



Northeast Fisheries Science Center Reference Document 09-05

North Atlantic Right Whale Sighting Survey (NARWSS)
and
Right Whale Sighting Advisory System (RWSAS)
2008 Results Summary

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North Atlantic Right Whale Sighting Surveys

The North Atlantic Right Whale Sighting Survey (NARWSS) is a NOAA Fisheries program which locates and records the seasonal distribution of right whales off the northeastern United States. All NARWSS flights conducted in 2008 were sawtooth surveys and followed systematic track lines within nine survey blocks: Cashes Ledge, Franklin Basin, Georges Basin, Georges Shoal, Great South Channel, Howell Swell, Jeffreys Ledge, Jordan Basin, and Stellwagen Bank (Figure 1). There were no broadscale surveys conducted in 2008, as there have been in the past (Niemeyer et al. 2008. North Atlantic Right Whale Sighting Survey (NARWSS) and Right Whale Sighting Advisory System (RWSAS) 2007 results summary. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 08-06; 6 p.). During 2008, 53 flights that involved 295 flight hours were conducted in the nine survey blocks (Table 1). In addition, there were directed flights to relocate whale carcasses, entangled whales or support disentanglement efforts. During the 53 flights (not including the transits) 639 right whales were detected. The locations of the right whale sightings and transects flown by season are displayed in Figures 2a-2d.

Right Whale Sighting Advisory System

The Right Whale Sighting Advisory System (RWSAS) is designed to reduce collisions between ships and right whales by alerting mariners to the presence of the right whales via email, the internet, Broadcast Notice to Mariners (BNM), NOAA Weather Radio, and the Mandatory Ship Reporting system (MSR) (<http://www.nmfs.noaa.gov/pr/shipstrike/msr/>). There were 687 reports during 2008, of which 14 were unconfirmed and 54 were late (Table 2). These reports were obtained from a variety of sources including the NARWSS, whale research organizations, automated acoustic buoys, whale watch vessels, Coast Guard, fishing vessels, commercial ships, and the general public. The most common sources of the reports were acoustic buoys (211 or 31%) and aerial surveys (181 or 26%) (Table 2). Most of the reported right whale sightings in 2008 were within the Northeast region, which is from Maine through New York, where the number of reports per month varied from 24 in September to 137 in April (Figures 3 and 4a). Most of the reports of right whale sightings in the Mid-Atlantic region, which is from New Jersey through North Carolina, were from opportunistic sources, which is defined here as reports made by the general public, the Coast Guard, commercial ships and fishing vessels (Figures 3 and 4b). Most of the reported right whales in Canadian waters were from either shipboard or aerial surveys (Figures 3 and 4a).

A total of 257 alerts were broadcast in 2008. Unconfirmed reports, duplicate reports, and late reports of one to two right whales did not generate an alert. Late reports of two or more whales did generate an alert since it was likely that right whales remained in the vicinity of the reported location. Multiple sightings received on the same day were typically combined into a single alert.

