



**NOAA FISHERIES**

# **Greater Atlantic Region Policy Series**

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# **2019 Atlantic Large Whale Entanglement Report**

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# 2019 Atlantic Large Whale Entanglement Report

This report summarizes all of the entanglement incidents for the Atlantic coast that were reported to the National Marine Fisheries Service (NOAA Fisheries) in 2019 in which line, gear or other unknown materials was directly observed on the whale. Only incidents with new indications of entanglement that occurred in the calendar year of 2019 are included. Earlier large whale entanglements that continued into 2019 are not listed. This report is not a comprehensive list of every entanglement interaction that occurred but rather a minimum number, as not all interactions are reported.

Table 1. 2019 Atlantic large whale entanglement reports.

## Indication of Entanglement\*

	Live	Dead	Total
Right Whale	4	1	5
Humpback Whale	20	2	22
Finback Whale	0	0	0
Minke Whale	5	2	7
Sei Whale	0	0	0
Unknown Whale	1	0	1
TOTAL	30	5	35

\* “Indication of Entanglement” is marked for cases where one or more of the following applies:

- Gear was reported on a whale by a reliable observer.
- Gear was photo-documented on a whale.
- Gear was retrieved from a whale.
- Gear was reported on a whale by an inexperienced observer who was interviewed by NOAA Fisheries or Center for Coastal Studies (CCS) staff and the account was descriptive enough to eliminate doubt about whether or not the whale was entangled.

Incidents demonstrated by wounds, condition, and NOAA Fisheries serious injury and mortality determination

Descriptions of wounds and condition in this report are based on the preliminary information at the time of the event. Analysis of data and final classifications were undertaken separately as part of the serious injury and mortality determinations completed by NOAA Fisheries Northeast Fisheries Science Center (NEFSC). New information obtained outside of the production time frame of this report may alter any determination, status, or sighting information. Animals that have no gear documented or witnessed and a cause of death or injuries determined to be due to entanglement, will not be listed in this report but rather in the NEFSC Mortality and Serious Injury report. That report, entitled “Serious Injury and Mortality Determinations for Baleen Whale Stocks along the Gulf of Mexico, United States East Coast, and Atlantic Canadian Provinces, 2015-2019” is available online: <https://doi.org/10.25923/nfr5-7r84> Stock assessment

reports that summarize the full status of a species are also available on our website.

<https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments>

#### Notes:

- Entanglement case information was compiled from numerous resources including U.S. and Canadian federal governments, U.S. state agencies, and U.S. and Canadian partners within the Atlantic Large Whale Disentanglement Network (ALWDN). The reports contain all known U.S. Atlantic coast large whale entanglement data, including animals that fall under U.S. protection (e.g. North Atlantic right whales, Gulf of Maine humpback whales) even when outside U.S. borders. The reported cases within this report should be considered a minimum number and not comprehensive.
- The presence or absence of line can be difficult to determine in monofilament cases. The first gear-free sighting for monofilament cases is not a definitive assessment of lack of monofilament line as environmental conditions, lighting, and animal behavior, can make detectability of line difficult.
- Subsequent status definitions:
  - Entangled = animal was last seen with an entanglement that may or may not be life-threatening;
  - Gear shed = animal shed the entangling gear on its own without human intervention;
  - Disentangled – gear free = animal had all gear completely removed by disentanglement network responders;
  - Disentangled – gear shed = animal had all life-threatening gear removed by disentanglement network responders, but some non-life threatening gear remained and was later shed by the whale;
  - Disentangled – monitor = animal had all life-threatening gear removed with some non life-threatening gear remaining that is expected to be shed.
- Gear analysis was conducted by NOAA staff on recovered gear and/or through owner interviews when possible. All gear analysis is quantitative in nature and any qualitative information is outside the scope of this report. Target species was based on owner interviews or gear determination.
- Location 1<sup>st</sup> observed is where the entangled whale was first sighted, not necessarily where the whale first became entangled.
- Where possible, we have added photographs to the incident report. Personal identifying details of gear are manually redacted.

#### Acknowledgements:

- New England Aquarium and the Right Whale Consortium provided sighting and life history information for right whales.
- Demography and sighting information for humpback whales was provided by CCS, with contributions from 7 Seas Whale Watch, Blue Ocean Society, Boston Harbor Cruises, Brier Island Whale and Seabird Cruises, Dolphin Fleet, FWC. GA DNR, Gotham Whale and Whale and Dolphin Conservation. Please contact Jooke Robbins of CCS for more information.
- CCS compiles thousands of photographs from numerous whale watch companies and ALWDN partners for these determinations. We are grateful for their analysis and contribution to this report.
- Many thanks to numerous NOAA Fisheries staff and the GARFO policy series editors that offered helpful comments.

Table 2. Key for common acronyms

ALWDN	Atlantic Large Whale Disentanglement Network
AMAPPS	Atlantic Marine Assessment Program for Protected Species
AMCS	Atlantic Marine Conservation Society, NY
BOS	Blue Ocean Society, NH
CCS	Center for Coastal Studies, MA
COA	College of the Atlantic, ME
CWI	Canadian Whale Institute (Canada)
CWRT	Campobello Whale Rescue (Canada)
DFO	Department of Fisheries and Oceans (Canada)
ECE	East Coast Ecosystems (Canada)
EWS	Early Warning System
FWC	Florida Fish and Wildlife Conservation Commission
GA DNR	Georgia Department of Natural Resources
GMWSRS	Grand Manan Whale and Seabird Research Station (Canada)
IFAW	International Fund for Animal Welfare, MA
MA DMF	Massachusetts Division of Marine Fisheries
MARS	Marine Animal Rescue Society (Canada)
MD DNR	Maryland Department of Natural Resources
ME DMR	Maine Department of Marine Resources
MEP	Massachusetts Environmental Police
MICS	Mingan Island Cetacean Society
MMoME	Marine Mammals of Maine
MMP	Maine Marine Patrol
MMSC	Marine Mammal Stranding Center, NJ
NAB	National Aquarium in Baltimore, MD
NEAq	New England Aquarium Right Whale Research Team, MA
NEFSC	Protected Species Branch, Northeast Fisheries Science Center
NLWRS	Newfoundland and Labrador Whale Release and Strandings (Canada)
NMFS	National Marine Fisheries Service/NOAA Fisheries
NOAA	National Oceanic and Atmospheric Administration
OLE	Office of Law Enforcement
RI DEM	Rhode Island Department of Environmental Management
RIEP	Rhode Island Environmental Police
SAG	Surface Active Group
SBNMS	Stellwagen Bank National Marine Sanctuary, MA
SC DNR	South Carolina Department of Natural Resources
SEFSC	Protected Species Branch, Southeast Fisheries Science Center
UNC-W	University of North Carolina, Wilmington
USCG	United States Coast Guard
VAq	Virginia Aquarium
WHOI	Woods Hole Oceanographic Institution, MA
WW	Whale Watch

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Table 3. Atlantic entanglement summary for 2019 confirmed cases. Continued on next page

Entanglement Report Number	Species	Date of First Observation	Dead/Alive	SI Determination	Gear Collected	Type of Gear	Gear part ID
E01-19	Humpback	3/17/2019	Dead	SI	Yes	Unknown mesh	N
E02-19	Minke	3/27/2019	Dead	SI	No	Unknown	B, V
E03-19	Humpback	4/23/2019	Alive	SI	No	Unknown	U
E04-19	Right	4/25/2019	Alive	Non-SI	No	Unknown	B, V
E05-19	Unknown	4/26/2019	Alive	SI (PR)	No	Unknown	U
E06-19	Humpback	5/02/2019	Alive	SI (PR)	Yes	U.S. gillnet	N
E07-19	Humpback	6/09/2019	Alive	Non-SI	No	Unknown	U
E08-19	Humpback	6/24/2019	Alive	SI	No	Unknown	U
E09-19	Right	6/29/2019	Alive	Non-SI	No	Unknown	B, V
E10-19	Right	7/04/2019	Alive	SI	Yes	Canadian snow crab	V
E11-19	Humpback	7/11/2019	Alive	Non-SI	No	U.S. mesh	N
E12-19	Minke	7/11/2019	Alive	Non-SI	No	Monofilament	M
E13-19	Humpback	7/15/2019	Alive	Non-SI	No	U.S. gillnet	N
E14-19	Humpback	7/22/2019	Alive	SI (PR)	Yes – DFO	Unknown	B, V
E15-19	Humpback	7/24/2019	Alive	Non-SI	No	U.S. monofilament	M

Table 3 notes –

- Dead/Alive column represents the status as of the writing of this report.
- SI determination: SI = Serious injury or mortality was determined to be the primary cause from entanglement; Non-SI = No serious injury or mortality caused by the entanglement; SI (PR) = Insufficient information available to make an informed determination, prorated value of 0.75. Refer to <https://media.fisheries.noaa.gov/dam-migration/02-238-01.pdf> for more information regarding determination definitions.
- Gear part ID: V = Vertical/End Line; B= Single Buoy; S = Surface System (multiple buoys); G = Ground Line; N = Gillnet/Mesh; T = Trap/Pot; M = Monofilament Line; U = Unknown, gear type or gear part could not be determined; N/A = Not applicable, no gear was analyzed. Any combination of codes is possible although each code will only be listed once, regardless if different types/sets of gear were involved. This column may not represent all portions of the true initial entanglement as gear could have been shed before the first observation. Gear portions identified may not represent the section that initially caused the entanglement.

Table 3 continued. Atlantic entanglement summary for 2019 confirmed cases.

Entanglement Report Number	Species	Date of First Observation	Dead/ Alive	SI Determination	Gear Collected	Type of Gear	Gear part ID
E16-19	Humpback	7/26/2019	Alive	Non-SI	No	U.S. whelk	B, T, V
E17-19	Humpback	7/29/2019	Alive	Non-SI	No	U.S. monofilament	M
E18-19	Minke	8/01/2019	Alive	Non-SI	Yes	U.S. lobster	S, V
E19-19	Humpback	7/31/2019	Alive	Non-SI	No	Monofilament	M
E20-19	Minke	8/04/2019	Alive	SI (PR)	No	Unknown	U
E21-19	Humpback	8/05/2019	Alive	Non-SI	No	U.S. monofilament	M
E22-19	Right	8/06/2019	Dead	SI	No	Canadian unknown	U
E23-19	Humpback	8/15/2019	Alive	Non-SI	Yes	U.S. lobster	B, V
E24-19	Humpback	8/26/2019	Alive	SI (PR)	No	Unknown	B, V
E25-19	Minke	9/01/2019	Alive	SI (PR)	No	Unknown	B, V
E26-19	Humpback	9/03/2019	Dead	Non-SI	No	Unknown	B, V
E27-19	Minke	9/08/2019	Dead	SI	No	Unknown	U
E28-19	Humpback	9/10/2019	Alive	Non-SI	Yes	U.S. anchoring system	B, V
E29-19	Humpback	9/10/2019	Alive	Non-SI	No	Monofilament	M
E30-19	Minke	9/11/2019	Alive	SI (PR)	No	U.S. unknown	B, V
E31-19	Humpback	10/04/2019	Alive	Non-SI	Yes	U.S. lobster	B, V
E32-19	Humpback	10/07/2019	Alive	Non-SI	No	Monofilament	M

## Table 3 notes –

- Dead/Alive column represents the status as of the writing of this report.
- SI determination: SI = Serious injury or mortality was determined to be the primary cause from entanglement; Non-SI = No serious injury or mortality caused by the entanglement; SI (PR) = Insufficient information available to make an informed determination, prorated value of 0.75. Refer to <https://media.fisheries.noaa.gov/dam-migration/02-238-01.pdf> for more information regarding determination definitions.
- Gear part ID: V = Vertical/End Line; B= Single Buoy; S = Surface System (multiple buoys); G = Ground Line; N = Gillnet/Mesh; T = Trap/Pot; M = Monofilament Line; U = Unknown, gear type or gear part could not be determined; N/A = Not applicable, no gear was analyzed. Any combination of codes is possible although each code will only be listed once, regardless if different types/sets of gear were involved. This column may not represent all portions of the true initial entanglement as gear could have been shed before the first observation. Gear portions identified may not represent the section that initially caused the entanglement.



