Mid-Atlantic Fishery Management Council
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Michael P. Luisi, Chairman | G. Warren Elliott, Vice Chairman
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DRAFT MEMORANDUM

Date: December 1, 2017

To: Council

From: Staff/Jason Didden

Subject: Squid Buffer Framework Agenda Item, Framework Meeting 1

The Council included an action to consider Squid Buffers in the list of "Possible Additions" in the 2017 Implementation Plan. The December 2017 Council meeting would constitute Framework Meeting 1, as per the Frameworks Process Summary (http://www.mafmc.org/s/Frameworks.pdf). Staff has been able to draft possible alternatives and to develop preliminary related analyses (or use existing analyses). Staff is seeking Council input on next steps. Several recent constituent communications regarding the buffer issue are also included at the end of this tab. Previous public comments have included positions for and against moving forward with this action.

Purpose/Goal: To consider buffer options that could address concerns about longfin squid fishing effort/catch south of Massachusetts' state waters off Martha's Vineyard and Nantucket (MV/NT).

Timeline: December 2017: Discuss framework goals and if appropriate, review and approve preliminary alternatives for further analysis. Further development and/or action could occur in early to mid-2018 depending on Council priorities.

Background: Concern about longfin squid effort and localized depletion south of MV/NT during Trimester 2 arose during the recent Squid Amendment. Previous analysis by the Squid Amendment's Fishery Management Action Team (FMAT) was unable to discern localized (Nantucket Sound area) trends in longfin squid, butterfish, or typical recreational species' abundances. A relevant memo is attached[1] and additional details from the previous analysis could be provided at a future meeting. Additional analysis would be greatly facilitated by the specification of clear goals for this action by the Council, but is unlikely to deduce cause and effect relationships between any possible abundance trends and squid fishing effort.

Some alternatives in the Squid Amendment may already have some impacts for Trimester 2 landings. For example, the lower post-closure trip limit for Trimester 2 should limit Trimester 2

[1] The additional "narrative text" mentioned in that memo was not created because the buffer options were removed from the Squid Amendment.

landings to the relevant quota. A buffer zone action would go beyond options selected in the Squid Amendment to affect where at least part of the Trimester 2 quota can, or cannot, be caught.

Work done for the Squid Amendment may be relevant to the discussion at this meeting. The overall squid resource appears robust. A benchmark assessment found the squid resource to be at 128% of target biomass in 2009 and an update indicated the stock was at 174% of the biomass target in 2016. Fishing mortality rates could not be determined due to the complex life history of longfin squid, but the stock was judged to be generally "lightly exploited." Analysis strongly indicates that higher effort is correlated with lower longfin squid catch per unit effort (CPUE) in the immediately following season. There are also lab studies that indicate longfin squid eggs likely have extremely high mortality if disturbed during late development, and the Trimester 2 fishery has relatively high squid egg bycatch compared to the other Trimesters. Squid spawning/eggs are not confined to the area south of MV/NT however, and have been documented across a broad area within the Mid-Atlantic Bight, including inshore and offshore waters.

Description of the alternatives: Based on existing measures and previous public comment regarding buffer zones, Council staff has drafted five possible alternatives: no action plus four action alternatives, further described following this page. The options described below are intended by staff as a starting point for discussion by the Council. The alternatives combine two potential areas and two potential time periods. If the Council wants to proceed with this action, 3-4 action alternatives are optimal for timely framework completion. Since disturbance of squid mops by bottom trawls has been identified as a primary concern in previous comments, jigging for squid is not proposed to be prohibited (however jigging has not been demonstrated to be commercially viable for longfin squid).

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*Figure 1. **Option 1** In purple/black area, no squid possession by federally-permitted MSB vessels with net gear onboard (unless appropriately stowed) June 9-August 31 (June 9 matches MA state closure) (N part follows state waters 3nm line, S part follows ten-minute square boundary, 41°10' N)*

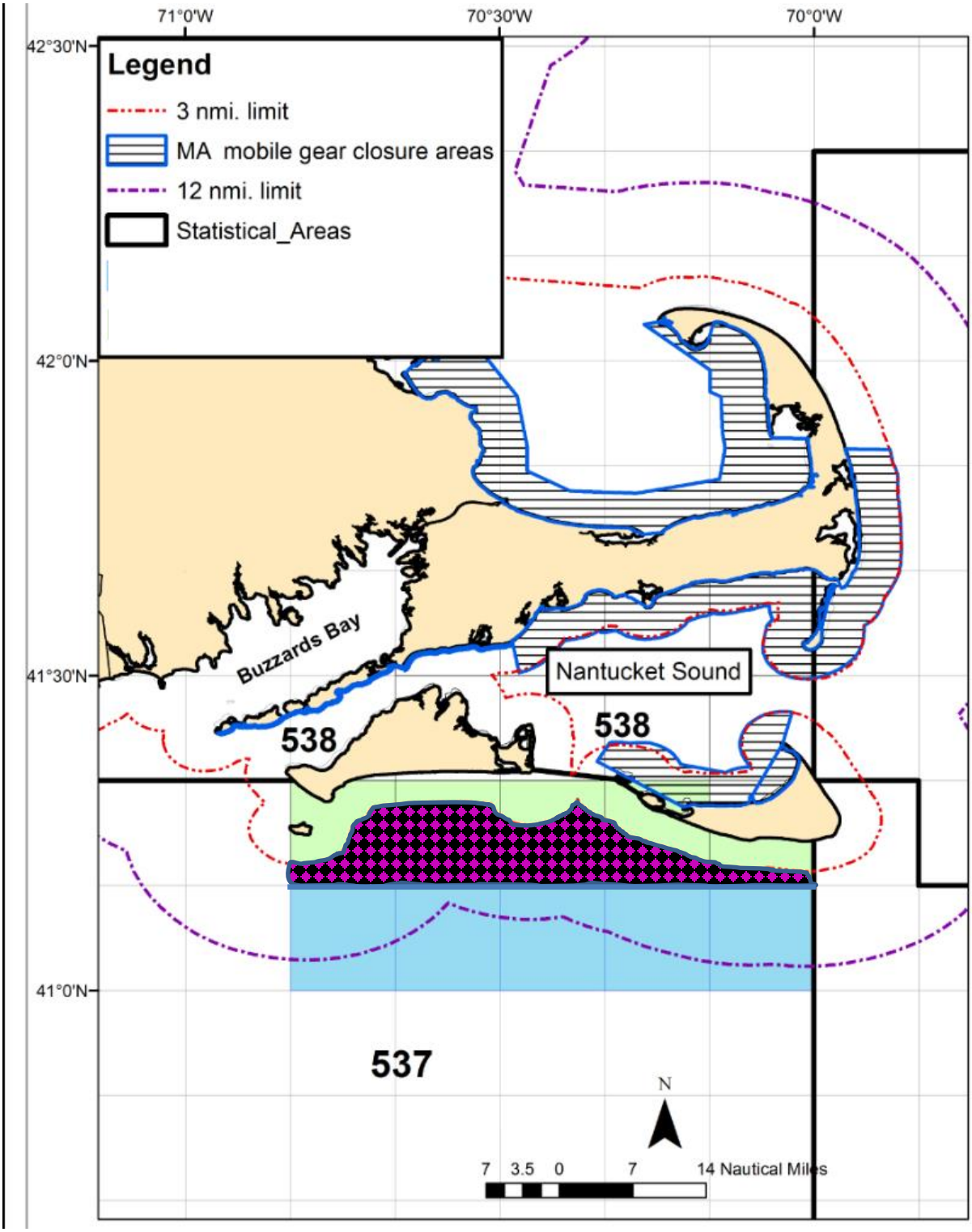


Figure 2. ***Option 2*** *– In purple/black area, no squid possession by federally-permitted MSB vessels with net gear onboard (unless stowed) when landings reach the pre-rollover Trimester II quota (~8.4 million pounds in 2017) (N part follows state waters 3 nm line, S part follows ten-minute square boundary, 41°10' N)*

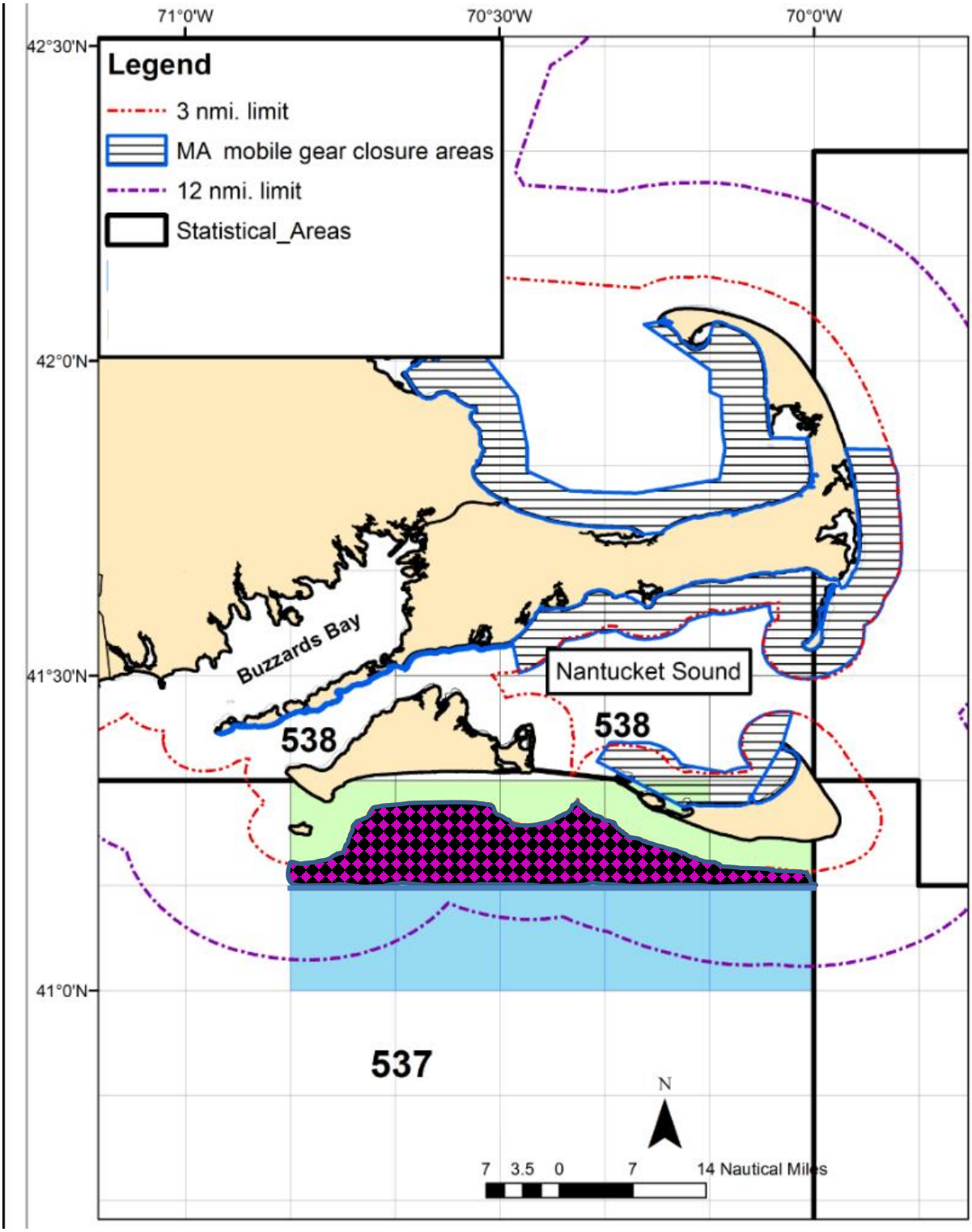


*Figure 3. **Option 3** – In purple/black area, no squid possession by federally-permitted MSB vessels with net gear onboard (unless appropriately stowed) June 9-August 31 (June 9 matches MA state closure) (N part follows state waters 3 nm line, S part follows 12 nm territorial waters boundary)*

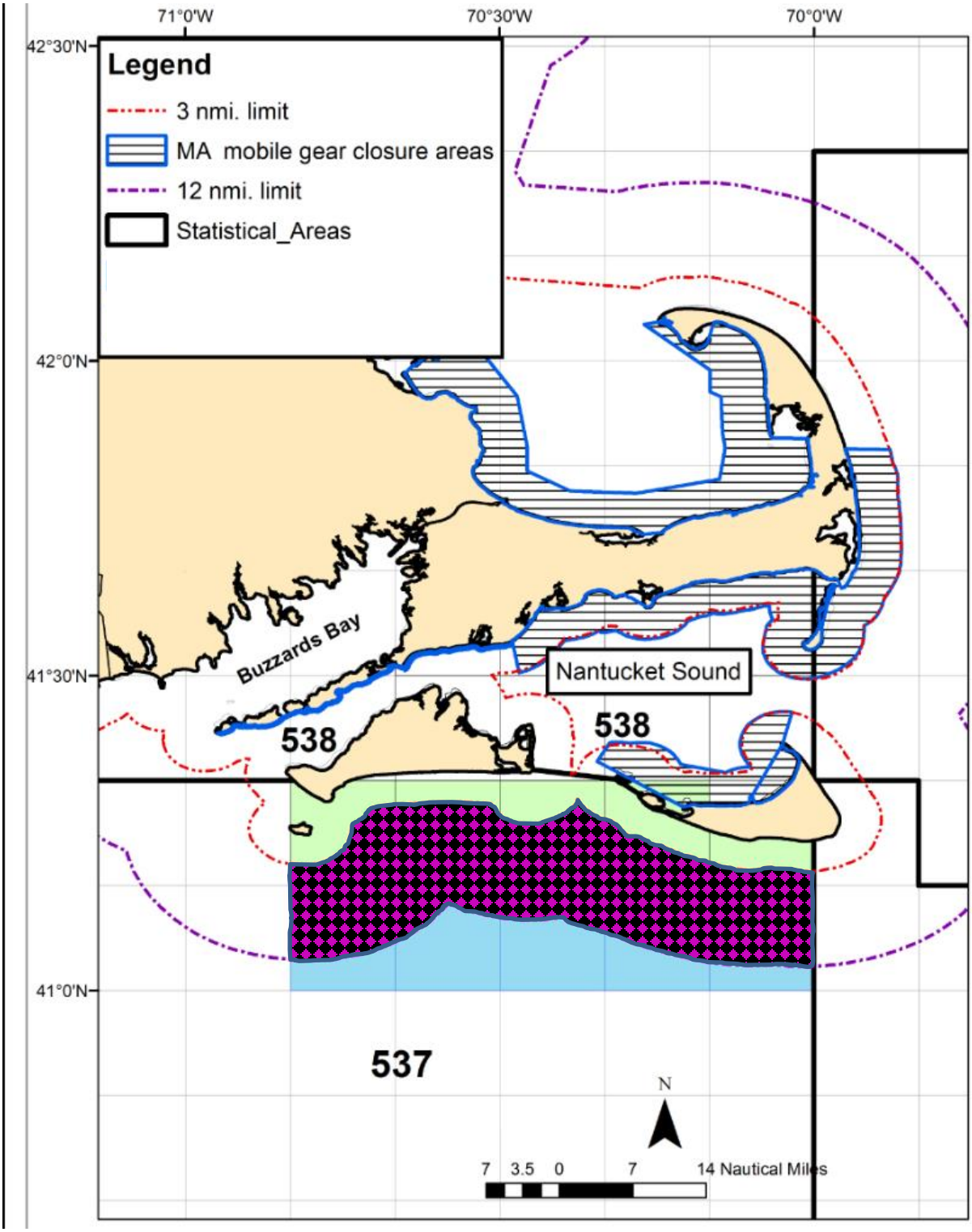
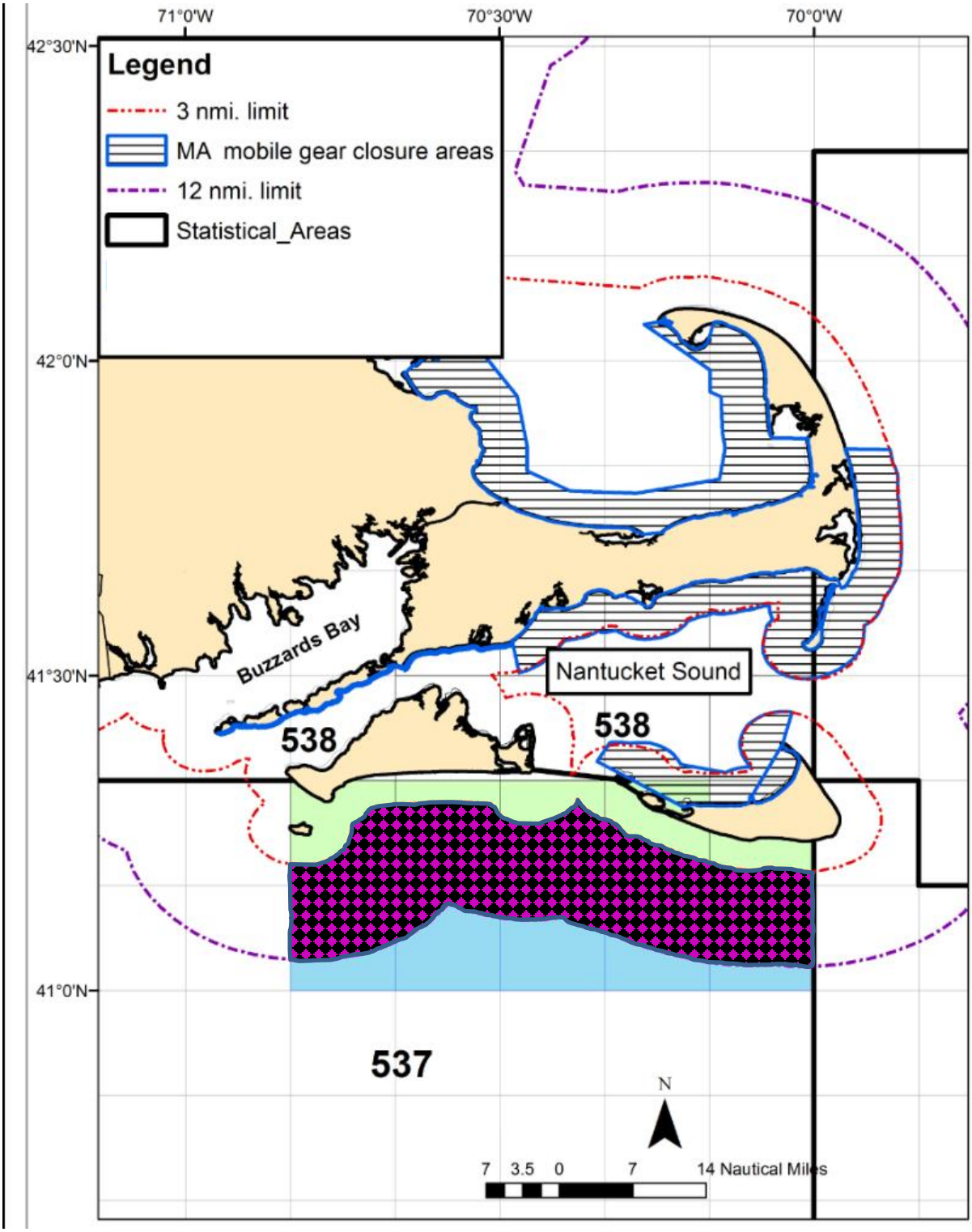


