Tab E, No. 7

NOAA FISHERIES

SE Region

How do we address interactions between fishing and dolphins?

Laura Engleby

Marine Mammal Branch Chief

September 28, 2020

Gulf of Mexico Fishery Management Council Meeting

Overview

- Background
- Why is this a problem?
- What can we do about it?
- Deterrence Guidelines

Nature of Interactions

Depredation

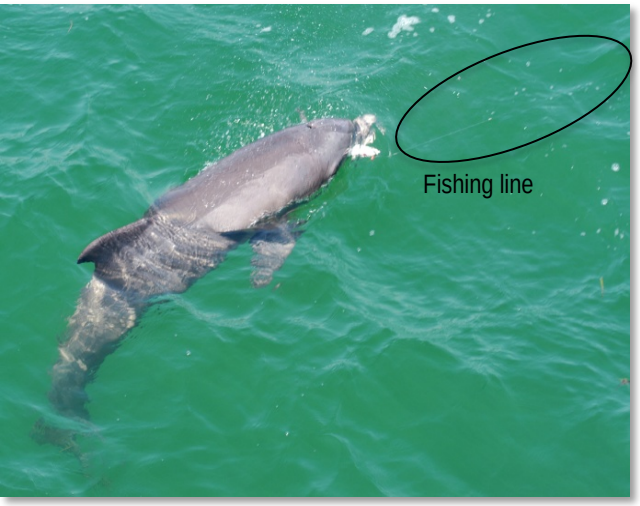
- Take bait or catch directly from gear

Scavenging

- Take discarded fish

Illegal Feeding

- Includes attempting to feed, teasing & directly tossing catch in dolphin's direction



