



Northeast Fisheries Science Center Reference Document 26-08

Estimates of cetacean and pinniped bycatch in the New England gillnet and Mid-Atlantic gillnet fisheries, 2024

June 2026



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By Kristin Precoda

¹ NOAA Fisheries, Northeast Fisheries Science Center, 166 Water Street, Woods Hole, MA 02543
Azura Consulting, LLC, 446 Trail View Lane, Garland, TX 75043

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SUMMARY

This report provides estimated bycatch of five species of small cetaceans and pinnipeds in the New England gillnet (NEG) and Mid-Atlantic gillnet (MAG) fisheries in 2024. It also documents compliance with Harbor Porpoise Take Reduction Plan regulations. The estimated 2024 serious injuries and total mortalities in the NEG fishery were 15 (coefficient of variation [CV] = 0.93) common dolphins (*Delphinus delphis delphis*), 1,237 (CV = 0.15) gray seals (*Halichoerus grypus atlantica*), 19 (CV = 0.46) harbor porpoises (*Phocoena phocoena phocoena*), 63 (CV = 0.18) harbor seals (*Phoca vitulina vitulina*) and 61 (CV = 0.54) harp seals (*Pagophilus groenlandicus*). The estimated 2024 total serious injuries and mortalities in the MAG fishery were 1 (CV = 1.02) harbor porpoise and 4 (CV = 0.71) harbor seals. The bycatch estimation methodology used for these data is generally the same as was used in the 2019 estimates (Precoda and Orphanides 2022, and details in Orphanides and Hatch 2017); changes are noted in the New England – Methods, Mid-Atlantic – Methods, and Additional Notes sections below.

NEW ENGLAND – METHODS

For New England, the 2024 observer data were used to calculate bycatch rates, which were multiplied by 2024 landings to estimate total bycatch; this is the same approach as has been used in most recent years.

Bycatch estimates in New England were performed with a stratified ratio estimation approach using the seasons, port groups, and management areas used in recent years (Orphanides and Hatch 2017; Figure 1). Port groups, which reflect the port where the catch was landed, are used for (1) trips whose location was unknown, (2) trips which fished outside the management areas, and (3) trips which fished inside the management areas but outside the times when management measures were in place. This time-area stratification approach was originally developed for the estimation of harbor porpoise bycatch. The same approach has also been applied to bycatch of other small cetaceans and pinnipeds since 1995 (Blaylock et al. 1995), because the spatial and temporal commercial fishing patterns that contribute to harbor porpoise bycatch interactions largely drive bycatch interactions for other small marine mammals as well.

Some strata were merged before bycatch was estimated because observer coverage in a stratum was very low (less than 5% coverage) or because there were fewer than three observed trips. Strata with few or no observed trips have very high variance in bycatch rates, caused by low sample size. These strata were merged with others that were chosen because of their geographic proximity and their higher observer coverage or greater fishing effort. Strata that were merged are shown in Table 1. Rates of pinger deployment were calculated before strata were merged. A summary of observer and commercial fishery data in New England is given in Table 2.

NEW ENGLAND – RESULTS

The estimated 2024 serious injuries and total mortalities in the NEG fishery were 15 (coefficient of variation [CV] = 0.93) common dolphins (*Delphinus delphis delphis*), 1,237 (CV = 0.15) gray seals (*Halichoerus grypus atlantica*), 19 (CV = 0.46) harbor porpoises (*Phocoena phocoena phocoena*), 63 (CV = 0.18) harbor seals (*Phoca vitulina vitulina*) and 61 (CV = 0.54) harp seals (*Pagophilus groenlandicus*; Table 3-Table 7). The NEG estimates are based on dead and seriously injured bycatch observed in 2024 consisting of 1 common dolphin, 8 harbor porpoises, 4 harp seals, 27 harbor seals and 120 gray seals (Figure 2, left). Incidental takes of unknown species were excluded from the NEG bycatch estimation; this included 10 unidentified seals.

The percent of observed NEG hauls containing the proper number of pingers in compliance with the 2010 Harbor Porpoise Take Reduction Plan (HPTRP) was 77% in 2024. This percent refers to hauls with the correct number of pingers used, not hauls with correctly functioning pingers (Table 8).

MID-ATLANTIC – METHODS

In the Mid-Atlantic region, observer coverage during 2024 was low (2.1%), and no bycatch was observed, i.e., there was limited data with which to estimate bycatch. We assumed that a bycatch rate derived by pooling observer data from multiple years provides a better estimate than the bycatch rate based on a single year's data, as was previously assumed in Precoda (2023, 2024). Though observer coverage in the Mid-Atlantic has been relatively low since 2020 and this coverage has largely not detected bycatch, we pooled observer data from 2020 through 2024 to estimate bycatch rates.

