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by Christopher D Orphanides

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This report provides estimated bycatch of 6 species of small cetaceans and pinnipeds bycaught in the New England sink (NESG) and Mid-Atlantic (MAG) gillnet fisheries. The bycatch estimation methodology approach used for these data does not differ significantly from the previous year's estimates. For details on the bycatch estimation methodology, please refer to Orphanides and Hatch (2017).

Bycatch estimates in New England were conducted with a stratified ratio estimation approach using the seasons, port groups, and management areas used in recent years (Orphanides and Hatch 2017). This time-area stratification approach was originally developed for the estimation of harbor porpoise (*Phocoena phocoena phocoena*) bycatch, but has been applied to bycatch of other small cetaceans and pinnipeds since 1995 (Blaylock, 1995) because bycatch for other species are also largely driven by spatial and temporal patterns. The 2017 serious injuries and total mortalities in the NESG fishery were 8 (coefficient of variation [CV] = 0.92) Western North Atlantic offshore stock of bottlenose dolphins (*Tursiops truncatus truncatus*), 133 (CV = 0.28) short-beaked common dolphins (*Delphinus delphis delphis*), 930 (CV = 0.16) gray seals (*Halichoerus grypus atlantica*), 298 (CV = 0.18) harbor seals (*Phoca vitulina vitulina*), 136 (CV = 0.28) harbor porpoises, and 44 (CV = 0.37) harp seals (*Pagophilus groenlandicus*) (Tables 2-7). The NESG estimates are based on observed bycatch consisting of 1 bottlenose dolphin, 20 short-beaked common dolphins, 158 gray seals, 63 harbor seals, 19 harbor porpoises, and 6 harp seals. Incidental takes of unknown species were not included in the bycatch estimation, and these included 15 seals and 3 dolphins. One trip in the Southern New England management area during the winter incidentally caught 26 gray seals. Given the extreme outlier of this trip, the trip was not used for estimating the gray seal bycatch rates for that stratum, but the takes were counted towards the total estimate. The percent of New England gillnet hauls containing the proper number of pingers with regards to the 2010 Harbor Porpoise Take Reduction Plan (HPTRP) was 68% in 2017. This figure refers to the correct number of pingers used, not the pingers' functionality (Table 8).

The Mid-Atlantic ratio estimator stratification was done as in recent years by area, mesh size, soak duration, and season coinciding with previous bycatch estimates in this region (Orphanides and Hatch 2017). The spatial stratifications for 2017 Mid-Atlantic bycatch included the Waters off New Jersey HPTRP management area, the Southern Mid-Atlantic HPTRP management area, and spatial regions occupied by gillnet fleets from North Carolina and Virginia (Figure 1b). Observer coverage for these areas and Mid-Atlantic states can be seen in Tables 9 and 10. The season used for harbor porpoise and short-beaked common dolphin estimates was January through April, and the season for harbor seal estimates was December through March (Orphanides and Hatch 2017). The bycatch season for harbor porpoise in the Mid-Atlantic has been clearly established in previous bycatch estimates. Seasons used for short-beaked common dolphin and harbor seals were based on observed historical bycatch from 1994-2017. The 2017 total serious injuries and mortalities in the MAG fishery were 9 (CV = 0.95) harbor porpoises, 22 (CV = 0.71) short-beaked common dolphins, and 3 (CV = 0.62) harbor seals (Table 11). The MAG estimates are based on observed bycatch consisting of 1 harbor porpoise, 2 short-beaked common dolphin, and 1 harbor seal (Table 11; Figure 1b). There were also 3 observed incidental takes of bottlenose dolphins from coastal stocks, but bycatch estimates for these animals are not included in this report and will be reported elsewhere. Adherence to the HPTRP regulations on observed hauls in the 2017 MAG fishery were low for both large and small mesh gillnets (50% and 59%, respectively) (Table 12).

