

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

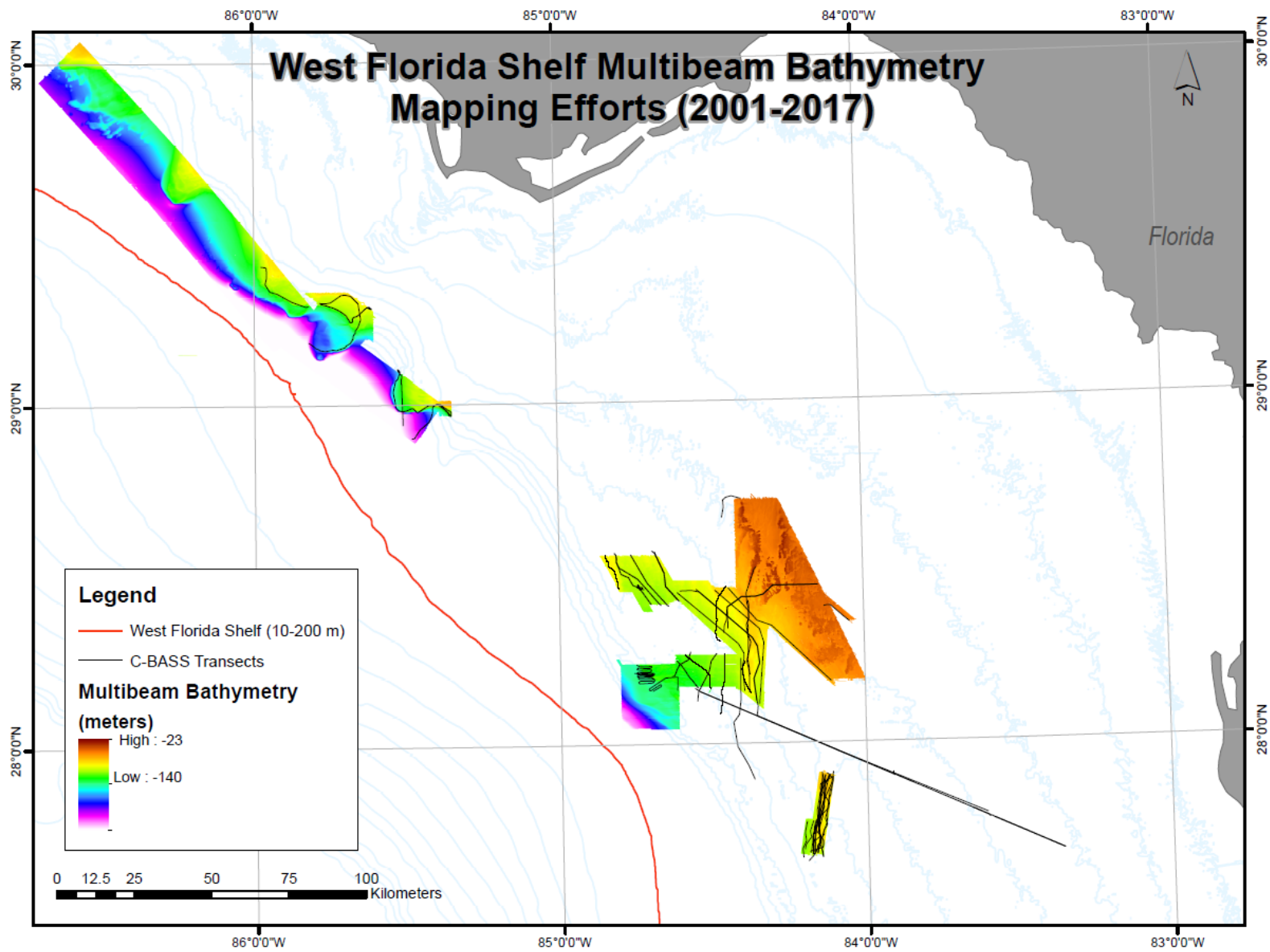


Continental Shelf
Characterization
Assessment, and
Mapping Project

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





