



Northeast Fisheries Science Center Reference Document 26-09

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June 2026



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SUMMARY

This report provides estimated bycatch of 8 species of small cetaceans and pinnipeds bycaught in the Northeast bottom trawl (NEBT) and Mid-Atlantic bottom trawl (MABT) fisheries in 2024.

The data presented here are an update of Precoda and Lyssikatos (2025), which covers fishing operations in 2023. The bycatch estimation methodology is similar to that used since 2008 (Lyssikatos 2015; Chavez-Rosales et al. 2017). For details on the bycatch estimation methodology, please refer to Chavez-Rosales et al. (2018). The marine mammal species observed bycaught in 2024 are long-finned pilot whale (*Globicephala melas*), white-sided dolphin (*Lagenorhynchus acutus*), common dolphin (*Delphinus delphis delphis*), bottlenose dolphin (*Tursiops truncatus truncatus*), Risso's dolphin (*Grampus griseus*), harbor porpoise (*Phocoena phocoena phocoena*), harbor seal (*Phoca vitulina vitulina*), and gray seal (*Halichoerus grypus atlantica*). The aim of this report is to document bycatch estimates for 2024 to support the U.S. Atlantic and Gulf of Mexico 2026 marine mammal stock assessment reports. Individual marine mammal stock assessment reports for the Northwest Atlantic are available online (Marine...updated 2025).

The 2024 NEBT estimates are based on observed bycatch, both mortalities and injured animals, made up of 7 white-sided dolphins, 22 common dolphins, 1 harbor porpoise, 2 harbor seals, 10 gray seals, and 6 long-finned pilot whales. While pilot whales are not distinguished by species in the observer data, a model using location, depth, and sea surface temperature (Garrison and Rosel 2017) was used to determine which species, long-finned or short-finned, was more likely for each take. The MABT estimates are based on observed bycatch (mortalities and injured animals) consisting of 7 common dolphins, 2 bottlenose dolphins, 1 Risso's dolphin, and 3 gray seals. Refer to Josephson and Lyssikatos (2023) for details on injury determinations attributed to interactions with bottom trawl gear. The final 2024 serious injury determinations will be published at a later date; serious injury determinations for 2024 that are used in this report are preliminary. The locations of observed tows and incidental takes are shown in Figure 1. Incidental takes of unknown species were excluded from the bycatch estimation; this included 1 unidentified dolphin in the Northeast region and 3 unidentified seals in the Mid-Atlantic region.

Observer coverage in 2024, defined as the percentage of Vessel Trip Report (VTR) trips on which an observer was on board a fishing vessel, was 37.4% in the NEBT fishery (Table 1) and 5.1% in the MABT fishery (Table 2).

The 2024 bycatch estimates from the NEBT fishery were 34 (coefficient of variation [CV] = 0.06) common dolphins, 16 (CV = 0.09) gray seals, 2 (CV = 0.28) harbor porpoises, 3 (CV = 0.14) harbor seals, 23 (CV = 0.36) long-finned pilot whales, and 10 (CV = 0.08) white-sided dolphins (Table 3). The 2024 bycatch estimates from the MABT fishery were 18 (CV = 0.65) bottlenose dolphins, 67 (CV = 0.42) common dolphins, 30 (CV = 0.60) gray seals, and 7 (CV = 0.86) Risso's dolphins (Table 4). Total bycatch estimates, mean annual bycatch estimates, and the associated CVs are shown for each species in Table 5. Bycatch estimates for 2024 are shown graphically in Figure 2 and Figure 3.

METHODS

The bycatch is estimated largely as described in Chavez-Rosales et al. (2018), with minor differences described in Precoda and Lyssikatos (2024). In brief, bycatch estimates were produced using a ratio estimator. Within each stratum, defined by region, year, season, and ecoregion or ecological production unit (EPU), the bycatch rate was estimated as the observed number of bycaught animals divided by the observed days fished. The total estimated bycatch within a stratum was the observed number of bycaught animals plus the product of the bycatch rate and the number of unobserved days fished.

