

VICTORY CREATING THE LARGEST PROTECTED AREA IN THE AMERICAS

PLUS: OCEANA IN BRAZIL | Q&A WITH GOOGLE'S BRIAN SULLIVAN | SEAFOOD TRACEABILITY

OCEANA Protecting the World's Oceans

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OCEANA is the largest international advocacy organization focused solely on ocean conservation. We run science-based campaigns and seek to win policy victories that can restore ocean biodiversity and ensure that the oceans are abundant and can feed hundreds of millions of people. Oceana victories have already helped to create policies that could increase fish populations in its countries by as much as 40 percent and that have protected more than 1 million square miles of ocean. We have campaign offices in the countries that control close to 40 percent of the world's wild fish catch, including in North, South and Central America, Asia and Europe. To learn more, please visit www.oceana.org.

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Cover photo: Oceana's Chilean VP Alex Munoz and National Geographic Explorer Enric Sala in the DeepSee submarine exploring the pristine seas surrounding the Desventuradas Islands. ©Manu San Felix/National Geographic

S BRIAN SULL

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We could whaley use your support.

PLEASE GIVE GENEROUSLY TODAY

Your contribution will help ensure our oceans are vibrant and sustainable. Help us save the oceans, feed the world.

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OCEANA Protecting the World's Oceans

A victory so big you could see it from space

Dear Friend,

Oceana's mission is to quickly deliver globally significant improvements in ocean abundance. We do that by winning policy changes in countries whose oceans are among the 30 most productive in the world. After just 14 years of campaigning in the USA, Europe, Brazil, Chile, Peru, Canada, the Philippines and Belize, it's clear that we are winning. With your continued support, we can save the oceans and feed the world.

Everyone knows that when the Earth is seen from orbit, it is a blue planet. Our Earth would be more accurately named Ocean. So one measure of a globally significant win for the oceans would be a positive change visible from outer space. Just a few weeks ago, we got that done.

When the first astronauts gazed down on the Earth from high orbit, they changed how we thought of our planet. Looking down from orbit, Paul Weitz said:

"The Pacific. You don't comprehend it by looking at a globe. But when you're traveling at four miles a second and it still takes you twenty-five minutes to cross it, you know it's big."

Edward Gibson was struck by something else:

©Eduardo Sor

"We were able to see the plankton blooms resulting from the upwelling off the coast of Chile. The bloom itself extended along the coastline and had some long tenuous arms reaching out to sea. The arms or lines of plankton which were pushed around in a

random direction, fairly well defined but fairly weak in color, contrasted with the dark blue ocean. The fishing ought to be good down there."

In October 2015, President Michelle Bachelet of Chile formally created the Nazca-Desventuradas Marine Park. Her announcement fully protected an extraordinarily important area of the world's oceans-an area so productive and amazing that lobsters there grow to be three feet long. Chile's accomplishment is world-leading: their fully protected marine park is the largest in the Americas. At 300,000 square kilometers, it is the size of Italy.

So you could see it from space.

Chile is one of the world's biggest fishing powers. Its oceans are so productive that they provide more fish every year than all but the European ocean and six other countries. So, if you want to make a globally significant contribution to ocean health, you want the Chileans leading.

It is a huge signal to the world that they are now doing so.

The Nazca-Desventuradas closure was first proposed by Oceana and the National Geographic Pristine Seas initiative, and we worked closely with the Chilean government to make this protection happen. It is good for Chile, good for the oceans and good for a hungry world. As our good friend Dr. Enric Sala at National Geographic explains, when you create a fully protected ocean zone, you create

Oceana wishes to thank all of its supporters, especially its founding funders and foundations that in 2014 awarded Oceana grants of \$500,000 or more: Adessium Foundation, Arcadia Fund, Bloomberg Philanthropies, Leonardo DiCaprio Foundation, Oak Foundation, Oceans 5, Robertson Foundation, Rockefeller Brothers Fund, Sandler Foundation of the Jewish Community Endowment Fund, and Wyss Foundation.

a "fish bank." It becomes a place that produces so much ocean productivity that fishing fleets can live off the interest. It's good for ocean abundance, and it's good for a hungry planet.

The creation of the Nazca-Desventuradas Marine Park is an accomplishment that you, as a supporter of Oceana, have helped make possible. Together with our allies, we are winning the policies that are creating and protecting an abundant ocean. You are essential to these results. Congratulations and thank you! Let's keep winning.

Sincerely,

adus Sharfur

Andrew Sharpless CEO Oceana



SHELL ABANDONS ARCTIC OCEAN DRILLING

In an important victory for the future of the Arctic, Shell Oil announced in September that it would no longer search for oil in the Arctic Ocean after coming up with very little to show for its exploration of the Burger prospect in the Chukchi Sea. As it attempted to operate in the inhospitable and remote Arctic environment, the company spent more than \$7 billion and ran into significant complications, including several fines and government investigations related to problems with drilling and rescue equipment that would function in the Arctic as well as, perhaps most infamously, the disastrous grounding of the drill rig *Kulluk*, which ultimately had to be scrapped.

