

CLAMMING

Clam digging is one of Oregon's most popular outdoor activities. It is a family activity that can be enjoyed by all ages. All you need are adequate boots and clothing, a bucket, a clam shovel or rake, a **shellfish license**, and a copy of the current Oregon Sport Fishing Regulations.

In nearly every Oregon estuary, some species of bay clams can be found. Depending on a number of factors such as size and shape of the bay, salinity, and substrates, the abundances and variety of species are different for each bay.

Successful clamming does require some knowledge and preparation. Before clamming, harvesters should be aware of weather, tides, regulations, closures, and responsible harvest techniques.

When digging for clams in Oregon, even in the summer months, sudden changes in weather should be expected. It may be a good idea to layer your clothing and bring extra gear in the event of rain and/or coastal winds. Knee-high boots are suitable for walking the beaches, but you may find that hip boots or chest waders are better for kneeling down to retrieve your clams in the muddy tidal areas.

Maps showing locations of clam beds in most of Oregon's bays along with additional information on clams and clamming can be found on ODFW's shellfish web page:
www.dfw.state.or.us/MRP/shellfish/bayclams.



Clam digging is for everyone.

BAY CLAMMING IN OREGON

Regulations and guidelines for recreational harvest of bay clam



Oregon Department of Fish and Wildlife



Marine Resources Program
2040 SE Marine Science Dr.
Newport, OR 97365
541-867-4741

REGULATIONS

A shellfish license is required for people 14 and older.

Clams may be taken by hand or hand-powered tools.

Clams may not be removed from the shell before leaving the digging area.

Each digger must have their own container, dig their own clams, and may not possess more than one limit of clams while in their digging area, except under a Disabled Clam Digger Permit.

If unbroken, butter, cockle, or littleneck clams may be returned only in immediate digging area. All other clams must be retained regardless of size or condition.

No more than 1 daily catch limit per day may be taken per person. No more than 2 daily catch limits per person may be in possession.

Posted shellfish preserves in Netarts and Yaquina bays are closed to the take of clams. All other areas are open all year, except when closed by a Public Health Advisory. For current information concerning shellfish health advisories call 503-986-4728 or 800-448-2474 or check ODA's website:
www.oregon.gov/ODA/FSD/shellfish_status.shtml

Daily catch limit per person is:
- **Butter, Littleneck, Cockle, Gaper, & Geoduck:** 20 clams, of which only 12 in aggregate may be gapers or geoduck clams.
- **Softshell and others:** first 36 taken.

- Regulations are subject to change. Contact ODFW for further information.

GUIDELINES

Make a plan
Harvest only what you need and know how to preparation the species you intend to dig before you go out.

Dig carefully
Think about your technique for digging clams. Many species are easily broken, causing a dangerous situation for your fingers and additional cleaning work. Many diggers prefer to dig close to the depth of the clam with a shovel and then do the remaining work carefully with their hands.

If unbroken, butter, cockle, and littleneck clams can be returned as these species have the ability to dig themselves back in the sand. Gaper and softshell clams are incapable of adequately digging back to the necessary depth once removed and are therefore illegal to return.

Know what you're digging
Knowing your clam "shows" (the hole they leave in the sand at low tide) will help assure you're digging the species of clam intended. Experience in an area and with each species is the best way to decipher the differences between shows.



Please keep off the grass

Eelgrass provides essential habitat for a number of fish and invertebrates. Avoiding areas of eelgrass is fairly easy as it tends to be patchy within clam beds. Once dug up or trampled, the eelgrass can no longer provide the habitat sought by fish and invertebrates.

Look for gaps in the eelgrass. Eelgrass beds usually have breaks where digging is easiest and best.

Refill your holes

Digging clams can often require the movement of a significant amount of sand/mud. When piled up, mud and sand can hinder the access to the surface of other clams below. Simply pushing the material back in the hole eases the impact on the clam bed.

Transportation

If you need to transport your clams over a period of time, it is best to take preventative measures to avoid spoilage. One of the easiest ways is to leave the clams in the shell and store them in a cool, wet burlap bag. They will not survive long if kept in a bucket of water as they will use up all the oxygen fairly quickly.