Table 3 continued. Atlantic entanglement summary for 2019 confirmed cases.

Entanglement Report Number	Species	Date of First Observation	Dead/ Alive	SI Determination	Gear Collected	Type of Gear	Gear part ID
E33-19	Humpback	10/24/2019	Alive	SI (PR)	Yes	U.S. gillnet	N, S, V
E34-19	Humpback	12/02/2019	Alive	Non-SI	No	Canadian lobster	S, V
E35-19	Right	12/21/2019	Alive	Non-SI	No	Unknown	U

Table 3 notes –

- Dead/Alive column represents the status as of the writing of this report.
- SI determination: SI = Serious injury or mortality was determined to be the primary cause from entanglement; Non-SI = No serious injury or mortality caused by the entanglement; SI (PR) = Insufficient information available to make an informed determination, prorated value of 0.75. Refer to <https://media.fisheries.noaa.gov/dam-migration/02-238-01.pdf> for more information regarding determination definitions.
- Gear part ID: V = Vertical/End Line; B= Single Buoy; S = Surface System (multiple buoys); G = Ground Line; N = Gillnet/Mesh; T = Trap/Pot; M = Monofilament Line; U = Unknown, gear type or gear part could not be determined; N/A = Not applicable, no gear was analyzed. Any combination of codes is possible although each code will only be listed once, regardless if different types/sets of gear were involved. This column may not represent all portions of the true initial entanglement as gear could have been shed before the first observation. Gear portions identified may not represent the section that initially caused the entanglement.

## 2019 Entanglements

<b>NMFS No: E01-19</b>	<b>Date First Observed Entangled: 3/17/2019</b>
<b>Location First Observed Entangled:</b> Corolla, NC	<b>Latitude/Longitude First Observed Entangled:</b> 36° 20.0' N 75° 48.7' W
<b>Initial Movement (Anchored/Free):</b> N/A	<b>Status:</b> Deceased
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Dead humpback whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury	

<b>Event Description:</b>
A moderately decomposed entangled whale was discovered ashore with 3 separate bars of gillnet monofilament recovered from the tubercles on the head and flipper. Necropsy later confirmed entanglement as the cause of death.

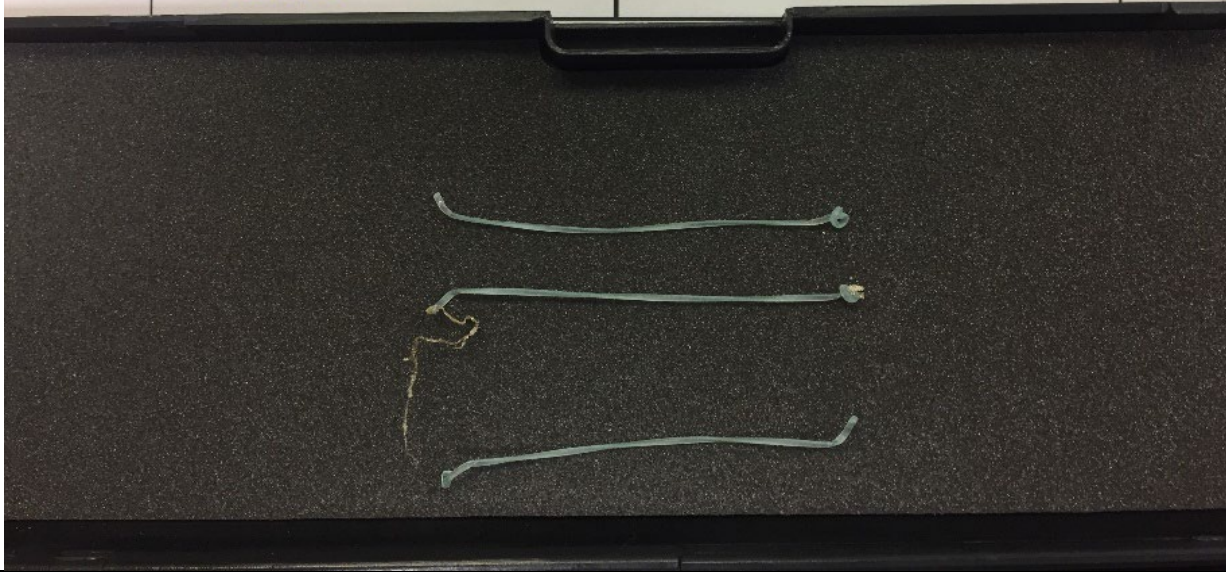
<b>Description of Gear on Whale as Reported:</b>	
<b>During Initial Sighting:</b> Bars of gillnet were embedded in tubercles on head and flipper.	<b>Subsequent Descriptions:</b> None, whale was found deceased.

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> Mesh abrasion marks all over the whale.	<b>Subsequent Descriptions:</b> Necropsy revealed linear abrasions and associated trauma on mouth, leading edge of pectoral flippers, body and fluke. Whale had robust layer of blubber indicating an acute interaction.


FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E01-19</b>	Gear Recovered (y/n)	Yes
Date Set	Unknown	Date Lost	Unknown
Line Diameter	N/A	Gear Part	Mesh
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown mesh		
<u>Gear Description:</u>	3 bars of gillnet mesh were recovered each measuring approximately 2.4" in length.		
<u>Comments:</u>	Bars were embedded and removed from tubercles on the head and flipper.		
<u>Conclusions:</u>	Recovered bars were part of an approximately 5" stretch unknown mesh panel.		

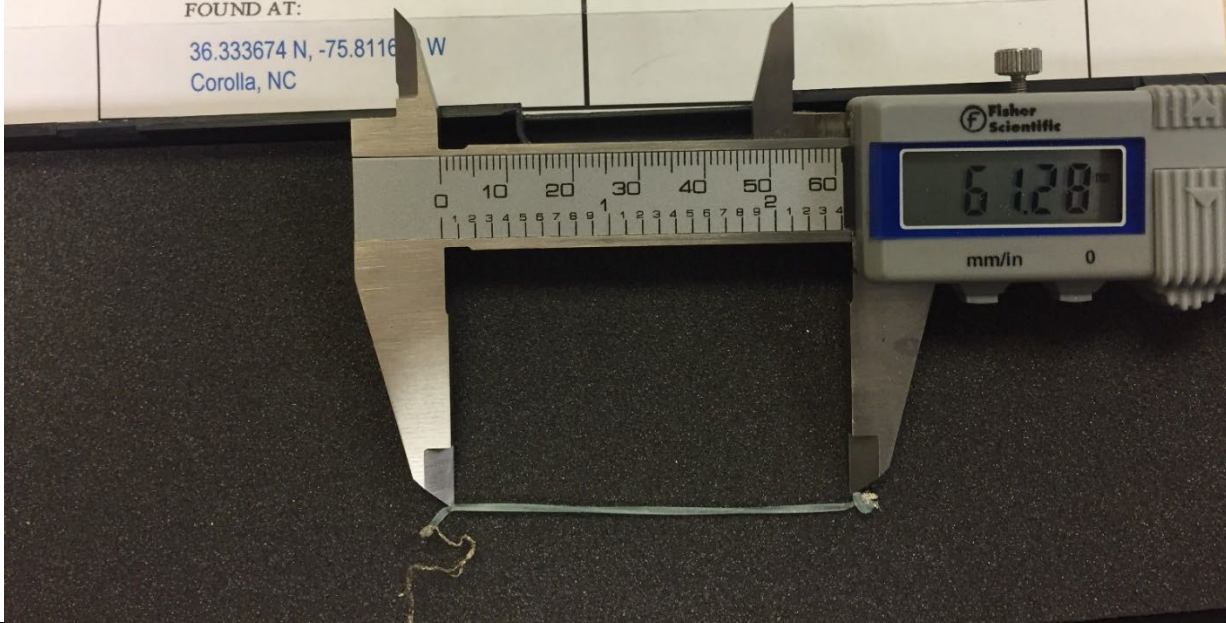
### Gear Images

CHAIN OF CUSTODY RECORD		
DATE AND TIME OF SEIZURE: 17/Mar/2019 11AM	DUTY STATION: Outer Banks Center for Wildlife PO Box 502 Corolla, NC 27927	EVIDENCE/PROPERTY SEIZED BY: Karen Clark, NC WRC
SOURCE OF EVIDENCE/PROPERTY (person and/or location) TAKEN FROM: KLC319 Mn RECEIVED FROM: FOUND AT:  36.333674 N, -75.811672 W Corolla, NC		DEFENDANT/COMPANY NAME AND REMARKS:



E01-19 gear image – 3 bars of embedded mesh net recovered from the necropsy.

 <b>CHAIN OF CUSTODY RECORD</b> 		Case Number:
<b>DATE AND TIME OF SEIZURE:</b> 17/Mar/2019 11AM	<b>DUTY STATION:</b> Outer Banks Center for Wildlife PO Box 502 Corolla, NC 27927	<b>EVIDENCE/PROPERTY SEIZED BY:</b> Karen Clark, NC WRC
<b>SOURCE OF EVIDENCE/PROPERTY (person and/or location)</b> TAKEN FROM: KLC319 Mn RECEIVED FROM: FOUND AT: 36.333674 N, -75.8116 W Corolla, NC		<b>DEFENDANT/COMPANY NAME AND REMARKS:</b>

E01-19 gear image – monofilament mesh bar measuring ~61.28mm or ~2.4 inches.

## 2019 Entanglements

<b>NMFS No: E02-19</b>	<b>Date First Observed Entangled: 3/27/2019</b>
<b>Location First Observed Entangled:</b> Duxbury Beach Reservation, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 03.3' N, 70° 37.6' W
<b>Initial Movement (Anchored/Free):</b> N/A	<b>Status:</b> Deceased
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Dead minke whale, unknown ID, adult female	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury	

<b>Event Description:</b>
<p>3/27/2019</p> <ul style="list-style-type: none"> <li>NEAq received a report from the Duxbury Harbormaster of a dead whale with line trailing from its mouth. NEAq attempted to respond the following day. Unfortunately, the carcass was not safely accessible.</li> </ul> <p>4/14/2019</p> <ul style="list-style-type: none"> <li>NEAq received another report that the carcass had dislodged and was now in a more accessible area. The team responded and was able to conduct an external exam. At this time, the gear was no longer present. The following day, the carcass was relocated to a different area of Duxbury Beach where a thorough necropsy and burial were completed. These findings pointed to evidence of an entanglement.</li> </ul>

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Line trailing from the left commissure of the mouth. The line was reported to have a small buoy on one end in the whale’s mouth and a small anchor attached to the trailing end. Although NEAq could not confirm presence of the orange buoy, but the small anchor was visible in photos.	<b>Subsequent Descriptions:</b> Gear was no longer present when NEAq responded.

Description of Wounds/Condition:	
<b>During Initial Sighting:</b> Carcass was relatively fresh.	<b>Subsequent Descriptions:</b> Examination revealed a thin body condition, as well as abrasions on the upper left commissure of the mouth, and as a result, discoloration of the area. Cause of death was undetermined, although strong evidence of entanglement.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E02-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Buoy, endline
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line and buoy		
<u>Gear Description:</u>	A line with orange buoy was described by original reporter.		
<u>Comments:</u>	Gear was no longer present prior to stranding group's arrival.		
<u>Conclusions:</u>	Whale was entangled in a line and buoy of unknown origin.		