*Figure 4. **Option 4** – In purple/black area, no squid possession by federally-permitted MSB vessels with net gear onboard (unless appropriately stowed) when landings reach the pre-rollover quota (~8.4 million pounds in 2017). (N part follows state waters 3 nm line, S part follows 12 nm territorial waters boundary)*



Description of the relevant fisheries and preliminary analyses:

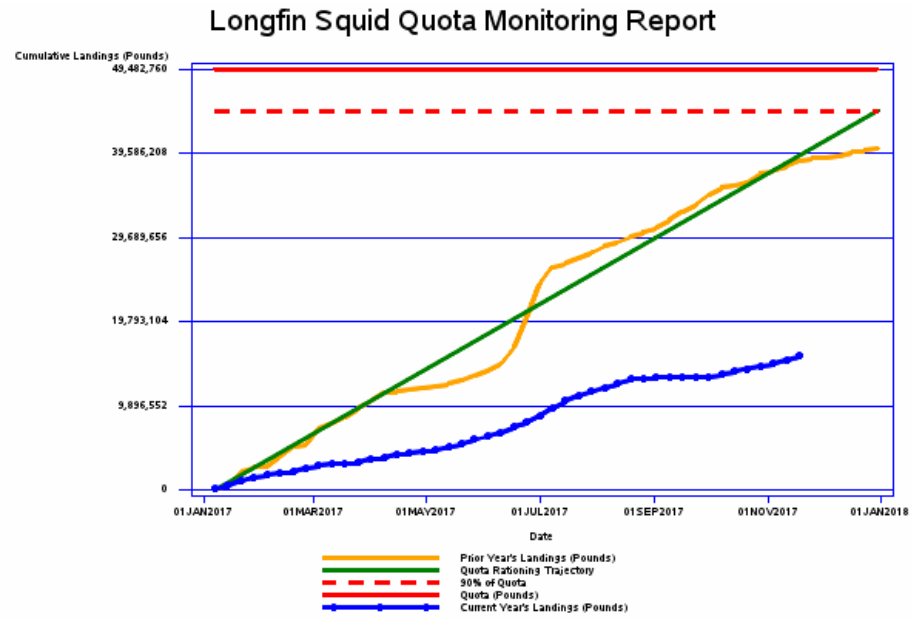
For 2014-2016 NMFS' audited northeast dealer data ("AA tables") that had gear type identified (constituting 92% of total landings for longfin squid), standard bottom trawls accounted for 98% of longfin squid landings. Recent longfin squid landings are summarized in the table below:

Table 1. Recent Longfin Squid Landings

Year	Quota (mt)	Quota (pounds)	Commercial Landings (mt)	Commercial Landings (pounds)	% of Quota Landed	T1 Quota	T1 Land	T1%	T2 Quota	T2 Land	T2%	T3 Quota	T3 Land
2007	17,000	37,478,540	12,354	27,235,875	73%	15,632,318	15,487,194	99%	6,225,260	3,332,360	54%	Annual	8,391,050
2008	17,000	37,478,540	11,406	25,145,896	67%	16,093,745	8,405,764	52%	6,180,220	8,097,587	131%		8,595,268
2009	19,000	41,887,780	9,307	20,517,964	49%	17,892,717	7,390,668	41%	7,072,429	7,150,991	101%		5,975,911
2010	18,667	41,153,642	6,913	15,240,538	37%	17,696,506	3,131,395	18%	14,276,968	4,891,607	34%		6,783,709
2011	19,906	43,885,166	9,556	21,067,349	48%	18,871,570	7,887,388	42%	11,190,664	9,798,321	88%		3,377,556
2012	22,220	48,986,656	12,820	28,263,228	58%	21,065,169	5,291,094	25%	12,490,290	17,503,595	140%		5,461,598
2013	22,049	48,609,666	11,183	24,654,265	51%	20,902,027	1,658,898	8%	12,394,388	6,150,773	50%		16,628,444
2014	22,049	48,609,666	12,063	26,594,331	55%	20,674,951	7,331,327	35%	12,262,111	12,766,685	104%		6,488,956
2015	22,445	49,482,696	11,928	26,296,707	53%	21,276,813	5,404,923	25%	12,619,260	10,734,681	85%		10,211,533
2016	22,445	49,482,696	18,127	39,963,925	81%	21,276,813	12,228,889	57%	12,619,260	18,737,013	148%		8,997,660

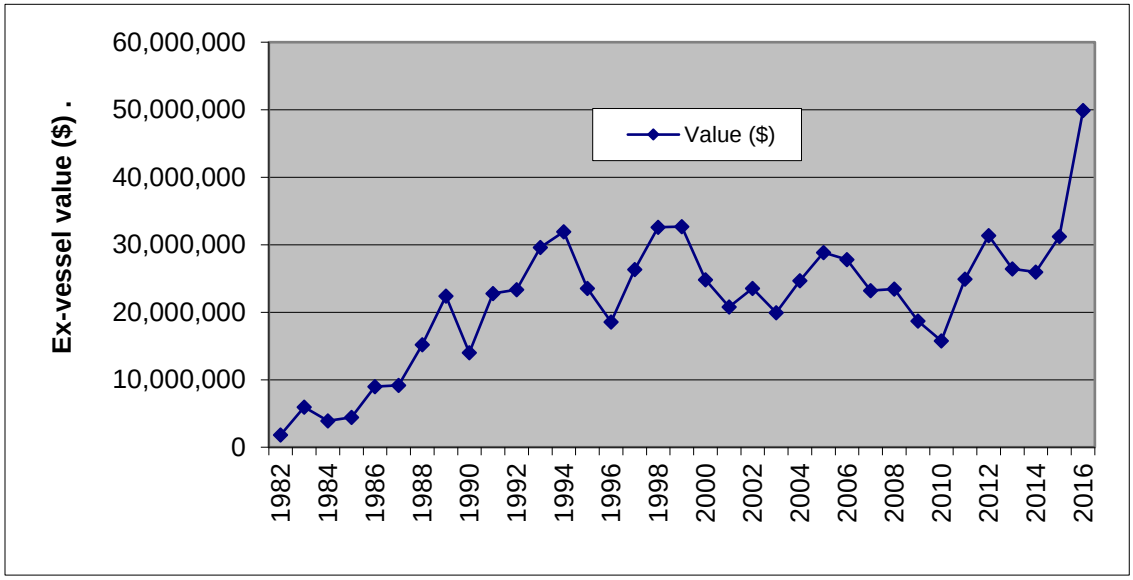
2017 landings to date (blue line Figure 5) are included in the figure below. 2017 Trimester 2 landings were approximately 8.5 million pounds. Total landings are about 15.9 million pounds through November 18.

Figure 5. 2017 Longfin Squid Landings to Date (through Nov 18)



Nominal ex-vessel value for the longfin squid fishery is provided in the figure below.

Figure 6. Nominal Longfin Squid Ex-Vessel Revenues



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Non-confidential and preliminary commercial longfin squid landings' catch locations over time (1996-2015) are provided below for those landings with sufficient catch-location information (draft NMFS NEFSC analyses).

