



**2010 WORKSHOP:
MITIGATING INTERACTIONS
BETWEEN SEA TURTLES AND
TRAWLS IN THE SOUTHERN NEW
ENGLAND AND MID-ATLANTIC
TRAWL FISHERIES**



WORKSHOP SCHEDULE: Tuesday

- Introductions
- Summary of 2007 workshop
- NMFS presentations on regulatory progress and update of observed interactions
- Scientist update on research 2007-2010
- Summary of research results
- Discussion point for Wednesday



WORKSHOP SCHEDULE: Wednesday

- What have we learned from the research
- What has worked and why, and what has not worked and why
- What are the next steps to develop technological solutions to mitigate sea turtle interactions in the trawl fisheries with pending regulations?
- What are the research priorities: short term and long term?
- Summary and thank-you
- Travel reimbursements for fishermen



Results of January 2007 Workshop on Bycatch Reduction Technologies to Reduce Sea Turtle Bycatch in Southern New England and Mid-Atlantic Trawl Fisheries

- Fishing industry requested that additional research be conducted in the summer flounder and scallop trawl fisheries to better understand the effects of TEDs on the catch of target species
- Fishing industry recommended cooperative research as the best way to accomplish the work

Projects Accomplished Since the 2007 Workshop

- Lawson D, DeAlteris J, Parkins C. 2007. An evaluation of the catch efficiency of the NMFS certified, standard Turtle Excluder Device (TED) required in the Mid-Atlantic summer flounder fishery (supported by NMFS NEFSC)
- DeAlteris J, Parkins C. 2009. Evaluation of the catch performance of the NMFS flounder Turtle Excluder Device (TED) with a large opening in the U.S. Mid-Atlantic scallop trawl fishery. (supported by NMFS NEFSC)
- DeAlteris J, Parkins C. 2009. Evaluation of the catch performance of the NMFS flounder Turtle Excluder Device (TED) with a large opening in the Southern New England whiting and squid trawl fisheries. (supported by NMFS NEFSC)

Projects Accomplished Since the 2007 Workshop

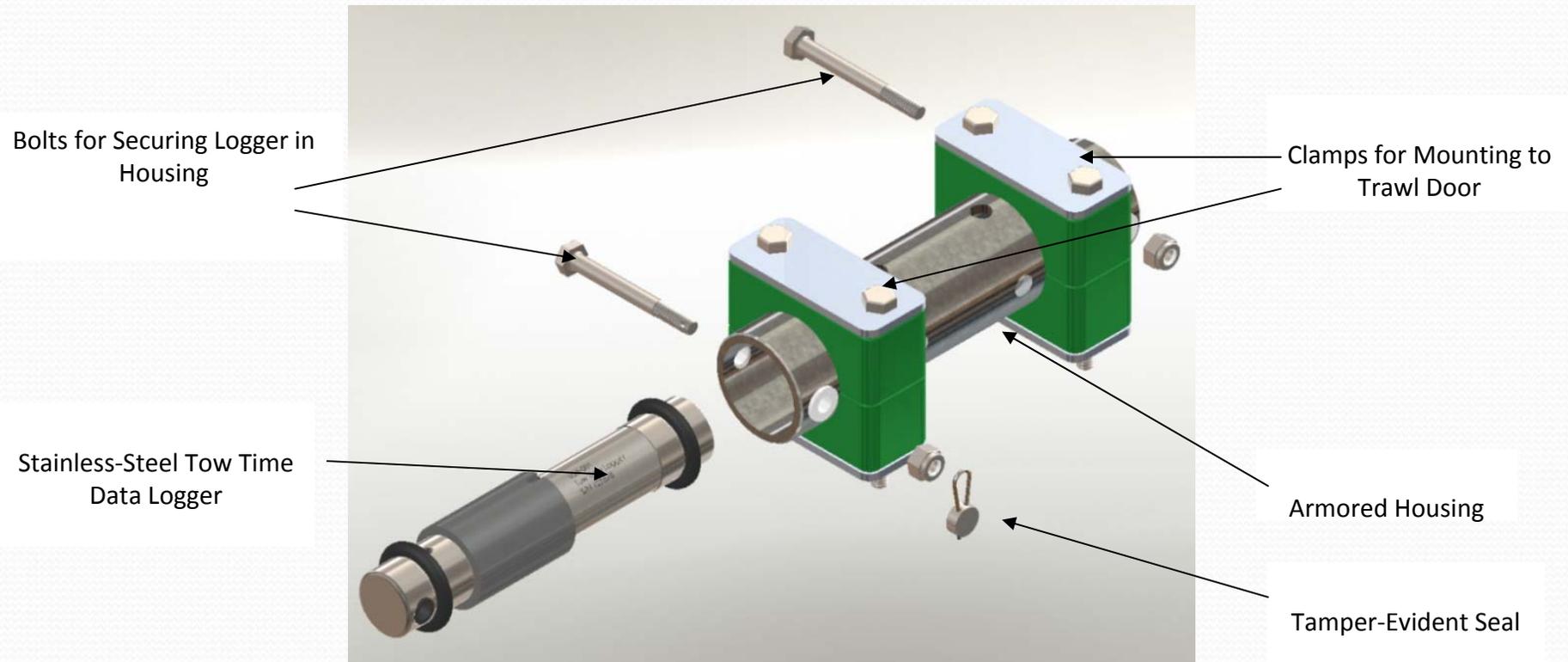
- ONSET TECHNOLOGIES, 2009. Tow time data logger developed. Development and procurement of 12 data loggers to monitor tow time. (supported by NMFS NEFSC)
- NEFSC, NWFSC, WHOI and Coonamessett Farm, 2009-2010. Develop underwater camera system for visualizing gear performance. (supported by NMFS NEFSC)
- Salerno DJ, Eayrs S. 2010. Study on catch retention using a larger TED and opening in the summer flounder trawl fishery. (supported by NMFS NEFSC)
- DeAlteris, J., Milliken, H.O., Parkins, C. Ruhle, J. 2008 and 2009. Development, certification, and field evaluation of the Northeast Modified Turtle Excluder Device (TED) for the summer flounder trawl fishery. (supported by NMFS NEFSC and SNECRI)