## 2019 Entanglements

<b>NMFS No: E03-19</b>	<b>Date First Observed Entangled: 4/23/2019</b>
<b>Location First Observed Entangled:</b> 0.5 NM south of Cape May, NJ	<b>Latitude/Longitude First Observed Entangled:</b> 38° 56.11' N, 74° 52.25' W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Entangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live humpback whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury	

<b>Event Description:</b>
<p>4/23/2019</p> <ul style="list-style-type: none"> <li>A WW vessel observed an entangled humpback along with multiple whales in the area. No response was undertaken due to the time of day and distance from responder location.</li> </ul> <p>5/30/2019</p> <ul style="list-style-type: none"> <li>CCS received a report from a recreational boater via USCG Long Island of a lone entangled humpback off of NJ, which was likely a sighting of this whale.</li> </ul>

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Thick line over the back. Exact configuration and point of attachment unknown, but no line was observed trailing aft of the whale.	<b>Subsequent Descriptions:</b> No line was seen trailing. Video taken suggests a complete body wrap. Unknown if flippers are involved.

Description of Wounds/Condition:	
During Initial Sighting None noted.	Subsequent Descriptions: Active, breaching and tail lobbing.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E03-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Unknown
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line		
<u>Gear Description:</u>	Unknown line was reported.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	Whale was entangled in a line of unknown origin.		



## 2019 Entanglements

<b>NMFS No: E04-19</b>	<b>Date First Observed Entangled: 4/25/2019</b>
<b>Location First Observed Entangled:</b> 25.4 NM east of Orleans, MA	<b>Latitude/Longitude First Observed Entangled:</b> 41° 46.2' N, 69° 22.1' W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Partial disentanglement – Gear shed
<b>Sighting prior to entanglement:</b> 8/20/2018	<b>Re-sightings Post-entanglement:</b> 10/28/2019
<b>Whale Biology:</b> Live right whale, #4423, juvenile male	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
<p>4/25/2019</p> <ul style="list-style-type: none"> <li>NARW AMAPPS aerial team sighted an entangled right whale and immediately reported it to CCS. At the time, the CCS team was on a response for entangled right whale #2310 (E48-18). No response was mounted due to time of day and distance from shore.</li> </ul> <p>7/4/2019</p> <ul style="list-style-type: none"> <li>A photo-journalist, who was conducting drone work in the Gulf of St. Lawrence, later noticed while reviewing images, they had images of #4423 still entangled.</li> </ul> <p>7/9/2019</p> <ul style="list-style-type: none"> <li>The NEFSC/DFO aerial team sighted #4423 in the Gulf of St. Lawrence again. Due to low light conditions in the field, the entanglement was not seen until the next day while reviewing documentation.</li> </ul> <p>7/11/2019</p> <ul style="list-style-type: none"> <li>The NEFSC/DFO aerial team had another sighting of #4423 and the CWRT responded to begin a disentanglement attempt. The team made multiple approaches and may have cut a line beneath and behind the whale, which presumably led to weighted gear but water quality and sea state made it difficult to confirm.</li> </ul> <p>7/16/2019</p> <ul style="list-style-type: none"> <li>The NEFSC/DFO aerial survey team found #4423 off Miscou Island and guided disentanglement efforts by the CWRT. CWRT made multiple approaches with a cutting grapple to attempt to break the bridle by cutting one of the lines exiting the whale's mouth. The aerial survey team noticed one of the lines appeared looser after an attempt, suggesting a line may have been cut. The whale also became much more evasive after this attempt and no further disentanglement progress was made.</li> </ul> <p>7/19/2019</p> <ul style="list-style-type: none"> <li>A NEAq vessel had a sighting of #4423 off of Miscou and continued documentation, but it was difficult to determine any changes in entanglement configuration.</li> </ul> <p>8/8/2019</p>

- A NEAq vessel sighted #4423 again in a large group of other whales off of Miscou. Based on the documentation collected, no changes in entanglement configuration were observed.

8/13/2019

- A DFO drone team documented the whale still entangled in the Gulf of St. Lawrence with no notable differences in configuration.

10/28/2019

- The NEFSC/DFO aerial survey team sighted #4423 in the Gulf of St. Lawrence. No gear was seen based on the documentation collected; the whale has presumably shed the gear.

#### **Description of Gear on Whale as Reported:**

**During Initial Sighting:** Line exiting both sides of the mouth, twisting together underneath the body and then leading to a tangle of weighted gear below.

**Subsequent Descriptions:** None.

#### **Description of Wounds/Condition:**

**During Initial Sighting:** Relatively poor condition, thin with sloughing/gray skin and rake marks.

**Subsequent Descriptions:** On 7/11/2019, the team believed the behavior of the whale changed after the presumed cut, with it increasing speed, having longer dive times, and flukes were raised higher than previously seen. When sighted on 8/13/2019, the overall condition continued to be poor. On 10/28/2019, condition was not noted, but the animal likely shed the entangling gear.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E04-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Buoy, endline
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line and buoy		
<u>Gear Description:</u>	Heavy line was described with a white buoy.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	Whale was entangled in heavy line with a white buoy.		

## 2019 Entanglements

<b>NMFS No: E05-19</b>	<b>Date First Observed Entangled: 4/26/2019</b>
<b>Location First Observed Entangled:</b> 74.6 NM southwest of Cape Sable Island, NS, Canada	<b>Latitude/Longitude First Observed Entangled:</b> 42° 18.13' N, 66° 25.52' W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Entangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live unknown whale species, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury (Prorated)	

<b>Event Description:</b>
Marine mammal observers aboard a fishing vessel sighted an entangled whale. There was no additional documentation.

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Described as “fishing gear” entanglement around the tail.	<b>Subsequent Descriptions:</b> None.

Description of Wounds/Condition:	
During Initial Sighting: None noted.	Subsequent Descriptions: None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	E05-19	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Unknown
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line		
<u>Gear Description:</u>	Described as fishing gear around the tail, but no documentation and unknown if determination was correct.		
<u>Comments:</u>	No documentation.		
<u>Conclusions:</u>	Whale was entangled in line of unknown origin.		

## 2019 Entanglements

<b>NMFS No: E06-19</b>	<b>Date First Observed Entangled: 5/2/2019</b>
<b>Location First Observed Entangled:</b> 0.1 NM west of Ocean City, MD	<b>Latitude/Longitude First Observed Entangled:</b> 38° 20.50' N, 75° 05.20' W
<b>Initial Movement (Anchored/Free):</b> Anchored	<b>Status:</b> Disentangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live humpback whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury (Prorated)	

<b>Event Description:</b>
NOAA received a report of an entangled humpback whale with multiple boaters and MD Natural Resources Police on scene. Recreational fishermen attempted to disentangle the whale by cutting away roughly 70-90% of the ropes and netting. The whale then swam off with some gear still attached. The following morning, MD Natural Resources Police attempted to relocate the whale, but were unsuccessful.

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Gillnet panel through the mouth, anchored in place.	<b>Subsequent Descriptions:</b> None.

Description of Wounds/Condition:	
During Initial Sighting: None noted.	Subsequent Descriptions: None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E06-19</b>	Gear Recovered (y/n)	Yes - MD
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Gillnet
Fishery Mark Recovered/Documented	Unknown	ALWTRP Color	Blue
Target Species	Striped Bass	Location of set	Unknown
Gear Type	Gillnet, striped bass		
<u>Gear Description:</u>	At least one panel of gillnet panel.		
<u>Comments:</u>	Local law enforcement confirmed the gear was from Maryland state waters.		
<u>Conclusions:</u>	Whale was entangled in at least one panel of gillnet.		

## 2019 Entanglements

<b>NMFS No: E07-19</b>	<b>Date First Observed Entangled: 6/09/2019</b>
<b>Location First Observed Entangled:</b> 12.3 NM North of Race Point, Provincetown, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 15.86' N 70° 17.48' W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Gear shed
<b>Sighting prior to entanglement:</b> 6/08/2019	<b>Re-sightings Post-entanglement:</b> 6/09/2019
<b>Whale Biology:</b> Live humpback whale, Mostaza, adult female	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
WW vessel sighted Mostaza entangled and took turns standing by with other WW boats while CCS mounted a response. Once on scene, the team could not see any line and the whale's behavior appeared normal. They made a few close approaches, throwing a grapple to sweep behind the animal, which did not hit anything. A naturalist on board a WW vessel also relayed they had not seen the line on the whale for a while. This, along with the simplicity of the entanglement, was indicative to the team that the whale was able to shed the gear on her own.

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Thin white-yellowish line trailing off the leading edge of her right fluke blade.	<b>Subsequent Descriptions:</b> Gear was no longer present.

Description of Wounds/Condition:	
During Initial Sighting: None noted.	Subsequent Descriptions: None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	E07-19	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Unknown
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line		
Gear Description:	Thin white colored entangling line.		
Comments:	None.		
Conclusions:	Whale was briefly entangled in a line of unknown origin.		

## 2019 Entanglements

<b>NMFS No: E08-19</b>	<b>Date First Observed Entangled: 6/24/2019</b>
<b>Location First Observed Entangled:</b> 11.8 NM East of Chatham, MA	<b>Latitude/Longitude First Observed Entangled:</b> 41° 36.59' N 69° 41.49' W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Partial disentanglement - Entangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live humpback whale, Krakatoa, adult, contact CCS for sex ID	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury	

<b>Event Description:</b>
The SBNMS vessel found the entangled whale and stood by while CCS responded. Once the CCS response team was on scene they managed to make a cut on the tight line over the body of the whale. At the next surfacing, it was confirmed that the line over the body was cut and the operation was called off due to no other safe disentanglement efforts were deemed possible.

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Black line tight across its back, no visible trailing gear. The point of attachment is unknown, but likely involved both sides of the mouth or both flippers.	<b>Subsequent Descriptions:</b> None.

Description of Wounds/Condition:	
<b>During Initial Sighting:</b> Overall poor condition. Thin, with cyamids covering varying portions of the body. The line was tight and appeared to be starting to embed.	<b>Subsequent Descriptions:</b> None.



FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E08-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Unknown
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line		
<u>Gear Description:</u>	Black line was documented on the whale.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	Whale was entangled in line of unknown origin.		

