

Washington Department of FISH and WILDLIFE

# Summary Report of the 2009 Commercial Fishery for Razor Clams *(Siliqua patula)*

Washington Department of Fish and Wildlife Bruce E. Kauffman P.O. Box 190 Ocean Park, WA 98640

October 2009

# TABLE OF CONTENTS

Fishery Objectives and Preseason Planning	3
Biotoxin Sampling	4
Fishing Season	4
Fishery Landings	4
Licenses	7
Commercial Sales and Trends	8
Management Conclusions	8

# List of Tables and Figures

Table 1.	Commercial Razor Clam Fishery Biotoxin Results, 2009	4
Table 2.	Commercial Clam: Harvest Totals, Value, Season Length,	
	and Licenses	5
Table 3.	Commercial Clam: Daily Landings, Effort and Take Home Limits	6

Figure 1.	Daily Pounds of Clams Dug per Person (CPUE) and Tide Elevation7
Figure 2.	Residence of Commercial Razor Clam Diggers by County7

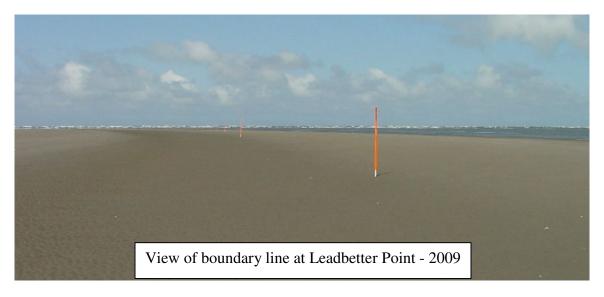
#### WASHINGTON DEPARTMENT OF FISH AND WILDLIFE (WDFW) SUMMARY OF THE 2009 COMMERCIAL FISHERY FOR RAZOR CLAMS (Siliqua patula)

#### **Fishery Objectives and Preseason Planning**

A public meeting was held in March for commercial diggers and razor clams buyers at Raymond High School. The major discussion topic was when to schedule the 2009 fishery and the duration of the season. The majority of diggers and dealers supported a mid-May start. A contingent preferred an early start as possible, while another group would rather begin later in May or June to benefit from better summer weather.

To conduct the commercial fishery at the Willapa spits, which are state-owned aquatic lands, WDFW is required to obtain an Aquatic Lands Right of Entry Agreement (REA) from the Department of Natural Resources (DNR). The current REA began on June 1, 2006 and was set to expire on May 31, 2009. Without a new REA or an extension of the current agreement, the season would end on May 31, 2009. Earlier discussions with DNR indicated that they would extend the current REA to cover this year's season but no formal agreement had been reached at the time of the public meeting. In late April DNR decided to extend the current REA for one month, ending the season on June 30, 2009.

Three factors largely determine the start date: the end of the recreational razor clam season, biotoxin levels, and tides. By practice, the commercial fishery opens only after the end of the recreational fishery. Separating the two makes it more difficult for sport diggers to illegally dig, possess or sell commercial quantities of clams, and simplifies recovering clams in the event of a Department of Health product recall. Due to the absence of any significant biotoxin events, the commercial fishery has enjoyed a couple of years with predictable and stable schedules.



Regulations for the commercial razor clam fishery permit digging only on "detached" (i.e. islands) spits. In recent years, shifting sand has been filling in a channel of water that had separated the spits from the north end of Leadbetter Point. At low tide the southernmost spit and the northern end of Leadbetter Point essentially became continuous, and could be easily crossed. For the last five seasons boundary poles have been installed at the north end of Leadbetter Point between it and the spits. Although scouring made the channel more evident, the posts were installed again in 2009 to eliminate any uncertainty.

# **Biotoxin Sampling**

Washington Department of Health protocols require two sets of razor clam samples to test below 20 parts per million (ppm) for domoic acid and below 80 micrograms per 100 grams of meat tested ( $\mu$ g/100g) for paralytic shellfish poisoning (PSP) before the fishery can be opened. Razor clams were collected for biotoxin testing from one site on the spits beginning in late April. Monitoring of biotoxin levels continues once the fishery is underway, with clams collected from dealers every seven to 10 days (fishery samples). Prior to and during the 2009 season, biotoxin levels were extremely low (Table 1).

Collection Date	Sample Type	PSP Result (μg/100g)	Domoic Result (ppm)
23-Apr	Pre-Season	<38	2
30-Apr	Pre-Season	<38	1
11-May	Fishery Sample	<38	2
18-May	Fishery Sample	46	<1
26-May	Fishery Sample	<38	2
1-Jun	Fishery Sample	44	2
8-Jun	Fishery Sample	46	2
15-Jun	Fishery Sample	<38	1

 Table 1. Commercial Razor Clam Fishery Biotoxin Results, 2009.

# Fishing Season

The 2009 season opened May 11 and proceeded as scheduled through June 30; digging conditions and clam abundance were good throughout the period. No extension to the season was considered due to the lack of a DNR REA after June 30<sup>th</sup>.

# **Fishery Landings**

In total, the fishery landed a record 249,910 pounds of razor clams during the 51-day season (Tables 2,3). The total direct value to diggers (ex-vessel value) was \$407,130. Clams were landed on all 51 days of the season; on average 46 diggers each landed about 105 pounds of clams per day. There were 351 take home limits, which comprised 14.8% of the 2,371 landings. Discounting other factors such as weather or surf conditions, generally any tide less than +1.0 foot offers comparably good digging opportunity (Figure 1). Catch per unit of effort (CPUE: in this case the total number of clams dug in one day divided by the number of diggers) was generally highest on tides that were between -1.2 feet and +0.5 feet.

