

# Draft Atlantic Pelagic Take Reduction Plan: *Overview for ATGTRT*

Laura Engleby

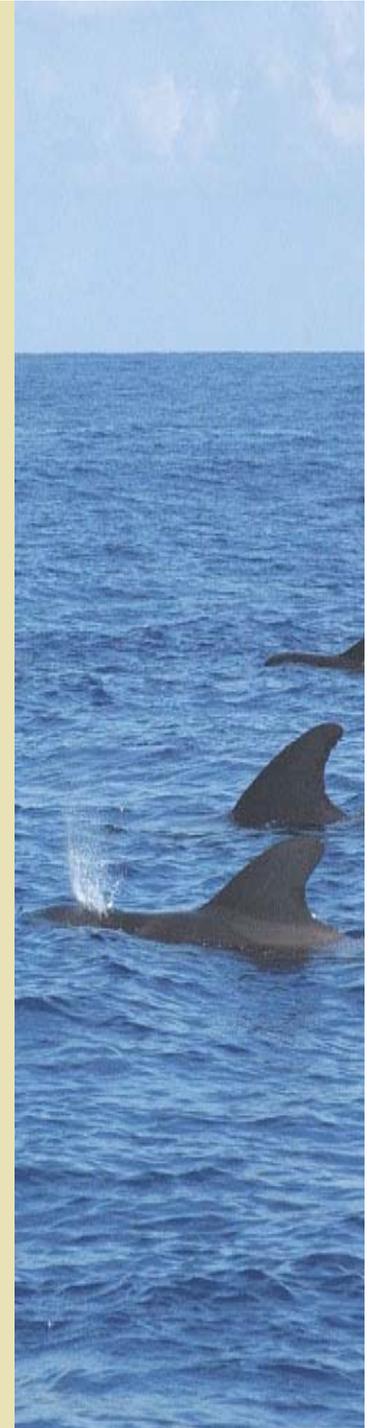
NMFS Southeast Regional Office

St. Petersburg, FL

Photo Courtesy of K. Mullin, NMFS

# Atlantic Pelagic Longline Take Reduction Team

- ◆ NMFS established the team in June 2005
- ◆ Team comprised of balanced group of stakeholders
  - 3 active pelagic longline fishermen/vessel owners (NJ, SC, and FL)
  - 3 pelagic longline fishing industry reps
  - Mid-Atlantic Fishery Management Council rep
  - Four academic and scientific organization reps
  - Five environmental group reps
  - Marine Mammal Commission rep
  - NMFS members and advisors
- ◆ Team met 4 times
- ◆ NMFS contracted with CONCUR to organize and facilitate meetings
- ◆ Team submitted draft consensus plan to NMFS in June 2006



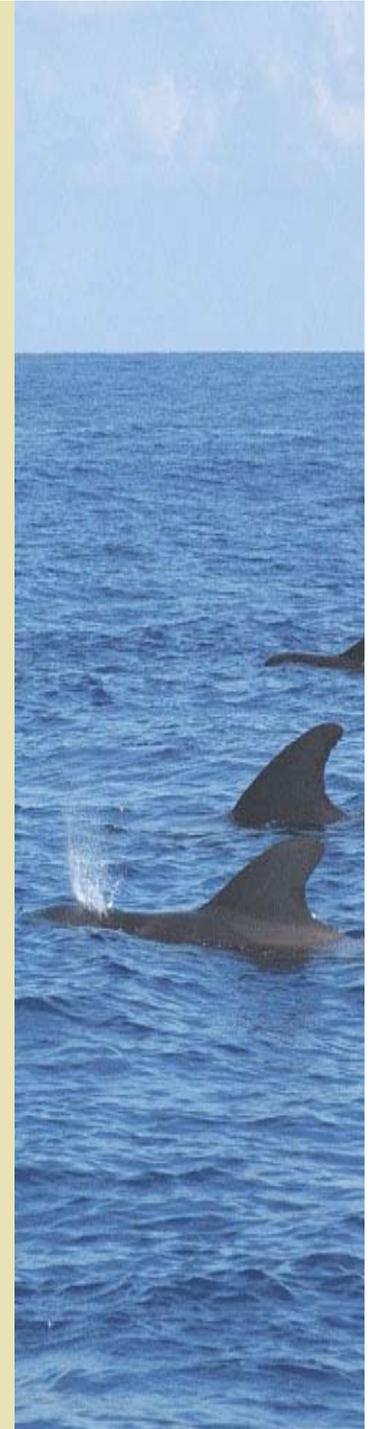
# Scope and Goal of Pelagic Longline Take Reduction Team

## Scope:

- ◆ Fishery: swordfish, tuna, and shark pelagic longline fishery
- ◆ Species: long-finned pilot whale, short-finned pilot whale, Risso's dolphin
- ◆ Geographic area: Mid-Atlantic Bight

## Goal:

- ◆ Across fisheries: reduce serious injuries and mortalities to below insignificant levels for all fisheries that interact with these species; or,
- ◆ Within this fishery: reduce serious injuries and mortalities to lowest feasible level, taking into account economics of fishery, existing technology, and existing fishery management plan.

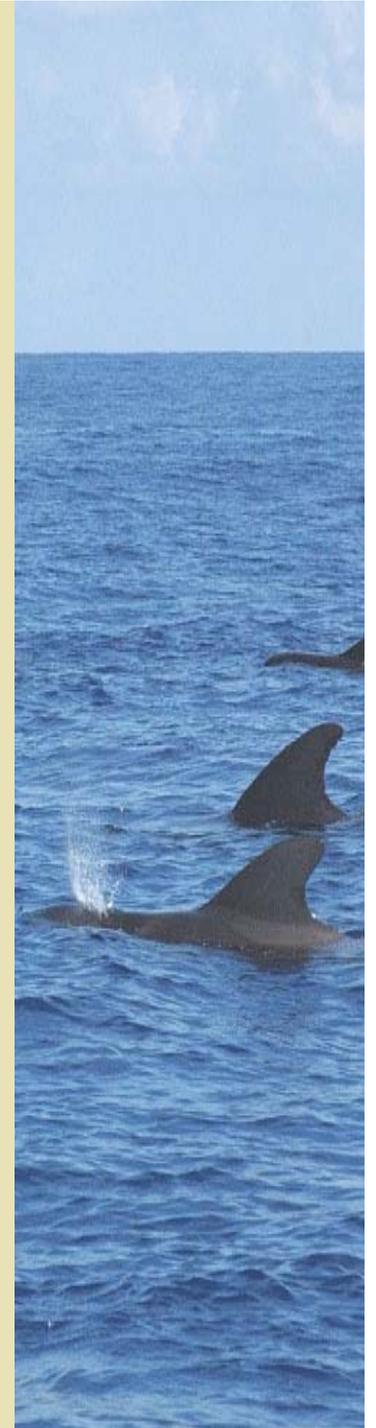


# What Factors Contribute to Marine Mammal Interactions?

Approach: Develop a model to predict the affect of various factors on bycatch and/or catch, using observer and logbook data