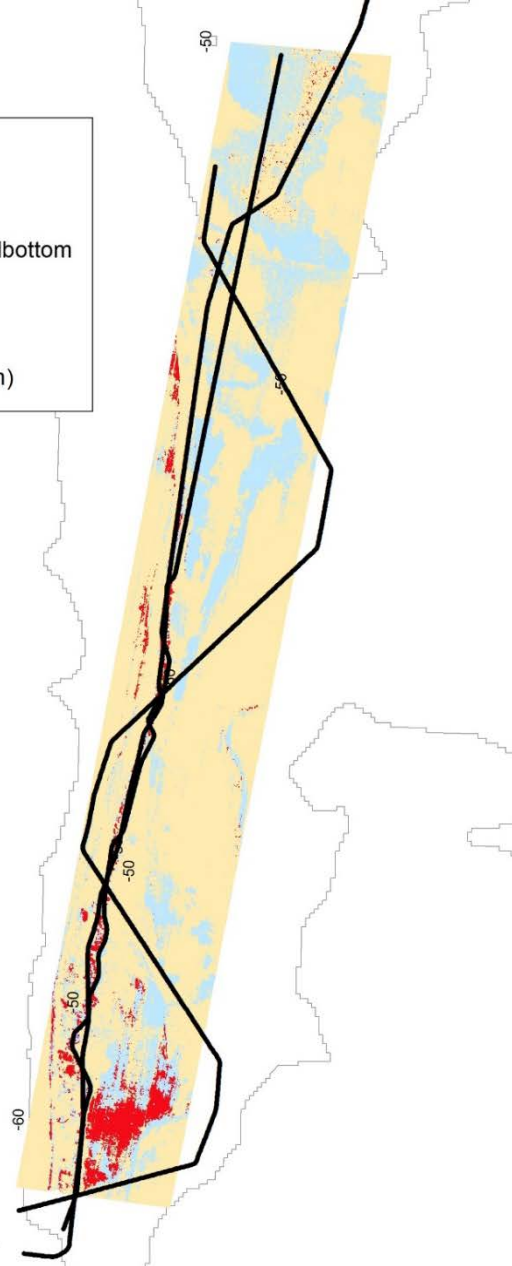
Towed Video



February 2016 Fish Counts - The Elbow

Legend






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



Legend

Total Fish Count (>6 cm)