Washington Non-Treaty Commercial Razor Clam Fishery         Non-										
	Pounds	Ex-Vessel		Number		Resident	License	License Fees		
Year	Landed	Value	Days	Diggers	Licenses	Licenses	Revenue	Resident	Non-Resident	
76	14,047	\$10,512		-	187		\$935			
77	5,797	\$6,150		-	365		\$1,825	\$5	\$5	
78	25,386			-	191		\$4,595	\$5	\$5	
79	10,750			-	1,695		\$8,475	\$5	\$5	
80	18,390		80	-	1,518		\$7,590	\$5	\$5	
81	2,891	\$3,842	39	-	1,411		\$7,055	\$5	\$5	
82	6,672		91	-	1,322		\$6,610	\$5	\$5	
83	6,732	\$8,678	69	-	1,366		\$6,830	\$5	\$5	
84					Nix Closu					
85				1	Nix Closu	ire				
86	58,814	\$73,114	64	-	378	13	\$19,500	\$50	\$100	
87	103	\$194	4	-	115	7	\$6,100	\$50	\$100	
88	ļ			Closed due	e to low po	pulation leve	els			
89	20,140	\$35,161	28	-	205	2	\$10,350	\$50	\$100	
90	26,553	\$48,073	36	-	290	6	\$14,800	\$50	\$100	
91	26,630	\$44,106	42	-	267	8	\$13,750	\$50	\$100	
92				Dor	noic Acid (	Closure				
93				Dor	noic Acid (	Closure			•	
94	46,854	\$59,487	40	-	95	3	\$12,500	\$130	\$180	
95	88,290	\$109,364	38	-	127	0	\$16,510	"	"	
96	25,188	\$29,295	37	-	110	1	\$14,350	"	"	
97	2,849	\$3,579	21	-	28	3	\$3,790	"	"	
98	4,485	\$6,558	24	-	40	0	\$5,200	"	"	
99				Dor	noic Acid (	Closure				
00	69,595	\$84,106	51	-	79	0	\$10,270	"	"	
01	75,744	\$77,439	47	62	97	0	\$12,610	"	"	
02	119,777	\$118,349	46	97	105	0	\$13,650	"	**	
03	17,474	\$21,169	18	40	44	0	\$5,720	"	"	
04	183,327	\$269,139	68	112	114	0	\$14,820	"	"	
05	102,939		41	112	115	3	\$15,490			
06	134,661	\$199,469	64	103	110	0	\$14,300	"	"	
07	140,616	\$211,118	55	119	122	1	\$16,040	"	"	
08	205,634		61	108	143	0	\$18,590	"	"	
09	249,910		51	164	185	4	\$24,250	"	"	

