



## Summary Report of the 2014 Commercial Fishery for Razor Clams (*Siliqua patula*)

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**WASHINGTON DEPARTMENT OF FISH AND WILDLIFE (WDFW)  
SUMMARY OF THE 2014 COMMERCIAL FISHERY  
FOR RAZOR CLAMS (*Siliqua patula*)**

**Fishery Objectives and Preseason Planning**

The public meeting usually scheduled in late March with the commercial harvesters to discuss pertinent information for the upcoming season, was not held in 2014. Two key issues (the season opening date/duration and the status of the Washington Department of Natural Resources (DNR) Right of Entry Agreements (ROE)) were already resolved. The fishery would open on May 1, 2014 (pending biotoxin results) and would run just over 8 weeks, ending on July 2, 2014. In addition DNR had determined that there would be no changes to the ROE permit, fees or requirements for the 2014 season.

Unfortunately, after announcing that there would be no public meeting, DOH informed WDFW that they were changing how the certification of razor clams on the detached spits was conducted. Since 1995 diggers registered with companies to dig and their names were forwarded to DOH and WDFW licensing. Diggers were allowed to be registered with two companies. That registration served as the DOH certification for the digger and as long as the digger dug for the company he was signed up with there was no need for certification tags. In 2013 we had an influx of new buyers who purchased clams from diggers they were not registered with. For the 2014 season DOH decided that the status quo regarding certification tags would no longer apply and that henceforth all diggers would be required to obtain certification tags from the buyers prior to digging. Furthermore, all containers of razor clams would be required to be tagged at the time of harvest regardless of registration status or they would be subject to confiscation. Had this information been relayed to WDFW in a timelier fashion we would have deemed this an important enough change to hold a meeting.

In lieu of a formal meeting, a mass mailing was sent out on March 19<sup>th</sup> to all diggers who were licensed in 2013 informing them that there would not be a public meeting that year. The letter discussed:

- 1) The season opening date. The season would open (pending biotoxin tests) on May 1 and would end on July 2.
- 2) DNR ROE requirements. Unchanged from those in 2013.
- 3) DOH certification requirements. DOH requires all containers of clams to be tagged at the time of harvest with certification tags.
- 4) Digging on Ledbetter Point. Not allowed this year due to changes in beach configuration. There were not enough exposed tidelands to warrant opening this area.

## Biotoxin Sampling

Before the fishery opens the Washington Department of Health (DOH) protocols require two sets of razor clam samples be collected and results of the marine biotoxin tests must be below the federally established action levels. These sets of samples must be collected seven to ten days before the planned opener. Each sample collected must test below 20 parts per million (ppm) for domoic acid, below 80 micrograms per 100 grams of meat tested ( $\mu\text{g}/100\text{g}$ ) for paralytic shellfish poisoning (PSP) and below 16 micrograms per 100 grams of meat tested for Diarrhetic Shellfish Poisoning (DSP). Monitoring of biotoxin levels continues once the fishery is underway with fishery samples collected from dealers every seven to ten days. Razor clams for pre-season biotoxin testing collected from one site on the spits in mid-April tested under the action levels (Table 1). Levels for all three toxins were low throughout the season and were not an issue.

**Table 1. 2014 Commercial Razor Clam Fishery Biotoxin Results.**

Collection Date	Sample Type	PSP Result ( $\mu\text{g}/100\text{g}$ )	Domoic Result (ppm)	DSP Result ( $\mu\text{g}/100\text{g}$ )
4/14/14	Pre-Season	4	NTD	<1
4/22/14	Pre-Season	4	NTD	5
5/01/14	Fishery Sample	NTD	1	1
5/08/14	Fishery Sample	NTD	2	-
5/14/14	Fishery Sample	NTD	3	-
5/21/14	Fishery Sample	NTD	3	-
5/29/14	Fishery Sample	NTD	4	NTD
6/04/14	Fishery Sample	NTD	3	1
6/11/14	Fishery Sample	NTD	3	1
6/17/14	Fishery Sample	NTD	2	1
6/25/14	Fishery Sample	<38	3	1

## Fishing Season

The 2014 season opened as planned on May 1st and was scheduled to last just over eight weeks, ending on July 2<sup>nd</sup>. Clam abundance and size was excellent throughout the season although as in the past few years, some poor weather days in May and early June made digging conditions difficult and likely impacted landings and catch per unit of effort (CPUE). In poor weather some of the harvesters with larger boats can participate in the fishery but many that utilize small skiffs to access the spits cannot. In fact the weather was so bad on June 27<sup>th</sup> that even with a -1.4 foot tide not a single landing was made.