## 2019 Entanglements

<b>NMFS No: E09-19</b>	<b>Date First Observed Entangled: 6/29/2019</b>
<b>Location First Observed Entangled:</b> 24.2 NM east of Miscou Island, NB	<b>Latitude/Longitude First Observed Entangled:</b> 47° 56.5' N 63° 52.8' W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Partial disentanglement – Gear shed
<b>Sighting prior to entanglement:</b> 4/14/2019	<b>Re-sightings Post-entanglement:</b> 8/14/2019
<b>Whale Biology:</b> Live right whale, #4440, juvenile male	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
<p>6/29/2019</p> <ul style="list-style-type: none"> <li>A DFO vessel sighted the entangled right whale, which NEAq identified as #4440. Unfortunately, due to the time of day and sea conditions, no response was possible.</li> </ul> <p>7/5/2019</p> <ul style="list-style-type: none"> <li>NEAq/Dalhousie University survey cruise found #4440 and in conjunction with DFO, the team attempted to attach a telemetry buoy to the trailing gear. A drone was also used to further document the whale, which revealed a more complex entanglement than previously suspected. The whale was in association with other right whales, but moving slower. Despite numerous attempts to grapple the gear, the team was unsuccessful and the operation was called off due to light conditions at dusk.</li> </ul> <p>7/9/2019</p> <ul style="list-style-type: none"> <li>The NEFSC/DFO aerial team sighted right whale #4440 again, but the plane had limited fuel that forced them to depart shortly after they located this whale. CWRT was notified and responded in an attempt to attach telemetry. Despite their efforts to grapple into the gear, they had to call off the response due to dwindling daylight.</li> </ul> <p>7/16/2019</p> <ul style="list-style-type: none"> <li>The NEFSC/DFO aerial survey team found #4440 and were able to circle above the whale and guide disentanglement efforts by CWRT. After a number of approaches, CWRT was able to cut the line exiting the mouth on the left side halfway along the body.</li> </ul> <p>7/19/2019</p> <ul style="list-style-type: none"> <li>The NEFSC/DFO aerial survey team documented right whale #4440 and it appeared the whale had shed the mouth portion of the entanglement.</li> </ul> <p>8/14/2019</p> <ul style="list-style-type: none"> <li>NEFSC/DFO aerial team documented the whale gear free.</li> </ul>

<b>Description of Gear on Whale as Reported:</b>
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<p><b>During Initial Sighting:</b> At least one to two wraps of line around the peduncle. No trailing gear was visible in the images. The officers noted that there was something orange/red beneath the flukes, either a buoy, rope, or blood.</p>	<p><b>Subsequent Descriptions:</b> On 7/5/2019 it was still free-swimming but essentially hogtied with line exiting the left mouth line, right mouth line and/or the right flipper trailing to the peduncle. At the peduncle, there is a tight wrap of at least two passes of line. Beneath the flukes is a heavily damaged Norwegian float and on top of the flukes there is a light knot and short bitter end. After the cut was made on 7/16/2019, there were two bitter ends, with line trailing from the left mouth line as well as line trailing from the knotted mass at the flukes. On 7/19/2019, the gear shed from the mouth, with line now trailing aft of the flukes about one whale length and appeared to sink into the water column. The remaining wrap of the peduncle may be loose. On 8/14/2019, the remaining gear was shed and the whale is now gear-free.</p>
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Description of Wounds/Condition:	
<p><b>During Initial Sighting:</b> Overall good condition. Healthy looking skin and robust. However, extensive wounds present along the tailstock.</p>	<p><b>Subsequent Descriptions:</b> On 7/5/2019, the whale's behavior was normal, just moving slower than the other whales. Injuries were still present. When sighted on 8/14/2019, the wounds appear to be healing.</p>

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	E09-19	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Buoy, endline
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line		
Gear Description:	Line was documented.		
Comments:	None.		
Conclusions:	Whale was entangled in line of unknown origin.		

## 2019 Entanglements

<b>NMFS No: E10-19</b>	<b>Date First Observed Entangled: 7/04/2019</b>
<b>Location First Observed Entangled:</b> 35.2 NM east of Perce, QC, Canada	<b>Latitude/Longitude First Observed Entangled:</b> 48° 27.5' N 63° 20.1' W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Partial disentanglement - Entangled
<b>Sighting prior to entanglement:</b> 3/20/2019	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live right whale, #3125, adult male	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury	

<b>Event Description:</b>
<p>7/04/2019</p> <ul style="list-style-type: none"> <li>Transport Canada aerial survey located, reported and documented the whale. DFO officers responded but were unable to relocate the animal.</li> </ul> <p>7/19/2019</p> <ul style="list-style-type: none"> <li>NEFSC/DFO aerial survey located the whale again and obtained additional documentation. NEAq was nearby conducting an on-water survey and responded and managed to attach a telemetry buoy. Over the course of the following week the whale exited the Gulf of St. Lawrence towards Cape Breton.</li> </ul> <p>7/23/2019</p> <ul style="list-style-type: none"> <li>Tangly Whales from Newfoundland, with assistance from DFO Conservation &amp; Protection officers attempted to disentangle the whale, now east of Glace Bay, and they believed they removed some line, although no gear was recovered.</li> </ul> <p>7/25/2019</p> <ul style="list-style-type: none"> <li>Tangly Whales and DFO Conservation &amp; Protection officers caught up to the whale again south of Cape Breton. One to two line cuts were made on the left side of the head.</li> </ul> <p>8/02/2019</p> <ul style="list-style-type: none"> <li>CCS with assistance from USCG and NEFSC aerial support located the whale and despite poor environmental conditions managed to remove 45 fathoms of line from the whale.</li> </ul>

<b>Description of Gear on Whale as Reported:</b>	
<b>During Initial Sighting:</b> Multiple lines exiting the mouth and trailing beyond the fluke.	<b>Subsequent Descriptions:</b> Multiple wraps in mouth and on the head, body and possibly flippers. At least one line was partially embedded in the rostrum.

<b>Description of Wounds/Condition:</b>
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<p><b>During Initial Sighting:</b> Overall poor condition with entanglement trauma visible on body, tailstock and fluke.</p>	<p><b>Subsequent Descriptions:</b> Very poor condition with partially embedded line on rostrum.</p>
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FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E10-19</b>	Gear Recovered (y/n)	Yes
Date Set	Unknown	Date Lost	Unknown
Line Diameter	3/4"	Gear Part	Endline
Fishery Mark Recovered/Documented	Recovered	Fishery Mark Origin and Color	Canada - Orange
Target Species	Snow Crab	Location of set	Unknown
Gear Type	Consistent with Canadian snow crab trap/pot		
<u>Gear Description:</u>	234 feet of 3/4" poly float line with three 1 foot orange mending twine woven markers. 36 feet of 3/4" 3 strand lead line with one 1 foot orange mending twine woven marker. The lines are joined together with a 1 fathom splice.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	The gear is consistent with a portion of a Canadian snow crab set.		

### Gear Images







E010-19 gear image – 1 fathom splice between lead and float line.



E010-19 gear image – full amount of recovered gear.



## 2019 Entanglements

<b>NMFS No: E11-19</b>	<b>Date First Observed Entangled: 7/11/2019</b>
<b>Location First Observed Entangled:</b> 240 feet south of Manchester, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 34.29' N 70° 43.47' W
<b>Initial Movement (Anchored/Free):</b> Anchored	<b>Status:</b> Gear Shed
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> 7/16/2019
<b>Whale Biology:</b> Live humpback whale, unknown ID, adult, unknown sex	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
<p>7/11/2019</p> <ul style="list-style-type: none"> <li>A recreational boater sighted an entangled humpback and reported it to MA Environmental Police, who then reported to CCS. After reporting, the fisherman departed from the scene, and was asked to return to the whale. The boater relayed that the whale was no longer there, but the gear was. MEP surveyed the area and a CCS volunteer surveyed on shore, with neither finding the whale or the gear. It is possible the whale had shed all or at least some of the gear.</li> </ul> <p>7/16/2019</p> <ul style="list-style-type: none"> <li>A WW company sighted the whale gear free.</li> </ul>

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Appeared to be caught outside of a set net, the exact configuration of the entanglement is unknown.	<b>Subsequent Descriptions:</b> Entangling gear no longer present.

Description of Wounds/Condition:	
During Initial Sighting: None noted.	Subsequent Descriptions: None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	E11-19	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Mesh
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	U.S. mesh		
<u>Gear Description:</u>	Documentation shows the whale anchored in an unknown mesh.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	Whale was entangled in an unknown mesh of U.S. origin.		

## 2019 Entanglements

<b>NMFS No: E12-19</b>	<b>Date First Observed Entangled: 7/11/2019</b>
<b>Location First Observed Entangled:</b> 9.4 NM northeast of Race Point, Provincetown, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 12.1' N 70° 08.8' W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Monitor
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live minke whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
WW boat sighted an entangled minke breaching repeatedly. Due to the sea conditions, no response was mounted.

<b>Description of Gear on Whale as Reported:</b>
<div> <b>During Initial Sighting:</b> Possibly festival bunting, or less likely a lure rig, caught in the mouth line and trailing an unknown distance.         </div> <div> <b>Subsequent Descriptions:</b> None.         </div>

<b>Description of Wounds/Condition:</b>
<div> <b>During Initial Sighting:</b> None noted.         </div> <div> <b>Subsequent Descriptions:</b> None.         </div>

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E12-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Monofilament
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Monofilament line and lures		
<u>Gear Description:</u>	Whale was documented with monofilament line and lures.		
<u>Comments:</u>	Documentation shows the setup was could be a festival bunting or lure rig.		
<u>Conclusions:</u>	Whale was entangled in a monofilament and lures.		

## 2019 Entanglements

<b>NMFS No: E13-19</b>	<b>Date First Observed Entangled: 7/15/2019</b>
<b>Location First Observed Entangled:</b> ~12 miles northeast of Shinnecock Inlet, Long Island, NY	<b>Latitude/Longitude First Observed Entangled:</b> 40° 55.3' N    72° 14.7' W
<b>Initial Movement (Anchored/Free):</b> Anchored	<b>Status:</b> Gear Shed
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live humpback whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
Beachgoers reported an entangled whale after paddle boarders and other citizens attempted to respond. They may have cut some of the entangling gear as at least one bitter end was visible in the photographs. AMCS, CCS, NOAA Fisheries, and Turtles Fly Too formulated a response plan, and as CCS was preparing to head out, AMCS reported that the whale broke free and was not resighted. Local officials hauled the gear and could see a large hole, so it is unclear if the whale has any gear in tow.

<b>Description of Gear on Whale as Reported:</b>	
<b>During Initial Sighting:</b> Caught in a gillnet, exact entanglement configuration unknown.	<b>Subsequent Descriptions:</b> Fisherman described the whale entangled in at least the head rope of one panel.

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> None noted.	<b>Subsequent Descriptions:</b> None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E13-19</b>	Gear Recovered (y/n)	No
Date Set	7/15/2019	Date Lost	7/15/2019
Line Diameter	5/16" and 3/8"	Gear Part	Gillnet
ALWTRP Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Bluefish	Location of set	40° 55.3' N 72° 14.7' W
Gear Type	U.S. sink gillnet		
<u>Gear Description:</u>	A two panel set of sink gillnet targeting bluefish. Exact entanglement configuration appeared to be fluid and not fully understood.		
<u>Comments:</u>	No Line marking or ALWTRP mandates are mandated in this area on dates that fall between May 31 and September 1. Fisherman was interviewed and they described their set: Sink gillnet having 2 net panels in a string and a hard foam buoy at each end. End lines are sinking line 5/16 in diameter. Net panel constructed as traditional sink gillnet with lead line foot rope and buoyed head rope. South end of gillnet string is anchored and the North or beach end of gillnet string is held with 40 lbs. weight. Other than the net panel head rope, all line is sink line 5/16" or 3/8". Net panel are configured with weak 1100lb links using an over hand knot in the 5/16 polypropylene head line. Fisherman indicated the recovered gear had a parted weak link in the head rope.		
<u>Conclusions:</u>	Whale was entangled in at least the head rope of one net panel of a two panel sink gillnet set. Fisherman indicated the recovered net had at least one parted weak link in the head rope.		

## 2019 Entanglements

<b>NMFS No: E14-19</b>	<b>Date First Observed Entangled: 7/22/2019</b>
<b>Location First Observed Entangled:</b> 5.2 NM east of Riverport, NS, Canada	<b>Latitude/Longitude First Observed Entangled:</b> 44° 16.6' N    64° 06.7' W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Partial Disentanglement - Entangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live humpback whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury (Prorated)	

<b>Event Description:</b>
A very active entangled whale was reported to MARS. The whale was flipper slapping and breaching in an attempt to shed the gear. A mooring grapple was used by an unknown vessel nearby to remove the gear and was successful at pulling the gear free. Gear was sent to DFO.

