

Species		Right Whale		Whale ID	Eg #1907
Date first observed entangled (date seen prior without gear)			16 Aug 1990 (15 Oct 1989)		
Sex	Female	Birth year	1989	Age at entanglement	1

Case study ID	CCS	NMFS		GEAR ID
Gear sample collected?	Yes	Gear type	Gillnet	

No drawing available.

Reproductive prior to entanglement detection?			No		
Reproductive after entanglement detection?			No		
Entanglement severity			Severe		
Wound severity	Mouth	Head/ Rostrum	Flippers	Body	Flukes
	None	None	None	None	High
Duration of time carrying gear		Minimum 189 days, maximum 493 days			
Disentangled?		No			
Status		Dead in 1991			
Number of prior entanglement interactions		0			

Entanglement configuration	Gillnet gear tightly wrapped around fluke with buoys attached.
Anchoring point(s)	Flukes
Gear configuration confidence	High
Remaining questions	None
Comments	Animal migrated from the Bay of Fundy to the coast of Florida between September and February. In very poor condition and was found dead from a vessel strike with gear still attached. Gear retrieved but not available for analysis.



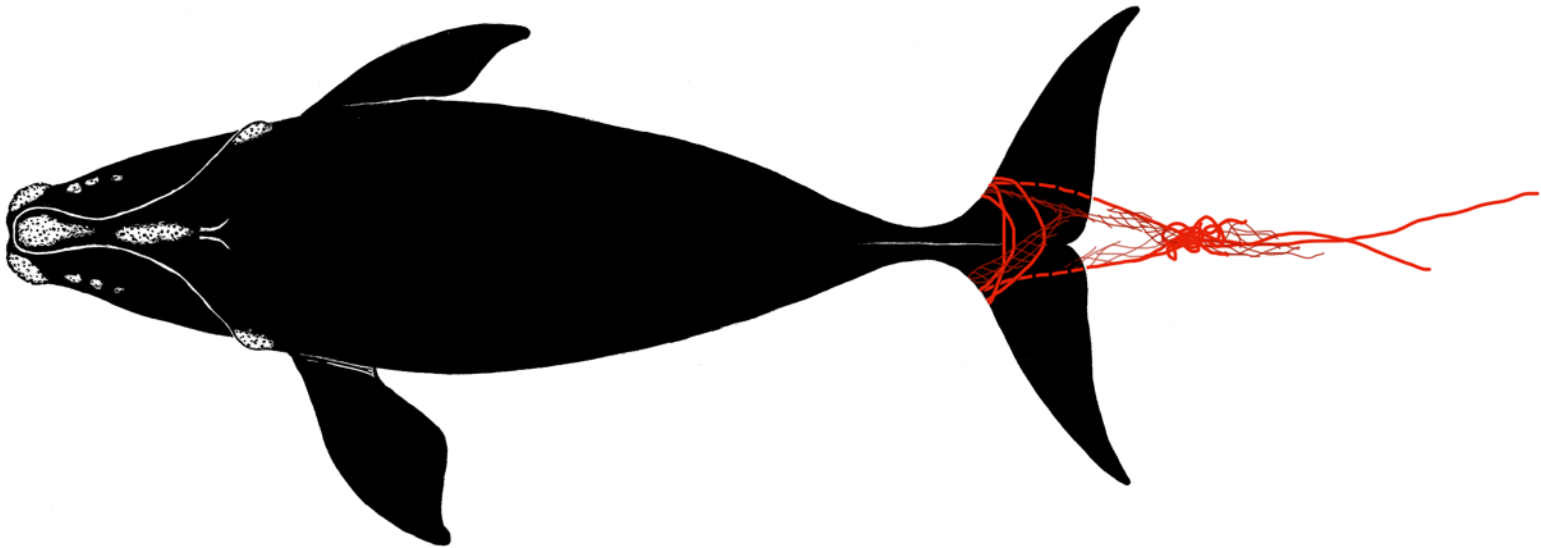
20 Aug 1990 NEA



20 Aug 1990 NEA

Species		Right Whale		Whale ID		Eg #2233	
Date first observed entangled (date seen prior without gear)		09 Jul 1993 (26 Sep 1992)					
Sex	Female	Birth year	1992	Age at entanglement	1		