# Table 2. Commercial Clam: Harvest Totals, Value, Season Length and Licenses .

Date         Daty         Tide         Time         No. Landings         Landing (Lbs)         CPUE         Take Home           5/11         Monday         1.0         9:23 AM         60         4:307         757         72         3           5/12         Tuesday         0.7         1:00 AM         28         2.804         100         1           5/13         Wednesday         0.4         10:40 AM         28         2.804         100         1           5/14         Thursday         0.0         11:21 AM         59         7.103         120         3           5/15         Friday         0.4         12:25 PM         59         8.494         144         3           5/16         Saturday         1.8         12:34 PM         50         5.581         112         3           5/17         Suday         1.8         3:34 PM         15         1.300         87         0           5/20         Wednesday         2.1         4:26 PM         3:888         122         2         2           5/21         Thursday         0.2         5:32 AM         15         1.15         15         5          5/22         Friday	2009 Commercial Razor Clam Harvest								
S111       Monday       1.0       9:23       MM       60       4.307       72       3         5112       Tuesday       -0.7       10:01 AM       28       2.804       100       1         5113       Friday       0.4       10:40 AM       64       6.487       101       2         5114       Friday       0.4       12:06 PM       59       8.494       144       3         5115       Friday       0.4       12:06 PM       59       8.406       142       3         5117       Stunday       1.2       1.27 PM       50       5.561       112       3         5119       Tuesday       1.8       3.34 PM       51       1.105       7.4       2       2         521       Friday       0.8       6.18 AM       79       6.875       87       11         522       Friday       0.8       6.18 AM       79       6.875       87       11         523       Stunday       -2.3       7.49 AM       71       8.182       115       15         524       Sunday       -2.6       13.30       95       113       5       5         526       Tuesd						Daily Total	CPUE	Take Home	
5/12       Tuesday       0.07       10.01 AM       28       2.804       100       1         5/13       Wednesday       0.4       10.04 AM       64       6.487       101       2         5/14       Thursday       0.0       11:21 AM       59       7,103       120       3         5/16       Saturday       0.8       12:55 PM       59       8,404       144       3         5/17       Sunday       1.2       1:47 PM       52       8,647       166       1         5/18       Monday       1.5       2:40 PM       50       5,581       1112       3         5/19       Tuesday       1.8       3:34 PM       15       1,300       87       0         5/20       Wednesday       2.1       4:26 PM       32       3,898       122       2         5/21       Thursday       0.2       5:32 AM       15       1,115       74       2         5/22       Friday       0.48       69       7,995       116       8       5         5/22       Friday       -2.6       8:35 AM       69       7,995       116       8         5/24       Thursday <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
5/13       Wednesday       -0.4       10.40       64       6.497       101       2         5/14       Thursday       0.0       11:21 AM       59       7,103       120       3         5/15       Friday       0.4       12:05 PM       59       8,494       144       3         5/16       Saturday       0.8       12:55 PM       59       8,494       144       3         5/17       Sunday       1.2       1.27 PM       52.40 PM       50       5.561       112       3         5/19       Tuesday       1.8       3:34 PM       15       1,300       87       0       0         5/20       Wednesday       2.1       4.26 PM       32       3,898       122       2       2         5/21       Thursday       0.2       5:32 AM       15       1,115       74       2       5         5/22       Friday       0.86       8:18 AM       79       6,875       87       11         5/23       Monday       2.6       8:35 AM       69       7.995       116       8         5/26       Monday       2.0       11:00 AM       70       7.979       114       9 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>,</td> <td></td> <td></td>						,			
5/14       Thursday       0.0       11:21 AM       59       7.103       120       3         5/15       Friday       0.4       12:06 PM       59       8,494       144       3         5/16       Saturday       0.8       12:55 PM       59       8,496       142       3         5/17       Sunday       1.2       1:47 PM       52       8,647       166       1         5/18       Monday       1.5       2:40 PM       50       5,581       1112       3         5/19       Tuesday       1.8       3:34 PM       15       1,300       87       0         5/21       Thursday       0.2       5:24 AM       15       1,115       74       2         5/22       Friday       0.48       6:18 AM       79       6.875       87       11       5         5/23       Saturday       -2.7       7:03 AM       96       7,995       116       8         5/24       Sunday       -2.3       7:49 AM       71       8,182       115       15         5/26       Tuesday       -2.6       11:00 AM       70       7,979       114       9         5/28       Th									
5/15       Friday       0.4       12:06 PM       59       8,494       144       3         5/16       Saturday       0.8       12:55 PM       59       8,406       142       3         5/17       Sunday       1.2       1:47 PM       52       8,647       166       1         5/18       Monday       1.5       2:40 PM       50       5,581       112       3         5/19       Tuesday       1.8       3:34 PM       15       1,115       74       2         5/20       Wednesday       2.1       4:26 PM       32       3.898       122       2         5/21       Thursday       0.0       6:18 AM       79       6,875       87       11         5/22       Friday       -0.8       6:18 AM       79       6,875       87       11         5/23       Saturday       -2.7       7:49 AM       71       8.182       115       15         5/24       Sunday       -2.3       11:00 AM       70       7.979       114       9         5/29       Friday       -1.3       11:35 AM       65       6,516       1000       7         5/31       Sunday									
5/16       Saturday       0.8       12:55 PM       59       8.406       142       3         5/17       Sunday       1.2       1:47 PM       52       8.647       166       1         5/18       Morady       1.5       2:40 PM       50       5.551       112       3         5/19       Tuesday       1.8       3:34 PM       15       1,300       87       0         5/20       Wednesday       2.1       4:26 PM       32       3.898       122       2         5/21       Thursday       0.2       5:32 AM       15       1,115       74       2         5/23       Saturday       -7.7       703 AM       96       9,139       95       13         5/24       Fuesday       -2.7       7:23 AM       65       6,225       96       6         5/25       Morday       2.6       8:35 AM       65       6,516       100       7         5/26       Truesday       -0.5       1:24 PM       45       4,463       99       15         5/31       Sunday       0.3       1:41 PM       37       3.032       82       4         6/1       Monday       1.1<									
5/17       Sunday       1.2       1.47 PM       52       8.647       166       1         5/18       Monday       1.5       2:40 PM       50       5.581       112       3         5/19       Tuesday       1.8       3:34 PM       15       1.300       87       0         5/20       Wednesday       2.1       4:26 PM       32       3.898       122       2         5/21       Thursday       0.2       5:32 AM       15       1.115       74       2         5/22       Friday       -0.8       6:18 AM       79       6.875       87       111         5/23       Saturday       -1.7       7:03 AM       96       9.139       95       13         5/24       Sunday       -2.3       7:49 AM       71       8.182       115       15         5/25       Monday       -2.6       10:10 AM       65       6.25       96       6         5/27       Wednesday       -2.0       11:00 AM       70       7.979       114       9         5/29       Friday       -1.3       11:52 AM       65       6.516       1000       7         5/30       Saturday									
5/18       Monday       1.5       2:40 PM       50       5.581       112       3         5/19       Tuesday       1.8       3:34 PM       15       1,300       87       0         5/20       Wednesday       2.1       4:26 PM       32       3,898       122       2         5/21       Thursday       0.2       5:32 AM       15       1,115       7.4       2         5/24       Firday       0.8       6:18 AM       79       6.875       87       111         5/23       Monday       2.6       8:35 AM       69       9,139       95       13         5/25       Monday       2.6       8:35 AM       69       7.995       116       8         5/26       Tuesday       2.7       9:22 AM       65       6,225       96       6         5/27       Wednesday       2.0       11:00 AM       70       7.979       114       9         5/28       Thursday       -2.0       11:00 AM       70       7.979       114       9         5/30       Saturday       0.3       1:41 PM       37       3,032       82       4         6/1       Monday       1									