## REFERENCES CITED

Blaylock RA, Hain JW, Hansen LJ, Palka DL, Waring GT. 1995. US Atlantic and Gulf of Mexico Marine Mammal Stock Assessments. NOAA Tech. Mem. NMFS-SEFSC-363; 211 p.

Orphanides C, and Hatch J. 2017. Estimates of cetacean and pinniped bycatch in the 2015 New England sink and Mid-Atlantic gillnet fisheries. US Dept Commerce, Northeast Fish Sci Cent Ref Doc 17-18; 21 p.

**Table 1. Summaries of observed hauls, observed trips, observed landings, commercial landings, and observer coverage by season and port group (P) or management area (MA) for the 2017 New England sink gillnet fishery. Seasons were defined as "W" (winter; January - May), "S" (summer; June - August), and "F" (fall; September - December).**

Season	Area	Observed Hauls <sup>a</sup>	Observed Trips	Observed Landings (mt)	Commercial Landings (mt)	Observer Coverage
W	Cape Cod South (MA)	170 (88)	46	84.33	745.82	0.11
W	Cashes Ledge (MA)	n/a (n/a)	n/a	n/a	13.51	NA
W	East of Cape Cod (P)	4 (4)	1	2.15	44.22	0.05
W	Massachusetts Bay (MA)	3 (0)	1	0.20	0.30	0.67
W	Mid-Coast (MA)	35 (20)	7	5.13	91.33	0.06
W	North of Boston (P)	4 (0)	2	0.62	1.53	0.41
W	Offshore (MA)	62 (43)	6	8.85	69.82	0.13
W	Offshore (P)	18 (18)	2	6.83	63.25	0.11
W	South of Boston (P)	n/a (n/a)	n/a	n/a	1.94	NA
W	South of Cape Cod (P)	5 (2)	3	2.32	65.38	0.04
W	Southern Maine (P)	31 (28)	4	4.76	32.80	0.15
W	Southern New England (MA)	542 (284)	105	282.67	2,030.21	0.14
W	Stellwagen Bank (MA)	81 (22)	22	17.08	48.39	0.35
W	Subtotal	955 (509)	199	414.94	3,208.50	0.13
S	Connecticut	n/a (n/a)	n/a	n/a	0.60	NA
S	East of Cape Cod (P)	148 (0)	64	251.97	3,713.57	0.07
S	New Hampshire (P)	78 (0)	21	35.19	547.21	0.06
S	North of Boston (P)	57 (0)	17	20.63	222.65	0.09
S	Offshore (P)	98 (0)	8	22.74	216.65	0.10
S	South of Boston (P)	49 (0)	13	8.56	88.27	0.10
S	South of Cape Cod (P)	311 (0)	68	104.65	1,237.07	0.08
S	Southern Maine (P)	91 (0)	18	26.74	172.00	0.16
S	Subtotal	832 (0)	209	470.48	6,198.02	0.08
F	Cape Cod South (MA)	106 (42)	22	65.23	347.87	0.19
F	East of Cape Cod (P)	233 (102)	102	374.03	2,199.24	0.17
F	Mid-Coast (MA)	252 (96)	64	78.24	282.56	0.28
F	New Hampshire (P)	65 (39)	15	22.42	39.75	0.56
F	North of Boston (P)	58 (29)	19	20.54	43.01	0.48
F	Offshore (MA)	45 (25)	4	16.02	25.93	0.62
F	Offshore (P)	47 (0)	3	11.64	89.78	0.13
F	South of Boston (P)	61 (26)	13	16.65	94.48	0.18
F	South of Cape Cod (P)	402 (158)	67	121.24	767.79	0.16
F	Southern Maine (P)	49 (32)	7	11.17	71.49	0.16
F	Southern New England (MA)	74 (24)	18	62.48	222.32	0.28
F	Stellwagen Bank (MA)	15 (11)	5	8.44	33.00	0.26
F	Subtotal	1,407 (584)	339	808.10	4,217.22	0.19
Total		3194 (1093)	747	1693.52	13623.74	0.12

<sup>a</sup> Parentheses indicate the number of limited hauls out of the total (i.e., complete + limited).

