

NMFS No.	E22-20
Initial Status	Alive
Subsequent Status (as of the date the NMFS report was completed)	Partial Disentanglement – Entangled
Date First Observed Entangled	10/19/2020
Species	Right
Individual ID	#3920, Cottontail
Location First Observed Entangled	10.1 NM south of Nantucket Island, MA
Latitude/Longitude First Observed Entangled	41° 04.1'N 70° 01.2'W
Event Description	<p>10/19/2020</p> <ul style="list-style-type: none"> CCS aerial survey located the whale and reported it to the CCS response team who was already on the water searching for another entangled whale. The team quickly managed to attach a telemetry buoy and remove ~90 feet of 5/8" line. Throughout the disentanglement attempts the whale became more evasive and agitated and eventually the team had to suspend operations due to fading light. <p>The telemetry was tracked for the next eleven days but due to distance from shore or poor weather no disentanglement attempts were possible. On October 31 the telemetry was approximately 65 miles south of Yarmouth, Nova Scotia and DFO arranged for a flight to aid in finding the whale for a response with CWRT. The plane managed to find and circle the buoy for 25 minutes and no whale was seen. It is believed the telemetry was no longer attached to the whale, but it is unclear if additional gear was removed or the attachment just fell off. Unfortunately, the tag also stopped transmitting the same day preventing recovery of the buoy.</p> <p>2/18/2021</p> <ul style="list-style-type: none"> A member of the public who was operating a drone discovered the whale off Indialantic Beach, FL. Harbor Branch Oceanographic Institute, Blue World Research Institute, FL Fish and Wildlife Conservation Commission and Marine Resources Council responded on the water and had aerial support from Clearwater Marine Aquarium Research Institute - Georgia (CMARI). An advanced disentanglement response was not possible due to the time of day, but additional documentation was obtained and a telemetry buoy was attached for tracking. Unfortunately, the telemetry stopped transmitting a few hours after attachment. <p>2/27/2021</p> <ul style="list-style-type: none"> CMARI – South Carolina aerial survey team located the animal deceased with the entangling gear still present. An effort was mounted with USCG and UNC Wilmington the following day to recover the gear, document and sample the whale.

Description of Gear on Whale as Reported	<p>3/10/2021</p> <ul style="list-style-type: none"> GA DNR, CMARI, National Marine Mammal Foundation documented the carcass and collected additional line from the mouth area.
A. During Initial Sighting	<p>Single line tight over the bonnet. One line exiting the right side of the mouth and then trails 3-4 body lengths behind the whale. Another line exited the left side of the mouth and trailed below.</p>
B. Subsequent Descriptions	<p>2/18/2021</p> <ul style="list-style-type: none"> Line exits the mouth at least from four areas and at least one single tight line over the bonnet remains. <p>2/27/2021</p> <ul style="list-style-type: none"> Two lines exiting the mouth with two severely embedded wraps of line on the bonnet. <p>3/10/2021</p> <ul style="list-style-type: none"> Line was entangled in the baleen and “passing under the ventral aspect of the rostrum”.
C. Diagram of Entangling Gear on Whale	<p>None</p>
Description of Wounds/Condition	
A. During Initial Sighting	<p>Entanglement trauma on the tailstock and partially embedded line on the bonnet. Overall condition was not ideal.</p>
B. Subsequent Descriptions	<p>2/18/2021</p> <ul style="list-style-type: none"> Whale in severe condition with significant weight loss and poor skin condition. Entanglement trauma visible on various parts of the body. <p>2/27/2021</p> <ul style="list-style-type: none"> Two wraps of line severely embedded on the bonnet. Significant shark predation.
Sighting prior to entanglement	<p>3/16/2020</p>
Re-sightings Post-entanglement	<p>None</p>
Life History Information	<p>Adult male</p>
NMFS Serious Injury/Mortality Determination	<p>Human-induced mortality</p>

FISHERY INTERACTION GEAR ANALYSIS

NMFS No.	E22-20		
Field No.	PR 101920 Eg	Date First Observed	10/19/2020
Location First Observed	10.1 NM south of Nantucket Island, MA 41° 04.1'N, 70° 01.2'W	Subsequent Status	Partial Disentanglement - Entangled
Species	Right	Gear Recovered (y/n)	Yes
Individual ID	#3920 - Cottontail	Gear Analysis Conducted (y/n)	Yes

GEAR DESCRIPTION / ANALYSIS

Date Gear Retrieved	10/19/2020, 2/28/2021	Gear Retrieved By	CCS, UNC Wilmington, GA DNR
Date Gear Received	10/23/2020, Pending	Received From	CCS, UNC Wilmington, GA DNR
Sources:	USCG	Date Set	Unknown
	CCS	Date Lost	Unknown
	Other	Location	Unknown
		Depth	Unknown
		Bottom Type	Unknown
Gear Type:	Consistent with Canadian snow crab	Target Species:	Snow crab

Gear Description: Recovered gear from October 19, 2020 operation consisted of 90 feet of 5/8” polypro float line with a 19” double tucked loop and unrolled double clove hitch or rolling hitch at one end. An 8” length of braided orange mending twine was tucked under one strand approximately 8 fathoms from the tucked loop.

