Science, Service, Stewardship

Findings of the Commercial Electronic Logbook Pilot Project

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NOAA FISHERIES SERVICE

E-log Project Findings: Pilot Participants

- 8 laptops and 3 iPads were deployed on a total of 12 vessels, with one utilizing existing on-board PC.
- Of the 12 vessels, nine submitted data in some capacity totaling 58 trips.
  - 2 of 3 non-submitting vessels had viable eLogs but did fish during pilot.
  - Technical error prevented 3rd vessel from submitting to test database.
- Gears used included bandit, hand line, longline (reef and pelagic), buoy, and trap (fish). 3 of the vessels were mixed gear.
  - 6 South Atlantic
    - 5 from North Carolina
    - 1 From Florida
  - 2 HMS
    - 1 South Florida (buoy, trolling)
    - 1 North Carolina/Mass. (longline)
  - 4 Gulf
    - 2 Florida (reef longline/hand line)
    - 2 TX (bandit)

E-log Pilot Vendors:

Study Data Collection Standards

- Electricedge and Off-shore Lobster SE pilot versions met SE data collection standards
  - Versions used in pilot developed specifically for SE use.
- eTrips
  - Adapted version was used during the pilot.
  - Did not fully meet SE eLog requirements
  - Does not meet current SE logbook requirements (HMS or Coastal)

More vendors are expected to produce operational versions once data collection standards are finalized.

E-log Project Update: Progress

- ✓ Jan/Feb 2016- **Data collection completed/feedback from fishermen provided to vendors.**
  - ✓ **Fishermen submitted eReports in several capacities.**
    - ✓ Hardware has been reclaimed
      - ✓ Some fishermen will retain hardware for some additional testing
        - ✓ Catch/Effort Data Collection standards finalized

E-log Project Update: Timeline

- 2016- **Vendors finalize operational version of eLogs and submit for SEFSC approval**
  - Final versions likely to take 8 weeks or more to complete

- **June-Dec 2016 - Build Data Storage Infrastructure**
  - Data collected from eLogs will be stored and accessible to fit into current analysis methods
  - Quality control methods will mirror current logbook validations

- **Jan 2017- SEFSC tentatively able to receive eReports from volunteer participants** .

Participant Feedback

- ✓ Fishermen have provided regular feedback on eLog use.
  - **Hardware use, software use, and the overall experience in collecting and submitting data.**
    - Fishermen want compact, portable hardware that is rugged.
    - Set information including, gear type used, targeted species, and recording set location and time must be easily integrated into current fishing practices.
  - ✓Perception of eLog
    - **Feedback suggests that perception varies depending on gear use and species targeted.**
    - **Gear use determines how many sets are logged/amount of interaction with eLog**
      - Fishermen using gears that have longer sets reported fewer issues with eLog than those with more frequent, shorter sets
    - **More species targeted also increases amount of time spent on eLog**
      - Having a list of “favorite” species readily accessible reduces data entry time