In October, soon after Shell's announcement, the United States Department of the Interior (DOI) further shielded the Arctic from drilling with two significant decisions. The DOI denied requests submitted by Shell and Statoil to extend the expiration of two of their current leases in the Chukchi and Beaufort Seas. Additionally, the DOI canceled the scheduled sales of two other leases in 2016 and 2017. The request by Shell to extend its lease only came to light because of a Freedom of Information Act filing by Oceana.

The government puts up tracts of seafloor for bidding in its Five-Year Outer Continental Shelf (OCS) Oil and Gas Leasing Program. The next plan, from 2017-2022, is currently in draft form and still contains offshore acreage in the Arctic that could be leased. That could change before the plan is finalized, and Oceana is working to make that happen. It would make sense for the DOI to take the Arctic out of all future leases, especially in light of the most recent developments, which further validate Oceana's position that no new leases for the Arctic should be sold and current leases should be allowed to expire.

Oceana has campaigned against the expansion of offshore drilling in the Arctic for years. There is no proven way to clean up spilled oil in icy Arctic conditions. To ensure a healthier future for the ocean, Oceana raised awareness about Shell's actions and the stakes of Arctic drilling, highlighted the financial risks inherent in Shell's plans to drill in the Arctic Ocean and filed lawsuits against the 2007 Chukchi Lease Sale 193 that questioned the lack of science and information available for allowing sales that could lead to such risky exploration. The victories in the Arctic in September and October will allow the government to take a step back and thoughtfully plan when, how or if to develop this unique place on our planet—home to polar bears, walrus, ice seals, whales and vibrant communities for thousands of years.

The government's October announcement "moves us away from arguments about companies' unwise investments and toward better choices for the Arctic Ocean," said Susan Murray, Oceana's deputy vice president for the Pacific. "As Shell found out, the Arctic Ocean is unique and unforgiving. Especially in light of economic, technological and environmental realities, there is no reason to extend leases or hold new sales. The best way forward is to wipe the slate clean, remove the Arctic Ocean from the next five-year leasing program and plan for a sustainable future."



Net Protections for Marine Mammals and Sea Turtles off California

In September, following years of campaigning by Oceana, the Pacific Fishery Management Council approved bycatch caps for nine marine mammal and sea turtle species caught and killed by the swordfish drift gillnet fishery off California. The decision limits the number of endangered fin, humpback and sperm whales, short-fin pilot whales, common bottlenose dolphins, and endangered leatherback, loggerhead, olive ridley and green sea turtles that can be injured or killed by drift gillnets before the fishery is shut down for the remainder of the fishing season and possibly the entire next season.

By 2018, federal observers are expected to monitor 100 percent of the fishery to ensure compliance with the caps.

A mile long and 200 feet below the surface, drift gillnets are notorious for trapping untargeted animals. In fact, an average of 64 percent of the swordfish drift gillnet fishery's catch is thrown back into the water, often dead or dying. Oceana has strongly advocated to replace drift gillnets with cleaner, more sustainable fishing gears for the safety of the marine ecosystem.

Conservation Advances for the Gorringe Bank in Portugal

Safeguarding a hotspot of biodiversity, the Portuguese government proposed that the Gorringe Bank off the coast of Portugal be included in the Natura 2000 network, an important component of the European Union's conservation policy. This decision follows several years of campaigning and science by Oceana. The goal of the Natura 2000 network is to protect Europe's most ecologically valuable areas and to preserve habitats and the wildlife living therein.

The two seamounts of the Gorringe Bank, 160 nautical miles off the Portuguese coast, are home to a number of sensitive and vulnerable species. In research expeditions over the last decade, Oceana recorded more than 350 species in the area such as fin whales and deep-sea corals and sponges, including species whose existence there was previously unknown. The protection of the Gorringe Bank will help secure the safety of copious amounts of vulnerable marine life.

Salmon Farming Barred from Chile's Pristine Patagonia

Chile's Pristine Patagonia Tortel, a region in southern Patagonia that has long been threatened by Chile's farmed salmon industry, has now been protected. Salmon farming in Chile is infamous for pollution and waste, and it threatened both the local communities and the wildlife of Tortel.

In August, the Chilean Undersecretary of Fisheries and Aquaculture Raúl Súnico withdrew a proposal that would have allowed five salmon farms in Tortel. The



decision came after the "Tortel Free From Salmon Farms" campaign, a local, national and international effort by Oceana and our partners in opposition to the introduction of salmon farming in the region.