Factors Tested:

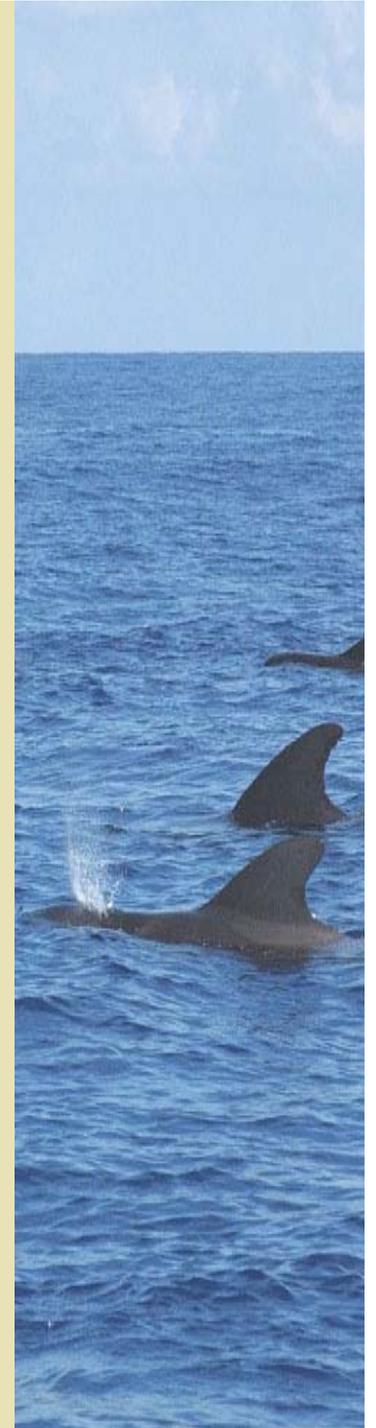
- ◆ Environment: temperature, water depth, moon, wave height, wind speed, weather
- ◆ Space: Distance from 200m isobath, average location, fishing area, geographic area
- ◆ Time: month, quarter, year
- ◆ Gear: hook shape, hook size, light sticks, bait (type and live/dead), hook depth, haul time
- ◆ Fishing Intensity: mainline length, number of hooks, set/soak/haul/total duration, hook density, hook hours
- ◆ Catch: Type of catch, damage to catch



# Results of Predictive Model

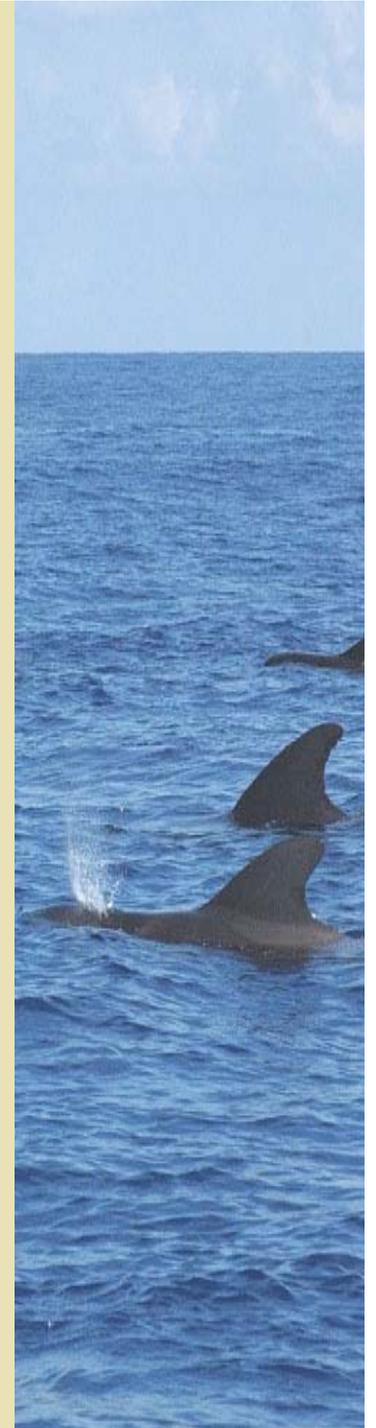
Factors correlated with pilot whale interactions:

- ◆ Geographic area (MAB)
- ◆ Distance from 200m isobath (all interactions within 40km of shelf break)
- ◆ Average temperature (peak interaction rates between 70 - 80° F)
- ◆ Mainline length (interaction rates 2x higher in sets with mainline length  $\geq$  20 miles)
- ◆ Swordfish damage (interaction rates 3x higher in sets with damage to swordfish catch)



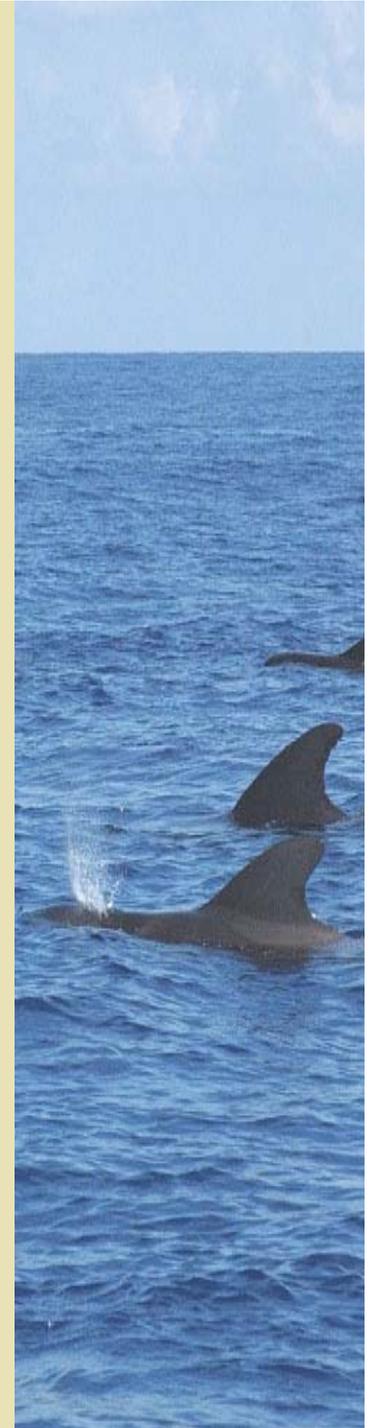
# Recommended Non-Regulatory Take Reduction Measures

- ◆ Provide 12-15% observer coverage in all areas of fishery with pilot whale or Risso's dolphin interactions
- ◆ Encourage vessel operators throughout fishery to maintain daily communications with other vessels regarding protected species interactions
- ◆ Update careful handling/release guidelines, equipment, and methods
- ◆ Distribute quarterly reports of marine mammal bycatch in the longline fishery to team members
- ◆ Additional research and data collection, with priority on evaluating effectiveness of plan, and on species abundance, mortality, and post-hooking survivorship