Figure 7. Heatmap of 1996 Squid Landings

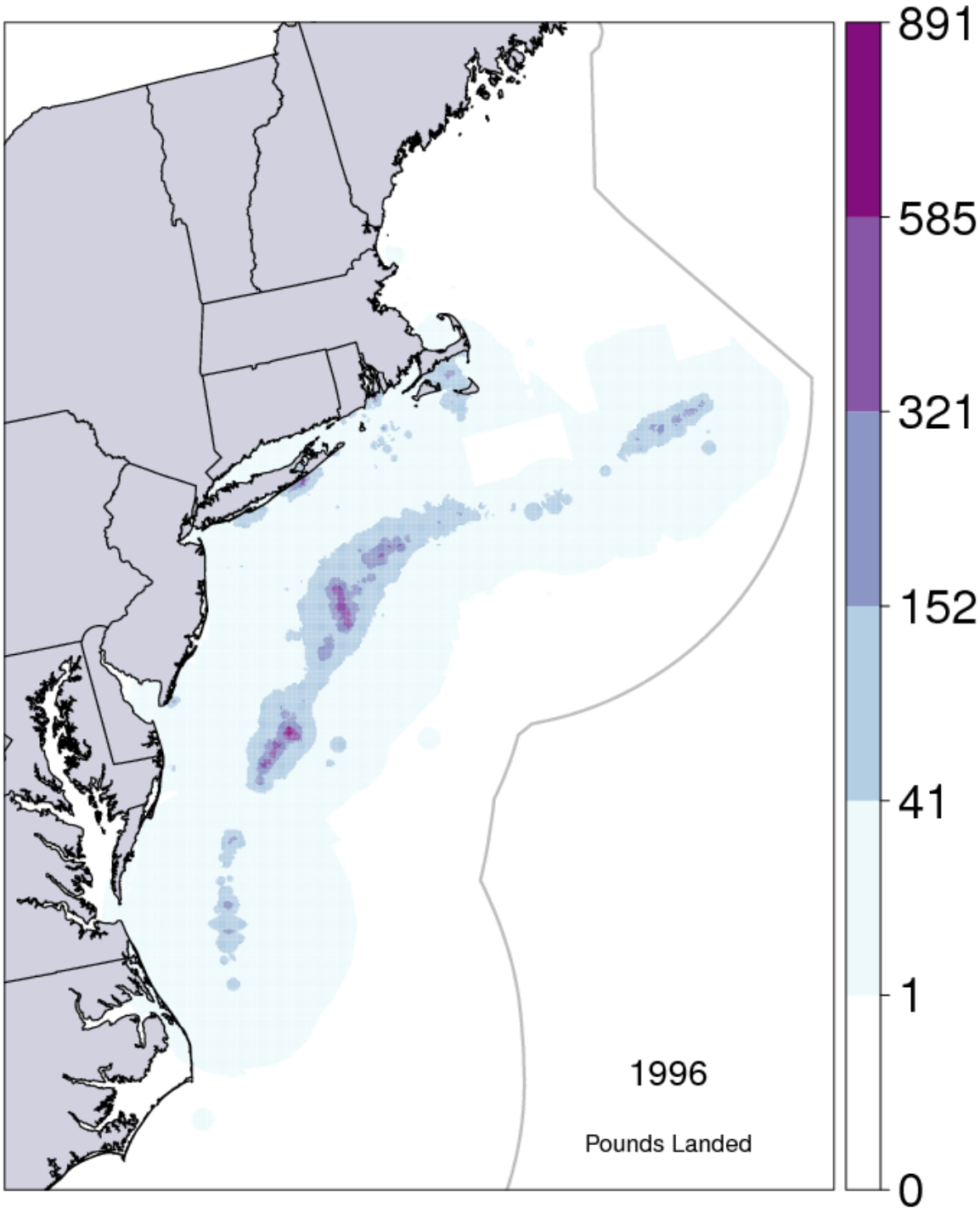


Figure 8. Heatmap of 1997 Squid Landings

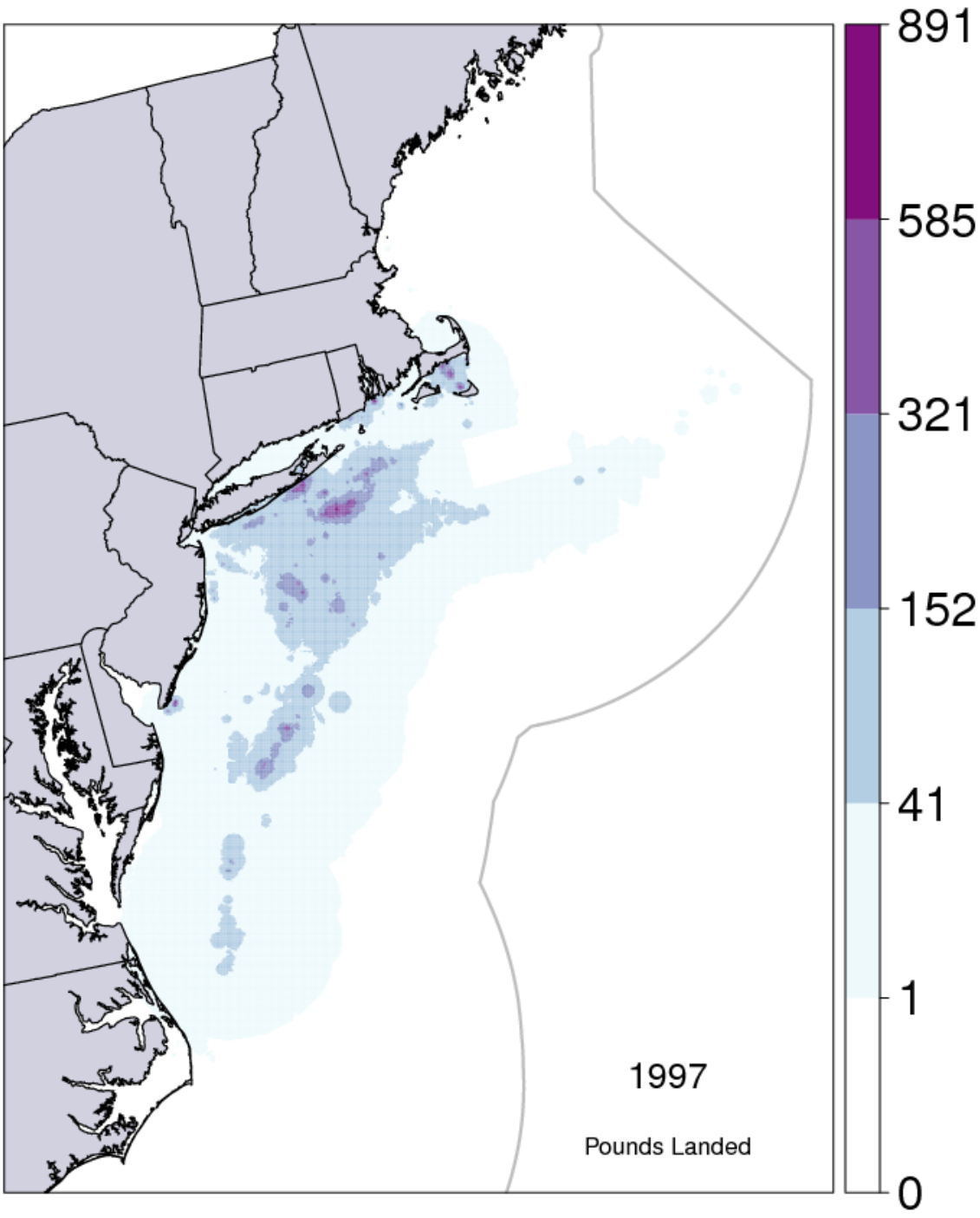


Figure 9. Heatmap of 1998 Squid Landings

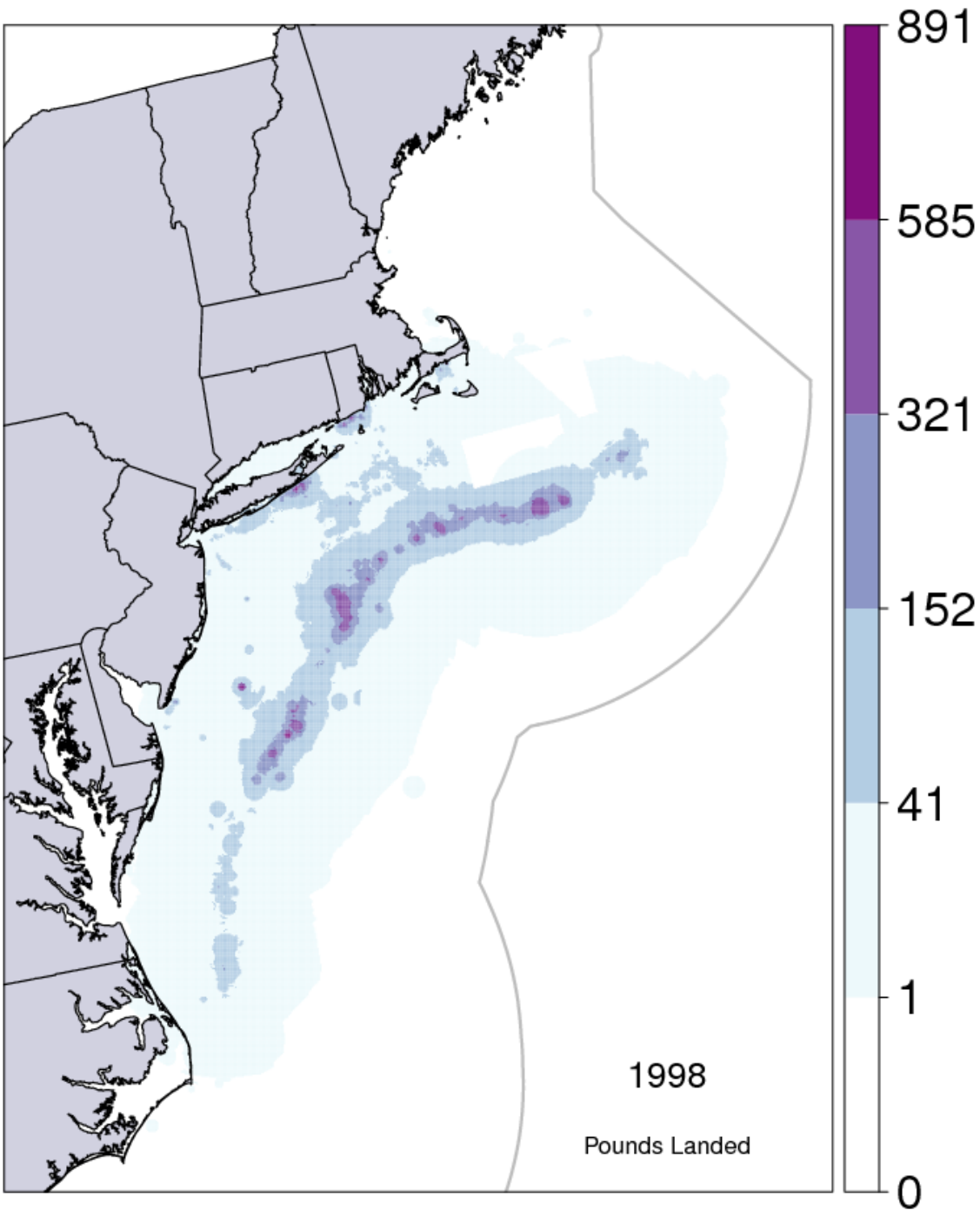


Figure 10. Heatmap of 1999 Squid Landings

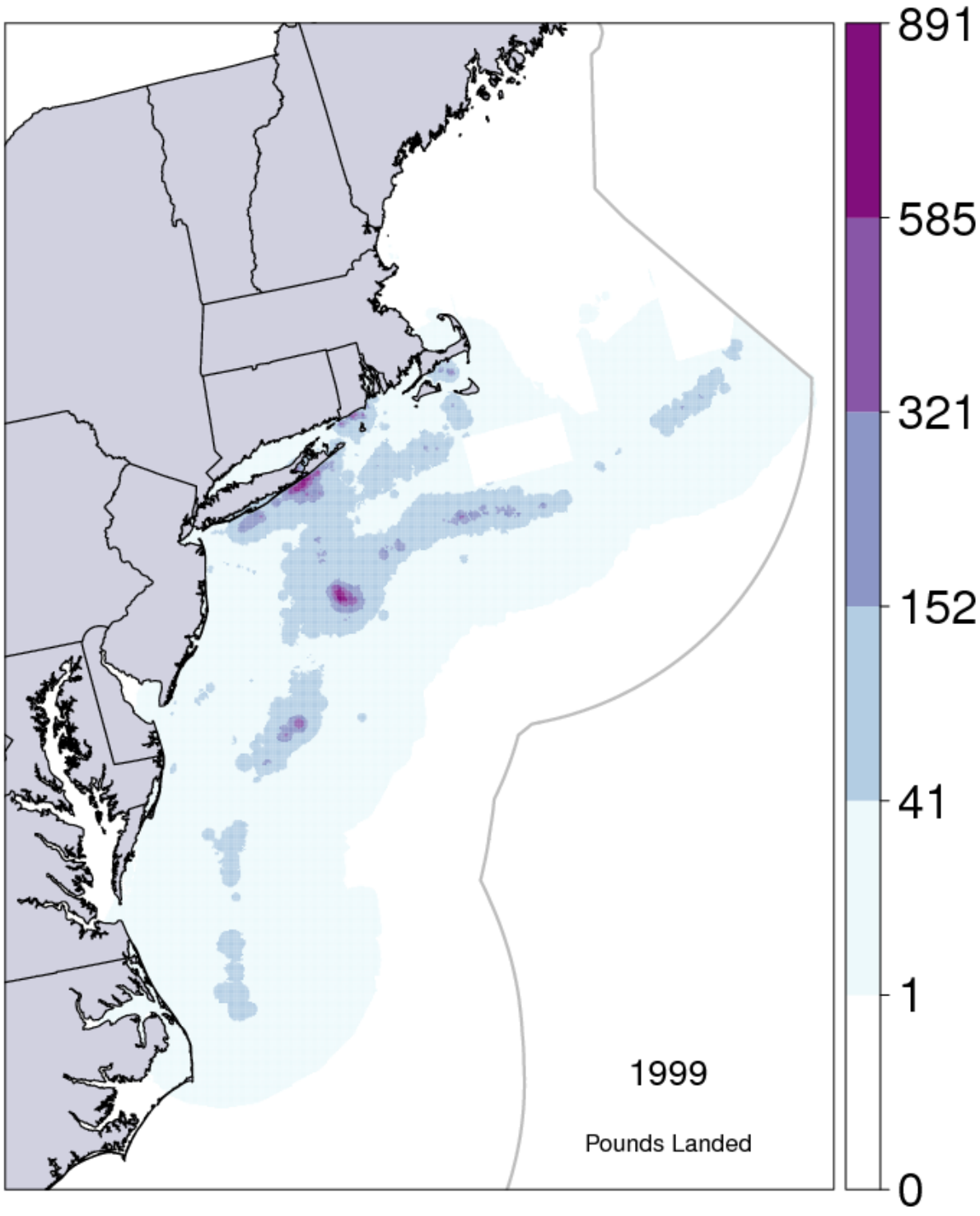


Figure 11. Heatmap of 2000 Squid Landings

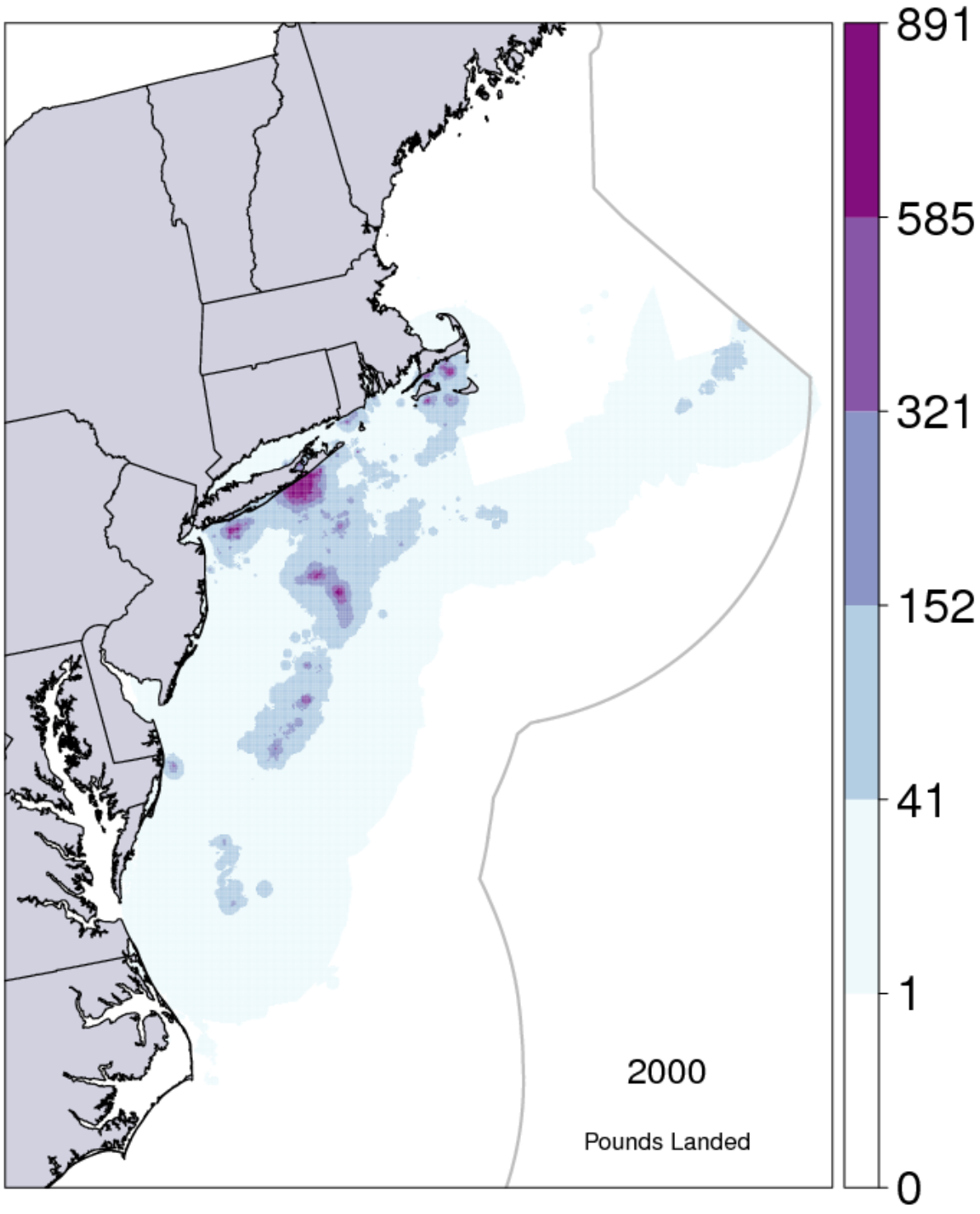