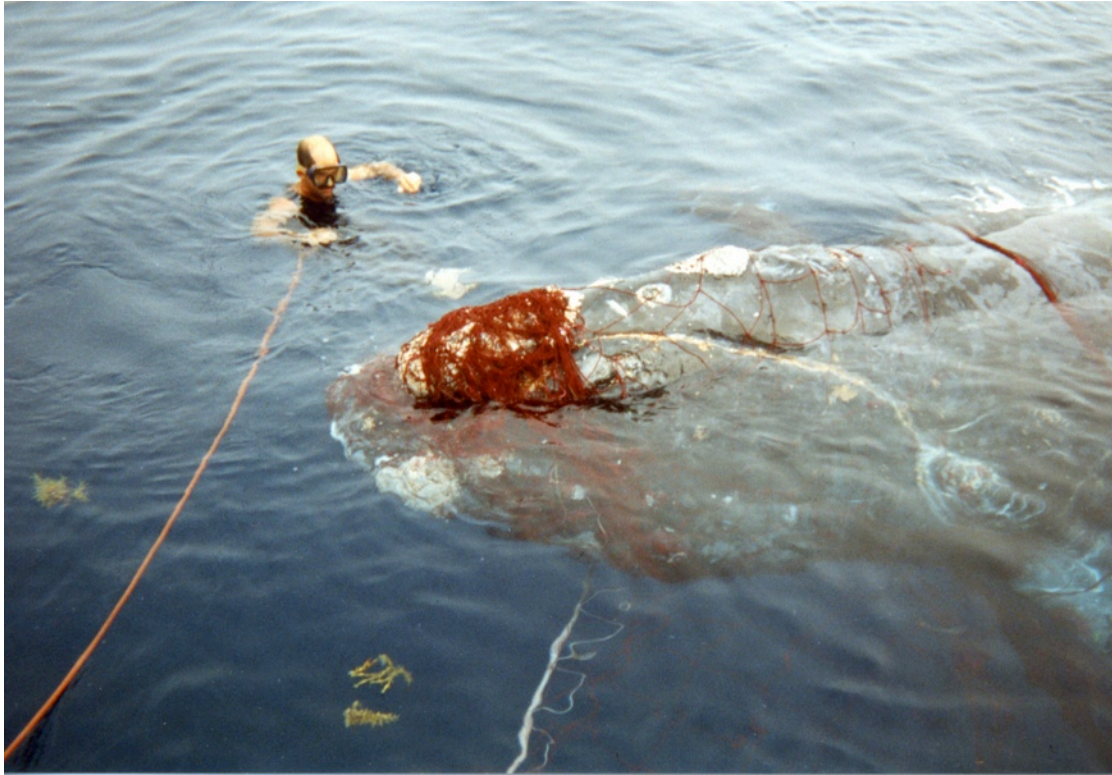
Case study ID	CCS	NMFS		GEAR ID
Gear sample collected?	Yes	Gear type	Swordfish drift gillnet and lobster.	



Reproductive prior to entanglement detection?			No		
Reproductive after entanglement detection?			No		
Entanglement severity			Severe		
Wound severity	Mouth	Head/ Rostrum	Flippers	Body	Flukes
	Medium	Medium	Medium	High	High
Duration of time carrying gear		Minimum 29 days, maximum 314			
Disentangled?		Yes, 2 times			
Status		Presumed dead - last sighted in 1993			
Number of prior entanglement interactions		0			

Entanglement configuration	Whale was entangled around the head and tail (not drawn) in a swordfish gillnet and partially disentangled on 9 July. Pre-existing gear was also seen on tail stock. Whale seen free swimming on 7 Aug 1993 with line and netting wrapped tightly around leading edges of both flukes and leading to a tangled mass of line. An assessment of the gear removed indicated both swordfish driftnet and lobster gear involved.
Anchoring point(s)	Mouth, body, flipper and tail
Gear configuration confidence	Reasonable
Remaining questions	Length of trailing line unknown
Comments	Whale was in very poor condition at the time of disentanglement.