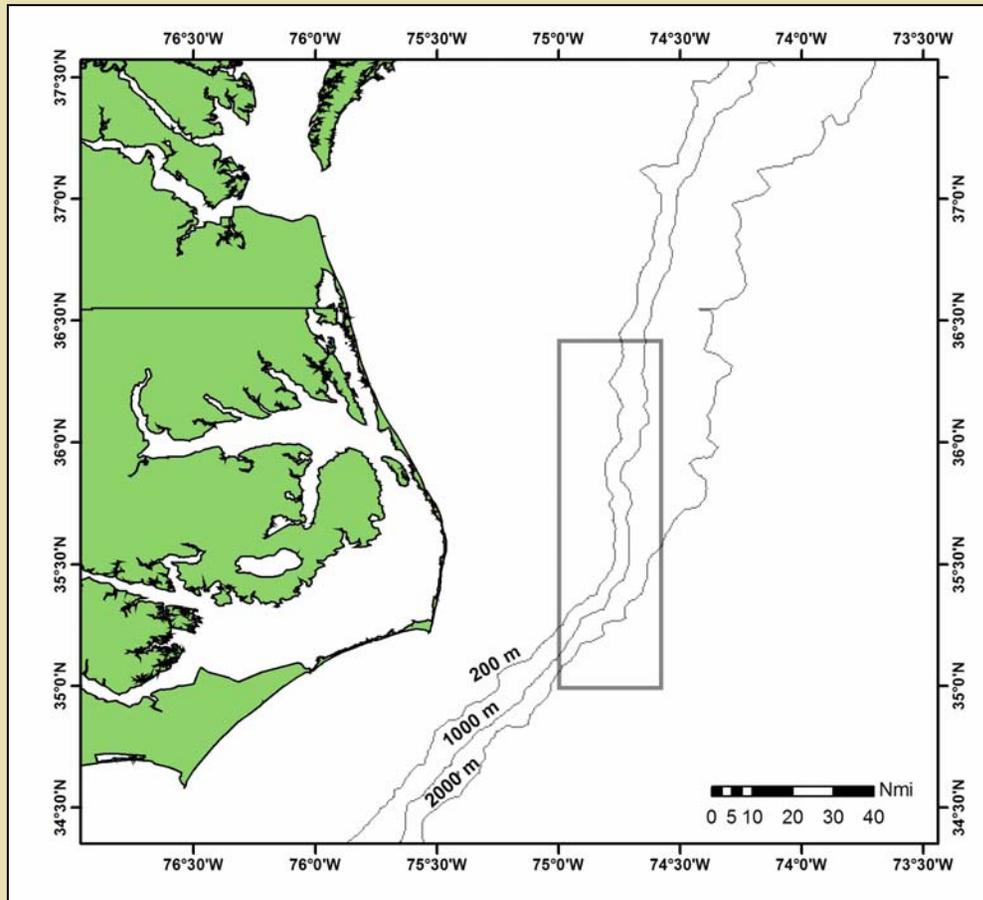


# Recommended Regulatory Take Reduction Measures

- ◆ Establish Cape Hatteras Special Research Area
- ◆ Set a 20 nautical mile upper limit on mainline length within the Mid-Atlantic Bight (no restriction on number of lines that can be set)
- ◆ Develop and distribute informational placard for display in wheelhouse and on working deck on safe handling and release of hooked and entangled marine mammals and requirement to report all injuries
- ◆ Develop and implement a mandatory certification program for owners and operators of longline vessels



# Cape Hatteras Special Research Area



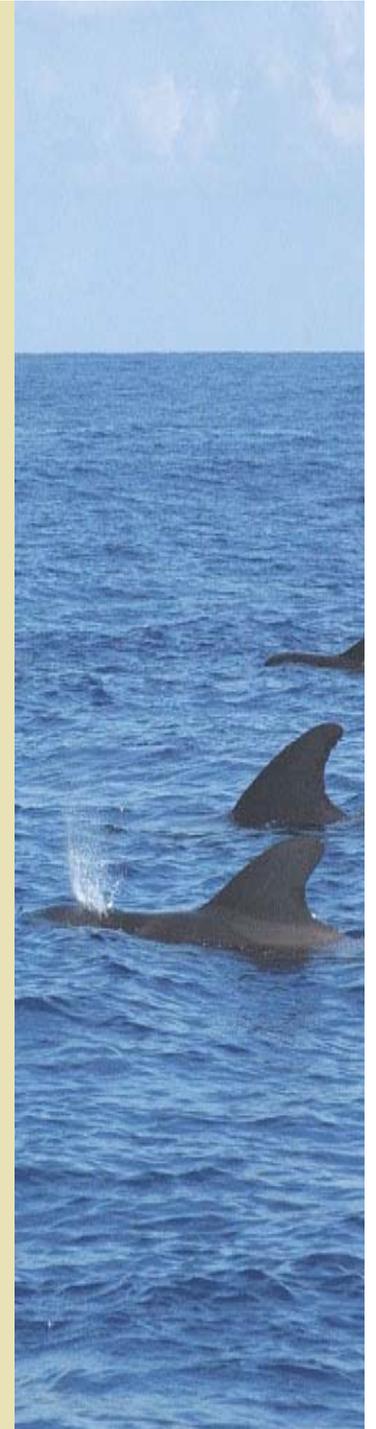
Boundaries: Southern 35° N, Northern 36° 25' N,  
Western 75° W, Eastern 74° 35' W

To fish in this area:

- ◆ Must be capable of carrying an observer
- ◆ Must carry an observer, if requested by NMFS or NMFS designee
- ◆ Must be willing and able to participate in any NMFS-approved research related to the take reduction plan
- ◆ Must maintain daily communications with other fishermen in area

## Next Steps

- ◆ NMFS will publish in the Federal Register the team's draft plan, any proposed changes with explanation of the changes, and proposed regulations to implement the plan
- ◆ The public will have an opportunity to comment on the plan and proposed regulations
- ◆ NMFS will then publish a final plan and final implementing regulations
- ◆ NMFS will reconvene the team periodically, and at least annually, to review progress of the plan and revise the plan as necessary until the goal of the plan is met



