

FUTURESEA OREGON

639 Clatsop Ave.
Astoria, Oregon 97103
peter@FutureSeaOregon.org

October 18, 2013

Ms. Dorothy M. Lowman
Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384

Dear Chair Lowman:

Consider a glass sponge. This simple creature with a skeletal expression of almost pure silica can rise more than three feet from the sea floor. Off the Pacific Northwest, in the deep cold waters at the edge of the Continental Shelf, some individual sponges may live more than 200 years, anchored on reefs that may be 250,000 years old.

Glass sponges are benthic suspension feeders. Their beautiful form is not just eye candy for scientists watching the video feed from a remotely operated vehicle, it's a functional structure that helps the animal gather the microscopic food that flows its way.

We know that glass sponges build structure to help themselves survive. But how do they contribute to the ecosystem. Is ocean chemistry affected in a small yet essential way by the life of a glass sponge? Do their skeletons provide refuge or other functions important to fish?

The National Oceanic and Atmospheric Administration (NOAA) is currently reviewing the ways that it protects Essential Fish Habitat (EFH) off the Pacific Coast. NOAA is required to protect EFH, and looks to its advisory body, the Pacific Fishery Management Council (Council) to make recommendations. The actual language in the federal fisheries regulations requires the Council to "prevent, mitigate, or minimize any adverse effects from fishing, to the extent practicable, if there is evidence that a fishing activity adversely affects EFH in a manner that is more than minimal and not temporary in nature."

How does this relate to the glass sponge? The first question is whether glass sponges are Essential Fish Habitat .

The afore mentioned federal regulations define EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.” The regulations define “waters” in this context as “aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish,” and subsequently define “substrate” as “sediment, hard bottom, structures underlying the waters, and associated biological communities.”

Well, glass sponges both alive and dead are structures. One of the fun parts of all of this is figuring out if fish use the structures. Since the fish won't talk we need to descend in submarines or send cameras down to observe their behavior. Numerous expeditions have confirmed that fish do indeed associate with the sponges.

After taking this walk through the regulations it seems clear that glass sponges are Essential Fish Habitat in ways that we can observe – and perhaps in ways that we have yet to fathom.

In addition to the sponges numerous other habitat-forming creatures inhabit the Northeast Pacific Ocean, notably corals. Often associated with rocky parts of the sea floor, and within submarine canyons, we'll find black, red, bamboo, bubblegum, gorgonian and even Christmas tree corals. On a 2009 cruise off of British Columbia the Living Ocean Society identified over 16 species of coral. Some of the deep-sea corals can live over 1,800 years growing scant millimeters per year.

While we usually associate corals with the hard bodied, reef-forming animals, there are also soft corals. *Octocorallia* such as sea pens, sea fans and sea whips attach to the sea floor and wave their eight tentacles and branched form like feathers in the current.

Okay, we have some amazing habitat on the seafloor off the Pacific Coast. Are we harming it? Does it need protection?

When NOAA took up the subject of EFH in the Pacific Region, in 2006, the federal government concluded that certain areas should in fact be protected. The human activity with the greatest impact on living seafloor habitat is bottom trawling.

Numerous important food fish such as soles and rockfish abound near the seafloor. By far the most efficient way to harvest these fish is to drag nets along the bottom. In deeper waters the nets generally have a large footrope that helps prevent hang-ups in rough terrain, and steel doors to keep the footrope spread and the net wide. Corals and sponges in the path could be torn from their moorage and crushed.

Over 80% of the groundfish landed in Washington, Oregon and California are caught in bottom trawls. A significant part of the economy in many coastal towns is dependent on the trawl fleet. A steady and relatively predictable flow of fish drives a multi-million dollar seafood processing industry.

We have a conflict between bottom trawling for food fish and preventing further destruction of corals and sponges. The conflict expands as we become more aware of the current and historic range of the habitat forming seafloor animals.

The environmental group Oceana and their friends at Ocean Conservancy and Natural Resource Defense Council have proposed modifications to the current EFH protection areas. Their Comprehensive Conservation Proposal closes 66 new areas to bottom trawling, primarily hard substrate and areas highly suitable for coral, as well as waters deeper than 3,500 meters. Although this amounts to an increase of over 137,000 square miles closed to bottom trawling, Oceana calculates that only 8.01 % of recently trawled area would be affected.

The Comprehensive Conservation Proposal also suggests opening certain areas to bottom trawling that were made off-limits in 2006, and exploring upgrades and refinements to enforcement technology that will reduce the need for buffer zones near protected areas.

