

Follow-up Answers & Questions from the April 2013 Harbor Porpoise Working Group Meeting

Responses provided by NEFSC, Protected Species Branch

Pinger testing Sample Sizes

What were the vessel, haul, and trip sample sizes for the pinger-testing compliance data in the fall of 2012?

During the fall of 2012, 74 hauls were observed within management areas requiring pingers that also had all pingers tested and had all required pingers present. These hauls came from 13 vessels and 19 trips. The percent of hauls with the both the required number of pingers and all pingers functioning was revised due to a miscalculation and is now 86.5% (compared to 84.8% previously). Hauls with non-functioning pingers occurred on 5 of the 13 vessels that had all required pingers. Among the hauls in this sample, all trips were sector groundfish trips except for one (3 hauls).

Table 1. Pinger functionality for the Fall 2012 in management areas requiring pingers

Vessel	Sector/ Common Pool/ Non-Groundfish	Observed Trips	Observed Hauls with All Req. Pingers	
			Not All Functioning	All Functioning
A	Non-groundfish	1	3	0
B	Sector	1	1	1
C	Sector	1	0	5
D	Sector	2	1	7
E	Sector	1	0	5
F	Sector	1	0	1
G	Sector	1	0	4
H	Sector	1	0	1
I	Sector	1	0	6
J	Sector	3	3	18
K	Sector	2	2	4
L	Sector	1	0	1
M	Sector	3	0	11
Totals		19	10	64

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Compliance Rates in sector, common pool , and non-groundfish hauls

What were the compliance rates for sector, common pool, and vessels for the fall of 2012?

In the Coastal Gulf of Maine areas all observed hauls were sector hauls and compliance was 95.0% (1200/1263) when pinger functionality was not taken into account. In Southern New England compliance was 84.8% (78/92), again, not including functionality. Southern New England sector vessels had a compliance rate of 94.7% (71/75). Non-sector hauls had lower compliance rates but very small sample sizes (common pool: 100%, 4/4; non-groundfish, 33.3%, 3/9).

Pinger compliance corrections from the last document resulted in slight changes to the numbers presented at the working group meeting. Most are presented in the above paragraph. Also, when revised pinger functionality is factored in, the Coastal Gulf of Maine compliance rate becomes 82.2% (95.0% x 86.5%) instead of 79%, and Southern New England becomes 74.4% (84.8% x 86.5%) instead of 71.9%.

Observer Coverage in the Mid-Atlantic

What is the observer coverage for New England vessels fishing in the Mid-Atlantic compared to Mid-Atlantic vessels in that same area?

