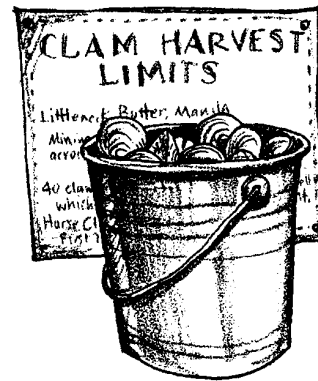


Regulating the Harvest

Lesson by Katrina Ringrose, Seabeck, WA

Key Concepts

1. In places where shellfish are harvested, regulations are often established limiting the quantity of shellfish people may take.
2. Regulations are used to protect the shellfish resource.



Background

State Departments of Fisheries or similar state agencies annually publish shellfish/sport fishing regulation booklets which inform the public regarding the “limits” or numbers of animals that can be taken and areas in which shellfish may be harvested. Also included are regulations regarding lawful gear and practices. Included in this information are things such as filling in clam holes and leaving oyster shells on the beach.

It is important to have the most current booklet, because limits change from year to year, as do the areas open and closed for harvesting. You can usually obtain one at any business that sells fishing licences or by contacting the Department of Fisheries directly.

While regulations limiting shellfish harvesting were originally enacted because of concerns regarding observed declines in shellfish numbers, shellfish harvest today is limited for other reasons as well. Some beaches are closed due to contamination from failing septic systems or industrial pollution. Other beaches are periodically closed because of outbreaks of the microscopic plankton which causes Paralytic Shellfish Poisoning (PSP). How do these plankton affect humans?

Each PSP plankton contains a minute amount of a deadly nerve toxin. Even so, ingesting PSP plankton while swimming in PSP contaminated water poses little danger to humans. Rather, the danger comes from eating shellfish, especially clams and mussels, that have been living in PSP contaminated water. These animals filter huge quantities of water each day, concentrating PSP toxin in their tissues as they do so. Eating these clam-shaped packages of concentrated PSP toxin can cause tingling of the lips and extremities, difficulty in breathing and, even, death.

PSP outbreaks seem to be occurring more frequently in many areas. Some scientists think that increased runoff of fertilizers and sewage add the nutrients to coastal waters that enable rapid growth of PSP plankton.

Regardless of the cause of the PSP outbreaks, you should call your state department of health to learn about beach closures before you harvest shellfish.

Materials

For each student:

- “Regulating the Harvest” student reading
- “Razor Clam Maze” student activity page

For the class:

- (OPTIONAL) an overhead or handouts of state regulations (While excerpts from the Washington State regulations are included here, use of regulation booklets from your local area is preferred.)

Teaching Hints

1. Have students complete the reading, “Regulating the Harvest.”
2. Distribute the activity, “The Clam Maze.” Use the activity to reinforce the idea of a “limit.”
3. Students may also be interested in more specifics about shellfish regulations. While it is best to locate and use local booklets, excerpts from the 1993 Washington State regulations are included for reference. In your discussions, focus on limits and legal gear.

Key Words

limit - the greatest number allowed (as in harvesting shellfish)

regulations - laws or rules designed to control or govern behavior

shellfish - an invertebrate with a shell; an edible mollusk (i.e. clam) or crustacean (i.e. crab)

Extensions

1. Use the regulation booklets to introduce the skill of scanning, and the use of headings as parts of good study skills.
2. Use the regulations handbook for vocabulary skills “races.” Have students find a word that starts with each letter of the alphabet and circle it. Or have students look for specific words: clam, geoduck, limit, regulation, rake, etc. Design a scavenger hunt to find only tools (rake, shovel, clam gun) or only limits, etc.

3. Using the regulations book, have students figure out the total number of shellfish they would have if they took their legal limit for one day of each type of shellfish whose harvest is regulated.
4. Using the regulations book, have students write informative/informational posters - ie. FILL YOUR HOLES, 18 IS THE LIMIT! For real impact, display their work at beaches often used by shellfish gatherers.
5. Investigate how native people historically harvested and preserved shellfish. Find out if shellfish are still an important part of the diet/economy of the native people.