Impacts to Anglers

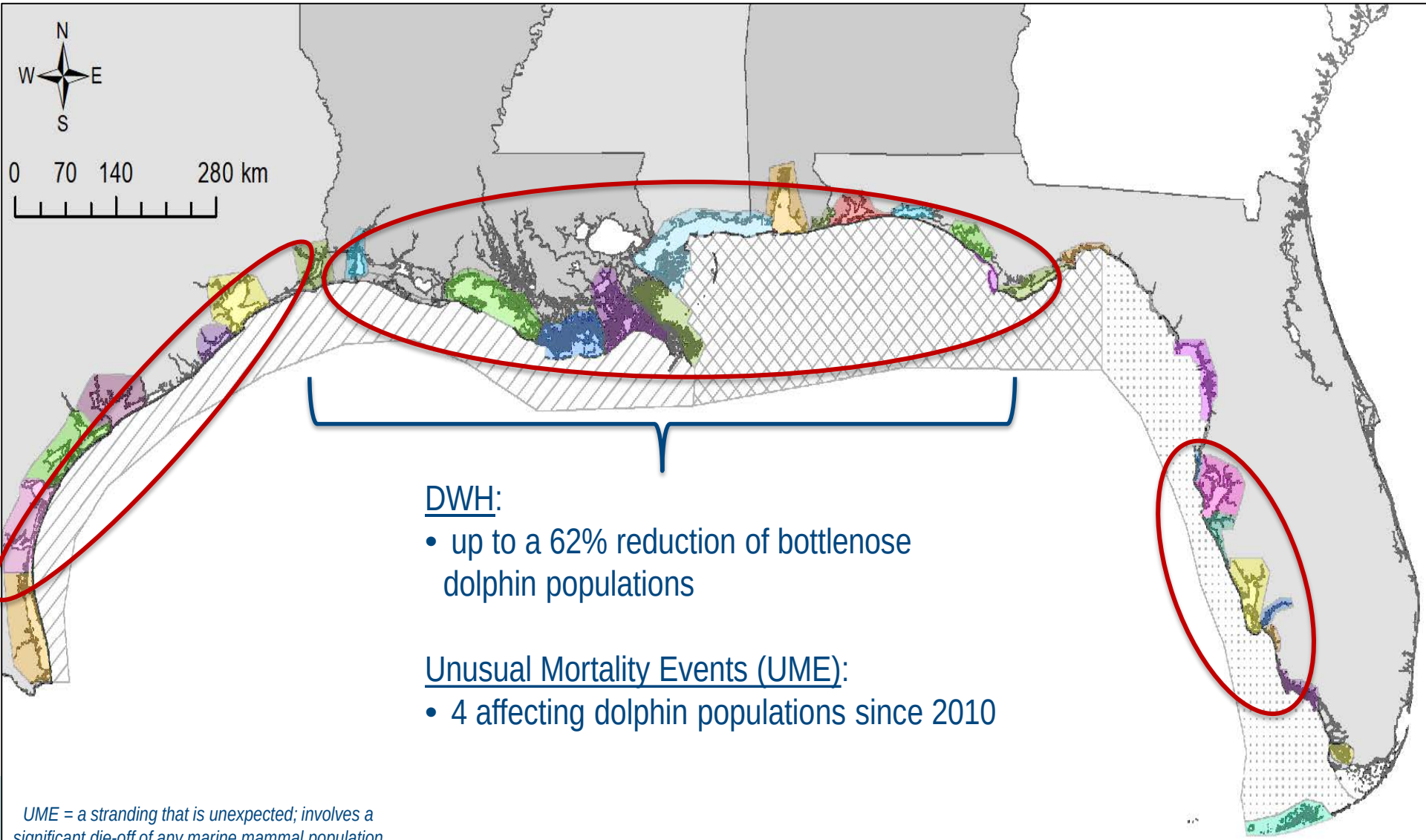
Impacts to Dolphins

Ingestion & Entanglements

Boat Strikes

Intentional Harm

Are there more dolphins out there?



DWH:

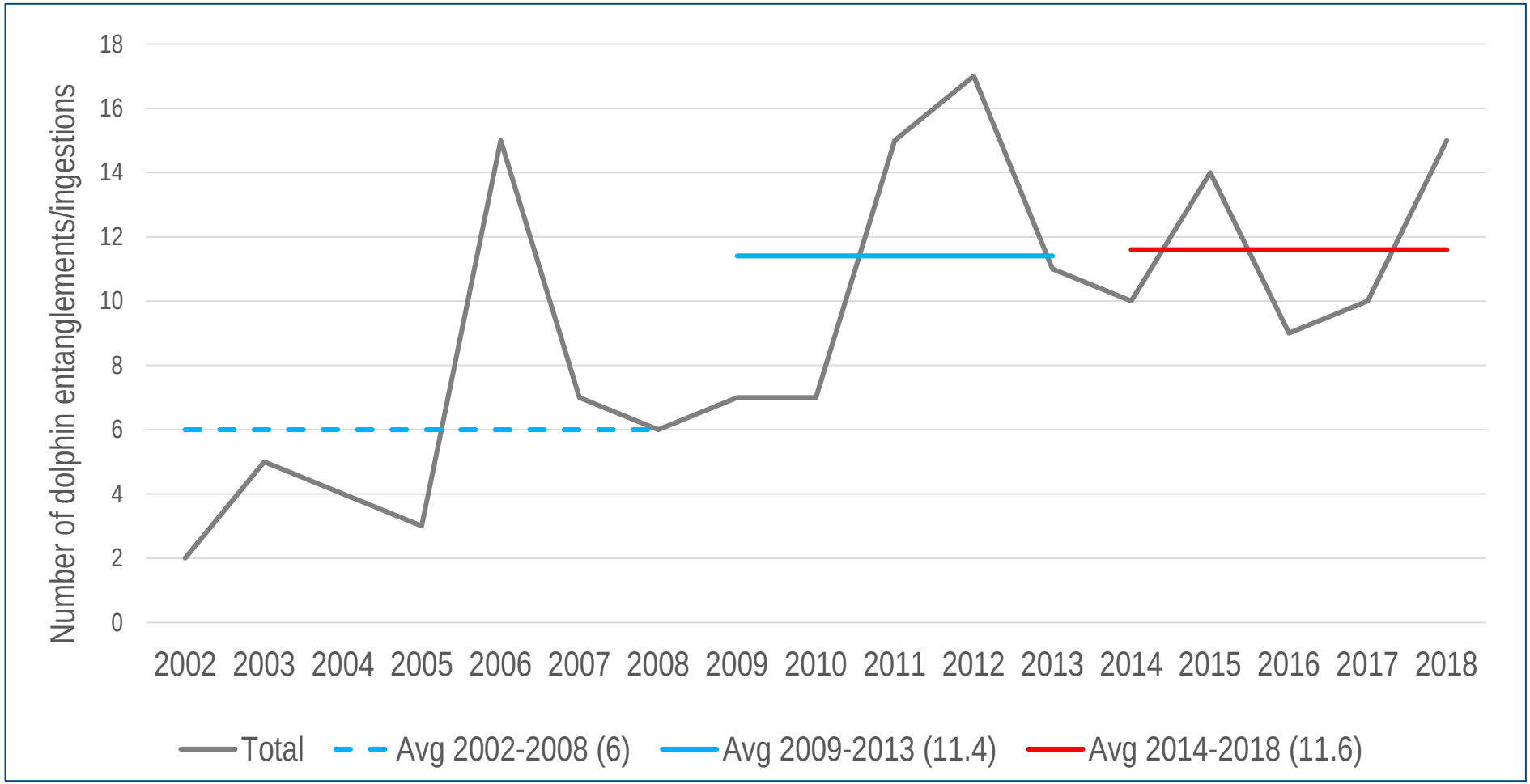
- up to a 62% reduction of bottlenose dolphin populations

