



Washington
Department of
**FISH and
WILDLIFE**

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

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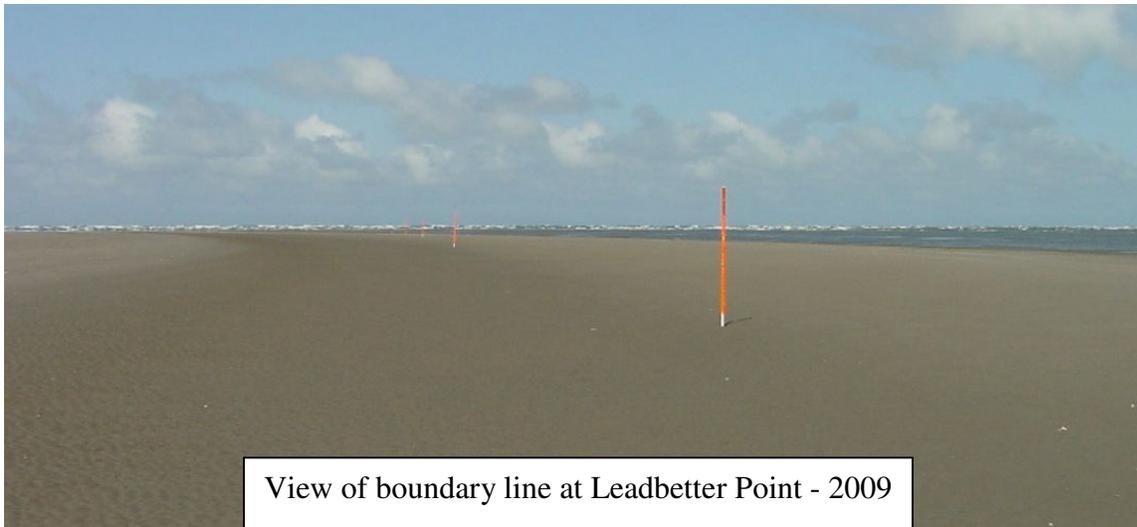
WASHINGTON DEPARTMENT OF FISH AND WILDLIFE (WDFW)
SUMMARY OF THE 2009 COMMERCIAL FISHERY
FOR RAZOR CLAMS (*Siliqua patula*)

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 to provide a clear delineation 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 ($\mu\text{g}/100\text{g}$) 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).

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

Collection Date	Sample Type	PSP Result ($\mu\text{g}/100\text{g}$)	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

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 30th.

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.

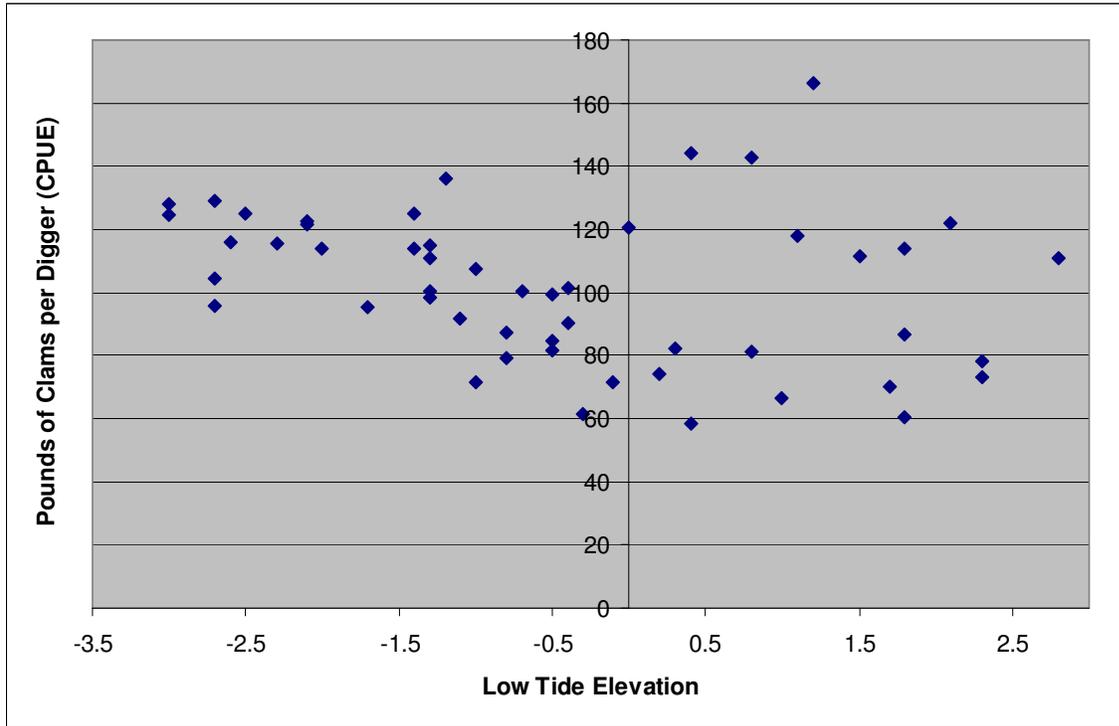
Table 2. Commercial Clam: Harvest Totals, Value, Season Length and Licenses .