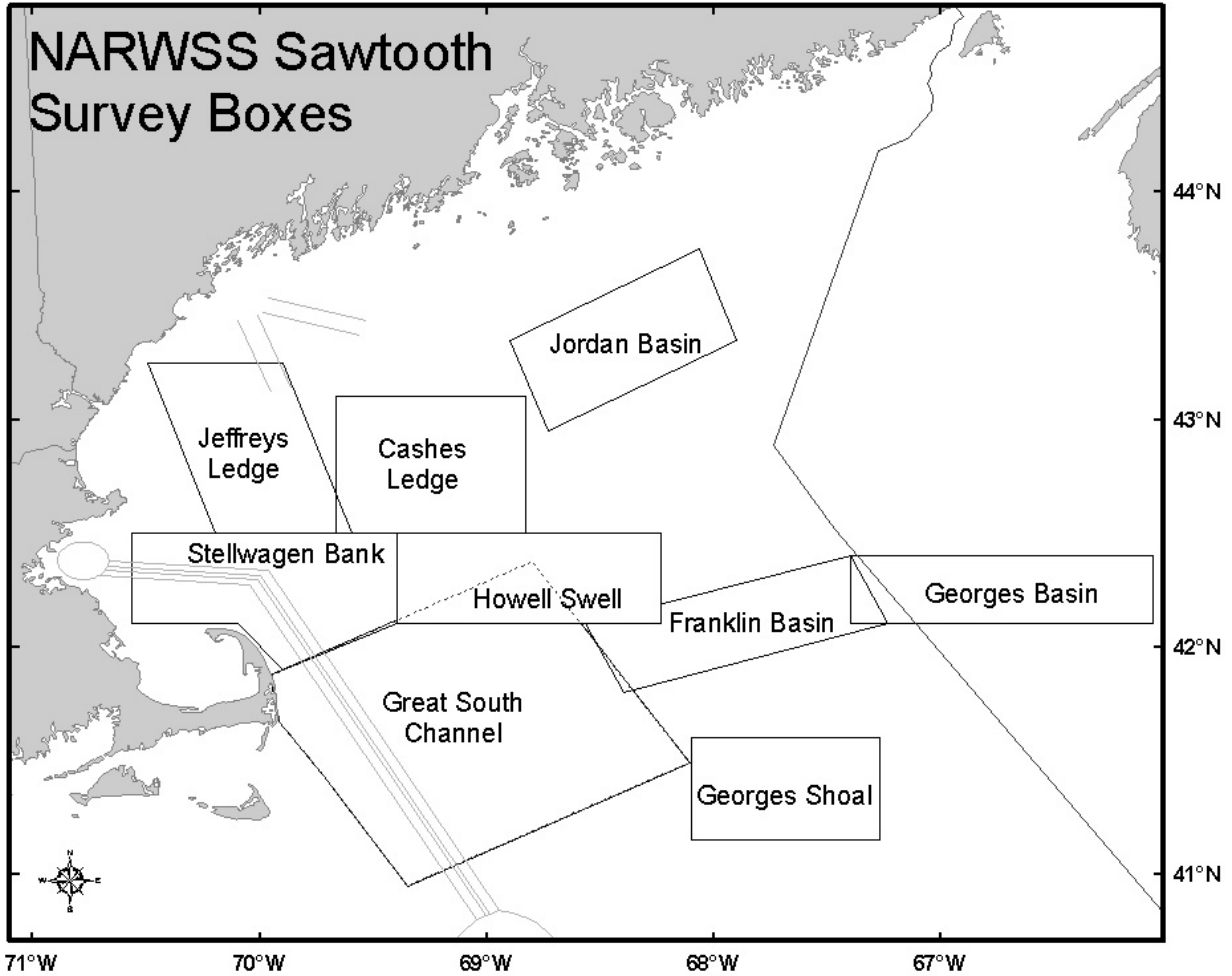


Figure 1. The locations of the sawtooth survey blocks used by the North Atlantic Right Whale Sighting Survey (NARWSS) to monitor the seasonal distribution of right whales during 2008.

Table 1. Summary of NARWSS flights conducted in 2008 including the number of flights, flight hours, and right whales by both survey block and month. All flights conducted were sawtooth surveys and followed systematic track lines within nine survey blocks. Directed flights to relocate whale carcasses, entangled whales or support of disentanglement efforts are not included in this table.

Total Number of Flights in Each Survey Block												
Month	Cashes Ledge	Franklin Basin	Georges Basin	Georges Shoal	Great South Channel	Howell Swell	Jeffreys Ledge	Jordan Basin	Stellwagen Bank	Number Flights	Flight hours ¹	#Egs ²
Jan							2	1	2	5	29.5	47
Feb	2						2	1		5	28.5	31
Mar				1	2				1	4	23.0	40
Apr	1	1			3	1	1	1	1	9	50.0	70
May					3					3	17.8	111
Jun		2			3	1				6	31.8	106
Jul		2	3		2				1	8	38.3	87
Aug										0	0.0	0
Sept										0	0.0	0
Oct	1						2	1	1	5	27.4	11
Nov	1						1	2	1	5	28.8	48
Dec	1							2		3	19.4	88
Totals	6	5	3	1	13	2	8	8	7	53	295	639
# Egs²	31	89	34	0	264	6	30	160	25			

¹ Flight hours includes transit time in addition to time on survey and while circling to photograph whales

² # Egs = number of right whales sighted (may include duplicate individuals and does not include whales seen on transit)

Table 2. The total number of right whale sightings reported to the RWSAS in 2008 by reporting source, the number of these reports which were unconfirmed, and the number of late reports (those received more than one day after the sighting).

