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How Anglers Are Learning To Save Fish That Get 'The Bends'

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Transcript

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Heard on Morning Edition



JON HAMILTON



Barotrauma can cause a fish's eyes to pop out of its head and its stomach to be pushed out of its mouth, according to Chris Lowe, a marine scientist at California State, Long Beach.

Jon Hamilton/NPR

Each year, sport fishermen unintentionally kill millions of deep-water fish they don't want or can't keep. These fish die even though they are handled gently and released quickly. The reason: a condition called barotrauma, which divers know as "the bends."

The problem occurs in fish that have a swim bladder, an internal balloon that helps them control their buoyancy. When a fish is pulled up, "that balloon rapidly begins to expand as the pressure from the water decreases," says Chris Lowe, a marine scientist at California State, Long Beach. So by the time a deep-water fish reaches the surface, he says, "its eyes could be popped out of its head, its stomach is pushed out of its mouth and it looks absolutely horrific."



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Fish experiencing barotrauma are often unable to swim, and they look like they're dead — but they're not. Lowe discovered this about 10 years ago while trying to implant tracking devices in California rockfish.

These rockfish live hundreds of feet below the surface, which is a tricky place to perform minor surgery. So Lowe's team brought the fish to the surface, implanted a tracking device and then quickly sent them back down in cages. Two days later, "we brought the cages back up and all the fish were alive," Lowe says.

Other experiments confirmed that deep-water fish could survive a trip to the surface — if fishermen had a way to send them back in a hurry. The question was how. Scientists didn't know. "So it was really fishermen that came up with many of the ideas on how to get these fish back down," Lowe says.





Lowe is trying to make sure people who fish for sport learn how to use descending devices.

Jon Hamilton/NPR

The result is a wide range of what are called "descending devices." Some are just upside-down milk crates, while others are commercial products with a pressure-sensitive clamp that releases at a specified depth.

What Lowe is trying to do now is make sure people who fish learn how to use these devices. That's why he and Tom Raftican, president of the Sportfishing Conservancy, have joined a dozen sport fishermen in California as they head out into the Pacific aboard a commercial vessel named the City of Long Beach.