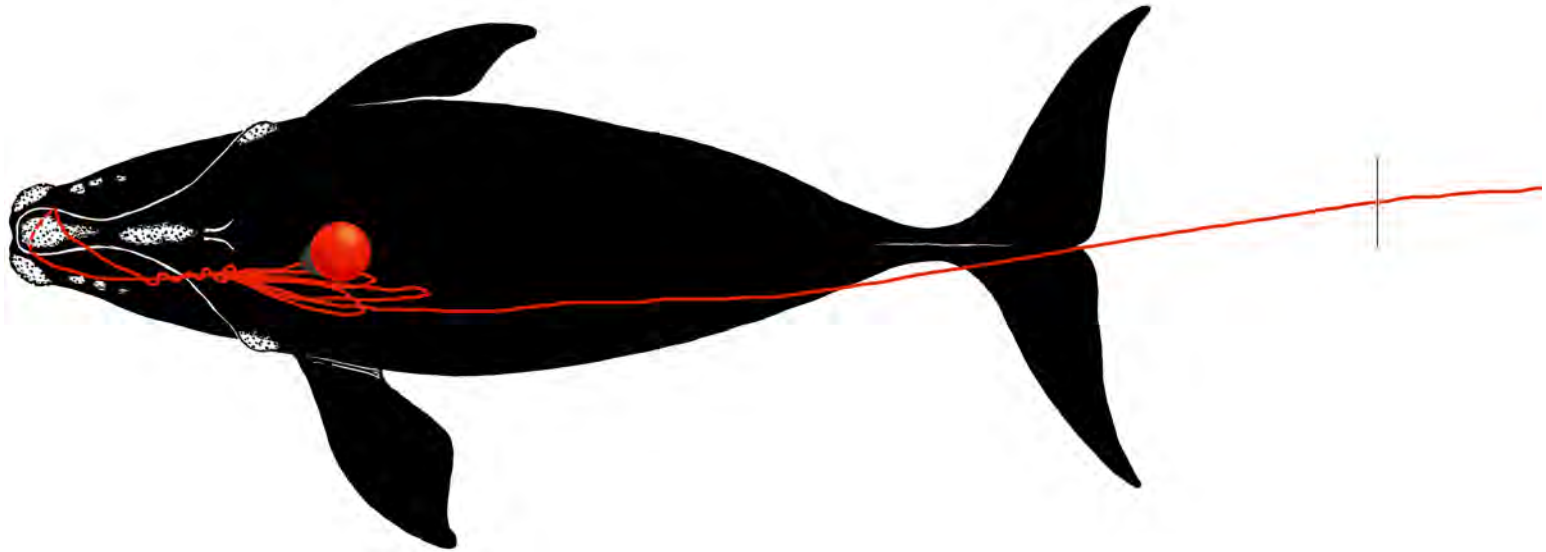
Species	Right Whale	Whale ID	Eg #1971

Date first observed entangled (date seen prior without gear)	24 Jun 1997 (20 Aug 1996)				
Sex	Male	Birth year	1989	Age at entanglement	8

Case study ID	PCCS	NMFS	GEAR ID
		E9-97	J062497 a-c
Gear sample collected?	Yes	Gear type	Lobster offshore



Reproductive prior to/after entanglement detection?					
Entanglement injury severity	Moderate				
Entanglement configuration risk	High				
Wound severity	Mouth	Head/ Rostrum	Flippers	Body	Flukes
	Medium	Medium	None	Medium	Medium
Duration of time carrying gear	Minimum 22 days, maximum 346 days				
Disentangled?	Yes - 24 Jun 1997				
Status	Alive - Last sighted in 2014				
Number of prior entanglement interactions	1				

Entanglement configuration	Whale free swimming; line caught around forward part of upper jaw leading to a triangle of line and balloon buoy; line trailing to ~60feet.
Anchoring point(s)	Mouth
Gear configuration confidence	High
Remaining questions	None
Comments	Disentanglement was extremely difficult with whale towing fishing vessel in reverse and defending itself with head and flukes.