**Table 2. Observed number of bycatch, estimated bycatch rates, estimated bycatch, coefficient of variation (CV), and lower (L) and upper (U) limits on 95% confidence intervals (CI) of bottlenose dolphin (*Tursiops truncatus truncatus*) bycatch in the New England sink gillnet fishery for 2017, by management area (MA). "W" indicates winter; (January - May).**

Season	Area	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI	
						L	U
W	Southern New England (MA)	1	0.004	8.12	0.91	1	30
W	Subtotal	1	-	8.12	0.91	1	30
	Total	1	-	8.12	0.92	1	30

**Table 3. Observed number of bycatch, estimated bycatch rates, estimated bycatch, coefficient of variation (CV), and lower (L) and upper (U) limits on 95% confidence intervals (CI) of short-beaked common dolphin (*Delphinus delphis delphis*) bycatch in the New England sink gillnet fishery for 2017, by season and port group (P) or management area (MA). Seasons were defined as "W" (winter; January - May) and "F" (fall; September- December).**

Season	Area	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI	
						L	U
W	Southern New England (MA)	14	0.049	99.48	0.34	47	197
W	Subtotal	14	-	99.48	0.34	47	197
F	Mid-Coast (MA)	2	0.025	7.06	0.88	2	36
F	South of Boston (P)	1	0.110	10.39	0.74	1	35
F	South of Cape Cod (P)	1	0.009	6.91	0.89	1	32
F	Cape Cod South (MA)	1	0.015	5.22	0.89	1	23
F	Southern New England (MA)	1	0.016	3.56	0.95	1	21
F	Subtotal	6	-	33.14	0.40	12	78
Total		20	-	132.62	0.28	74	238

**Table 4. Observed number of bycatch, estimated bycatch rates, estimated bycatch, coefficient of variation (CV), and lower (L) and upper (U) limits on 95% confidence intervals (CI) of gray seal (*Halichoerus grypus atlantica*) bycatch in the New England sink gillnet fishery for 2017, by season and port group (P) or management area (MA). Seasons were defined as "W" (winter; January - May), "S" (summer; June - August), and "F" (fall; September - December). Twenty-six gray seals not used to estimate bycatch rates are directly incorporated into the estimated bycatch of the winter southern New England stratum.**

Season	Area	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI	
						L	U
W	Cape Cod South (MA)	15	0.189	140.96	0.33	69	278
W	Southern New England (MA)	66	0.140	310.14	0.30	186	527
W	Subtotal	81	-	451.10	0.24	304	696
S	East of Cape Cod (P)	3	0.012	44.56	0.74	3	152
S	New Hampshire (P)	1	0.029	15.87	1.09	1	101
S	Southern Maine (P)	6	0.333	57.28	0.63	7	195
S	South of Cape Cod (P)	5	0.039	48.25	1.07	5	272
S	Subtotal	15	-	165.96	0.45	64	386
F	East of Cape Cod (P)	34	0.091	200.13	0.23	119	323
F	Mid-Coast (MA)	17	0.215	60.75	0.32	28	125
F	North of Boston (P)	1	0.049	2.11	0.68	1	9
F	South of Cape Cod (P)	2	0.014	10.75	0.69	2	36
F	Cape Cod South (MA)	6	0.092	32.00	0.58	6	104
F	Southern New England (MA)	2	0.033	7.34	0.63	2	24
F	Subtotal	62	-	313.08	0.17	212	450
	Total	158	-	930.14	0.16	762	1443