As in recent years, we defined strata for the Mid-Atlantic ratio estimator by area, mesh size, soak duration, and season (Orphanides and Hatch 2017). The spatial stratifications included the Waters off New Jersey (NJ) and Southern Mid-Atlantic (SMA) HPTRP management areas (Figure 1). Seasons were defined based on observed bycatch from 1994 to 2019 and were as follows: Dec-Mar (NJ) and Dec-Mar (SMA) for common dolphin; Dec-May (NJ) and Dec-May (SMA) for gray seal; Jan-Apr (NJ), May-Aug (NJ) and Jan-Apr (SMA) for harbor porpoise; Dec-May (NJ) for harbor seal; and Dec-May (NJ) for harp seal. A summary of observer and commercial fishery data in the Mid-Atlantic is given by state in Table 9 and by stratum in Table 10.

MID-ATLANTIC – RESULTS

The estimated 2024 total serious injuries and mortalities in the MAG fishery were 1 (CV = 1.02) harbor porpoise and 4 (CV = 0.71) harbor seals. The MAG estimates are based on dead and seriously injured bycatch observed in 2020 consisting of 1 harbor porpoise and 2 harbor seals.

Incidental takes of unknown species were not included in the MAG bycatch estimation; this included 1 unidentified seal in 2023. No bycatch was observed in the MAG in 2021-2022 or in 2024 (Figure 2, right).

Adherence to the HPTRP regulations on observed hauls in the 2024 MAG fishery was 65% for large mesh and 44% for small mesh gillnets (Table 11).

STOCK ASSESSMENT REPORT

Observer coverage by fishery and year and observed and estimated serious injuries and mortalities are summarized for the 5-year period of 2020-24 in to correspond with tables provided in the Stock Assessment Reports (<https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports>).

ADDITIONAL NOTES

For each species, the proportion of observed bycatch that was seriously injured or killed is used to apportion the total estimated bycatch to serious injuries and mortalities. Serious injury determinations for 2024 that are used in this report are preliminary; the final 2024 serious injury determinations will be published at a later date. A past example of these determinations can be found in Josephson and Lyssikatos (2023).

Trips with electronic monitoring (EM) are not currently used for bycatch estimation. Nonetheless, EM trips may be randomly selected for primary review, and a subset of those may be selected for secondary review. The primary review process does not require flagging of bycaught marine mammals by the reviewer. Marine mammal bycatch is flagged if it is observed during secondary review. In 2024, 65 electronic monitoring gillnet trips were selected for primary review, of which 34 were further selected for secondary review. One gray seal was observed on a trip selected for primary review, and one unknown seal was noted on a trip that underwent secondary review.

Beginning with 2024, commercial landings were taken from the Catch Accounting and Monitoring System (CAMS), and the base record was a dealer report. The dealer report was matched to a Vessel Trip Report (VTR) when possible, so that the dealer report could be augmented with VTR information such as location, gear, and fishing practices. Prior to 2024, the base record was a VTR report, whose landings may have been adjusted proportional to the total dealer landings within a stratum. The difference is reflected in fishing trips that do not require VTRs. The proportion of landings not associated with VTRs is higher in the Mid-Atlantic, particularly in Virginia, Maryland, and Delaware. In the past, dealer landings that did not correspond to a VTR were assumed to have location, gear, and other characteristics similar to those of existing VTRs and were effectively distributed among the VTRs. Starting with 2024 dealer data, dealer landings that do not correspond to a VTR have mesh size, soak duration, and depth imputed

based on the medians of VTR trips with the same statistical reporting area, month, gear type, year, and port. If there are no VTRs that match the statistical reporting area, month, gear type, year, and port, variables are dropped in reverse order (i.e., port is dropped first, then year) until matching VTRs are found and a median can be computed. Latitude and longitude for dealer landings that do not correspond to a VTR are imputed as the centroid of the statistical reporting area on the dealer report.

In this report in prior years, the number of trips reported for North Carolina was the number of trips on North Carolina Division of Marine Fisheries tickets but was labelled incorrectly as the number of VTR trips (Table 9). That has been corrected this year, so that the number of trips reported is in fact the number of VTR trips.

VTR data used in this report was pulled from TRIP_REPORTS_{CATCH, IMAGES, DOCUMENT} at the following time: Data for 2024: 2025-09-25 20:20:27.

Data in CAMS can change over time. Dealer data used in this report was pulled from CAMS_LAND and CAMS_SUBTRIP at the following time: Data for 2024: 2025-10-03 19:11:08.

TABLES

Table 1. New England strata merged before bycatch estimation.