TABLES

Table 1. Northeast bottom trawl fishery: Summaries of 2024 observed tows, observed trips, commercial trips from vessel trip reports (VTR), observed days fished, VTR days fished, and observer coverage by season and ecological production unit¹ (EPU: GB=Georges Bank; GOM=Gulf of Maine; Figure 1).

Season	EPU	Observed Tows	Observed Trips ^a	VTR Trips	Observed Days Fished	VTR Days Fished	Observer Coverage (trips)	Observer Coverage (days fished) ^b
Jan-Apr	GB	360	58	180	56.15	274.51	32.2%	20.5%
Jan-Apr	GOM	6,004	560	1,350	1,048.44	1,593.71	41.6%	65.8%
Jan-Apr	Subtotal	6,364	569	1,530	1,104.59	1,868.22	37.3%	59.1%
May-Aug	GB	1,308	126	256	185.53	412.98	49.2%	44.9%
May-Aug	GOM	6,110	574	1,220	815.82	1,210.53	47.0%	67.4%
May-Aug	Subtotal	7,418	585	1,476	1,001.35	1,623.51	39.6%	61.7%
Sep-Dec	GB	503	71	153	72.44	216.66	46.4%	33.4%
Sep-Dec	GOM	5,928	565	1,363	1,010.51	1,492.03	41.4%	67.7%
Sep-Dec	Subtotal	6,431	568	1,516	1,082.96	1,708.70	37.4%	63.4%
Total		20,213	1,693	4,522	3,188.90	5,200.42	37.4%	61.3%

^aThe 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 tows in different strata, while totals include only unique trips.

^bCoverage in terms of days fished is less informative than coverage in terms of trips because of differences in accuracy and precision in how time spent fishing is reported.

¹Observers 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.

Table 2. Mid-Atlantic bottom trawl fishery: Summaries of 2024 observed tows, observed trips, commercial trips from vessel trip reports (VTR), observed days fished, VTR days fished, and observer coverage by season and ecological production unit² (EPU: MAB=Mid-Atlantic Bight; Figure 1).

Season	EPU	Observed Tows	Observed Trips ^a	VTR Trips	Observed Days Fished	VTR Days Fished	Observer Coverage (trips)	Observer Coverage (days fished) ^b
Jan-Apr	MAB	1,763	177	1,980	207.66	1,380.81	8.9%	15.0%
May-Aug	MAB	772	143	3,919	91.11	1,552.49	3.7%	5.9%
Sep-Dec	MAB	1,124	167	3,683	156.00	1,833.15	4.5%	8.5%
Total		3,659	484	9,582	454.78	4,766.45	5.0%	9.5%

^aThe 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 tows in different strata, while totals include only unique trips.

^bCoverage in terms of days fished is less informative than coverage in terms of trips because of differences in accuracy and precision in how time spent fishing is reported.

²Observers 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.

Table 3. 2024 Northeast bottom trawl fishery: Number of observed bycatch, estimated bycatch rate per day fished, estimated bycatch, coefficient of variation (CV), and 95% confidence interval (CI) for the estimate of bycatch of common dolphin (*Delphinus delphis delphis*), gray seal (*Halichoerus grypus atlantica*), harbor porpoise (*Phocoena phocoena phocoena*), harbor seal (*Phoca vitulina vitulina*), long-finned pilot whale (*Globicephala melas*), and white-sided dolphin (*Lagenorhynchus acutus*) by season and ecological production unit (EPU: GB=Georges Bank, GOM=Gulf of Maine).