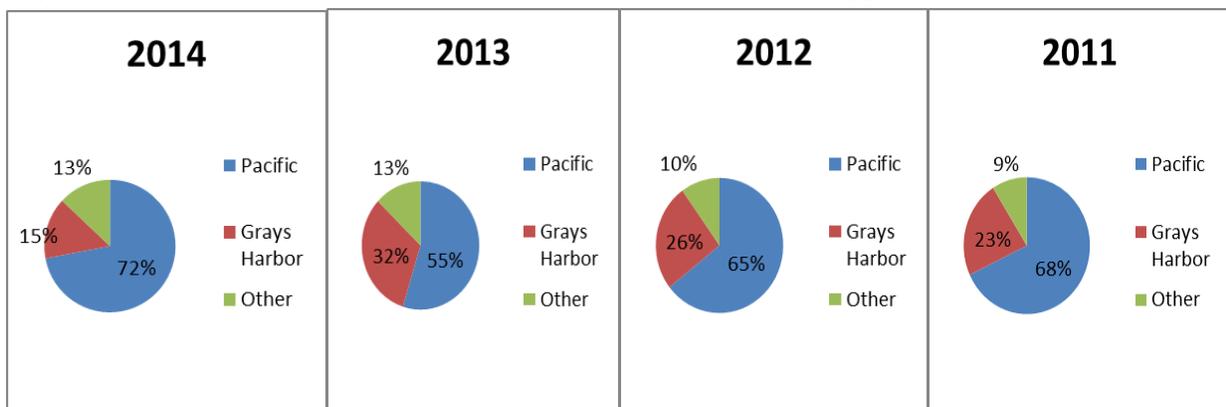
In late June an extension to the season was requested by the harvesters. In order to extend the season there must be indications of stable clam abundance, interest by diggers, and a willing buyer(s). In 2014 we had enough clams and digger interest to allow a two week extension but unfortunately not enough buyers were willing to participate. Only one buyer would commit to purchasing any volume of clams during an extension and they could not commit to buying all the

clams that would be harvested. Due to lack of buyer interest the 2014 commercial razor clam season on the detached spits of Willapa Bay ended as scheduled on July 2, 2014.

## Licenses

In 2014 145 licenses were sold and of these, 138 were actively fished. This is an increase from the 124 licenses sold in 2013 and the 105 licenses sold in 2012. The increase in 2014 license holders is likely resultant from the very successful 2013 fishery when large clams and high prices resulted in the largest ex-vessel value ever (Table 3.) for the fishery. Given the status of the fishery at this time we expect the effort level to remain close to the 2014-2013 levels for the next few years. As in past years, diggers were predominantly residents of Pacific (72%) and Grays Harbor (15%) counties (Figure 1). It is unknown why the number of diggers from Grays Harbor dropped by half from previous years (Table 2).

**Figure 1. Residence of Licensed Commercial Razor Clam Diggers by County (2011-2014).**



**Table 2. Residence of Licensed Commercial Razor Clam Diggers by County (2009-2014).**

County	2009	2010	2011	2012	2013	2014
Pacific	113	124	118	68	68	105
Grays Harbor	47	59	40	27	40	22
Other	25	24	16	10	16	18
Total	174	207	174	105	124	145

