

Sea change: deal saves California fishing industry

Storm clouds over California's fishing industry are lifting after conservationists struck a unique deal with trawlermen, offering to preserve their dwindling livelihoods on the condition that they swap their destructive dragnets for lines and hooks.

By Charles Clover

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Roger Cullen is tired but happy. He has just unloaded 1,500lb of black cod on the dock at Morro Bay after a long night in an open boat. When he left port and steamed north up towards Big Sur, the sea along the rocky central California coast was glassy calm, the sun was beating down and weekenders were out driving convertibles, camper vans and riding customised Harleys along the spectacular coast road, Highway 1, stopping occasionally to point their cameras at formations of low-flying pelicans and elephant seals moulting on the beach at San Simeon.



Roger Cullen with some of his catch of black cod Photo: CHARLES CLOVER

But when California's Central Valley heats up, cold air from the ocean is sucked towards the land. The fog comes off the Pacific and stretches its fingers into the parched valleys of the central California coast. A brisk westerly got up as well as the fog, and Cullen and his crew of baiter and boy found themselves in horrible weather. After 24 hours of rolling about in a confused sea on the deck of their 30ft boat, Dorado, they are delighted to be back in home port – though its distinctive rock and three-stack gas-fired power station are still almost invisible in the enveloping mist. Keen to get home and sleep, they unload in 15 minutes.

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Tired as he is, though, Cullen still wants to tell us about the fishing because it was really good. His catch – from baited lines with 1,200 hooks dropped into 1,800ft of water 15 miles off the beach – will gross \$3,300. But he

caught more than he bargained for: when he winched up the lines he found he had not only too many black cod but also a by-catch of thornyheads, all of which the rules say must be released alive. Unhooking fish and returning them drained more energy out of the two men and the boy. Cullen is still in good humour, though. 'It's nice to have a day like that. There's such abundant resources out there that it amazes me.'

It wasn't always so. Like so many other fisheries in the world, the United States' west coast has been through a bad patch. Poor management and overfishing means incomes are down \$60 million a year from their peak in the 1980s. Unlike many collapsed fisheries in the world, though, west coast stocks have begun to come back. Partly this is the result of US federal law, which imposes science-based catch limits and closures to protect fish habitat – unlike the EU's Common Fisheries Policy, which pays scant regard to scientific advice and for which protecting fish habitat is so far an alien concept. Partly, around Morro Bay, halfway between San Francisco and Los Angeles, the recovery is the result of a further initiative: a partnership between fishermen and the world's largest private conservation group, the Nature Conservancy.

In 2005 the conservancy (TNC as Americans call it) bought trawlers and trawl permits from willing sellers along a 5-6 million-acre stretch of California's central coast. A condition of the purchase was for the conservancy and trawler owners to agree to the protection of 3.8 million acres of 'essential fish habitat' in the region; and jointly recommend that action to federal regulators. In 2007 TNC leased the permits back to fishermen provided they fish with more selective and benign gear, such as hooks or traps. This has drastically reduced the by-catch of unwanted fish, left more juveniles in the sea, and protected the bottom habitats of corals and sponges that are often crushed by trawling. It is the first conservation buyout of its kind in the world. If it proves viable for Morro Bay's fishermen, it could work in other places, perhaps even in Europe.

Conservationists at Monterey Bay Aquarium, a beacon for ocean conservation 100 miles up the coast, say the Morro Bay deal owes a great deal to the character and temperament of one man.

Chuck Cook is a long-time conservancy hand who cut his teeth in the battles over damming the Little Tennessee River in the 1970s. He championed the snail darter, an endangered fish, against the might of the Tennessee Valley Authority, which wanted to destroy its habitat to build the Tellico Dam, the 41st dam on the river. The snail darter was the first test case under the US Endangered Species Act. Cook and the local conservationists won the day in the Supreme Court, but they were routed when Senator Howard Baker put a rider on a budget Bill exempting the dam from the legislation. The dam was built.

'It was my first hardball lesson in politics,' says Cook, who talks with a Tennessee twang. Cook drives a Jeep, shoots quail, fishes for trout and bonefish, and calls himself a hillbilly. His wife, Marty Fujita, an ecologist who did her post-doctorate work at Harvard, seemed to concur when I visited them at their home in the native oak woods of Ojai, in the hills above Santa Barbara. 'Chuck's a good ol' boy,' Marty said, with only the faintest hint of irony.