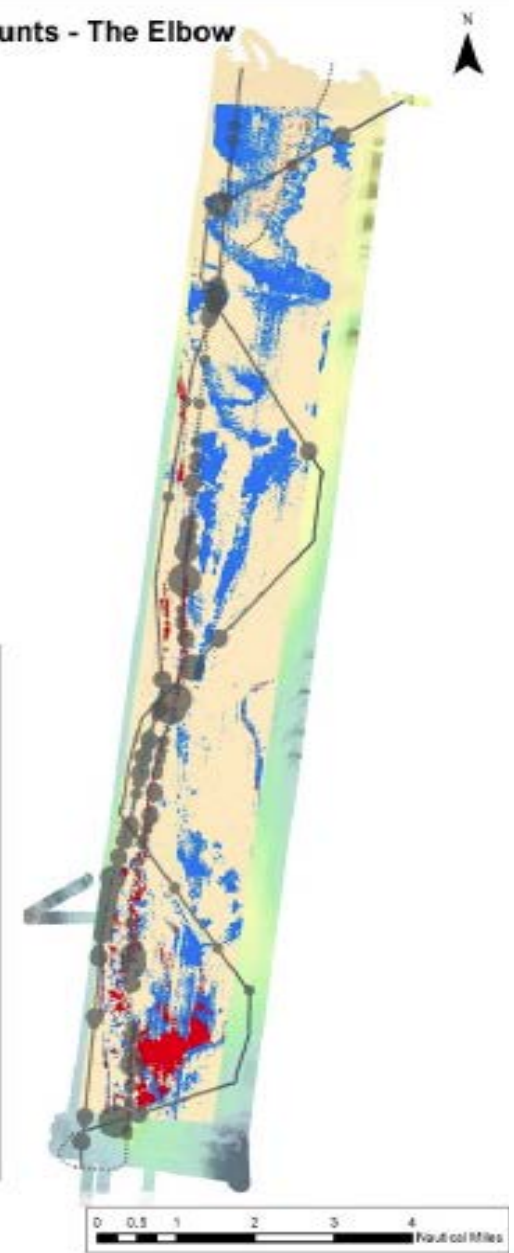
15-second Bins

-  0 - 3
-  4 - 10
-  11 - 25
-  26 - 75
-  76 - 250

Supervised Classification

Value

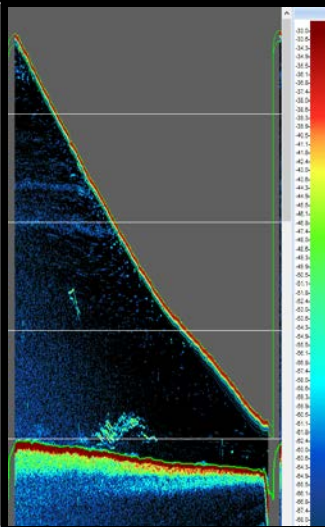
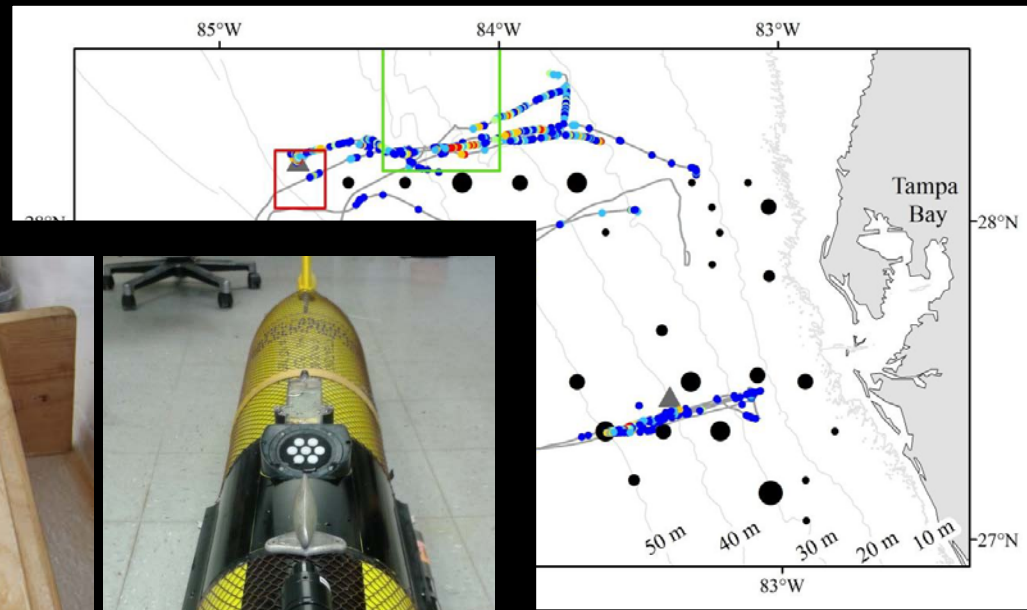
-  Class 1
-  Class 2
-  Class 3



Can Robots Count and Track Fish...