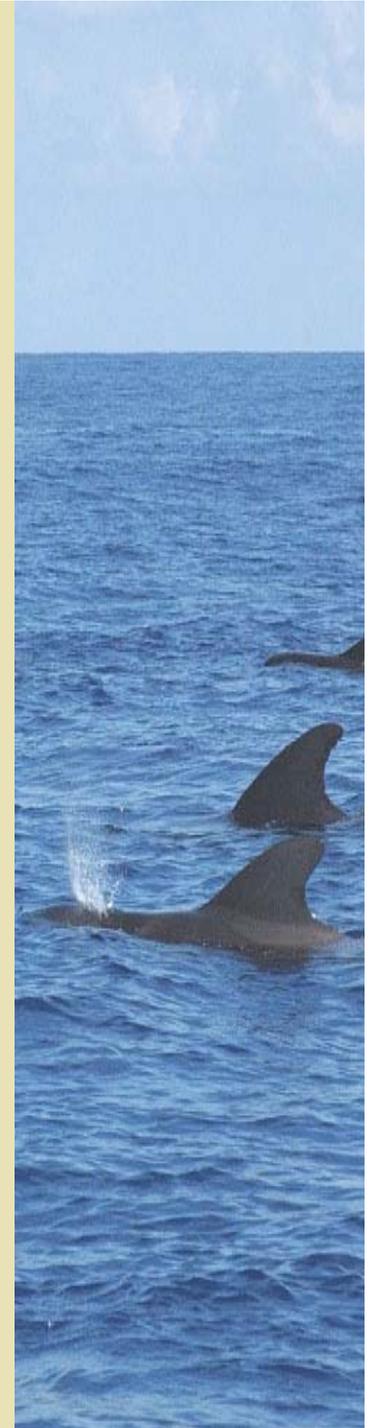
## For more information.....

- ◆ Contact NMFS Staff:

- Laura Engleby, (727) 551-5791,  
laura.ingleby@noaa.gov

- ◆ Go to the PLTRP Website:

<http://www.nmfs.noaa.gov/pr/interactions/trt/pl-trt.htm>



## Observed Interactions by Area and Marine Mammal Species, 2001-2005

Fishing Area	Pilot Whales	Risso's Dolphins	Other Marine Mammals*
MAB	43	12	3
NEC	0	10	1
NED	1	13	9
SAB	0	1	1
Other Areas	2	1	7

Includes: common dolphin (4), bottlenose dolphin (2), beaked whale (2), spotted dolphin (2), striped dolphin (2), bottlenose whale (1), minke whale (1), and unid. marine mammals (7)

# Annual Estimated Serious Injury and Mortality

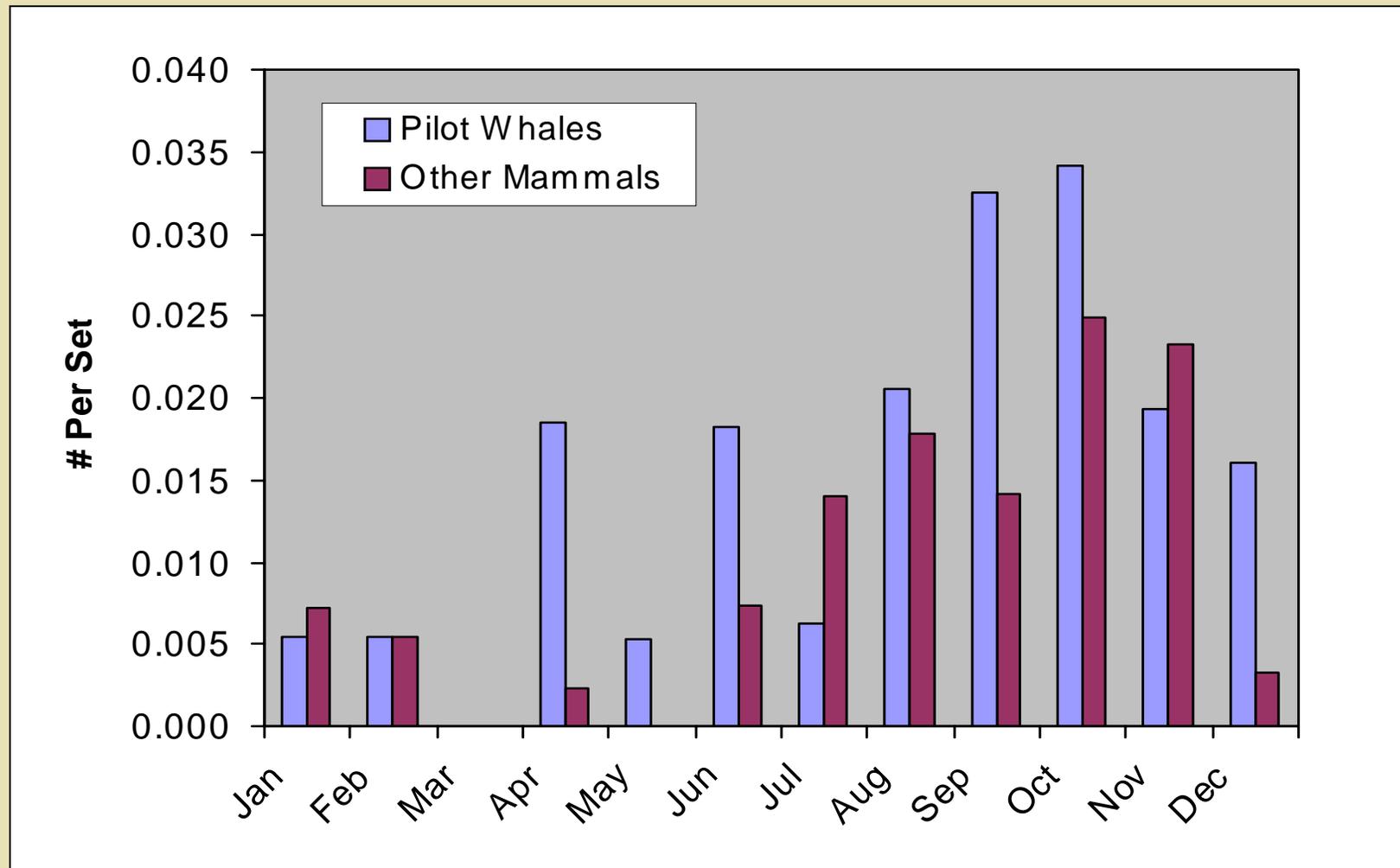
Pilot Whales (two species combined), PBR = 239

Year	Obs SI	Obs Mortality	Est SI	Est Mortality	Total Est SI and Mortality
2001	4	1	50	20	70
2002	4	0	52	2	54
2003	2	0	21	0	21
2004	6	0	74	0	74
2005	9	0	212	0	212
Average	-	-	-	-	86

