West Coast rockfish

Rockfish population slowly on the rise

More than 60 species of rockfish dwell in vast numbers in the Eastern Pacific Ocean from Baja to Alaska. White-fleshed and delicious, they frequently school together and often intermingle with other commercially sought fishes — but seven members of the genus Sebastes have spoiled the party. Actually, it was fishermen, who harvested them nearly to economic extinction last century, and this handful of species is now largely protected by the Pacific Fishery Management Council from trawl nets, traps, and hooks.

Rockfish are notoriously long-lived and painfully slow-growing, and as these species gradually recover from the depths of overexploitation, the once phenomenal fishery may remain closely restricted for decades south of the Canada–United States border, and other fisheries are feeling the strain of the closure, as well.

“Basically, measures for rebuilding those seven species are constraining fishing opportunities for other species that aren’t in danger of overexploitation,” said John DeVore, staff officer with the Pacific Fishery Management Council.

The rockfish and related species under strict federal protection in waters off California, Oregon, and Washington are widow, darkblotched, cowcod, yelloweye, bocaccio, Pacific ocean perch, and canary. These species are officially “overfished,” a designation which the council grants when a fish’s population drops to 25 percent of its estimated virgin level, and a stock is not considered “recovered” until it has climbed back up to the 40-percent mark.

These guidelines were devised and written into policy in 1998 as part of the Fishery Management Plan. Since then, two species have ascended back to the 40 percent level and been removed from the list of those overfished: Pacific whiting (i.e., hake) and lingcod.

Not technically a rockfish, the lingcod’s fast individual growth rate and proclivity toward reproducing helped its recovery, declared official by the council in December 2006.

The Pacific whiting stock, another highly productive species, was declared rebuilt in 2004. The whiting story is somewhat confusing. The stock was declared overfished in 2002, but the 2004 whiting assessment indicated the stock was healthy (i.e., above 40 percent of virgin biomass) and never did reach the overfished threshold of 25 percent of virgin biomass as indicated in the 2002 assessment.

But some rockfish — especially the big boys like cowcod and yelloweyes — may take decades to recover, said DeVore.

Pacific whiting (hake) fishermen regularly encounter great numbers of schooling rockfish. When you’ve got a permit for hake, you’re geared up for hake, you’re fishing for hake, and you know there is a hell of a lot of hake around, nothing stinks so much as scooping up a school of lousy rockfish — especially ones protected by strict bycatch limits.

The fleet may have dozens of tonnes of hake left uncaught in the quota but must stop because the rockfish cap has been exceeded.

While the odd captain dumps his accidentally caught rockfish overboard — as seen last summer in a scandal off the coast of Washington — federal law requires that all accidentally caught fish be accounted for, and if the whiting fleet in California, Oregon, and Washington lands 4.7 metric tons of canary, 25 tonnes of darkblotched, or 220 tonnes of widow, the hake season comes grinding to an end.

After the early closure in August, the council raised the widow cap to 275 metric tons in September to allow the fishery to re-open in October.

“It’s really impacted the hake fishery,” said Brian Culver, marine fish policy lead for the Washington Department of Fish and Wildlife. He was speaking immediately after the whiting season closed last summer because of overfishing on rockfish.
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Fortunately, the council’s population trajectories suggest that widow rockfish will reach the important 40 percent mark within several years, according to DeVore.

But some species are expected to take much longer. The target year for rebuilding bocaccio rockfish is 2026. For cowcod, it’s 2039, although this year’s assessment indicates it will take much longer. While the current canary rebuilding plan has a target year of 2063, the 2007 assessment is more optimistic, indicating much faster rebuilding. And council biologists don’t predict a recovery of yelloweye until 2084.

Population estimates are made using landings reports, discard reports, and fishery-independent surveys, such as the bottom trawl surveys conducted annually by the National Marine Fisheries Service, said DeVore.

Manned descents in small submersible vehicles add to the picture, as well. Occupants of the subs count the fish visible in the proximity of the vessel. This localized fish density is then applied to the total area of habitat in a region, producing what scientists hope are fairly accurate population and biomass estimates.