Species	Season	EPU	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI
common dolphin	May-Aug	GB	2	0.011	4.45	0.20	2-10
common dolphin	Jan-Apr	GOM	4	0.004	6.08	0.12	5-10
common dolphin	Sep-Dec	GOM	16	0.016	23.62	0.06	20-30
common dolphin		Total	22	0.010	34.16	0.06	29-43
gray seal	May-Aug	GB	2	0.011	4.45	0.19	2-10
gray seal	Jan-Apr	GOM	5	0.005	7.60	0.13	6-14
gray seal	May-Aug	GOM	2	0.002	2.97	0.12	2-5
gray seal	Sep-Dec	GOM	1	0.001	1.48	0.19	1-4
gray seal		Total	10	0.004	16.50	0.09	13-24
harbor porpoise	May-Aug	GB	1	0.005	2.23	0.28	1-8
harbor seal	Jan-Apr	GOM	1	0.001	1.52	0.20	1-4
harbor seal	Sep-Dec	GOM	1	0.001	1.48	0.19	1-4
harbor seal	Total	GOM	2	0.001	3.00	0.14	2-6
long-finned pilot whale	Jan-Apr	GB	4	0.071	19.55	0.48	4-64
long-finned pilot whale	Jan-Apr	GOM	1	0.001	1.52	0.20	1-4
long-finned pilot whale	Sep-Dec	GOM	1	0.001	1.48	0.19	1-4
long-finned pilot whale		Total	6	0.013	22.55	0.36	6-59
white-sided dolphin	Jan-Apr	GOM	3	0.003	4.56	0.15	3-9
white-sided dolphin	May-Aug	GOM	2	0.002	2.97	0.12	2-5
white-sided dolphin	Sep-Dec	GOM	2	0.002	2.95	0.13	2-5
white-sided dolphin	Total	GOM	7	0.002	10.48	0.08	8-15

Table 4. 2024 Mid-Atlantic bottom trawl fishery: Number of observed bycatch, estimated bycatch rate per day fished, estimated bycatch, coefficient of variation (CV), and 95% confidence interval (CI) for the estimate of bycatch of bottlenose dolphin (*Tursiops truncatus truncatus*), common dolphin (*Delphinus delphis delphis*), gray seal (*Halichoerus grypus atlantica*), and Risso's dolphin (*Grampus griseus*) by season and ecological production unit (EPU: MAB=Mid-Atlantic Bight).

Species	Season	EPU	Observed Bycatch	Bycatch Rate	Estimated Bycatch	CV	95% CI
bottlenose dolphin	Jan-Apr	MAB	1	0.005	6.65	0.81	1-30
bottlenose dolphin	Sep-Dec	MAB	1	0.006	11.75	0.91	1-64
bottlenose dolphin	Total	MAB	2	0.006	18.40	0.65	2-68
common dolphin	Jan-Apr	MAB	3	0.014	19.95	0.50	8-51
common dolphin	Sep-Dec	MAB	4	0.026	47.00	0.56	14-141
common dolphin	Total	MAB	7	0.021	66.95	0.42	29-155
gray seal	Jan-Apr	MAB	2	0.010	13.30	0.61	2-43
gray seal	May-Aug	MAB	1	0.011	17.04	0.96	1-95
gray seal	Total	MAB	3	0.010	30.34	0.60	8-99
Risso's dolphin	Jan-Apr	MAB	1	0.005	6.65	0.86	1-33

Table 5. 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) Northeast bottom trawl and (C) Mid-Atlantic bottom trawl fisheries. The 'Combined Estimate' is Estimated Mortality + Estimated Serious Injury.

A. Observer coverage as percent of trips, by fishery and year.

Fishery	Years	Data Type	Observer Coverage (trips)
Northeast bottom trawl	2020-24	Obs. Data, Trip Logbook	8.20, 18.79, 26.91, 37.93, 37.44
Mid-Atlantic bottom trawl	2020-24	Obs. Data, Trip Logbook	1.93, 4.48, 8.14, 8.08, 5.05