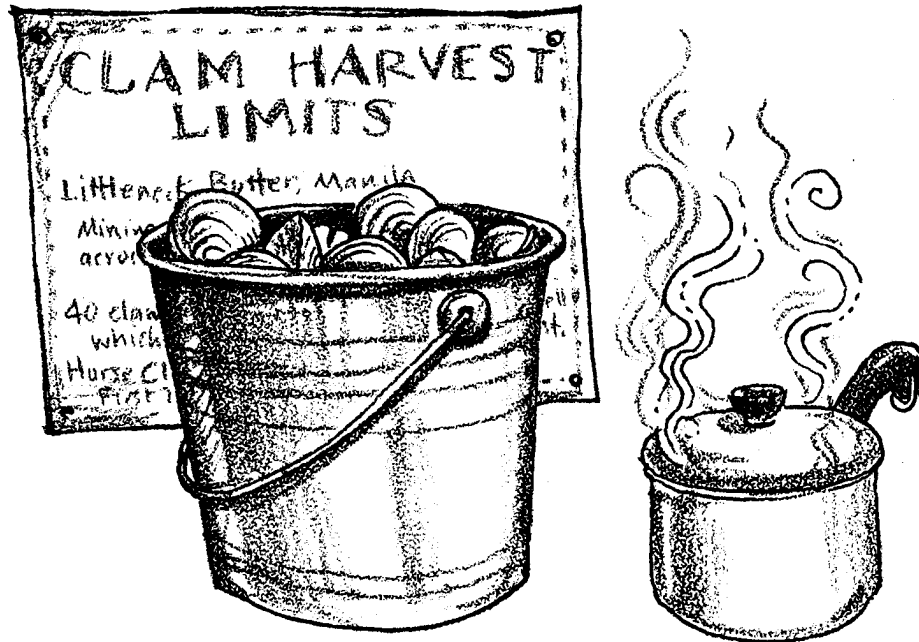
(Sing this round to Row, Row, Row Your Boat)

**Dig, dig, dig your hole deeper in the sands.
Scurry! Scurry! Down you go. Escape from human hands.**

Answer Key

1. No, one may not take any number of clams desired. There are limits set for different types of clams. This question provides a good springboard for a discussion of the difference between “may” and “can” and an individual’s responsibilities in relation to shellfish and other wildlife harvesting.
2. No, one may not use any gear desired.
3. No, one may not use the same gear for all types of shellfish harvesting.
4. This question calls for an opinion and should be used to initiate a discussion regarding harvesting regulations. The use of specific types of gear for catching certain types of shellfish protects the shellfish that are not being taken. Gear limitations also protect the habitat. These rules are designed to help protect the resource.
5. No, in Washington, razor clams are the only clam requiring a license to harvest recreationally. Commercial harvesting of geoducks and other clams does require a license. You may use this information to discuss the fact that commercial and recreational regulations often differ because of the different potential impacts of the two groups.
6. Answers will vary but will likely include: people might take all the shellfish, ruin the habitats, or get sick from taking shellfish from closed or polluted areas.

Regulating the Harvest



People all over the world eat shellfish. Do you live near an ocean or waterway? If so, you may have collected shellfish at the beach. To do this you need the right tools. Also you may only take a certain number of each kind of animal. The number you can legally take is called a “limit.”

1. May you go to a beach and take any number of clams you want?
Why or why not?

What kind of tools, or “gear” do you need when you collect shellfish? In Washington State, for example, you may collect razor clams with a hand shovel. You may also use a 4" diameter tube. You may use a hand fork, pick or shovel to collect other types of clams.

2. May you use any gear you want to collect shellfish?
3. May you use the same gear for collecting all kinds of shellfish?

4. Why do you think there are these rules?

You may also need a shellfish license to collect shellfish. For example, in Washington State, to collect razor clams you need a special license. For all other types of shellfish you do not need a license. Every state has its own rules. You must know the rules. This isn't hard. Each state gives out free booklets. You can find the booklets at stores that sell fishing licenses.

5. Do you need to have a license to harvest geoduck clams in Washington State?

Why have these rules? They are made to help protect the shellfish. They also help make sure people have shellfish to eat in the future. What if everyone could take all they want? They might take too many clams. Or people might waste what they take. Some might pick one size clam only. They might kill the rest by throwing them back. Some people might leave clams with cracked shells. The rules try to make shellfish available for everyone!

There are also rules that keep habitats healthy. You must fill in the holes you dig when you collect clams. You must leave oyster shells on the beach. These are habitat rules.

There are rules about places you can and cannot collect shellfish. It seems like a lot to learn, but it is important. If you don't read the rules, there might not be shellfish for anyone to collect!