5/19       Tuesday       1.8       3.4 PM       15       1.300       87       0         5/20       Wednesday       2.1       4.26 PM       32       3.898       122       2         5/21       Thursday       0.2       5.32 AM       15       1.115       74       2         5/22       Friday       -0.8       6:18 AM       79       6.875       87       11         5/23       Saturday       -1.7       7.03 AM       96       9,139       95       13         5/24       Sunday       -2.3       7.49 AM       71       8,182       115       15         5/25       Monday       -2.6       8:35 AM       69       7,995       116       8         5/26       Tuesday       -2.7       9:22 AM       65       6.516       1000       7         5/29       Friday       1.3       11:52 AM       65       6.516       1000       7         5/31       Sunday       0.3       1:41 PM       37       3.032       82       4         6/3       Wednesday       2.3       4:31 PM       30       2,195       73       7         6/4       Thursday <td< td=""><td></td><td></td><td></td><td></td><td></td><td>,</td><td></td><td></td></td<>						,			
5/20       Wednesday       2.1       4:26 PM       32       3.898       122       2         5/21       Thursday       0.2       5:32 AM       15       1.115       74       2         5/22       Friday       0.8       6:18 AM       79       6.875       87       11         5/23       Saturday       1.7       7:03 AM       96       9.139       95       13         5/24       Sunday       2.3       7:49 AM       71       8.182       115       15         5/25       Monday       2.2       8.35 AM       69       7.995       116       8         5/26       Tuesday       2.2       10:10 AM       68       8.507       125       14         5/28       Tursday       2.0       11:00 AM       70       7.979       114       9         5/30       Saturday       0.5       12:46 PM       45       4,463       99       15         5/31       Sunday       0.5       14:41 PM       37       3.032       82       4         6/1       Monday       1.1       2:38 PM       38       4,485       118       6         6/2       Tuesday       1									
5/21         Thursday         0.2         5:22 AM         15         1.115         74         2           5/22         Friday         -0.8         6:18 AM         79         6,875         87         11           5/23         Saturday         -1.7         7:03 AM         96         9,133         95         13           5/24         Sunday         -2.3         7:49 AM         71         8,182         115         15           5/25         Monday         -2.6         8:35 AM         69         7,995         114         8           5/26         Tuesday         -2.7         9:22 AM         65         6,516         100         7           5/28         Thursday         -0.1         11:00 AM         70         7.979         114         9           5/29         Friday         -1.3         11:52 AM         65         6,516         100         7           5/31         Sunday         0.3         1:41 PM         37         3.032         82         4           6/1         Monday         1.1         2:38 PM         38         4,485         118         6           6/2         Tuesday         1.2         7:									
5/22         Friday         -0.8         6:18 AM         79         6:875         87         11           5/23         Saturday         -1.7         7:03 AM         96         9,139         95         13           5/24         Sunday         -2.3         7:49 AM         71         8:182         115         15           5/25         Monday         -2.6         8:35 AM         69         7:995         116         8           5/26         Tuesday         -2.7         9:22 AM         65         6.225         96         6           5/27         Wednesday         -2.5         10:10 AM         68         8:507         125         14           5/28         Friday         -1.3         11:52 AM         65         6.516         100         7           5/30         Saturday         0.3         1:41 PM         37         3.032         82         4           6/1         Monday         1.1         2:38 PM         38         4:485         118         6           6/2         Tuesday         1.3         3:35 PM         46         5.236         114         6           6/2         Tuesday         1.0									
5/23       Saturday       -1.7       7:03 AM       96       9,139       95       13         5/24       Sunday       -2.3       7:49 AM       71       8,182       115       15         5/25       Monday       -2.6       8:35 AM       69       7.995       116       8         5/26       Tuesday       -2.7       9:22 AM       65       6,225       96       6         5/27       Wednesday       -2.5       10:10 AM       68       8,507       125       14         5/28       Thursday       -2.0       11:00 AM       70       7.979       114       9         5/29       Friday       -1.3       11:52 AM       65       6,516       100       7         5/31       Sunday       0.3       1:41 PM       37       3.032       82       4         6/1       Monday       1.1       2:38 PM       38       4,485       118       6         6/2       Tuesday       1.8       3:35 PM       46       5,236       114       6         6/3       Wednesday       1.3       3:31 PM       30       2,195       73       7         6/4       Thursday									
5/24         Sunday         -2.3         7:49 AM         71         8,182         115         15           5/26         Tuesday         -2.6         8:35 AM         69         7,995         116         8           5/26         Tuesday         -2.7         9:22 AM         65         6,225         96         6           5/27         Wednesday         -2.5         10:10 AM         68         8,507         125         14           5/28         Thursday         -2.0         11:00 AM         70         7,979         114         9           5/29         Friday         -1.3         11:52 AM         65         6,516         100         7           5/31         Sunday         0.3         1:41 PM         37         3,032         82         4           6/1         Monday         1.1         2:38 PM         38         4,485         118         6           6/2         Tuesday         1.3         3:35 PM         46         5,236         114         6           6/4         Thursday         1.2         7:12 AM         27         3,674         136         5           6/5         Friday         -1.2									
5/25       Monday       2.6       8:35 AM       69       7.995       116       8         5/26       Tuesday       2.7       9:22 AM       65       6,225       96       6         5/27       Wednesday       2.2       11:00 AM       70       7,979       114       9         5/28       Thursday       -2.0       11:00 AM       70       7,979       114       9         5/29       Friday       -1.3       11:52 AM       65       6,516       1000       7         5/30       Saturday       0.5       12:46 PM       45       4,463       99       15         5/31       Sunday       0.3       1:41 PM       37       3,032       82       4         6/1       Monday       1.1       2:38 PM       36       5,236       114       6         6/2       Tuesday       1.8       3:35 PM       46       5,236       114       6         6/2       Tuesday       1.2       7:12 AM       27       3,674       136       5         6/3       Wednesday       1.1       7:30 AM       69       7,936       114       14         6/4       Saturday <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
5/26       Tuesday       -2.7       9:22 AM       65       6,225       96       6         5/27       Wednesday       -2.5       10:10 AM       68       8,507       125       14         5/28       Thursday       -2.0       11:00 AM       70       7,979       114       9         5/29       Friday       -1.3       11:52 AM       65       6,516       100       7         5/30       Saturday       -0.5       12:46 PM       45       4,463       99       15         5/31       Sunday       0.3       1:41 PM       37       3,032       82       4         6/1       Monday       1.1       2:38 PM       38       4,485       118       6         6/2       Tuesday       0.5       5:45 AM       24       1.959       82       3         6/4       Thursday       -0.5       5:45 AM       24       1.959       82       3         6/5       Friday       +1.0       6:30 AM       29       3,117       107       2         6/6       Saturday       +1.4       7:50 AM       56       7,011       125       15         6/8       Monday <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
5/27       Wednesday       -2.5       10:10 AM       68       8,507       125       14         5/28       Thursday       -2.0       11:00 AM       70       7,979       114       9         5/29       Friday       -1.3       11:52 AM       65       6,516       100       7         5/30       Saturday       -0.5       12:46 PM       45       4,463       99       15         5/31       Sunday       0.3       1:41 PM       37       3,032       82       4         6/1       Monday       1.1       2:38 PM       38       4,485       118       6         6/2       Tuesday       1.8       3:35 PM       46       5,236       114       6         6/2       Tuesday       1.0       6:30 AM       29       3,117       107       2         6/6       Friday       -1.0       6:30 AM       29       3,117       107       2         6/6       Saturday       -1.4       8:7 AM       69       7,856       114       14         6/9       Tuesday       -1.3       9:03 AM       69       6,344       92       9         6/11       Thursday       <						,			
5/28       Thursday       -2.0       11:00 AM       70       7,979       114       9         5/29       Friday       -0.5       12:46 PM       45       4,463       99       15         5/30       Saturday       -0.5       12:46 PM       45       4,463       99       15         5/31       Sunday       0.3       1:41 PM       37       3,032       82       4         6/1       Monday       1.1       2:38 PM       38       4,485       118       6         6/2       Tuesday       1.8       3:35 PM       46       5,236       114       6         6/3       Wednesday       2.3       4:31 PM       30       2,195       73       7         6/4       Thursday       -0.5       5:45 AM       24       1,959       82       3         6/6       Saturday       -1.4       7:50 AM       56       7,011       125       15         6/6       Monday       -1.4       8:27 AM       69       7,856       114       14         6/9       Tuesday       -1.3       9:03 AM       61       6,780       111       8         6/10       Wednesday       <									