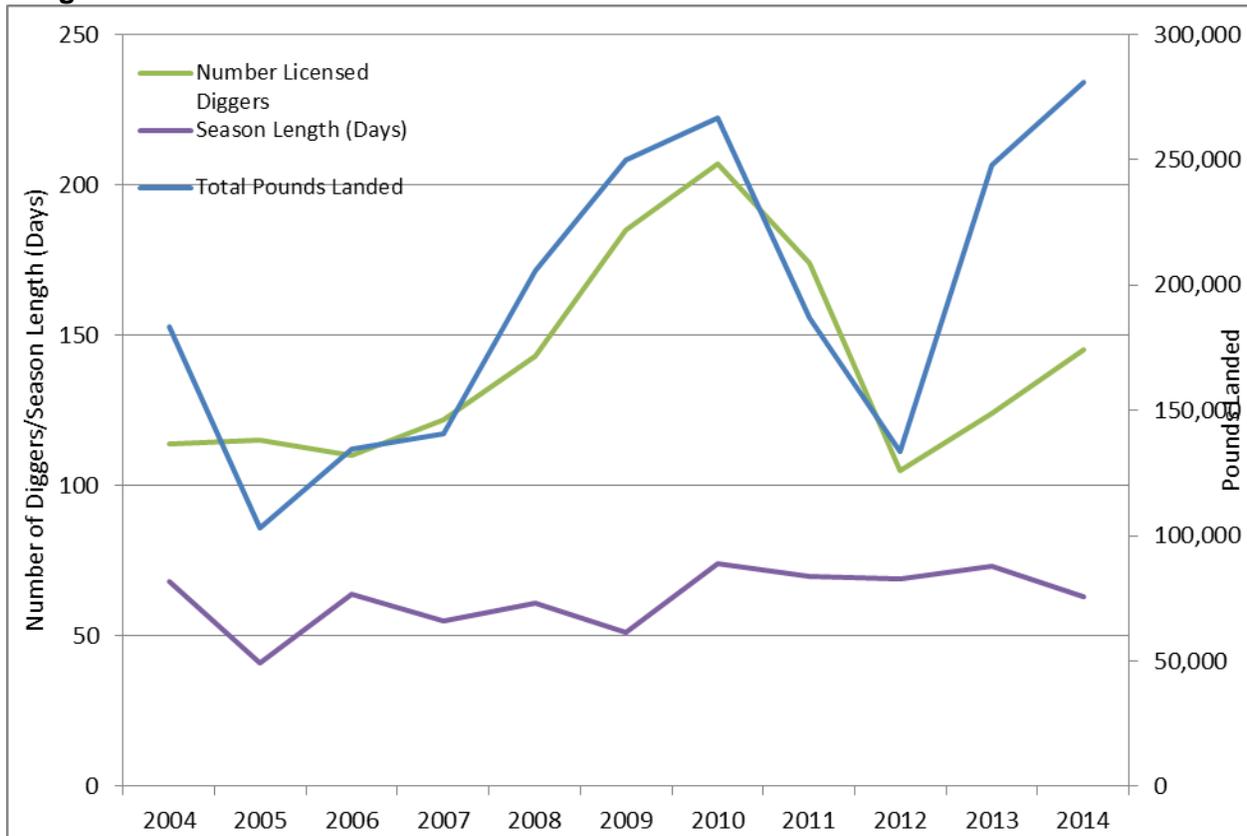
## Fishery Landings

In total, the fishery landed 281,031 pounds of razor clams during the 63-day season which places it as the highest season on record (Figure 2, Table 3). The total direct value to diggers (ex-vessel value) was \$559,557 which is the second highest value on record for this fishery. If the season had been extended there is no doubt that that last year's ex-vessel value record would have been surpassed. Prices paid during the 2014 season ranged from \$1.25 to \$2.40 per pound with an average price of \$1.99 per pound which was lower than the \$2.34 average price in 2013. One reason for the lower average price in 2014 was attributed to the poor Dungeness crab season (2013-2014). The poor season lowered the demand for bait clams which resulted in some buyers still having clams in their freezers when the season opened.