The campaign called for letters to the undersecretary and collected thousands of signatures in support of protecting Tortel against the salmon farming concessions. Súnico said the decision to withdraw the proposal was prompted by listening to the community and that the concessions would be "inconsistent" with Tortel's priority of promoting tourism. The pollution stemming from salmon farming has impacted other areas of formerly pristine Patagonia. Salmon farming would have also had a negative impact on Tortel and its local economy, specifically tourism and artisanal fishing. Oceana's campaign helped to secure salmon farming's removal from the approved uses in areas suitable for aquaculture in Tortel.



OCEANA PERU OFFICIALLY LAUNCHED IN

NOVEMBER with a team of five led by Dr. Patricia Majluf, Oceana's vice president for Peru. With this addition, Oceana is now active in areas that control more than one-third of the wild fish caught in our oceans.

IN JULY, OCEANA AND PARTNERS LAUNCHED WWW.WHOFISHESFAR.ORG, a database of the European Union vessels authorized to fish beyond EU waters. An effort to encourage transparency and accountability, the website is the first of its kind to present this information to the public.

OCEANA'S REPORT "ONE NAME, ONE FISH: WHY

SEAFOOD NAMES MATTER," released in July, highlights the importance of using species-specific names for fish throughout the supply chain to avoid confusion and protect against seafood fraud. To read the report, visit oceana.org/OneNameOneFish.

OCEANA BOARD MEMBER AND ACTOR TED DANSON VISITED TORONTO IN JUNE to celebrate the launch of Oceana Canada and World Oceans Day. While there, Danson spoke with several major media outlets

to introduce Canadians to crucial ocean conservation issues and to the new Oceana Canada. In a country that boasts the world's longest coastline, Oceana Canada is committed to restoring health, richness and diversity to its oceans.

THE SECOND ANNUAL OUR OCEAN CONFERENCE TOOK PLACE IN VALPARAISO. CHILE IN OCTOBER. The

conference united more than 500 experts, advocates and lawmakers, including U.S. Secretary of State John Kerry, in the name of ocean conservation. During the conference, President Michelle Bachelet of Chile announced the creation of the Nazca-Desventuradas Marine Park, the largest protected marine park in the Americas and a cause Oceana has campaigned for since 2013. For more information about the park, see page 12.

THE FIRST EVER PATROL OF TAÑON STRAIT, THE LARGEST MARINE PROTECTED AREA IN THE PHILIPPINES, WAS CONDUCTED IN AUGUST after

Oceana secured commitments from the environment and fisheries agencies to enforce the protected area. No illegal commercial fishing was detected in the northern part of protected area during the patrol, a sign that fishermen would heed the laws once they were being enforced. The Tañon Strait Park Superintendent told Oceana he would make patrols a regular occurrence to continue to deter illegal fishing.

Q&A: GOOGLE'S BRIAN SULLIVAN

Oceana has teamed up with Google and SkyTruth to develop Global Fishing Watch, a technology platform that will soon use big data to allow anyone with access to the Internet to track fishing vessels in near real time, fostering greater transparency about what's happening on the oceans. Brian Sullivan, program manager of Google Ocean & Earth Outreach, is driven by his personal enthusiasm and affinity for the ocean as he works to share this information with the world.

What's your favorite thing about the ocean?

The ocean is a special place for me. I'm an avid diver with over 1000 dives. But also, it's a place to recharge. It's a place to connect with a completely different world than the terrestrial land.

What drew you to ocean conservation?

[The health of the oceans] is a scenario that's changing rapidly. It's something that most people don't see, and when we don't see things, we don't really protect them. They don't have value to us. The more we get out there and the more we experience them, the more they mean to us and the more we value and protect them.

Tell us about Google Ocean and how your partnership with Oceana for Global Fishing Watch came about.

Google traditionally looks for other partners that can use Google tools to further their missions. In the case of Global Fishing Watch, we were working with the nonprofit SkyTruth that had a mission of making the invisible visible using satellite technology, computers and data. If we could track all the ships in the world, decide who was fishing and make that public to the world, it would be powerful. But we needed a third organization that we were calling an "impact player." One that was an expert in the ocean space.



We surveyed the nonprofits in the ocean space, and Oceana had a global presence, they're very nimble, and when we sat down and talked with them, the culture was just the right fit.

Why is tracking fishing activity and making that data accessible to the public so important?