	# of Reports	Unconfirmed	Late
Aerial Survey	181	0	16
Shipboard Survey	55	0	15
Acoustic ¹	211	0	7
Whale Watch	59	0	2
Coast Guard	14	1	0
Commercial Ship	10	3	1
Fishing Vessel	2	0	0
Opportunistic	89	10	13
Totals	687	14	54

¹ For acoustic buoys, a report is considered a day in which one or more acoustic buoys detected right whale vocalizations.

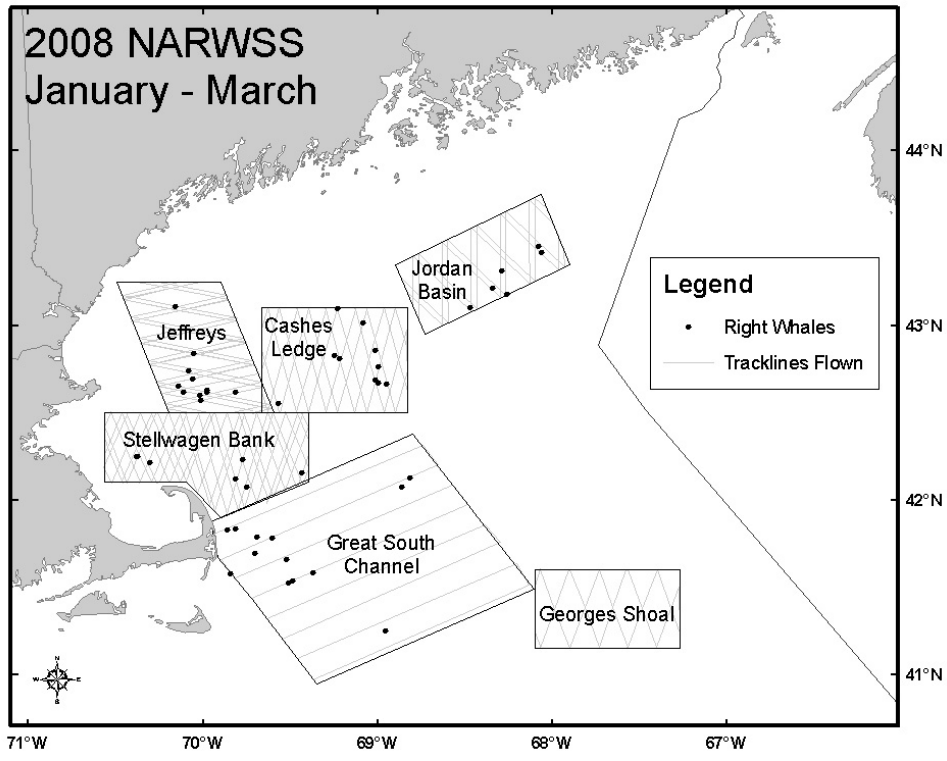


Figure 2a. NARWSS track lines and right whale sightings from January through March, 2008.