Original Stratum	Stratum Merged With	Reason for Merging
Cape Cod South (management area), Jan-May	Southern New England (management area), Jan-May	Low coverage
East of Cape Cod (port group), Jan-May	Southern New England (management area), Jan-May	No coverage and low fishing effort
Massachusetts Bay (management area), Jan-May	Southern New England (management area), Jan-May	Low coverage and low fishing effort
New Hampshire (port group), Jan-May	Mid-Coast (management area), Jan-May	No coverage and low fishing effort
South of Cape Cod (port group), Jan-May	Southern New England (management area), Jan-May	Low coverage
Southern Maine (port group), Jan-May	Mid-Coast (management area), Jan-May	No coverage and low fishing effort
Northeast Closure (management area), Jun-Aug	Southern Maine (port group), Jun-Aug	No coverage and low fishing effort
Northern Maine (port group), Jun-Aug	Southern Maine (port group), Jun-Aug	No coverage and low fishing effort
South of Cape Cod (port group), Jun-Aug	East of Cape Cod (port group), Jun-Aug	Low coverage
East of Cape Cod (port group), Sep-Dec	South of Cape Cod (port group), Sep-Dec	Low coverage
Massachusetts Bay (management area), Sep-Dec	Stellwagen Bank (management area), Sep-Dec	No coverage and low fishing effort
Southern New England (management area), Sep-Dec	South of Cape Cod (port group), Sep-Dec	Low coverage
South of Boston (port group), Jan-May	Offshore (management area), Jan-May	Low fishing effort
Offshore (port group), Jan-May	Offshore (management area), Jan-May	Low fishing effort
Offshore (port group), Jun-Aug	Southern Maine (port group), Jun-Aug	Low fishing effort

Table 2. New England gillnet fishery: Summaries of 2024 observed hauls, observed trips, commercial trips from vessel trip reports (VTR), observed landings, prorated commercial landings (including landings not reported on VTRs), and observer coverage by season and port group (P) or management area (MA) (Figure 1). Observers record locations and dates for each haul, while VTR locations and dates reflect the trip as a whole. Spatiotemporal mismatches between the observer data and VTR data may thus occur. Seasons shown here may not be the same as seasons used in bycatch strata.

Season	Area	Observed Hauls ^a	Observed Trips ^b	VTR Trips	Observed Landings (mt)	Commercial Landings (mt)	Observer Coverage (trips)	Observer Coverage (mt)
Jan-May	Mid-Coast (MA)	201 (11)	46	84	82.77	107.53	54.8%	77.0%
Jan-May	North of Boston (P)	51 (0)	15	18	14.86	18.10	83.3%	82.1%
Jan-May	Offshore (MA)	41 (12)	7	18	12.05	40.85	38.9%	29.5%
Jan-May	Southern New England (MA)	134 (76)	33	564	148.64	2,157.12	5.9%	6.9%
Jan-May	Stellwagen Bank (MA)	60 (4)	18	20	7.21	16.31	90.0%	44.2%
Jan-May	Subtotal	487 (103)	110	704	265.52	2,339.91	15.6%	11.3%
Jun-Aug	East of Cape Cod (P)	189 (74)	87	1,164	315.36	3,515.30	7.5%	9.0%
Jun-Aug	New Hampshire (P)	427 (37)	69	97	176.64	192.44	71.1%	91.8%
Jun-Aug	North of Boston (P)	295 (19)	112	119	143.12	171.59	94.1%	83.4%
Jun-Aug	South of Boston (P)	290 (16)	76	137	154.55	166.13	55.5%	93.0%
Jun-Aug	Southern Maine (P)	206 (16)	37	149	73.34	211.45	24.8%	34.7%
Jun-Aug	Subtotal	1,407 (162)	380	1,666	863.01	4,256.90	22.8%	20.3%
Sep-Dec	Cape Cod South (MA)	8 (3)	3	22	6.34	71.09	13.6%	8.9%
Sep-Dec	Mid-Coast (MA)	453 (19)	114	162	175.59	217.24	70.4%	80.8%

Season	Area	Observed Hauls ^a	Observed Trips ^b	VTR Trips	Observed Landings (mt)	Commercial Landings (mt)	Observer Coverage (trips)	Observer Coverage (mt)
Sep-Dec	New Hampshire (P)	72 (3)	20	62	35.62	71.37	32.3%	49.9%
Sep-Dec	North of Boston (P)	86 (7)	32	56	38.57	55.89	57.1%	69.0%
Sep-Dec	Offshore (MA)	21 (0)	6	13	7.16	15.49	46.2%	46.2%
Sep-Dec	Offshore (P)	37 (7)	6	19	11.35	27.44	31.6%	41.4%
Sep-Dec	South of Boston (P)	77 (9)	21	24	23.89	41.41	87.5%	57.7%
Sep-Dec	South of Cape Cod (P)	135 (64)	35	585	83.59	1,492.49	6.0%	5.6%
Sep-Dec	Southern Maine (P)	37 (16)	8	29	12.65	49.35	27.6%	25.6%
Sep-Dec	Stellwagen Bank (MA)	3 (0)	2	3	0.16	6.42	66.7%	2.5%
Sep-Dec	Subtotal	929 (128)	215	975	394.93	2,048.20	22.1%	19.3%
Total		2,823 (393)	701	3,345	1,523.45	8,645.00	21.0%	17.6%

^aThe number preceding the parentheses indicates the total observed hauls (i.e., complete hauls + limited hauls). The number in parentheses is the number of limited hauls. During complete sampling, observers do not explicitly watch haulbacks and may fail to see bycatch that falls out of the net prior to being hauled on board. During limited sampling, the observer watches the net during haulbacks, reducing the chance of unnoticed bycatch.