**Table 5. Observed number of bycatch, estimated bycatch rates, estimated bycatch, coefficient of variation (CV), and lower (L) and upper (U) limits on 95% confidence intervals (CI) of harbor seal (*Phoca vitulina vitulina*) bycatch in the New England sink gillnet fishery for 2017, by season and port group (P) or management area (MA). Seasons were defined as "W" (winter; January - May), "S" (summer; June - August), and "F" (fall; September - December).**

Season	Area	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI	
						L	U
W	Cape Cod South (MA)	3	0.034	25.36	0.54	7	69
W	Southern New England (MA)	4	0.014	28.42	0.47	6	63
W	Stellwagen Bank	2	0.117	5.66	0.50	2	15
W	Subtotal	9	-	59.44	0.32	28	113
S	North of Boston (P)	3	0.143	31.84	0.48	10	69
S	New Hampshire (P)	1	0.029	15.87	1.02	1	86
S	Southern Maine (P)	1	0.035	6.02	0.89	1	29
S	South of Cape Cod (P)	3	0.024	29.69	1.05	3	167
S	Subtotal	8	-	83.42	0.46	36	241
F	East of Cape Cod (P)	5	0.013	28.59	0.63	5	99
F	Mid-Coast (MA)	28	0.354	100.03	0.27	52	185
F	North of Boston (P)	5	0.243	10.45	0.34	5	26
F	New Hampshire (P)	7	0.325	12.92	0.32	7	30
F	Southern New England (MA)	1	0.016	3.56	0.99	1	23
F	Subtotal	46	-	155.55	0.22	96	257
	Total	63	-	298.41	0.18	204	438

**Table 6. Observed number of bycatch, estimated bycatch rates, estimated bycatch, coefficient of variation (CV), and lower (L) and upper (U) limits on 95% confidence intervals (CI) of harbor porpoise (*Phocoena phocoena phocoena*) bycatch in the New England sink gillnet fishery for 2017, by season and management area (MA). Seasons were defined as "W" (winter; January - May) and "F" (fall; September - December).**

Season	Area	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI	
						L	U
W	Mid-Coast (MA)	2	0.390	35.62	0.81	2	129
W	Offshore (MA)	2	0.225	15.71	0.54	2	35
W	Cape Cod South (MA)	6	0.067	49.97	0.37	19	99
W	Southern New England (MA)	2	0.005	10.15	0.78	2	35
W	Stellwagen Bank	1	0.059	2.86	0.76	1	14
W	Subtotal	13	-	114.31	0.30	59	208
F	Mid-Coast (MA)	6	0.076	21.47	0.63	6	89
F	Subtotal	6	-	21.47	0.67	6	89
	Total	19	-	135.78	0.28	74	234

**Table 7. Observed number of bycatch, estimated bycatch rates, estimated bycatch, coefficient of variation (CV), and lower (L) and upper (U) limits on 95% confidence intervals (CI) of harp seal (*Pagophilus groenlandicus*) bycatch in the New England sink gillnet fishery for 2017, by season and management area (MA). "W" indicates winter (January - May).**

Season	Area	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI	
						L	U
W	Offshore (MA)	1	0.111	7.75	0.82	1	37
W	Southern New England (MA)	5	0.018	36.54	0.40	14	79
W	Subtotal	6	-	44.29	0.36	20	97
	Total	6	-	44.29	0.37	20	97

**Table 8. Summary of 2017 full pinger deployment for Northeast Fisheries Observer Program observed hauls within times and areas where pingers were required by the 2010 Harbor Porpoise Take Reduction Plan (HPTRP). Seasons were defined as "Winter" (January - May) and "Fall" (September - December).**

Season	Management Area	Observed Hauls	< 100% of Required Pingers	100% of Required Pingers
Fall	Cape Cod South <sup>a</sup>	106	32	69%
	Mid-Coast	252	43	83%
	Offshore	45	13	71%
	Southern New England	74	13	82%
	Stellwagen Bank	15	7	53%
Winter	Cape Cod South <sup>a</sup>	170	58	66%
	Mass Bay	3	0	100%
	Mid-Coast	35	19	46%
	Offshore	62	40	35%
	Southern New England	542	219	60%
	Stellwagen Bank	81	3	96%
Total		1,385	447	68%

<sup>a</sup> Cape Cod South specification includes Dec-May, matching the period used for the bycatch estimation strata.