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Gear was reported to be going through the mouth and trailing a yellow buoy.	<b>Subsequent Descriptions:</b> None

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> None noted.	<b>Subsequent Descriptions:</b> None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	E14-19	Gear Recovered (y/n)	Yes -DFO
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Buoy, endline
Fishery Mark Recovered/Documented	Unknown	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line and buoy		
Gear Description:	Whale was described entangled in at least a line and yellow buoy.		
Comments:	Unknown if DFO conducted gear analysis.		
Conclusions:	The whale was entangled in a line and buoy of unknown origin.		

## 2019 Entanglements

<b>NMFS No: E15-19</b>	<b>Date First Observed Entangled: 7/24/2019</b>
<b>Location First Observed Entangled:</b> 7.0 NM east of Gloucester, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 39' N 70° 26' W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Monitor
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live humpback whale, 2019 calf of Pinball, unknown sex	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
Photographer aboard a WW vessel photographed Pinball's calf with monofilament in tow off the right flipper.

Description of Gear on Whale as Reported:	
During Initial Sighting: At minimum, monofilament line caught on the right flipper.	Subsequent Descriptions: None.

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> None noted.	<b>Subsequent Descriptions:</b> None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E15-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Monofilament
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Monofilament line		
<u>Gear Description:</u>	Monofilament line seen over the right flipper.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	Whale was entangled in monofilament line of unknown origin.		

## 2019 Entanglements

<b>NMFS No: E16-19</b>	<b>Date First Observed Entangled: 7/26/2019</b>
<b>Location First Observed Entangled:</b> 4.5 NM east of Sea Isle City, NJ	<b>Latitude/Longitude First Observed Entangled:</b> 39° 07.33' N 74° 36.40' W
<b>Initial Movement (Anchored/Free):</b> Anchored	<b>Status:</b> Gear Shed
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live humpback whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
A boater reported the entanglement to the NOAA Fisheries hotline and the USCG. NOAA Fisheries contacted CCS for a possible response. MMSC joined USCG to stand by the whale and assist with keeping other vessels at a safe distance while CCS planned a flight to Cape May. During this time, the whale freed itself by arching and rolling. USCG hauled the gear, completely intact, and the whale resurfaced gear-free at a distance.

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Line wrapped around the body and a buoy above its right flipper.	<b>Subsequent Descriptions:</b> None.

Description of Wounds/Condition:	
<b>During Initial Sighting:</b> Relatively small, appeared to be in fair condition, with healed propeller scars on the left flank.	<b>Subsequent Descriptions:</b> None.



<b>FISHERY INTERACTION GEAR ANALYSIS</b>			
NMFS No.	<b>E16-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Buoy, endline, traps
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	Unknown
Target Species	Whelk	Location of set	39° 07.33' N 74° 36.40' W
Gear Type	U.S. whelk trap – 25 pot trawl		
<u>Gear Description:</u>	Documentation shows the whale was entangled in the endline of the whelk trawl.		
<u>Comments:</u>	USCG hauled the gear and confirmed the full 25 pot trawl was intact.		
<u>Conclusions:</u>	Whale was entangled in the endline of a 25 pot trawl of whelk gear.		

## 2019 Entanglements

<b>NMFS No: E17-19</b>	<b>Date First Observed Entangled: 7/29/2019</b>
<b>Location First Observed Entangled:</b> 16.1 NM east of Newburyport, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 48.63'N 70° 26.67'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Monitor
<b>Sighting prior to entanglement:</b> 7/27/2019	<b>Re-sightings Post-entanglement:</b> Unknown
<b>Whale Biology:</b> Live humpback whale, Nike, adult, contact CCS for sex ID	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
Naturalist aboard a WW vessel photographed the whale Nike with monofilament in tow. Nike was also seen the following day, still entangled.

<b>Description of Gear on Whale as Reported:</b>
<div> <div><b>During Initial Sighting:</b> Hook attached to the leading edge of the left fluke blade with monofilament line trailing.</div> <div><b>Subsequent Descriptions:</b> None.</div> </div>

<b>Description of Wounds/Condition:</b>
<div> <div><b>During Initial Sighting:</b> None noted.</div> <div><b>Subsequent Descriptions:</b> None.</div> </div>

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E17-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Monofilament
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	U.S. monofilament line and hook		
<u>Gear Description:</u>	Hook, with monofilament line trailing, was documented in the leading edge of the fluke.		
<u>Comments:</u>	Origin based on pre-entanglement sighting on July 27, 2019.		
<u>Conclusions:</u>	Whale was entangled in hook and monofilament line of U.S. origin.		

<b>NMFS No: E18-19</b>	<b>Date First Observed Entangled: 8/1/2019</b>
<b>Location First Observed Entangled:</b> 2.2 NM northeast of Rockport, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 41.50'N 70° 35.68'W
<b>Initial Movement (Anchored/Free):</b> Anchored	<b>Status:</b> Disentangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live minke whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

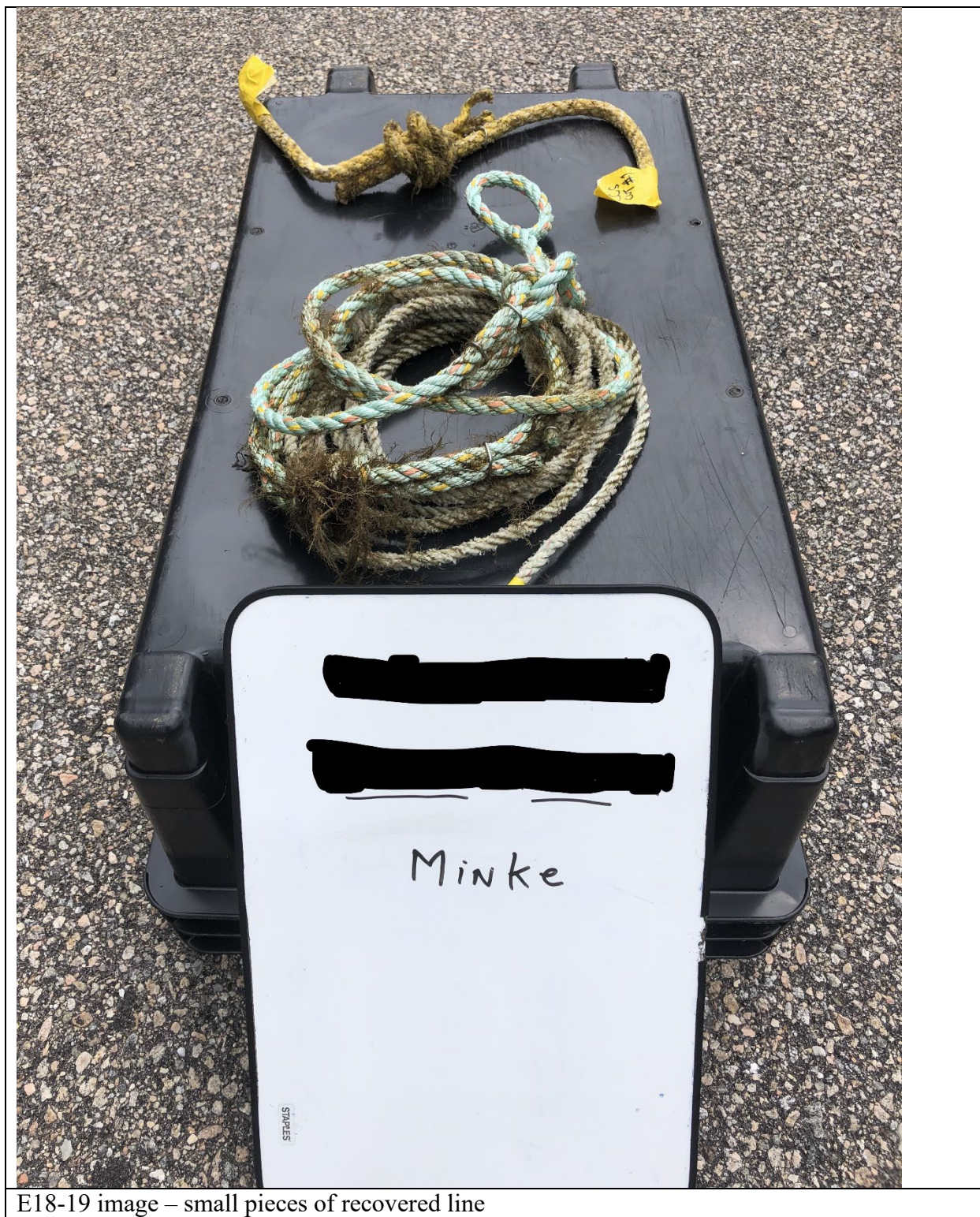
<b>Event Description:</b>
A commercial fishermen reported a whale entangled in their gear to NOAA Fisheries and CCS. While CCS mounted a response, the Rockport Harbormaster and NOAA Fisheries personnel stood by the whale to begin documentation. Once on scene, CCS discussed the entanglement with the fishermen, who was also standing by. The team deployed an inflatable to further document the entanglement, and while doing so, a white shark appeared, causing the whale to surge forward and thrash, forcing the team to regroup with the harbormaster vessel. The team onboard the Ibis/CCS vessel moved in to try to intimidate the shark away, and picked up the rest of the crew from the harbormaster to attempt to disentangle the whale from the bow. They were able to grapple into the buoy line to establish a control line, and then cut the line at the peduncle with a knife. They then needed to re-grapple the remaining line and as the whale moved, it unzipped from the mouth. The whale dove and sped off quickly and the surface system was retied.

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Anchored in the surface system and buoy line of one end of a 20 pot trawl. The whale appeared to have bitten down on the surface system and then wrapped its peduncle around the buoy line.	<b>Subsequent Descriptions:</b> None.

Description of Wounds/Condition:	
<b>During Initial Sighting:</b> Some wounds actively bleeding at the peduncle.	<b>Subsequent Descriptions:</b> None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E18-19</b>	Gear Recovered (y/n)	Yes
Date Set	7/31/2019	Date Lost	N/A
Line Diameter	5/16", 3/8"	Gear Part	Surface system, endline
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	Red
Target Species	Lobster	Location of set	42° 41.50'N 70° 35.68'W
Gear Type	U.S. Lobster		
<u>Gear Description:</u>	Recovered line consisted of 1 fathom of 3/8" float, 1 fathom of 5/16" float and 1 fathom total of 3/8" sink. Hog rings were used at one end as a weak link for 3/8" float line.		
<u>Comments:</u>	Fisherman was present during the event and later interviewed. It was a 20 trap trawl with 12 fathoms of 7/16" sink line between traps. Sinking buoy line at the end of each trawl, 15 fathoms of 7/16" and 10 fathoms of 5/16" to surface buoy. One end of trawl has a high flyer and hard plastic "Go-Deep" buoy, and the other end had 2 bullet buoys, butt to butt on a single PVC spindle. 600 lb. weak links are used at buoy connections.		
<u>Conclusions:</u>	Whale became entangled in the endline of surface system of a 20 trap U.S. lobster trawl.		

## Gear Images



E18-19 image – small pieces of recovered line

NMFS No: E19-19

Date First Observed Entangled: 7/31/2019



<b>Location First Observed Entangled:</b> 11.4 NM southeast of Montauk, NY	<b>Latitude/Longitude First Observed Entangled:</b> 40° 59.44'N 71° 44.84'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Monitor
<b>Sighting prior to entanglement:</b> 11/2/2018	<b>Re-sightings Post-entanglement:</b> 8/23/2019
<b>Whale Biology:</b> Live humpback whale, Komodo, adult female	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
Coastal Research and Education Society of Long Island documented a couple of whales off of Montauk, and noticed one had a lure and monofilament attached.