Figure 12. Heatmap of 2001 Squid Landings

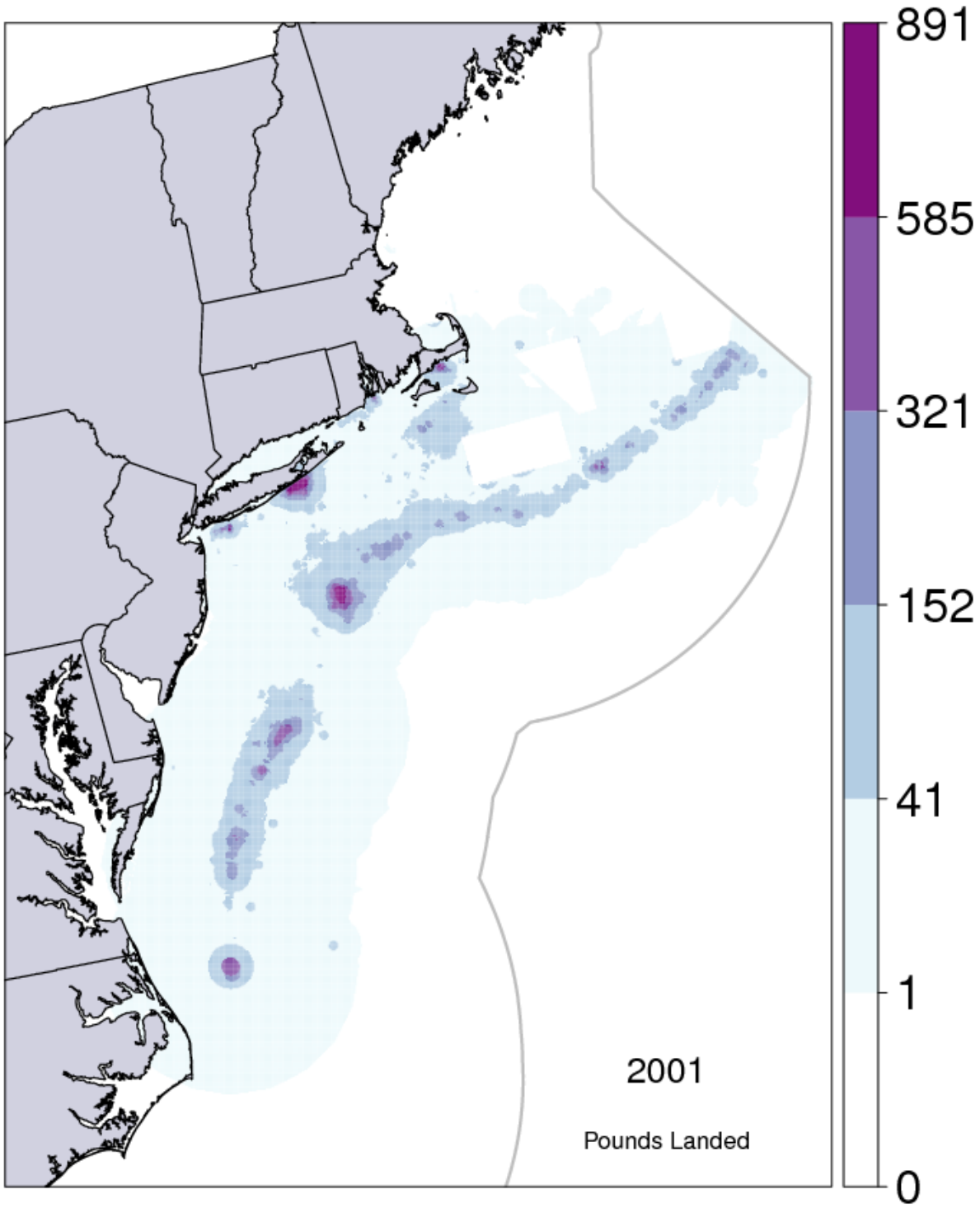


Figure 13. Heatmap of 2002 Squid Landings

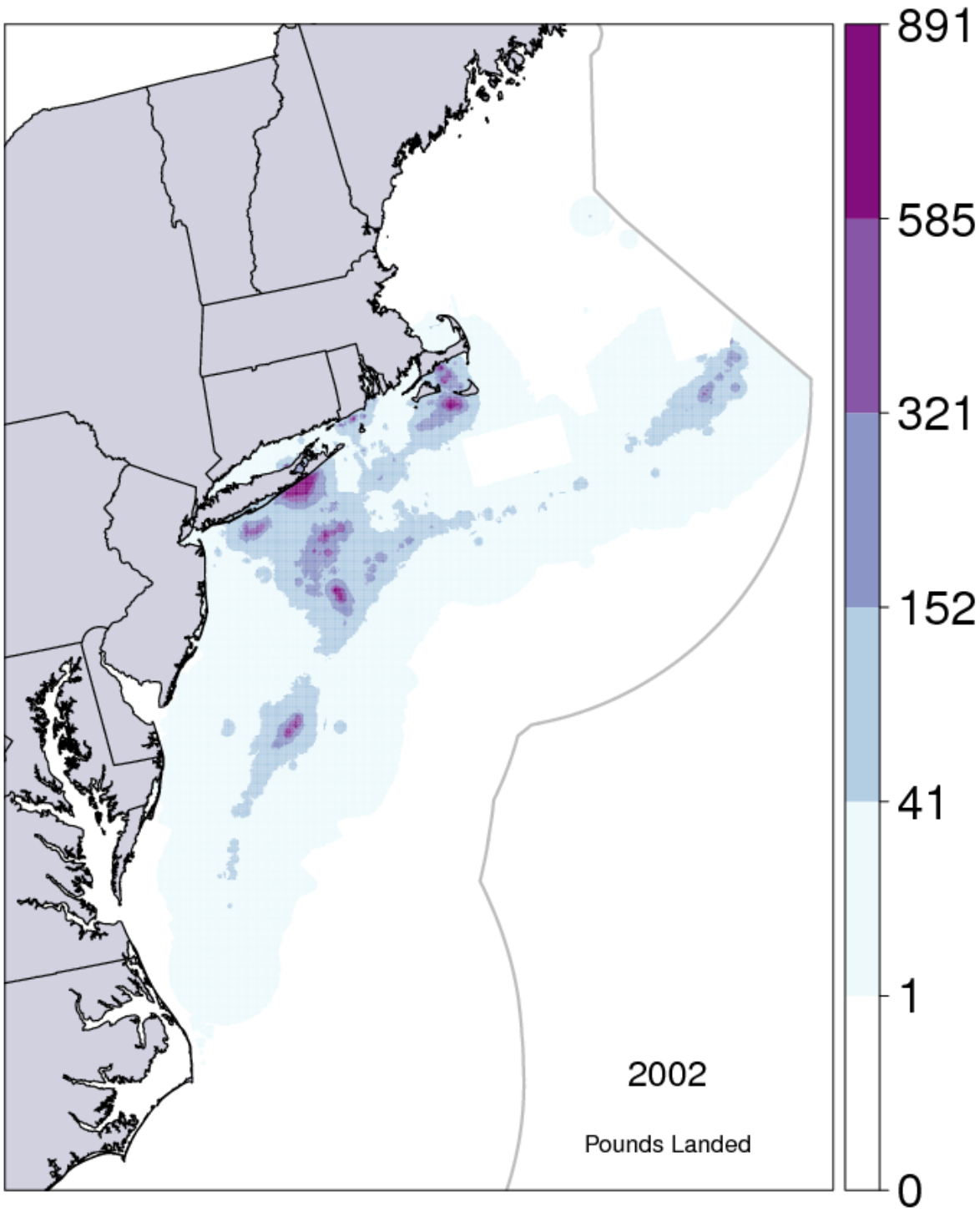


Figure 14. Heatmap of 2003 Squid Landings

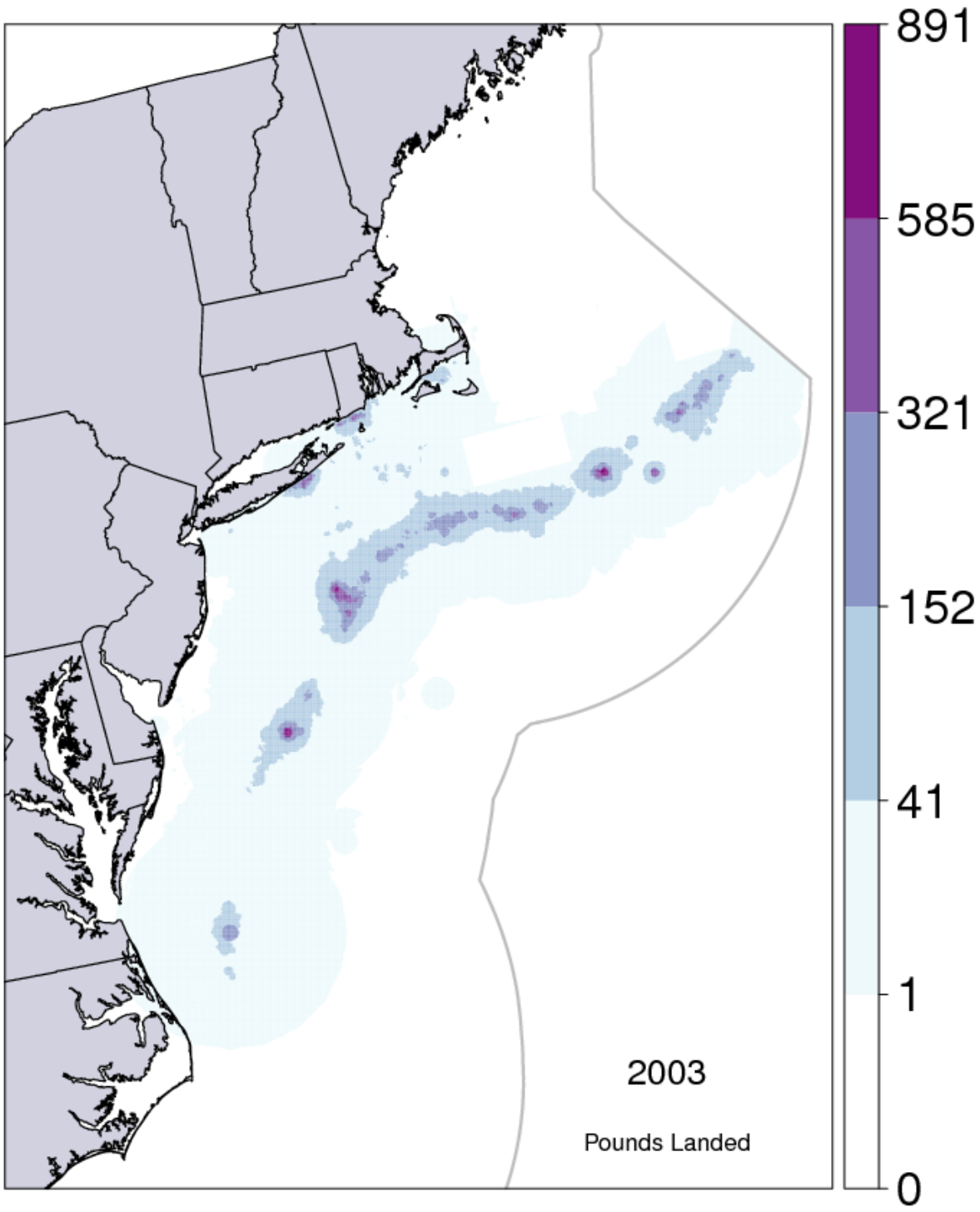


Figure 15. Heatmap of 2004 Squid Landings

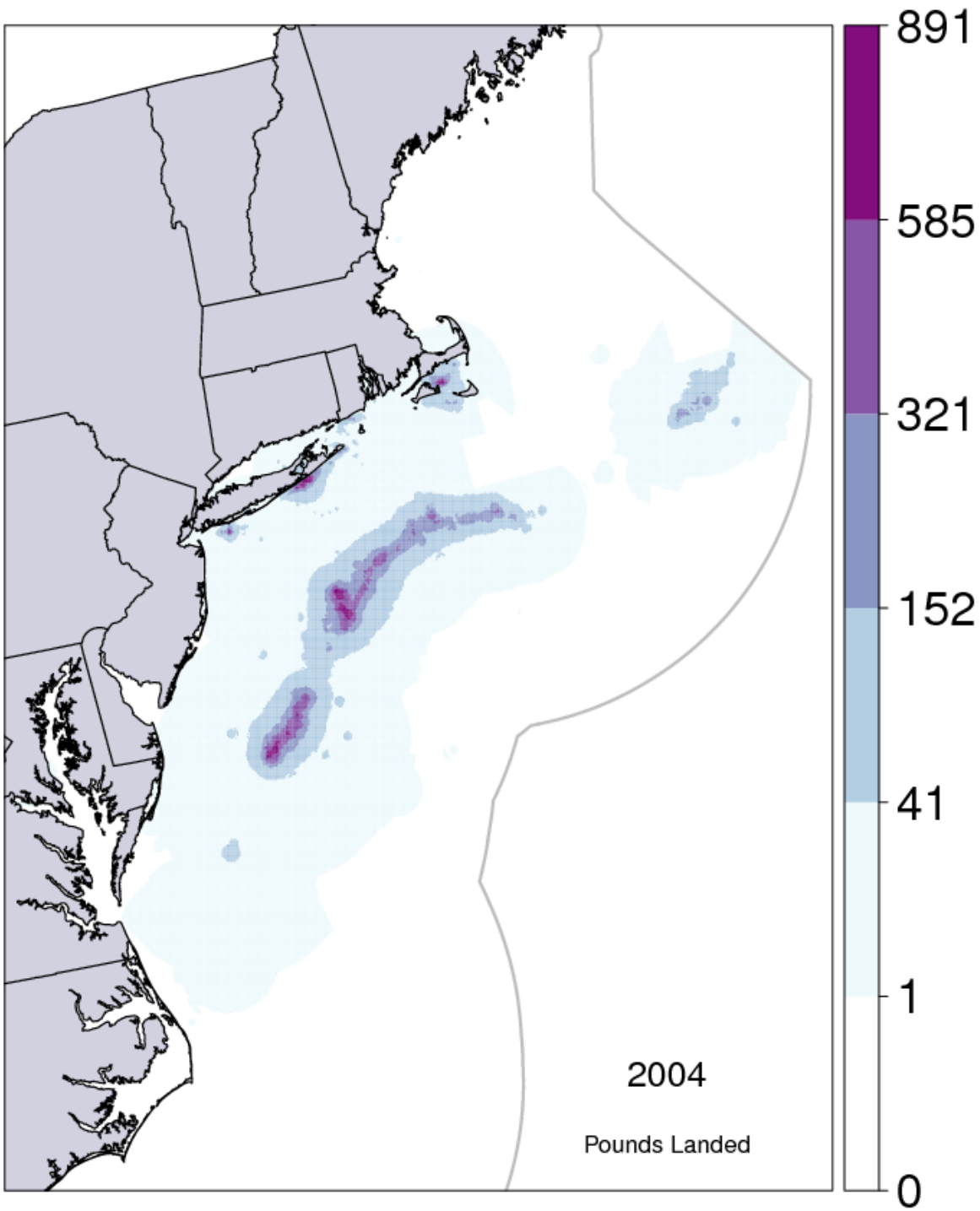


Figure 16. Heatmap of 2005 Squid Landings

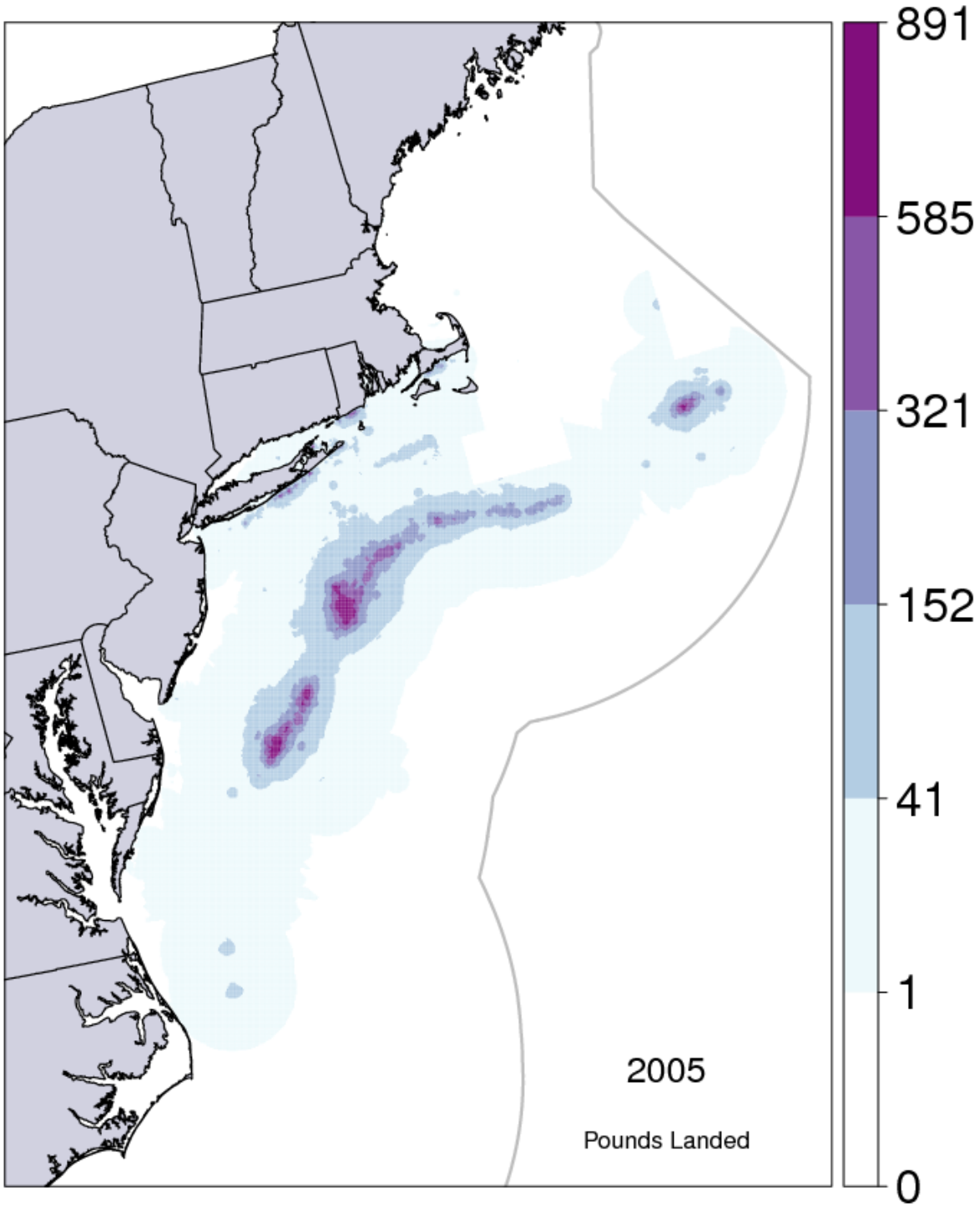