The Comprehensive Conservation Proposal is well documented with citation to the available studies and observations. It would be reasonable for the Council to take this proposal as a starting point for discussions.

The Marine Conservation Institute has made a significant contribution to this EFH process through predictive deep-sea coral habitat modeling. It is far better to avoid inflicting harm on marine habitat by anticipating where sensitive, slow growing structures are likely to form, than to sweep up the pieces later.

It is interesting to note the overlap with the Marine Conservation Institute work, the Comprehensive Conservation Proposal and a proposal by Greenpeace that focuses on submarine canyons. This strongly suggests that expanded protection for these canyons and their heads should be a part of the EFH revisions.

The ocean is a very large place and there are data gaps, especially direct observations. Experienced fishermen can often provide the missing information with more efficacy than marine scientists. If the Comprehensive Conservation Proposal is the starting point, it is vital that fishermen are closely involved in the refinement of this into what would ideally be a collective proposal.

There will be those who argue that current protection is sufficient and the Comprehensive Conservation Proposal goes way overboard. An aggregate reduction of 8.01% of trawled ground may not seem excessive – unless a large part

of that has been essential to a trawling corporation's business plan.

The Council and NOAA face a difficult decision in how far to go in protecting EFH. They operate under a legal mandate to use the best available science in crafting their decisions. They also consider possible economic effects of their actions.

It's far easier to take a precautionary approach and err on the side of environmental protection if the economic result is benign. Although there is some empirical economic data on the groundfish fishery, the Council will still hear and to some extent rely on anecdotal testimony.

The goal should be to accomplish a win-win. This is expressed in the Comprehensive Conservation Proposal in the discussion of areas acceptable to reopen and in enforcement changes that could prove profitable to the fishery.

This leaves me wondering if this couldn't go a bit further, if unprecedented collaboration between the fishing industry and the environmental community might be realized.

Fishermen with decades of experience on the water know a lot about the seafloor. I'll surmise that some even know of coral hotspots that the environmentalists have missed. They're not going to tell. Where's the incentive?

There is an incentive. Gaining and maintaining a sustainability certification from the Marine Stewardship Council could increase the value of the landed catch of groundfish for fishermen, as well as the market value for processors. Progress has already been made at reducing bycatch and protecting overfished species. An active commitment to protecting habitat would further demonstrate sustainability.

Several years ago trawlers took direct action to protect the nearer shore reefs by use of a small footrope that would hang up if they fished on the rocks. This conservation action was later adopted in regulations still used in the shallower water trawl fisheries. (It is interesting, as Environmental Defense Fund points out in their July 31, 2013 EFH proposal, that fishermen now avoid the rocky areas in order to reduce encounters with rockfish species for which they hold a very low quota. Environmental Defense makes a reasonable suggestion to explore removing the small footrope regulation in order to better protect soft bottom habitat, especially with minimum disc spacing to reduce invertebrate mortality.)

The nearshore trawlers, sometimes called beach draggers, also developed selective flatfish trawl nets that allow rockfish to escape.

Pink shrimp fishermen experimented and developed finfish excluder devices to reduce unwanted catch – and effectively conserved rockfish.

The history is there. Fishermen have taken significant conservation actions before

regulations forced compliance. Environmentalists have offered creative ideas that can improve the profitability of fisheries.

Trawling has been a favored scapegoat for environmentalists. The images of giant nets destroying everything in their path while indiscriminately killing tons of fish and other bycatch are too tempting not to use. And that's the reality in some places some times.

But the West Coast reality is that trawling is a much more precise business. With the new Catch Share system and observers on every trawler, the process is to land the desired quotas and avoid overfished species. Fishing smart pays off. Trawlers don't want to land coral or even leave crushed coral and sponges in their wake. It's bad for business.

Nonetheless bottom trawl gear damages habitat. And in mixed species fisheries, trawling is notoriously non-selective. Greenpeace calls for a progressive shift to less destructive, more selective gear. While that may sound extreme to an industry that has struggled with scales of economic efficiency relative to fleet size and quotas, public perception is likely to drive demand for additional habitat protection.

Those who understand this dynamic will be the real winners in the long run. Resourceful fishermen (with the support of scientists and environmentalists) will test and develop gear modifications and perhaps even new approaches to fishing that are both efficient and habitat friendly. The market will reward these cutting edge efforts.

The Council is expected to use the best scientific information available to revise and refine Essential Fish Habitat designations. No doubt the Council will also encourage good faith negotiations among all parties to help make these tough decisions a little easier.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Peter Huhtala". The signature is written in a cursive, flowing style.

Peter Huhtala
Executive Director