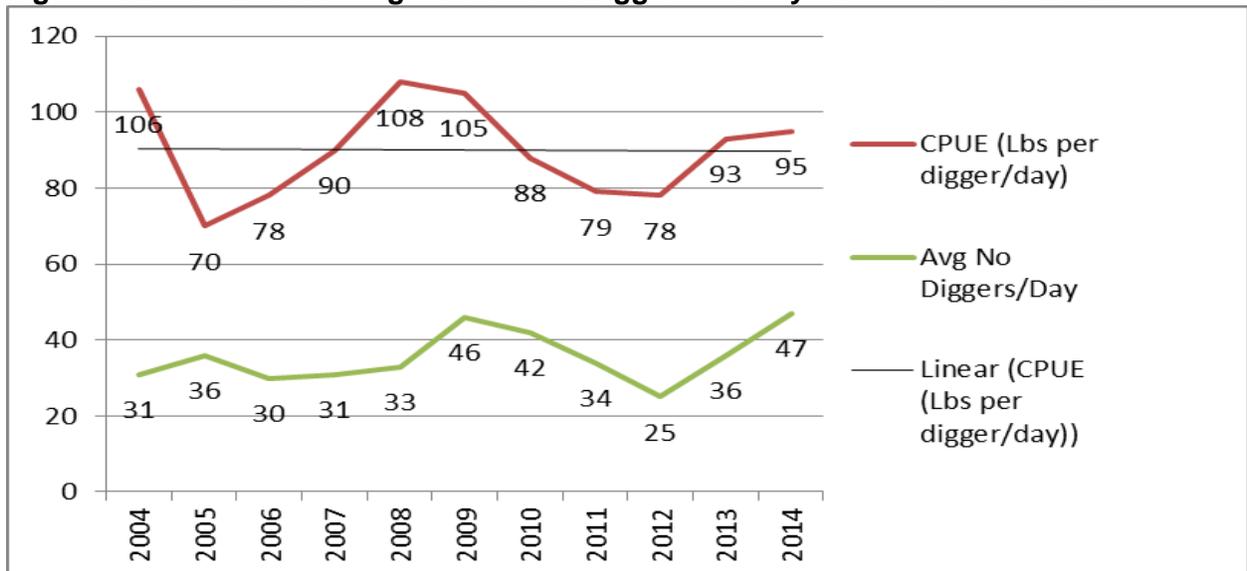
Clams were landed on 55 days of the 63 day season; on average 47 diggers each day landed about 95 pounds of clams per day (Figure 3). There were 208 personal use take home limits which comprised 7% of the 2,963 landings. Contrast this to previous years in 2013, 2012 and

2011 where the percentage of take home limits was 14.6%, 13.4% and 18.4% respectively. The drop in take home limits could be from harvesters wanting to maximize their income or could be because diggers were able to satisfy their clam needs during the extensive recreational razor clam season.