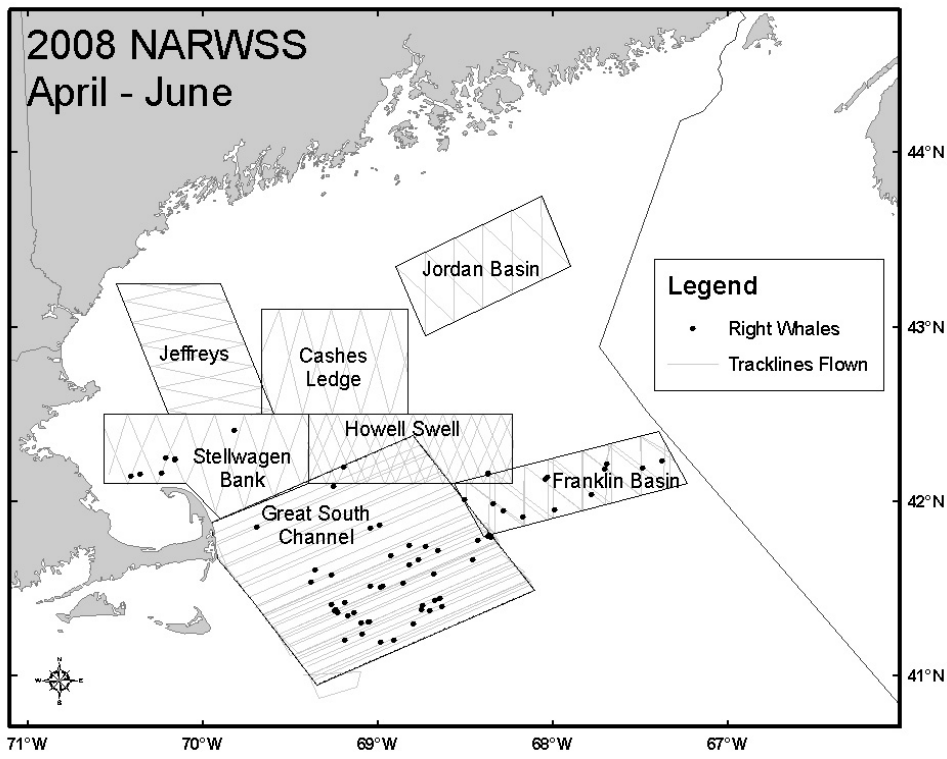


Figure 2b. NARWSS track lines and right whale sightings from April through June, 2008.

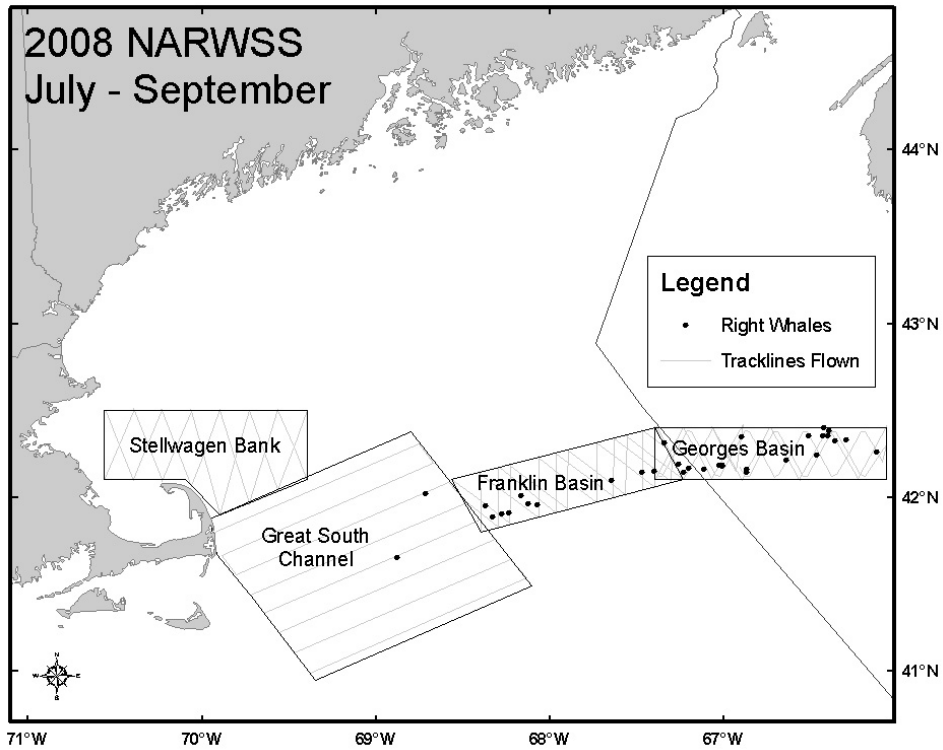


Figure 2c. NARWSS track lines and right whale sightings from July through September, 2008.