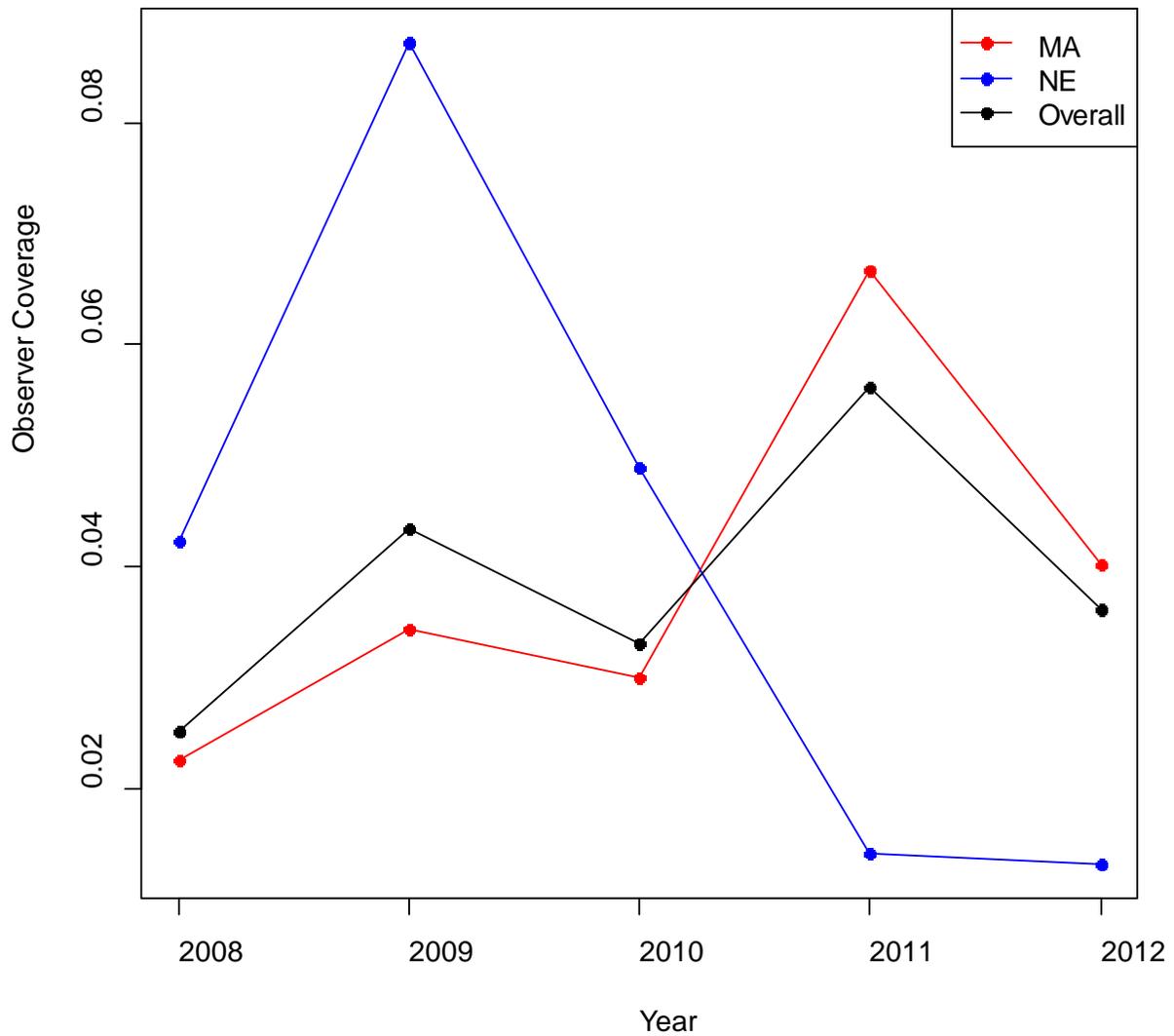


Figure 1: Observer coverage for New England (NE) and Mid-Atlantic (MA) vessels fishing in the Waters off New Jersey management area during times managed under the Harbor Porpoise Take Reduction Plans. Observer coverage is defined as the observed landings divided by the total reported landings acquired from VTR and CFDBS datasets.

Bycatch Updates

What are the monthly takes from May 2012 to present?

In Palka 2012 (Fall HPTRT meeting paper B7), for 1 January 2007 – 31 May 2012 the APPROXIMATE total bycatch by month and year was displayed in Figure 27. With the availability of the rest of 2012 data, Figure 2 and Table 1 (below) expanded the time series to December 2012.

The “approximate total monthly bycatch” was simply estimated as the product of the observed bycatch rate using the pooled NEFOP and ASM data and the total effort as documented in the VTR data:

$$\text{Approximate total bycatch} = \left(\frac{\text{observed takes}}{\text{observed mtons landed}} \right) * \text{VTR mtons landed}$$

These monthly bycatch estimates should be considered approximations to demonstrate general patterns. They are approximate estimates because they do not explicitly account for the hauls with and without pingers, do not explicitly account for the potential effects of the ASM data, and do not prorate the VTR to incorporate dealer recorded mtons landed when calculating the total mtons landed from the entire fishery. These complications are correctly accounted for in the seasonal/annual bycatch estimates in Orphanides (2010, 2011 and 2012).

Since May 2012 the approximate monthly total bycatch for the Gulf of Maine areas (Midcoast Management Area (MA), Massachusetts Bay MA, Stellwagen MA, and offshore MA) followed the typical patterns with very little or no bycatch in the summer and more in the fall, particularly in October – November. The fall 2012 Gulf of Maine estimates are in the same average range of recent past fall seasons (2007 – 2011).

