Counting Fish & Mapping Their Benthic Habitats

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“Managing fisheries is hard: it’s like managing a forest, in which the trees are invisible and keep moving around.”

- Dr. John Shepherd
Location... Location... Location...

Population by Habitat

C-SCAMP

Continental Shelf Characterization, Assessment, and Mapping Project

- Map the seafloor - Multibeam Sonar
- Classify the Habitat - Multibeam Sonar & Towed Video
- Count fish - Towed Video & Water Column Sonar

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USGS
Legend

- C-BASS Transect
- Sand with Covered Hardbottom
- Mixed Hardbottom
- Sand
- Bathymetric Contours (m)

February 2016 Fish Counts - The Elbow

Legend

Total Fish Count (>6 cm)
15-second Bins
- 0 - 3
- 4 - 10
- 11 - 25
- 26 - 75
- 76 - 250

Supervised Classification Value
- Class 1
- Class 2
- Class 3

Scale: 0.5 - 4 nautical miles
Underwater gliders are autonomous vehicles that profile vertically by controlling buoyancy and move horizontally on wings.

Robust and reliable over 50,000 glider days in last decade...

But let's add a fishy task!

- Passive Acoustic Recorders
- Tag Telemetry
- Fisheries Echosounders
Echosounder Biomass and Red Grouper Sound Detections
(larger circle = more fish)

Tag Telemetry Receptions
Paths Forward:
If these work... making them operational
Automation... From data collection through analysis

Collaborators:

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