

Why Grow Shellfish?

Shellfish are keystone species low on the food chain. They play a vital role in maintaining healthy estuaries and are an important indicator of water quality. As filter feeders, they cleanse local waters and provide a complex structure that supports juvenile fish, crab, and shrimp species. Shellfish filtration and nutrient cycling services are particularly helpful in combating increased nutrient pollution associated with human populations.

What Is a Shellfish Garden?

Tideland owners can grow shellfish for personal consumption or environmental enhancement. Shellfish gardening supplies tideland owners with fresh seafood, but also provides valuable ecological services for local waters. Gardening methods and types of shellfish depend on the preferences of the grower and the environmental conditions of the beach where the shellfish are cultivated. In Puget Sound, Pacific oysters and Manila clams are the most popular species among shellfish gardeners due to their resiliency and fast growth rates.



Photo by: Staci Schmitt

Shellfish gardening can be as simple as placing hard substrate such as oyster shell, called cultch, on tidelands to encourage young oysters to settle on your beach naturally. In many areas of Puget Sound, however, shellfish gardeners will need to purchase shellfish seed from certified seed suppliers and hatcheries at “seed sales”. Oyster seed is typically placed in grow bags, which are secured to the beach. For clams, seed is either buried in “grow bags” (which reduce predation and facilitate harvest) or sprinkled directly on the tideland. Shellfish seed must come from

certified seed suppliers. This ensures that seed is both disease and pest free, and is safe to plant in all areas of the state. Never buy shellfish off the Internet for a garden or plant shellfish purchased from the grocery store. Many species are prohibited and may be invasive in Washington.

Human Health Considerations

Shellfish gardeners need to be aware of the water quality conditions that affect their tidelands. Shellfish are filter feeders, feeding on phytoplankton and other naturally occurring suspended matter in the water. Besides taking in the plankton, shellfish have the potential to concentrate harmful bacteria including fecal coliform or vibriosis or marine biotoxins. This can make the shellfish unsafe for human consumption.

Contaminants in Puget Sound come from a variety of natural and anthropogenic sources. Sources of bacterial contamination can include sewage treatment plant outfalls, boater sewage, failing on-site septic systems, and runoff from pet waste, agricultural production and wild animals. Local and state governments monitor these contaminants, but always check the status of the beach you want to harvest via the Washington Dept. of Health: www.doh.wa.gov/shellfishsafety.htm or 1-800-562-5632



Local Significance

Shellfish such as oysters and clams provide significant recreation, food, jobs and revenue in our region.



Ecosystem Services

Shellfish are well recognized in scientific literature for the environmental services they perform: sequestering carbon, enhancing estuarine sediment, recruitment of eelgrass seeds, formation of three-dimensional structure which provides critical habitat for several species of flora and fauna.



Water Quality

Filter feeding reduces nutrients (e.g. nitrogen and phosphorus), silt, bacteria, and viruses, and improves water clarity, which enhances habitat for sea-grasses and other aquatic vegetation. In a day, a single animal can filter:

- Pacific oyster 32 gallons
- Manila clam 8 gallons
- Mussel 13 gallons
- Geoduck clam 32 gallons

Learn More



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Fostering sustainable shellfish resources and a healthy marine environment through research and education