Common Name	Size & Habitat	How to Locate & Harvest	Cooking
 GAPER Horse, Horseneck, Blue, Empire	<ul style="list-style-type: none"> Up to 7 inches long Sand or sand-mud From 10 to 24 inches deep 	<ul style="list-style-type: none"> Circular hole, up to 1 3/4 inches in diameter By sticking your finger into hole, you can feel neck retract Shovel 	Fry or mince (for chowder) digger foot or mince
 BUTTER Martha Washington, Beefstake, Quahog	<ul style="list-style-type: none"> Up to 5 1/4 inches long Gravel-mud or sand-mud From 6 to 12 inches deep 	<ul style="list-style-type: none"> Cigar shaped deflated figure-8 shaped hole, 1/2 to 3/4 inches long Shovel or rake 	Fry, mince, or steam
 COCKLE Cockerel, Basket cockle	<ul style="list-style-type: none"> Up to 5 1/2 inches wide Sand or sand-mud On surface or 3-4 inches deep 	<ul style="list-style-type: none"> Sometimes a very small double hole Can often feel clam with your feet on tidal flats Rake 	Fry or mince (for chowder)
 LITTLENECK Steamer, Native Littleneck	<ul style="list-style-type: none"> Up to 3 inches long Sand-mud or sand-gravel From 1 to 6 inches deep 	<ul style="list-style-type: none"> Deflated figure-8 shaped hole, 1/2 to 3/4 inches long Rake 	Steam
 SOFTSHELL (non-native) Eastern softshell, Eastern, Mud	<ul style="list-style-type: none"> Up to 4 inches long Farther upriver than other clams Mud or sandy-mud From 6 to 14 inches deep 	<ul style="list-style-type: none"> Oblong hole, up to 1 inch in diameter By sticking your finger into hole, you can feel neck retract Shovel 	Fry or steam
 VARNISH (non-native) Purple varnish, Mahogany	<ul style="list-style-type: none"> Up to 2 1/4 inches long Sand-gravel in high to mid intertidal, often near areas of 	<ul style="list-style-type: none"> Small keyhole shaped hole, 1/8 inch long Shovel 	Steam

Tide Tables

Clam digging is most productive between the hour before and after low tide when more of the tideflat is exposed.

The use of a tide table will aid you in determining when the tides are most favorable. Generally, a one-foot minus tide or lower allows accessibility to reach the clam beds in the lower margins of the tideflat. However, some species, such as softshells, may be accessible at tides above 0.0 feet.

The sample tide table below shows minus tides favorable for digging clams from July 1 to July 7 (as well as later in the month). For example, on Thursday, July 3rd, there is a low tide of -2.9 feet at 7:16 am.

Tide tables may be obtained at many local sporting good stores. Tidal information is also available on the web on sites such as this NOAA link:

<http://tidesandcurrents.noaa.gov/index.shtml>

JULY 2008					
Pacific Daylight Time					
OSU Hatfield Marine Science Center, Dock, Yaquina Bay, OR					
Day	HIGH WATER		LOW WATER		Time Feet
	Time	Feet	Time	Feet	
1 T	12:29	5.4	11:20	8.5	6:30 -2.7 5:11 3.2
2 W					8:27 -2.5 6:10 3.0
3 T	12:15	6.6	1:20	6.8	7:16 -2.9 5:57 2.7
4 F	1:08	9.5	2:51	7.4	8:03 -2.6 7:59 2.5
5 S	2:00	8.1	3:34	7.8	8:48 -2.6 8:24 2.2
6 S	2:51	8.5	4:15	7.7	9:31 -1.8 9:40 2.0
7 M	3:43	7.7	4:58	7.7	10:10 -0.8 10:47 1.8
8 T	4:27	6.8	6:37	7.7	10:53 0.1 11:48 1.8
9 W	5:07	6.0	8:19	7.7	11:34 1.1 12:19 2.1
10 T	5:46	5.3	7:02	7.7	12:22 1.9 1:11 3.0
11 F	6:09	4.9	7:48	7.8	1:39 1.3 1:11 3.0
12 S	6:42	5.0	8:08	7.7	2:02 0.9 2:10 3.4
13 S	10:59	5.3	9:28	7.7	3:59 0.6 3:13 4.0
14 M	11:33	5.7	10:15	7.8	4:40 0.1 3:11 4.0
15 T	12:03	6.0	11:02	8.0	5:18 -0.9 3:00 4.0
16 W	1:08	6.2	11:45	8.2	6:02 -0.7 3:40 3.7
17 T	1:56	6.1	1:39	8.4	6:46 -1.0 3:21 3.4
18 F	12:28	6.3	2:10	8.7	7:23 -1.2 3:11 3.1
19 S	1:59	6.2	2:40	8.9	7:56 -1.3 2:55 2.8
20 S	1:45	6.1	3:11	7.1	8:09 -1.8 8:30 2.6
21 M	2:25	7.8	3:42	7.3	8:06 -1.9 8:16 2.2
22 T	3:08	7.4	4:14	7.8	8:33 -0.6 10:03 1.8
23 W	3:50	6.9	4:46	7.8	10:36 0.2 10:30 1.9
24 T	4:31	5.9	6:28	8.0	10:46 0.2 11:05 1.1
25 F	5:09	5.6	8:10	8.1	11:27 1.0 11:27 1.0
26 S	7:22	5.1	7:00	8.3	1:00 0.9 12:21 2.7
27 S	8:55	5.1	8:04	8.5	2:17 0.0 1:31 3.3
28 M	10:21	5.5	9:09	8.7	3:08 -0.8 2:48 3.8
29 T	11:27	6.0	10:19	8.9	4:00 -1.2 4:02 3.8
30 W	12:18	6.9	11:14	9.2	4:58 -1.5 5:08 3.1
31 T			1:32	7.0	5:14 -2.2 5:04 2.8

A.M. - Light Face P.M. - Bold Face Minus (Tide)

BIOLOGICAL TOXINS

Clams and other bivalves are filter feeders that feed on single celled plants called phytoplankton. Some species of phytoplankton manufacture biological toxins that, if ingested, can be stored in the clam and then become toxic to humans (and other warm-blooded animals), but doesn't otherwise harm the clam.

Although most common in summer months, phytoplankton blooms can occur and cause closures for shellfish harvesting at any time of the year. Toxins are stored in the muscles and tissues and can linger in the shellfish long after the phytoplankton is gone from the water.

There are two types of biological toxins that west coast clams and other bivalves may be contaminated with: Domoic Acid and Paralytic Shellfish Toxin. Both toxins are manufactured by naturally occurring phytoplankton.

Both toxins are tasteless. Freezing or cooking has no effect on the toxin level. Symptoms in humans can affect the gastrointestinal and neurological systems.

Domoic Acid

Symptoms include vomiting, nausea, diarrhea, abdominal cramps, headache, confusion, dizziness, short-term memory loss, and death. Symptoms usually occur between 24 and 48 hours after consumption of the contaminated shellfish.

Paralytic Shellfish Toxin

Symptoms include tingling and numbness in the lips, tongue, fingers, and toes, paralysis, disorientation, and death. Symptoms may occur within hours of consumption.



Pseudo-nitzschia - produces domoic acid

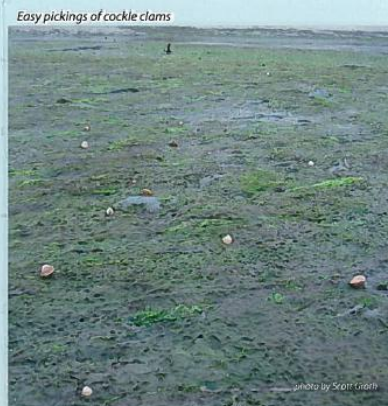
Sampling and Shellfish Safety Closures

The Oregon Department of Agriculture (ODA) conducts sampling of commercial and recreational shellfish for Domoic Acid and Paralytic Shellfish Toxin.

Current shellfish safety closures can be checked at ODA's web site (below) or by calling the shellfish harvest hotline at:

503-986-4728 or 800-448-2474.

www.oregon.gov/ODA/FSD/shellfish_status.shtml



Easy pickings of cockle clams

photo by Scott Gault