NOAA's National Marine Fisheries Service (NMFS)



Landings per Unit Effort (LPUE) for Scallop Access Areas 2009-2014

Version: 1.0

Date published: October 15, 2014

Presented by: B. Galuardi

Background & Purpose

The Scallop Plan Development Team requested a landing per unit effort calculation for all access and open areas. The purpose is to analyze interannual trends within access areas.

Analysis Parameters

Effort was calculated as days charged within a Days-at-sea context. Days were calculated on a tripwise basis according to crossing of the VMS demarcation line.

Table 2

Parameter	Definition	Notes
Data Sources	DMIS tables	
Dates	2009-2014	
Month X Gear	All Scallop gear	
Combinations		
Areas	Scallop access areas+open area	
Species	Atlantic Sea Scallops	

Results

Trips and Pounds Summary

Scallop Fishing Year 2014

[1] "Query Run on: 2014-10-14 17:00:58 by: Benjamin Galuardi"

					
	Landed Pounds	Number of trips	Total Days	Average Trip Duration	LPUE
Closed Area 1	146	1	2	1.8278	80
Closed Area 2	1,768,679	166	1,255	7.5605	1,409
Nantucket Lightship	957,948	100	629	6.2869	1,524
Hudson Canyon	83,058	19	82	4.3264	1,010
Elephant Trunk	0	0	0	0	0
DelMarVa	2,674,188	273	1,315	4.8178	2,033
Open Area	19,439,861	1,101	8,668	7.8732	2,243
LAGC					
	Landed	Number of	Total	Average Trip	
	Pounds	trips	Days	Duration	LPUE
Closed Area 1	0	0	0	0	0

	Landed Pounds	Number of trips	Total Days	Average Trip Duration	LPUE
Closed Area 1	0	0	0	0	0
Closed Area 2	0	0	0	0	0
Nantucket Lightship	1,906	3	4	1.2907	492
Hudson Canyon	0	0	0	0	0
Elephant Trunk	0	0	0	0	0
DelMarVa	235,894	387	318	0.8225	741
Open Area	1,405,581	3,006	2,548	0.8476	552

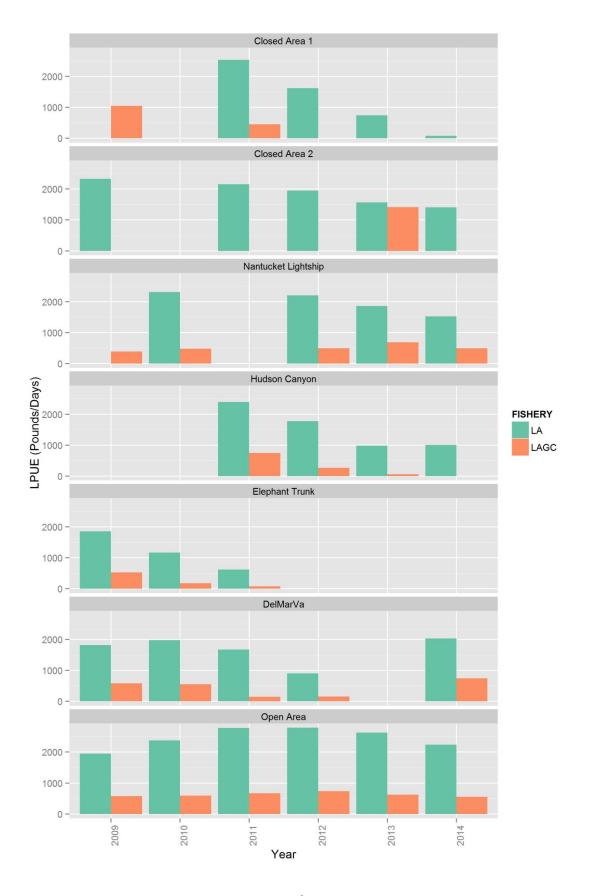
LA					
	Landed Pounds	Number of trips	Total Days	Average Trip Duration	LPUE
Closed Area 1	489,637	85	657	7.7245	746
Closed Area 2	2,407,521	203	1,535	7.5621	1,568
Nantucket Lightship	1,862,924	184	1,004	5.4543	1,856
Hudson Canyon	2,795,486	383	2,840	7.4154	984
Elephant Trunk	0	0	0	0	0
DelMarVa	0	0	0	0	0
Open Area	26,793,224	1,410	10,181	7.2203	2,632
1466					
LAGC					
LAGC	Landed Pounds	Number of trips	Total Days	Average Trip Duration	LPUE
Closed Area 1				•	LPUE 0
	Pounds	trips	Days	Duration	
Closed Area 1	Pounds 0	trips 0	Days 0	Duration 0	0
Closed Area 1 Closed Area 2 Nantucket	Pounds 0 12,998	trips 0 1	Days 0 9	Duration 0 9.1743	0 1,417
Closed Area 1 Closed Area 2 Nantucket Lightship	Pounds 0 12,998 38,252	trips 0 1 64	Days 0 9 56	Duration 0 9.1743 0.8757	0 1,417 683
Closed Area 1 Closed Area 2 Nantucket Lightship Hudson Canyon	Pounds 0 12,998 38,252 634	trips 0 1 64	Days 0 9 56	Duration 0 9.1743 0.8757 1.6606	0 1,417 683
Closed Area 1 Closed Area 2 Nantucket Lightship Hudson Canyon Elephant Trunk	Pounds 0 12,998 38,252 634 0	trips 0 1 64 6 0	Days 0 9 56 10 0	Duration 0 9.1743 0.8757 1.6606 0	0 1,417 683 64 0