09 July 1993 NMFS



09 Jul 1993 NMFS

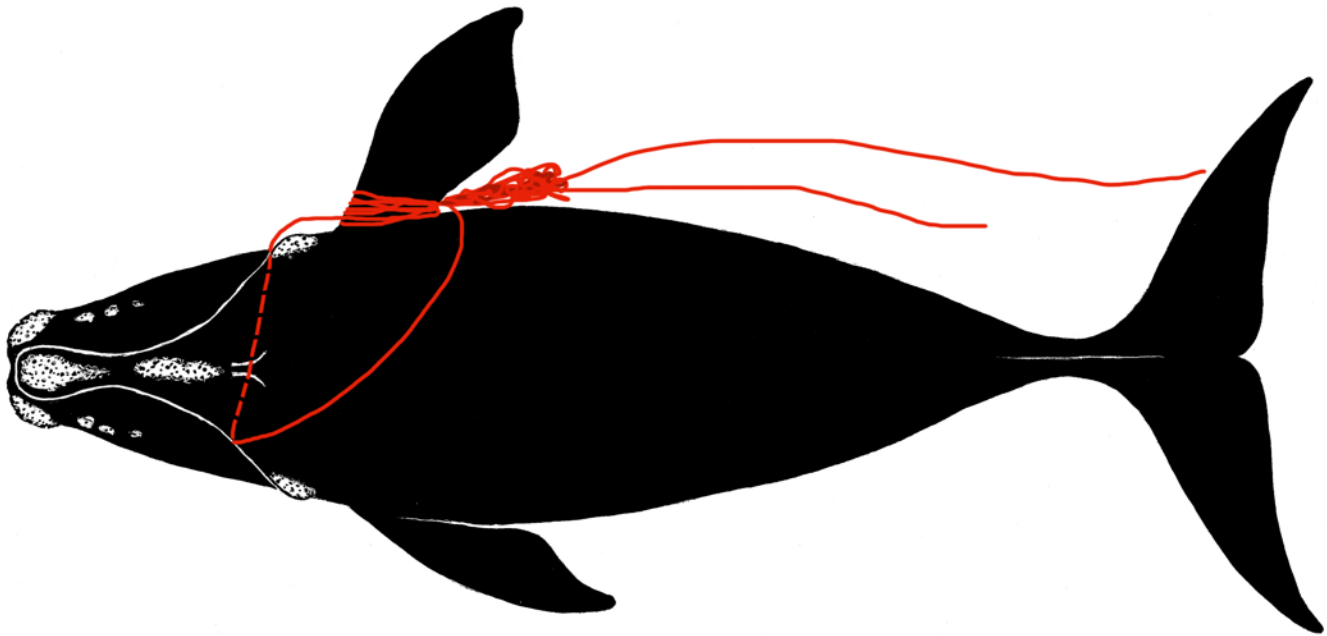


22 Aug 1993 Okeanos



Species		Right Whale		Whale ID		Eg #2366	
Date first observed entangled (date seen prior without gear)		23 Dec 1993 (22 Aug 1993)					
Sex	Male	Birth year	1993		Age at entanglement	0	

Case study ID	CCS		NMFS		GEAR ID	
					J071795 a-d	
Gear sample collected?		Yes		Gear type		



Reproductive prior to/after entanglement detection?					
Entanglement injury severity			Severe		
Entanglement configuration risk			High		
Wound severity	Mouth	Head/ Rostrum	Flippers	Body	Flukes
	Low	Low	High	Low	None
Duration of time carrying gear		Minimum 573 days, maximum 693 days			
Disentangled?		No			
Status		Dead 17 Jul 1995			
Number of prior entanglement interactions		0			

Entanglement configuration	Whale free-swimming; line through mouth leading to many tight wraps of the right flipper				
Anchoring point(s)	Mouthline, flipper				
Gear configuration confidence	Moderate				
Remaining questions	Length of trailing line unknown				
Comments	Whale seen alive but full extent of entanglement was not understood; gear was removed from carcass.				