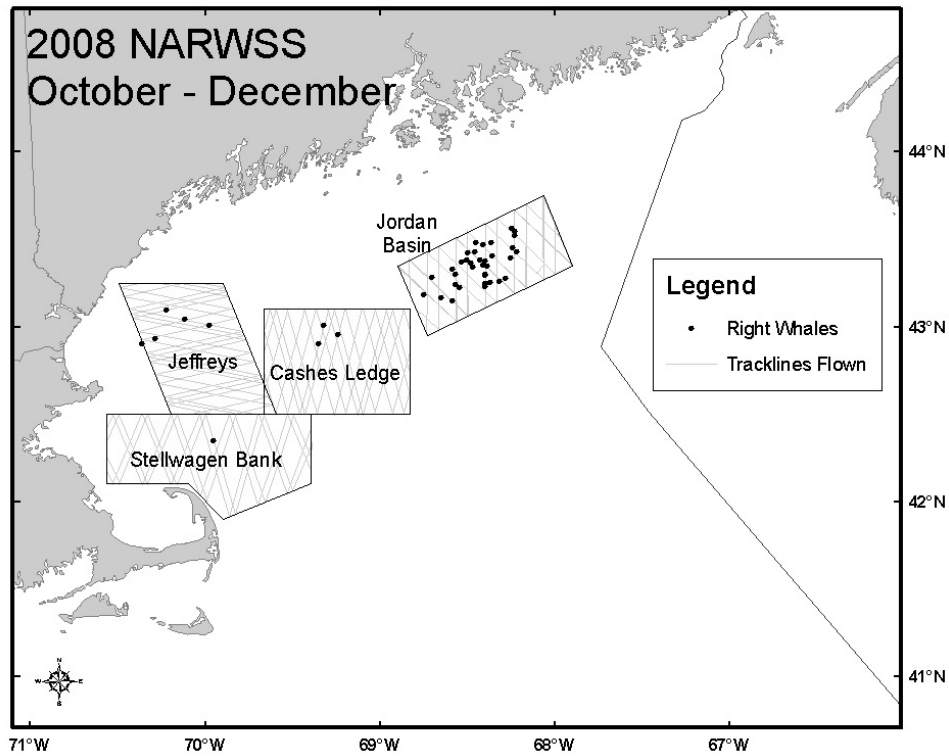


Figure 2d. NARWSS track lines and right whale sightings from October through December, 2008.