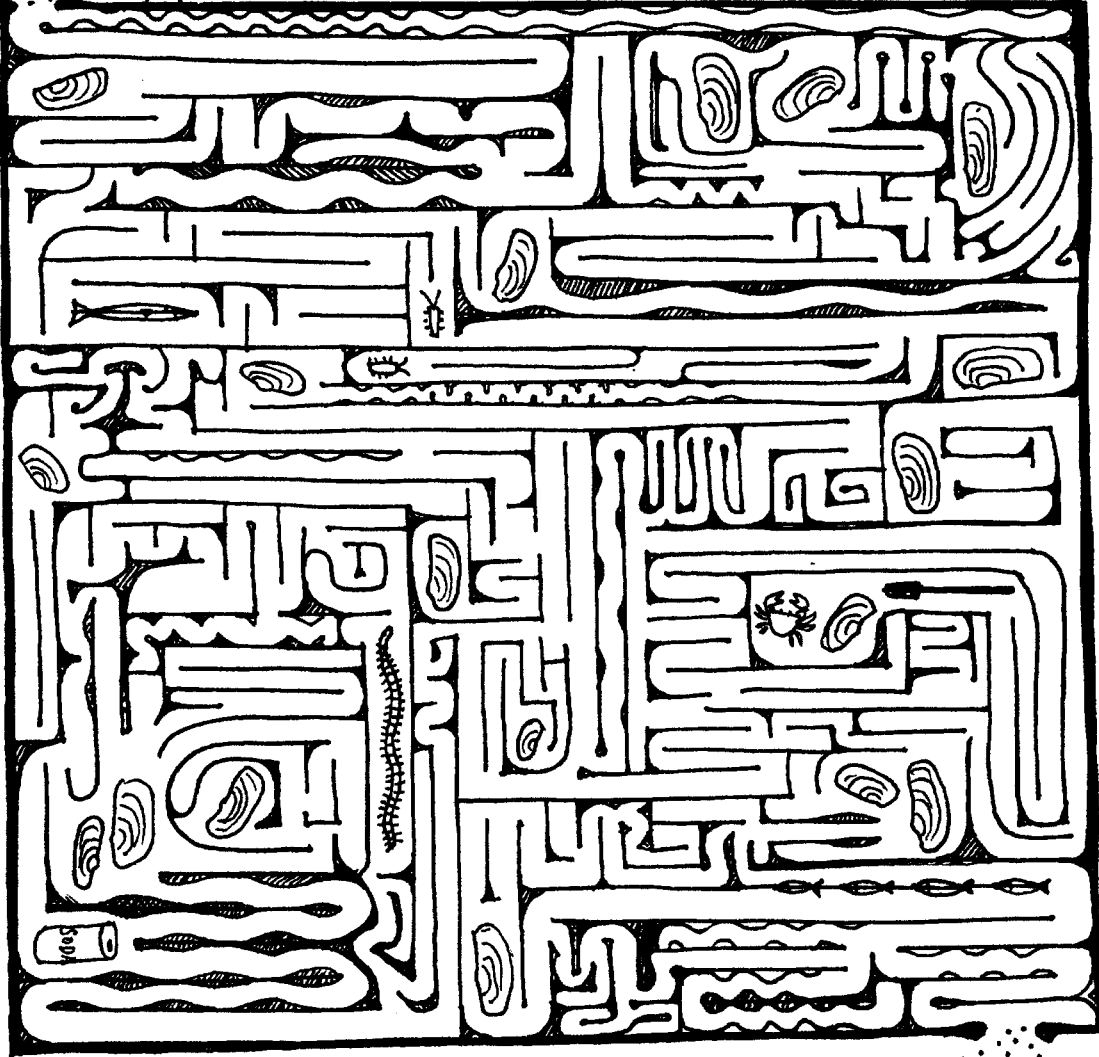
6. What do you think would happen if we didn't have rules about taking shellfish?

The Razor Clam Maze

START HERE



Starting at the shovel, try and get you limit of 15 clams. Remember you must circle the first 15 clams you come to on your way to the bucket.



FINISH HERE



Adapted from "The Clam Maze" by the Washington State Department of Fisheries

These pages are from the Washington state shellfish guidelines.

CLAMS, HARDSHELL AND SOFTSHELL

- Can be dug by hand or hand-operated fork, pick or shovel.
- Each digger must use a separate container. Digging equipment may be shared.
- Be aware of Red Tide, Pollution and Special Openings/Closures (See pages 28 and 31).
- Children claiming a limit must actively participate in the digging process.
- Holes caused by digging must be refilled to reduce clam mortality and danger to other diggers.