Polymer Type		PP	PP	PP	Polypro/PET
Gear Component					
Rope Diameter (inches)		3/8 (0.366)	3/8 (0.354)	3/8 (0.358)	1/4 (0.283)
Breaking Strength (lbs)	Tested	1 215	974	1 538	983
	New	2 430	2 430	2 430	1 200



26 Sep 1994 NEA



17 Jul 1995 NEA



17 Jul 1995 NEA



17 Jul 1995 NEA



## DATA SHEET

### FORENSIC ANALYSIS OF ROPES WHALE ENTANGLEMENT PROJECT

**SPECIMEN ID NO.**

**J071795**

**NMFS NO.**

**E (no analysis)**

Gear Description:

Black (a), green (b) and blue (c) are  $\frac{3}{8}$  inch PP mono and there were long lengths of each. Specimen (d) was  $\frac{1}{4}$  inch black PP laid in parallel with PET and had a wooden handle in an eye on one end.



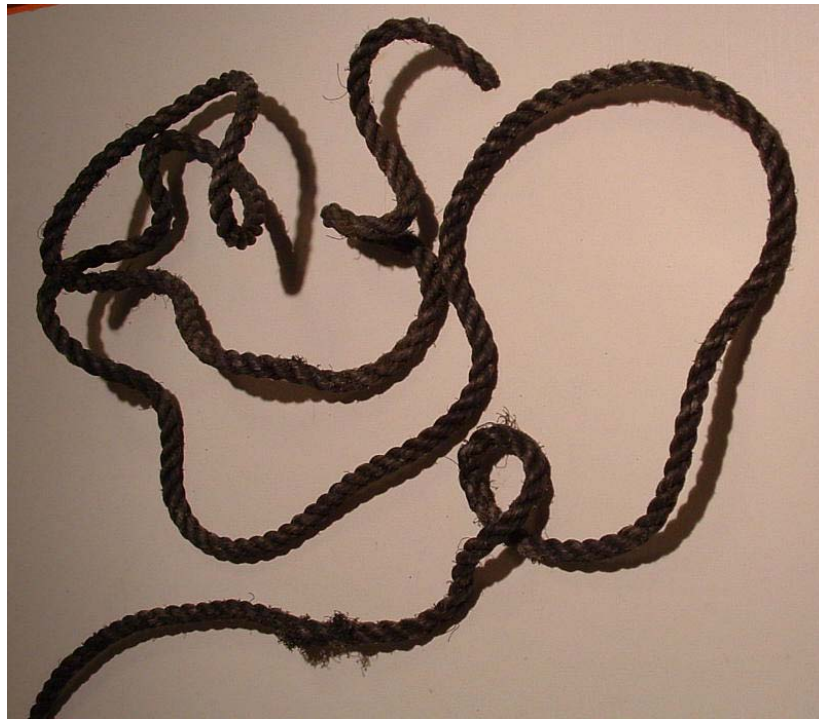


Rope description:

Black (a), green (b) and blue (c) lines are  $\frac{3}{8}$  inch PP mono. The blue specimen has a red (faded) marker yarn in one strand. All show signs of use, faded colors and some surface abrasion. The black specimen (a) is severely and permanently kinked, and there is a cut strand which is visible bottom center in the photo. All have 4 rope yarns per strand.

A

Tested (T) or adjusted (A) strength	Typical new strength	Rope condition
1,215 lbs (T)	2,430 lbs	Fair



