

**ATLANTIC TRAWL GEAR TAKE REDUCTION TEAM
MONITORING STRATEGY**

*Monitoring the Effectiveness and Regulatory Compliance
of the
Atlantic Trawl Gear Take Reduction Strategy*

NOAA Fisheries Service
Northeast Region
Protected Resources Division

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1. BACKGROUND

NOAA Fisheries Service (NMFS) convened the Atlantic Trawl Gear Take Reduction Team (Team) in 2006 to address the incidental mortality and serious injury of long-finned pilot whales (*Globicephala melas*), short-finned pilot whales (*Globicephala macrorhynchus*), common dolphins (*Delphinus delphis*), and white-sided dolphins (*Lagenorhynchus acutus*) incidental to the Mid-Atlantic mid-water trawl fishery, as well as other trawl fisheries. Under section 118 of the Marine Mammal Protection Act (MMPA), the Team is responsible for developing a take reduction plan to reduce mortality and serious injury of pilot whales, common dolphins, and white-sided dolphins in Atlantic trawl gear fisheries. The immediate goal of a take reduction plan is to reduce, within six months of implementation, the incidental mortality and serious injury of marine mammals to levels less than the stock's Potential Biological Removal (PBR) level. The long term goal is to reduce within five years of implementation, the mortality and serious injury of marine mammals to insignificant levels approaching a zero mortality and serious injury rate (known as the zero mortality rate goal or ZMRG), defined as 10% of the PBR level.

Team meetings were held in September 2006 and April 2007 to evaluate bycatch of long-finned pilot whales, short-finned pilot whales, common dolphins, and white-sided dolphins in trawl fisheries. Subsequently, the estimates of annual human-caused serious injury and mortality to these stocks was determined to be below their respective PBR levels and the creation of a regulatory take reduction plan under the MMPA requirements was not warranted. However, NMFS and the Team finalized the non-regulatory Atlantic Trawl Gear Take Reduction Strategy (ATGTRS) in December 2008. The ATGTRS provides recommendations to NMFS for compiling additional data on fishery interactions with long- and short-finned pilot whales, white-sided dolphins, and common dolphins, conducting education and outreach on these fishery interactions, and establishing research priorities for these species. The ATGTRS also includes voluntary mitigation measures for trawl fishermen intended to reduce fishery interactions with these marine mammal stocks.

2. MONITORING THE ATGTRS

Since the ATGTRS does not contain regulatory requirements, it is monitored differently than the Atlantic Large Whale and Harbor Porpoise Take Reductions Plans. Particularly, this monitoring strategy does not assess compliance with or effectiveness of regulations since regulations have not been necessary. Rather, this monitoring strategy focuses on reviewing biological metrics such as annual population abundance estimates, annual human-caused serious injury and mortality estimates, and the calculated PBR levels for long-finned pilot whales, short-finned pilot whales, common dolphins, and white-sided dolphins to determine if the creation of take reduction plan regulations is warranted. This monitoring strategy relies primarily on the annual publication of *U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments* (stock assessment report) by the Northeast Fisheries Science Center for this information. In addition to these biological metrics, information from scientific research and outreach activities conducted for these species play a significant role in this strategy. Lastly, the monitoring strategy will

consider changes in fishing effort in trawl fisheries and their potential impact on marine mammal bycatch. This monitoring strategy will require revisions if changes in population or mortality estimates of these stocks warrant Team action and the creation of a take reduction plan and regulations. The monitoring protocol (section 3.2 in this document) describes this evaluation.

2.1 Human-Caused Serious Injury/Mortality and PBR

The primary monitoring metric in this strategy is the annual comparison of estimated human-caused serious injury and mortality to the PBR level for long-finned pilot whales, short-finned pilot whales, common dolphins, and white-sided dolphins. This is to be done each year after the publication of the updated stock assessment report. If estimated bycatch for each of these four stocks is determined to be below PBR and is approaching or below ZMRG, then annual monitoring continues as described in Section 3 of this strategy. If estimated bycatch exceeds PBR for one or more of these stocks, NMFS will determine the necessity of reconvening the Team to review the most recent population abundance and bycatch information and consider the development of a take reduction plan.

2.2 Scientific Research

In addition to monitoring serious injury and mortality estimates for long-finned pilot whales, short-finned pilot whales, common dolphins, and white-sided dolphins, NMFS will continue to maintain annual research matrices that identify biological research and gear research needs to support the Team and Strategy. The matrices will be shared with the Team and other stakeholders and will be updated annually. The matrices will be used to inform various funding initiatives by government and non-government organizations that promote marine mammal conservation. Each year, NMFS will provide an update on the most recent biological and fishing gear scientific research conducted and/or funded, and list the latest scientific research priorities to support the goals of the Team. NMFS will continue to evaluate the results of research as it determines the need to update the Team or reconvene the Team (changes in stock structure, mortality, abundance estimates, etc.).

2.3 Education and Outreach

As part of the recommendations made to NMFS in the ATGTRS, updates on outreach and education efforts related to reducing fishery interactions with long-finned pilot whales, short-finned pilot whales, common dolphins, and white-sided dolphins in trawl fisheries will be provided. This includes the distribution of printed outreach materials, electronic materials posted to the Northeast Regional Office website, presentations made, and other outreach activities planned or conducted.

3. NMFS MONITORING PROTOCOL

3.1 ATGTRS Annual Monitoring Report

Each year, NMFS will make available, through website posting and distribution of email updates to the Team and other interested parties, updates on the biological, research, and outreach metrics identified in this monitoring strategy (see Appendix 1). This will include updated estimates of human-caused serious injury and mortality and PBR for long-finned pilot whales, short-finned pilot whales, common dolphins, and white-sided dolphins published in the annual stock assessment report. In addition, NMFS will include a narrative of outreach and education efforts relevant to these stocks conducted during the previous year. Lastly, NMFS will provide updates for ATGTRS research priorities and needs that are posted on the NMFS Northeast Regional Office research priorities and needs website (www.nero.noaa.gov/prot_res/research/). Based on the data presented in the biological metrics (estimated human-caused serious injury/mortality and PBR levels) for long-finned pilot whales, short-finned pilot whales, common dolphins, and white-sided dolphins, NMFS will make an annual determination of whether the Team should meet and/or pursue the development of a take reduction plan should bycatch levels in trawl fisheries begin to exceed the PBR levels for these stocks.

3.2 Assessing Monitoring Needs

In addition to providing an annual update on the metrics identified in this monitoring strategy, NMFS will conduct an annual internal review of ATGTRS monitoring needs to determine if revisions to this monitoring strategy are warranted. For example, revisions to this monitoring strategy would be necessary if the bycatch of long- or short-finned pilot whales, common dolphins, and white-sided dolphins exceeds the PBR level such that the development of a take reduction plan is warranted under the requirements of the MMPA.

APPENDIX 1: ATGTRS Monitoring Strategy Annual Flowchart