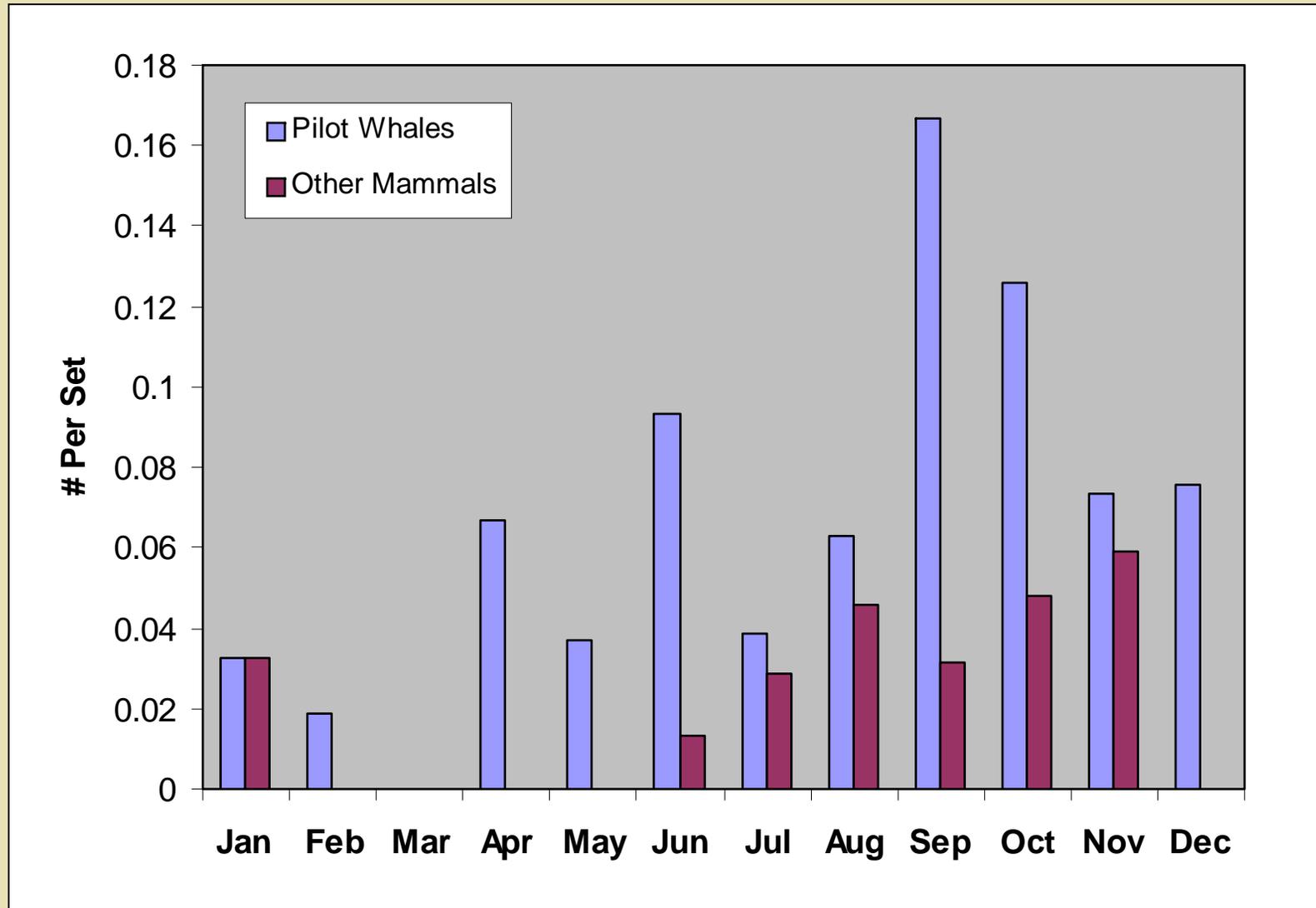
Risso's Dolphins, PBR = 124

Year	Obs SI	Obs Mortality	Est SI	Est Mortality	Total Est SI and Mortality
2001	2	1	45	24	69
2002	1	0	8	20	28
2003	3	0	40	0	40
2004	2	0	28	0	28
2005	0	0	3	0	3
Average	-	-	-	-	34