Unusual Mortality Events (UME):

- 4 affecting dolphin populations since 2010

UME = a stranding that is unexpected; involves a significant die-off of any marine mammal population

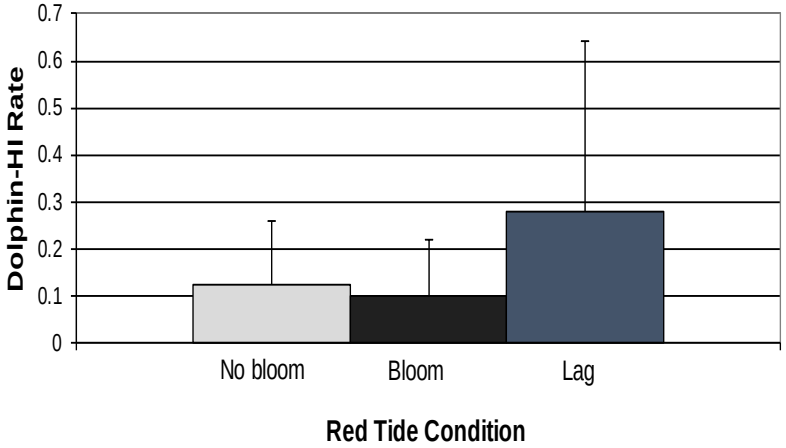
Strandings & Reports of bottlenose dolphins with rod & reel gear attached (2002-2018)

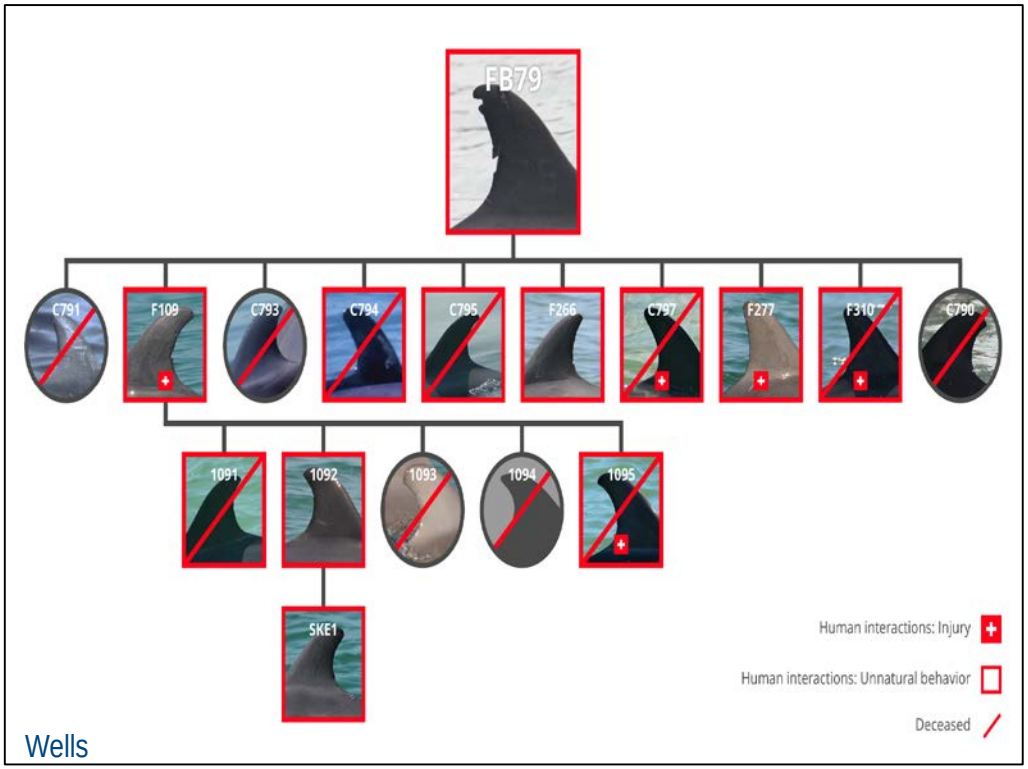


These numbers represent a minimum rate of occurrence and may be 3-11x higher because only a portion of animals that strand are detected & recovered