**Table 9. 2017 Mid-Atlantic gillnet fishery summaries of observed landings, commercial landings, and observer coverage, by state (Figure 1). Effort from bays and sounds is not included.**

State	Observed Landings (mt)	Commercial Landings (mt)	Observer Coverage
Delaware	0.00	0.61	0.00%
Maryland	95.07	945.10	10.06%
North Carolina	151.48	2,266.83	6.68%
New Jersey	282.39	2,835.91	9.96%
New York	31.65	316.68	9.99%
Virginia	186.52	1,594.02	11.70%
Florida	0.00	14.69	0.00%
Massachusetts	0.00	2.35	0.00%
Rhode Island	0.00	2.42	0.00%
Totals	747.11	7,978.62	9.36%

**Table 10. Summaries of observed hauls, observed trips, observed landings, commercial landings, and observer coverage by species, season, region, mesh size, and soak duration for strata with bycatch of harbor porpoise (*Phocoena phocoena phocoena*), short-beaked common dolphin (*Delphinus delphis delphis*), or harbor seal (*Phoca vitulina vitulina*) in the 2017 Mid-Atlantic gillnet fishery.**

Species	Season	Region	Mesh Size (in)	Soak Duration (hrs)	Observed Hauls <sup>a</sup>	Observed Trips	Observed Landings (mt)	Commercial Landings (mt)	Observer Coverage
Harbor Porpoise	Jan-Apr	Southern Mid-Atlantic	<7	<=72	1,205 (410)	402	318.11	3,022.14	10.53%
Common Dolphin	Jan-Apr	NC	<7	<=72	229 (33)	40	13.31	189.14	7.03%
Common Dolphin	Jan-Apr	VA	<7	<=72	86 (33)	21	39.01	309.60	12.60%
Harbor Seal	Dec-Mar	Waters off NJ	>=7	>72	27 (0)	7	21.93	69.25	31.67%

<sup>a</sup> Parentheses indicate the number of limited hauls out of the total (i.e., complete + limited).

**Table 11. Observed number of bycatch, estimated bycatch rates, estimated bycatch, coefficient of variation (CV), and lower and upper limits on 95% confidence intervals (CI) of estimated harbor porpoise (*Phocoena phocoena phocoena*), short-beaked common dolphin (*Delphinus delphis delphis*), and harbor seal (*Phoca vitulina vitulina*) bycatch in the Mid-Atlantic gillnet fishery for 2017, by season, region, mesh size, and soak duration.**

Species	Season	Region	Mesh Size (in)	Soak Duration (hrs)	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI
Harbor Porpoise	Jan-Apr	Southern Mid-Atlantic	<7	<=72	1	0.003	9.06	0.95	1-57
Common Dolphin	Jan-Apr	NC	<7	<=72	1	0.075	14.18	0.97	1-80
Common Dolphin	Jan-Apr	VA	<7	<=72	1	0.025	8.04	0.97	1-29
Common Dolphin	Jan-Apr	All	<7	<=72	2	-	22.24	0.71	1-87
Harbor Seal	Dec-Mar	Waters off NJ	>=7	>72	1	0.045	3.18	0.62	1-9

**Table 12. Observed number of hauls for large (7-18") and small mesh (<7") gillnets following requirements for the Mid-Atlantic 2010 Harbor Porpoise Take Reduction Plan (HPTRP). Observed hauls that were missing information for an assessed gear modification were assumed to be following the HPTRP for that gear characteristic. Locations are depicted in Figure 1b.**