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Lure lodged just below the right side of the dorsal fin.	<b>Subsequent Descriptions:</b> None.

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> None noted.	<b>Subsequent Descriptions:</b> None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	E19-19	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Monofilament
Fishery Mark Recovered/Documented	N/A	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown lure and monofilament		
<u>Gear Description:</u>	Documentation shows a lure and monofilament line.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	Whale was entangled in a lure and monofilament line of unknown origin.		

<b>NMFS No: E20-19</b>	<b>Date First Observed Entangled: 8/4/2019</b>
<b>Location First Observed Entangled:</b> 6.0 NM east of Montauk, NY	<b>Latitude/Longitude First Observed Entangled:</b> 41° 01.04'N 71° 48.98'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Entangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live minke whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury (Prorated)	

<b>Event Description:</b>
WW vessel had a brief sighting of an entangled whale off of Montauk, and photographed it.

<b>Description of Gear on Whale as Reported:</b>	
<b>During Initial Sighting:</b> Rope, at minimum, draped over the back directly behind the dorsal fin. Exact entanglement configuration unknown.	<b>Subsequent Descriptions:</b> None.

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> None noted.	<b>Subsequent Descriptions:</b> None.

<b>FISHERY INTERACTION GEAR ANALYSIS</b>			
<b>NMFS No.</b>	<b>E20-19</b>	<b>Gear Recovered (y/n)</b>	No
<b>Date Set</b>	Unknown	<b>Date Lost</b>	Unknown
<b>Line Diameter</b>	Unknown	<b>Gear Part</b>	Unknown
<b>Fishery Mark Recovered/Documented</b>	No	<b>Fishery Mark Origin and Color</b>	N/A
<b>Target Species</b>	Unknown	<b>Location of set</b>	Unknown
<b>Gear Type</b>	Unknown line or debris		
<b>Gear Description:</b>	Line of unknown origin or debris.		
<b>Comments:</b>	None.		
<b>Conclusions:</b>	Whale was entangled in debris or line of unknown origin.		

<b>NMFS No: E21-19</b>	<b>Date First Observed Entangled: 8/5/2019</b>
<b>Location First Observed Entangled:</b> 7.4 NM northwest of Race Point, Provincetown, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 10.33'N 70° 19.58'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Monitor
<b>Sighting prior to entanglement:</b> 8/04/2019	<b>Re-sightings Post-entanglement:</b> 8/07/2019
<b>Whale Biology:</b> Live humpback whale, Nile, adult female	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
Multiple WW vessels sighted Nile with monofilament in tow.

<b>Description of Gear on Whale as Reported:</b>	
<b>During Initial Sighting:</b> Monofilament line coming from forward on the body and trailing off the flukes.	<b>Subsequent Descriptions:</b> None.

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> None noted.	<b>Subsequent Descriptions:</b> None.

<b>FISHERY INTERACTION GEAR ANALYSIS</b>			
NMFS No.	<b>E21-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Monofilament
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	U.S. Monofilament line		
<u>Gear Description:</u>	Monofilament line was seen trailing off the body from an unknown attachment point.		
<u>Comments:</u>	Whale was sighted gear free the previous day.		
<u>Conclusions:</u>	Whale was entangled in monofilament line of U.S. origin.		



<b>NMFS No: E22-19</b>	<b>Date First Observed Entangled: 8/6/2019</b>
<b>Location First Observed Entangled:</b> 36.4 NM northwest of Iles de la Madeleine, Gulf of St. Lawrence	<b>Latitude/Longitude First Observed Entangled:</b> 48° 02.08'N, 62° 13.64'W
<b>Initial Movement (Anchored/Free):</b> Anchored	<b>Status:</b> Deceased
<b>Sighting prior to entanglement: 7/16/2019</b>	<b>Re-sightings Post-entanglement: 9/16/2019</b>
<b>Whale Biology:</b> Dead right whale, #1226, Snake Eyes, adult male	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury	

<b>Event Description:</b>
<p>8/6/2019</p> <ul style="list-style-type: none"> <li>A DFO aerial survey sighted the entangled right whale and alerted responders. The time of day, distance from shore and sea conditions prevented a response.</li> </ul> <p>9/16/2019</p> <ul style="list-style-type: none"> <li>A dead right whale was found floating off of New York and responders with AMCS, USCG and NY Department of Natural Resources towed the carcass ashore the next day for a necropsy.</li> </ul>

<b>Description of Gear on Whale as Reported:</b>	
<b>During Initial Sighting:</b> Exact configuration unclear, but involves at least two wraps of line around the rostrum and a trailing bitter end.	<b>Subsequent Descriptions:</b> Gear no longer present.

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> Appears to have extensive damage at the peduncle.	<b>Subsequent Descriptions:</b> Entanglement injuries apparent around the rostrum, flipper and peduncle.

<b>FISHERY INTERACTION GEAR ANALYSIS</b>			
NMFS No.	<b>E22-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Unknown
Fishery Mark Recovered/Documented	None	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Line of Canadian origin		
<u>Gear Description:</u>	Line was documented on the head with one trailing end floating nearby.		
<u>Comments:</u>	Whale appeared anchored or heavily weighted. Post mortem injuries were consistent with entanglement.		
<u>Conclusions:</u>	Whale was entangled in line of Canadian origin.		

<b>NMFS No: E23-19</b>	<b>Date First Observed Entangled: 8/15/2019</b>
<b>Location First Observed Entangled:</b> 1.4 NM east of Chatham, MA	<b>Latitude/Longitude First Observed Entangled:</b> 41° 42.08'N 69° 54.14'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Disentangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live humpback whale, 2015 calf of Jabiru, juvenile female	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
<p>A charter vessel found an entangled whale, reported it to CCS, and stood-by until USCG Chatham took over while CCS mounted a response. USCG remained on scene throughout the effort to provide support. The CCS team made multiple efforts to establish a control line, eventually doing so and the whale slowed down. However, whenever the team in the inflatable got near the flukes, it reacted strongly by tail slashing and rolling. After cleaning up two lines, removing a buoy and gangion making two bitter ends, the team had some unsuccessful attempts creating enough drag to pull the line, and no luck cutting the line over the back. Switching gears, the team added some more drag with a drogue in an attempt to stop the whale or at least limit the tail slashing. Instead, the whale reacted strongly, resulting in the buoys going slack and surfacing. The team on Ibis/CCS vessel documented the whale and could no longer see gear present while the team in the inflatable recovered the entangling gear. With the amount of gear recovered, and overall configuration of that gear, it was determined that the whale was gear free.</p>

<b>Description of Gear on Whale as Reported:</b>	
<b>During Initial Sighting:</b> Had buoy line exiting the right side of the mouth, heading back over the body just aft of the blowholes with what is believed to be a simple twist of the line exiting the left side of the mouth with both lines trailing. The line exiting the left mouth went to a buoy and the line exiting the right mouth went to a broken gangion.	<b>Subsequent Descriptions:</b> None.

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> Moving quickly and unpredictably, tail slashing and rolling.	<b>Subsequent Descriptions:</b> None.

<b>FISHERY INTERACTION GEAR ANALYSIS</b>			
NMFS No.	<b>E23-19</b>	Gear Recovered (y/n)	Yes
Date Set	Unknown	Date Lost	Unknown
Line Diameter	5/16"	Gear Part	Buoy, endline
Fishery Mark Recovered/Documented	Recovered	Fishery Mark Origin and Color	U.S. - Red & Yellow
Target Species	Lobster	Location of set	Unknown
Gear Type	U.S. lobster single trap/pot		
<u>Gear Description:</u>	11 fathoms of 5/16" black poly float line spliced into 15 fathoms of 5/16" white sink line with Red & Yellow AWLTRP mark. Sink line leads into a 6" loop of 3/8" bridle with another ALWTRP mark. Hog rings used for weak link just below 7X11" buoy with MA ID numbers.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	Whale was entangled in the vertical line of a single U.S. lobster trap in the Outer Cape exempt MA state waters (Red & Yellow ALWTRP mark).		

## Gear Images



E23-19 gear image – Full amount of gear recovered.





E23-19 gear image – Surface buoy and hog rings



E23-19 gear image – Red & Yellow ALWTRP mark

<b>NMFS No: E24-19</b>	<b>Date First Observed Entangled: 8/26/2019</b>
<b>Location First Observed Entangled:</b> Provincetown Harbor, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 01.9'N 70° 10.4'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Entangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> 10/19/2019
<b>Whale Biology:</b> Live humpback whale, Zorro, adult male	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury (Prorated)	

<b>Event Description:</b>
<p>8/26/2019</p> <ul style="list-style-type: none"> <li>A member of the public reported an entangled whale, but due to the time of day no response was possible. CCS asked if Dolphin Fleet could assist, and they were able to locate and document the entanglement as they returned from a trip.</li> </ul> <p>10/19/2019</p> <ul style="list-style-type: none"> <li>WW vessels spotted Zorro off the coast of New Jersey. During this sighting, no entangling gear was seen. Although the entanglement status remains unclear, it can be concluded by the imagery collected that at least a portion of gear has been shed.</li> </ul>

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Free-swimming with a buoy and buoy stick trailing from the area of the left flipper. No trailing gear could be seen, though conditions were very dark.	<b>Subsequent Descriptions:</b> Buoy portion of the entanglement no longer visible.

Description of Wounds/Condition:	
<b>During Initial Sighting:</b> None noted.	<b>Subsequent Descriptions:</b> Behavior of the whale appeared normal.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E24-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Buoy, endline
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line and buoy		
<u>Gear Description:</u>	Whale was documented trailing a bullet buoy with a stick.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	Whale was entangled in an endline and buoy of unknown origin.		



<b>NMFS No: E25-19</b>	<b>Date First Observed Entangled: 9/1/2019</b>
<b>Location First Observed Entangled:</b> 31.3 NM southeast of Chatham, MA	<b>Latitude/Longitude First Observed Entangled:</b> 41° 27.0'N 69° 19.5'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Entangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live minke whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury (Prorated)	

<b>Event Description:</b>
A fishing vessel sighted an entangled whale, reported it to the USCG, who then passed the information on to CCS. Distance from shore and lack of service made reporting difficult. CCS conducted a follow-up interview with the reporting party to learn more about the sighting.

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Free-swimming with a buoy in tow from the fluke area.	<b>Subsequent Descriptions:</b> None.

Description of Wounds/Condition:	
During Initial Sighting: None noted.	Subsequent Descriptions: None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	E25-19	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Buoy, endline
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line and buoy		
Gear Description:	Reporter described a white and orange buoy trailing behind.		
Comments:	None.		
Conclusions:	Whale was entangled in an endline and buoy of unknown origin.		

<b>NMFS No: E26-19</b>	<b>Date First Observed Entangled: 9/3/2019</b>
<b>Location First Observed Entangled:</b> 1.4 NM west of North Truro, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 01.736'N 70° 07.674'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Gear shed
<b>Sighting prior to entanglement:</b> 7/10/2019	<b>Re-sightings Post-entanglement:</b> 11/14/2019
<b>Whale Biology:</b> Live humpback whale, NYC #0159, juvenile female	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
A charter vessel sighted an entangled whale and stood by while CCS mounted a response. The whale submerged with gear and came up some distance away from where it had been. Once on scene, no gear was visible to the team. Unsure if it was still entangled, they threw a grapple to sweep behind the animal, which did not catch on anything. During these close approaches, no gear was observed. Due to these observations, it is presumed that the whale shed the entanglement on its own.

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Buoy close to the whale's body with what appeared to be black line over the back.	<b>Subsequent Descriptions:</b> None.