There are three major trends that are very sobering. One is that 90 percent of the large, charismatic fish have disappeared within our lifetimes. Think tuna, think swordfish. The second is about 85 percent of all fisheries are either at capacity, over capacity or recovering. For the third, when we look at the global take in gross tonnage from the ocean, for as long as we've been reporting it, we see a peak in the mid-1980s, and it's been declining ever since. There are simply fewer fish in the ocean. But there is a fourth trend that's really exciting, and that's the idea that there's a lot more information about our environment and our activities. There's a lot more computational power to turn that information into insights and intelligence. We're hoping that the fourth trend can help us understand and reverse the first three, but that's only going to happen if people understand what's happening out there. We want to make this data completely transparent so that everyone-whether they are an individual citizen, a government, a fishery management program, another non-profit, an academic or researcher-can use this in ways we can't even imagine yet.

THE BLUE LIST: A BRIGHT FUTURE FOR BRAZIL

Fishing vessels anchored by the city of Fortaleza, capital of the state of Ceará in Brazil.

BILBERTO -

CEARA

FORTALEZA

Tn December 2014, the Brazilian **L**government published an ordinance that unleashed a storm of controversy. Squarely in the center of the fray? The country's marine fisheries.

After assessing the health of Brazil's marine species, the government found nearly 100 of them to be threatened and put them on the "Red List," which is designed to protect them from any kind of use. The fishing sector was about to be banned from catching and trading any of the species on the list.

An uproar followed. Industrial fishermen, angered by the measure, blocked two of the country's ports, even blocking in a cruise ship full of people, and demanded that the ordinance be reversed. The problem escalated until President Dilma Rousseff told the government agencies involved-the Ministry of Fisheries and the Ministry of Environment-to find a solution. Poised to revoke the ordinance, they began working with fishing sector representatives. Oceana, which officially launched in Brazil in July 2014 with the help of a grant from Bloomberg Philanthropies,

was the only NGO attending these meetings.

"There was a real crisis," said Monica Peres, Oceana's vice president for Brazil. "And Oceana was there. We began saying that a blanket provision is not going to solve the problem or completely protect those species. We need recovery plans. We need to reestablish the species, to resume all the fisheries management systems. The problem is not the Red List. The Red List is just a consequence of no management."

While the fate of the Red List ordinance still hangs on a decision from Brazil's court system at the time of this writing, Oceana was able to change the conversation from "revoke the Red List" to "we need recovery or management plans," explained Oceana scientist Antonio Lezama.

HELPING BUILD A NEW FOUNDATION

Brazil, an economic giant and the largest country in South America, boasts the

continent's longest coastline at 4,500 miles. Yet when most people think of conservation in the country, they think about the Amazon while overlooking the nation's significant marine resources. Brazil's marine territories produce more than 500,000 metric tons of fish yearly, putting it in the top 30 countries in the world, but historically the management of the country's fisheries has been inconsistent. Components of functioning management such as catch limits, logbooks, systems to monitor landing weights and management plans were not in use. Multiple institutional changes to the government agencies overseeing the fisheries occurred in a relatively short period of time. In fact, in October 2015, a restructuring of the government's ministries moved the Ministry of Fisheries under the Ministry of Agriculture.

These institutional challenges resulted in very little data and information about Brazil's fisheries, further complicating the process of putting sciencebased plans in place. For instance, the country's lack of monitoring systems for landing weights led to a dearth of statistics about how much of any given

Brazil's marine territories produce more than 500,000 metric tons of fish yearly, but historically the management of the country's fisheries has been inconsistent.

> species is caught. Furthermore, while it is estimated that 3.5 million people are involved directly or indirectly with fishing activities in Brazil, there is no accurate data to confirm that number either.

Oceana has worked to bring structure to the development of fisheries management systems and encourage research that can be used to improve the health of the fisheries. The organization has quickly become a trusted advocate and a broker between scientists, government agencies and the fishing sector, including both artisanal and industrial fishermen.

"Every time there is a crisis like the Red List crisis, we are able to use this opportunity, this energy from the conflict to really take some steps forward to improve the system," Peres said.

In response to the Red List crisis, Oceana developed the Blue List Campaign. The campaign emphasizes that with science-based management practices, the species on the Red List can move onto the Blue List. In other words, depleted species will become abundant species again, generating jobs and income and providing food security. Oceana has encouraged more stakeholders to join the conversation in an effort to help the voices of smaller-scale fishermen be heard. With the goal of improving the system in its entirety, the Blue List Campaign points to Oceana's overarching goal of helping Brazil build a healthier foundation for fisheries management.

A VICTORY FOR THE WRECKFISH

The team has also had early success in campaigns focused on specific species. A recent victory concerning the wreckfish was a personal one for Peres, since she wrote her Ph.D. thesis on the fish. The wreckfish, a bluish-gray fish with darker fins that can weigh up to 220 pounds and measures up to 78 inches, was once a valuable species for Brazilian fishermen. It declined due to insufficient management and serves as an unfortunately common example of the challenges facing fisheries in Brazil.