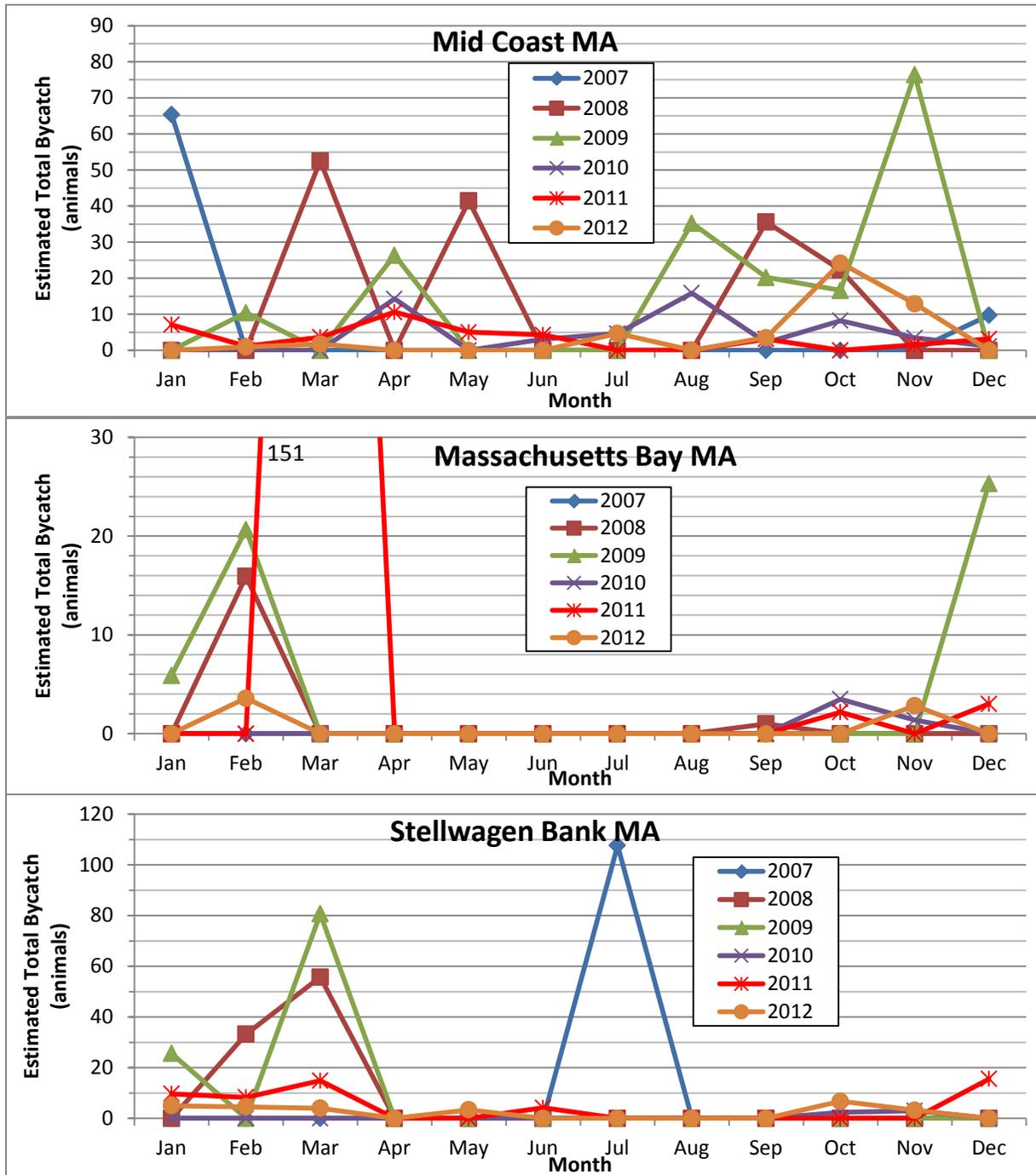
There were very few observed (NEFOP and ASM) trips and VTR recorded gillnet trips in June – December 2012 within the year-round western Gulf of Maine closure area, and no observed harbor porpoise bycatch.

In the Southern New England MA (and the South Cape MA which is within the Southern New England MA), after May 2012 the approximate monthly total bycatch was very low or zero until December 2012; at which time it was about the same as in previous recent years (2007 – 2011).