**Figure 2. 2004-2014 Total Pounds Landed vs. Number of Licensed Diggers and Season Length.**

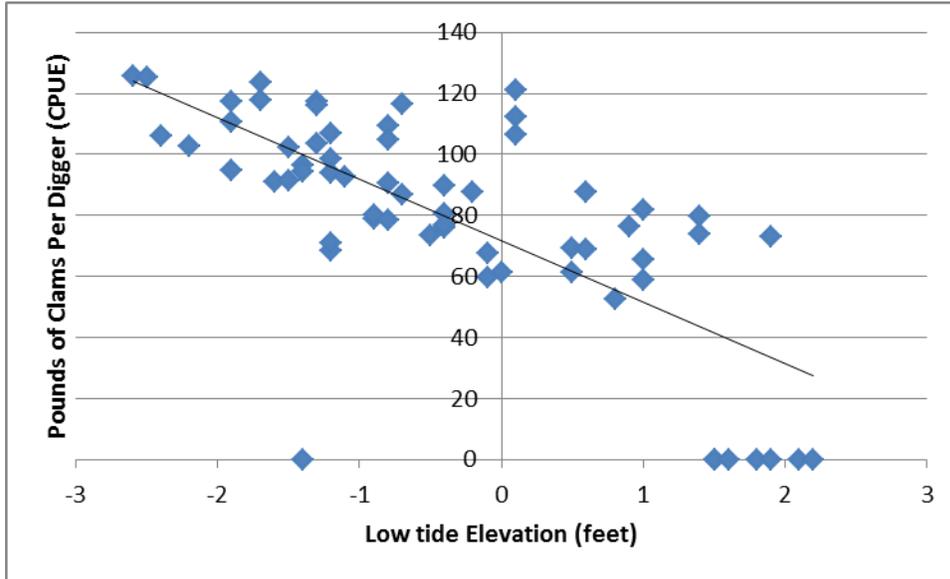


**Figure 3. 2004 – 2014 Average Number of Diggers Per day and Catch Per Unit Effort**



Discounting other factors such as weather or surf conditions, generally any tide less than +1.0 foot offers comparably good digging opportunity (Figure 4, Table 4). Catch per unit of effort (CPUE: in this case the total pounds of clams dug in one day divided by the number of diggers) was generally highest on tides that were between -2.0 feet and +0.5 feet. CPUE has fluctuated over the past 11 years but the overall trend for those years as shown by the regression line fitted to the CPUE data (Figure 3) indicates the fishery is stable.

**Figure 4. 2014 Daily Pounds of Clams Dug per Person (CPUE) and Tide Elevation**



**Table 3. Commercial Razor Clam: Harvest Totals, Value, Season Length and Licenses.**

<b>Washington Non-Treaty Commercial Razor Clam Fishery</b>									
<b>Year</b>	<b>Pounds Landed</b>	<b>Ex-Vessel Value</b>	<b>Number</b>			<b>Non-Resident Licenses</b>	<b>License Revenue</b>	<b>License Fees</b>	
			<b>Days</b>	<b>Diggers</b>	<b>Licenses</b>			<b>Resident</b>	<b>Non-Resident</b>
76	14,047	\$10,512		-	187		\$935	\$5	\$5
77	5,797	\$6,150		-	365		\$1,825	\$5	\$5
78	25,386	\$20,355		-	191		\$4,595	\$5	\$5
79	10,750	\$10,976		-	1,695		\$8,475	\$5	\$5
80	18,390	\$18,781	80	-	1,518		\$7,590	\$5	\$5
81	2,891	\$3,842	39	-	1,411		\$7,055	\$5	\$5
82	6,672	\$9,432	91	-	1,322		\$6,610	\$5	\$5
83	6,732	\$8,678	69	-	1,366		\$6,830	\$5	\$5
84	<b>Nix Closure</b>								
85	<b>Nix Closure</b>								
86	58,814	\$73,114	64	-	378	13	\$19,500	\$50	\$100
87	103	\$194	4	-	115	7	\$6,100	\$50	\$100
88	<b>Closed due to low population levels</b>								
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	<b>Domoic Acid Closure</b>								
93	<b>Domoic Acid Closure</b>								
94	46,854	\$59,487	40	-	95	3	\$12,500	\$130	\$180
95	88,290	\$109,364	38	-	127	0	\$16,510	\$130	\$180
96	25,188	\$29,295	37	-	110	1	\$14,350	\$130	\$180
97	2,849	\$3,579	21	-	28	3	\$3,790	\$130	\$180
98	4,485	\$6,558	24	-	40	0	\$5,200	\$130	\$180
99	<b>Domoic Acid Closure</b>								
00	69,595	\$84,106	51	-	79	0	\$10,270	\$130	\$180
01	75,744	\$77,439	47	62	97	0	\$12,610	\$130	\$180
02	119,777	\$118,349	46	97	105	0	\$13,650	\$130	\$180
03	17,474	\$21,169	18	40	44	0	\$5,720	\$130	\$180
04	183,327	\$269,139	68	112	114	0	\$14,820	\$130	\$180
05	102,939	\$154,746	41	112	115	3	\$15,490	\$130	\$180
06	134,661	\$199,469	64	103	110	0	\$14,300	\$130	\$180
07	140,616	\$211,118	55	119	122	1	\$16,040	\$130	\$180
08	205,634	\$355,705	61	108	143	0	\$18,590	\$130	\$180
09	249,910	\$407,130	51	164	185	4	\$24,250	\$130	\$180
10	266,834	\$431,519	74	184	207	2	\$27,010	\$130	\$180
11	186,856	\$327,022	70	155	174	3	\$22,770	\$130	\$180
12	133,444	\$262,611	69	104	105	2	\$24,785	\$235	\$290
13	247,765	\$579,159	73	121	124	2	\$29,250	\$235	\$290
14	281,031	\$559,552	63	135	145	0	\$34,075	\$235	\$290