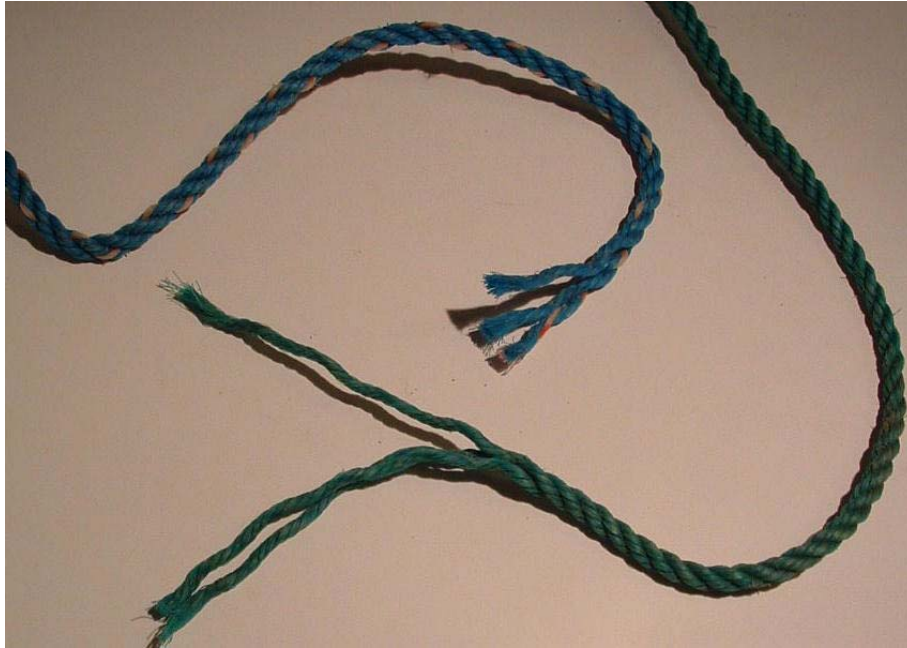
J071795-a Note kinks and cut at bottom of photo.

B

Tested (T) or adjusted (A) strength	Typical new strength	Rope condition
974 lbs (T)	2,430 lbs	Poor

C

Tested (T) or adjusted (A) strength	Typical new strength	Rope condition
1,538 lbs (T)	2,430 lbs	Fair



J071795-b-c

Specimen (d) is  $\frac{1}{4}$  black PP laid in parallel with PET. The line displays moderate surface abrasion. It is severely and permanently kinked. The cut strand is visible in the photo.

D

Tested (T) or adjusted (A) strength	Typical new strength	Rope condition
983 lbs (T)	1,900 lbs	Poor



Species		Right Whale		Whale ID		Eg #2320	
Date first observed entangled (date seen prior without gear)		28 Aug 1994 (15 Feb 1993)					
Sex	Female	Birth year	Unknown		Age at entanglement		2+

Case study ID	CCS		NMFS		GEAR ID	
Gear sample collected?		No		Gear type	Gillnet	

No drawing available

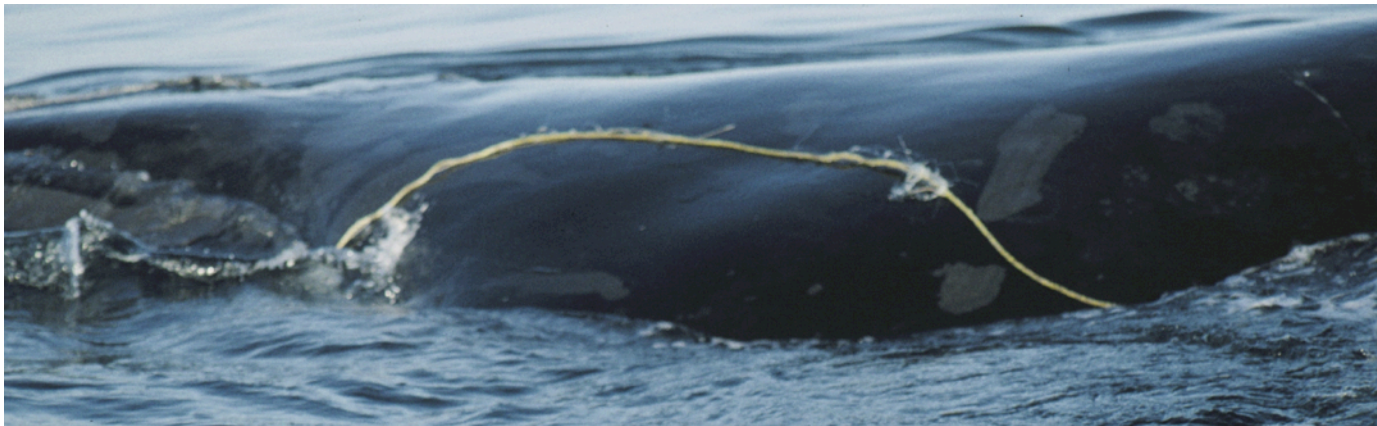
Reproductive prior to entanglement detection?			No		
Reproductive after entanglement detection?			Yes		
Entanglement severity			Minor		
Wound severity	Mouth	Head/ Rostrum	Flippers	Body	Flukes
	Low	Unknown	None	None	Low
Duration of time carrying gear		Minimum 380 days, maximum 934 days			
Disentangled?		No			
Status		Alive until seen dead in 2015 unknown cause			
Number of prior entanglement interactions		2			