Management Area	Total Observed Hauls	Noncompliant Hauls	% Adherence to HPTRP Regulations	General HPTRP Nonadherence Categories		Specific HPTRP Nonadherence Categories						
				Gear Modification	Closed Area	Multiple Violations per Haul	Number of Nets	Twine Size	Tie-Down Lengths	Tie-Down Use	Net Length	Unknown Gear Adherence <sup>a</sup>
Southern Mid-Atlantic Large Mesh	57	20	65%	20	0	0	0	0	5	15	0	6
Southern Mid-Atlantic Small Mesh	262	120	54%	120	0	7	4	78	0	0	37	13
Mudhole North Large Mesh	13	10	23%	10	0	0	10	0	0	0	0	0
Mudhole North Small Mesh	10	0	100%	0	0	0	0	0	0	0	0	0
Mudhole South Large Mesh	13	10	23%	10	6	4	10	0	0	4	0	0
Mudhole South Small Mesh	-	-	-	-	-	0	0	0	0	0	0	0
Waters off New Jersey Large Mesh	40	21	48%	17	4	0	16	0	0	0	0	0
Waters off New Jersey Small Mesh	39	9	77%	9	0	0	3	0	0	0	0	5
<b>Totals</b>	<b>434</b>	<b>190</b>	<b>56%</b>	<b>121</b>	<b>19</b>	<b>11</b>	<b>43</b>	<b>78</b>	<b>5</b>	<b>19</b>	<b>37</b>	<b>24</b>

<sup>a</sup>At least 1 gear component was not recorded and therefore could not be checked for adherence to the HPTRP.

**Table 13. Observed summaries for the 5-year period of 2013 – 2017. (A) Observer coverage by fishery and year. Observed and estimated serious injuries and mortalities of marine mammals in the (B) Northeast sink gillnet and (C) Mid-Atlantic gillnet fisheries. The “Combined Estimate” is Estimated Mortality + Estimated Serious Injury.**

A. Observer coverage by fishery and year. Observed and estimated serious injuries and mortalities of marine mammals.

Fishery	Years	Data Type	Observer Coverage (mt)
Northeast sink gillnet	2013-17	Obs. Data, Trip Logbook, Allocated Dealer Data	0.11, 0.18, 0.14, 0.10, 0.12
Mid-Atlantic gillnet	2013-17	Obs. Data, Trip Logbook, Allocated Dealer Data	0.03, 0.05, 0.06, 0.08, 0.09