REFERENCES

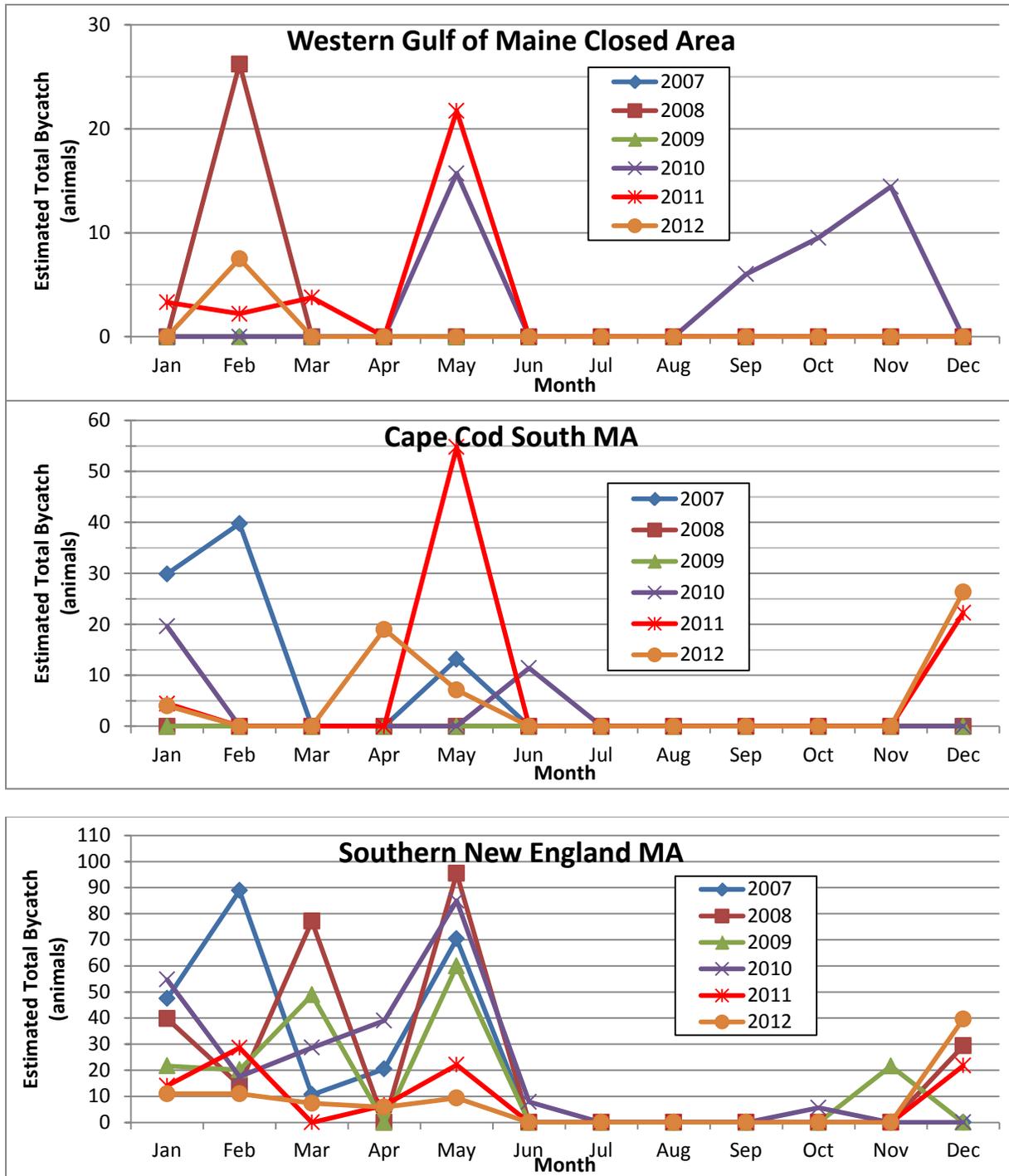
- Orphanides CD. 2010. Estimates of Cetacean and Pinniped Bycatch in the 2007 and 2008 Northeast Sink Gillnet and Mid-Atlantic Gillnet Fisheries. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 10-10; 45 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at: <http://nefsc.noaa.gov/nefsc/publications/>
- Orphanides CD. 2011. Estimates of Cetacean and Pinniped Bycatch in the 2009 New England Sink Gillnet and Mid-Atlantic Gillnet Fisheries. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 11-08; 28 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at <http://www.nefsc.noaa.gov/nefsc/publications/>
- Orphanides CD. 2012. Estimates of harbor porpoise in the 2010 New England sink gillnet and Mid-Atlantic gillnet fisheries. Paper presented to the 2012 HPTRT.
- Palka D. 2012. (B7) New England management areas: harbor porpoise bycatch patterns during 1 January to 30 May 2012. Paper presented to the 2012 HPTRT.

Figure 27 updated. Approximate total bycatch estimates of harbor porpoises by management area (MA), year and month during 2007 – 2012. The Cape Cod South MA is part of the Southern New England MA, Cape Cod South CCA and Eastern Cape Cod CCA are parts of the Southern New England MA, and the Coastal Gulf of Maine CCA overlaps parts or all of the Mid-Coast, Stellwagen Bank, and Massachusetts Bay MAs. Note, range on y-axes differ.



