



# JELLYFISH FOR CHRISTMAS?





## A CHRISTMAS TRADITION IS UNDER THREAT. BUT TOGETHER WE CAN SAVE IT

In the US they call it "The Feast of the Seven Fishes." It's an Italian-American import, and like many Italian-American traditions, it may have gotten slightly lost in translation.

There's no record of such a feast by that name in Italy, though the run up to Christmas was for hundreds of years a time when Catholics abstained from red meat, and so the fish came out. To this day, seafood on Christmas' Eve - be it baccala, or hake, or shrimp, or squid - is a ritual that binds Italian children to the traditions of generations that came before them.

But how many more generations will be able to carry on that tradition? How many Christmas feasts before the last fish is gone?

There's a saying in Italian, "Non c'è più scampo." Literally, it means, "there's not a single shrimp left." Figuratively, it means we're running out of time. Ironically, both meanings are becoming true.





## THE ADRIATIC AND HIS NURSERIES

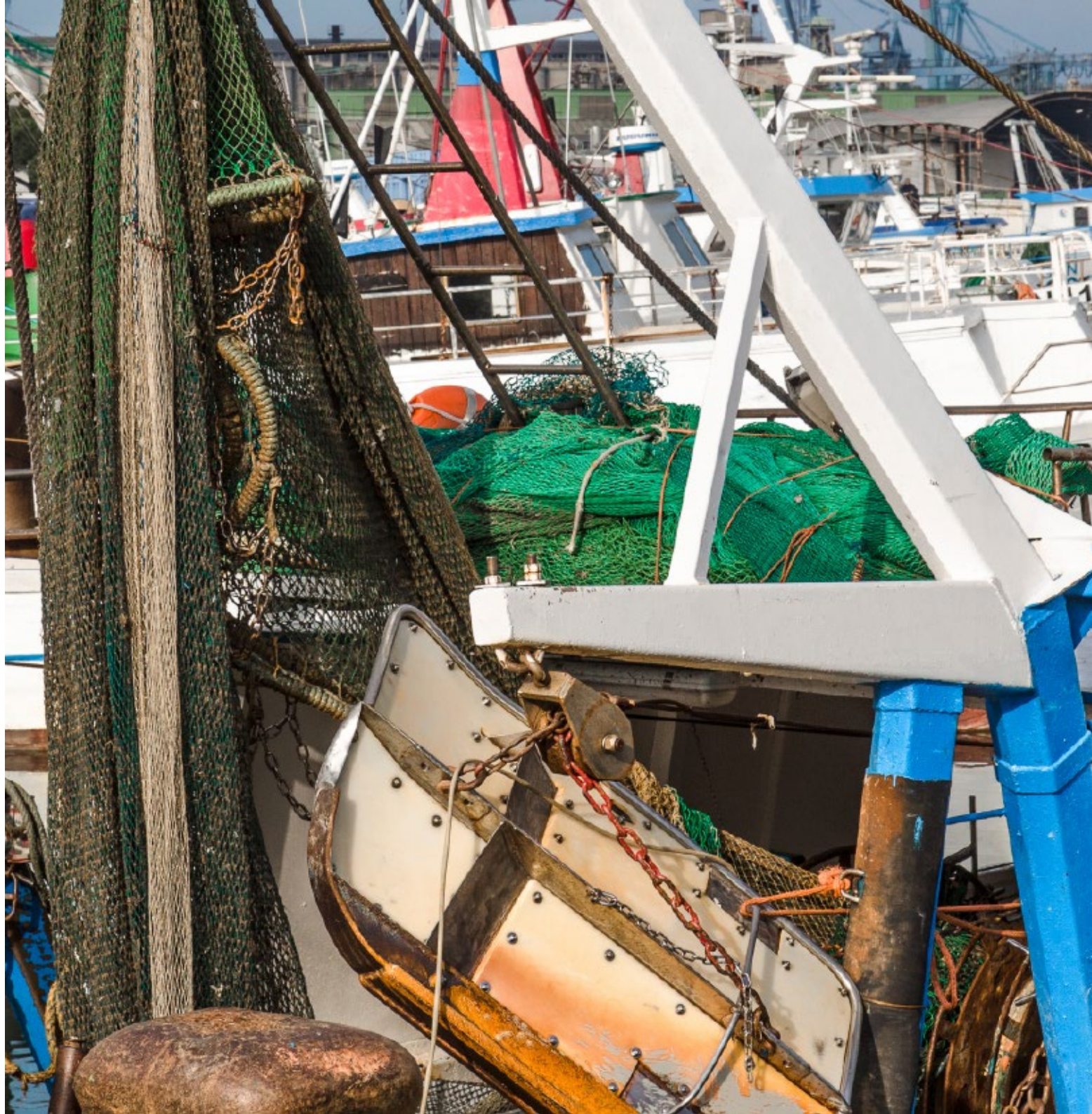
These days, when we scientists break out the statistics on the health of our oceans, expect the news to be grim. Let's look at the Adriatic. The biggest fishing nation in the Med is Italy, and half of all of Italy's catch now comes from the Adriatic.

Why? Most of the rest has been fished out. The EU estimates that 91% of Mediterranean fish stocks are overfished.

Hake and Norway lobster landings fell by 49% and 54%, respectively, between 2009 and 2014. Small coastal fisherman have watched their local catches vanishing as larger, sea-bottom-trawling fleets, chasing ever-dwindling prey themselves, turned their attention to one of the richest nurseries in all of the Med, the Pomo or Jabuka Pit.