B. Observed and estimated serious injuries and mortalities of marine mammals in the Northeast bottom trawl 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 truncatus</i>)	0, 0, 0, 0, 0	0, 1, 2, 0, 0	0, 0, 0, 0, 0	0, 3.7, 5, 0, 0	1.9, 3.7, 5, 0, 0	0.92, 0.86, 0.32, 0.00, 0.00	2.1 (0.62)
common dolphin (<i>Delphinus delphis delphis</i>)	0, 1, 0, 0, 1	2, 8, 6, 6, 21	0, 4.8, 0, 0, 1.6	13, 38, 17, 8.8, 33	13, 43, 17, 8.8, 34	0.43, 0.42, 0.30, 0.09, 0.06	23 (0.17)
gray seal (<i>Halichoerus grypus atlantica</i>)	0, 0, 0, 0, 1	7, 2, 7, 11, 9	0, 0, 0, 0, 1.6	26, 7.5, 25, 14, 15	26, 7.5, 25, 14, 16	0.26, 0.60, 0.22, 0.05, 0.09	18 (0.11)
harbor porpoise (<i>Phocoena phocoena phocoena</i>)	0, 0, 1, 0, 0	0, 1, 0, 2, 1	0, 0, 3.4, 0, 0	0, 5, 0, 2.9, 2.2	3.6, 5, 3.4, 2.9, 2.2	0.63, 0.92, 0.56, 0.14, 0.28	3.4 (0.32)
harbor seal (<i>Phoca vitulina vitulina</i>)	0, 0, 0, 0, 0	1, 0, 2, 3, 2	0, 0, 0, 0, 0	4.6, 0, 6.8, 4.7, 3	4.6, 0, 6.8, 4.7, 3	0.68, 0.00, 0.39, 0.13, 0.14	3.8 (0.27)
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, 0, 0, 0, 0	0.89, 0.00, 0.00, 0.00, 0.00	0.4 (4.45)
long-finned pilot whale (<i>Globicephala melas</i>)	0, 0, 0, 0, 0	0, 2, 3, 4, 6	0, 0, 0, 0, 0	0, 7.5, 10, 6.8, 23	1.8, 7.5, 10, 6.8, 23	0.88, 0.62, 0.55, 0.18, 0.36	9.8 (0.23)
Risso's dolphin (<i>Grampus griseus</i>)	0, 0, 0, 0, 0	0, 1, 0, 0, 0	0, 0, 0, 0, 0	0, 3.8, 0, 0, 0	0, 3.8, 0, 0, 0	0.00, 0.88, 0.00, 0.00, 0.00	0.8 (4.40)
white-sided dolphin (<i>Lagenorhynchus acutus</i>)	0, 1, 0, 1, 1	5, 2, 3, 3, 6	0, 5, 0, 1.9, 1.5	31, 10, 13, 5.6, 9	31, 15, 13, 7.5, 10	0.26, 0.52, 0.40, 0.17, 0.08	15 (0.16)

C. Observed and estimated serious injuries and mortalities of marine mammals in the Mid-Atlantic bottom trawl 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 truncatus</i>)	0, 0, 0, 0, 0	1, 2, 1, 4, 2	0, 0, 0, 0, 0	9.5, 38, 11, 37, 18	9.5, 38, 11, 37, 18	0.55, 1.03, 0.87, 0.61, 0.65	23 (0.42)
common dolphin (<i>Delphinus delphis delphis</i>)	0, 0, 1, 2, 1	54, 13, 28, 20, 6	0, 0, 10, 17, 9.6	333, 230, 283, 172, 58	333, 230, 293, 189, 67	0.14, 0.57, 0.27, 0.26, 0.42	222 (0.15)
gray seal (<i>Halichoerus grypus atlantica</i>)	0, 0, 0, 0, 0	1, 0, 6, 3, 3	0, 0, 0, 0, 0	35, 0, 64, 32, 30	35, 0, 64, 32, 30	0.35, 0.00, 0.37, 0.52, 0.60	32 (0.28)
harbor seal (<i>Phoca vitulina vitulina</i>)	0, 0, 0, 0, 0	1, 0, 0, 1, 0	0, 0, 0, 0, 0	4.3, 0, 0, 7, 0	04.3, 0, 0, 7, 0	0.67, 0.00, 0.00, 0.87, 0.00	2.2 (1.49)
Risso's dolphin (<i>Grampus griseus</i>)	0, 0, 0, 0, 0	2, 0, 4, 0, 1	0, 0, 0, 0, 0	18, 0, 45, 0, 6.6	18, 0, 45, 0, 6.6	0.51, 0.00, 0.63, 0.00, 0.86	14 (0.72)