# Observed Interactions by Month, 1992-2004



# Observed Interactions by Month in Mid-Atlantic Bight, 1992-2004

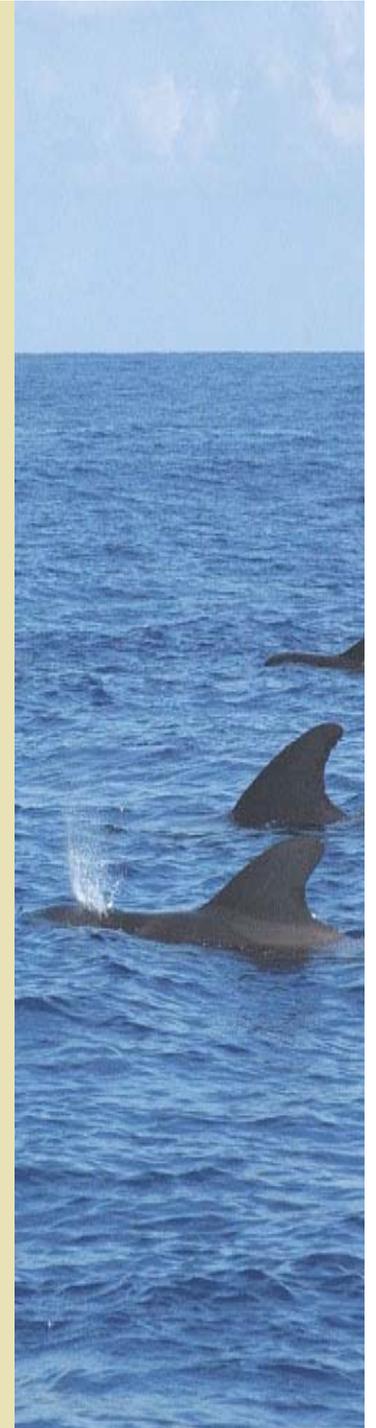


# Results of Predictive Model

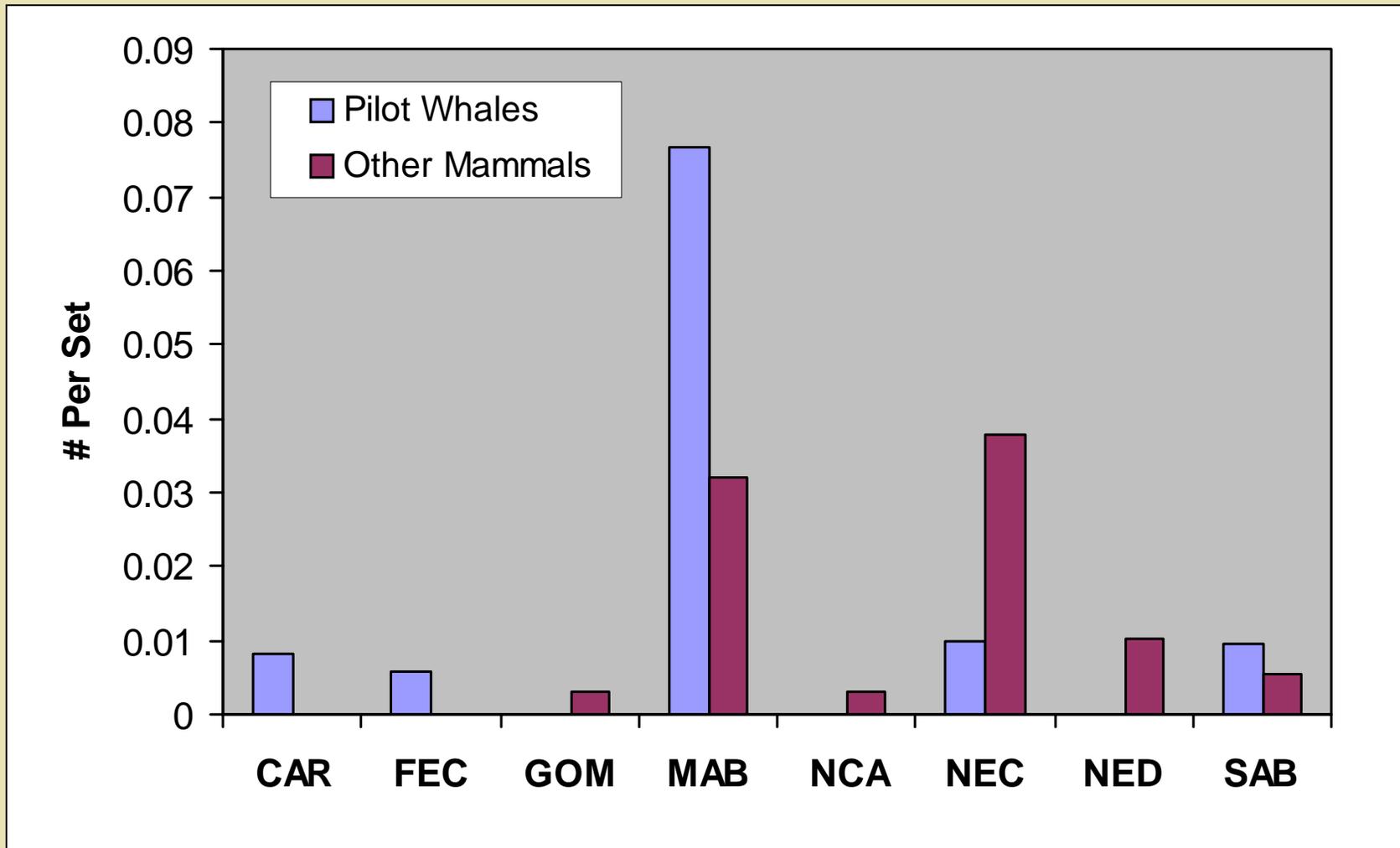
Factors correlated with Risso's dolphin interactions:

- ◆ Geographic area (MAB and NEC)
- ◆ Distance from 200m isobath (all interactions within 40km of shelf break)
- ◆ Mainline length (weaker effect relative to that seen with pilot whales)
- ◆ Swordfish damage (interaction rates higher in sets with damage to swordfish catch)
- ◆ Fish and squid bait (in MAB)

Factors correlated with turtle interactions and catch of target species: Multiple factors

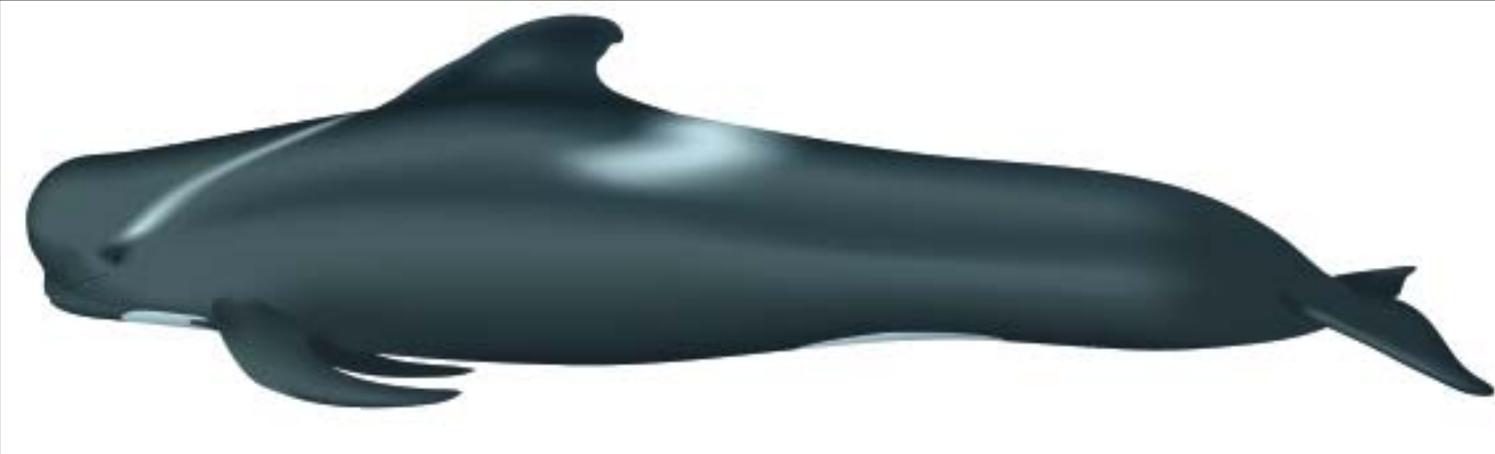


# Observed Interactions by Fishing Area, 1992- 2004



# Pilot Whale Species

*Globicephala melas* (long-finned)



*Globicephala macrorhynchus* (short-finned)