Entanglement configuration	Single line with monofilament netting evident exiting left mouth and along left flank. No gear trailing.
Anchoring point(s)	Mouth
Gear configuration confidence	High
Remaining questions	None
Comments	Line eventually shed after at least one year.





19 Aug 1995 NEA



19 Aug 1995 NEA

Species		Right Whale		Whale ID	Eg #1247
Date first observed entangled (date seen prior without gear)		12 Sep 1994 (25 Sep 1992)			
Sex	Male	Birth year	1982	Age at entanglement	12

Case study ID	CCS	NMFS		GEAR ID
Gear sample collected?	No	Gear type		

Drawing not available.

Reproductive prior to entanglement detection?					
Reproductive after entanglement detection?					
Entanglement severity		Severe			
Wound severity	Mouth	Head/ Rostrum	Flippers	Body	Flukes
	Low	None	Unknown	None	High
Duration of time carrying gear		Minimum 330 days, maximum 1055 days			
Disentangled?		No			
Status		Presumed dead - Last sighted in 1995			
Number of prior entanglement interactions		1			

Entanglement configuration	Multiple wraps of rope with buoy attached wound tightly around the peduncle cutting into the tissue.
Anchoring point(s)	Flukes
Gear configuration confidence	Low
Remaining questions	Unsure how much gear was trailing.
Comments	Entanglement appears to have originated at the mouth.