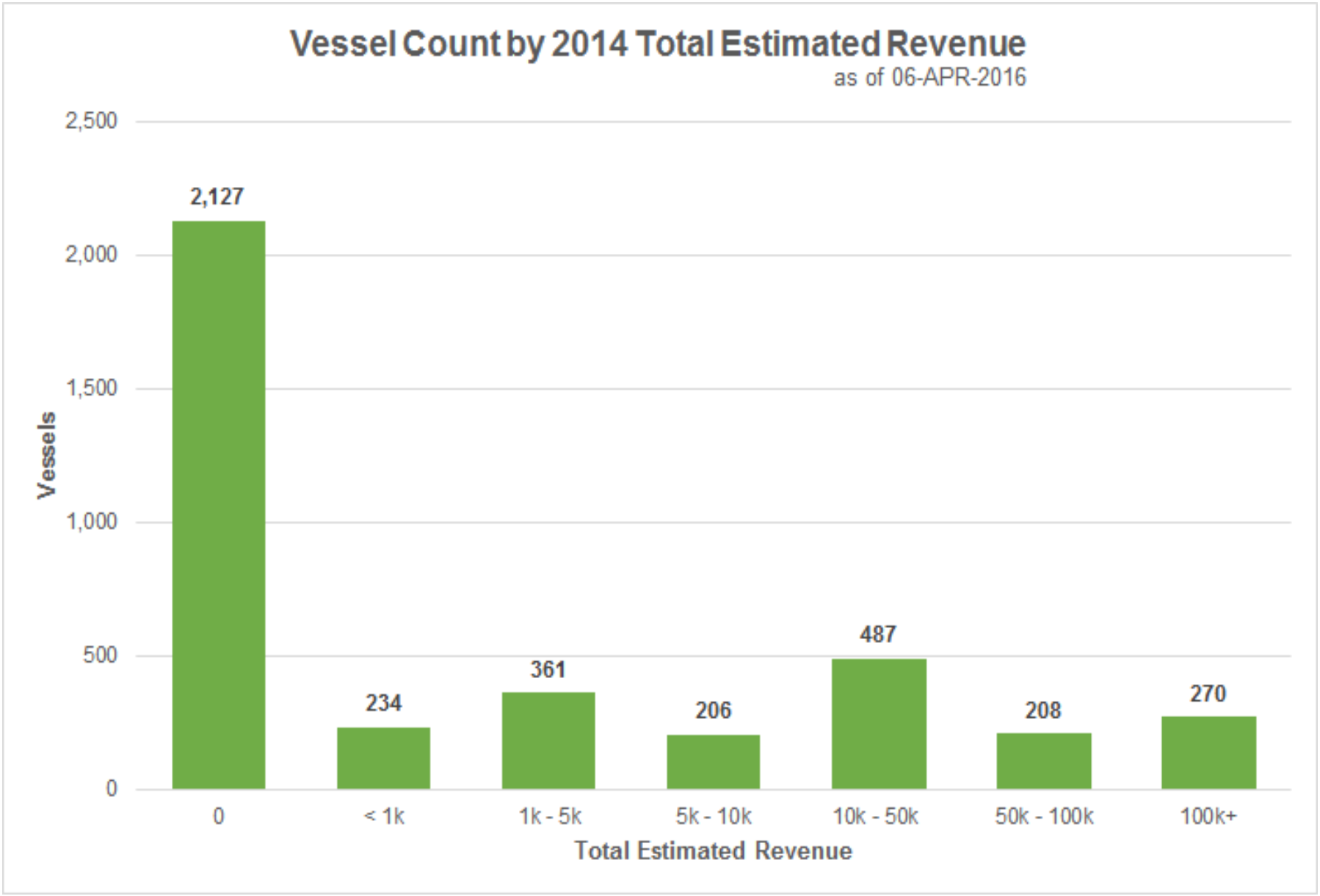
Pilot Findings

- **Results from pilot facilitated changes in the data collection standards**
  - Many data points could be obtained from other sources (i.e., dealer reports), eliminating need for fishermen to enter on eLog.
  - Most Gear types can facilitate set–based reporting. Hand line and cast net scaled back to sub-trip reporting (24 hours).
- **Hardware issues were a major concern for fleet**
  - Small and/or exposed cabins and relatively small crews create the need for smaller laptops or tablets that can be weatherized and integrated into current fishing methods.
- **Large increase in quantity and quality of catch/effort data above current logbook methods**
  - Catch/effort data logged over multiple days likely with multiple sets each day
    - Allows for the stratification of catch/effort data
  - Reports contained finer spatial and temporal data generated automatically by eLog.
  - Multiple fishing areas can be determined from GPS coordinates.

Profitability of SE Coastal Commercial Fleet

- Estimated revenues vary greatly in the SE
  - **55% of vessels had an estimated revenue above $10k**
  - **26% had revenues above $50K, and 15% above $100K**
  - **Cost analyses put profit margin at ~16%**

- Likely many of the vessels derive only a portion of income from the commercial sector


Vessel Count by 2014 Total Estimated Revenue
as of 06-APR-2016
2,500
2,000
1,500
1,000
500
0
Vessels
2,127
234
361
206
487
208
270
0
< 1k
1k - 5k
5k - 10k
10k - 50k
50k - 100k
100k+
Total Estimated Revenue