5/29       Friday       -1.3       11:52 AM       65       6,516       100       7         5/30       Saturday       -0.5       12:46 PM       45       4,463       99       15         5/31       Sunday       0.3       1:41 PM       37       3,032       82       4         6/1       Monday       1.1       2:38 PM       38       4,485       118       6         6/2       Tuesday       1.8       3:35 PM       46       5,236       114       6         6/3       Wednesday       2.3       4:31 PM       30       2,195       73       7         6/4       Thursday       -0.5       5:45 AM       24       1,959       82       3         6/4       Thursday       -1.0       6:30 AM       29       3,117       107       2         6/6       Saturday       -1.2       7:12 AM       27       3,674       136       5         6/7       Sunday       -1.4       8:27 AM       69       7,856       114       14         6/9       Tuesday       -1.1       9:39 AM       69       6,344       92       9         6/11       Thursday       -0									
5/30       Saturday       -0.5       12:46 PM       45       4,463       99       15         5/31       Sunday       0.3       1:41 PM       37       3,032       82       4         6/1       Monday       1.1       2:38 PM       38       4,485       118       6         6/2       Tuesday       1.8       3:35 PM       46       5,236       114       6         6/3       Wednesday       2.3       4:31 PM       30       2,195       73       7         6/4       Thursday       -0.5       5:45 AM       24       1,959       82       3         6/5       Friday       -1.0       6:30 AM       29       3,117       107       2         6/6       Saturday       -1.4       7:50 AM       56       7,011       125       15         6/8       Monday       -1.4       8:27 AM       69       7,856       114       14         6/97       Tuesday       -1.3       9:03 AM       61       6,780       111       8         6/10       Wednesday       -1.1       9:39 AM       69       6,344       92       9         6/11       Thursday									
5/31       Sunday       0.3       1:41 PM       37       3,032       82       4         6/1       Monday       1.1       2:38 PM       38       4,485       118       6         6/2       Tuesday       1.8       3:35 PM       46       5,236       114       6         6/3       Wednesday       2.3       4:31 PM       30       2,195       73       7         6/4       Thursday       -0.5       5:45 AM       24       1,959       82       3         6/5       Friday       -1.0       6:30 AM       29       3,117       107       2         6/6       Saturday       -1.2       7:12 AM       27       3,674       136       5         6/6       Monday       -1.4       7:50 AM       56       7,011       125       15         6/8       Monday       -1.4       8:27 AM       69       7,856       114       14         6/9       Tuesday       -1.1       9:39 AM       69       6,344       92       9         6/11       Thursday       -0.8       10:14 AM       55       4,362       79       13         6/12       Friday       -0.1 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
6/1       Monday       1.1       2:38 PM       38       4,485       118       6         6/2       Tuesday       1.8       3:35 PM       46       5,236       114       6         6/3       Wednesday       2.3       4:31 PM       30       2,195       73       7         6/4       Thursday       -0.5       5:45 AM       24       1,959       82       3         6/5       Friday       -1.0       6:30 AM       29       3,117       107       2         6/6       Saturday       -1.2       7:12 AM       27       3,674       136       5         6/7       Sunday       -1.4       7:50 AM       66       7,011       125       15         6/8       Monday       -1.4       8:27 AM       69       7,856       114       14         6/9       Tuesday       -1.1       9:39 AM       69       6,344       92       9         6/11       Thursday       -0.8       10:14 AM       55       4,362       79       13         6/12       Friday       -0.5       10:50 AM       48       4,065       85       5         6/14       Sunday       0.4 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
6/2       Tuesday       1.8       3:35 PM       46       5,236       114       6         6/3       Wednesday       2.3       4:31 PM       30       2,195       73       7         6/4       Thursday       -0.5       5:45 AM       24       1,959       82       3         6/4       Thursday       -0.5       5:45 AM       24       1,959       82       3         6/5       Friday       -1.0       6:30 AM       29       3,117       107       2         6/6       Saturday       -1.2       7:12 AM       27       3,674       136       5         6/7       Sunday       -1.4       8:27 AM       69       7,856       114       14         6/9       Tuesday       -1.3       9:30 AM       61       6,780       111       8         6/10       Wednesday       -1.1       9:39 AM       69       6,344       92       9         6/11       Thursday       -0.8       10:14 AM       55       4,362       79       13         6/12       Friday       -0.5       10:50 AM       48       4,065       85       5         6/14       Sunday									
6/3       Wednesday       2.3       4:31 PM       30       2,195       73       7         6/4       Thursday       -0.5       5:45 AM       24       1,959       82       3         6/5       Friday       -1.0       6:30 AM       29       3,117       107       2         6/6       Saturday       -1.2       7:12 AM       27       3,674       136       5         6/8       Monday       -1.4       7:50 AM       56       7,011       125       15         6/8       Monday       -1.4       8:27 AM       69       7,856       114       14         6/9       Tuesday       -1.3       9:03 AM       61       6,780       111       8         6/10       Wednesday       -1.1       9:39 AM       69       6,344       92       9         6/11       Thursday       -0.8       10:14 AM       55       4,362       79       13         6/12       Friday       -0.5       10:50 AM       48       4,065       85       5         6/13       Saturday       0.4       12:05 PM       32       1,869       58       6         6/15       Monday <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
6/4         Thursday         -0.5         5:45 AM         24         1,959         82         3           6/5         Friday         -1.0         6:30 AM         29         3,117         107         2           6/6         Saturday         -1.2         7:12 AM         27         3,674         136         5           6/7         Sunday         -1.4         7:50 AM         56         7,011         125         15           6/8         Monday         -1.4         8:27 AM         69         7,856         114         14           6/9         Tuesday         -1.3         9:03 AM         61         6,780         111         8           6/10         Wednesday         -1.1         9:39 AM         69         6,344         92         9           6/11         Thursday         -0.8         10:14 AM         55         4,362         79         13           6/11         Thursday         -0.8         10:14 AM         55         4,362         79         13           6/12         Friday         -0.4         12:05 PM         32         1,869         58         6           6/15         Monday         1.0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
6/5       Friday       -1.0       6:30 AM       29       3,117       107       2         6/6       Saturday       -1.2       7:12 AM       27       3,674       136       5         6/7       Sunday       -1.4       7:50 AM       56       7,011       125       15         6/8       Monday       -1.4       8:27 AM       69       7,856       114       14         6/9       Tuesday       -1.3       9:03 AM       61       6,780       111       8         6/10       Wednesday       -1.1       9:39 AM       69       6,344       92       9         6/11       Thursday       -0.8       10:14 AM       55       4,362       79       13         6/12       Friday       -0.5       10:50 AM       48       4,065       85       5         6/13       Saturday       -0.1       11:27 AM       50       3,576       72       4         6/14       Sunday       0.4       12:05 PM       32       1,869       58       6         6/15       Monday       1.0       12:48 PM       31       2,064       67       3         6/16       Tuesday <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
6/6       Saturday       -1.2       7:12 AM       27       3,674       136       5         6/7       Sunday       -1.4       7:50 AM       56       7,011       125       15         6/8       Monday       -1.4       8:27 AM       69       7,856       114       14         6/9       Tuesday       -1.3       9:03 AM       61       6,780       111       8         6/10       Wednesday       -1.1       9:39 AM       69       6,344       92       9         6/11       Thursday       -0.8       10:14 AM       55       4,362       79       13         6/12       Friday       -0.5       10:50 AM       48       4,065       85       5         6/13       Saturday       -0.1       11:27 AM       50       3,576       72       4         6/14       Sunday       0.4       12:05 PM       32       1,869       58       6         6/14       Sunday       1.7       1:331       78       3       6         6/16       Tuesday       1.7       1:331       78       3       6         6/18       Thursday       2.8       1:31 PM       13 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
