



COMMERCIAL FISHERIES RESEARCH FOUNDATION

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CFRF Conservation Engineering Review Panel

Meeting to Review Gear Trials Program Research and Proof of Concept Proposals for Reduction of Juvenile Butterfish

Date: Tuesday, August 19, 2014

Time: 1:00 PM – 3:00 PM

Place: Conference Room at Commercial Fisheries Center, East Farm Campus, URI, Kingston, RI
Participants: Mark Gibson; Arne Carr; Henry Milliken; Jon Knight; Fred Mattera; John Scotti; Emerson Hasbrouck; Kristen, Gerbino; Peg Parker

Meeting Summary

I. Greetings/Introductions/Overview of meeting purpose– P. Parker, Executive Director, CFRF opened the meeting explaining the scope of work for the meeting.

II. Review and Discussion of final report for Gear Trials Program quantitative research [field work done by the Cornell team to test the effectiveness of reducing winter flounder bycatch using the 12” drop chain sweep and large mesh belly panel in the small mesh whiting fishery]

- Quick review of results as presented in the final report (Cornell team)

Emerson Hasbrouck gave a brief summary of the content of the final report. Highlights included the following:

- The project was approached as a proof of concept endeavor for the two gear types – 12” drop chain sweep and large mesh belly panel – to test their potential effectiveness for reducing winter flounder bycatch in the small mesh whiting fishery.
- The team worked for 6 days at sea with two fishing vessels completing 36 paired tows (36 control and 37 experimental nets) or 18 tows with the belly panel as the experimental net and 19 tows with the drop chain sweep as the experimental net (Note: Boat problems resulted in one less trial for the belly panel.)
- Neither gear type was proven to reduce the quantity of winter flounder bycatch at statistically significant levels. It was thought that this was because of two factors: 1) lack of consistent amounts of winter flounder in fishing area (even though NMFS Observer

data indicated a winter flounder bycatch problem existed in this area); 2) methodology used (recommended by Review Panel) resulted in not having a full pairing of the control and experimental nets to the point that the results could be deemed statistically significant.

- The testing did show that the targeted catch (whiting) was retained in experimental nets i.e. there was no significant difference in whiting or squid catch between the control and experimental modified nets.
- Both experimental nets proved to be functionally effective in significantly reducing the quantity of miscellaneous flounders (all flounders excluding winter flounder) and all combined flounder (including winter flounder).
- It is likely that both of these gear types could be effective in reducing winter flounder bycatch in the whiting fishery while retaining the targeted catch but more rigorous testing is needed to determine that.

- Questions/Answers/Discussion (Review Panel members and Cornell team)

The discussion and question/answer session resulted in the following major points:

Review Panel members' recommendations:

1. Give more emphasize in the final report to the finding that use of these two gear types did not result in significant loss of targeted catch i.e. whiting. This may be a very important finding to the industry.
2. Add a little more explanation about the vessel effect uncertainties so readers understand your analytical dilemma and how you dealt with it.
3. Go back and put in standard error bars on your figures to give readers a better sense of the variance e.g. page 15 Fig. 3
4. The team might consider putting in more information/analyses on individual species of flounder to assess significance on particular flounder species.

The Cornell team offered the following responses (received after the meeting):

1. They are in agreement about giving more emphasis to the finding that the targeted species were retained in both gear modification trials, and the final report could include more explanation of the analytical dilemmas that resulted from the field methodology used.
2. Fig. 3 (and other similar figures) is the total catch in the control and total catch in the experimental. It's simply adding up all the winter flounder catch in the control and adding up all the winter flounder in the corresponding paired experimental. So there are no standard error bars to compute - it is just a straight arithmetic addition. However what we might be able to do is to plot the mean catch in the control and the mean catch in the experimental and add error bars around the means.
3. We know we had discussion on this, but we are not sure what we would gain. The project was directed at winter flounder. But since we did catch other flounders we analyzed for

both "miscellaneous flounders" and "all flounders" - and they both had a significant result, so we know that both gears will reduce the catch of all flounders by a significant level.

Both Review Panel and research team members agreed that the following was learned from this work:

1. It might be helpful to have more input from (or pay more attention to) the input from the data analyzers up front when deciding the research protocols so we can avoid concerns like vessel effects later on
2. It might be better to focus on testing one gear modification type at a time and devoting time/days/boats involved at sea in a more focused way to end up with more significant results.
3. There was enough learned though from this work to conclude that further testing is warranted to prove effectiveness in the whiting fishery- it is possible that these gear types are effective.

The Cornell team will work on a revised final report and re-submit to the CFRF, and the CFRF will post the revised final report on its website.