> Fishermen began to put too much pressure on the wreckfish population, and within a few short years the population collapsed. When a population like the

wreckfish is depleted, industrial fishermen then move on to other species, often leading to a domino-like effect of species falling into crisis one after another, also known as sequential collapses.

After the wreckfish collapse, a 10-year fishing ban was imposed in 2005. For a fish that takes 15 years to reach sexual maturity and lives for 80 to 90 years, however, 10 years does not provide enough time for true recovery, according to Peres. In October, Oceana helped convince the Brazilian government to extend the ban until the species is fully recovered, which now includes a two-year deadline for the government to gather the research necessary to create a science-based recovery plan.

The success of the wreckfish campaign indicates that Oceana is already making a big difference, Peres said. She also noted that Brazilians are the true winners when the country's fisheries are sustainable: "Poorly managed fisheries are an economic and social loss."





Pots, ropes and buoys used for octopus fishing





With a background built on academic research, policy experience and on-the-ground interactions with Brazil's fishermen and ports, Dr. Monica Peres is uniquely qualified to lead Oceana Brazil to a place where, as she says, the organization can "speak the language" of multiple stakeholders and unite the government, scientists and fishermen toward common goals.

Prior to joining to Oceana, Peres worked in Brazil's Ministry of Environment, serving as manager of aquatic biodiversity and fisheries. A Rio de Janeiro native, Dr. Peres earned her bachelor's degree in marine biology and her master's and doctorate degrees in biological oceanography and studied the biology of commercially important fish populations. The driving force behind many policy achievements, Peres was instrumental in securing a ban on shark finning in Brazil. At Oceana in Brazil, Peres will continue her work to maintain and recover marine fish abundance.

MEET DR. MONICA PERES

WHAT'S IN A NAME? THE IMPORTANCE OF SEAFOOD TRACEABILITY

OCEANA'S SEAFOOD FRAUD CAMPAIGN RELEASED THE REPORT "ONE NAME, ONE FISH: WHY SEAFOOD NAMES MATTER," CALLING FOR SEAFOOD REFORM. THE GOAL? TO END THE FISHY MYSTERY.



Four different species, two of which are endangered, all allowed to be sold merely as "grouper" in the U.S.

f you're in the mood for a good mystery, you might head to the bookstore and grab the latest from your favorite author or press play on the whodunit that's been waiting in your Netflix queue. You probably wouldn't think to visit your local grocery store and check out its selection of seafood.

Yet the seafood supply chain is rife with mystery. For example, imagine you buy a fish labeled "grouper." You assume you know what you're purchasing, but in actuality, you could be heading home with one of any of the 64 species of fish the FDA allows merchants to sell under the name "grouper." What's more, 36 percent of those species are at risk of extinction and three percent are critically endangered. The current process for labeling seafood only adds to the opaqueness of the seafood supply chain, said Beth Lowell, senior campaign director at Oceana.

Oceana's seafood fraud campaign released the report "One Name, One Fish: Why Seafood Names Matter," calling for seafood reform. The goal? To end the fishy mystery.

OCEANA'S FIGHT AGAINST FRAUD

As seafood moves through the supply chain, potentially changing forms from fish to fish stick, it can lose its identity, opening up the door for fraud. Between 2010 and 2015, Oceana conducted multiple investigations of fish, shrimp and crab cakes sold to consumers and found that approximately one-third of the products tested were mislabeled. DNA testing often revealed that the consumer paid for a less desirable or less expensive species of fish than the one that appeared on the label or menu.

President Obama officially joined the fight against seafood fraud in June 2014 during the first annual Our Ocean conference during which he announced the creation of the Presidential Task Force on Combating Illegal, Unregulated and Unreported (IUU) Fishing and Seafood Fraud. The task force united 14 federal agencies for the purpose of addressing seafood fraud and IUU fishing, and they released their recommendations and action plan in March 2015. During one of several public comment periods on implementing the action plan in July 2015, Oceana released "One Name, One Fish" to highlight the importance of seafood naming as one essential part of what Lowell calls "bait to plate" traceability.

"Traceability is key for consumers to know what fish they are purchasing as well as where and how it was caught or if it was farmed. Traceability also allows seafood buyers to support fishermen who play by the rules and helps with efforts to sustainably source seafood," she explained.

HOW "ONE NAME, ONE FISH" CAN HELP

In "One Name, One Fish," Oceana advocates for the use of a species-specific name for each fish to be used throughout the supply chain. This simple but vital step would abolish the ambiguity that plagues the current system and help consumers make informed decisions about what they put in their grocery carts and on their plates.

The report highlights some of the reasons this action is important. In addition to mentioning the scores of species sold as "grouper" under current labeling guidelines, Oceana outlines the confusion surrounding the sale of species labeled as "snapper." The FDA permits 56 different species to be sold under the name. Only 18 percent of these species have been assessed for their risk of extinction, with 20 percent of those species highly at risk. Needless to say, this



is a challenge for consumers who want to purchase responsibly fished snapper from healthy stocks.