**Table 4. 2014 Commercial Razor Clam: Daily Landings, Effort and Take Home Limits**

Date	Day	Tide (ft)	Time	Number Landings	Daily Total Landings (lbs)	CPUE (lbs per digger/day)	Take Home Limits
1-May	Thursday	-1.2	9:27	62	4,241	68	3
2-May	Friday	-0.8	10:07	58	6,332	109	5
3-May	Saturday	-0.4	10:48	38	3,410	90	3
4-May	Sunday	+0.1	11:31	1	121	121	1
5-May	Monday	+0.6	12:17	35	3,064	88	4
6-May	Tuesday	+1.0	13:08	45	3,685	82	1
7-May	Wednesday	+1.4	14:03	44	3,500	80	4
8-May	Thursday	+1.6	15:00	0	0	0	0
9-May	Friday	+1.8	15:55	0	0	0	0
10-May	Saturday	+1.9	16:45	11	803	73	0
11-May	Sunday	+0.9	5:40	36	2,756	77	2
12-May	Monday	+0.1	6:23	49	5,505	112	3
13-May	Tuesday	-0.7	7:05	72	8,392	117	5
14-May	Wednesday	-1.3	7:46	78	9,142	117	5
15-May	Thursday	-1.7	8:28	74	8,712	118	11
16-May	Friday	-1.9	9:11	71	7,844	110	7
17-May	Saturday	-1.9	9:56	68	7,967	117	6
18-May	Sunday	-1.7	10:43	68	8,396	123	3
19-May	Monday	-1.2	11:34	72	7,084	98	4
20-May	Tuesday	-0.7	12:28	58	5,028	87	2
21-May	Wednesday	-0.1	13:26	55	3,714	68	3
22-May	Thursday	+0.5	14:27	43	2,974	69	6
23-May	Friday	+1.0	15:28	2	118	59	2
24-May	Saturday	+1.4	16:27	17	1,255	74	3
25-May	Sunday	-0.2	5:33	43	3,775	88	4
26-May	Monday	-0.8	6:23	50	4,520	90	3
27-May	Tuesday	-1.3	7:08	69	8,016	116	5
28-May	Wednesday	-1.5	7:50	72	7,375	102	3
29-May	Thursday	-1.5	8:29	81	7,393	91	6
30-May	Friday	-1.4	9:07	69	6,643	96	7
31-May	Saturday	-1.1	9:44	62	5,754	93	5
1-Jun	Sunday	-0.8	10:21	51	5,338	105	8
2-Jun	Monday	-0.4	10:59	20	1,515	76	2
3-Jun	Tuesday	+0.1	11:38	46	4,900	107	1
4-Jun	Wednesday	+0.6	12:20	49	3,379	69	2
5-Jun	Thursday	+1.0	13:06	18	1,180	66	3
6-Jun	Friday	+1.5	13:57	0	0	0	0

