

Addressing Data Gaps and Deficiencies

Daniel Salerno

Independent Fishery Biologist

Holly McBride

Northeast Fisheries Science Center

Gear Characteristics

Need to be able to identify more detailed gear characteristics, including gear modifications, that affect catchability.

TRAWL

OTF = Otter Trawl, Bottom, Fish

Flat net vs. Groundfish net → no distinction

Mesh Size

6 ½" diamond codend vs. 6 ½" square codend → same size but very different selective properties

Gear Size

Using 2 trawl nets with different sweep sizes does not require new VTR

GILLNET

GNS = Gill Net, Sink

Standup gear vs. Tiedown gear → no distinction

Hanging Ratio → impacts selectivity

Soak Duration

Average is not reflective on fixed gear trips if gear was soaking for an extended period of time and after hauling, it was reset & hauled again on the same trip

Gear Characteristics

Industry

- Target species influences gear design, effort & location
- Detailed gear characteristics should be associated with catch (kept & discarded), effort & location information
- No “credit” for trying to fish better

NMFS/External Partner uses:

- More precise by-catch information
- More precise discard rates
 - Could come at a cost like increased observer coverage
- More effective measures to monitor protected species by-catch

Finer Spatial Data

The ability to capture more precise fishing locations and associated catch.

“Tow/Haul Level vs. Subtrip Level Reporting”

- Fishing Depth

Average fishing depth is not always reflective of activity within a trip

- Chart Area

Some stat areas cover a wide range of depths/habitats

- Single point Latitude/Longitude

Not always representative

Finer Spatial Data

The ability to capture more precise fishing locations and associated catch.

Industry

- Finer scale information should lead to better science
- Will or can it be used to improve stock assessments?
- What is the cost vs. benefit of collecting information at a finer scale?
- Does the fleet need to do it or a subset?

NMFS/External Partner Uses

- Finer scale quota monitoring & management decisions
- Finer scale stock assessments
- Ecosystems monitoring and management

Environmental Data

The ability to capture more environmental (sea surface temperature, bottom temperature, salinity, pH, dissolved oxygen) data on a finer spatial/temporal scale.

Industry

- Bottom water temperature influence finfish catch & bycatch
- Will significant environmental changes influence distribution, biology & biomass?

NMFS/External Partner Uses

- Characterize habitat preferences to improve stock assessments
- Provide data to adapt fisheries to climate change
- Facilitate ecosystem management
- Facilitating dynamic management

Discards reported on VTR

Need to get better discard data on fishing trips.

Industry

- What's the point → SBRM
- What is the need: science, management, enforcement...?

NMFS/External Partner Uses

- More accurate and effective quota monitoring?

Filling in the data gaps

What data are available from industry?

How best do we capture the data?

What are the barriers?