FIGURES

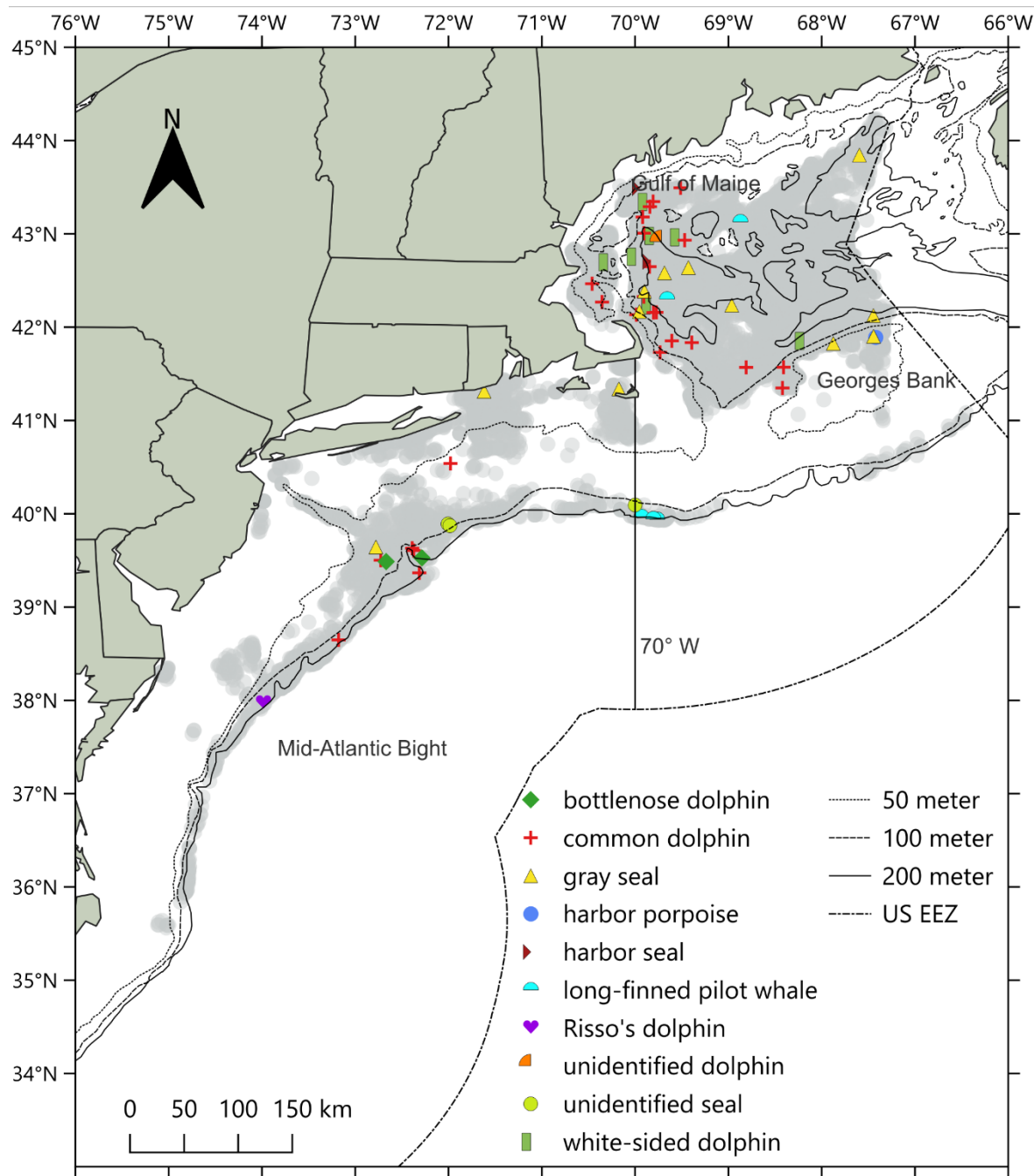


Figure 1. Locations of observed tows and incidental takes from observed commercial trips in the Northeast bottom trawl and Mid-Atlantic bottom trawl fisheries in 2024 for white-sided dolphin (*Lagenorhynchus acutus*), common dolphin (*Delphinus delphis delphis*), bottlenose dolphin (*Tursiops truncatus truncatus*), Risso's dolphin (*Grampus griseus*), harbor porpoise (*Phocoena phocoena phocoena*), harbor seal (*Phoca vitulina vitulina*), gray seal (*Halichoerus grypus atlantica*), long-finned pilot whale (*Globicephala melas*) and unidentified dolphin and unidentified seal.

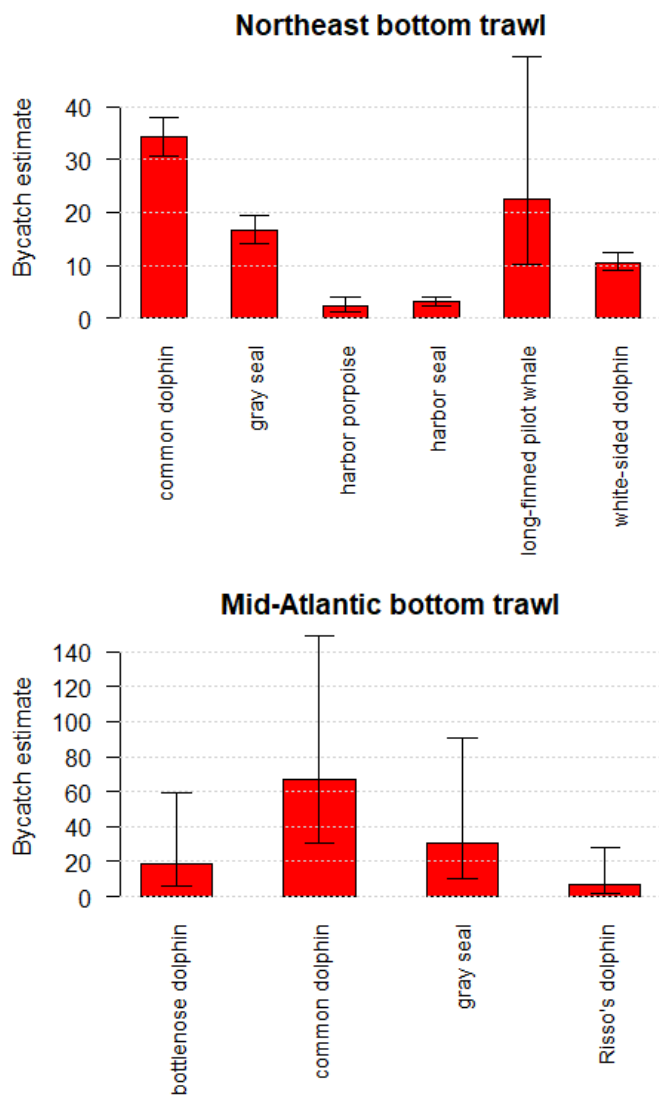


Figure 2. Bycatch estimates (with lognormal 95% confidence interval) by region and species, 2024.