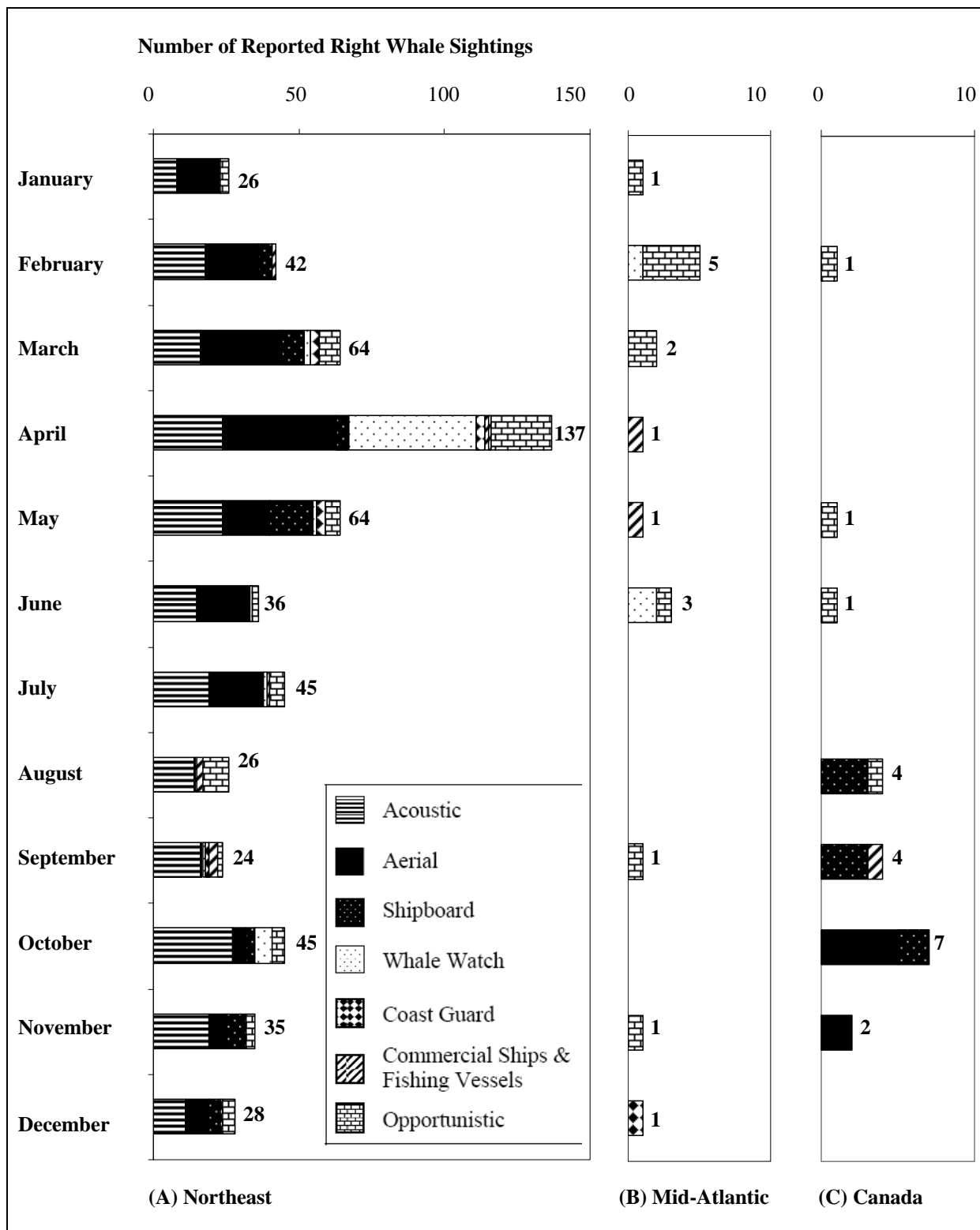


Figure 3. Number, month, and source of reported right whale sightings in 2008 within the (A) Northeast region- Maine through New York, (B) Mid-Atlantic region- New Jersey through North Carolina, and (C) Canadian waters.