Tragically for coastal fisherman and the future of their own catch, the fine mesh of their nets capture juvenile hake and many other unwanted species, deeply harming the sea floor as collateral damage.

Fishing in spawning grounds and nurseries is a sign of desperation: any fisherman knows he's stealing from his own future. But that theft is doubly hard for the small-scale fishermen of Croatia and Italy. Their coastal catch depends entirely on the health of the deeper water nurseries, and they have watched those catches decline as fewer fish spawn or mature to wander out into their reach.





## JABUKA PIT

The Italian and Croatian governments, admirably, took action in 2015, closing the Pomo/Jabuka Pit to trawlers.

But under pressure from the fishing industry, it was reopened just a year later, as Italian politicians went fishing for support and votes in the constitutional referendum.

The Pit is a region where cold, nutrient-rich waters from the Northern Adriatic flow to the bottom of the Adriatic and become trapped, playing a crucial role in the dynamic dance of undersea life in the Adriatic.

Although it covers less than 10% of the total surface of the Adriatic Sea, it is one of the most important fishing grounds in all of the Mediterranean. Deepening to more than 200 meters as it approaches the Italian coast, the Pit contains about as cosy a nursery as any infant fish could ask for: corals teeming with life, soft beds of algae, and the sandy and muddy conditions that Norway lobster in particular love.

Gliding over the sea bottom, the giant devil ray, listed as "endangered" by the IUCN Red List, makes an occasional showing. Porbeagle sharks, also under threat, spend important parts of their lives there.

But bottom trawlers scrape those same sea-beds, and industrial trawlers indiscriminately scoop everything out of the water in the hunt for fewer and fewer fish.



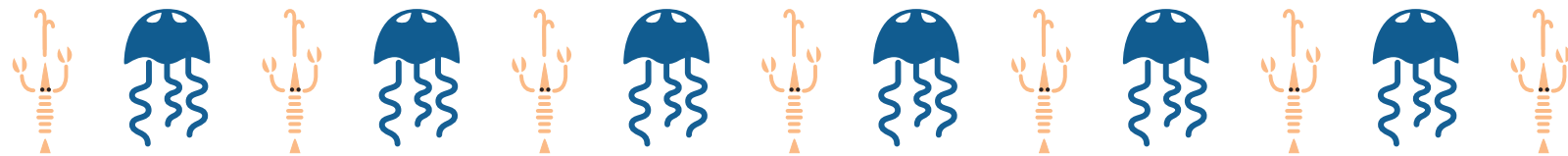


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It's estimated that the fishing industry is taking more than 5 times the amount of hake from the Med than they should to maintain a sustainable catch level. The EU's Scientific, Technical and Economic Committee for Fisheries says shrimp are "exploited unsustainably." If you were to explain that to a five year old, you'd say "it means we're killing the shrimp faster than they can make babies, and if we keep doing that, there won't be any shrimp left".

The EU says a 58% reduction in hake mortality is needed if anyone wants to see it on Christmas plates in the future. They have similar reduction recommendations for Norway lobster, shrimp, in fact all of the fish species surveyed in the Adriatic are now overfished. Science tells us to scale back on fishing for them directly, to improve the selectivity of fishing gear - like increasing trawler mesh sizes to allow juveniles to escape - and to close fisheries in key nursery and spawning areas. Area closures, or Fisheries Restricted Areas, can also provide conservation benefits for vulnerable habitat and for other marine species under threat. In other words, giving the Ocean a break, letting it breathe, letting it heal.

So why are we not taking action on this? The science is clear. The need for action is urgent. And yet our political and economic systems fail us, trapped as they are in short-term thinking and a fiction of infinite growth on a finite planet. A century ago, salmon was so plentiful in the UK that it was considered a trash fish: there were regulations governing how often coal miners could be served it. The waters around Newfoundland once teemed with cod until the fishery collapsed. Some species of tuna are on the brink of commercial extinction. We are eating our way down the food chain, depleting the tastiest, most nutritious fish. In the not too distant future, the feast of the seven fishes might well be seven varieties of jellyfish.





## TOGETHER WE CAN MAKE IT HAPPEN



It's time to get serious about the future of fish in the Med, so why not start with the Adriatic? We're the Adriatic Recovery Project, an alliance of non-governmental organisations and scientific institutions established to protect vulnerable marine ecosystems and essential fish habitats in the Adriatic Sea.

We're scientists and activists working together to urgently plead with governments, the EU, and the UN to take action to protect nurseries and spawning grounds like the Pomo/Jabuka Pit. Let's do this one small thing to protect the most important spawning grounds for the most important species in the most important area of the Mediterranean. By protecting fish nurseries, we can give our children's children hope that they might one day share, as their ancestors did, the abundance of the Ocean for many many Christmas Eves to come.

**The Adriatic Recovery Project is an alliance of civil society organisations and scientific institutions established to protect vulnerable marine ecosystems and fish essential habitats of the Adriatic Sea, funded by Oceans5 and supported by Stanford's Woods Institute for the Environment.**

**The Project is coordinated by MedReAct - a non-governmental organization dedicated to restore the Mediterranean marine ecosystems - in partnership with Legambiente, Marevivo, Stanford University and the Marche Polytechnic University.**

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**Adriatic Recovery Project**