Furthermore, "One Name, One Fish" addresses the relationship between species-specific names and consumer health. When a fish is easily traced throughout the supply chain with its proper name, consumers can be confident that they are making healthier choices. For example, a pregnant woman can order from a menu without worrying if the Spanish mackerel she's chosen is one of the species she's been told to avoid, like king mackerel, because its high mercury content might harm her developing baby. Under current guidelines, king mackerel may be legally sold under the misleading name of Spanish mackerel.

Consumers aren't the only ones who stand to benefit from new naming practices, according to Lowell. Species-specific names can also help boost fishermen and businesses that engage in honest and sustainable practices. "For the fishing industry, traceability offers the benefit of being able to tell a story about the seafood," she said. "For example, if a consumer is buying crab, they don't know whether it's the local Maryland crab or whether it's imported crab from Venezuela. If you can actually tell people it's local blue crab, then you can promote the local industry, promote the local economy and have people go out and look for the local blue seafood."

The European Union already has regulations for traceability in place. If the United States were to create similar provisions, Oceana predicts that other nations would follow. This global initiative would also have practical implications for individuals at home. "Consumers have the right to know what they're eating," Lowell said. "It shouldn't be as hard to find out what fish is actually on the menu or on your plate."

To read the report in its entirety and learn more about "One Name, One Fish," visit oceana.org/onenameonefish. While Oceana emphasizes that the burden of tracing and verifying the identity of seafood through the supply chain shouldn't fall on the consumer, here are our recommendations for how you can take action now.

ASK QUESTIONS

When buying seafood, ask the vendor what species the fish is and where and how it was caught. If the person selling the fish can't tell you more information about it, you might want to choose something else. Additionally, the more you ask questions, the more vendors will prioritize having answers available.

BUY FISH AS WHOLE AS POSSIBLE.

The more hands a fish passes through and the more it goes from a fish with a head and a tail and fins down to a little square of processed fish fillets, the more chances there are for a bait and switch to happen in the supply chain.

LOOK FOR TRACEABLE SEAFOOD PRODUCTS THAT ARE ALREADY OUT THERE.

Support the businesses that are already giving you more information about the fish you eat.



PRISTINE **AND** PROTECTED

VICTORY FOR AN UNDERWATER OASIS BY LAURA LACY

H idden beneath the waters more than 500 miles off of Chile's main coast is a treasure trove of marine life and a haven of biodiversity virtually untouched by humans. With the creation of the Nazca-Desventuradas Marine Park, a new protected area announced by Chilean President Michelle Bachelet during the second annual Our Ocean conference in Valparaiso, Chile in October 2015, it will remain that way.

A school of pampanito captured on film in 2013 during Oceana and National Geographic's expedition of the Desventuradas Islands.



The Desventuradas Islands, two tiny, rocky islands in the Pacific named San Ambrosio and San Félix, were visited by few people prior to 2013. The only visitors included a small number of lobster fishermen from the Juan Fernández archipelago hundreds of miles to the south and the Chilean navy, which has a small garrison there.

In February 2013, Oceana and National Geographic rounded up leading scientists and embarked on a joint expedition to explore the marine habitat surrounding the islands. The months-long mission was the first of its kind; in fact, the crew did not even have underwater photos of the area for reference before they began and weren't sure what they would find. The tableau awaiting them beneath the surface was nothing short of remarkable and potentially one of the last pristine marine environments in South America.

Oceana and National Geographic found kelp forests rolling in the water. They witnessed abundant fish populations, including enormous amberjacks, yellowtail jacks and deep-sea sharks. The team discovered fragile deep-sea corals. Massive lobsters roamed the area; some of the largest measured nearly three feet long and weighed 17 pounds. The deep-sea bottoms were found to be in exceptional condition and showed no signs of human impact. The thriving ecosystem was home to a wide diversity of species, the majority of which are found only in the area.

AFTER FINDING THE BIOLOGICAL EQUIVALENT OF BURIED TREASURE, THE TEAM CAMPAIGNED FOR ITS PROTECTION.

THE PARK.

ENCOMPASSING

114,872 SQUARE

MARINE PARK IN

THE AMERICAS.

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LARGEST

"The new Nazca-Desventuradas Marine Park is a gift from Chile to the world," said Enric Sala, National Geographic marine ecologist and explorer-in-residence and head of National Geographic's Pristine Seas project. "It contains pristine underwater environments like nothing else in the ocean, including deep underwater mountains with species new to science, abundant giant lobster and a relict population of the once-thought-extinct Juan Fernández fur seal."