Contributing Factors

- **Prey Declines:** resource competition, impacts from Deepwater Horizon, and impacts from Red tide
- **Cultural Transmission**

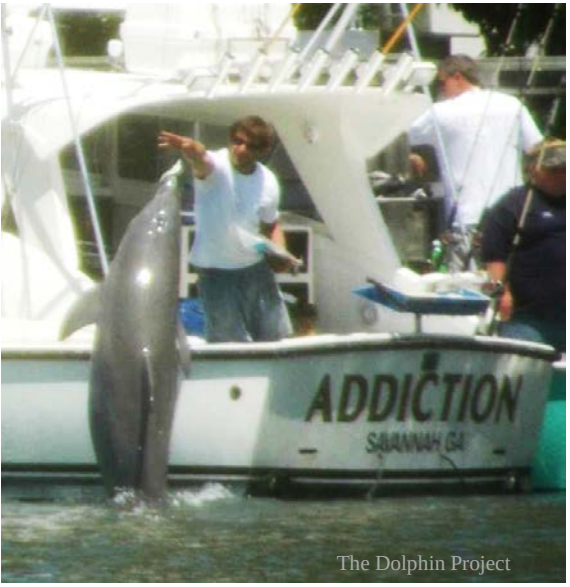




Wells (2019)

Contributing Factors: Illegal Feeding

"I don't know of any angler that would intentionally feed dolphins"



The Dolphin Project

Sarasota Dolphin Research Program

How can we work together on a path forward?

- Research
- Collaboration
- Co-Implementation

Photo: Carolyn Kovacs

NOAA FISHERIES

Office of Protected Resources

Marine Mammal Non-Lethal Deterrents

Kristy Long

Gulf Council Meeting

September 28, 2020

Who can deter marine mammals?

The Marine Mammal Protection Act (MMPA) provides an exception to the prohibition on “take” of marine mammals for deterrence.

Section 101(a)(4)(A) allows for:

- Owners of fishing gear/catch and private property to deter marine mammals from damaging gear, catch, or private property
- Any person to deter marine mammals from endangering personal safety
- Government employees to protect public property

“So long as such measures do not result in Mortality/Serious Injury (M/SI) of a marine mammal”

Background – Deterrents in the MMPA

MMPA sec. 101(a)(4) requires NMFS to:

- Publish in the Federal Register a list of guidelines for use in safely deterring marine mammals.
- Recommend specific measures for deterring marine mammals listed as endangered species or threatened species under the Endangered Species Act of 1973.

And, if NMFS determines, using the best scientific information available, that certain forms of deterrence have a significant adverse effect on marine mammals, NMFS may prohibit such deterrent methods after notice and opportunity for public comment

Process Overview – Developing Guidelines, Specific Measures, Prohibitions

- Published *Federal Register* notice soliciting public input on deterrents to evaluate and consider for approval (Dec. 2014)
- Convened technical expert workshop (Feb. 2015)
- Analyzed and evaluated potential deterrents to include in guidelines/specific measures (Mar. 2015 – 2019)
- Developed rulemaking to include guidelines, recommended specific measures for ESA marine mammals, and prohibitions (2020)
- Status: Rule and associated documents under agency review and clearance

Marine Mammal
Non-Lethal Deterrents:

Summary of the Technical Expert Workshop on Marine Mammal Non-Lethal Deterrents, 10-12 February 2015, Seattle, Washington

Workshop Steering Committee:
Kristy J. Long (Chair)
Monica L. DeAngelis
Laura K. Engleby
Deborah A. Fauquier
Amanda J. Johnson
Scott D. Kraus
Simon P. Northridge

United States Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

NOAA Technical Memorandum NMFS-OPR-50
July 2015

Scope of Guidelines and Specific Measures

- Marine mammals under NMFS' jurisdiction
  - Cetaceans
  - Pinnipeds (excluding walrus)
  - Including 15 ESA-listed marine mammals

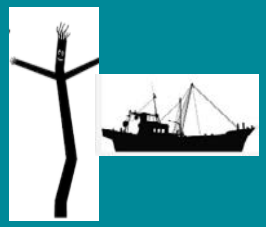
- Evaluate the impact of deterrents on marine mammals
  - Mortality & Serious Injury (M/SI)
  - Effectiveness <u>not</u> considered