^bThe subtotal and total rows may be smaller than the sum of the observed trips across all strata. This is because an observed trip may include hauls in different strata, while totals include only unique trips.

Table 3. Number of observed bycatch, estimated bycatch rate per metric ton landed, estimated bycatch, coefficient of variation (CV), and 95% confidence interval (CI) for the estimate of bycatch of common dolphin (*Delphinus delphis delphis*) in the 2024 New England gillnet fishery by season and port group (P) or management area (MA).

Season	Area	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI
Jan-May	Southern New England (MA)	1	0.007	15.18	0.93	1-77

Table 4. Number of observed bycatch, estimated bycatch rate per metric ton landed, estimated bycatch, coefficient of variation (CV), and 95% confidence interval (CI) for the estimate of bycatch of gray seal (*Halichoerus grypus atlantica*) in the 2024 New England gillnet fishery by season and port group (P) or management area (MA).

Season	Area	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI
Jan-May	North of Boston (P)	10	0.624	12.03	0.03	10-15
Jan-May	Southern New England (MA)	58	0.405	870.86	0.22	546-1335
Jan-May	Stellwagen Bank (MA)	5	0.712	11.48	0.13	6-28
Jan-May	Subtotal	73	-	894.37	0.21	569-1357
Jun-Aug	East of Cape Cod (P)	24	0.074	261.66	0.23	163-403
Jun-Aug	New Hampshire (P)	7	0.041	7.65	0.02	7-9
Jun-Aug	North of Boston (P)	7	0.063	8.80	0.03	7-13
Jun-Aug	Southern Maine (P)	3	0.03	7.10	0.35	3-17
Jun-Aug	Subtotal	41	-	285.20	0.19	186-427
Sep-Dec	Mid-Coast (MA)	3	0.017	3.70	0.06	3-5
Sep-Dec	South of Cape Cod (P)	3	0.036	53.56	0.65	3-175
Sep-Dec	Subtotal	6	-	57.27	0.54	6-179
	Total	120	-	1236.84	0.15	878-1714

Table 5. Number of observed bycatch, estimated bycatch rate per metric ton landed, estimated bycatch, coefficient of variation (CV), and 95% confidence interval (CI) for the estimate of bycatch of harbor porpoise (*Phocoena phocoena phocoena*) in the 2024 New England gillnet fishery by season and port group (P) or management area (MA).

Season	Area	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI
Jan-May	Mid-Coast (MA)	3	0.035	3.87	0.11	3-6
Jan-May	Subtotal	3	-	3.87	0.11	3-6
Jun-Aug	East of Cape Cod (P)	1	0.003	10.90	0.91	1-55
Jun-Aug	New Hampshire (P)	2	0.012	2.19	0.03	2-3
Jun-Aug	Subtotal	3	-	13.10	0.71	3-57
Sep-Dec	Mid-Coast (MA)	2	0.011	2.46	0.07	2-4
Sep-Dec	Subtotal	2	-	2.46	0.07	2-4
	Total	8	-	19.43	0.46	8-63

Table 6. Number of observed bycatch, estimated bycatch rate per metric ton landed, estimated bycatch, coefficient of variation (CV), and 95% confidence interval (CI) for the estimate of bycatch of harbor seal (*Phoca vitulina vitulina*) in the 2024 New England gillnet fishery by season and port group (P) or management area (MA).

Season	Area	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI
Jan-May	Southern New England (MA)	1	0.005	11.51	0.90	1-57
Jan-May	Stellwagen Bank (MA)	1	0.142	2.30	0.20	1-10
Jan-May	Subtotal	2	-	13.80	0.76	2-59
Jun-Aug	New Hampshire (P)	5	0.033	5.52	0.02	5-7
Jun-Aug	North of Boston (P)	2	0.014	2.39	0.03	2-4
Jun-Aug	Southern Maine (P)	9	0.147	29.27	0.27	16-58
Jun-Aug	Subtotal	16	-	37.18	0.16	24-66
Sep-Dec	Mid-Coast (MA)	7	0.041	8.69	0.05	7-11

Season	Area	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI
Sep- Dec	New Hampshire (P)	1	0.024	1.85	0.38	1-6
Sep- Dec	North of Boston (P)	1	0.025	1.44	0.21	1-4
Sep- Dec	Subtotal	9	-	11.98	0.07	10-16
Total		27	-	62.96	0.18	43-105

Table 7. Number of observed bycatch, estimated bycatch rate per metric ton landed, estimated bycatch, coefficient of variation (CV), and 95% confidence interval (CI) for the estimate of bycatch of harp seal (*Pagophilus groenlandicus*) in the 2024 New England gillnet fishery by season and port group (P) or management area (MA).

Season	Area	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI
Jan- May	Southern New England (MA)	4	0.028	60.71	0.54	17-166

Table 8. Summary of full pinger deployment in 2024 for Northeast Fisheries Observer Program observed hauls within times and areas where pingers were required by the 2010 Harbor Porpoise Take Reduction Plan (HPTRP). Only hauls during times when pingers are required are included. In this table, Southern New England refers to the geographic area surrounding and excluding the Cape Cod South management area, and Cape Cod South refers to the Cape Cod South geographic area within the period when pingers are required in the Southern New England management area.

