

Shellfish Economy

Treasures of the Tidelands

Shellfish Commerce

The Pacific Northwest has a bounty of natural riches that have long fueled economic trade and growth in the region. While Washington's economy boasts diversity, the value of the state's natural resource industries remain significant and indispensable. Their contribution to the base economy makes a compelling case for stewardship, innovation and sustainability to ensure broad and far-reaching returns from these natural assets for generations to come.

The commercial shellfish industry is one of these resource-based businesses that anchors the economies of many rural western Washington communities. The sale of products to buyers around the world brings in new money that provides employment and an enhanced tax base as revenues circulate and re-circulate through the communities. Recreational shellfish harvesting is structurally different from the commercial industry, yet generates comparable economic benefits.

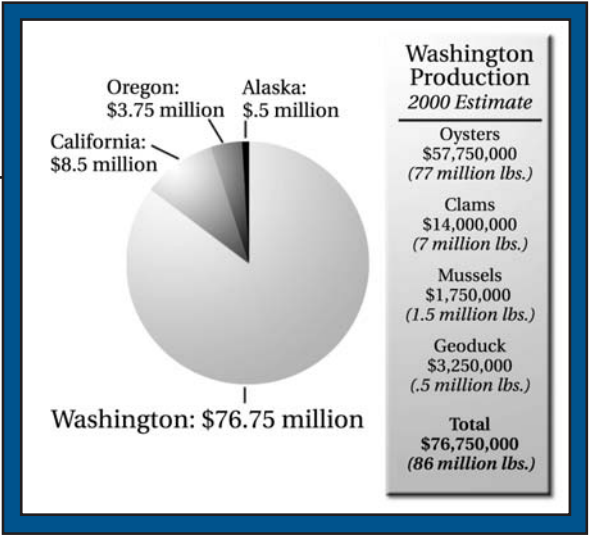
World-Class Foods

Washington is the leading producer of farmed bivalve shellfish in the United States, generating an estimated \$77 million in sales and accounting for 86 percent of the West Coast's production in the year 2000.

Washington growers sell a variety of live and processed products that include Pacific, Kumamoto, Tasmanian, Eastern, European flat and Olympia oysters; Manila, littleneck, razor and geoduck clams; and blue and Mediterranean mussels. Pacific oysters, Manila clams and blue mussels are the leading commercial species in their respective categories. Puget Sound accounts for most of the clam and mussel sales while Willapa Bay leads in oyster sales.

The commercial harvest of geoduck is a unique story and an increasingly lucrative component of the state's molluscan shellfish industry. Starting with the discovery of enormous populations of geoduck in Puget Sound in the 1950s and the first commercial harvests in 1970, the portly clam has emerged as the Microsoft of the shellfish industry. Wholesale prices typically range between \$5 and \$10 per pound, and restaurant prices can run as high as \$100 per pound in prime Asian markets. The total biomass of Puget

Commercial and recreational shellfish production is big business in the coastal areas of western Washington where the shorelines are still healthy enough to support productive harvests. For instance, the commercial shellfish industry is the second largest private-sector employer in both Mason and Pacific counties, supporting more than 1,200 jobs and an estimated total annual payroll that exceeds \$27 million. Another example is the coastal razor clam fishery, which generates an estimated \$7 million annually in commercial sales and injects an additional \$12 million annually into local economies from the sport fishery. In short, shellfish harvesting provides a strong and steady employment base and possesses two highly coveted economic attributes—sustainability and potential for growth.



Pacific Coast Shellfish Growers Association
Estimated West Coast production of farmed oysters, clams, mussels and geoduck, 2000

Sound's geoduck population is estimated at 674 million pounds, of which approximately 163 million pounds is available for commercial harvest to depths of 70 feet. The estimated, harvestable biomass is significant because the annual harvest limit of 2.7 percent, set by the Washington State Department of Natural Resources, is pegged to this value. The harvest of wild geoduck is now complemented by significant investments and advances in intertidal geoduck aquaculture by Washington shellfish growers. One farming approach involves hand planting nursery seed in mesh-covered tubes to protect the ducks until they are mature enough to burrow more deeply into the sediments and avoid predators.

Fascinating Facts

- Washington is the leading producer of farmed bivalve shellfish in the U.S.
- The state's production of farmed oysters, mussels, clams and geoduck generates approximately \$77 million in sales annually.
- Commercial shellfish production is the second largest private-sector employer in Pacific and Mason counties.
- Oakland Bay in Mason County yields more than three million pounds of clams annually.
- The annual value of the coastal razor clam fishery is estimated at \$12 million recreationally and another \$7 million commercially.
- Puget Sound's commercial geoduck fishery represents the most valuable clam fishery on the west coast of North America.
- The total biomass of Puget Sound's geoduck population is estimated at 674 million pounds, approximately a quarter of which is considered available for commercial harvest.

Economic Prospects

In purely economic terms, shellfish harvesting faces a rosy future in Washington. The state's coastal areas are attractive destinations for residents and tourists alike, highly prized for beachcombing, recreational harvesting and other activities that generate needed revenues for local communities. On the commercial front, with ongoing improvements in hatchery methods and other aquaculture techniques, the shellfish industry is poised for significant growth, ready to capitalize on swelling worldwide demand for high quality seafoods.

But things are not that simple. A number of factors influence shoreline uses. For shellfish harvesting, the most significant limiting factor is the condition of the shoreline environment and the availability of clean, unpolluted marine water.

Water quality can be affected by pollution from human activities and other sources as well as naturally occurring harmful algal blooms, mainly paralytic shellfish poison (PSP) and domoic acid (also known as amnesic shellfish poison or ASP). Harvest restrictions caused by these problems take away sales, jobs, recreational opportunities and harvest rights. Shellfish closures caused by harmful algal blooms need to run their course before shellfish can be harvested. In 1991, the closure of coastal crab and razor clam fisheries caused by high levels of domoic acid cost an estimated \$15 to \$20 million.

The economic and environmental harm caused by pollution, mainly fecal pollution, can be even more devastating and long lasting because of the difficulty in finding and fixing the potential pollution sources. Large stretches of the state's shorelines have been rendered



Photo courtesy Taylor Shellfish Farms

Farmed geoduck beds in Samish Bay, Skagit County

unsuitable for shellfish harvesting because adjacent shorelines and watersheds have been developed with marinas, homes, roads, shopping centers and other urban land uses. Many of these areas cannot be recovered for shellfish harvesting, but some areas can be restored, and those that remain open and suitable for harvesting need to be preserved. In 1999, the Washington State Department of Natural Resources estimated that 22 percent of the state's surveyed geoduck biomass was unharvestable because of pollution.

The economic value of healthy shorelines isn't limited to growing and harvesting shellfish, but instead is defined by a broader set of measures that includes long-term property values and other financial and quality-of-life measures. People want to visit and live in places where shoreline waters are safe to use and the seafoods they nurture are safe to eat. Clean water for shellfish harvesting brings together the complementary interests of good business, strong communities and a healthy environment.

Sources

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