21 Sep 1994 NEA



22 Sep 1994 NEA

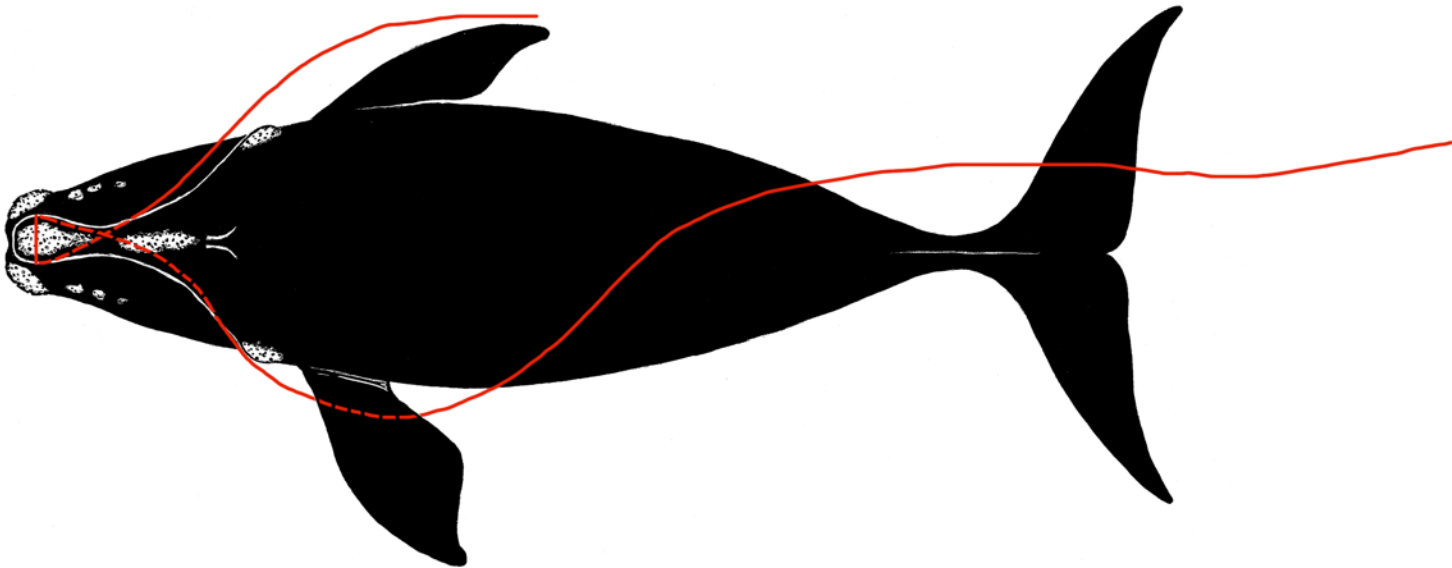


17 Aug 1995 NEA



Species		Right Whale		Whale ID		Eg # 2151		
Date first observed entangled (date seen prior without gear)		17 Nov 1994 (09 Aug 1994)						
Sex	Unknown	Birth year		1991		Age at entanglement		3

Case study ID	CCS		NMFS		GEAR ID	
					J111694	
Gear sample collected?		Yes		Gear type		



Reproductive prior to/after entanglement detection?					
Entanglement injury severity			Severe		
Entanglement configuration risk			High		
Wound severity	Mouth	Head/ Rostrum	Flippers	Body	Flukes
	High	High	Unknown	Low	Medium
Duration of time carrying gear		Minimum 1 day, maximum 99 days			
Disentangled?		No			
Status		Presumed dead - Last sighted in 1994			
Number of prior entanglement interactions		None			

Entanglement configuration	Whale free-swimming; continuous length of line wrapped over front of rostrum and exiting both sides of mouth; line on left side trails 20-30 feet aft of flukes.
Anchoring point(s)	Mouth
Gear configuration confidence	Reasonable
Remaining questions	Length of line trailing from right mouth.
Comments	In poor condition, not seen again.

Polymer type		PP/PET	
Gear component			
Rope diameter (inches)		5/16 (0.312)	
Breaking strength (lbs)	Tested	874	
	New	1900	



17 Nov 1994 NEA



17 Nov 1994 NEA



17 Nov 1994 NEA

Species		Right Whale		Whale ID		Eg #1506	
Date first observed entangled (date seen prior without gear)		02 Aug 1995 (25 Aug 1994)					
Sex	Male	Birth year	1985		Age at entanglement	10	

Case study ID	CCS	NMFS		GEAR ID
Gear sample collected?	No	Gear type		

No drawing available

Reproductive prior to entanglement detection?					
Reproductive after entanglement detection?			Yes		
Entanglement severity			Moderate		
Wound severity	Mouth	Head/ Rostrum	Flippers	Body	Flukes
	Moderate	Low	Unknown	None	Low
Duration of time carrying gear		Minimum 8 days, maximum 352 days			
Disentangled?		No			
Status		Alive - Last sighted in 2016			
Number of prior entanglement interactions		0			

Entanglement configuration	Short length of rope exiting out of right side of mouth. No gear trailing.
Anchoring point(s)	Mouth
Gear configuration confidence	High
Remaining questions	
Comments	Gear shed within 2 weeks of initial sighting with gear.





02 Aug 1995 LM



10 Aug 1995 NEA

Species		Right Whale		Whale ID		Eg #2110	
Date first observed entangled (date seen prior without gear)		16 Sep 1995 (08 Sep 1995)					
Sex	Male	Birth year	1991		Age at entanglement	4	

Case study ID	CCS		NMFS		GEAR ID	
Gear sample collected?		Yes		Gear type	Gillnet	

No drawing available

Reproductive prior to entanglement detection?					
Reproductive after entanglement detection?					
Entanglement severity			Minor		
Wound severity	Mouth	Head/ Rostrum	Flippers	Body	Flukes
	Low	Low	Unknown	None	Low
Duration of time carrying gear		Minimum 1 day, maximum 7 days			
Disentangled?		Yes			
Status		Alive until 2008 when new severe entgl injury			
Number of prior entanglement interactions		1			

Entanglement configuration	Single line through mouth and trailing ~ 700 feet to a high-flyer.
Anchoring point(s)	Mouth
Gear configuration confidence	High
Remaining questions	Gear picked up same day it was set according to fisherman.
Comments	Gear not available for analysis.





16 Sep 1995 NEA



16 Sep 1995 NEA



16 Sep 1995 NEA



16 Sep 1995 NEA