6/7       Sunday       -1.4       7:50 AM       56       7,011       125       15         6/8       Monday       -1.4       8:27 AM       69       7,856       114       14         6/9       Tuesday       -1.3       9:03 AM       61       6,780       111       8         6/10       Wednesday       -1.1       9:39 AM       69       6,344       92       9         6/11       Thursday       -0.8       10:14 AM       55       4,362       79       13         6/12       Friday       -0.5       10:50 AM       48       4,065       85       5         6/13       Saturday       -0.1       11:27 AM       50       3,576       72       4         6/14       Sunday       0.4       12:05 PM       32       1,869       58       6         6/15       Monday       1.0       12:48 PM       31       2,064       67       3         6/16       Tuesday       2.3       2:31 PM       17       1,331       78       3         6/17       Wednesday       2.8       1:31 PM       13       1,445       111       2         6/18       Thursday									
6/8       Monday       -1.4       8:27 AM       69       7,856       114       14         6/9       Tuesday       -1.3       9:03 AM       61       6,780       111       8         6/10       Wednesday       -1.1       9:39 AM       69       6,344       92       9         6/11       Thursday       -0.8       10:14 AM       55       4,362       79       13         6/12       Friday       -0.5       10:50 AM       48       4,065       85       5         6/13       Saturday       -0.1       11:27 AM       50       3,576       72       4         6/14       Sunday       0.4       12:05 PM       32       1,869       58       6         6/15       Monday       1.0       12:48 PM       31       2,064       67       3         6/16       Tuesday       1.7       1:35 PM       29       2,037       70       8         6/17       Wednesday       2.8       1:31 PM       13       1,445       111       2         6/18       Thursday       2.8       1:31 PM       13       1,443       90       4         6/20       Saturday									
6/9       Tuesday       -1.3       9:03 AM       61       6,780       111       8         6/10       Wednesday       -1.1       9:39 AM       69       6,344       92       9         6/11       Thursday       -0.8       10:14 AM       55       4,362       79       13         6/12       Friday       -0.5       10:50 AM       48       4,065       85       5         6/13       Saturday       -0.1       11:27 AM       50       3,576       72       4         6/14       Sunday       0.4       12:05 PM       32       1,869       58       6         6/15       Monday       1.0       12:48 PM       31       2,064       67       3         6/16       Tuesday       1.7       1:35 PM       29       2,037       70       8         6/17       Wednesday       2.3       2:31 PM       17       1,331       78       3         6/18       Thursday       2.8       1:31 PM       13       1,445       111       2         6/19       Friday       -0.4       5:01 AM       16       1,443       90       4         6/20       Saturday       <									
6/10       Wednesday       -1.1       9:39 AM       69       6,344       92       9         6/11       Thursday       -0.8       10:14 AM       55       4,362       79       13         6/12       Friday       -0.5       10:50 AM       48       4,065       85       5         6/13       Saturday       -0.1       11:27 AM       50       3,576       72       4         6/14       Sunday       0.4       12:05 PM       32       1,869       58       6         6/15       Monday       1.0       12:48 PM       31       2,064       67       3         6/16       Tuesday       1.7       1:35 PM       29       2,037       70       8         6/17       Wednesday       2.3       2:31 PM       17       1,331       78       3         6/18       Thursday       2.8       1:31 PM       13       1,445       111       2         6/19       Friday       -0.4       5:01 AM       16       1,443       90       4         6/20       Saturday       1.3       5:54 AM       48       5,521       115       11         6/21       Sunday       <									
6/11       Thursday       -0.8       10:14 AM       55       4,362       79       13         6/12       Friday       -0.5       10:50 AM       48       4,065       85       5         6/13       Saturday       -0.1       11:27 AM       50       3,576       72       4         6/14       Sunday       0.4       12:05 PM       32       1,869       58       6         6/15       Monday       1.0       12:48 PM       31       2,064       67       3         6/16       Tuesday       1.7       1:35 PM       29       2,037       70       8         6/17       Wednesday       2.3       2:31 PM       17       1,331       78       3         6/18       Thursday       2.8       1:31 PM       13       1,445       111       2         6/19       Friday       -0.4       5:01 AM       16       1,443       90       4         6/20       Saturday       -1.3       5:54 AM       48       5,521       115       11         6/21       Sunday       -2.7       7:32 AM       55       7,094       129       13         6/22       Monday       <									
6/12       Friday       -0.5       10:50 AM       48       4,065       85       5         6/13       Saturday       -0.1       11:27 AM       50       3,576       72       4         6/14       Sunday       0.4       12:05 PM       32       1,869       58       6         6/15       Monday       1.0       12:48 PM       31       2,064       67       3         6/16       Tuesday       1.7       1:35 PM       29       2,037       70       8         6/17       Wednesday       2.3       2:31 PM       17       1,331       78       3         6/18       Thursday       2.8       1:31 PM       13       1,445       111       2         6/19       Friday       -0.4       5:01 AM       16       1,443       90       4         6/20       Saturday       -1.3       5:54 AM       48       5,521       1115       11         6/21       Sunday       -2.1       6:44 AM       51       6,208       122       10         6/22       Monday       -2.7       7:32 AM       55       7,094       129       13         6/22       Monday <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
6/13       Saturday       -0.1       11:27 AM       50       3,576       72       4         6/14       Sunday       0.4       12:05 PM       32       1,869       58       6         6/15       Monday       1.0       12:48 PM       31       2,064       67       3         6/16       Tuesday       1.7       1:35 PM       29       2,037       70       8         6/17       Wednesday       2.3       2:31 PM       17       1,331       78       3         6/18       Thursday       2.8       1:31 PM       13       1,445       111       2         6/19       Friday       -0.4       5:01 AM       16       1,443       90       4         6/20       Saturday       -1.3       5:54 AM       48       5,521       115       11         6/21       Sunday       -2.7       7:32 AM       55       7,094       129       13         6/22       Monday       -2.7       7:32 AM       55       7,094       129       13         6/23       Tuesday       -3.0       8:20 AM       54       6,904       128       8         6/24       Wednesday									
6/14       Sunday       0.4       12:05 PM       32       1,869       58       6         6/15       Monday       1.0       12:48 PM       31       2,064       67       3         6/16       Tuesday       1.7       1:35 PM       29       2,037       70       8         6/17       Wednesday       2.3       2:31 PM       17       1,331       78       3         6/18       Thursday       2.8       1:31 PM       13       1,445       111       2         6/19       Friday       -0.4       5:01 AM       16       1,443       90       4         6/20       Saturday       -1.3       5:54 AM       48       5,521       115       11         6/21       Sunday       -2.1       6:44 AM       51       6,208       122       10         6/22       Monday       -2.7       7:32 AM       55       7,094       129       13         6/23       Tuesday       -3.0       8:20 AM       54       6,904       128       8         6/24       Wednesday       -3.0       9:07 AM       51       6,342       124       7         6/25       Thursday	6/12								
6/15       Monday       1.0       12:48 PM       31       2,064       67       3         6/16       Tuesday       1.7       1:35 PM       29       2,037       70       8         6/17       Wednesday       2.3       2:31 PM       17       1,331       78       3         6/18       Thursday       2.8       1:31 PM       13       1,445       111       2         6/19       Friday       -0.4       5:01 AM       16       1,443       90       4         6/20       Saturday       -1.3       5:54 AM       48       5,521       115       11         6/21       Sunday       -2.1       6:44 AM       51       6,208       122       10         6/22       Monday       -2.7       7:32 AM       55       7,094       129       13         6/23       Tuesday       -3.0       8:20 AM       54       6,904       128       8         6/24       Wednesday       -3.0       9:07 AM       51       6,342       124       7         6/25       Thursday       -2.7       9:53 AM       34       3,548       104       7         6/26       Friday									
6/16       Tuesday       1.7       1:35 PM       29       2,037       70       8         6/17       Wednesday       2.3       2:31 PM       17       1,331       78       3         6/18       Thursday       2.8       1:31 PM       13       1,445       111       2         6/19       Friday       -0.4       5:01 AM       16       1,443       90       4         6/20       Saturday       -1.3       5:54 AM       48       5,521       115       11         6/21       Sunday       -2.1       6:44 AM       51       6,208       122       10         6/22       Monday       -2.7       7:32 AM       55       7,094       129       13         6/23       Tuesday       -3.0       8:20 AM       54       6,904       128       8         6/24       Wednesday       -3.0       9:07 AM       51       6,342       124       7         6/25       Thursday       -2.7       9:53 AM       34       3,548       104       7         6/25       Thursday       -2.1       10:39 AM       43       5,270       123       10         6/26       Friday		Sunday	0.4	12:05 PM					