Description of Wounds/Condition:	
<b>During Initial Sighting:</b> Agitated, traveling quickly. Fresh, raw wounds on the peduncle.	<b>Subsequent Descriptions:</b> None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E26-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Buoy, endline
ALWTRP Mark Recovered/Documented	No	ALWTRP Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line and buoy		
<u>Gear Description:</u>	Whale was briefly seen trailing a white buoy.		
<u>Comments:</u>	Whale shed the gear before the response team arrived.		
<u>Conclusions:</u>	Whale was entangled in an endline and buoy of unknown origin.		

<b>NMFS No: E27-19</b>	<b>Date First Observed Entangled: 9/8/2019</b>
<b>Location First Observed Entangled:</b> 2.0 NM southeast of Point Judith, RI	<b>Latitude/Longitude First Observed Entangled:</b> 41° 20.1'N 71° 27.3'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Deceased
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Dead minke whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury	

<b>Event Description:</b>
Mystic Aquarium received a report of a dead entangled minke floating offshore from a NOAA vessel. It was reported to have line in association, but did not have any photos to confirm. The carcass landed two days later, and Mystic completed an external exam. No gear was present at the time of the examination, but the carcass had evidence of linear impressions consistent with entanglement.

<b>Description of Gear on Whale as Reported:</b>
<b>During Initial Sighting:</b> Reported to be wrapped in line. <b>Subsequent Descriptions:</b> No gear present at time of landing and exam.

<b>Description of Wounds/Condition:</b>
<b>During Initial Sighting:</b> Linear impressions present, heavy scavenging to the carcass. <b>Subsequent Descriptions:</b> None.

<b>FISHERY INTERACTION GEAR ANALYSIS</b>			
NMFS No.	<b>E27-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Unknown
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line		
<u>Gear Description:</u>	Whale was described having line involved on the whale.		
<u>Comments:</u>	No line remaining on carcass.		
<u>Conclusions:</u>	Whale was entangled in a line of unknown origin.		

<b>NMFS No: E28-19</b>	<b>Date First Observed Entangled: 9/10/2019</b>
<b>Location First Observed Entangled:</b> 20.3 NM southeast of Gloucester, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 19.59'N 70° 21.89'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Disentangled – Gear shed
<b>Sighting prior to entanglement:</b> 8/20/2019	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live humpback whale, Nuke, adult male	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

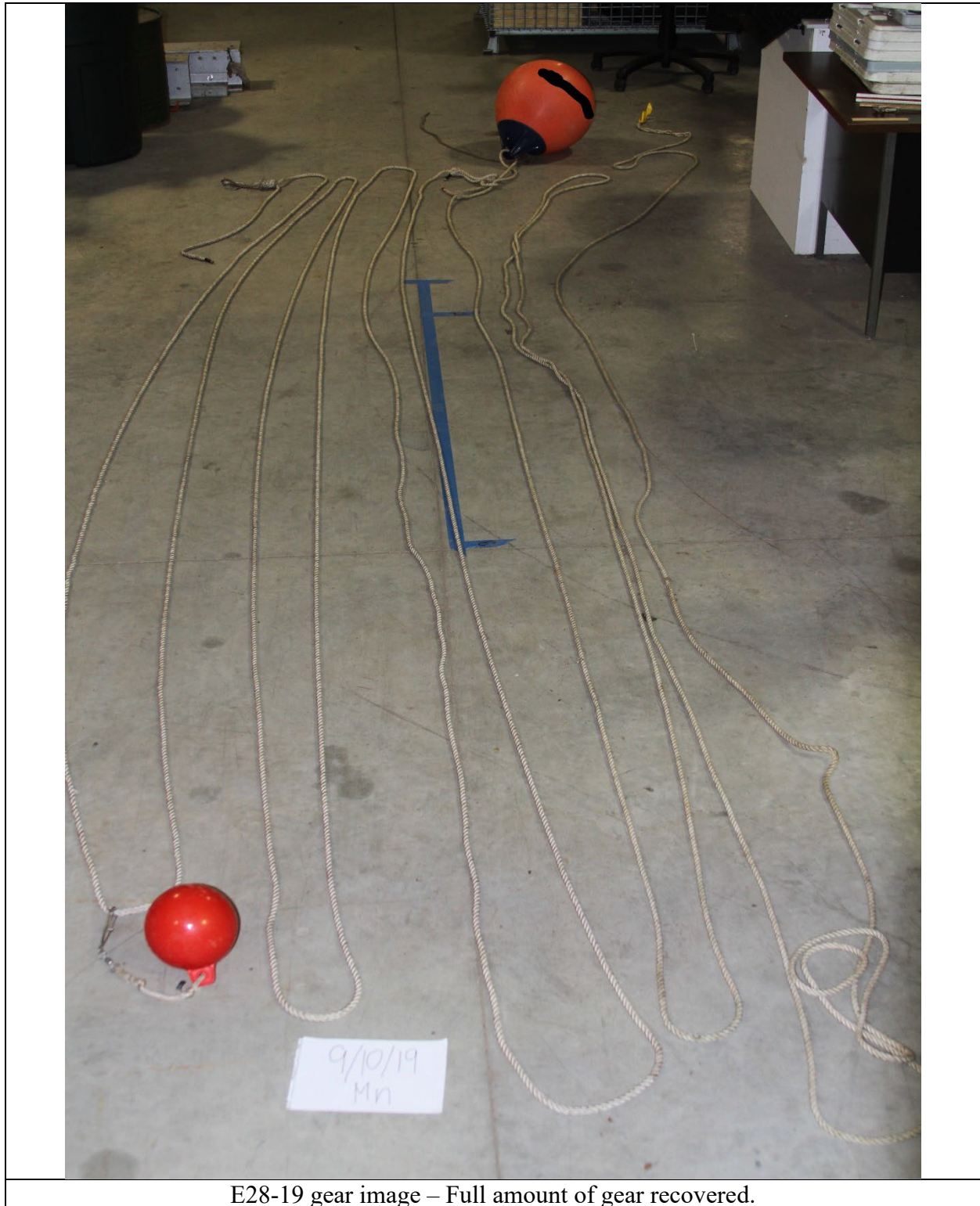
<b>Event Description:</b>
<p>A WW vessel sighted an entangled Nuke traveling with another whale, reported the sighting to CCS, and stood by while a response was mounted. Poor weather conditions along with the whale's behavior made examining the entanglement difficult. The CCS team first added two large floats to the gear to see if this would help pull the gear from the whale. With little progress made, they switched gears to a cutting grapple to cut the presumed descending line. They did feel the grapple catch something and the whale reacted quickly, but it was difficult to determine if the cut was made. The team then cut the surface line resulting in an immediate reaction from the whale. Regardless if one or both cuts were successful, the team felt the whale should be able to shed the remaining gear quickly. Once back on land, a tuna fishermen called the CCS hotline to report a whale on his anchor line. He had attempted to remove the buoys, but was unsuccessful. Based on the gear information provided by the fishermen, and observations made during the response, the team was better able to understand the entangling configuration, and feels reasonably confident that Nuke will be able to shed the remaining gear.</p>

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Small Norwegian float, another smaller float, and some trailing line in tow. Unknown attachment point but likely that the whale had bitten down on the anchor line, with the buoy side of the line exiting the right side of the mouth and the anchor portion exiting the left. Anchor was likely being lifted off the bottom.	<b>Subsequent Descriptions:</b> None.

Description of Wounds/Condition:	
<b>During Initial Sighting:</b> Traveling quickly, no wounds noted.	<b>Subsequent Descriptions:</b> None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E28-19</b>	Gear Recovered (y/n)	Yes
Date Set	Unknown	Date Lost	Unknown
Line Diameter	3/8"	Gear Part	Buoy, anchor line
ALWTRP Mark Recovered/Documented	N/A	ALWTRP Color	N/A
Target Species	N/A	Location of set	Unknown
Gear Type	U.S. Tuna anchoring system		
<u>Gear Description:</u>	13 fathoms of 3/8" line tied to a polyball with vessel name on it, which led to 17 fathoms of line and a small hard float.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	Whale was entangled in a U.S. tuna anchoring system.		

## Gear Images



E28-19 gear image – Full amount of gear recovered.

<b>NMFS No: E29-19</b>	<b>Date First Observed Entangled: 9/10/2019</b>
<b>Location First Observed Entangled:</b> 8.3 NM northwest of Race Point, Provincetown, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 10.76'N 70° 20.84'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Gear shed
<b>Sighting prior to entanglement:</b> 8/13/2019	<b>Re-sightings Post-entanglement:</b> 2/11/2021
<b>Whale Biology:</b> Live humpback whale, Doric, adult female	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
9/10/2019 <ul style="list-style-type: none"> <li>• WW vessel sighted Doric with monofilament line in tow.</li> </ul> 2/11/2021 <ul style="list-style-type: none"> <li>• Whale was sighted gear free.</li> </ul>

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Monofilament trailing aft the right fluke blade with an unknown point of attachment.	<b>Subsequent Descriptions:</b> None.

Description of Wounds/Condition:	
During Initial Sighting: None noted.	Subsequent Descriptions: None.

<b>FISHERY INTERACTION GEAR ANALYSIS</b>			
NMFS No.	<b>E29-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Monofilament
ALWTRP Mark Recovered/Documented	No	ALWTRP Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Monofilament line		
<u>Gear Description:</u>	Whale was documented trailing monofilament line.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	Whale was entangled in monofilament line of unknown origin.		



<b>NMFS No: E30-19</b>	<b>Date First Observed Entangled: 9/11/2019</b>
<b>Location First Observed Entangled:</b> 0.1 NM north of Mattinicus Rock, ME	<b>Latitude/Longitude First Observed Entangled:</b> 43° 47.36'N 68° 51.11'W
<b>Initial Movement (Anchored/Free):</b> Anchored	<b>Status:</b> Entangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live minke whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury (Prorated)	

<b>Event Description:</b>
Maine DMR received an anonymous report from the day before of an entangled whale with a possible intervention from mariners. MMP responders went out but were unable to relocate the whale.

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Entanglement configuration unclear, but anchored with line and buoys seen in association with the whale in photos.	<b>Subsequent Descriptions:</b> None.

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> None noted.	<b>Subsequent Descriptions:</b> None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E30-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Buoy, endline
ALWTRP Mark Recovered/Documented	No	ALWTRP Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown U.S.		
<u>Gear Description:</u>	Whale was described as being anchored and photos show associated gear.		
<u>Comments:</u>	Whale was reported anchored but not relocated.		
<u>Conclusions:</u>	Whale was entangled in a line and buoy of U.S. origin.		