After finding the biological equivalent of buried treasure, the team campaigned for its protection. Oceana and National Geographic issued a comprehensive report about the marine life they had found during the expedition and the habitat that sustained it. Part of the report outlined a proposal, based on the scientific information they had collected, to create a large marine park surrounding the islands.

The result is the Nazca-Desventuradas Marine Park, a fully protected no-take zone, meaning that no fishing or other extractive activities will be allowed. "Fishing will be allowed to continue in an unprotected wedge-shaped area that gives the new MPA its distinctive shape," said Alex Muñoz, Oceana's vice president for Chile. "In addition, a small lobster fishery will continue in a small area outside of the reserve." The park, encompassing 114,872 square miles, is the largest marine park in the Americas. With its addition, the Chilean government now protects nearly three times as much marine surface area as before. Oceana, National Geographic and the Chilean government aren't alone in their efforts to protect the area. The lobster fishermen were in support of the proposed park. The Chilean navy, garrisoned on the island, will help enforce the park boundaries. Oceana's work to secure the park was supported by a cadre of committed funders over several years, including The Tiffany & Co. Foundation, Robertson Foundation, Leonardo DiCaprio Foundation, David and Lucile Packard Foundation, Waitt Foundation and the Lotex Foundation.

Scientifically, the preservation of sites like this is important. While not all healthy marine ecosystems will look like the Desventuradas, we can learn a lot by observing a functioning system like the new marine park. Other nations can take inspiration from Chile's commitment to preserving marine environments.

"Chile is one of the world's primary fishing countries," Muñoz said. "With the creation of this large marine park, Chile also becomes a world leader in marine conservation."





Clockwise: Coral in the waters surrounding the Desventuradas Islands; members of the Oceana and National Geographic expedition explore the area in 2013; Juan Fernández rock lobster; Desventuradas damsel.







ATLANTIC **SEA SCALLOP**

rebuilt in 2001.

Overfished with chronically paltry numbers The fishery management plan was amended merely two decades ago, Atlantic sea scallops are now thriving, and the fishery is currently the world's most valuable wild sea scallop fishery.

Atlantic sea scallops are primarily caught from Virginia to New York and in the Georges Bank region off the coast of New England. Scallops, like mussels and oysters, are bivalves with a hinged shell. Interestingly, unlike other bivalves, scallops can open and close their shells to propel themselves away from predators. While they reach sexual maturity quickly around age two, Atlantic sea scallops can live to be 20 years old. The rings on a sea scallop's shell indicate its age, although the rings can sometimes be obscure or missing. They are usually about six inches long and live in groups called beds. Atlantic sea scallops can reproduce at a high rate, with females releasing hundreds of millions of eggs.

Early efforts to rebuild the Atlantic sea scallop fishery in the 1980s and early 1990s were not successful, and the population remained at a low level. Initial efforts were marked by minimum weight requirements for individual scallops, set to allow time for scallops to mature and reproduce, but these requirements were largely ineffective.

in 1994. New management measuresincluding closing areas to allow the scallops to recover and mature, limiting fishery access, limiting the days fishermen could spend at sea, imposing gear restrictions and minimizing crews to further control the amount of scallops caught and processed heralded in a new era of abundance for the scallops, and the population was declared

While the population has rebounded with these improvements, there are still challenges the fishery has to overcome. Recent pressure from the scallop industry to reopen protected areas of the Georges Bank to destructive fishing methods could have significant consequences for the future of the scallop industry along with the health of other fisheries. Some of the management measures that rebuilt the scallop population are now under attack. Additionally, Oceana continues to advocate for responsible changes that would reduce the fishery's serious fish and sea turtle bycatch problem and steer scallop fishermen away from the use of gear that severely damages the seafloor. Vigilance about these issues will help the fishery continue to move forward rather than back.



SPECIES Placopecten magellanicus

LOCATION

The Mid-Atlantic region and in and around Georges Bank in the waters off New England

GEAR TYPE

Primarily dredges; sometimes otter trawls, diving techniques. Diving is the most responsible method of scallop fishing and the best for overall marine health as is leaves the ecosystem otherwise undisturbed.

REBUILDING **ABUNDANCE**

The amendment to the fisheries management plan in 1994 was a turning point for the Atlantic sea scallop. Now, the scallop population is above target levels and expected to remain high. In fact, in June 2015, the National Oceanic and Atmospheric Administration and its colleagues said Atlantic sea scallops appeared to be having a "banner year" in terms of population density. The economic results of this fishery's success are apparent, with scallops bringing in hundreds of millions of dollars each year to fishing communities.



Struggling to Breathe: The Impact of Warming Oceans on Fish and Oxygen

Marine fishes and invertebrates such as mussels, squids, shrimps or lobsters, like all animals, must take in oxygen and exhale carbon dioxide to survive. They must breathe, even if they do this, in a manner very different from us, through gills. Breathing is hard work for fish as water contains about 30 times less oxygen than air. If climate change warms the water fish live in, that water has even less oxygen and more dissolved carbon dioxide. Subsequently, fish have difficulties breathing.