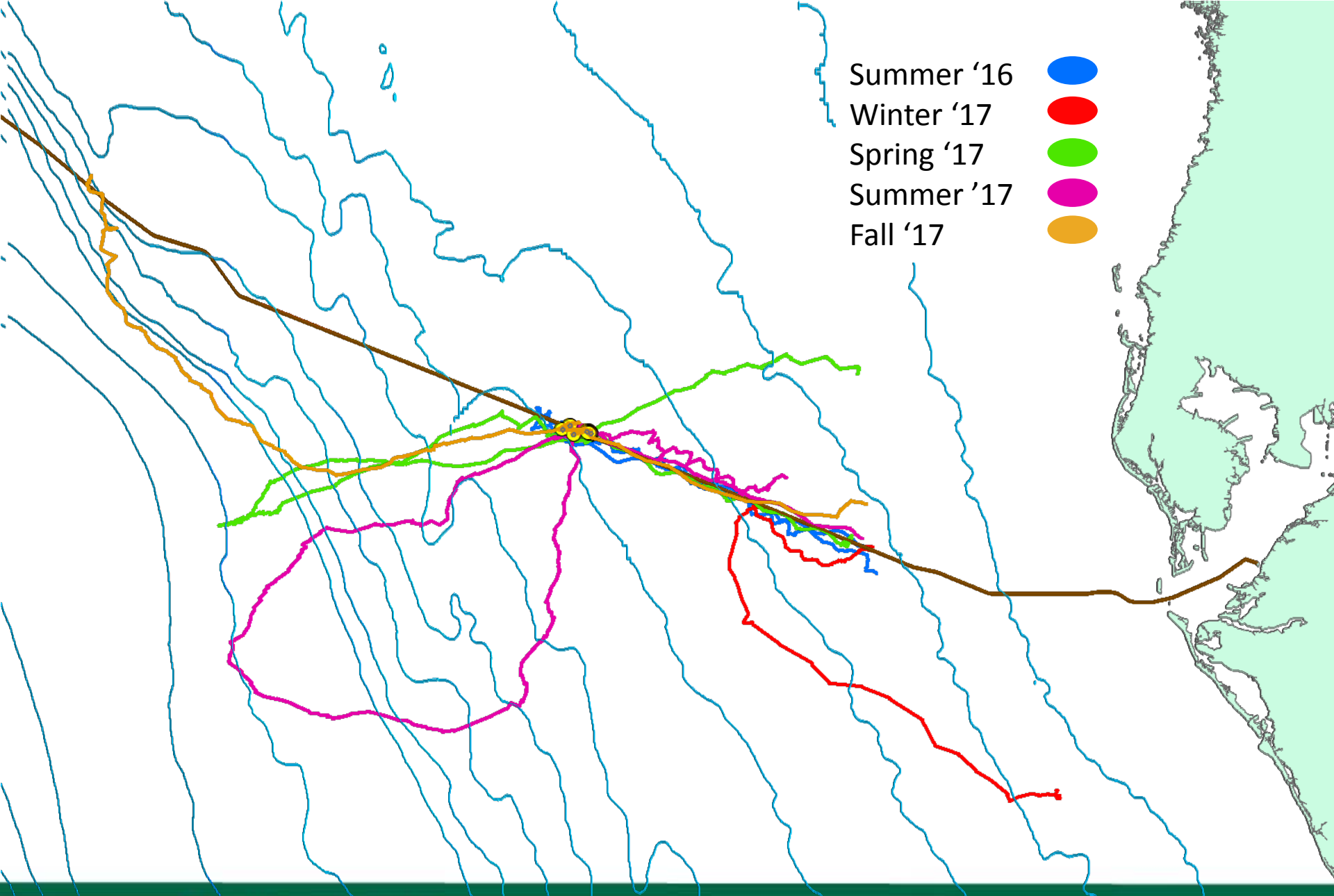
Robust and reliable
glider days in
But lets add