Projects Accomplished Since the 2007 Workshop

- Gearhart, J.L. 2010. Evaluation of a turtle excluder device (TED) designed for use in the U.S. mid-Atlantic Atlantic croaker fishery.
- Mirabilio, S. DeAlteris, J., Parkins, C, and Daniels, T. 2009-2010. Test of summer flounder catch retention using a 43.37" x 51" TED with 4" bar spacing versus the NE modified articulating TED. (supported by NC Sea Grant FRG)
- Parkins. C., DeAlteris, J., Milliken, H.O., and O'Rourke, M. 2010. Evaluation of topless trawl in the summer flounder trawl fishery. (supported by NMFS NEFSC BAA)

TOW TIME DATA LOGGER

(no presentation available, so described here)



UNDERWATER CAMERA SYSTEM

(no presentation available, so described here)

- Goal: to develop a robust underwater recording system that can be used on several gear types, is easily deployed and is easy to offload the video footage. Additionally the footage must be of high enough quality to freeze and grab clear images.
- Progress:
 - Working with WHOI and Coonamessett Farm to develop a system. Tested many components and choose cameras and DVR's that proved the best at being able to freeze and grab clear images.
 - Two separate contracts awarded for the procurement of the video system's components.
 - Prototype system successfully tested.
 - Expect delivery of four systems before December 2010.

FY11 PROJECTS



- Contract awarded for 80 plus pairs of tows in the bottom trawl fishery to test bycatch reduction technologies (BRTs). Determination of BRTs to be tested will be made after input is received from the October workshop.
- Proposals soon due for other research ideas.

NEFSC / PSB GEAR RESEARCH FLOWCHART

Problem Identification
All

Bycatch analysis to describe interaction and spatial and temporal extent of the bycatch problem

Gear Design

Development of pilot study to test feasibility of gear modification

Test experimental gear in commercial fishery

Experimental fishery

NEFSC provides scientific information to NERO

NERO decision making

We plan to work with industry to the fullest extent possible throughout the entire documentation, design, and testing phases. We believe that working with industry when possible is beneficial because it allows us to gain knowledge about the fishing industry and increases the likelihood of industry acceptance and compliance.

Modified gear designs are determined with input from the industry. Their support is considered crucial for successful implementation of a gear modification.

Test the experimental gear on commercial vessels, using commercial gear and commercial fishing practices and use a robust statistical design to evaluate the effectiveness of the gear modification.
Test for both difference in target catch and protected species catch.
Test across appropriate strata (such as time, area, or fishing strata).
Test with enough trials to detect a difference ($\alpha=0.05$) if a difference exists.

Observers are placed on commercial vessels operating in the commercial fishery and collect quantitative data on the gear modification that is used to assess the effectiveness of the gear modification.

Key to color coding

NMFS NERO	NMFS NEFSC	Fishing Industry
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WORKSHOP GOAL/ DELIVERABLE

- To develop a practical bycatch reduction approach that will both reduce sea turtle captures and retain marketable catch (minimize economic loss).
- To develop a prioritized list of research projects that the fishing participants believe should be conducted in order to achieve the goal of reducing sea turtle captures, while minimally affecting the economic viability of the trawl fisheries.