Figure 17. Heatmap of 2006 Squid Landings

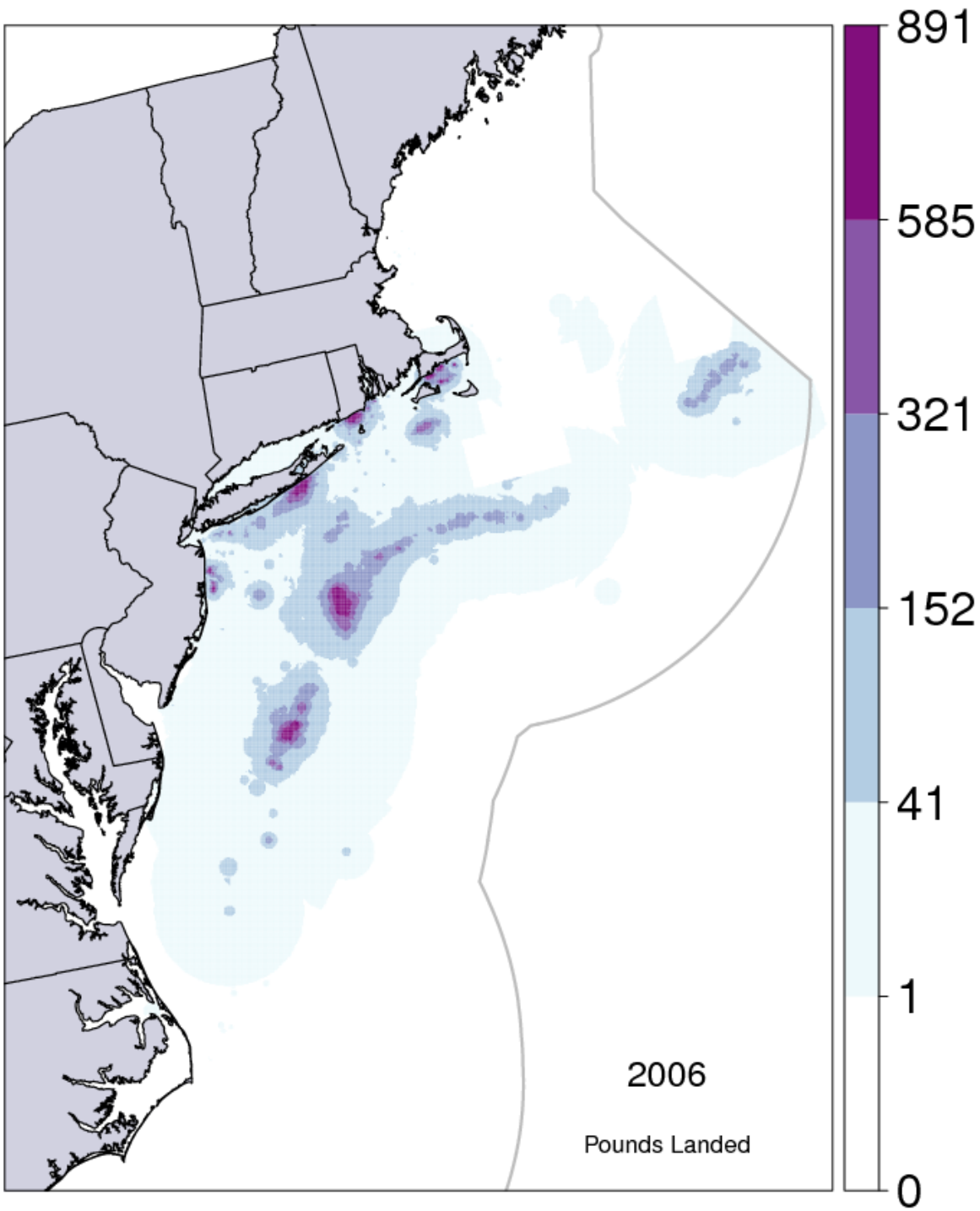


Figure 18. Heatmap of 2007 Squid Landings

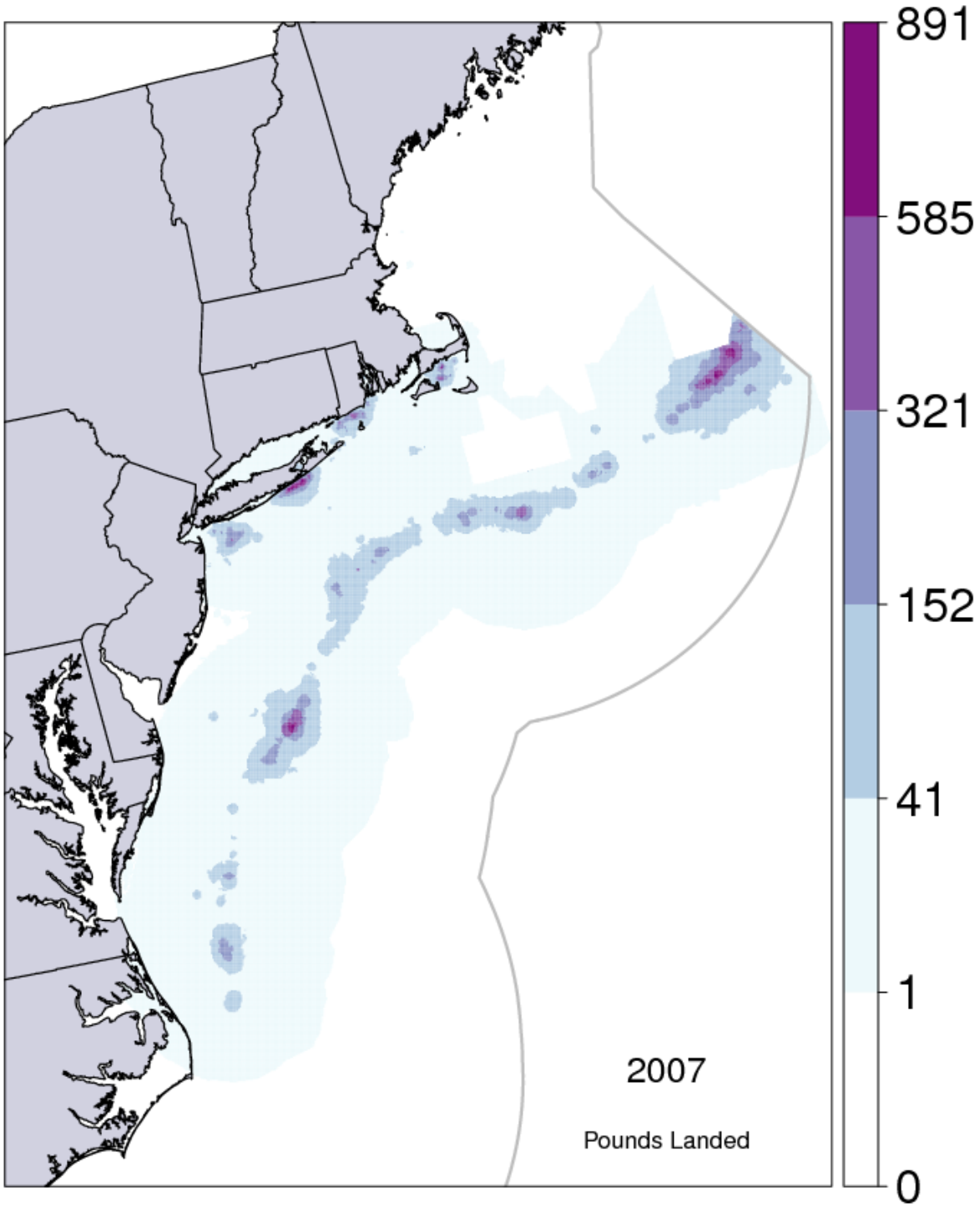


Figure 19. Heatmap of 2008 Squid Landings

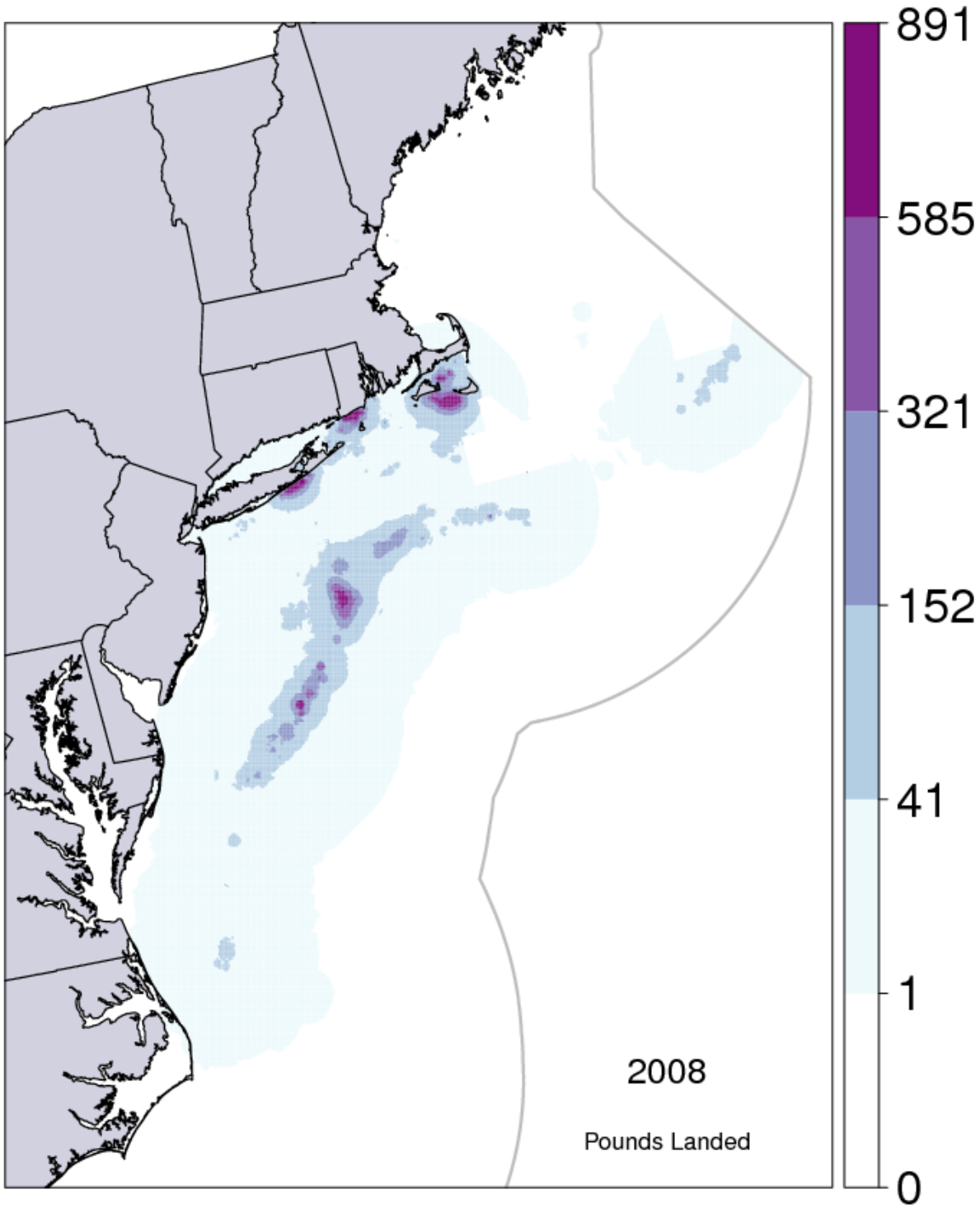


Figure 20. Heatmap of 2009 Squid Landings

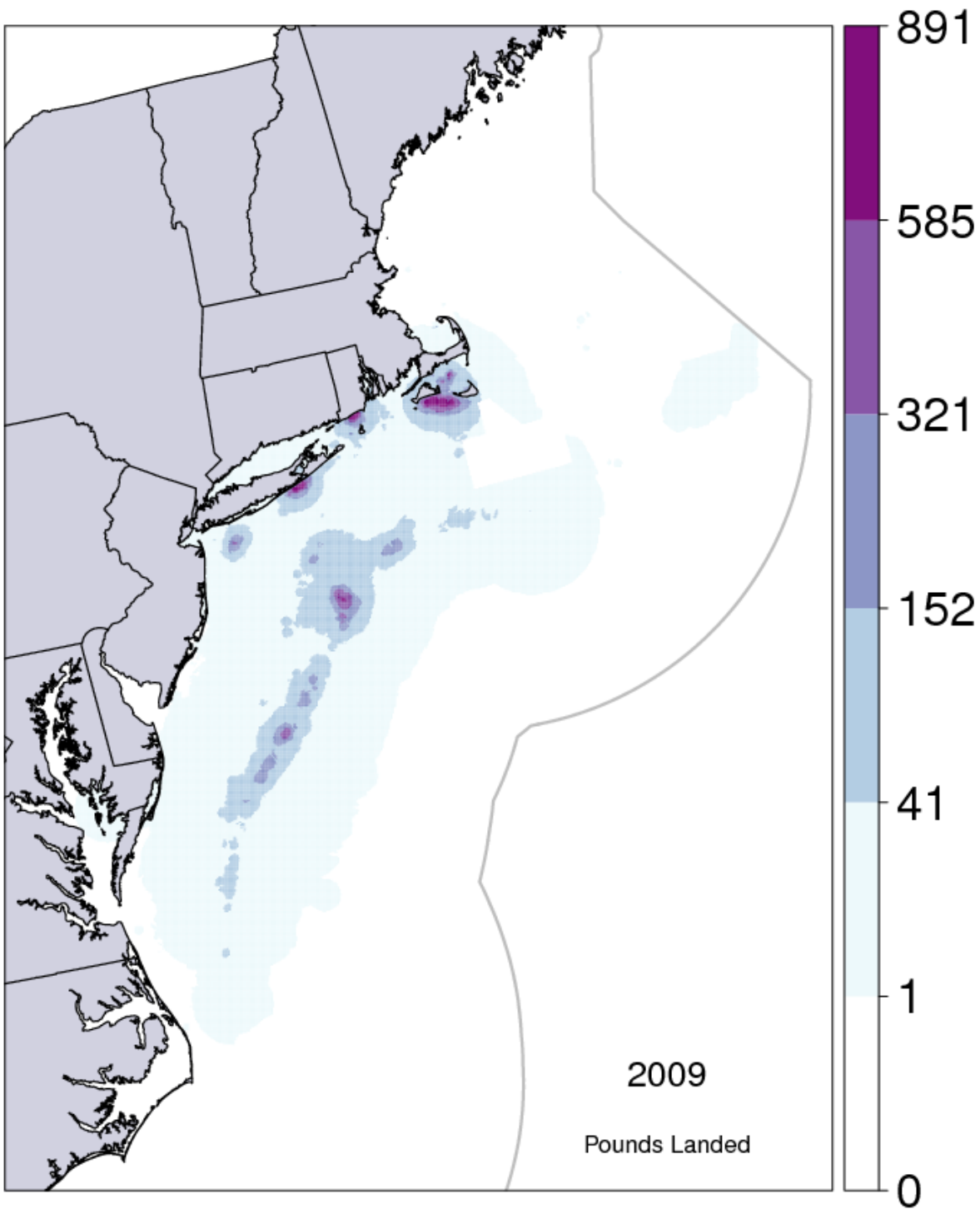


Figure 21. Heatmap of 2010 Squid Landings