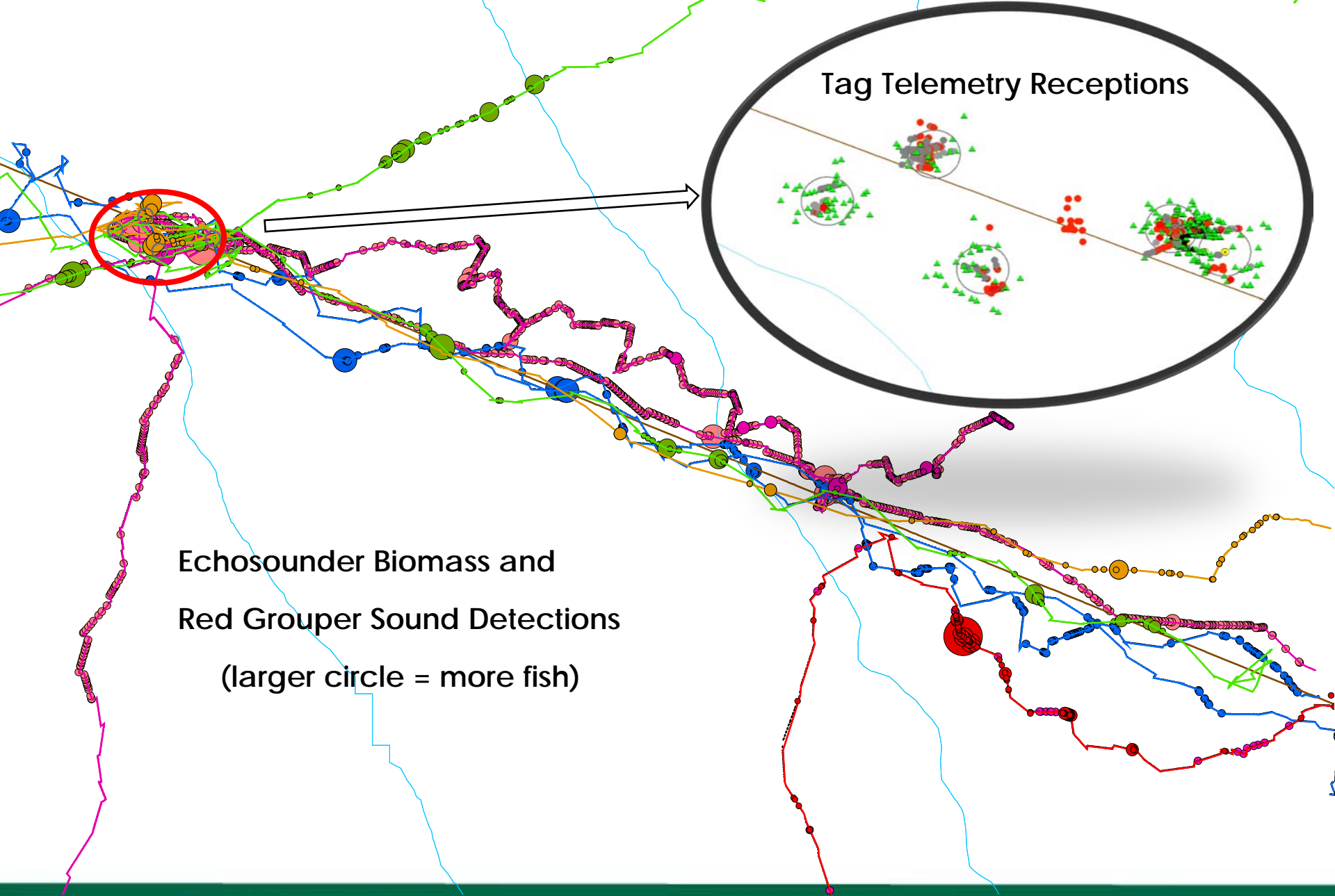
Underwater gliders are
autonomous vehicles that
profile vertically by
controlling buoyancy and
move horizontally on wing



Passive Acoustic Recorders

- Tag Telemetry
- Fisheries Echosounders





Paths Forward:

If these work... making them operational

Automation... From data collection through analysis

Collaborators:

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