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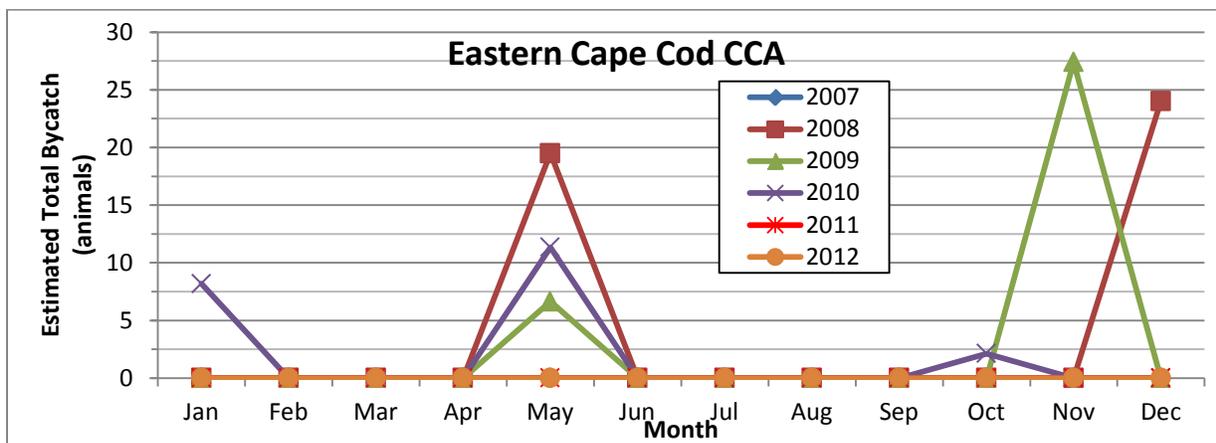
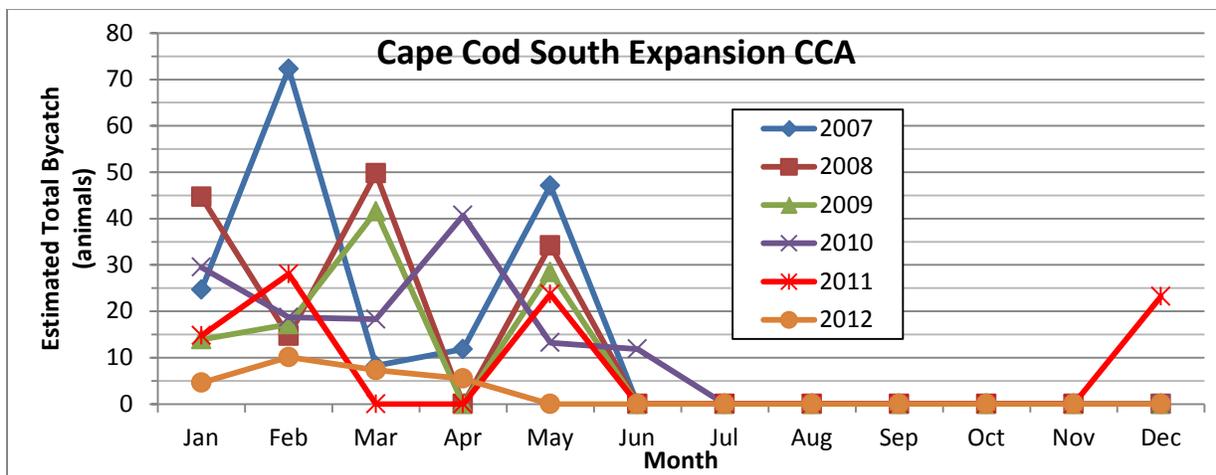
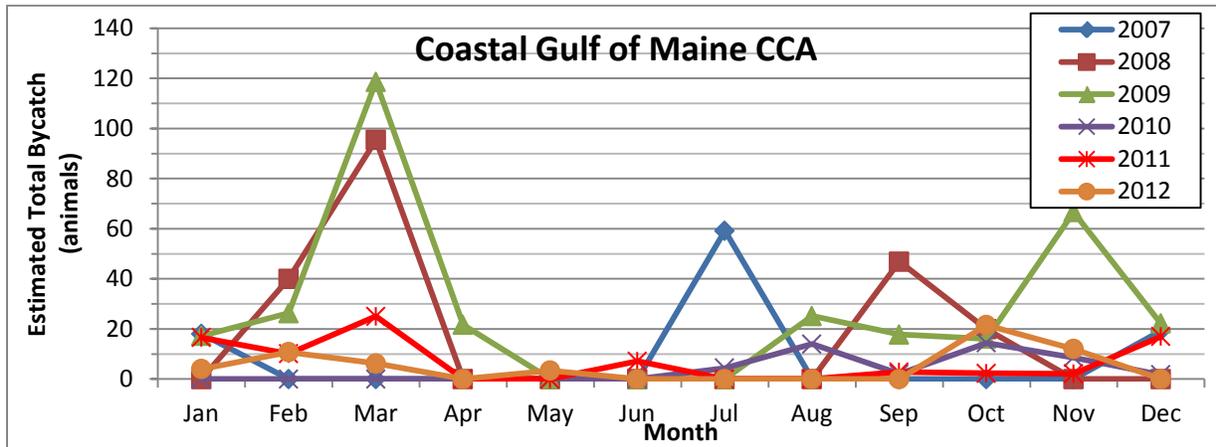


Table 2. Approximate total bycatch estimates of harbor porpoises by management area, year and month during 2007 – 2012. The Cape Cod South MA is part of the Southern New England MA, Cashes Ledge MA is part of the Offshore MA, Cape Cod South CCA and Eastern Cape Cod CCA are parts of the Southern New England MA, and the Coastal Gulf of Maine CCA overlaps parts or all of the Mid-Coast, Stellwagen Bank, and Massachusetts Bay MAs.