Polymer type		PP/PET	PP/PE	PP
Gear component		Vertical	Vertical	Surface sys
Rope diameter (inches)		1/2 (0.512)	9/16 (0.575)	9/16 (0.551)
Breaking strength (lbs)	Tested	3 648	1 580	4 381
	New	4 500	5 000	4 590

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See: Knowlton, A.R., J. Robbins, S. Landry, H.A. McKenna, S.D. Kraus, T. B. Werner. 2015. Effects of fishing rope strength on the severity of large whale entanglements. Conservation Biology DOI: 10.1111/cobi.12590

24 Jun 1997 PCCS

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03 Aug 1997 NEA

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DATA SHEET

FORENSIC ANALYSIS OF ROPES
WHALE ENTANGLEMENT PROJECT

SPECIMEN ID NO.	**NMFS NO.**
J062497	**E9-97**

Gear Description:
Buoy application, perhaps offshore.

Buoy gear set. Under buoy line (a) is relatively short and soft, and is spliced into a long soft orange PP line (b). Line (c) was also lone, had a hard lay and was part of the set. Line (a) is moderately negative (sp gr 1.01), line (b) is floating (sp gr 0.92) and line (c) is very negative with a sp gr of about 1.3.

All lines are relatively large compared to most in this study.

Rope description:
J062497-a: This is a $^{1}/_{2}$ inch 3-strand PP/PET combo line. The lay is moderately soft. It has a small gold marker yarn in one strand. There are 6 rope yarns per strand. It has moderate wear.

Tested (T) or adjusted (A) strength	Typical new strength	Rope condition
3,648 lbs (T)	4,500 lbs	Good

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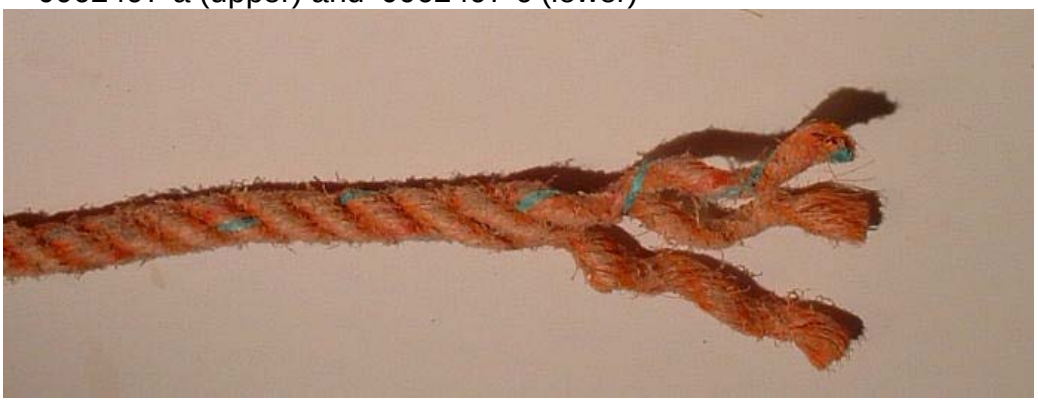
J062497-b: This is a $^{9}/_{16}$ inch 3-strand orange PP with a green marker yarn. There are 14 rope yarns and a center yarn per strand. It has a soft lay. The condition is fair.

Tested (T) or adjusted (A) strength	Typical new strength	Rope condition
1,580 lbs (T)	5,000 lbs	Poor

J062497-c: This is a $^{9}/_{16}$ inch 3-strand PP/PET combo line dominated by heavier PET. It has small red and black marker yarns. It has a hard lay and 8 rope yarns per strand.

Tested (T) or adjusted (A) strength	Typical new strength	Rope condition
4,381 lbs (T)	4,590 lbs	Good

J062497-a (upper) and J062497-c (lower)



J062497-b

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