**Table 4. 2014 Commercial Razor Clam: Daily Landings, Effort and Take Home Limits (cont.)**

Date	Day	Tide (ft)	Time	Number Landings	Daily Total Landings (lbs)	CPUE (lbs per digger/day)	Take Home Limits
7-Jun	Saturday	+1.9	14:51	0	0	0	0
8-Jun	Sunday	+2.2	15:48	0	0	0	0
9-Jun	Monday	+0.5	5:05	29	1,781	61	2
10-Jun	Tuesday	-0.4	5:54	64	5,158	81	0
11-Jun	Wednesday	-1.2	6:40	86	8,075	94	4
12-Jun	Thursday	-1.9	7:25	90	8,540	95	4
13-Jun	Friday	-2.4	8:09	71	7,531	106	6
14-Jun	Saturday	-2.6	8:54	80	10,060	126	7
15-Jun	Sunday	-2.5	9:40	74	9,273	125	5
16-Jun	Monday	-2.2	10:26	85	8,728	103	6
17-Jun	Tuesday	-1.6	11:14	83	7,552	91	2
18-Jun	Wednesday	-0.9	12:04	75	5,909	79	5
19-Jun	Thursday	+0.0	12:57	41	2,514	61	1
20-Jun	Friday	+0.8	13:53	9	472	52	0
21-Jun	Saturday	+1.5	14:53	0	0	0	0
22-Jun	Sunday	+2.1	15:55	0	0	0	0
23-Jun	Monday	-0.4	5:16	38	2,917	77	0
24-Jun	Tuesday	-0.8	6:07	51	3,999	78	2
25-Jun	Wednesday	-1.2	6:52	71	7,601	107	4
26-Jun	Thursday	-1.4	7:33	70	6,596	94	7
27-Jun	Friday	-1.4	8:10	0	0	0	0
28-Jun	Saturday	-1.3	8:46	58	6,015	104	5
29-Jun	Sunday	-1.2	9:20	63	4,471	71	6
30-Jun	Monday	-0.9	9:54	56	4,495	80	3
1-Jul	Tuesday	-0.5	10:28	45	3,308	74	2
2-Jul	Wednesday	-0.1	11:02	37	2,205	60	5
<b>Regular Season Totals</b>				<b>2,963</b>	<b>281,031</b>	<b>95</b>	<b>208</b>

### Commercial Sales and Trends

Commercial buyers must be certified by the Washington Department of Health to purchase razor clams and the certification is renewed annually. Buyers must also have a WDFW wholesale dealer license and all razor clams purchased must be documented on shellfish receiving tickets. 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 and they purchase the majority of clams. In addition, some wholesale buyers 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. Generally there are two to three buyers that fit these criteria each season.

Dungeness crab fishers favor razor clams as bait because they are a natural food source of crabs and keep well in crab pot bait cans. While the majority of the harvested clams are still sold as crab bait, this percentage has varied over the past few years as more and more clams are destined to the fresh market. In 2012 the percentage sold fresh was around 9%, in 2013 the percentage sold fresh was around 13% and in 2014 this increased to around 25%.

Wholesalers point out the market for fresh razor clams are limited by their narrow 2-3 day shelf life and because profitability to the wholesaler is held in check by other razor clams entering the market. These other sources include the Quinault Indian Nation and clams coming from both Canada and Alaska. For some buyers the main benefit in purchasing razor clams comes from keeping their work crews employed during a typically slow time of year and providing superior quality bait to the commercial crabbers who fish in the winter months.

The percentage of razor clams sold on the fresh market has been increasing over the past few years. Part of this stems from the development of new markets in Asia that use overnight air shipping. In order to take advantage of these new markets and maximize the value of the fishery the clams need to be in good condition (unspawned). Generally as the season moves into June and early July most of the clams have spawned and are not suitable for the fresh market. WDFW has been asked in the past to consider moving the season up a month in order to harvest clams that are in better overall condition. WDFW has not acted on these past requests due to conflicts with the recreational razor clam fishery which generally runs thru the month of April. In 2012 WDFW changed the rules regarding razor clam areas and designated the detached spits open only for commercial digging. This change allowed both fisheries to occur concurrently for the past three years. For the 2015 season WDFW will consider changing the opening to April 1 and will conduct a public meeting in February 2015 with buyers and harvesters to consider the change.

## **Management Conclusions**

In recent years, dealers have tried take advantage of stable seasons and strong production to develop retail markets locally and overseas. Success has been mixed due to competition of razor clams from other sources and a limited shelf life. Key factors to maintaining and increasing market development are 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 for human consumption and to provide a reliable source of bait for the Dungeness crab fishery.