- Oil spills vs. every day deterrence

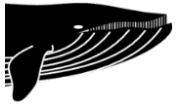
Acoustic Deterrents Analyzed

Impulsive: explosive	Impulsive: non-explosive	Non-impulsive
• Fireworks • Bird banger • Bird whistler • Bird screamer • Bear banger using pencil launcher • Propane cannon • Explosive pest control devices (seal bombs & cracker shells)	• Banging objects (in air/water) • Passive acoustic deterrent (in air) • Low frequency, broadband devices • Pulsed power devices	• Acoustic alarms (pingers & transducers) • In-air noise makers (air horns, sirens, whistles) • Predator sounds & alarm vocalizations (via underwater speakers)

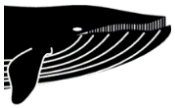
Non-Acoustic Deterrents Analyzed

Visual	Physical Barriers	Chemo-sensory	Tactile: Projectiles	Tactile: Manual	Tactile: Electrical	Tactile: Water
						
•Flags, pinwheels, streamers, & air dancers •Bubble curtains •Flashing & strobe lights •Human attendants •Patrol animals •Predator shapes •Vessel patrolling •UAS	•Rigid fencing (in air) •Horizontal bars •Bull rails •Gates •Closely spaced bars •Containment booms •Waterway barriers •Swim step protectors	•Chemical irritants •Corrosive chemicals •Taste deterrents	•Projectiles with compressed air/gas •Projectiles with firearms •Other projectiles (arrows, spears, darts)	•Fixed sharp (nails & barbed wire) •Manual sharp (gaffs & hooks) •Manual blunt (crowder boards, blunt-tipped poles, & broom or mop handle)	•Electric fencing (in air/water) •Electric mats	•Hose •Sprinkler •Water gun

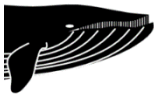
Proposed Guidelines: Non-Acoustic Deterrents for Cetaceans

Taxa	Visual	Physical Barriers	Tactile: Projectile	Tactile: Manual	Tactile: Water
	• Bubble curtains • Flashing or strobe lights • Predator shapes • Vessel patrolling • Unmanned Aircraft Systems	Containment booms, waterway barriers, & log booms	Foam projectiles with toy guns	Blunt objects: blunt tip poles, brooms, mop handles, etc.	Water hoses, sprinklers, & water guns
	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓

Proposed Guidelines:
Acoustic Deterrents for Cetaceans

Taxa	Impulsive: Non-Explosives	Non-Impulsive: <170 dB RMS
	Banging objects (e.g., Oikomi pipes) underwater when visibility > 100 m	• Acoustic alarm (i.e., pingers/transducers) • Predator sounds/alarm vocalizations using underwater speakers
	✓	✓
	✓	✓

Proposed Prohibitions for Cetaceans

	NON-ACOUSTIC				ACOUSTIC	
Taxa	**Visual**	**Chemo-sensory**	**Tactile: Projectile**	**Tactile: Manual**	**Impulsive: Explosive**	**Non-Impulsive**
	Vessel chasing	Any chemical irritants, corrosive chemicals, & other taste deterrents	Firearm, bow, or spear gun	Sharp objects	Any impulsive explosive	Any non-impulsive device with an underwater source level ≥170 dB RMS, unless that device has been evaluated and meets NMFS criterion via the NMFS Acoustic Deterrent Web Tool
	✕	✕	✕	✕	✕	✕
	✕	✕	✕	✕	✕	✕

Proposed General Prohibitions for all Marine Mammals

- Targeting a deterrent action at a marine mammal calf or pup
- Striking a marine mammal's head or blowhole when attempting to deter a marine mammal
- Deploying or attempting to deploy a deterrent into the middle of a group of marine mammals
- Feeding or attempting to feed a marine mammal pursuant to 50 CFR 226.3 even for the purposes of deterrence
- Deterring or attempting to deter any marine mammal demonstrating signs of aggression, including charging or lunging, except when necessary to deter a marine mammal from endangering personal safety
- Approaching certain ESA-listed marine mammals, including humpback whales in Alaska, North Atlantic right whales, western Steller sea lions, and killer whales in Washington, pursuant to 50 CFR 223.214 and 224.103

We want to hear from you!

Proposed rule open for public comment until **October 30, 2020**

https://www.fisheries.noaa.gov/action/guidelines-safely-deterring-marine-mammals

Questions?

Photo: Carolyn Kovacs