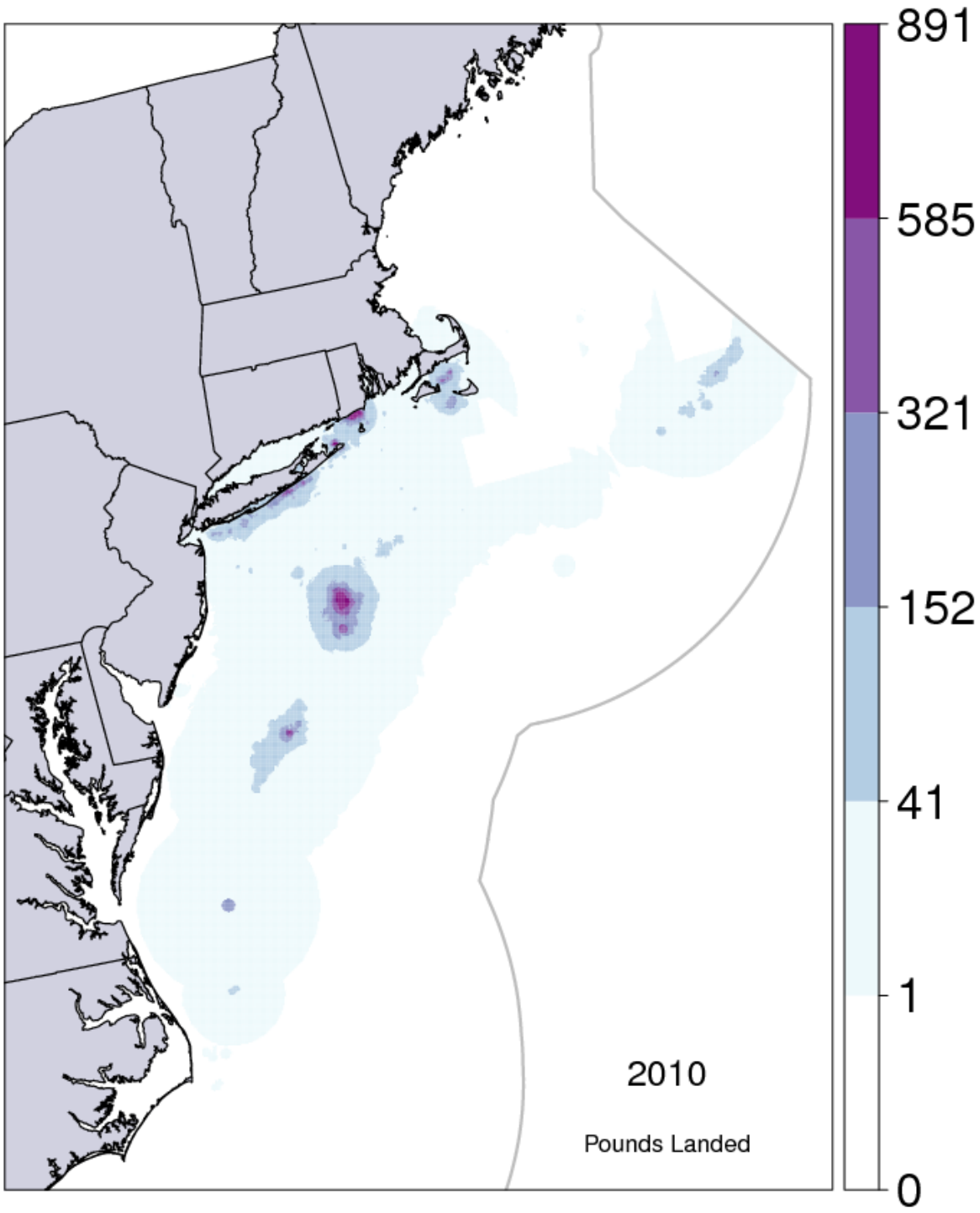


Figure 22. Heatmap of 2011 Squid Landings

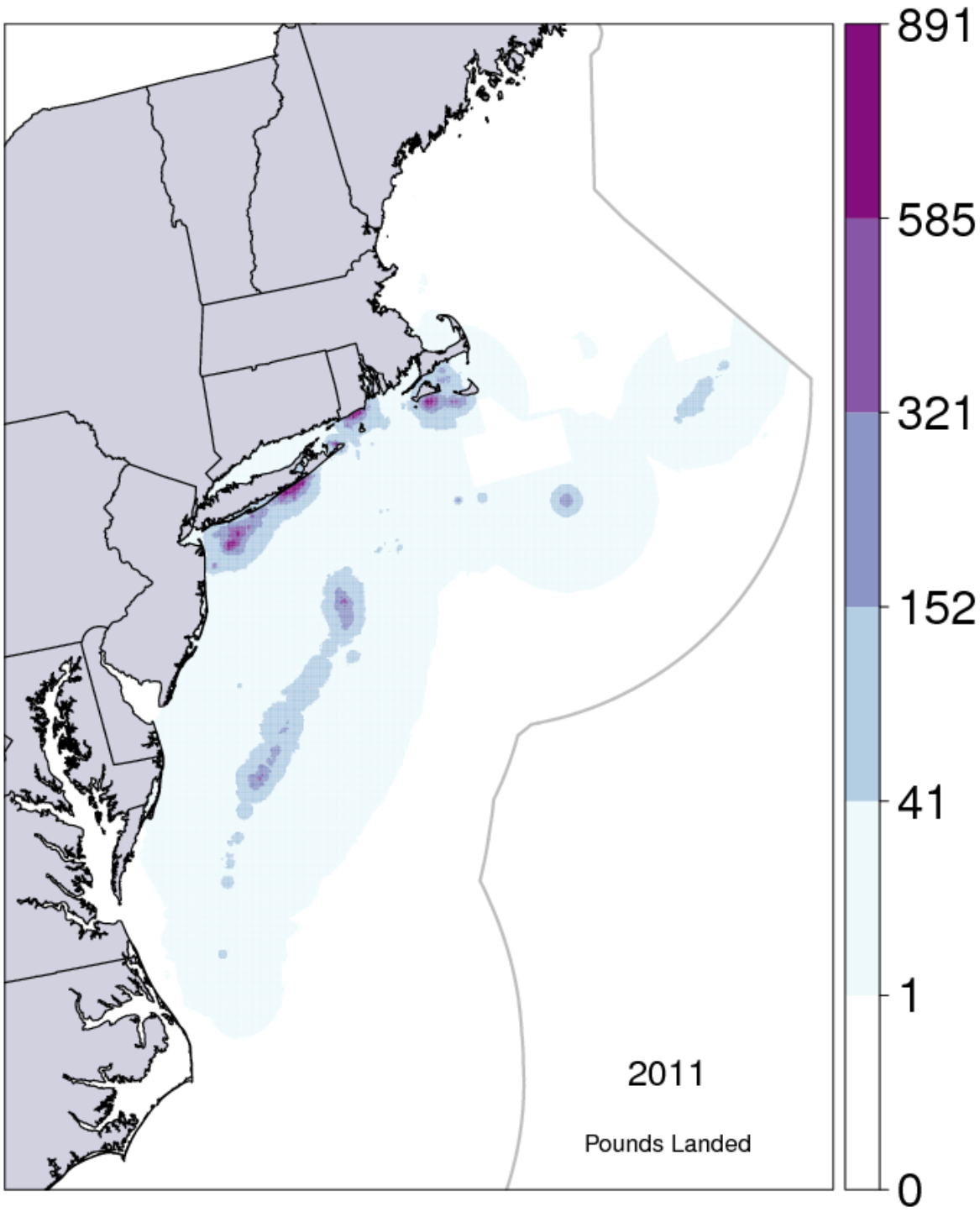


Figure 23. Heatmap of 2012 Squid Landings

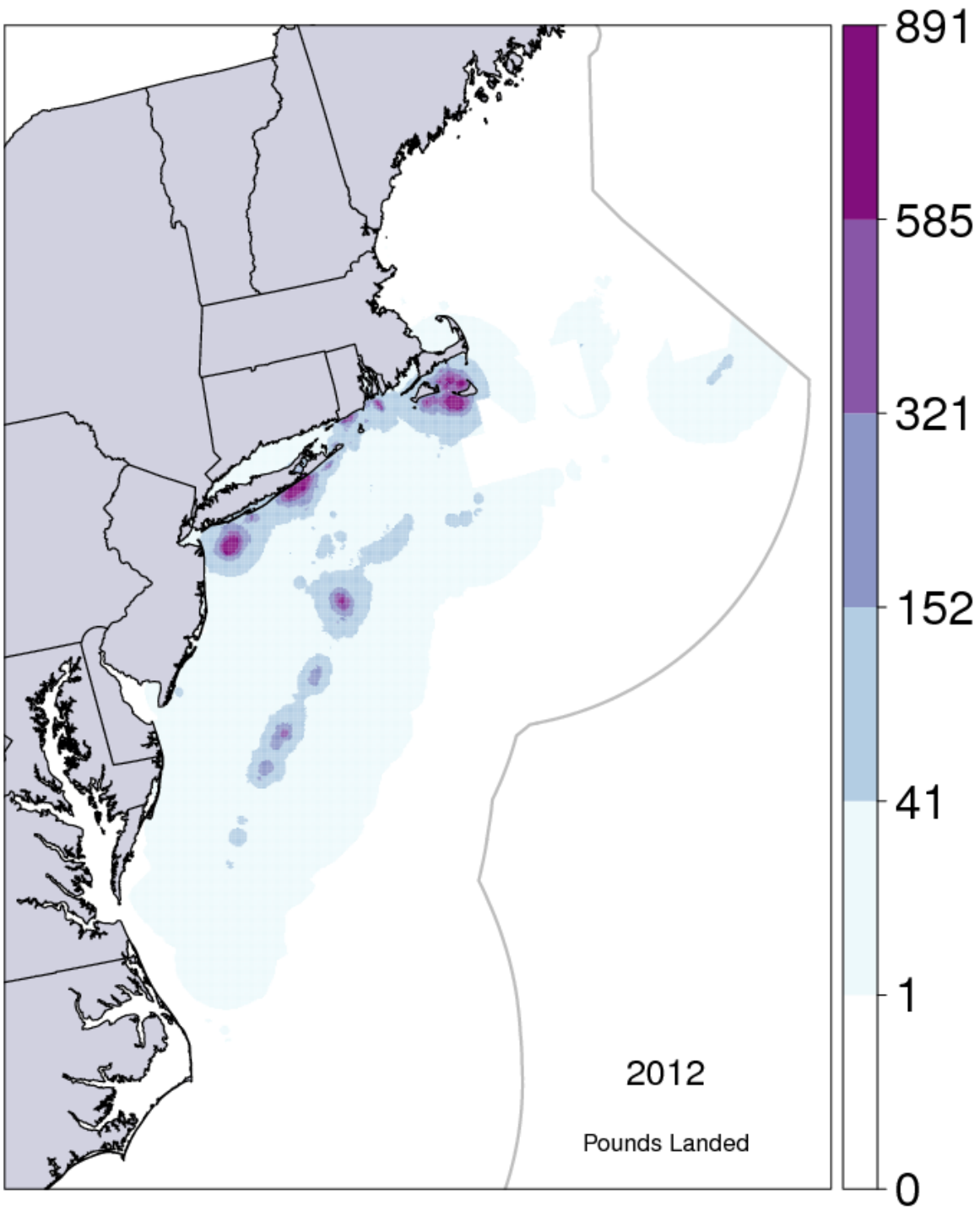


Figure 24. Heatmap of 2013 Squid Landings

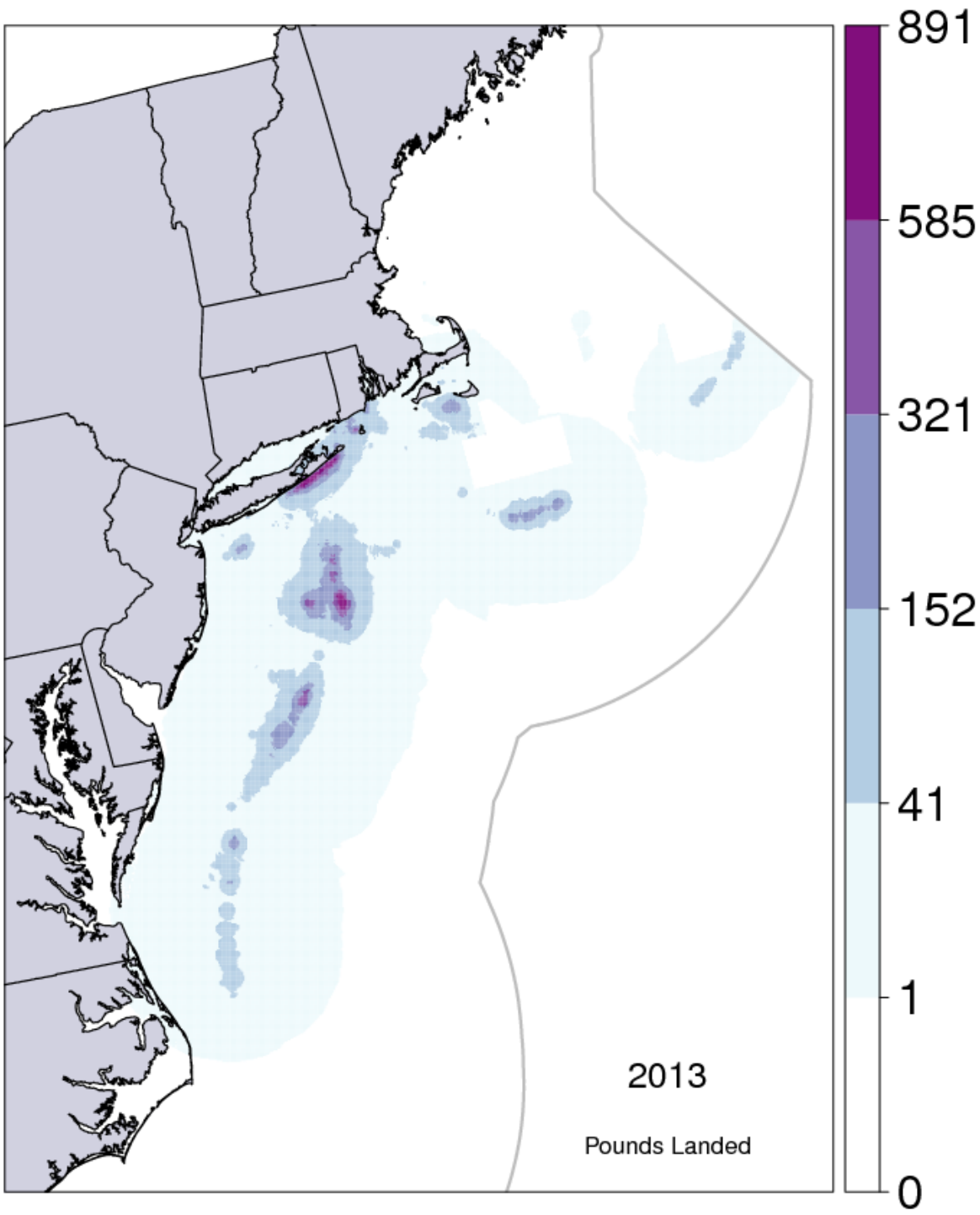


Figure 25. Heatmap of 2014 Squid Landings

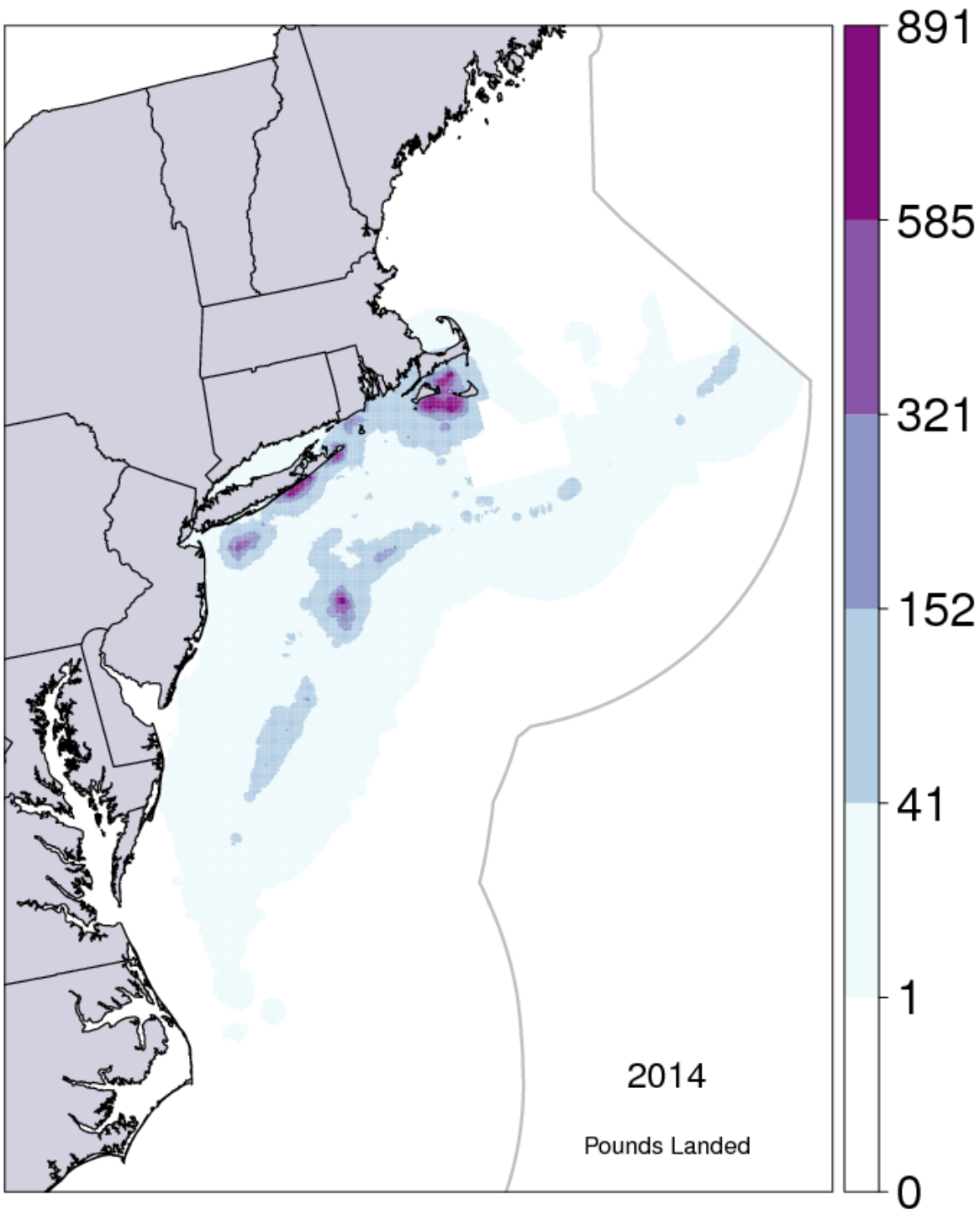
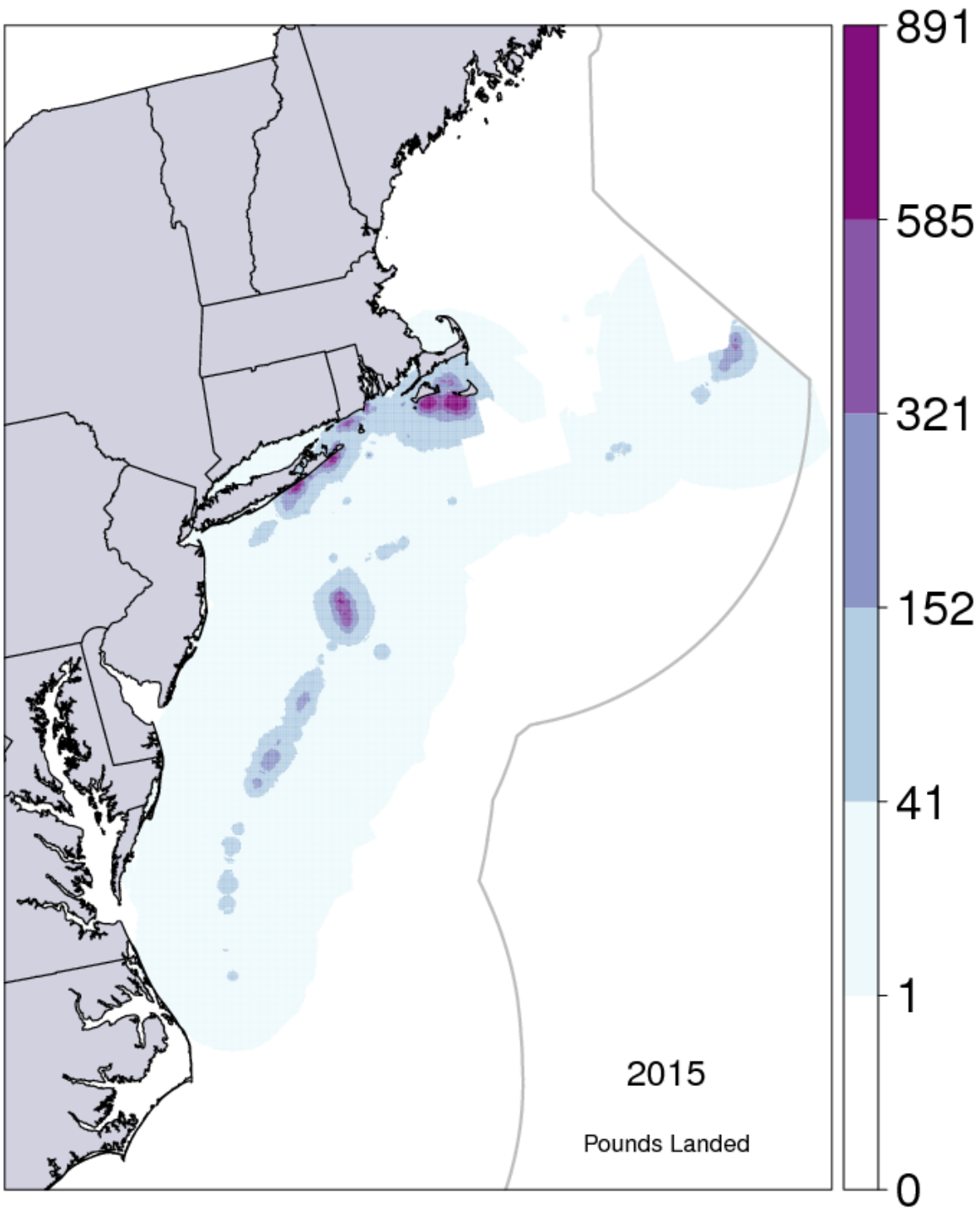


