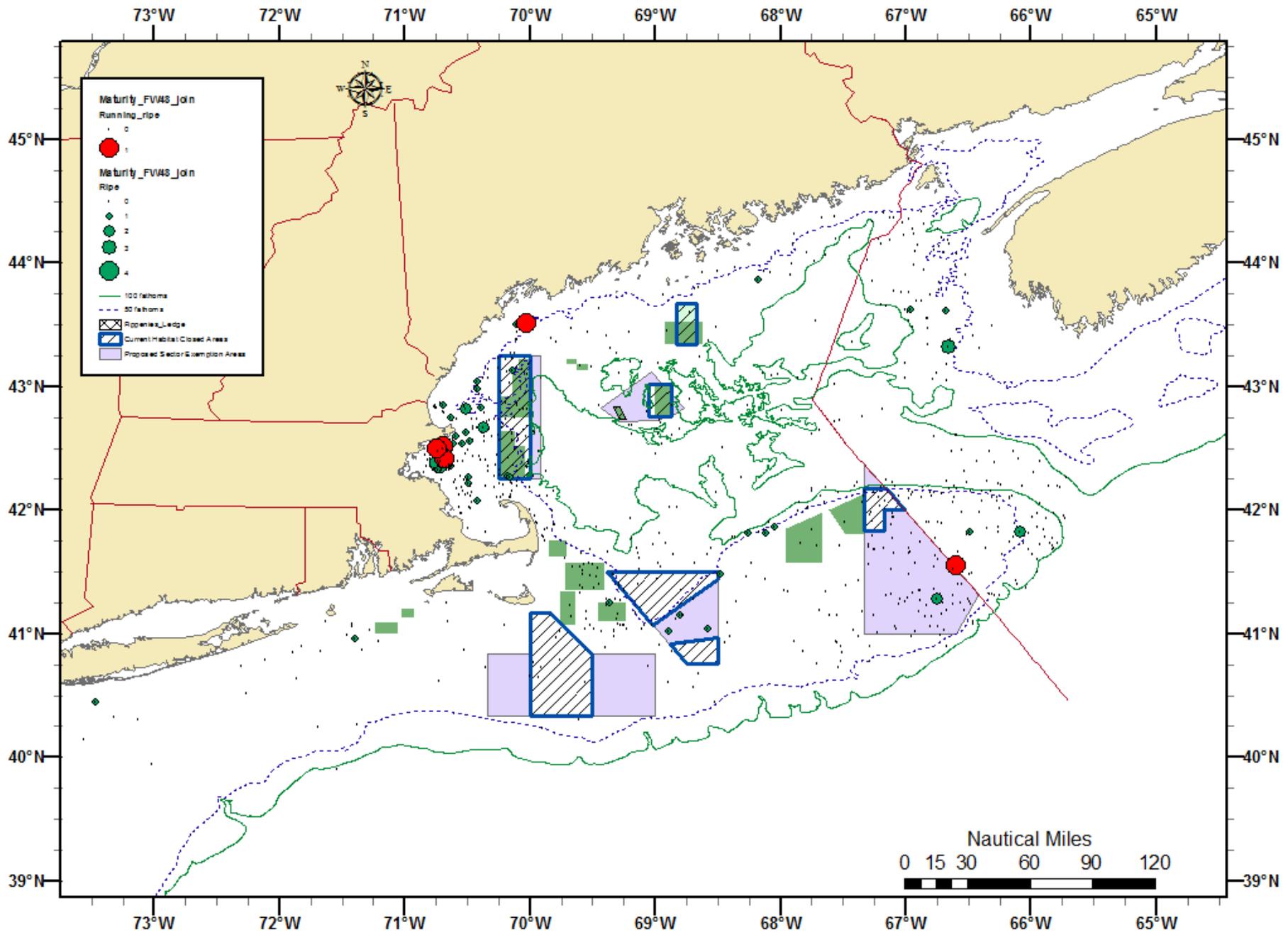




- ▣ Nearly identical length frequencies
- ▣ Biological characteristics may or may not be different, but no trend
- ▣ Enhanced productivity realized by the fishery
- ▣ Difficult to measure effect



- ▣ Length-frequencies different
- ▣ Disproportionate biomass
- ▣ Biological characteristics more likely to be different from open fishing areas
- ▣ BACI trends in biomass and/or abundance
- ▣ Difficult to measure enhanced recruitment