Season	Management Area	Observed Hauls	Hauls with All Required Pingers	Hauls with <100% of Required Pingers
Jan-May	Cape Cod South	7	7 (100%)	0 (0%)
Jan-May	MassBay	1	1 (100%)	0 (0%)
Jan-May	MidCoast	201	181 (90%)	20 (10%)
Jan-May	Offshore Closure	33	29 (87.9%)	4 (12.1%)
Jan-May	Southern New England	124	84 (67.7%)	40 (32.3%)
Jan-May	Stellwagen Bank	60	57 (95%)	3 (5%)
Sep-Dec	Cape Cod South	8	5 (62.5%)	3 (37.5%)
Sep-Dec	MidCoast	453	325 (71.7%)	128 (28.3%)
Sep-Dec	Offshore Closure	21	8 (38.1%)	13 (61.9%)
Sep-Dec	Southern New England	3	3 (100%)	0 (0%)
Sep-Dec	Stellwagen Bank	3	3 (100%)	0 (0%)
Total		914	703 (76.9%)	211 (23.1%)

Table 9. Mid-Atlantic gillnet fishery: Summaries of observed hauls, observed trips, commercial trips from vessel trip reports (VTR), observed landings, and prorated commercial landings (including landings not reported on VTRs) by state. Observer data is from 2020-2024 and commercial data is from 2024.

State	Observed Hauls ^a	Observed Trips	VTR Trips	Observed Landings (mt)	Commercial Landings (mt)
Delaware	0 (0)	0	0	0.00	333.45
Maryland	202 (30)	56	95	105.84	753.21
New Jersey	1,278 (245)	382	799	538.06	1,150.17
New York	21 (6)	7	26	5.18	40.17
North Carolina	1,291 (1,131)	181	545	156.90	1,297.87
Virginia	1,055 (417)	240	782	420.64	4,340.03
Total	3,847 (1,829)	866	2,247	1,226.63	7,914.91

^aThe number preceding the parentheses indicates the total observed hauls (i.e., complete hauls + limited hauls). The number in parentheses is the number of limited hauls. During complete sampling, observers do not explicitly watch haulbacks and may fail to see bycatch that falls out of the net prior to being hauled on board. During limited sampling, the observer watches the net during haulbacks, reducing the chance of unnoticed bycatch.

Table 10. Summaries of observed hauls, observed trips, and observed effort in 2020-2024, and of VTR trips and prorated commercial effort (including landings not reported on VTRs) in 2024 by species, season, region, mesh size and soak duration for strata with bycatch of harbor porpoise (*Phocoena phocoena*) and harbor seal (*Phoca vitulina vitulina*) in the Mid-Atlantic gillnet fishery.

Species	Season	Area	Mesh Size (in)	Soak Duration (hrs)	Observed Hauls ^a	Observed Trips	Observed Landings (mt)	VTR Trips	Commercial Landings (mt)
harbor seal	Dec-May	Waters off New Jersey	>= 7	<= 72	315 (27)	116	183.47	220	357.73
harbor porpoise	Jan-Apr	Waters off New Jersey	>= 7	<= 72	210 (8)	63	117.57	64	108.06

^aThe number preceding the parentheses indicates the total observed hauls (i.e., complete hauls + limited hauls). The number in parentheses is the number of limited hauls. During complete sampling, observers do not explicitly watch haulbacks and may fail to see bycatch that falls out of the net prior to being hauled on board. During limited sampling, the observer watches the net during haulbacks, reducing the chance of unnoticed bycatch.

Table 11. Observed number of hauls in 2024 for large (7-18") and small (5-7") mesh gillnets following requirements for the Mid-Atlantic 2010 Harbor Porpoise Take Reduction Plan (HPTRP). Observed hauls missing information for an assessed gear modification were assumed to be following the HPTRP for that gear characteristic and were not included in the count of non-compliant hauls. Locations are depicted in Figure 1.

Management Area	Observed Hauls	Non-Compliant Hauls	Compliance %	General HPTRP Non-adherence Categories		Specific HPTRP Non-adherence Categories						Missing Some Gear Information ^a
				Gear Modification	Closed Area	Multiple Violations per Haul	Number of Nets	Twine Size	Tie-Down Length	Tie-Down Use	Net Length	
Mudhole North Small Mesh	15	10	33%	10	0	0	0	6	0	0	4	14
Southern Mid-Atlantic Large Mesh	13	13	0%	13	0	9	0	9	0	13	4	9
Southern Mid-Atlantic Small Mesh	44	34	23%	34	0	17	0	17	0	0	34	4
Waters off New Jersey Large Mesh	30	2	93%	2	0	0	0	0	0	2	0	8
Waters off New Jersey Small Mesh	19	0	100%	0	0	0	0	0	0	0	0	3
Totals	121	59	51%	59	0	26	0	32	0	15	42	38

^aHauls for which at least one gear component was not recorded and therefore could not be checked for compliance. There may be some hauls which are not compliant with one category of gear and are missing information about another category of gear and which therefore appear in both this column and one of the gear non-adherence columns.