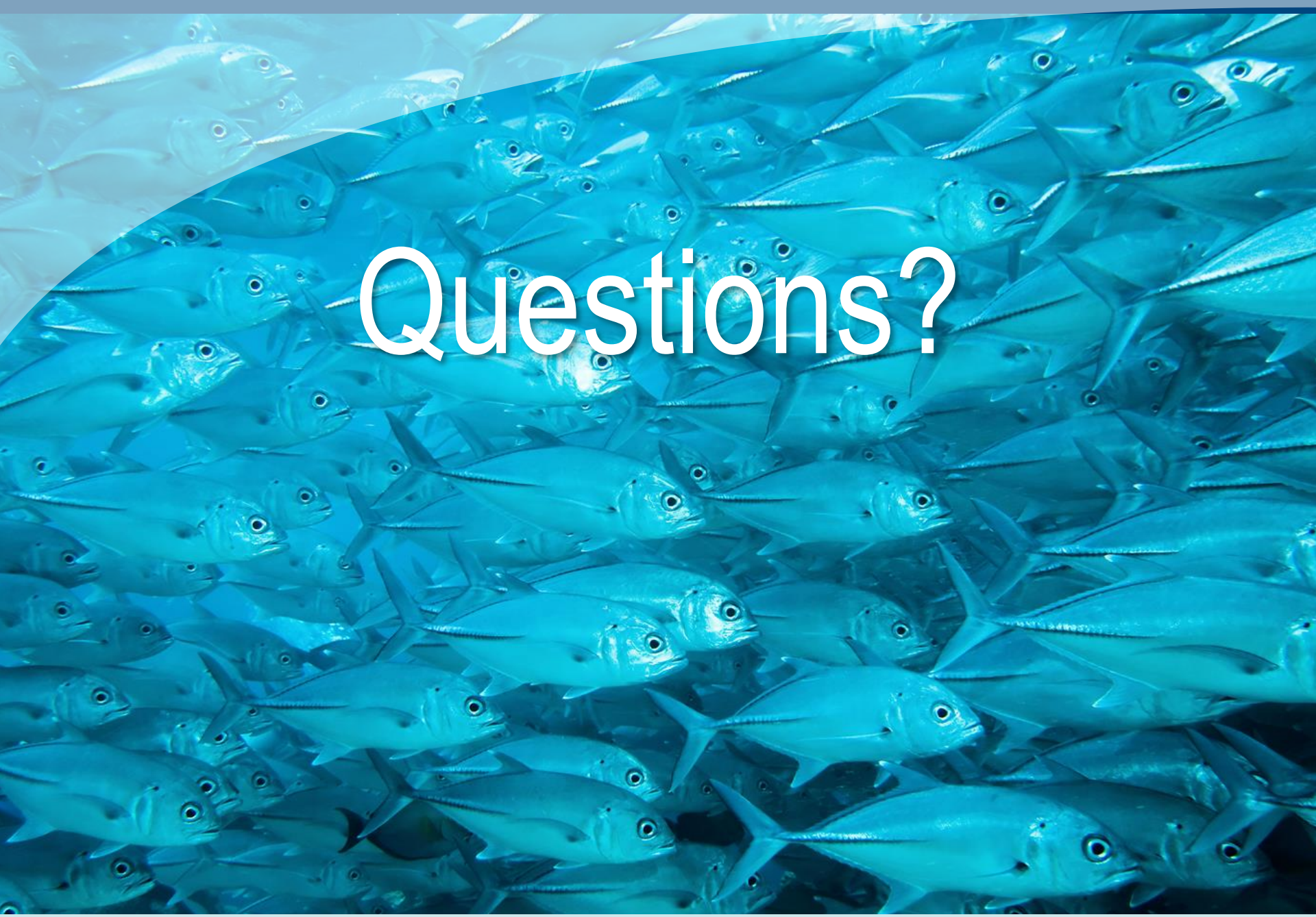
Profitability of SE Coastal Commercial Fleet

- **Commercial and Charter Overlap**
  - 12% of the vessels in SE derive more than 50% of their income from charter fishing
  - 86% of 2014 trips had owner on-board

- **Fishermen would benefit having an eLog that can submit required reports for both commercial and charter sectors**
  - **eTrips has the potential to meet this need**

Feasibility of eLogs for Southeast and HMS Fisheries

- eLogs are a feasible option for SE and HMS fisheries
  - Range of technological options to fit into specific fisheries and vessels
- Data collection at finer scales
- Reports can be submitted more timely and contain fewer errors
  - Increased efficiency of commercial data processing
  - Largest input of time spent on validations is spent on missing information in logbook
- eLogs retain catch history and notes on conditions for specific trips for fishermen to access later


Questions?