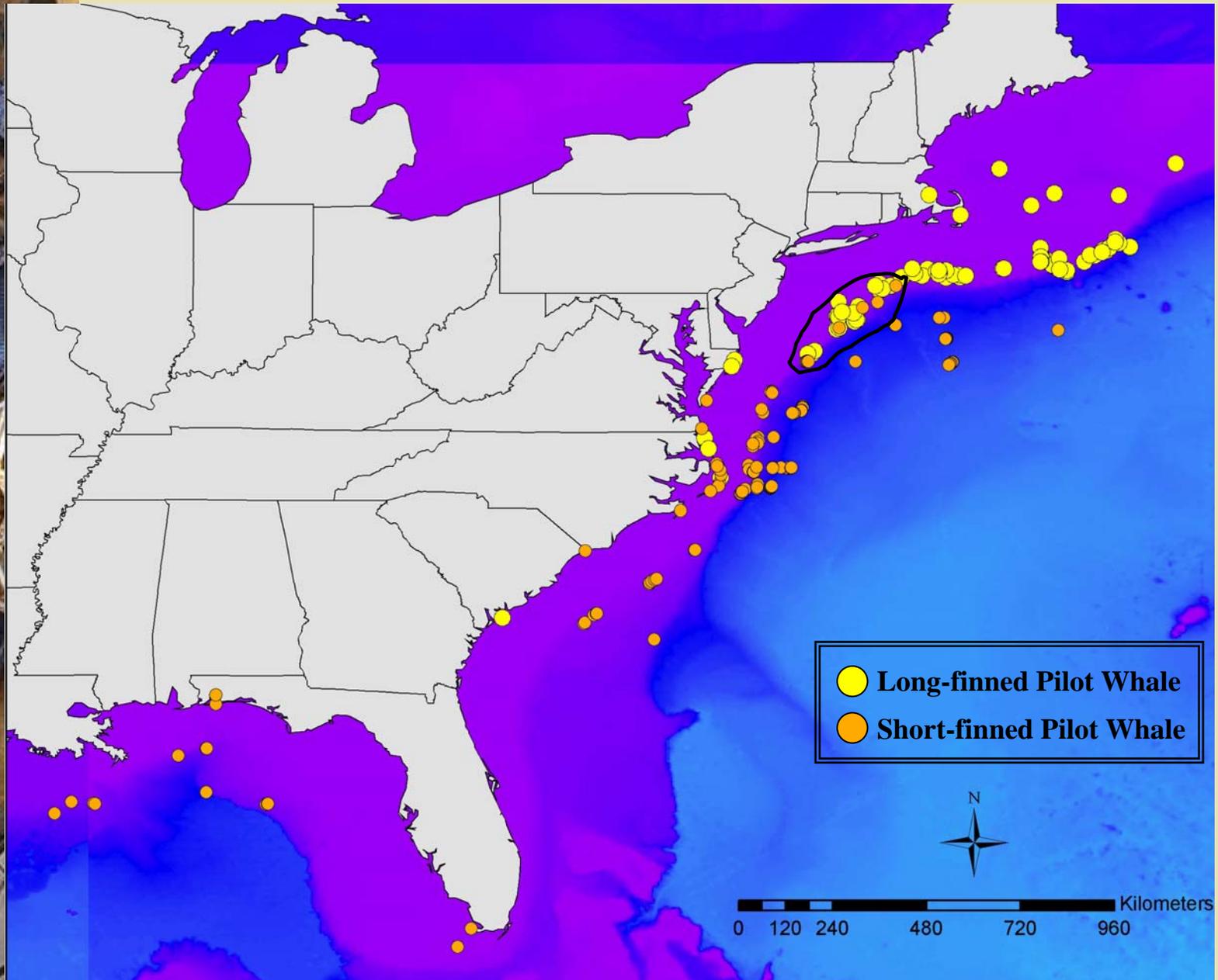


AMERICAN CETACEAN SOCIETY FACT SHEET ILLUSTRATION

Pilot Whale

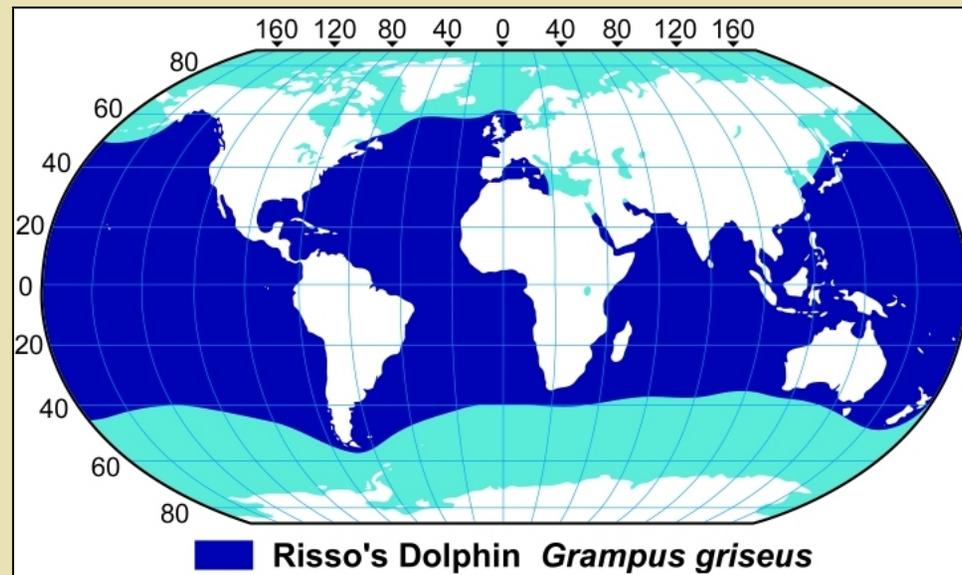
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# Overlap of Pilot Whales in Mid-Atlantic



# Risso's Dolphin

*Grampus griseus*



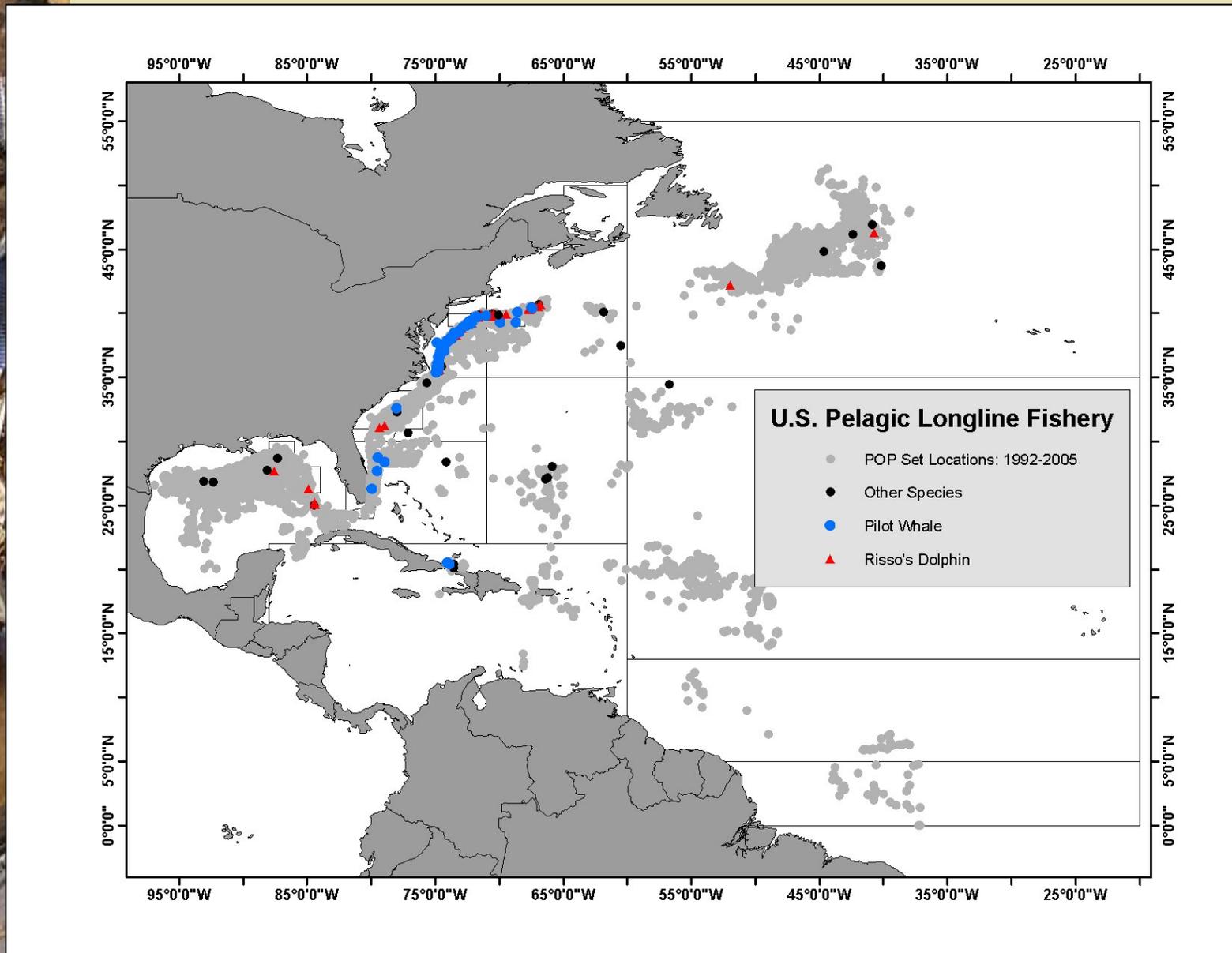
AMERICAN CETACEAN  
SOCIETY FACT SHEET  
ILLUSTRATION