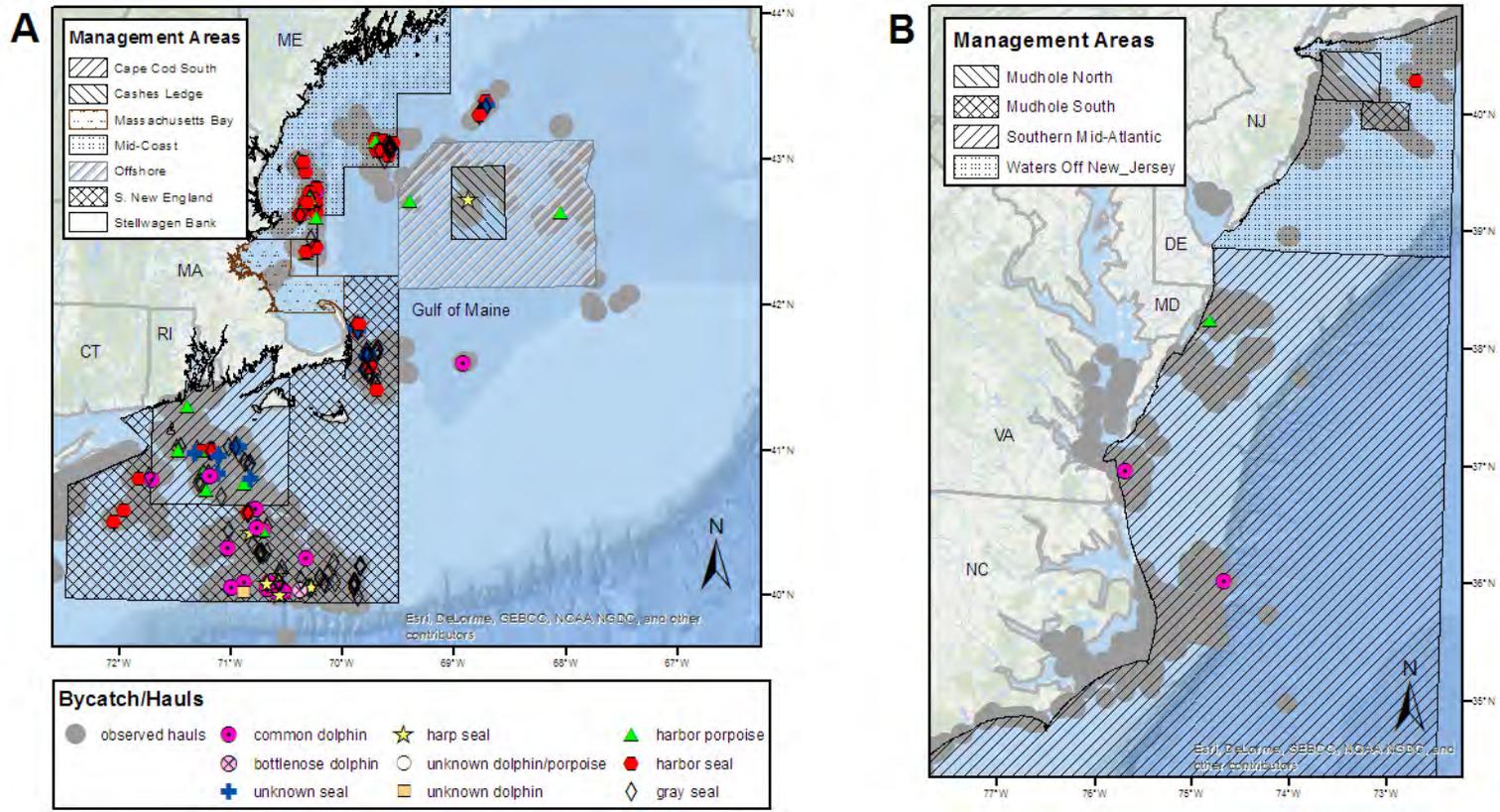
B. Observer coverage by fishery and year. Observed and estimated serious injuries and mortalities of marine mammals in the Northeast sink gillnet. CV = coefficient of variation.

Species	Observed Serious Injury	Observed Mortality	Estimated Serious Injury	Estimated Mortality	Combined Estimate	Estimated CV	Mean (CV) Annual Combined
Harbor Porpoise ( <i>Phocoena phocoena phocoena</i> )	0, 0, 0, 0, 1	20, 28, 23, 11, 18	0, 0, 0, 0, 7	399, 128, 177, 125, 129	399, 128, 177, 125, 136	0.33, 0.27, 0.28, 0.34, 0.28	193 (0.14)
Bottlenose Dolphin ( <i>Tursiops truncatus truncatus</i> )	0, 0, 0, 0, 0	1, 0, 0, 0, 1	0, 0, 0, 0, 0	26, 0, 0, 0, 8	26, 0, 0, 0, 8	0.95, 0, 0, 0, 0.92	7 (0.76)
Short-beaked Common Dolphin ( <i>Delphinus delphis delphis</i> )	0, 0, 0, 0, 0	5, 11, 3, 8, 20	0, 0, 0, 0, 0	104, 111, 55, 80, 133	104, 111, 55, 80, 133	0.46, 0.47, 0.54, 0.38, 0.28	77 (0.19)
Gray Seal ( <i>Halichoerus grypus atlantica</i> )	0, 0, 0, 0, 0	69, 159, 131, 43, 158	0, 0, 0, 0, 0	1127, 917, 1021, 498, 930	1127, 917, 1021, 498, 930	0.20, 0.14, 0.25, 0.33, 0.16	899 (0.09)
Harbor Seal ( <i>Phoca vitulina vitulina</i> )	0, 0, 0, 0, 0	22, 59, 87, 36, 63	0, 0, 0, 0, 0	142, 390, 474, 245, 298	142, 390, 474, 245, 298	0.31, 0.39, 0.17, 0.29, 0.18	310 (0.13)
Harp Seal ( <i>Pagophilus groenlandicus</i> )	0, 0, 0, 0, 0	2, 9, 12, 5, 6	0, 0, 0, 0, 0	22, 57, 119, 85, 44	22, 57, 119, 85, 44	0.75, 0.42, 0.34, 0.50, 0.37	65 (0.21)

