

Murky Waters: An Ecosystem in a Pinch

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My dad grumbled, fumbling with his wallet as he paid to launch our boat. He understands why the fees are in place, but still complains about actually forking over the money. Then there was the aluminum boat trailing behind us dangling cockeyed into the road and blocking traffic. As usual, my dad's frustration over something so unimportant amused me more than anything else.

A few minutes and some wet pants later our fearless vessel had flopped into the murky waters and we were on our way. Our target: Hood Canal's Dungeness crab, a prized and delicious product of the West Coast. The pursuit of Dungeness crab is, on an average year, a ten billion dollar industry. Our voyage, however, was recreational.¹ The crabbing was said to be decent that year, but you would rarely hear any fishermen admit it; the local fishing culture is one of perpetual pessimism. It seems fishermen can never get on the water often enough, for long enough, or catch enough. That was fine with me though, I wasn't in it for the crab. Rather, getting out on the water together is one of the few activities my dad and I both enjoy.

People from Western Washington may have heard of the fight to maintain healthy levels of sea life in the Puget Sound. The Sound is a narrow waterway that has little interaction with the greater Pacific Ocean, which causes

¹ "Coastal Commercial Dungeness Crab Fishery." Fishing and Shellfishing. Washington Department of Fish and Wildlife, n.d. Web. Sept. 2014.

oxygenation problems in the water called hypoxia. Those problems are compounded by the waterway's geographical layout, which allows the Southerly winds to cause unox- ygenated deep water to flow to the surface, killing both deep-water and surface life.²

Despite these troubles, the Puget Sound is an astonish- ingly beautiful place. On lucky occasions the clouds break and the rain stops, revealing bright blue waters and Mt. Rainier towering in the distance. However, on the worst days the clouds are thick and dark, doing nothing but en- hancing the murky, muddy reality of the water. You're cold, you're wet, and most of all you wish you could be anywhere but a small aluminum boat churning precariously in the freezing water. It was on such a dismal day that I found myself dangling over the side, struggling in vain to untan- gle the buoys that distinguished our crab pots from those of another fisherman.

"This is the worst," I said, my hands in the icy water. My dad agreed, but we still had more crab pots to check before we could abandon our maritime adventure. The crab pots (or crab traps) are specifically designed for the capture of Dungeness crab. The wire cage has two funnel-shaped openings: bait is placed in the middle. Crabs are able to enter the pot for the bait, but are unable to escape.³ It's devious, and the nonviolence of the process impresses me.

Crabbing is well-regulated in Washington State by the Department of Fish and Wildlife. First and critically, it is illegal to harvest a female crab, the idea being that having an abundance of female crabs is better for repopulation. Well-circulated guides demonstrate how to differentiate male and female Dungeness, a process that involves flip- ping the crab over to examine an abdominal flap on its underside. Second is size: only males old enough to have grown above six and a quarter inches may be harvested. Diameter is measured across the shell at a notch in the

carapace.⁴ Astonishingly, it is estimated that ninety-five percent of those eligible males are caught every year.⁵

Fishery managers refer to a "3-S System" for crab sustainability: Size, Sex, and Season. Catches are recorded on a standardized form, counted per person. Everyone is allowed a set number of crabs, so it is not unheard of for recreational crabbers to drag their unwilling wives and chil- dren out with them so as to avoid fines. It was for the sake of this rule that my crabbing life began.

That day with my dad we dragged our pot into the boat, opened it up, and started measuring the crabs. The ruler has a notch on one end which lines up with the particular notch on the crab's carapace. Some pots were full of females and we returned them safely to the sea, bellies full of our bait. Most of the males were too small, and they too got a free lunch. Several pots yielded only a few legal crab. Locals always believe some injustice responsible for poor harvests, rather than bad luck or ill timing. They often go so far as to blame the complicated relationship between Washing- ton's fisheries, the local fishermen, and the regional Native American tribes which are subject to different fishing laws.

Native Americans are usually entitled to longer seasons, different restrictions, and reserved harvest areas dictated by Reservation laws which differ from those of the state.⁶ These rules can be confusing and intimidating to other locals, sometimes inciting a sportsman's jealousy.

Weaker catches can also be due to the various envi- ronmental troubles which plague the regional waters. The low dissolved oxygen content of the water and its rising temperature both menace the local fish populations. Toxins from oil spillage and heavy metals like lead and mercury pose threats too, especially to juvenile crab.⁷ Beset on all sides by such problems in this narrow inlet, crab popula-

² "Study Suggests Natural Oxygen Cycle in Hood Canal." KOMO News. KOMO News, 25 Apr. 2007. Web. Sept. 2014.

³ William Randolph Poppe (1977). *How to Catch a Crab*. Briarcliff Manor, NY: Stein & Day. pp. 75–76, 85.

⁴ Washington Department of Fish and Wildlife. "PUGET SOUND RECRE- ATIONAL DUNGENESS CRAB GUIDE." (n.d.): n. pag. 23 Dec. 2010. Web.

⁵ "Coastal Commercial Dungeness Crab Fishery." Fishing and Shellfishing. Washington Department of Fish and Wildlife, n.d. Web. Sept. 2014.

⁶ "PNPTC Fishing Regulations." PNPTC Regulations. Point No Point Treaty Council, 2014. Web. Sept. 2014.