The Nature Conservancy is a private charitable organisation that is known for its use of science, its non-confrontational methods and its belief in land acquisition. It has assets of about \$4 billion, much of that comprised in its portfolio of conservation lands, funding that comes from its one million members and private donations – and has offices in 50 states and 36 countries. Chuck Cook was instrumental in some of its deals. As the director of TNC in Tennessee, he bought 25,000 acres of bottom-land hardwood forest in the Mississippi River Delta for the conservancy. He bought Matagorda Island in Texas, the overwintering home of the endangered whooping crane. He bought 780 acres of Palmyra Atoll in the northern Pacific and, as a condition of purchase, TNC persuaded the Clinton administration to create a marine reserve 12 miles around it. That is part of the tropical marine complex George W Bush enlarged at federal expense in his last days in office to create the largest marine reserve in the world.

Cook found himself the director of TNC's coastal and marine programme at a critical time when commercially targeted groundfish stocks on the west coast were declining rapidly. Trawlers landed 280 million lb of groundfish – bottom-living fish – in 1982 along the west coast from Washington to California. By the late 1990s, catches were a quarter of that. Then scientists realised that they had underestimated the damage trawling had inflicted on some of

the most vulnerable species among the commercially caught rockfish, which make up 60 of the 90 west coast groundfish species. Most vulnerable were the yelloweye rockfish, a species that reproduces slowly and has been found to live to 118 years old, canary rockfish, darkblotched rockfish, bocaccio, Pacific Ocean perch and cowcod. In 2000 the secretary of commerce declared west coast rockfish fishery a disaster – which meant stocks had sunk to less than 10 per cent of their pre-exploitation abundance, as the New England cod had in the 1980s.

Cook had often wondered how you might make the kind of acquisitions in the ocean that TNC had made on land. 'Nobody had ever done it, but it seemed like it could be done,' he says. The catalyst came in 2005 when another environmental group Oceana, took the government to court for failure to protect the rockfish essential habitat – something that can happen in America but not in Europe, where citizens groups lack legal standing. As Cook puts it, 'You Europeans may be ahead of us when it comes to climate change and genetic modification, but on fisheries you're still in the Dark Ages.'

The judge declared that the regulators had to protect the most important breeding and feeding areas for depleted rockfish throughout the west coast. So the National Oceanic and Atmospheric Administration created and began to enforce a rockfish conservation area, a thin strip covering all the water from 30 to 150 fathoms along the coast, together with a series of marine protected areas to conserve other habitats from trawling – again, several years ahead of what we are doing in Europe.

Conservationists feared the side-effect of all this red tape would be to push fishing effort down the continental shelf and into deep-water habitats that had never been fished, such as the Davidson Seamount, which lies in deep water off the coast. 'We were afraid the fleet was going to drop off the shelf into the virgin habitat,' Cook says. 'The conservation community's idea was to freeze the trawl footprint.' That meant keeping fishing where it was, but making it less damaging.

But conservationists didn't have much purchase on the way things worked in the regulatory arena. The seats on the body that manages the west coast fisheries were packed with industry participants. It seemed that the people who had the most stroke at that time were fishermen, permit holders, fish buyers, processors and government reps. So, Cook asked, where was the idea of public trust? It was then that the conservancy asked itself, why don't we acquire some permits and then we would be a genuine participant in the fishery? The conservancy went out and persuaded three major foundations – David & Lucile Packard, Marisla (Getty oil money) and Gordon & Betty Moore (co-founder of Intel) – to bankroll acquisitions. Later, when the conservancy began redesigning fishing permits in Morro Bay to reduce the incentive to overfish, it did so with the help of the University of California, Santa Barbara, which had been funded by a grant from the Paul G Allen family foundation – the co-founder of Microsoft. There is money for new ideas in California.

The conservancy and its scientists met the owners of 22 trawl permits on the docks at Morro Bay to explore a private buyout. Cook went armed with maps from vessel-monitoring systems, which have to be fitted by law, showing trawl tracks as red lines. He also had a map of the key seafloor habitats and biodiversity that TNC wanted to protect. The trawlermen's interest was sharpened by the knowledge that their businesses, based on high volumes of low-value fish, were struggling. They were also nervous about the prospect of further federal regulation if they could not agree on areas of habitat that could be protected.

'What got them in the room was the prospect of selling their fishing assets and taking those proceeds to reinvest into another livelihood,' Cook says. 'The fishermen thought they had a better chance of striking a fair deal with TNC that both preserved their critical fishing grounds while protecting key fish habitat. There was lots of tension. No one knew what the outcome would be.'

The conservancy bought seven permits and four trawlers, two of which were demolished. The cost of that, as well as staff, legal and acquisition expenses added up to about \$3.8 million. Since that agreement, TNC has purchased a further six trawl permits in nearby Half Moon Bay.

Michael Bell, who has taken over the second phase of the project, says, 'When TNC bought a bunch of permits,

the reaction was, what the hell is going on? Big Green owns part of the fishery. The attitude changed when we actually started catching fish on our permits. They realised we were not scared to fish.'

