

December 05, 2016, oc120516.mp3

Positively Ocean

Liz Fox, Rick Starr

Liz Fox: Hi! This is Liz Fox at Positively Ocean, where we celebrate the ocean and look at what's working well. This week's rockfish story takes us to the bottom of the Pacific Ocean along with continental United States. Two decades ago, rockfish, a group of slow to mature bottom dwelling fish, were in extreme peril from overfishing. In 2002, the Pacific Fisheries Management Council banned fishing for rockfish in large areas along the length of the United States west coast. As a result of this protection, several rockfish species are bouncing back! But without science we wouldn't have known about the population declines in time to save the species! Rick Starr is a researcher at Moss Landing Marine Laboratory, throughout his career he studied coastal life in the ocean and worked with groups to help make smart use of resources.

Rick Starr: The way that science works, is that we do our best to provide information about a particular species and provide a set of sideboards as to what we think that population is doing.

Liz Fox: The problem is, that throughout history in the United States, unbridled, economic actors have decimated natural resources, sometimes beyond recovery, that's why state and federal governments created agencies to measure resources and regulate their extraction. Our land based regulatory agencies limit the number of trees we can cut so forests have a chance to recover after harvest or environmental events, like fires or droughts. In the ocean, regulatory agencies determine how many fish we can catch without destroying a population, where we can drill for oil, and where to protect exceptionally critical coastal ecosystems. Scientists in the late 1990's witnessed, recorded and warned that a spout of inhabitable oceanic and atmospheric patterns impacted rockfish reproduction and, coupled with commercial fishing, could decimate populations off the west coast. The Pacific Fisheries Management Council imposed a fishing ban and created rockfish conservation areas in 2002 to support rockfishes' longterm survival. One of Starr's challenges, was to estimate the number of rockfish, both inside and outside of the rockfish conservation area. Those numbers would help determine if the areas achieved their intended goals. The California Collaborative Fisheries Research program funded his sampling studies and Starr recruited students and recreational and commercial fishermen to become citizen scientists.

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- Rick Starr:* Our goal was to engage stake holders, primarily anglers in the essential coast area, in monitoring those marine protective areas. And the reasons to fold, one is that we believe that any area that is put off limits to fishing should be monitored and the information will be best used if it's monitored who are effected by that decision. And secondly, we wanted to use the expertise of the anglers in the central coast area to help us monitor fishes.
- Liz Fox:* Starr, his colleagues, and citizen scientists measured rockfish and their populations in 2014 and compared the results to the results of similar surveys in 2002. The data showed that protections for rockfish worked.
- Rick Starr:* The good news was we found lots of large fishes in those areas that had been heavily fished in the 80's and 90's and both number of fish and size were much greater than they were in the 1990's. We can say that the increased numbers and sizes of fishes were directly related to the closures but also directly related to some environmental conditions
- Liz Fox:* But there's a constant push and pull between fishing interests and conservation. When fish populations rebound to healthy levels, anglers seek access and regulatory agencies prefer to relax their protections. So while Starr's data show that many species of rockfish recovered enough to sustain a population, numbers for Yelloweye rockfish and Cowcod still haven't reached a turning point.
- Rick Starr:* Unfortunately, there are still 3 or 4 different species of rockfishes that still haven't completely rebounded or rebuilt form being in an overfished state. So there are a couple of species right now who's low populations are constraining the options for the Pacific Fisheries Management Council. And right now the managers in the fishing communities are trying to work through that to try to figure how to increase fishing access and fishing opportunities while still protecting those few species who's populations are still low.
- Liz Fox:* For Starr, the role that science and information plays is paramount.
- Rick Starr:* And it's really important to maintain the information base to allow us to make wise decisions about ocean resources. And that information base comes from research and it also comes from having the fishing community out on the water catching fish.

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Liz Fox:

This is an example of how to do right by the ocean folks. Until next time, I'll be searching for all things Positively Ocean. For Ocean Currents Radio on KWMR in west Marin, this is Liz Fox reporting in Berkeley, California.

(Musical Outro)