Risso's Dolphin

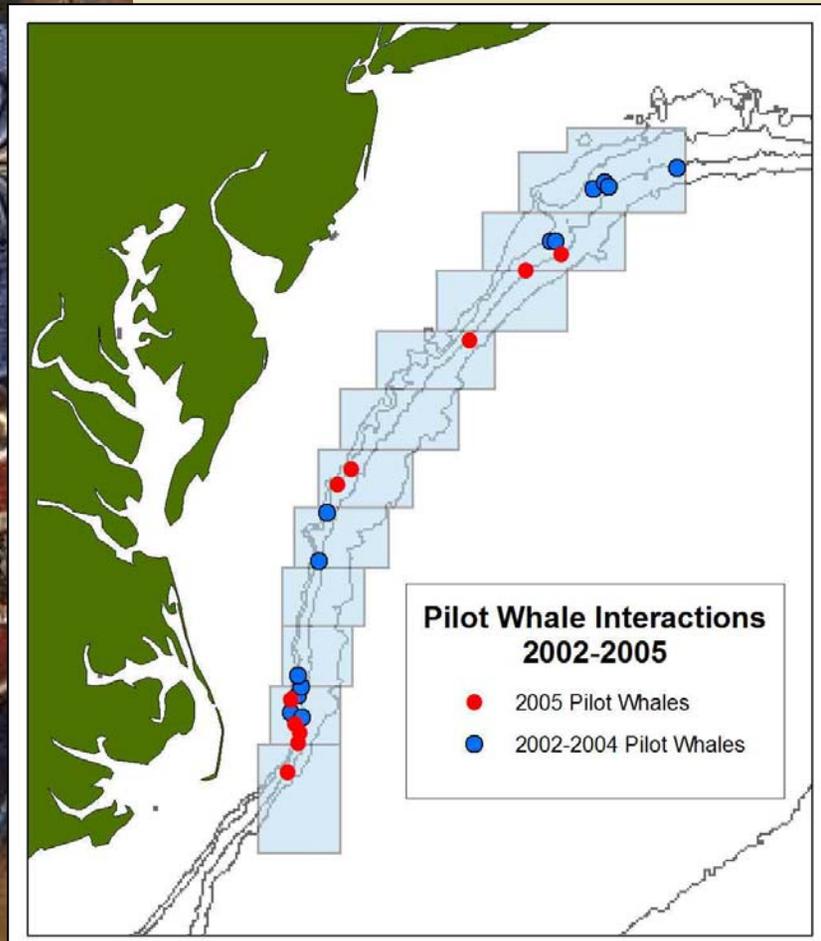
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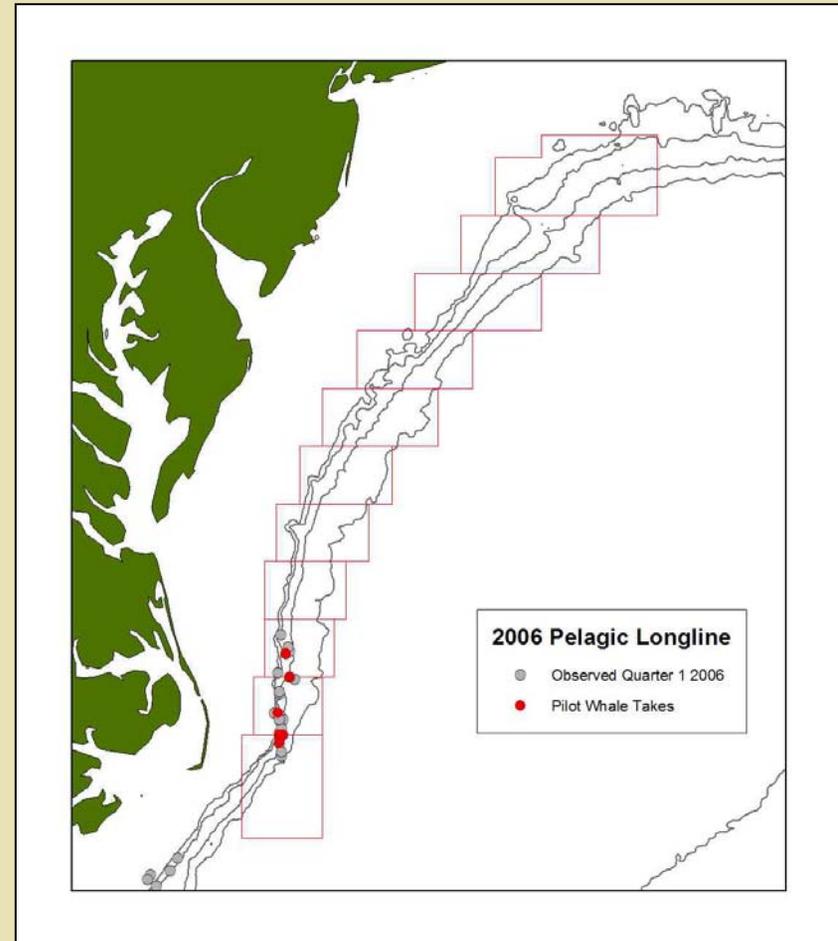
# Longline Effort and Observed Interactions



# Recent Pilot Whale Interaction Rates



2002-2005



2006