Figure 26. Heatmap of 2015 Squid Landings

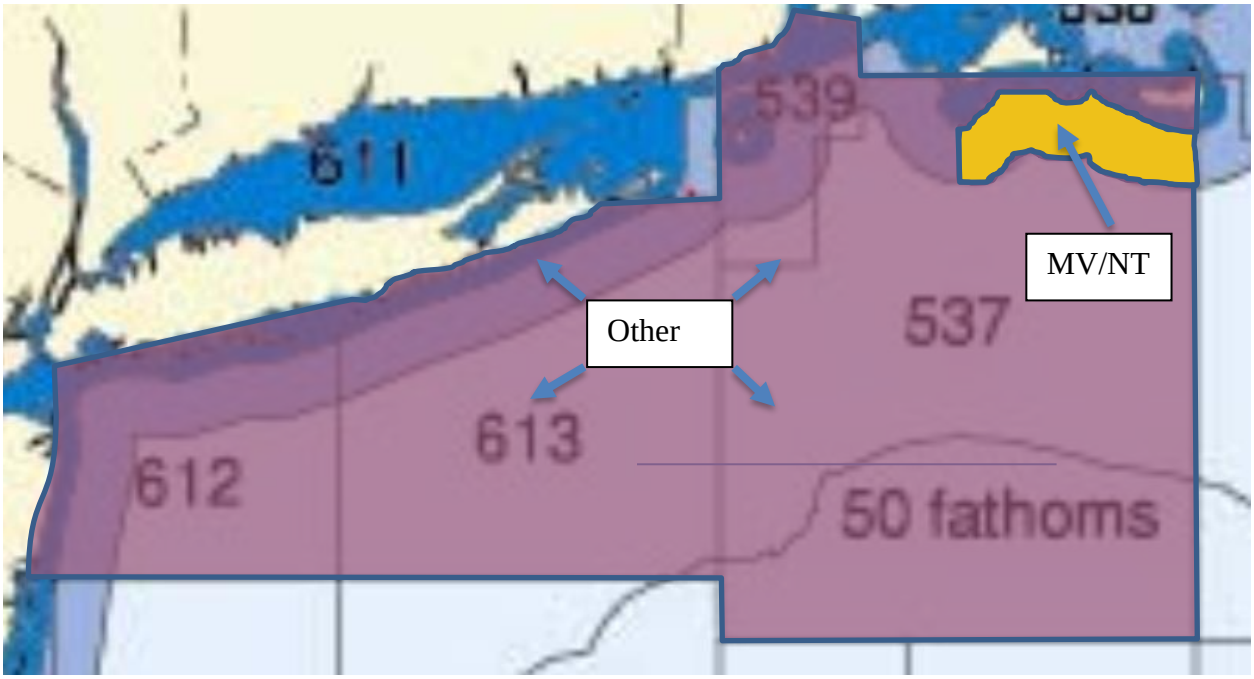


Bycatch

While bycatch rates have been declining overall in recent years in the longfin squid fishery, bycatch has been raised as a concern. The NMFS Northeast Observer Program provided PRELIMINARY data for the area south of MV/NT and nearby areas (closing one area can push effort into nearby areas).

Specifically, two areas were examined for 2016 and 2017 Trimester 2 catch data: The solid yellow area from 3-12 nm south of MV/NT (matches the area in Options 3 and 4) and "other" surrounding areas (purple-shaded area, i.e. the statistical areas 612, 613, 539, and the rest of 537 (including state waters). See the figure below. The information is provided as background, and analysis would be refined based on any options identified by the Council for further development. Note: August 2017 data is currently only partially uploaded.

Figure 27. Bycatch Analysis Areas



The data comes from observed hauls, on trips where at least 40% of the kept catch was longfin squid in these areas during Trimester 2 of 2016 and 2017. This definition captures most longfin squid landings in dealer data. If indicative of future years, the relative higher discard rate outside of the MV/NT area may indicate that moving effort out of the MV/NT area could create more discards per unit of longfin squid retained, primarily due to the lower longfin squid catches per haul in the "other" area (discards per haul appear similar, though slightly higher outside the MV/NT area and with a somewhat different mix of species). Readers will note the relatively few hauls per trip in the "other" area. This is likely due to the smaller vessels that have been involved in the inshore fishery in those areas during Trimester 2 in these years. Longfin squid egg catch was higher in 2016 than 2017, and higher in the MV/NT area than the "other" area. Observed

totals and averages are provided – the data has not yet been further analyzed to determine if the observed bycatch comes from a few large hauls or if the bycatch is more consistent across observed trips. Discard reason has not yet been evaluated but could be.

Table 2. Observer Data Summary

YEAR	AREA	Observed Trips	Observed Hauls	Hauls/ Trip	Avg Squid Pounds Kept Per Haul	Average Total Discard Rate
2016	MV/NT	58	315	5	2,432	18%
	Other	154	351	2	912	39%
2017	MV/NT	66	858	13	605	46%
	Other	190	539	3	396	54%

Table 3. 2016 MV/NT Area Observer Data.

2016, Area 3-12 nm South of NT/MV, 58 Trips, 315 Observed Hauls, 5 Hauls Per Trip					
Common Name	Total pounds observed discarded	Average pounds discarded per haul	Average pounds discarded per trip	Percent of discards	Cumulative Percent of Discards
SCUP	25,861	82	446	15%	15%
SEA BASS, BLACK	23,700	75	409	14%	29%
SKATE, LITTLE	17,939	57	309	10%	39%
BUTTERFISH	14,471	46	249	8%	48%
CRAB, LADY	12,853	41	222	8%	55%
SKATE, WINTER (BIG)	12,208	39	210	7%	62%
FLOUNDER, SUMMER	11,110	35	192	6%	69%
SQUID, ATL LONG-FIN	11,082	35	191	6%	75%
SQUID EGGS, ATL LONG-FIN	6,978	22	120	4%	80%
DOGFISH, SMOOTH	6,804	22	117	4%	83%
WINDOWPANE	3,397	11	59	2%	85%
CRAB, ROCK	2,875	9	50	2%	87%
FLOUNDER, WINTER	2,525	8	44	1%	89%
FISH, NK	2,511	8	43	1%	90%
FLOUNDER, FOURSPOT	2,053	7	35	1%	91%
SKATE, LITTLE/WINTER, NK	1,644	5	28	1%	92%
SEA ROBIN, NORTHERN	1,358	4	23	1%	93%
BASS, STRIPED	1,195	4	21	1%	94%
CRAB, JONAH	1,084	3	19	1%	94%
RAY, TORPEDO	1,003	3	17	1%	95%
SKATE, NK	830	3	14	0%	95%
Other (~60 species)	7,829	25	135	5%	100%
		544	2,954		
		Average total pounds discarded per haul	Average total pounds discarded per trip		

Table 4. 2016 "Other" Area Observer Data.

2016, Rest of 612, 613, 539, and 537, 154 Trips, 351 Observed Hauls, 2 Hauls Per Trip					
Common Name	Total pounds observed discarded	Average pounds discarded per haul	Average pounds discarded per trip	Percent of discards	Cumulative Percent of Discards
SCUP	49,699	142	323	22.4%	22.4%
HAKE, SILVER (WHITING)	21,025	60	137	9.5%	31.9%
SEA ROBIN, NORTHERN	19,757	56	128	8.9%	40.9%
SKATE, LITTLE	19,614	56	127	8.9%	49.7%
SQUID, ATL LONG-FIN	16,580	47	108	7.5%	57.2%
BUTTERFISH	16,068	46	104	7.3%	64.5%
DOGFISH, SMOOTH	11,446	33	74	5.2%	69.6%
SEA BASS, BLACK	9,906	28	64	4.5%	74.1%
HAKE, RED (LING)	8,856	25	58	4.0%	78.1%
SKATE, WINTER (BIG)	8,417	24	55	3.8%	81.9%
FLOUNDER, WINTER	4,240	12	28	1.9%	83.8%
DOGFISH, SPINY	3,837	11	25	1.7%	85.6%
SEA ROBIN, STRIPED	3,310	9	21	1.5%	87.0%
SKATE, CLEARNOSE	3,178	9	21	1.4%	88.5%
SQUID EGGS, ATL LONG-FIN	2,883	8	19	1.3%	89.8%
BASS, STRIPED	2,533	7	16	1.1%	90.9%
SKATE, NK	1,973	6	13	0.9%	91.8%
STINGRAY, ROUGHTAIL	1,920	5	12	0.9%	92.7%
HAKE, SPOTTED	1,860	5	12	0.8%	93.5%
WINDOWPANE	1,768	5	11	0.8%	94.3%
FLOUNDER, SUMMER	1,749	5	11	0.8%	95.1%
Other (~65 Species)	10,819	31	70	4.9%	100.0%
		631	1,438		
		Average total pounds discarded per haul	Average total pounds discarded per trip		

Table 5. 2017 MV/NT Area Observer Data.

2017, Area 3-12 nm South of NT/MV, 66 Trips, 858 Observed Hauls, 13 Hauls Per Trip					
Common Name	Total pounds observed discarded	Average pounds discarded per haul	Average pounds discarded per trip	Percent of discards	Cumulative Percent of Discards
CRAB, LADY	59,386	69	900	13%	13%
SCUP	55,340	64	838	12%	24%
SKATE, LITTLE	49,353	58	748	10%	35%
SEA BASS, BLACK	48,927	57	741	10%	45%
HAKE, SILVER (WHITING)	29,832	35	452	6%	51%
BASS, STRIPED	28,496	33	432	6%	57%
SKATE, WINTER (BIG)	26,718	31	405	6%	63%
DOGFISH, SMOOTH	25,846	30	392	5%	68%
FLOUNDER, SUMMER	25,768	30	390	5%	74%
HAKE, SPOTTED	13,864	16	210	3%	77%
DOGFISH, SPINY	11,797	14	179	2%	79%
WINDOWPANE	10,904	13	165	2%	81%
BUTTERFISH	10,351	12	157	2%	84%
SQUID, ATL LONG-FIN	8,924	10	135	2%	86%
CRAB, ROCK	7,483	9	113	2%	87%
SQUID, SHORT-FIN	6,833	8	104	1%	89%
SKATE, LITTLE/WINTER, NK	6,058	7	92	1%	90%
SEA ROBIN, STRIPED	5,974	7	91	1%	91%
SEA ROBIN, NORTHERN	5,749	7	87	1%	92%
FLOUNDER, WINTER	5,035	6	76	1%	93%
SKATE, NK	4,124	5	62	1%	94%
RAY, TORPEDO	3,566	4	54	1%	95%
Other (~85 Species)	23,890	28	362	5%	100%
		553	7,185		
		Average total pounds discarded per haul	Average total pounds discarded per trip		

Table 6. 2017 "Other" Area Observer Data.

2017, Rest of 612, 613, 539, and 537, 190 Trips, 539 Observed Hauls, 3 Hauls Per Trip					
Common Name	Total pounds observed discarded	Average pounds discarded per haul	Average pounds discarded per trip	Percent of discards	Cumulative Percent of Discards
SCUP	71,751	133	378	22.7%	22.7%
SKATE, LITTLE	48,393	90	255	15.3%	38.0%
SKATE, WINTER (BIG)	39,727	74	209	12.6%	50.5%
SEA ROBIN, NORTHERN	30,297	56	159	9.6%	60.1%
DOGFISH, SMOOTH	12,446	23	66	3.9%	64.0%
SEA BASS, BLACK	10,510	19	55	3.3%	67.3%
BASS, STRIPED	9,548	18	50	3.0%	70.3%
SEA ROBIN, STRIPED	8,326	15	44	2.6%	73.0%
FLOUNDER, SUMMER	6,543	12	34	2.1%	75.0%
SHARK, BASKING	6,000	11	32	1.9%	76.9%
SKATE, CLEARNOSE	5,960	11	31	1.9%	78.8%
BUTTERFISH	5,895	11	31	1.9%	80.7%
SQUID, SHORT-FIN	4,844	9	25	1.5%	82.2%
TAUTOG (BLACKFISH)	4,560	8	24	1.4%	83.7%
FISH, NK	4,014	7	21	1.3%	84.9%
FLOUNDER, WINTER	3,982	7	21	1.3%	86.2%
SQUID, ATL LONG-FIN	3,435	6	18	1.1%	87.3%
HAKE, SPOTTED	3,066	6	16	1.0%	88.2%
HAKE, RED (LING)	3,049	6	16	1.0%	89.2%
CRAB, LADY	2,880	5	15	0.9%	90.1%
WINDOWPANE	2,849	5	15	0.9%	91.0%
STURGEON, ATLANTIC	2,057	4	11	0.6%	91.7%
HAKE, SILVER (WHITING)	1,865	3	10	0.6%	92.3%
DOGFISH, SPINY	1,865	3	10	0.6%	92.8%
SKATE, LITTLE/WINTER, NK	1,771	3	9	0.6%	93.4%
MENHADEN, ATLANTIC	1,681	3	9	0.5%	93.9%
RAY, TORPEDO	1,674	3	9	0.5%	94.5%
SKATE, NK	1,300	2	7	0.4%	94.9%
SEA ROBIN, NK	1,125	2	6	0.4%	95.2%
Other (~75 Species)	15,112	28	80	4.8%	100.0%
		587	1,666		
		Average total pounds discarded per haul	Average total pounds discarded per trip		

Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201, Dover, DE 19901-3910
Phone: 302-674-2331 | Toll Free: 877-446-2362 | FAX: 302-674-5399 | www.mafmc.org
Richard B. Robins, Jr., Chairman | Lee G. Anderson, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: 6/1/2016

To: Council

From: Jason Didden

Subject: FMAT Meeting Summary – Squid Amendment

The Fishery Management Action Team (FMAT) met on 5/19/2016. FMAT members in attendance included Jason Didden, Lisa Hendrickson, Carly Bari, Don Paskowski, John Walden, and Julia Olson. Other attendees included Jeff Kaelin, Greg DiDomenico, Katie Almeida, and Douglas Christel.

The FMAT understands that there are currently 4 objectives of the Amendment (A-D below), and each were addressed during the meeting.

A. Consider reducing the number of vessels in the directed longfin squid and *Illex* fisheries - The Council is concerned that activation of latent permits in the squid fisheries could lead to excessive fishing effort (possibly shortening seasons into derbies), and increased catch of non-target species and/or protected resources.

The FMAT endorsed the staff suggestion to bring a preliminary range of alternatives to an Advisory Panel (AP) meeting to get input on permit re-qualification criteria (non-re-qualifiers would presumably be eligible to get an open access incidental permit). Based on FMAT member schedules and analyses to be completed, that meeting would likely take place in late August. Staff reviewed an initial set of possible criteria (5 or 10 years, 25,000 or 50,000 pounds in best year) that would be brought to the AP meeting.

Staff will include: the distributions of qualifying years so that any natural break points can be identified; what portions of total/federal landings the current holders of moratorium permits have been landing in recent years versus incidental and non-permit holders; and recent landings by vessels that would not re-qualify.

The FMAT also discussed if there was a way to illustrate the ability of any resulting re-qualified limited access fleet to catch the current squid quotas. Technical measures of capacity do not appear to be a useful analytical tool in this case given there is a hard quota and the Council's goal is to protect vessels that have been dependent on recent squid catches rather than

optimizing the use of capital resources in this fishery. Council staff suggested that identifying the sum of all the vessels' best-year catches over some time period might serve as an approximate upper bound (but not technical maximum) on what any group of re-qualifying vessels might be likely to catch in a given year. Any such analysis would have to acknowledge that annual trends in the abundances of various species and changes in fishery management measures impact year-to-year fishery performance. Another consideration is that such an analysis would not be informative about the possible catches of latent vessels that might seek to enter or expand participation in the future. Staff will draft an initial iteration of this kind of analysis for additional FMAT feedback before bringing requalification options to the AP for input.

B. Consider provisions for new permits for Maine/northern states. The Council is considering this action because of reports of increased longfin squid abundance off Maine, and the State of Maine requested consideration of provisions for additional access by fishermen in northern states.

The FMAT discussed several aspects of this issue. Granting new permits for only some states may violate Magnuson-Stevens Act provisions not to discriminate between residents of different states. However, it may be possible to create a lottery for temporary (e.g., 3-year) permits that could only be used to land squid in Maine and/or New Hampshire (anyone could apply and be included in the lottery). C. Bari will discuss with NOAA GC. Also, currently vessels can apply for an Exempted Fishing Permit (EFP) if they want to explore new aspects of a fishery, so a vessel might obtain an incidental permit and then request exemption from the trip limit as part of an Exempted Fishing Permit. The FMAT will explore longfin squid abundance trends in the Gulf of Maine to determine whether consistent production is feasible in the region. A research-set-aside could also be used to grant some vessels additional access to demonstrate the feasibility of an expanded fishery in northern areas. In general, the FMAT was concerned that granting new permits seemed to run contrary to the general goals of the amendment to reduce the number of permits in the squid fisheries. Adding additional northern squid fishing effort could also raise additional bycatch issues (which may support using an EFP to explore this issue). Squid are allowed to be fished within the existing small-mesh exemption areas in the GOM with certain season and gear restrictions.