Table 12. Summaries for the 5-year period of 2020-24. (A) Observer coverage by fishery and year. (B, C) Observed and estimated serious injuries and mortalities of marine mammals in the (B) New England gillnet and (C) Mid-Atlantic gillnet fisheries. The 'Combined Estimate' is Estimated Mortality + Estimated Serious Injury.

A. Observer coverage as percent of metric tons landed, by fishery and year.

Fishery	Years	Data Type	Observer Coverage (metric tons landed)
New England gillnet	2020-24	Obs. Data, Trip Logbook, Allocated Dealer Data	1.90, 10.71, 14.93, 19.32, 17.62
Mid-Atlantic gillnet	2020-24	Obs. Data, Trip Logbook, Allocated Dealer Data	3.28, 1.14, 1.69, 3.24, 2.09

B. Observed and estimated serious injuries and mortalities of marine mammals in the New England gillnet fishery for 2020–24. CV = coefficient of variation. The combined estimate may vary from the sum of the estimated serious injuries and estimated mortalities due to rounding.

Species	Observed Serious Injury	Observed Mortality	Estimated Serious Injury	Estimated Mortality	Combined Estimate	Estimated CV	Mean (CV) Combined Estimate
bottlenose dolphin (<i>Tursiops truncatus</i>)	0, 0, 0, 0, 0	0, 0, 0, 1, 0	0, 0, 0, 0, 0	0, 0, 0, 8.4, 0	2, 1.4, 0, 8.4, 0	0.99, 0.99, 0.00, 0.82, 0.00	2.4 (1.03)
common dolphin (<i>Delphinus delphis delphis</i>)	0, 0, 0, 0, 0	2, 3, 5, 4, 1	0, 0, 0, 0, 0	50, 39, 22, 40, 15	50, 39, 22, 40, 15	0.25, 0.24, 0.36, 0.54, 0.93	33 (0.19)
gray seal (<i>Halichoerus grypus atlantica</i>)	0, 0, 1, 0, 0	14, 48, 88, 160, 120	0, 0, 5.9, 0, 0	1357, 1027, 516, 771, 1237	1357, 1027, 522, 771, 1237	0.14, 0.14, 0.12, 0.19, 0.15	983 (0.07)
harbor porpoise (<i>Phocoena phocoena phocoena</i>)	0, 0, 0, 0, 0	10, 25, 22, 18, 8	0, 0, 0, 0, 0	121, 111, 118, 50, 19	121, 111, 118, 50, 19	0.22, 0.19, 0.22, 0.21, 0.46	84 (0.11)
harbor seal (<i>Phoca vitulina vitulina</i>)	0, 0, 0, 0, 0	4, 24, 35, 44, 27	0, 0, 0, 0, 0	261, 241, 185, 122, 63	261, 241, 185, 122, 63	0.14, 0.13, 0.18, 0.16, 0.18	174 (0.07)
harp seal (<i>Pagophilus groenlandicus</i>)	0, 0, 0, 0, 0	0, 0, 0, 1, 4	0, 0, 0, 0, 0	0, 0, 0, 2.1, 61	72, 66, 0, 2.1, 61	0.22, 0.24, 0.00, 0.43, 0.54	40 (0.25)
Risso's dolphin (<i>Grampus griseus</i>)	0, 0, 0, 0, 0	0, 3, 1, 0, 0	0, 0, 0, 0, 0	0, 3, 4, 0, 0	2, 3, 4, 0, 0	1.01, 0.00, 0.64, 0.00, 0.00	1.8 (0.90)

Species	Observed Serious Injury	Observed Mortality	Estimated Serious Injury	Estimated Mortality	Combined Estimate	Estimated CV	Mean (CV) Combined Estimate
white-sided dolphin (<i>Lagenorhynchus acutus</i>)	0, 0, 0, 0, 0	0, 2, 1, 0, 0	0, 0, 0, 0, 0	0, 2, 2.4, 0, 0	0, 2, 2.4, 0, 0	0.00, 0.00, 0.43, 0.00, 0.00	0.9 (1.17)

C. Observed and estimated serious injuries and mortalities of marine mammals in the Mid-Atlantic gillnet fishery for 2020–24. CV = coefficient of variation. The combined estimate may vary from the sum of the estimated serious injuries and estimated mortalities due to rounding. The estimates for 2020, 2021, and 2022 were calculated using bycatch rates based on pooled 2017-2019 observer data, multiplied by the fishing effort from 2020, 2021, and 2022 respectively. The estimates for 2023 were calculated using bycatch rates based on pooled 2017-2023 observer data, multiplied by the fishing effort from 2023. The estimates for 2024 were calculated using bycatch rates based on pooled 2020-2024 observer data, multiplied by the fishing effort from 2024. For the period shown, the combined estimate was not divided into estimated serious injury and estimated mortality.