	Landed Pounds	Number of trips	Total Days	Average Trip Duration	LPUE
Closed Area 1	4,918,575	406	3,040	7.4865	1,618
Closed Area 2	5,472,672	333	2,802	8.415	1,953
Nantucket Lightship	3,070,473	223	1,395	6.2539	2,202
Hudson Canyon	8,699,436	675	4,902	7.2615	1,775
Elephant Trunk	0	0	0	0	0
DelMarVa	196,225	24	217	9.0227	906
Open Area	28,127,128	1,267	10,087	7.9613	2,788
LAGC					
LAGC	Landed Pounds	Number of trips	Total Days	Average Trip Duration	LPUE
Closed Area 1				•	LPUE 0
	Pounds	trips	Days	Duration	
Closed Area 1	Pounds 0	trips 0	Days 0	Duration 0	0
Closed Area 1 Closed Area 2 Nantucket	Pounds 0 0	trips 0 0	Days 0 0	Duration 0 0	0
Closed Area 1 Closed Area 2 Nantucket Lightship	Pounds 0 0 22,346	trips 0 0 37	Days 0 0 45	Duration 0 0 1.2269	0 0 492
Closed Area 1 Closed Area 2 Nantucket Lightship Hudson Canyon	Pounds 0 0 22,346 42,676	trips 0 0 37 123	Days 0 0 45 158	Duration 0 0 1.2269 1.2832	0 0 492 270
Closed Area 1 Closed Area 2 Nantucket Lightship Hudson Canyon Elephant Trunk	Pounds 0 0 22,346 42,676 0	trips 0 0 37 123 0	Days 0 0 45 158 0	Duration 0 0 1.2269 1.2832 0	0 0 492 270 0

Landed Pounds	Number of trips	Total Days	Average Trip Duration	LPUE
8,570,376	542	3,387	6.2487	2,531
2,879,122	181	1,337	7.3873	2,153
0	0	0	0	0
5,786,273	408	2,420	5.9311	2,391
928,268	155	1,495	9.645	621
5,680,085	458	3,388	7.3983	1,676
28,493,791	1,223	10,253	8.3833	2,779
Landed Pounds	Number of trips	Total Days	Average Trip Duration	LPUE
			•	LPUE 452
Pounds	trips	Days	Duration	
Pounds 27,273	trips 47	Days 60	Duration 1.2833	452
Pounds 27,273 0	trips 47 0	Days 60 0	Duration 1.2833 0	452 0
Pounds 27,273 0 0	trips 47 0 0	Days 60 0 0	Duration 1.2833 0 0	452 0 0
Pounds 27,273 0 0 346,691	trips 47 0 0 602	Days 60 0 0 466	Duration 1.2833 0 0 0 0.7735	452 0 0 745
	Pounds 8,570,376 2,879,122 0 5,786,273 928,268 5,680,085	Pounds trips 8,570,376 542 2,879,122 181 0 0 5,786,273 408 928,268 155 5,680,085 458	Pounds trips Days 8,570,376 542 3,387 2,879,122 181 1,337 0 0 0 5,786,273 408 2,420 928,268 155 1,495 5,680,085 458 3,388	Pounds trips Days Duration 8,570,376 542 3,387 6.2487 2,879,122 181 1,337 7.3873 0 0 0 0 5,786,273 408 2,420 5.9311 928,268 155 1,495 9.645 5,680,085 458 3,388 7.3983

	Landed Pounds	Number of trips	Total Days	Average Trip Duration	LPUE
Closed Area 1	0	0	0	0	0
Closed Area 2	0	0	0	0	0
Nantucket Lightship	5,630,166	381	2,441	6.4061	2,307
Hudson Canyon	0	0	0	0	0
Elephant Trunk	9,028,820	902	7,727	8.5668	1,168
DelMarVa	5,843,769	447	2,950	6.5989	1,981
Open Area	29,638,612	1,455	12,489	8.5833	2,373
LAGC					
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	Landed Pounds	Number of trips	Total Days	Average Trip Duration	LPUE
Closed Area 1					LPUE 0
Closed Area 1 Closed Area 2	Pounds	trips	Days	Duration	
	Pounds 0	trips 0	Days 0	Duration 0	0
Closed Area 2 Nantucket	Pounds 0 0	trips 0 0	Days 0 0	Duration 0 0	0
Closed Area 2 Nantucket Lightship	Pounds 0 0 245,919	trips 0 0 476	Days 0 0 517	Duration 0 0 1.0863	0 0 476
Closed Area 2 Nantucket Lightship Hudson Canyon	Pounds 0 0 245,919 0	trips 0 0 476	Days 0 0 517	Duration 0 0 1.0863	0 0 476

	Landed Pounds	Number of trips	Total Days	Average Trip Duration	LPUE
Closed Area 1	0	0	0	0	0
Closed Area 2	3,288,141	200	1,409	7.0454	2,334
Nantucket Lightship	0	0	0	0	0
Hudson Canyon	0	0	0	0	0
Elephant Trunk	16,292,184	1,240	8,786	7.0852	1,854
DelMarVa	5,355,394	422	2,943	6.9729	1,820
Open Area	24,108,835	1,394	12,383	8.8833	1,947
LAGC					
	Landed Pounds	Number of trips	Total Days	Average Trip Duration	LPUE
Closed Area 1	800	2	1	0.3823	1,046
Closed Area 2	0	0	0	0	0
Nantucket Lightship	400	1	1	1.0222	391
Hudson Canyon	0	0	0	0	0
Elephant Trunk	819,418	1,781	1,544	0.8672	531
DelMarVa	293,114	693	505	0.7281	581
Open Area	3,440,981	9,031	5,973	0.6613	576



Analysis Accuracy Check By J. Hermsen

Query Programing

R code and SQL queries archived at

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