“There can be a lot of uncertainty in these assessments,” said DeVore. “There are a lot of opinions from fishermen who claim the assessments don’t address reality and that they see a lot more fish out there than we’re estimating.”

However, in the process of making population estimates, such opinions are considered, DeVore added. Nonetheless, scientific opinions declaring a collapse of many rockfish species generally outweigh any optimism.

“Fishermen who say the disaster has been magnified are usually younger guys who didn’t see the heyday,” said Culver. “There was a time when we literally had vessels delivering in a single tow what is now the total season harvest guideline for the state.”

Brandon Ford of the Oregon Fish and Wildlife Department remembers the good old days, as well.

“As a sport fisherman, I’ve seen the decline myself. Even just 20 years ago, you couldn’t keep rockfish off the hook. If you didn’t get the 15-fish limit, it was a bad day. Now you’re getting two to three fish per recreational angler.”

Pete Leipzig of the Fishermen’s Marketing Association in Eureka says that management blunders several decades ago combined with a long, low-productivity oceanic regime delivered a “double whammy” to the West Coast’s rockfish stocks. Part of this occurred because of an essential misunderstanding of basic rockfish biology.

“In the mid-’80s there was a sort of rediscovery in the way scientists measure the age of these fish,” said Leipzig.

Counting the annual growth rings on the otolith, or ear-bone, was nothing new in those days — but everyone was doing it wrong, he says. It was discovered that if the otolith is broken in half, more rings become visible.

“It worked out so that the fish were twice as old as we’d thought they were and therefore were half as productive as we’d thought.”

Poor rockfish recruitment in the following decade did not help the fishery, but strong reproductive seasons in 1999 and 2000 did, according to Milton Love, research biologist and rockfish authority at U.C. Santa Barbara.

“Some rockfish are certainly in recovery. There was good recruitment for chilipeppers in the late 1990s, and today they’re in good shape, but there’s no evidence that cowcod are recovering from the pit they’ve fallen into.”

Rockfish in Alaska have not experienced the overfishing such as that suffered by species in Washington, Oregon, and California. Managed by the North Pacific Fishery Management Council, directed fisheries exist in Alaska both inshore and offshore for Pacific ocean perch, northern rockfish, and several other species. The industry has fishermen on approximately 40 vessels and workers at about a dozen processing plants.

“Across the board, there’s generally nothing that we’re particularly worried about destroying this fishery,” said Mark Fina, senior economist with the North Pacific council. “The fishing pressure just hasn’t been what it is elsewhere.”

The Pacific Fishery Management Council’s federal policies on rockfish may override state laws, yet the council welcomes local governments in lawmaking processes so long as the state rockfish harvest regulations are stricter – not looser – than the federal regs.

“We’ve gone to great pains to have the states set regulations that are in compliance with our rebuilding plans,” said DeVore. “It works well. All three states are basically partners with the feds.”

The prevailing problems in managing rockfish remain. The fish will always grow and reproduce slowly, and with so many varieties in the sea, sweeping regulations cannot be made without regard for individual species. And perhaps most troublesome of all, they associate freely with other groups of fishes, and avoiding the protected species is often impossible.

“Fishing was once about catching fish,” said Culver. “It’s ironic that fisheries management nowadays is about how to avoid fish. People know better than ever now how to find fish, but more and more the game is about how not to catch them.”
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**A fisherman’s perspective:**

**Bycatch ceilings look a lot different from the water**

We had a hard time tracking down fishermen to comment for this feature – most were out working – but finally connected with Gary Wintersteen two days after Christmas. He drags out of Warrenton.

“Some of those numbers they kick around are just asinine. To say that these species need 70, 80, 90 years to replenish is insanity. I don’t see any science. It’s all politics.”

There was some unprintable stuff. Then he calmed down.

Quite simply, Wintersteen said, there are more fish down there than environmental protectionists and the Pacific Fishery Management Council will admit.

“You’re not going to find rockfish in the same place you did last year or 10 years ago. They have fished. They swim,” Wintersteen said.