Month	2007	2008	2009	2010	2011	2012	Area
Jan	65.38	0.00	0.00	0.00	7.10	0.00	Midcoast
Feb	0.00	0.00	10.44	0.00	1.14	0.93	Midcoast
Mar	0.00	52.52	0.00	0.00	3.62	1.77	Midcoast
Apr	0.00	0.00	26.38	14.26	10.58	0.00	Midcoast
May	0.00	41.45	0.00	0.00	5.02	0.00	Midcoast
Jun	0.00	0.00	0.00	3.08	4.27	0.00	Midcoast
Jul	0.00	0.00	0.00	4.67	0.00	4.70	Midcoast
Aug	0.00	0.00	35.26	15.89	0.00	0.00	Midcoast
Sep	0.00	35.60	20.20	2.09	3.12	3.51	Midcoast
Oct	0.00	22.26	16.59	8.22	0.00	24.18	Midcoast
Nov	0.00	0.00	76.43	3.44	1.52	12.94	Midcoast
Dec	9.75	0.00	0.00	1.12	3.16	0.00	Midcoast
total	75.12	151.83	185.29	52.78	39.53	48.03	

Month	2007	2008	2009	2010	2011	2012	Area
Jan	0.00	0.00	5.90	0.00	0.00	0.00	MassachusettsBay
Feb	0.00	15.92	20.67	0.00	0.00	3.59	MassachusettsBay
Mar	0.00	0.00	0.00	0.00	151.52	0.00	MassachusettsBay
Apr	0.00	0.00	0.00	0.00	0.00	0.00	MassachusettsBay
May	0.00	0.00	0.00	0.00	0.00	0.00	MassachusettsBay
Jun	0.00	0.00	0.00	0.00	0.00	0.00	MassachusettsBay
Jul	0.00	0.00	0.00	0.00	0.00	0.00	MassachusettsBay
Aug	0.00	0.00	0.00	0.00	0.00	0.00	MassachusettsBay
Sep	0.00	0.99	0.00	0.00	0.00	0.00	MassachusettsBay
Oct	0.00	0.00	0.00	3.49	2.18	0.00	MassachusettsBay
Nov	0.00	0.00	0.00	1.38	0.00	2.83	MassachusettsBay
Dec	0.00	0.00	25.32	0.00	3.02	0.00	MassachusettsBay
total	0.00	16.91	51.89	4.87	156.71	6.42	

Table 2 cont. Approximate total bycatch estimates of harbor porpoises by management area, year and month during 2007 – 2012. The Cape Cod South MA is part of the Southern New England MA, Cashes Ledge MA is part of the Offshore MA, Cape Cod South CCA and Eastern Cape Cod CCA are parts of the Southern New England MA, and the Coastal Gulf of Maine CCA overlaps parts or all of the Mid-Coast, Stellwagen Bank, and Massachusetts Bay MAs.

Month	2007	2008	2009	2010	2011	2012	Area
Jan	0.00	0.00	25.65	0.00	9.72	5.01	StellwagenBank
Feb	0.00	33.20	0.00	0.00	8.33	4.58	StellwagenBank
Mar	0.00	55.73	80.69	0.00	14.90	4.01	StellwagenBank
Apr	0.00	0.00	0.00	0.00	0.00	0.00	StellwagenBank
May	0.00	0.00	0.00	0.00	0.00	3.37	StellwagenBank
Jun	0.00	0.00	0.00	0.00	4.20	0.00	StellwagenBank
Jul	107.65	0.00	0.00	0.00	0.00	0.00	StellwagenBank
Aug	0.00	0.00	0.00	0.00	0.00	0.00	StellwagenBank
Sep	0.00	0.00	0.00	0.00	0.00	0.00	StellwagenBank
Oct	0.00	0.00	0.00	2.45	0.00	6.76	StellwagenBank
Nov	0.00	0.00	0.00	3.00	0.00	3.21	StellwagenBank
Dec	0.00	0.00	0.00	0.00	15.58	0.00	StellwagenBank
total	107.65	88.93	106.34	5.45	52.73	26.94	

Month	2007	2008	2009	2010	2011	2012	Area
Jan	0.00	0.00	0.00	0.00	0.00	0.00	Offshore
Feb	0.00	0.00	0.00	0.00	0.00	0.00	Offshore
Mar	0.00	0.00	0.00	0.00	0.00	0.00	Offshore
Apr	0.00	0.00	0.00	0.00	0.00	0.00	Offshore
May	0.00	0.00	0.00	0.00	0.00	0.00	Offshore
Jun	0.00	0.00	0.00	0.00	0.00	0.00	Offshore
Jul	0.00	0.00	0.00	1.19	0.00	0.00	Offshore
Aug	0.00	0.00	0.00	0.00	0.00	0.00	Offshore
Sep	0.00	0.00	0.00	0.00	0.00	0.00	Offshore
Oct	0.00	0.00	0.00	0.00	0.00	0.00	Offshore
Nov	0.00	0.00	0.00	0.00	0.00	0.00	Offshore
Dec	0.00	0.00	0.00	2.52	0.00	0.00	Offshore
total	0.00	0.00	0.00	3.71	0.00	0.00	