Species	Beach or Area	Season Open	Size Limit	Daily Limit
Geoduck	Public Beaches	Entire Year (See Special Openings/Closures, page 31)	None	3 Do not attempt to capture a geoduck by thrusting any instrument through its siphon. It is unlawful to possess only the siphon of a geoduck.
Horse Clam	Public Beaches	Entire Year (See Special Openings/Closures, page 31)	None	7 (First seven dug)
Littleneck, Manila, Butter. Include as part of your hardshell clam limit any size borers, cockles, eastern softshell, jackknife, macomas, and other native species.	Public Beaches	Entire Year (Except as noted in Special Openings/Closures, page 31)	Minimum size limit of 1-1/2 inches across the longest distance of the shell. (Littleneck, Manila, and Butter clams only).	40 clams or 10 pounds in the shell in the aggregate, whichever comes first. (See Bonus Limits, page 31)

SPECIAL OPENINGS/CLOSURES/ BONUS LIMITS—Hardshell clams, softshell clams and cockles.:

State-owned oyster reserves are closed to clam digging except digging is allowed as follows: Case Inlet—the state-owned tidelands on the east side of North Bay at the north end of the inlet; Oakland Bay—the state-owned tidelands on the channel of the northwest shore of the Bayshore Peninsula between Fisheries Department markers.

Belfair and Dosewallips State Park tidelands: Closed by State Parks the entire year due to pollution (see page 28).

Brown Point (DNR 57-B): Open April 16 - May 15.

Camano Island State Park: Open June 1 - June 30.

Fort Flagler State Park: Open April 16 - June 15.

Garrison Bay: All tidelands of Guss Island, and all state and federally owned tidelands at British Camp (San Juan County) south of a boundary marker approximately 1,010 yards southerly of Bell Point: closed the entire year. Tidelands north of the above boundary marker to the head of the bay are open the entire year.

Hoodsport: Fisheries Department tidelands at Hoodsport hatchery are closed all year.

Hope Island State Park: Open April 16 - June 30.

Illahee State Park Open April 16 - July 31.

Kayak Point County Park: All county park tidelands south of the county fishing pier are open April 16 through May 15, only on odd-numbered years. County tidelands north of the pier are open April 16 through May 15, only on even-numbered years.

Oak Bay, East: Open April 16 - May 31.

Oak Bay, West: Open April 16 - June 30.

Pacific Ocean Beaches and Strait of Juan de Fuca west of Dungeness Spit: Closed April 1 through Oct. 31 because of Paralytic Shellfish Poisoning risk (see "Marine Toxins" on page 28).

Penrose State Park: Open April 16 - April 30.

Point Whitney (excluding lagoon): Open April 16 - May 31.

Point Whitney Lagoon: Open May 15 - May 31.

Point White: Open April 16 - September 30.

Rendland Creek: Open April 16 - June 15.

Shine Tidelands: Open April 16 - July 15.

Skagit Bay, east of a line from Browns Point to Swinomish Slough entrance: you may take 20 pounds of Eastern soft-shell clams in the shell in addition to your regular hardshell/softshell clam limit.

Spencer Spit State Park: Open April 16 - July 31.

Twanoh State Park: Closed.

Willapa Bay: You may take 24 cockles in addition to your regular hardshell/softshell clam limit.

CLAMS, RAZOR

- Razor clam license tag required for all residents over 14 years of age and all non-residents. (See LICENSE chart page 4 for license fees and requirements.) License must be visible on outer clothing.
- Razor clams may be taken by hand, hand operated shovel, or tube with a minimum outside diameter of 4 inches (4" x 3" if elliptical).
- Do not return any razor clam to the beach or water. All clams dug must be part of digger's limit.

- Young children claiming a limit must be able to actively participate in the digging process.
- Disability digging permits and tags are available. Contact the Department of Fisheries' Licensing Division at (206) 902-2464. The disabled person for whom razor clams are being dug must be present at the digging site.
- It is unlawful to drive any vehicle, or lead or ride a horse on clam beds. Pressure from weight of vehicles and digging action of horses' hooves cause clam mortality.

Species	Beach or Area	Season Open	Size Limit	Daily Limit
All Species	Coastal Beaches	Spring season to be announced mid-March; fall season to be announced by October 1.	None	First 15 dug regardless size or condition. Each digger must use a separate container for limit.

PERMANENT RAZOR CLAM RESERVE CLOSURES—Areas marked with posts

- **Copalls Beach**—from a point two-tenths of a mile south of the Heath Street Approach and extending south for 1/4-mile (1,320 ft.).
- **Twin Harbors Beach**—from the middle of the county line approach south for 1/4 mile (1,320 ft.).
- **Long Beach**—from the middle of the Oysterville Approach north 1/4-mile (1,320 ft.).