6/17       Wednesday       2.3       2:31 PM       17       1,331       78       3         6/18       Thursday       2.8       1:31 PM       13       1,445       111       2         6/19       Friday       -0.4       5:01 AM       16       1,443       90       4         6/20       Saturday       -1.3       5:54 AM       48       5,521       115       11         6/21       Sunday       -2.1       6:44 AM       51       6,208       122       10         6/22       Monday       -2.7       7:32 AM       55       7,094       129       13         6/23       Tuesday       -3.0       8:20 AM       54       6,904       128       8         6/24       Wednesday       -3.0       9:07 AM       51       6,342       124       7         6/25       Thursday       -2.7       9:53 AM       34       3,548       104       7         6/25       Thursday       -2.1       10:39 AM       43       5,270       123       10         6/26       Friday       -2.1       10:39 AM       43       5,270       123       10         6/28       Sunday </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>,</td> <td></td> <td></td>						,			
6/18       Thursday       2.8       1:31 PM       13       1,445       111       2         6/19       Friday       -0.4       5:01 AM       16       1,443       90       4         6/20       Saturday       -1.3       5:54 AM       48       5,521       115       11         6/21       Sunday       -2.1       6:44 AM       51       6,208       122       10         6/22       Monday       -2.7       7:32 AM       55       7,094       129       13         6/23       Tuesday       -3.0       8:20 AM       54       6,904       128       8         6/24       Wednesday       -3.0       9:07 AM       51       6,342       124       7         6/25       Thursday       -2.7       9:53 AM       34       3,548       104       7         6/25       Thursday       -2.1       10:39 AM       43       5,270       123       10         6/26       Friday       -2.1       10:39 AM       43       5,270       123       10         6/27       Saturday       -1.3       11:25 AM       62       6,084       98       10         6/28       Sunday									
6/19       Friday       -0.4       5:01 AM       16       1,443       90       4         6/20       Saturday       -1.3       5:54 AM       48       5,521       115       11         6/21       Sunday       -2.1       6:44 AM       51       6,208       122       10         6/22       Monday       -2.7       7:32 AM       55       7,094       129       13         6/23       Tuesday       -3.0       8:20 AM       54       6,904       128       8         6/24       Wednesday       -3.0       9:07 AM       51       6,342       124       7         6/25       Thursday       -2.7       9:53 AM       34       3,548       104       7         6/26       Friday       -2.1       10:39 AM       43       5,270       123       10         6/27       Saturday       -1.3       11:25 AM       62       6,084       98       10         6/28       Sunday       -0.3       12:12 PM       39       2,407       62       12         6/29       Monday       0.8       1:01 PM       22       1,783       81       12         6/30       Tuesday <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
6/20       Saturday       -1.3       5:54 AM       48       5,521       115       11         6/21       Sunday       -2.1       6:44 AM       51       6,208       122       10         6/22       Monday       -2.7       7:32 AM       55       7,094       129       13         6/23       Tuesday       -3.0       8:20 AM       54       6,904       128       8         6/24       Wednesday       -3.0       9:07 AM       51       6,342       124       7         6/25       Thursday       -2.7       9:53 AM       34       3,548       104       7         6/26       Friday       -2.1       10:39 AM       43       5,270       123       10         6/27       Saturday       -1.3       11:25 AM       62       6,084       98       10         6/28       Sunday       -0.3       12:12 PM       39       2,407       62       12         6/29       Monday       0.8       1:01 PM       22       1,783       81       12         6/30       Tuesday       1.8       1:55 PM       14       845       60       3         7       5371									
6/21       Sunday       -2.1       6:44 AM       51       6,208       122       10         6/22       Monday       -2.7       7:32 AM       55       7,094       129       13         6/23       Tuesday       -3.0       8:20 AM       54       6,904       128       8         6/24       Wednesday       -3.0       9:07 AM       51       6,342       124       7         6/25       Thursday       -2.7       9:53 AM       34       3,548       104       7         6/26       Friday       -2.1       10:39 AM       43       5,270       123       10         6/27       Saturday       -1.3       11:25 AM       62       6,084       98       10         6/28       Sunday       -0.3       12:12 PM       39       2,407       62       12         6/29       Monday       0.8       1:01 PM       22       1,783       81       12         6/30       Tuesday       1.8       1:55 PM       14       845       60       3         Totals       2,371       249,910       105       351									
6/22       Monday       -2.7       7:32 AM       55       7,094       129       13         6/23       Tuesday       -3.0       8:20 AM       54       6,904       128       8         6/24       Wednesday       -3.0       9:07 AM       51       6,342       124       7         6/25       Thursday       -2.7       9:53 AM       34       3,548       104       7         6/26       Friday       -2.1       10:39 AM       43       5,270       123       10         6/27       Saturday       -1.3       11:25 AM       62       6,084       98       10         6/28       Sunday       -0.3       12:12 PM       39       2,407       62       12         6/29       Monday       0.8       1:01 PM       22       1,783       81       12         6/30       Tuesday       1.8       1:55 PM       14       845       60       3         Totals       2,371       249,910       105       351						•			
6/23       Tuesday       -3.0       8:20 AM       54       6,904       128       8         6/24       Wednesday       -3.0       9:07 AM       51       6,342       124       7         6/25       Thursday       -2.7       9:53 AM       34       3,548       104       7         6/26       Friday       -2.1       10:39 AM       43       5,270       123       10         6/27       Saturday       -1.3       11:25 AM       62       6,084       98       10         6/28       Sunday       -0.3       12:12 PM       39       2,407       62       12         6/29       Monday       0.8       1:01 PM       22       1,783       81       12         6/30       Tuesday       1.8       1:55 PM       14       845       60       3         Totals       2,371       249,910       105       351									
6/24       Wednesday       -3.0       9:07 AM       51       6,342       124       7         6/25       Thursday       -2.7       9:53 AM       34       3,548       104       7         6/26       Friday       -2.1       10:39 AM       43       5,270       123       10         6/27       Saturday       -1.3       11:25 AM       62       6,084       98       10         6/28       Sunday       -0.3       12:12 PM       39       2,407       62       12         6/29       Monday       0.8       1:01 PM       22       1,783       81       12         6/30       Tuesday       1.8       1:55 PM       14       845       60       3         Totals       2,371       249,910       105       351									
6/25       Thursday       -2.7       9:53 AM       34       3,548       104       7         6/26       Friday       -2.1       10:39 AM       43       5,270       123       10         6/27       Saturday       -1.3       11:25 AM       62       6,084       98       10         6/28       Sunday       -0.3       12:12 PM       39       2,407       62       12         6/29       Monday       0.8       1:01 PM       22       1,783       81       12         6/30       Tuesday       1.8       1:55 PM       14       845       60       3         Totals       2,371       249,910       105       351									
6/26         Friday         -2.1         10:39 AM         43         5,270         123         10           6/27         Saturday         -1.3         11:25 AM         62         6,084         98         10           6/28         Sunday         -0.3         12:12 PM         39         2,407         62         12           6/29         Monday         0.8         1:01 PM         22         1,783         81         12           6/30         Tuesday         1.8         1:55 PM         14         845         60         3           Totals         2,371         249,910         105         351									
6/27         Saturday         -1.3         11:25 AM         62         6,084         98         10           6/28         Sunday         -0.3         12:12 PM         39         2,407         62         12           6/29         Monday         0.8         1:01 PM         22         1,783         81         12           6/30         Tuesday         1.8         1:55 PM         14         845         60         3           Totals         2,371         249,910         105         351									
6/28Sunday-0.312:12 PM392,40762126/29Monday0.81:01 PM221,78381126/30Tuesday1.81:55 PM14845603Totals2,371249,910105351									
6/29         Monday         0.8         1:01 PM         22         1,783         81         12           6/30         Tuesday         1.8         1:55 PM         14         845         60         3           Totals         2,371         249,910         105         351									
6/30         Tuesday         1.8         1:55 PM         14         845         60         3           Totals         2,371         249,910         105         351						•			
Totals 2,371 249,910 105 351									
			1.8	1:55 PM					
Ex-Vessel Value \$407,130					2,371		105	351	
	Ex-Ve	essel Value				\$407,130			

