

# 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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