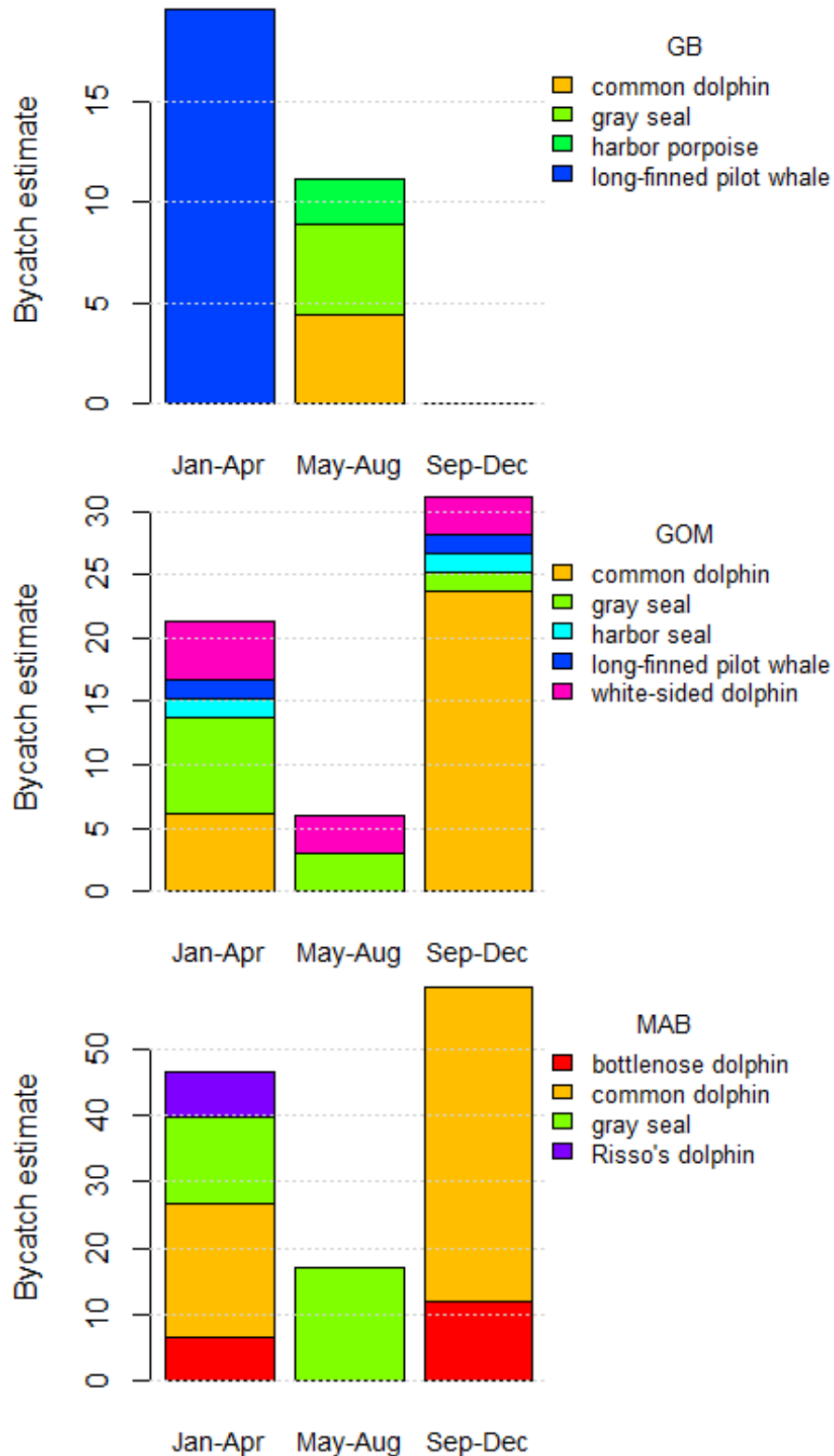


Figure 3. Bycatch estimates for 2024 by ecological production unit, season, and species. GB=Georges Bank, GOM=Gulf of Maine, MAB=Mid-Atlantic Bight.

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