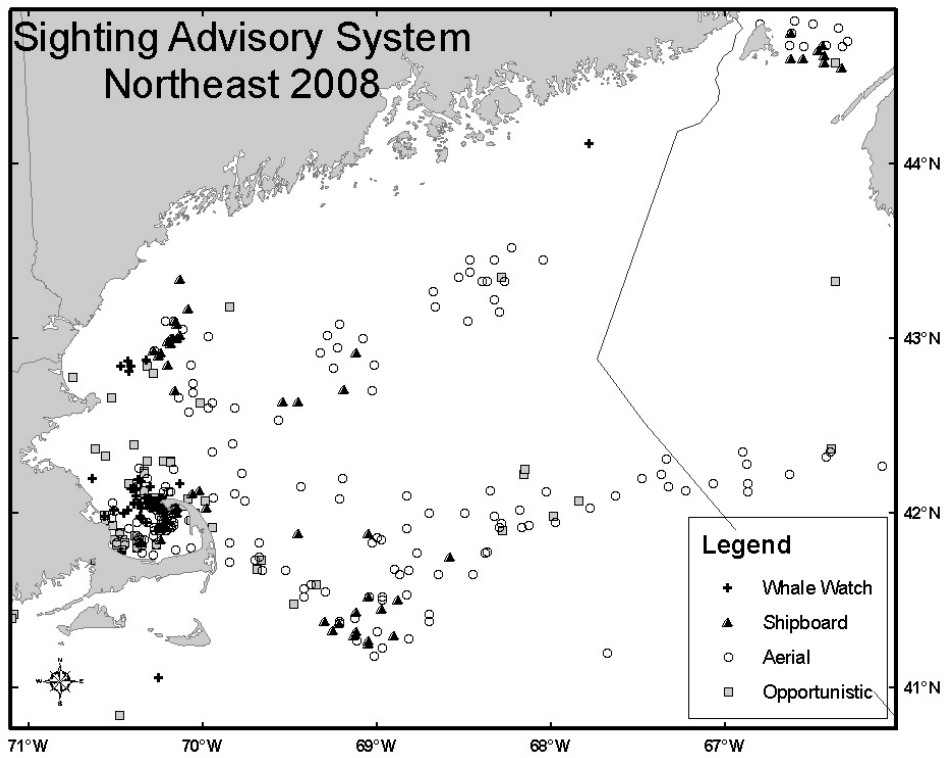


Figure 4a. Locations of all right whale sightings reported to the RWSAS within the Northeast and Canada region in 2008, shown by reporting source. The category 'Opportunistic' includes reports made by the general public, the Coast Guard, commercial ships, and fishing vessels. Unconfirmed reports were excluded from this figure.

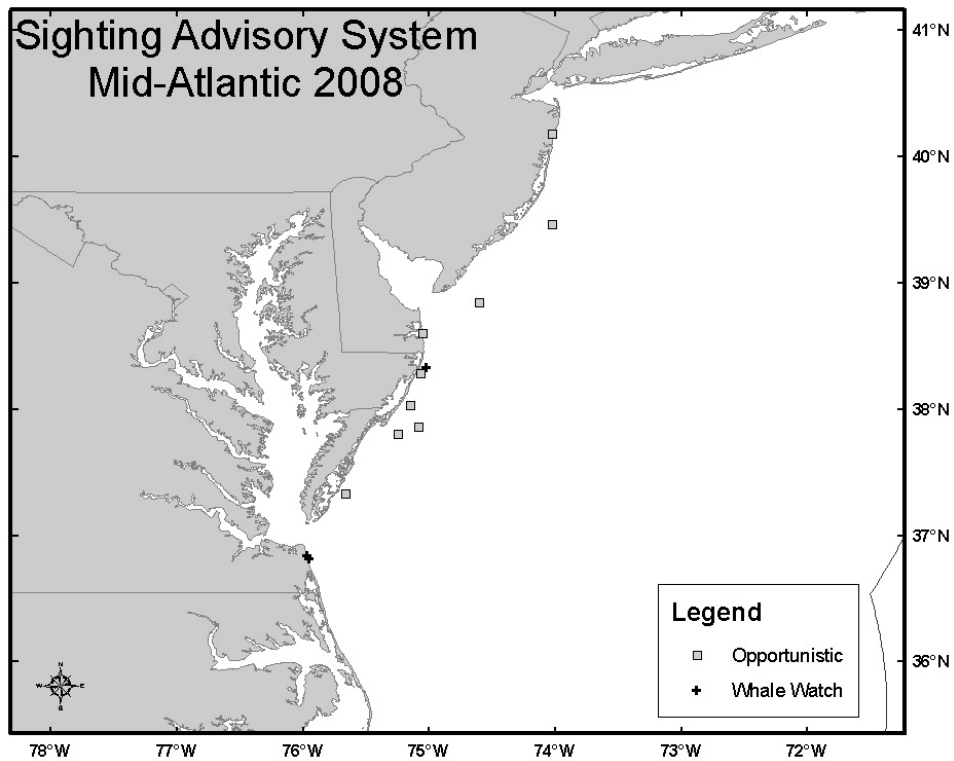


Figure 4b. Locations of all right whale sightings reported to the RWSAS within the Mid-Atlantic region in 2008, shown by reporting source. The category 'Opportunistic' includes reports made by the general public, the Coast Guard, commercial ships, and fishing vessels. Unconfirmed reports were excluded from this figure.

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