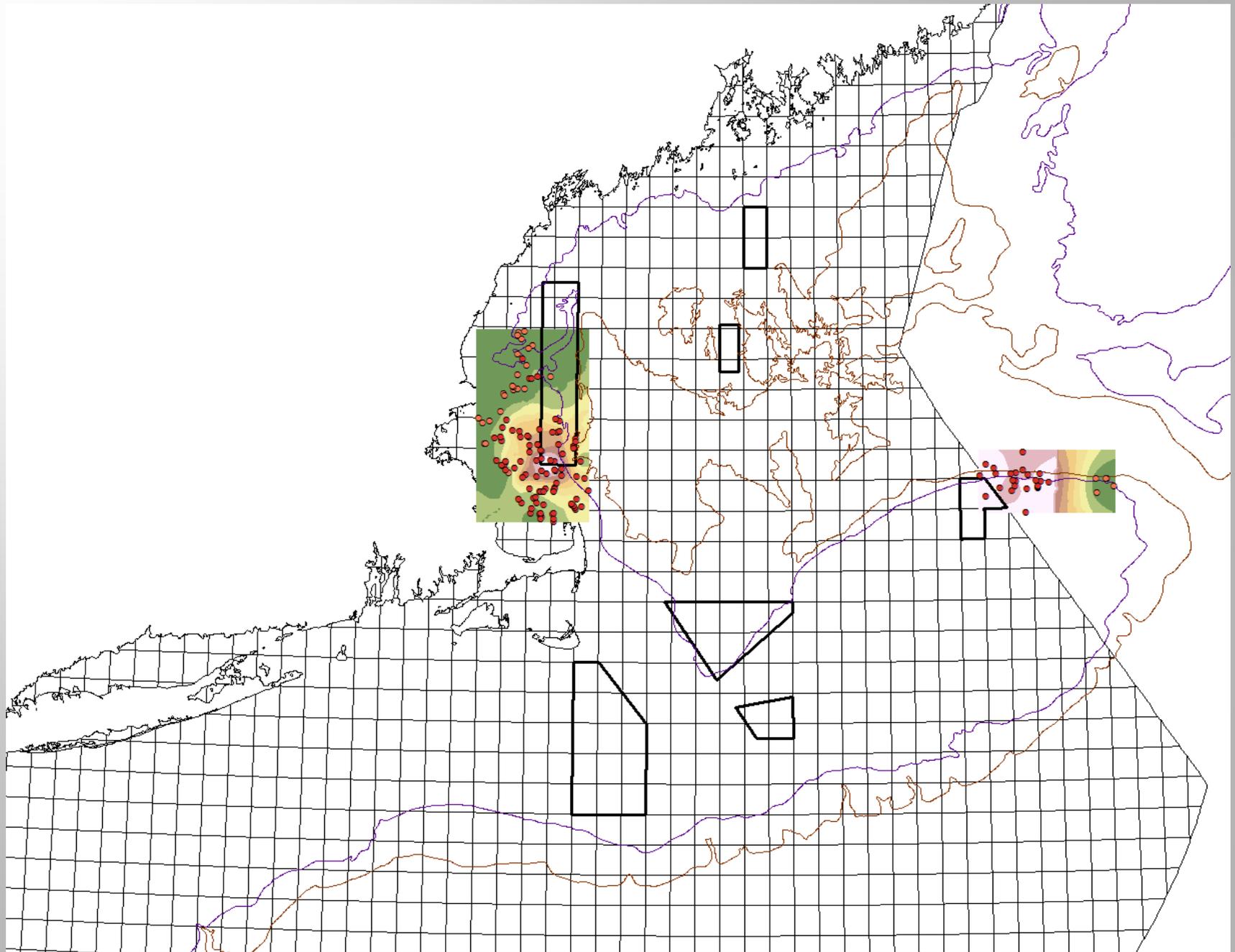
CATT Analyses

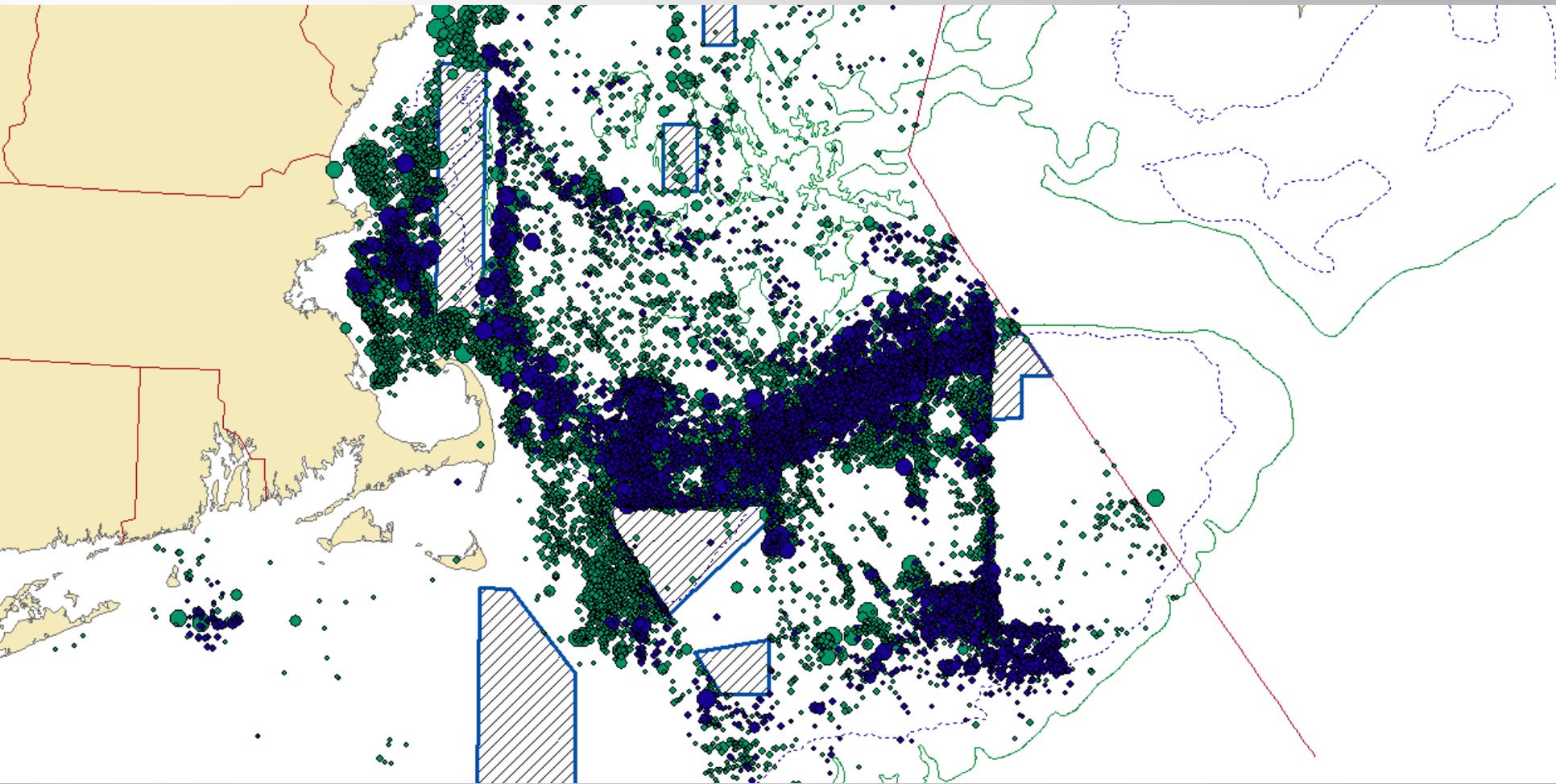
▣ Relevant case studies

- Intended effect
- Actual effects

▣ Geographic cluster analysis

- State and Federal surveys
- Observer data





CATT Analyses

- ▣ Geographical modeling of juvenile groundfish distribution: depth, temperature, substrate
- ▣ Fishery net revenue maps
- ▣ Classify movement and spawning from tagging data

Status

- ▣ Technically complex
- ▣ Need time
- ▣ Expert consultation

Management policy

- ▣ **Automatic sunset provision**
 - Pre-determined years
 - Triggered events ($B > B_{target}$)
- ▣ **Spawning closure application**
 - Commercial fishermen
 - Recreational fishermen
- ▣ **Habitat closures**
 - Bottom tending mobile gears
 - Gill nets
 - Long lines

Closed Area Recommendations for Council

- ▣ **Spawning closures should be narrowly defined spatially and temporally**
- ▣ **Spawning closures should be designed to be adaptive and responsive to variations in environmental conditions**
- ▣ **Spawning closures should include specific triggers that would allow areas to re-open to fishing**
- ▣ **Fishing by all gears and fleets catching groundfish should be prohibited in spawning closure areas**

Closed Area Recommendations for Council

- ▣ **CATT should analyze the efficacy of specific blocks of the rolling closure areas**
- ▣ **Groundfish spawning and habitat closures should include provisions for monitoring the resource conditions**
- ▣ **Monitoring of gears fishing in closed groundfish spawning and habitat areas should be required.**