Washington Non-Treaty Commercial Razor Clam Fishery									
Year	Pounds Landed	Ex-Vessel Value	Number			Non-Resident Licenses	License Revenue	License Fees	
			Days	Diggers	Licenses			Resident	Non-Resident
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	Nix Closure								
85	Nix Closure								
86	58,814	\$73,114	64	-	378	13	\$19,500	\$50	\$100
87	103	\$194	4	-	115	7	\$6,100	\$50	\$100
88	Closed due to low population levels								
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	Domoic Acid Closure								
93	Domoic 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	Domoic 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	\$154,746	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	\$355,705	61	108	143	0	\$18,590	"	"
09	249,910	\$407,130	51	164	185	4	\$24,250	"	"

**Table 3. Commercial Clam: Daily Landings, Effort and Take Home Limits
2009 Commercial Razor Clam Harvest**

Date	Day	Tide	Time	No. Landings	Daily Total Landing (lbs)	CPUE (lbs per digger/day)	Take Home Limits
5/11	Monday	-1.0	9:23 AM	60	4,307	72	3
5/12	Tuesday	-0.7	10:01 AM	28	2,804	100	1
5/13	Wednesday	-0.4	10:40 AM	64	6,487	101	2
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	8,406	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	1,300	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	6,225	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	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	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	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	-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
Ex-Vessel Value					\$407,130		

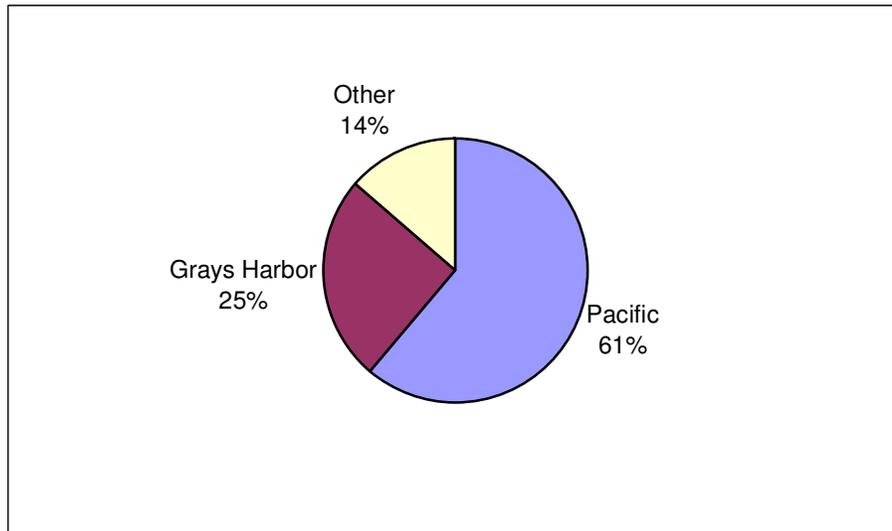
Figure 1. Daily Pounds of Clams Dug per Person (CPUE) and Tide Elevation



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.