⁷ "Dungeness Crabs." Encyclopedia of Puget Sound. Puget Sound Institute, n.d. Web. Sept. 2014.

tions are often inconsistent. Since 1950 harvest data has varied from as low as two and a half million pounds in 1981, to a high of twenty-five million pounds around 2005.⁸

My family hears fishermen's frustrations daily in their sporting goods store. Providing hunting and fishing supplies in the small town of Shelton Washington, the family business has become a local landmark. State policy changes and licensing frustrations are common sources of distress for the customers. Of course, one can't exactly use the grumblings of frustrated fishermen as a gauge for how well the wildlife is doing; according to them, every year is worse than the last. Growing up, I got used to hearing these complaints but had difficulties empathizing. Ethical qualms kept me from ever personally hunting or fishing with gusto (eventually leading to my dabbling in vegetarianism), but I became familiar with the processes and legal barriers involved, picking up bits and pieces from overheard conversations about the business or the hunting trips of family and friends. In general I supported hunting restrictions, an opinion that was usually best held quietly.

As it happens I spent a lot of time keeping my social and political opinions to myself around the store. There seems to be something in this country's framework that naturally bonds outdoor sportsmen with conservative politics. Myself being fairly liberal, I often had to tread carefully in conversation to not accidentally defend Washington State's "big government over-regulating" habits. The interesting thing is that once you got them down to the details, asking questions about what they think of protecting fish populations and the environment, they as nature lovers are fully supportive. Once those same ideas are written into law, however, every one of them becomes a legislator. The reason I find it hard to not to go up to bat in defense of the state is that, frankly, the numbers pertaining to human pollution and overfishing are pretty damning.

It is estimated that about fourteen million pounds of dangerous chemicals are washed into the Puget Sound by stormwater runoff every year. Over three quarters of the

⁸ "Coastal Commercial Dungeness Crab Fishery." Fishing and Shellfishing. Washington Department of Fish and Wildlife, n.d. Web. Sept. 2014.

local saltwater marshes have been destroyed and replaced with human infrastructure, meaning proximity of human settlement to the water itself is now a major issue now the region's famously abundant rain water has no opportunity to be filtered by soil and wetlands before entering the greater Puget Sound washing all of the debris and oil from our roads and paved areas directly into our natural water supplies, disasterously harming the local aquatic wildlife.⁹ Unfortunately now that our infrastructure is in place and so much of the environment forever altered, there is little we can do to go back.

The bad news is not just for wildlife. The contamination gets back into our own bodies as we consume our local seafood. Bottom feeders and scavengers like the Dungeness crab are particularly susceptible to ingesting dangerous toxins. The cumulative health effects of this contamination are still unclear, but already the buildup of mercury in fish-heavy diets is coming under scrutiny. Those same heavy metals pose threats to all marine life, from the floor-dwelling crabs to the fish and even whales.

Many of the oft-lambasted regulations regard the protection of our waters' non-crab denizens. Washington hosts many endangered and threatened species including seven salmon runs as well as sturgeon and rockfish. Multiple species of sea turtle are endangered, as well as are the local Humpback and Orca whales.¹⁰ As recently as 2007, there were only eighty-six Orcas remaining in the Puget Sound.

The damage is of economic concern as well. The regional fishing industries bring in about one hundred forty-seven million dollars per year, and the tourism industry represents nine and a half billion dollars.¹¹ Our own store felt this economic reality especially hard during the recession, struggling hard through several unprofitable winters, but always bouncing back in the summer. For the past decade my family's personal livelihood has been dependent on the

⁹ "NOAA Threatened and Endangered Species and Critical Habitat." WSDOT. Washington State Department of Transportation, n.d. Web. Sept. 2014.

¹⁰ "THE PROBLEM OF POLLUTED RUNOFF IN PUGET SOUND." People For Puget Sound, n.d. Web. Sept. 2014.

¹¹ "Problem Below the Surface – Impacts on the Sound." Puget Sound Starts Here. Puget Sound Partnership, 29 Jan. 2013. Web. Sept. 2014.

relentlessness of the locals; every time the summer sun comes out they arrive, ready to trek back out into the wilderness, or into the waters, to try their hand at sport and hunting.

The regional lifestyle and identity is dependent on the health and wellness of the aquatic ecosystem. Many Western Washingtonians take great pride in their progressive and environmentally-friendly state policy. Whether or not the current measures go far enough to protect wildlife is an important issue for our residents, politicians, and fishermen to be discussing. Problematically, whenever it comes down to who has to make the hard sacrifices in order to protect the environment, every group is quick to point the finger at the others. It can be funny to listen to a group of hunters, who believe all politicians to be evil idiots, as their own conversations dissolve into bickering and blame-shifting. The conversation is still developing, but I think people have hope that they can still intervene on behalf of the Puget Sound, and those who live in and near it. Everyone seems to have good intentions, but at the same time everyone feels like they have sacrificed enough already.

None of this was on my mind when the female crab I was trying mercifully to release had clipped onto my ring finger in an act of furious retribution. Proponent of animal rights though I am, I still find that compassion can come with difficulty toward the less comprehending of Nature's creatures. The moment's desire was to obliterate the crab against the side of the boat. I ignored that impulse, and the crab eventually gave up on me, dropping back into the water with a plop.

When we finally hit the shore with our meager catch, the rain started. Securing the boat and locking things down is usually some level of miserable. In the summer, the aluminum can scorch you as you move around the boat securing things. That day the rain was making everything slick and treacherous. Already covered in mud, my father and I shared a look of grim solidarity before climbing into the truck, looking forward to dry clothes and a warm house.