Species	Observed Serious Injury	Observed Mortality	Estimated Serious Injury	Estimated Mortality	Combined Estimate	Estimated CV	Mean (CV) Combined Estimate
common dolphin (<i>Delphinus delphis delphis</i>)	0, 0, 0, 0, 0	0, 0, 0, 0, 0	0, 0, 0, 0, 0	0, 0, 0, 0, 0	30, 24, 26, 15, 0	0.55, 0.53, 0.57, 0.57, 0.00	19 (0.35)
gray seal (<i>Halichoerus grypus atlantica</i>)	0, 0, 0, 0, 0	0, 0, 0, 0, 0	0, 0, 0, 0, 0	0, 0, 0, 0, 0	9.2, 7.3, 8, 4.5, 0	0.72, 0.69, 0.81, 0.78, 0.00	5.8 (0.48)
harbor porpoise (<i>Phocoena phocoena phocoena</i>)	0, 0, 0, 0, 0	1, 0, 0, 0, 0	0, 0, 0, 0, 0	16, 0, 0, 0, 0	16, 9.9, 12, 8.3, 0.9	0.63, 0.65, 0.66, 0.59, 1.02	9.5 (0.32)
harbor seal (<i>Phoca vitulina vitulina</i>)	0, 0, 0, 0, 0	2, 0, 0, 0, 0	0, 0, 0, 0, 0	9.5, 0, 0, 0, 0	9.5, 8.6, 5, 5.3, 3.7	0.43, 0.40, 0.38, 0.37, 0.71	6.4 (0.20)
harp seal (<i>Pagophilus groenlandicus</i>)	0, 0, 0, 0, 0	0, 0, 0, 0, 0	0, 0, 0, 0, 0	0, 0, 0, 0, 0	1.8, 2.2, 2, 0.8, 0	1.01, 1.01, 1.01, 1.02, 0.00	1.4 (0.66)