C. Re-evaluate the longfin squid trimester allocations. The Council is considering this action because some constituents have requested that more longfin squid be available during the summer trimester (Trimester 2), while other constituents have concerns that increased summer trimester effort may be negatively impacting spawning success.

L. Hendrickson will update previous analyses examining connectivity between the inshore and offshore fisheries. Specifically, the analysis will examine standardized CPUE in the summer inshore fishery relative to performance in the following offshore fishery and vice-versa. L. Hendrickson noted that it would be useful to collect vessel processing type (e.g. freezer, ice and/or RSW), on annual permit applications for effort standardization in CPUE analyses. L.

Hendrickson is also working on improving the documentation of squid spawning bed locations. The FMAT will also examine bycatch and protected resource impact differences by Trimester.

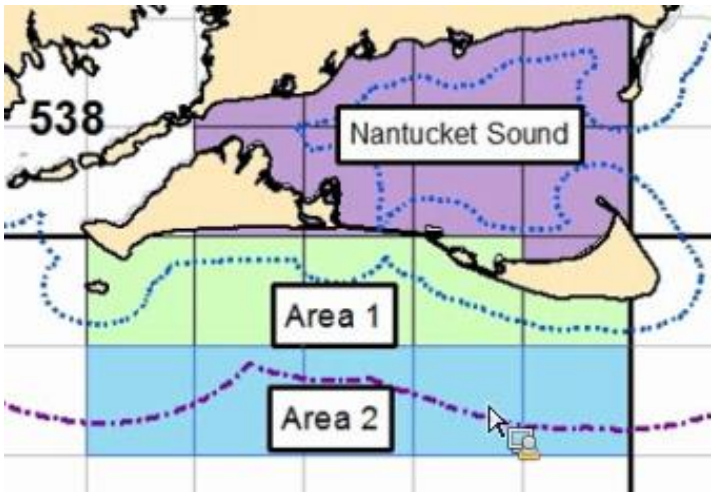
D. Consider a longfin squid buffer zone (i.e. time-area closure) in the area south of Martha's Vineyard/Nantucket. The Council is considering this action because scoping comments indicated public concern that longfin squid fishing effort concentrated in this area may be negatively impacting the fishing in Nantucket Sound, due to localized depletion of prey and/or bycatch of recreationally-targeted species.

The FMAT discussed several initial analyses. A detailed written narrative will be produced for later consideration, but a preliminary summary is provided below as an update:

1. Have relevant recreational landings declined in recent years? The FMAT is examining MRIP harvest trends during 2004-2015 at ports from New Bedford, MA to Chatham, MA, where fishing likely occurred in Nantucket Sound, for striped bass, bluefish, black sea bass, and/or summer flounder. These species are some of the major predators of longfin squid, river herring, and butterfish. While the analysis involved a partitioning of the data that MRIP is not intended for (MRIP landings and effort data are available by state), landings per unit effort for these species were not indicative of an extreme drop in recent years (e.g. trends since either 2004 or 2010) given the variability generally seen in the data. Precision estimates are not available but would likely be low for such a small area.

2. Has the relative abundance of striped bass, bluefish, black sea bass, and/or summer flounder in Nantucket Sound declined in recent years based on the Massachusetts (MA) bottom trawl survey for strata that include Nantucket Sound? Striped bass and bluefish occurrences were too low/inconsistent to be useful. Recent years (since 2012) have shown a marked increase in black sea bass in the relevant spring and fall MA strata due to a large 2011 year class. Recent years (since 2010) have shown a decline for summer flounder in the spring and variability in the fall, though fall of 2015 was the highest value in the time series for summer flounder in the relevant strata.

3. Has the relative abundance of longfin squid, alewife, blueback herring, and/or butterfish in Nantucket Sound declined in recent years? Longfin squid and butterfish indices exhibited high variability and recent values appear to be within the typical variation of the time series. Alewife showed high variation as well, though recent years (since 2010) showed a decline in the spring survey and an increase in the fall survey in the relevant strata. Blueback herring indices were too low/inconsistent to be useful.



In the future, the FMAT will evaluate longfin squid catch/effort trends in Areas 1, 2, and Nantucket Sound as illustrated (right). If feasible, correlations will be examined between effort trends and the availability (for the MA survey) of longfin squid, butterfish, and alewife in Nantucket Sound. The FMAT will likely not be able to deduce any cause and effect associations given the myriad of factors that impact local fish abundances. This will make any quantitative evaluation of trade-offs between possible lost commercial squid fishing opportunities versus possible benefits to fishing and/or the ecosystem in Nantucket Sound impossible, though the FMAT will attempt to generally describe the relative importance of these areas to longfin squid fishing and recreational fishing.

Comments received for the Briefing Book follow this page. See http://www.mafmc.org/public-comment/ for the Council Meeting comment procedure.

From: Paddy <paddygump@verizon.net>
Sent: Monday, November 27, 2017 10:03 AM
To: Moore, Christopher
Subject: Buffer zone

As owner of fv cody and fv enterprise I am against any idea of a buffer zone as I employ 8 people and if we can't harvest the squid it will put me out of business . Thanks paddy Mc glade

Sent from paddy

From: Michael Matulaitis <matulaitism@gmail.com>
Sent: Sunday, November 26, 2017 4:15 PM
To: Moore, Christopher
Subject: Squid buffer zone

Dear Dr. Moore,

I am commenting today on the proposed Squid buffer zone south of Nantucket and Martha's Vineyard. I have fished in Nantucket Sound and south of the Islands for the last 38 years. I Trawl for Squid, and hook and line for Stripers.

The Squid trawl fishery has little bycatch of Bass. Over the last 38 years there has been low Bass abundance and high Bass abundance coastwide. I have also noticed as most fishermen will tell you, or you can reference scientific and trip reports that Striped Bass are not always found in the same place every season. Much to the dismay of the Nantucket Charter boat fleet. Schools of Stripers have been showing in the Cape Cod Canal, Chatham, and Provincetown. The federal regulations protecting Stripers in federal waters has done wonders for that fishery. I see no direct impact of the lack of forage fish such as squid. This is first hand evidence of a fisherman involved in both fisheries!

As to the vessel lights south of the islands and Marine mammal interactions (which are non-existent). You can dismiss these claims as unfounded impacts on forage fish and Stripers.

The State of Massachusetts and Dr. Pierce have done an excellent job at monitoring,fostering and managing both fisheries.

Feel free to contact me if you would like to speak more at length on the issues of Striper abundance, bycatch and the squid fishery.

Sincerely,
Michael A.Matulaitis
F/V Rose Marie F/V Somethin' Fishy (508) 280-0490

From: fvseafarer@aol.com <fvseafarer@aol.com>
Sent: Sunday, November 26, 2017 1:06 PM
To: Moore, Christopher
Subject: Squid Buffer Zone

November 26th, 2017

Members of the Mid Atlantic Fisheries council,

My name is Michael Doyle and I am the President of Seafarer Enterprises Inc. I have owned and operated the company since 1992. For these past 25 years the majority of my vessel's revenue, the FV Charlie's Pride, has been generated through squid product that is caught directly off the coast of Massachusetts. The vessel had history fishing these grounds prior to my purchasing it – we have always fished these federal waters off the coast of Massachusetts. The FV Charlies Pride and their crew, which consists of 4 people at a time, would be severely impacted financially if any of the squid buffer zones that are being proposed are implemented.

Mike A. Doyle
President of Seafarer Enterprises Inc.

From: Steve Follett <supafo@aol.com>
Sent: Monday, November 27, 2017 7:29 PM
To: Moore, Christopher
Subject: Sqid Buffer Zones

My name is Steven Follett I own the fishing vessel Heatherlynn from Pt Judith RI I strongly oppose the new squid buffer zones i have been fishing for 45 years there is no need for these new zones there are plenty striped bass and blue fish around i commercially fish for both species as well as i fish for squid in those areas for the last 45 years Steve Follett

From: fvseafarer@aol.com <fvseafarer@aol.com>
Sent: Sunday, November 26, 2017 12:55 PM
To: Moore, Christopher
Subject: Squid Buffer Zone

November 26th, 2017

Members of the Mid Atlantic Fisheries council,

My name is Michael Doyle and I am the President of Jessie Jean Enterprises Inc. I have owned and operated the company for 27 years. For these past 27 years the majority of my vessel's revenue, the FV Seafarer, has been generated through squid product that is frozen at sea and is then exported in the United States and Europe. As much as 30% of our product sales at the time of the year in question come directly off the coast of Massachusetts. The FV Seafarer and their crew, which varies from 5/6 people at a time, would be severely impacted financially if any of the squid buffer zones that are being proposed are implemented.

Mike A. Doyle
President of Jessie Jean Enterprises Inc.

From: fvseafarer@aol.com <fvseafarer@aol.com>
Sent: Sunday, November 26, 2017 12:44 PM
To: Moore, Christopher
Subject: Squid Buffer Zone

November 26th, 2017

Members of the Mid Atlantic Fisheries council,

My name is Michael Doyle and I am the President of SeaPride Trawlers Inc. I have owned and operated the company for an excess of fifteen years. The majority of my company's revenue is generated through squid product that is frozen at sea and is then exported in the United States and Europe. As much as 30% of our product sales at the time of the year in question come directly off the coast of Massachusetts. SeaPride Trawlers would be severely impacted financially if the squid buffer zone that is being proposed is implemented.

Mike Doyle
President of SeaPride Trawlers Inc.

Mr. Peter Hughes, Chair
Mackerel, Squid, Butterfish Committee
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 200
Dover, DE 19901

November 29, 2017

Dear Chairman Hughes, Committee and Council Members,

We are writing to ask that the Committee reject further development or consideration of the Squid Buffer Zone Framework. This area has been a productive summer squid fishing ground for decades.

The Squid Amendment reduced the longfin squid incidental limit to 250 pounds per trip; a 90% reduction from the 2500 pound limit currently in place. This change will eliminate the potential for excessive fishing effort during Trimester 2.

During the discussion on final action on the Squid Amendment, in June, the Council heard scientific testimony on the continuous spawning of longfin squid throughout its short life cycle and throughout the range of the stock's distribution, both inshore and offshore and correctly rejected the buffer zone approach as not having any scientific merit.

The implementation of any buffer zone would effectively shut down the summer squid fishery. This is not a simple matter of moving fishing effort. Fishing occurs year round in areas of abundant resource, in space and time. Loss of access to this area would be an economic disaster for the vessels and ports that rely on that fishery, rendering many vessels non-viable.

Offshore wind areas are being sited and already leased on other traditional summer squid fishing areas, as well as directly outside the Nantucket squid fishing grounds, and do not allow for spatial redistribution in the squid and other fisheries .

We urge the Council to allow the Squid Amendment to be implemented and for a significant period of time to pass before taking any additional action to regulate the operation of the longfin squid fishery. Limits will be placed on the Trimester 2 fishery as a result of the Amendment. In the 10 years since the trimester program was developed, no more than 80% of the annual quota has been taken.

There is no evidence that current levels of effort on the longfin squid resource are creating a resource problem. The potential to shut down a fishery due to an alleged user conflict with no biological evidence to support it sets a dangerous precedent, with serious negative economic repercussions, which could become a precedent to be replicated anywhere along the coast, in any number of other fisheries.

Thank you for taking the time to listen to our concerns.

Sincerely,

Garden State Seafood Association

Long Island Commercial Fishing Association

Rhode Island Fisherman's Alliance

North Carolina Fisheries Association

Seafreeze Ltd.

The Town Dock

Lund's Fisheries, Inc.

Bergies Seafood

L. D. Amory Co. Inc.

Atlantic Coast Seafood Inc.

Sea Fresh USA, Inc.

Samuels & Son Seafood Co Inc

Cape Quality Seafood

Mr. Peter Hughes, Chair
Mackerel, Squid, Butterfish Committee
Mid-Atlantic Fishery Management Council
800 North State Street, Suite 200
Dover, DE 19901

November 29, 2017

Dear Chairman Hughes and Committee,

I am the vessel manager of seven vessels at the Town Dock in Point Judith Rhode Island. I am also part owner of the F/V Lightning Bay, also based out of Rhode Island.

Our company is one of the largest longfin squid producers on the east coast. Squid makes up 90% of our company's business. The area that the committee is considering for a buffer zone has been heavily fished and depended up for decades. This is not a new area of the ocean that the fleet has decided to fish. These are very productive fishing grounds that the entire squid fleet depends upon access to each year. The economic viability of our business, and the port of Point Judith, depends on access to the squid when they are present in the summer.

When this idea was first brought up during the Squid Amendment there were no scientific facts linking our fishing to any negative effects that the recreational sector might be having in their own fishery. Creating a buffer zone, without scientific proof, because one sector doesn't want another sector fishing near them is extremely irresponsible and could have far reaching consequences as other states might choose to do the same, eliminating other fisheries in the process.

I urge you to reject any sort of buffer zone measure. After all, the Council has already reduced effort through the Squid Amendment by reducing the overall number of participants through requalification and reducing the incidental limit for squid during the Trimester II fishery.

Thank you for listening to my concerns.

Sincerely,

Donald Fox
Vessel Manager
The Town Dock

Dear Chairman Hughes,

I'm writing to oppose any buffer zone south of Martha's Vineyard and Nantucket. This is an area that I have always relied on to fish in. It is a very productive fishing area when the squid show up. Shutting us out of this area during the summer will shut me out of squid fishing which is large part of my income for the year. This is a disastrous idea that would lead to a closure of an entire fishery.

Thank you,

Capt. Jim West

F/V Determination

Dear Chairman Hughes,

The area south of Martha's Vineyard and Nantucket is of great importance to the squid fleet. Though the squid vary from year to year, that specific area is known to be one of the most productive fishing grounds for squid on the east coast, we simply cannot afford to lose access to this area. These historic grounds are extremely important to us and because of this I am opposed to any buffer zone that closes this area off to any fishing.

Thank you,

Capt. Phil Merris

F/V Excalibur

Dear Chairman Hughes,

I am writing to oppose any squid buffer south of Martha's Vineyard and Nantucket. This area is an extremely important fishing ground for our fleet. We've depended on those waters for decades and any loss of area would be an economic disaster for us.

Please reconsider any action regarding any buffers in this area.

Thank you,

Capt. Jeff Wise

F/V Lightning Bay

Dear Chairman Hughes,

I'm am opposed to the any buffer zone near or around Martha's Vineyard and Nantucket. Such a closure would shut the summer squid fishery down. This is an area that I and the rest of the summer squid fleet have always relied on to fish in. It is a very productive fishing area that large part of my income for the year comes from. Please stop such an action from going forward.

Thank you,

Capt. Kevin Ralph

F/V Rebecca Mary

Dear Chairman Hughes,

I am against any buffer zone south of Martha's Vineyard and Nantucket. These are not new fishing grounds for us, we have relied on these grounds for years and they have proven to be very fertile fishing ground when squid are present. I depend on this area for a successful fishing season. Losing access to this area would be a huge loss to the squid fleet. This is where we make our living in the summer months.

Thank you,

Capt. Ray Livernois

F/V Sea Rambler

Dear Chairman Hughes,

I am against any proposed buffer zone south of Martha's Vineyard and Nantucket. This is a historical fishing ground of great importance to the squid fleet. When the squid show up in this area it provides some of the best squid fishing to be found on the east coast. The loss of this area would be a disaster for the squid fleet.

Thank you,

Capt. Victory Carpenter

F/V Stephanie Bryan

Dear Chairman Hughes,

I am against the buffer zone south of Martha's Vineyard and Nantucket. Closing this area would put us out of the squid business for the summer. This area has ALWAYS been one of our main fishing grounds for squid in the summer and contributes to a big part of our yearly income.

Thank you,

Capt. Dave Monahan

F/V Tenacity

VIRGINIA SEAFOOD COUNCIL

November 27, 2017

Mid-Atlantic Fisheries Management Council

Chris Moore,

The Squid Buffer Zone is a bad idea. The Virginia trawl industry and particularly the boats that fish for squid are adamantly opposed this framework.

This area has been a historic fishery for decades and any buffer would close a whole summer fishery.

Forcing the boats out of this area will cause more gear conflicts (lobster gear and trawl nets try to stay away from each other – but this pushes them closer together)

This also has the potential to cause more bycatch. When the squid are more concentrated in this area with less bycatch – forcing the boats to move further offshore creates more bycatch – one of the more important goals of this council is to try to reduce this bycatch.

We think this sets a bad precedent were one user group doesn't want another group in this area and manipulates data and distort the facts to force another group out. Any buffer zone is bad policy and this needs to stop now.

Best Regards,

C. Meade Amory

Virginia Seafood Council