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Month	2007	2008	2009	2010	2011	2012	Area
Jan	47.43	39.74	21.66	54.74	14.02	11.00	SouthernNewEngland
Feb	88.84	14.34	20.15	17.59	28.57	10.99	SouthernNewEngland
Mar	10.63	77.13	48.88	28.61	0.00	7.33	SouthernNewEngland
Apr	20.48	0.00	0.00	39.03	6.56	5.87	SouthernNewEngland
May	70.34	95.43	59.97	84.97	22.04	9.37	SouthernNewEngland
Jun	0.00	0.00	0.00	7.82	0.00	0.00	SouthernNewEngland
Jul	0.00	0.00	0.00	0.00	0.00	0.00	SouthernNewEngland
Aug	0.00	0.00	0.00	0.00	0.00	0.00	SouthernNewEngland
Sep	0.00	0.00	0.00	0.00	0.00	0.00	SouthernNewEngland
Oct	0.00	0.00	0.00	5.60	0.00	0.00	SouthernNewEngland
Nov	0.00	0.00	21.61	0.00	0.00	0.00	SouthernNewEngland
Dec	0.00	29.35	0.00	0.00	21.74	39.62	SouthernNewEngland
total	237.72	255.99	172.27	238.37	92.94	84.18	

Month	2007	2008	2009	2010	2011	2012	Area
Jan	29.90	0.00	0.00	19.62	4.44	4.02	CapeCodSouth
Feb	39.77	0.00	0.00	0.00	0.00	0.00	CapeCodSouth
Mar	0.00	0.00	0.00	0.00	0.00	0.00	CapeCodSouth
Apr	0.00	0.00	0.00	0.00	0.00	19.02	CapeCodSouth
May	13.13	0.00	0.00	0.00	54.81	7.12	CapeCodSouth
Jun	0.00	0.00	0.00	11.44	0.00	0.00	CapeCodSouth
Jul	0.00	0.00	0.00	0.00	0.00	0.00	CapeCodSouth
Aug	0.00	0.00	0.00	0.00	0.00	0.00	CapeCodSouth
Sep	0.00	0.00	0.00	0.00	0.00	0.00	CapeCodSouth
Oct	0.00	0.00	0.00	0.00	0.00	0.00	CapeCodSouth
Nov	0.00	0.00	0.00	0.00	0.00	0.00	CapeCodSouth
Dec	0.00	0.00	0.00	0.00	22.24	26.34	CapeCodSouth
total	82.80	0.00	0.00	31.05	81.49	56.50	

Table 2 cont. Approximate total bycatch estimates of harbor porpoises by management area, year and month during 2007 – 2012. The Cape Cod South MA is part of the Southern New England MA, Cashes Ledge MA is part of the Offshore MA, Cape Cod South CCA and Eastern Cape Cod CCA are parts of the Southern New England MA, and the Coastal Gulf of Maine CCA overlaps parts or all of the Mid-Coast, Stellwagen Bank, and Massachusetts Bay MAs.

Month	2007	2008	2009	2010	2011	2012	Area
Jan	0.00	0.00	0.00	0.00	0.00	0.00	CashesLedge
Feb	0.00	0.00	0.00	0.00	0.00	0.00	CashesLedge
Mar	0.00	0.00	0.00	0.00	0.00	0.00	CashesLedge
Apr	0.00	0.00	0.00	0.00	0.00	0.00	CashesLedge
May	0.00	0.00	0.00	0.00	0.00	0.00	CashesLedge
Jun	0.00	0.00	0.00	0.00	0.00	0.00	CashesLedge
Jul	0.00	0.00	0.00	0.00	0.00	0.00	CashesLedge
Aug	0.00	0.00	0.00	0.00	0.00	0.00	CashesLedge
Sep	0.00	0.00	0.00	0.00	0.00	0.00	CashesLedge
Oct	0.00	0.00	0.00	0.00	0.00	0.00	CashesLedge
Nov	0.00	0.00	0.00	0.00	0.00	0.00	CashesLedge
Dec	0.00	0.00	0.00	0.00	0.00	0.00	CashesLedge
total	0.00	0.00	0.00	0.00	0.00	0.00	

Month	2007	2008	2009	2010	2011	2012	Area
Jan	0.00	0.00	0.00	0.00	3.32	0.00	WesternGulfOfMaine
Feb	0.00	26.23	0.00	0.00	2.21	7.51	WesternGulfOfMaine
Mar	0.00	0.00	0.00	0.00	3.77	0.00	WesternGulfOfMaine
Apr	0.00	0.00	0.00	0.00	0.00	0.00	WesternGulfOfMaine
May	0.00	0.00	0.00	15.72	21.73	0.00	WesternGulfOfMaine
Jun	0.00	0.00	0.00	0.00	0.00	0.00	WesternGulfOfMaine
Jul	0.00	0.00	0.00	0.00	0.00	0.00	WesternGulfOfMaine
Aug	0.00	0.00	0.00	0.00	0.00	0.00	WesternGulfOfMaine
Sep	0.00	0.00	0.00	6.03	0.00	0.00	WesternGulfOfMaine
Oct	0.00	0.00	0.00	9.52	0.00	0.00	WesternGulfOfMaine
Nov	0.00	0.00	0.00	14.44	0.00	0.00	WesternGulfOfMaine
Dec	0.00	0.00	0.00	0.00	0.00	0.00	WesternGulfOfMaine
total	0.00	26.23	0.00	45.71	31.03	7.51	

Table 2 cont. Approximate total bycatch estimates of harbor porpoises by management area, year and month during 2007 – 2012. The Cape Cod South MA is part of the Southern New England MA, Cashes Ledge MA is part of the Offshore MA, Cape Cod South CCA and Eastern Cape Cod CCA are parts of the Southern New England MA, and the Coastal Gulf of Maine CCA overlaps parts or all of the Mid-Coast, Stellwagen Bank, and Massachusetts Bay MAs.