Gear recovered from February 28, 2021 consisted of three pieces (necessary to remove gear from carcass) of 5/8” polypro float line: 27’ with the 8” orange marker, 78’ with the 6” marker, and a 15” section. 102 feet of 5/8” 3 strand lead line with no markers was also recovered. The two lengths of braided orange mending twine, 6” and 8” length, were woven in the line.

Gear recovered from March 10, 2021 consisted of three pieces of line (necessary to remove gear from carcass) of 5/8” 3 strand lead line: 12’, 13’ and 13’ with a 6” length of braided orange mending twine woven in the line. Two sections (necessary to remove gear) of 5/8” polypro float line was also removed: 12’ and 17’.

No ID marks, tags or buoys were recovered from any sample.

The line was compared to right whale (#3530 – Ruffian) case E02-17 where a snow crab trap and line was recovered in 2017. In this Ruffian case an identical attached double clove hitch or rolling hitch loop with double tuck of 5/8” line to the bucket/bridle of the trap. This loop/hitch is attached so when the hitch parts it will roll out. This is mirrored by the section of line recovered from Cottontail in October. The unique splice that has been found associated with other identified Canadian snow crab entanglement cases, including within a portion of the buoy line removed from Ruffian, was not present on the retrieved gear from Cottontail. Similar to the location of the orange mending twine in this gear retrieved from Cottontail, a gear alert marker (GAM) which is a notification on the line to alert the fisher to where they are in the haul, was present at a similar location on the Ruffian line: approximately 8 – 8.5 fathoms of the trap.

Comments: It is important to note that gear identification is based on experience, knowledge, industry consultation and recovered gear examples. Our NOAA Fisheries gear team has extensive experience with fishing industries within our country and we recognize our knowledge of Canadian fisheries is limited. Any case, including this one, which is not identified to an individual fisher will remain an open case as additional information may change the conclusion.

We were unable to definitively conclude whether the rope removed from Cottontail was being actively fished when the interaction occurred or whether the interaction occurred in derelict or illegal gear. However, there are two key points that suggest derelict or illegal gear as a possibility. First, there was some growth present on the line. Second, the orange woven markers, which suggest a fishery ID mark for Canadian snow crab, does not meet 2020 Canadian gear regulations, but it could be sufficient for the 2018 and 2019 seasons.

The orange markers, could also be interpreted as an ALWTRP fishery mark for the U.S. Southern nearshore trap/pot fishery, however it does not fit the criteria for that fishery or U.S. mark. U.S. regulations require that the mark must be 12 inches and the orange markers present on the rope retrieved from Cottontail are not of sufficient length. The Southern nearshore trap/pot fishery also uses a smaller diameter line associated with the close proximity to shore. The recovered line was 5/8".

We also investigated if the recovered line was from a section of endline near a surface system. The disentanglement response team from the October operation witnessed something heavy causing the line to sink from the non-recovered portion, suggesting the near surface portion was recovered. The recovered gear similarities from Ruffian's 2017 case are almost exact besides length recovered, a different color GAM and Ruffian's recovered gear still had the trap attached. On re-inspecting the Ruffian line, leaded line was not found along the buoy line within 90 feet of the trap. This is mirrored by the section of line recovered from Cottontail in October. The response team observation that a heavy weight was present on the non-recovered portion of gear could be explained in a number of ways including additional gear/debris was acquired, line was bundled in a tangle, additional gear was not recovered or the surface system, if still present, was compromised.

Conclusions: Cottontail's recovered gear was compared to the recovered gear of E02-17, which was determined to be Canadian snow crab gear. The line diameter, double tucked loop with hitch, GAM at ~8 fathoms from the becket/bridle of the trap, and absence of leaded line within 90 feet of the trap all matched between the two cases E02-17, Ruffian and this incident E22-20. The orange woven markers are also sufficient for the 2018 and 2019 Canadian snow crab industry and are of insufficient length for a U.S. fishery. Given all the similarities between the two cases and not matching any U.S. fishery, we feel the gear is consistent with Canadian snow crab.

Current Location of Gear

NOAA Narragansett, RI Lab