One example: Canary rockfish.

“I’ve never been convinced there’s a problem with canaries. Our canaries did get harder and harder to catch. That’s because they don’t stay in the same spot.”

He knew of some hotspots for canary rockfish near Canada. Then the fish seemed to disappear.

But when offloading one day at Bornstein Seafoods in Bellingham, Wintersteen met some Canadians also making deliveries.

“Those Canadians – big boats, pack a half-million pounds – they were offloading huge amounts of canaries.

“The canaries, they don’t know anything about borders. They had moved north.”

And, for some reason, they later moved south again.

Then there’s the issue of faulty fish population surveys: Self-imposed restrictions often ensure that your target species will be found depleted – even if there are plenty of fish in the sea.

Call it an aquatic Catch 22.

Here’s how it works, according to Wintersteen. You want to survey canary rockfish because you believe their numbers are low. Because the fish is “overfished,” you wisely limit the numbers of canary rockfish you will kill as part of the survey.

You drag and suddenly start catching a bunch of canary rockfish. So, you immediately end the survey. Why? You’ve killed too many of an overfished species.

Yet, maddeningly, there are a bunch of the fish flapping right in front of your nose. But rules are rules and, apparently, a bunch of fish mean there are no fish.

In short, you can’t prove there are a lot of fish because you’ve proved there are a lot of fish.

Yet, even when there is consensus about abundance of a species, the machinery of fishery management grinds slowly.

Take widow rockfish (brownies), the species that caused a hullabaloo in August. The Pacific whiting fleet caught too many brownies, and managers shut it down. Yet nearly everyone – fishermen and managers alike – generally agreed that the brownie cap should be raised because the species is coming back.

Even so, the lower cap will remain at least until 2009 because … well, because that’s the way the Pacific Fishery Management Council works.

“If they just go with the assessment survey data, they could increase the cap, instead of every three or four years,” Wintersteen said.

Managers have said in the past that weighty decisions require contemplation. As an example, they point to the faulty decision to cut the whiting fishery in 2002 – although later analysis showed the species had never been overfished.

In many ways, the fleet has an image problem. Too often, environmental protectionists characterize trawlers as the bulldozers of the sea. In reality, with new gear, electronics, and extensive local knowledge, the fleet can be selective.

“I call what we do ‘grocery shopping.’ We go down the aisle and pick a little of this, a little of that. We know where the right fish are and where the wrong fish are – and we fish accordingly.”

It’s a message many protectionists don’t understand, and they often come armed with lawsuits, Wintersteen said. So, the Pacific council is gun-shy.

Yet, even with the headaches and frustrations, Wintersteen, said he’s earning a comfortable living.

“Used to be, groundfish was our bread-and-butter fishery. If you had a boat and any kind of gumption at all, you could make a living. That went away for a while. Now, you can make a significant living dragging again.”

Wintersteen fishes for bottomfish, crab, and shrimp.

“I make a good living. I won’t deny that. Fish prices have crept up, agonizingly slow, but they have. But there’s no more volume fishing.”

The lack of volume means fewer fillets in the grocery store. What once was generic “red snapper” available at family prices now has risen in status – and price – to gourmet levels.

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**In B.C., rockfish catch limits and bans are in place**

In British Columbia, there are 164 Rockfish Conservation Areas (RCAs) where no recreational or commercial fishing for rockfish or lingcod is permitted.

In 2002, DFO initiated a strategy to halt population declines and allow inshore rockfish and lingcod stocks an opportunity to rebuild. This strategy is based on four specific conservation measures:

- Reduced harvest of inshore rockfish and lingcod
- Areas for the protection of inshore rockfish where fishing will be restricted (RCAs)
- Improved catch monitoring
- A stock assessment framework for both lingcod and inshore rockfish

All groundfish vessels must account for their bycatch and have a quota for their catch. Outside trawl groundfish vessels have 100 percent onboard observers, and the hook-and-line fleet has 100 percent electronic monitoring.

– Michel Drouin

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