With the aim of exploring the benefits associated with selective fishing gears, TNC let out new 'experimental' permits to fish with hook and line in the areas where trawling was banned. They also let out one permit to trawl – for petrale sole and Dover sole, species that cannot be caught by other methods, in an adjacent area with a sand and mud bottom. Local fishermen began to think maybe the greens weren't so bad after all.

Over the past three years, TNC has developed bonds with fishermen such as Roger Cullen. He was initially sceptical, but likes the idea of getting access to fish that no one else may catch. And he supplements his income by doing scientific survey work monitoring marine reserves, work arranged by the conservancy. He shares TNC's ambition of developing a high-quality, low-volume market for line-caught fish.

Cullen sells some of his fish to a local processor that supplies Bon Appetit, a conservation-minded company that in turn supplies the Google campus in San Francisco. There is a growing demand for local, high-quality, sustainably produced fish.

Americans tend to favour fish that doesn't taste too fishy. So, ironically, there is little demand as yet for another conservation success story, the Californian sardine, which has returned off Monterey after collapsing in the 1940s and 1950s. But black cod, or sablefish, is at no such disadvantage. It is the staple of west coast Japanese and fusion restaurants. The only complaint of Mark Tognazzini, who owns Dockside and the Fish Market, two restaurants on the quay at Morro Bay, is that the local fishermen won't save enough for him. He cooks a mean black cod in teriyaki sauce when he can get it. Fishermen are inclined to sell their whole catch to one processor. This does not make for harmony on the dockside.

Brett Cunningham is a 43-year-old third-generation fisherman whose relative youth makes him stand out in an occupation now dominated by older men. He is a strong supporter of the conservancy's new low-volume, high-value business model. He thinks Morro Bay will have its own premium label for sustainable fish one day. He came into hook and line fishing via lobster fishing, diving and sport fishing, so he is used to being selective. He says he once went out on a trawler and was silently horrified by the cornucopia of fish species that spilt on to the deck, many of which went back over the side dead. The skipper said, 'Hey, the by-catch isn't too bad today.'

Both Cunningham and 63-year-old Eddie Ewing, a fisherman playing guitar at the Dockside this Sunday afternoon, hope the partnership with the conservancy is their route to more fish – through the re-opening of the rockfish conservation areas to selective fishing gear. To my surprise, Michael Bell doesn't rule that out. He says TNC may be interested in helping with research on how to inflict least damage on habitats and targeting less vulnerable species. He is keen on anything that strengthens the viability of selective fishing.

There is a wider range of opinion on the dockside about the latest proposal causing turmoil in the industry: the introduction of 'catch shares' – or individual transferrable quotas, such as they have in Iceland or New Zealand. These give fishermen a total tonnage they can catch and total flexibility as to when they can catch it. Some, including Rick Algert, the harbourmaster with a huge droopy moustache, are worried about the quota being bought up by a few big companies based further north, leaving Morro Bay with no fishermen. Algert persuaded the city of Morro Bay to subsidise the fish dock through the bad times. So he doesn't want the fishermen to leave now the fish are coming back.

But Cunningham thinks catch shares are an excellent idea. He says catching fish now is easier than it has ever been but he is scared to catch too many. Under the current open-access arrangements, he is allowed to catch 1,500lb of black cod a week. If he catches any more he has to put them back, a time-consuming business on a rolling boat. With catch shares, he would own a share of the fish available and he could plan to catch that with the minimum expenditure of fuel and at a time when fish prices were theoretically at their highest. Michael Bell is also optimistic, but says there is a lot of talking to be done before he can be reassured that catch shares are compatible

with selective methods and will keep fishermen in Morro Bay.

For both Algert and Cunningham the ultimate test of the new kind of conservation-based fishing that TNC has brought into being is whether young people take it up again as a career. Cunningham says, 'I would judge the success of all this stuff when I see new entrants [to fishing] coming out of Morro Bay high school. Right now, everyone else is old, I'm young and naturally sad.'

For Chuck Cook, the questions are more philosophical. Can this new fishing partnership between a charitable organisation and fishermen be financially self-sufficient without regular transfusions of dollars from Silicon Valley philanthropists? It is always possible, he muses, that the philanthropists might want to go on helping the conservancy and local fishing communities to bank fishing permits, and sharing the cost of research and monitoring, for they will acquire more tangible benefits for marine species than they would get any other way. It could even be a model for fishing in the future – in theory, even in Europe. As Cook would say: nobody's ever done it, but it seems like it could be done.

'The End of the Line', a film based on the book of the same name by Charles Clover, has its British premiere at 50 cinemas on June 8. For details, visit endoftheline.com

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