Month	2007	2008	2009	2010	2011	2012	Area
Jan	18.07	0.00	17.24	0.00	16.57	4.01	CoastalGulfOfMaineCCA
Feb	0.00	40.04	26.29	0.00	10.11	10.73	CoastalGulfOfMaineCCA
Mar	0.00	95.45	118.62	0.00	25.02	6.24	CoastalGulfOfMaineCCA
Apr	0.00	0.00	21.66	0.00	0.00	0.00	CoastalGulfOfMaineCCA
May	0.00	0.00	0.00	0.00	0.00	3.42	CoastalGulfOfMaineCCA
Jun	0.00	0.00	0.00	0.00	7.12	0.00	CoastalGulfOfMaineCCA
Jul	59.21	0.00	0.00	4.44	0.00	0.00	CoastalGulfOfMaineCCA
Aug	0.00	0.00	25.17	13.99	0.00	0.00	CoastalGulfOfMaineCCA
Sep	0.00	46.89	17.80	2.05	2.82	0.00	CoastalGulfOfMaineCCA
Oct	0.00	19.91	16.10	14.41	2.34	21.57	CoastalGulfOfMaineCCA
Nov	0.00	0.00	66.64	8.60	2.12	12.02	CoastalGulfOfMaineCCA
Dec	19.26	0.00	22.19	1.73	16.96	0.00	CoastalGulfOfMaineCCA
total	96.53	202.29	331.70	45.22	83.07	57.99	

Month	2007	2008	2009	2010	2011	2012	Area
Jan	24.63	44.68	13.93	29.50	14.76	4.59	CapeCodSouthExpansionCCA
Feb	72.28	14.66	17.17	18.70	28.03	10.12	CapeCodSouthExpansionCCA
Mar	8.25	49.75	41.55	18.28	0.00	7.30	CapeCodSouthExpansionCCA
Apr	11.81	0.00	0.00	40.68	0.00	5.48	CapeCodSouthExpansionCCA
May	47.12	34.21	28.45	13.24	23.71	0.00	CapeCodSouthExpansionCCA
Jun	0.00	0.00	0.00	11.88	0.00	0.00	CapeCodSouthExpansionCCA
Jul	0.00	0.00	0.00	0.00	0.00	0.00	CapeCodSouthExpansionCCA
Aug	0.00	0.00	0.00	0.00	0.00	0.00	CapeCodSouthExpansionCCA
Sep	0.00	0.00	0.00	0.00	0.00	0.00	CapeCodSouthExpansionCCA
Oct	0.00	0.00	0.00	0.00	0.00	0.00	CapeCodSouthExpansionCCA
Nov	0.00	0.00	0.00	0.00	0.00	0.00	CapeCodSouthExpansionCCA
Dec	0.00	0.00	0.00	0.00	23.20	0.00	CapeCodSouthExpansionCCA
total	164.09	143.30	101.10	132.26	89.70	27.49	

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Month	2007	2008	2009	2010	2011	2012	Area
Jan	0.00	0.00	0.00	8.19	0.00	0.00	EasternCapeCodCCA
Feb	0.00	0.00	0.00	0.00	0.00	0.00	EasternCapeCodCCA
Mar	0.00	0.00	0.00	0.00	0.00	0.00	EasternCapeCodCCA
Apr	0.00	0.00	0.00	0.00	0.00	0.00	EasternCapeCodCCA
May	0.00	19.50	6.63	11.34	0.00	0.00	EasternCapeCodCCA
Jun	0.00	0.00	0.00	0.00	0.00	0.00	EasternCapeCodCCA
Jul	0.00	0.00	0.00	0.00	0.00	0.00	EasternCapeCodCCA
Aug	0.00	0.00	0.00	0.00	0.00	0.00	EasternCapeCodCCA
Sep	0.00	0.00	0.00	0.00	0.00	0.00	EasternCapeCodCCA
Oct	0.00	0.00	0.00	2.13	0.00	0.00	EasternCapeCodCCA
Nov	0.00	0.00	27.41	0.00	0.00	0.00	EasternCapeCodCCA
Dec	0.00	24.02	0.00	0.00	0.00	0.00	EasternCapeCodCCA
total	0.00	43.52	34.04	21.66	0.00	0.00	