FIGURES

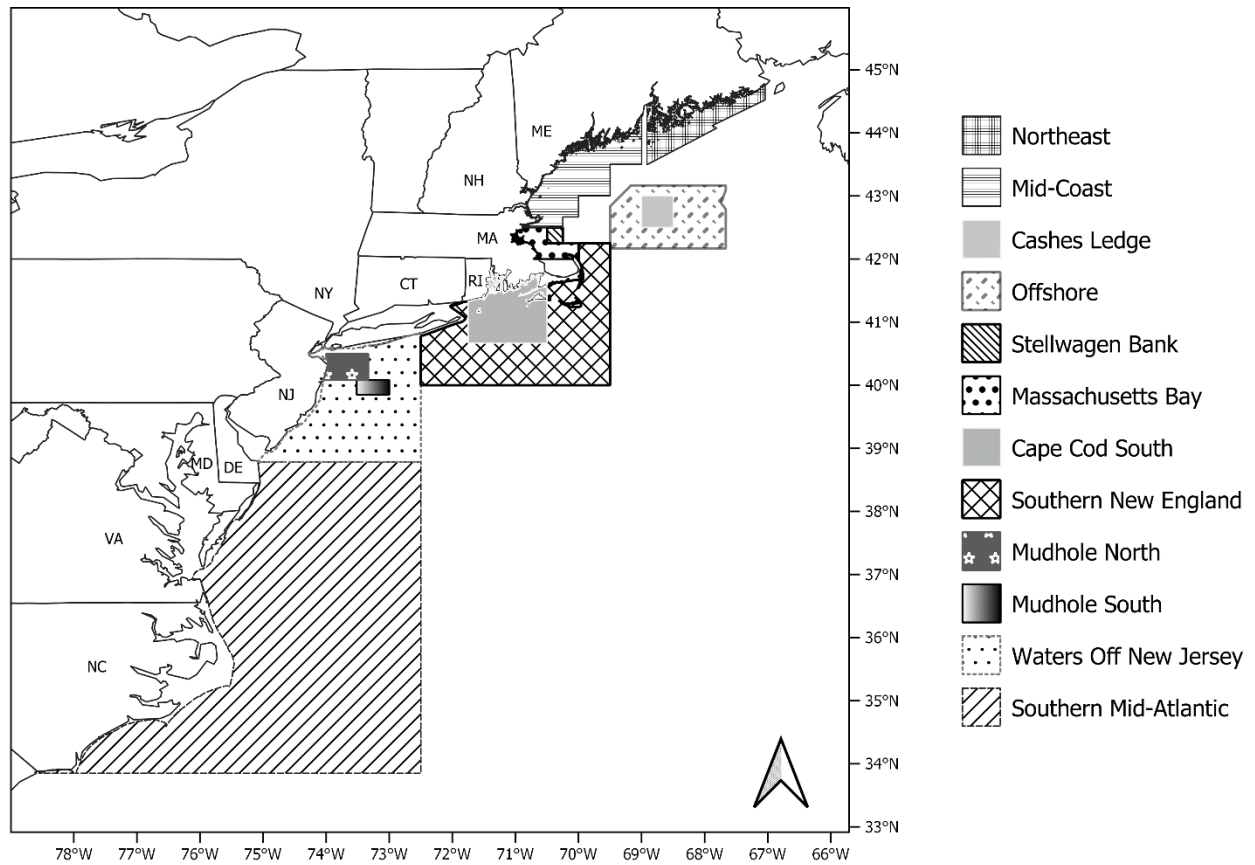


Figure 1. Management areas used in this report. For the purposes of estimating bycatch in the Mid-Atlantic gillnet fishery, Mudhole North and Mudhole South are considered part of the Waters Off New Jersey management area. Port groups, which reflect the port where the catch was landed, are not shown. Port groups are used for trips whose location was unknown, trips which fished outside the management areas, and trips which fished inside the management areas but outside the times when management measures were in place.

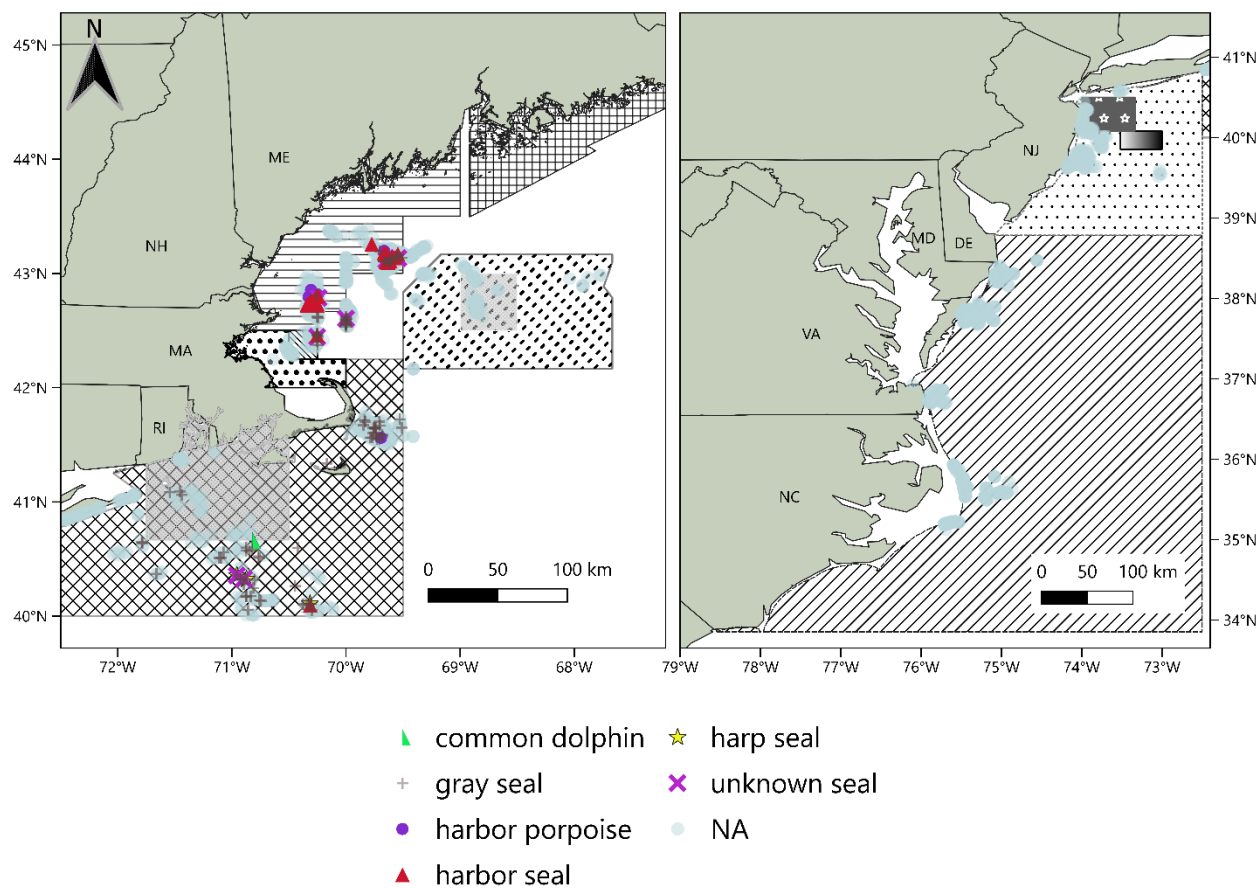


Figure 2. Locations of observed hauls and marine mammal bycatch in the 2024 New England (left) and Mid-Atlantic (right) gillnet fisheries. Observed bycatch consisted of common dolphin (*Delphinus delphis delphis*), gray seal (*Halichoerus grypus atlantica*), harbor porpoise (*Phocoena phocoena phocoena*), harbor seal (*Phoca vitulina vitulina*), harp seal (*Pagophilus groenlandicus*), and unknown seal. No bycatch was observed in the Mid-Atlantic gillnet fishery in 2024.

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