<b>NMFS No: E31-19</b>	<b>Date First Observed Entangled: 10/4/2019</b>
<b>Location First Observed Entangled:</b> 2.2 NM west of North Truro, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 01.817'N 70° 08.650'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Disentangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live humpback whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

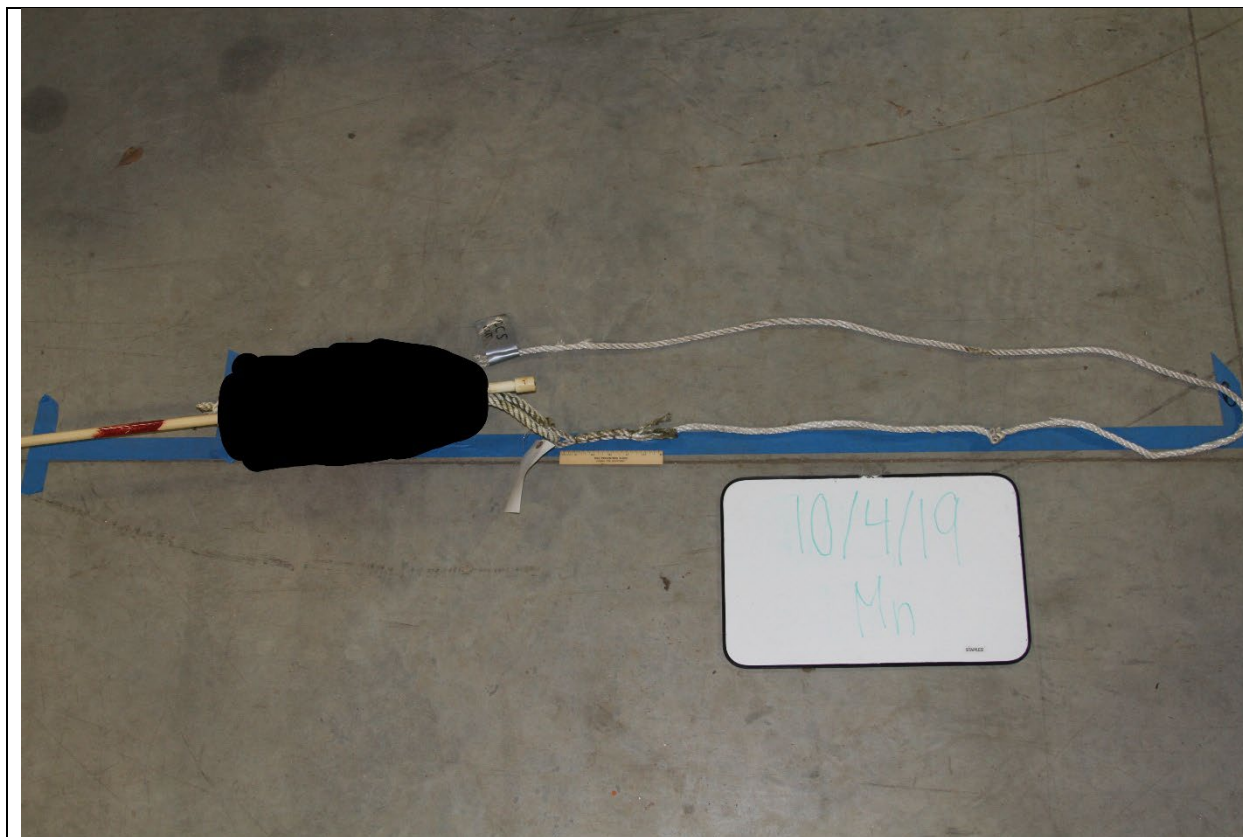
<b>Event Description:</b>
A commercial fisherman discovered an entangled whale, reported the sighting, began documentation, and stood by while CCS mounted a response. Despite poor weather conditions the team was able to cut the line between the buoy and the chin of the whale. The whale surfaced shortly after and no gear was observed. The team was able to get one more sighting before the whale was lost, and felt confident the remaining gear was shed once the line was parted.

<b>Description of Gear on Whale as Reported:</b>	
<b>During Initial Sighting:</b> Buoy on the right side of the whale with line from the buoy going under the body, around the mouth to the right side, over its back and down to a trap.	<b>Subsequent Descriptions:</b> None.

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> Active at the surface, rolling and raising head out of the water.	<b>Subsequent Descriptions:</b> None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E31-19</b>	Gear Recovered (y/n)	Yes
Date Set	Unknown	Date Lost	Unknown
Line Diameter	5/16"	Gear Part	Buoy, endline
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	U.S. - Red & Yellow
Target Species	Lobster	Location of set	Unknown
Gear Type	U.S. lobster trap/pot (Red & Yellow ALWTRP area)		
<u>Gear Description:</u>	92" of 5/16" sink endline attached to bullet buoy. 5 hog rings for weak link.		
<u>Comments:</u>	Fisherman was identified and interviewed. The exact set date and location is unknown but they haul their gear every 3-4 days.		
<u>Conclusions:</u>	Whale was entangled in an endline of a single U.S. lobster trap/pot.		

### Gear Images



E31-19 gear image – Full amount of gear recovered.

<b>NMFS No: E32-19</b>	<b>Date First Observed Entangled: 10/7/2019</b>
<b>Location First Observed Entangled:</b> 20.5 NM southeast of Gloucester, MA	<b>Latitude/Longitude First Observed Entangled:</b> 42° 20.454'N 70° 20.124'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Monitor
<b>Sighting prior to entanglement:</b> 9/22/2019	<b>Re-sightings Post-entanglement:</b> Contact CCS
<b>Whale Biology:</b> Live humpback whale, Diablo, adult female	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
Naturalists on a WW vessel sighted Diablo with monofilament line in tow.

<b>Description of Gear on Whale as Reported:</b>
<b>During Initial Sighting:</b> Small amount of monofilament looped over the tip of the right fluke blade. <b>Subsequent Descriptions:</b> None.

<b>Description of Wounds/Condition:</b>
<b>During Initial Sighting:</b> None noted. <b>Subsequent Descriptions:</b> None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	E32-19	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Monofilament
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Monofilament line		
Gear Description:	Whale was documented trailing monofilament line off the fluke. Unknown attachment point.		
Comments:	None.		
Conclusions:	Whale was entangled in monofilament line of unknown origin.		

<b>NMFS No: E33-19</b>	<b>Date First Observed Entangled:</b> 10/24/2019
<b>Location First Observed Entangled:</b> 14.4 NM SE of Ocean City, MD	<b>Latitude/Longitude First Observed Entangled:</b> 38° 14.082'N 74° 48.223'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Partial Disentanglement - Entangled
<b>Sighting prior to entanglement:</b> Unknown	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live humpback whale, unknown ID and life history	
<b>NMFS Serious Injury/Mortality Determination:</b> Serious Injury (Prorated)	

<b>Event Description:</b>
A fishing charter found an entangled whale, stood by and reported the sighting to Maryland Natural Resources Police. Another charter vessel lent a cutting blade and pole to the officers, who were able to remove and collect some of the gear. The remaining configuration of gear was unclear.

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Described as being caught in the surface system of a gillnet, wrapped around the flukes with buoys in tow.	<b>Subsequent Descriptions:</b> None.

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> None noted.	<b>Subsequent Descriptions:</b> None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	E33-19	Gear Recovered (y/n)	Yes
Date Set	Unknown	Date Lost	Unknown
Line Diameter	N/A	Gear Part	Net, Surface system, endline
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	U.S. gillnet		
<u>Gear Description:</u>	A polyball with 1100 lbs weak link and the weighted end of highflyer with a 1100 lbs weak link were recovered with short pieces of blue line.		
<u>Comments:</u>	Gear was retained by Maryland Natural Resources Police. Permit number was obtained from buoy and traced to a RI registered vessel.		
<u>Conclusions:</u>	Whale was entangled in the endline or surface system of a U.S. gillnet.		

### Gear Images



<b>NMFS No: E34-19</b>	<b>Date First Observed Entangled: 12/2/2019</b>
<b>Location First Observed Entangled:</b> 6.2 NM north of Brier Island, NS	<b>Latitude/Longitude First Observed Entangled:</b> 44° 23.134'N 66° 21.64'W
<b>Initial Movement (Anchored/Free):</b> Anchored	<b>Status:</b> Disentangled – Gear shed
<b>Sighting prior to entanglement:</b> 9/16/2019	<b>Re-sightings Post-entanglement:</b> None
<b>Whale Biology:</b> Live humpback whale, Kansas, contact CCS for age/sex ID	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
<p>12/2/2019</p> <ul style="list-style-type: none"> <li>Fundy East Whale Rescue partially disentangled a humpback whale. They were able to make one cut, and the owner of the gear attempted to haul it, parting an additional line. There is some gear remaining, but the gear attached was significantly reduced.</li> </ul> <p>12/10/2019</p> <ul style="list-style-type: none"> <li>The Fundy East Whale Rescue team located the remaining gear attached to Kansas floating in the Bay of Fundy. It was uniquely marked; giving the team confidence Kansas is now gear free.</li> </ul>

Description of Gear on Whale as Reported:	
<b>During Initial Sighting:</b> Anchored by the tail in a 20 pot trawl with line and “balloons” in association with both flippers.	<b>Subsequent Descriptions:</b> None.

Description of Wounds/Condition:	
<b>During Initial Sighting:</b> Overall good body condition, wounds to the tail stock.	<b>Subsequent Descriptions:</b> None.



<b>FISHERY INTERACTION GEAR ANALYSIS</b>			
NMFS No.	<b>E34-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Surface system, endline
Fishery Mark Recovered/Documented	N/A	Fishery Mark Origin and Color	N/A
Target Species	Lobster	Location of set	Unknown
Gear Type	Canadian lobster		
<u>Gear Description:</u>	Whale was described as being anchored in a 20 trap lobster trawl with two surface buoys.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	Whale was described by fisherman and Canadian response team as being entangled in the endline and surface system of a 20 trap Canadian lobster trawl.		



<b>NMFS No: E35-19</b>	<b>Date First Observed Entangled:</b> 12/21/2019
<b>Location First Observed Entangled:</b> 20.3 NM south of Nantucket Island, MA	<b>Latitude/Longitude First Observed Entangled:</b> 40° 53.98'N 70° 0.84'W
<b>Initial Movement (Anchored/Free):</b> Free-swimming	<b>Status:</b> Gear shed
<b>Sighting prior to entanglement:</b> 4/29/2019	<b>Re-sightings Post-entanglement:</b> 4/7/2021
<b>Whale Biology:</b> Live right whale, #3466, adult male	
<b>NMFS Serious Injury/Mortality Determination:</b> Non-Serious Injury	

<b>Event Description:</b>
<p>12/21/2019</p> <ul style="list-style-type: none"> <li>NEFSC aerial survey team documented an entangled right whale. Unfortunately, time of day and distance made a response impossible for today. While the entanglement configuration is not immediately life-threatening it does appear the whale will have difficulty shedding on its own.</li> </ul> <p>1/18/2020</p> <ul style="list-style-type: none"> <li>Vineyard Wind aerial survey observers also had a sighting of this whale but the network did not receive notification until 10/13/2020.</li> </ul> <p>1/22/2020</p> <ul style="list-style-type: none"> <li>The CCS aerial survey team documented this whale still entangled and again, due to distance and time of day, no response was possible.</li> </ul> <p>1/31/2020</p> <ul style="list-style-type: none"> <li>The NEFSC aerial survey team documented this whale again, with little change compared to the previous sighting. No response as possible.</li> </ul> <p>4/07/2021</p> <ul style="list-style-type: none"> <li>NEFSC aerial survey documented the whale which now appears to be gear free.</li> </ul>

<b>Description of Gear on Whale as Reported:</b>	
<b>During Initial Sighting:</b> Multiple passes of yellow line through the mouth that trails to a jumble and at least one bitter end. Line appears buoyant with no buoys visible.	<b>Subsequent Descriptions:</b> On 4/7/2021, the whale appears to have shed the gear.

<b>Description of Wounds/Condition:</b>	
<b>During Initial Sighting:</b> Traveling steadily, no wounds noted.	<b>Subsequent Descriptions:</b> None.

FISHERY INTERACTION GEAR ANALYSIS			
NMFS No.	<b>E35-19</b>	Gear Recovered (y/n)	No
Date Set	Unknown	Date Lost	Unknown
Line Diameter	Unknown	Gear Part	Unknown
Fishery Mark Recovered/Documented	No	Fishery Mark Origin and Color	N/A
Target Species	Unknown	Location of set	Unknown
Gear Type	Unknown line		
<u>Gear Description:</u>	Whale was documented in line of unknown origin.		
<u>Comments:</u>	None.		
<u>Conclusions:</u>	Whale was entangled in line of unknown origin.		