# Table 3. Commercial Clam: Daily Landings, Effort and Take Home Limits2009 Commercial Razor Clam Harvest

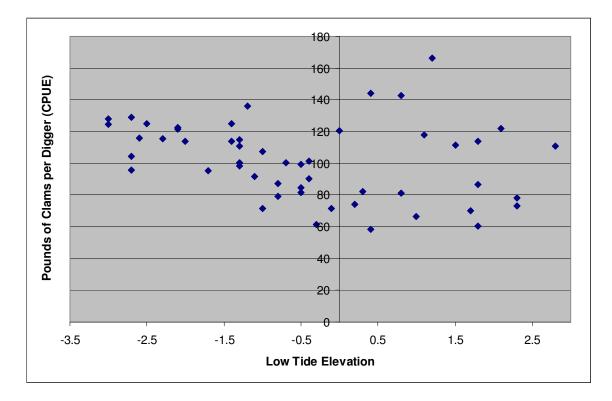
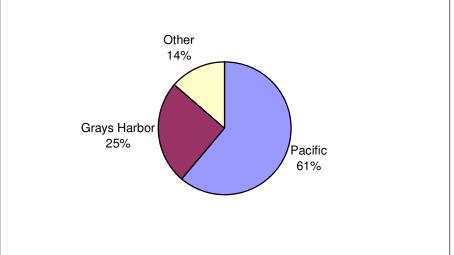


Figure 1. Daily Pounds of Clams Dug per Person (CPUE) and Tide Elevation

## Licenses

A record number of 185 licenses were issued in 2009, of these 164 were actively fished. As in past years, diggers were predominantly residents of Pacific (61%) and Grays Harbor (25%) counties (Figure 2).

Figure 2. Residence of Commercial Razor Clam Diggers by County



## **Commercial Sales and Trends**

Commercial dealers must be certified by the Washington Department of Health to purchase razor clams; the certification is specific to razor clams and renewed annually. Typically, five to six companies register to buy razor clams each year. Most dealers are established wholesale seafood businesses in Pacific and Grays Harbor counties that operate year-round in various fisheries. These companies purchase the majority of clams. However, some dealers are simply individuals that have obtained the required licenses and certification to purchase razor clams only. Typically, these dealers are commercial Dungeness crab fishers buying razor clams for bait.

Dungeness crab fishers favor razors clams as bait because they are a natural food source of crabs and also hold up well. But, no longer are the majority of the razor clams harvested in the commercial fishery frozen and sold for crab bait. Two wholesale dealers estimated in 2008 that about 60% percent of the clams they purchased were sold to regional buyers for human consumption in markets locally, in British Columbia and overseas. These clams were worth about three times more compared to clams bought and held for bait.

## **Management Conclusions**

In recent years, dealers have been able to take advantage of stable seasons and strong production to develop retail markets locally and overseas. Working with dealers, staff determined two factors were key to market development: A spring/summer season and a generally consistent season start. These factors have directed season development and are balanced with tides, weather and the needs of the recreational fishery. In addition to the direct benefits related to the harvest of clams, the timing of the fishery provides an important economic bridge between crab and salmon seasons for both dealers and diggers. Within the constraints posed by population abundance and biotoxin levels, management of the fishery will continue to promote season predictability to support marketing opportunities and to provide a reliable source of bait for the Dungeness crab fishery.