**Table 13, continued. Observed summaries for the 5-year period of 2013 – 2017. (A) Observer coverage by fishery and year. Observed and estimated serious injuries and mortalities of marine mammals in the (B) Northeast sink gillnet and (C) Mid-Atlantic gillnet fisheries. The “Combined Estimate” is Estimated Mortality + Estimated Serious Injury.**

C. Observer coverage by fishery and year. Observed and estimated serious injuries and mortalities of marine mammals in the (B) Northeast sink gillnet and (C) Mid-Atlantic gillnet fisheries. CV = coefficient of variation.

Species	Observed Serious Injury	Observed Mortality	Estimated Serious Injury	Estimated Mortality	Combined Estimate	Estimated CV	Mean (CV) Annual Combined
Harbor Porpoise ( <i>Phocoena phocoena</i> )	0, 0, 0, 0, 0	1, 1, 2, 2, 1	0, 0, 0, 0, 0	19, 22, 33, 23, 9	19, 22, 33, 23, 9	1.06, 1.03, 1.16, 0.64, 0.95	21 (0.49)
Short-beaked Common Dolphin ( <i>Delphinus delphis delphis</i> )	0, 0, 0, 0, 1	2, 1, 3, 1, 1	0, 0, 0, 0, 11	62, 17, 30, 7, 11	62, 17, 30, 7, 22	0.67, 0.86, 0.55, 0.97, 0.71	28 (0.36)
Gray Seal ( <i>Halichoerus grypus atlantica</i> )	0, 0, 0, 0, 0	0, 1, 1, 1, 0	0, 0, 0, 0, 0	0, 22, 15, 7, 0	0, 22, 15, 7, 0	0, 1.09, 1.04, 0.93, 0	9 (0.67)
Harbor Seal ( <i>Phoca vitulina vitulina</i> )	0, 0, 0, 0, 0	0, 1, 5, 2, 1	0, 0, 0, 0, 0	0, 19, 48, 18, 3	0, 19, 48, 18, 3	0.0, 1.06, 0.52, 0.95, 0.62	18 (0.41)
Hooded Seal ( <i>Cystophora cristata</i> )	0, 0, 0, 0, 0	0, 0, 0, 1, 0	0, 0, 0, 0, 0	0, 0, 0, 3, 0	0, 0, 0, 3, 0	0, 0, 0, 1.12, 0	0.6 (1.12)



**Figure 1. Locations of observed hauls and marine mammal bycatch in the 2017 New England sink (A) and Mid-Atlantic (B) gillnet fisheries. Observed bycatch consisted of harbor porpoise (*Phocoena phocoena phocoena*), short-beaked common dolphin (*Delphinus delphis delphis*), gray seal (*Halichoerus grypus atlantica*), harbor seal (*Phoca vitulina vitulina*), harp seal (*Pagophilus groenlandicus*), offshore stock bottlenose dolphins (*Tursiops truncatus truncatus*), and unknown species of dolphin and seal.**

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