This oxygen depletion is intensified by the fact that fish, unlike us, cannot regulate their body temperature. With increasing water temperatures, their metabolic rate increases. As a result, they need more oxygen and also produce more carbon dioxide. Furthermore, as the density difference between surface and deeper water layers increases with these changes, mixing between these layers is reduced, and the stratification of the ocean increases. Stratification acts as a barrier between the atmosphere and the water, preventing oxygen from penetrating into the deeper ocean.

For all these reasons, fish in warming oceans get less oxygen just when their oxygen requirements increase. Moreover, exhaling carbon dioxide (or rather excreting it through their gills) is more difficult when increasing amounts of atmospheric carbon dioxide is dissolved in the ocean, causing it to become more acidic. Fish that cannot



Predicted impact of global warming on fish catches in 40-50 years, with red indicating declines of 50% and more (from Cheung, Lam, Kearney, Sarmiento, Watson, Zeller and Pauly 2009; Global Change Biology; see also IPCC, 5th Assessment, Summary for Policy Makers).

relocate remain smaller as a result, and/or their local population collapses.

However, the response of most fish to the increasing temperature (and reduced oxygen) of their habitats is to shift their distribution toward cooler waters-toward the poles-northward in the Northern Hemisphere and conversely in the Southern Hemisphere. Along the coasts of countries with temperate climates, such as much of the U.S. or Western Europe, this leads to warmwater fish species appearing in the catch and the cold-loving species becoming scarcer.

ASK DR. PAULY



CHANGE IN CATCH POTENTIAL



Predicted impact of global warming on fish catches

However, in the tropics, there are no 'hotter-water' species to replace the tropical species that are migrating out, while the non-migrating tropical species try to adapt. Hence, tropical fisheries will decline more due to global warming than in temperate areas. (See figure above for potential change in catch.) The implications for the food security of tropical developing countries are tragic.

Global warming has already had a big impact on fish and fishers. This will increase in the future, simply because fish must breathe.



Kesha ©Oceana/Tom Vickers





Katharine McPhee



Sasha Alexander & Eduardo Ponti



Mary Steenburgen Oceana/Tom Vickers

Mary Steenburgen, Oceana President Jim Simon and Oceana Shark Advocate January Jones ©Oceana/Tom Vickers



©Oceana/Tom Vickers

"We can't have a truly healthy planet without healthy seas," MacFarlane said, "so it's great to be able to support Oceana and provide support to their efforts to save the oceans and feed the world."

Lynn.

The event took place at the Wallis Annenberg Center for the Performing Arts in Beverly Hills, California.



©Oceana/To 18 | WINTE



Marilyn Karsten, Oceana President Jim Simon, Nancy Stephens and Karinna Kittles Karsten





Diane Lane and Laura Dern ©Oceana/Tom Vickers

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A CONCERT FOR OUR OCEANS

On Sept. 28, Seth MacFarlane hosted A Concert for Our Oceans. This groundbreaking musical fundraiser featured performances by Kristen Bell, Rebekah Del Rio, Liz Gillies, Kesha, Sharon Lawrence, Katharine McPhee, Amanda Seyfried, Mary Steenburgen, Dwight Yoakam and MacFarlane.

Following an elegant cocktail reception, MacFarlane took to the stage along with the 50-member Blue Oceans Orchestra.

The event was chaired by Oceana board member Keith Addis. It was attended by more than 400 Oceana supporters, including Diane Lane, January Jones, Ed Begley Jr., Oscar Nunez, Sasha Alexander, Eion Bailey and Oceana board member Sam Waterston and his wife

OCEANA

rodolfo guzmán's **rockfish**





Food blends with art in this recipe from Chef Rodolfo Guzmán of Chile. Guzmán draws influence for his craft from Chilean products, surroundings and cooking styles, creating cuisine that speaks to a long line of tradition while embracing innovation. Also committed to conservation, Guzmán pledged in March to support Oceana's "Save the Oceans and Feed the World" campaign by serving small fish like anchovies, sardines and herring, sustainable options that are often overlooked by consumers.

Guzmán opened his restaurant Boragó in 2007 after working in several restaurants in Chile and Spain. In September, 252 food experts named Boragó No. 2 on the 2015 list of Latin America's 50 Best Restaurants.

INGREDIENTS

BAUNCO (CHILEAN ROCKFISH)

4 thick baunco (Chilean rockfish) fillets of 1.5 ounces each Chilean hawthorn coal 1.5 ounces of wheat flour 4 bamboo brochettes

SHAKE

5 ounces of wheat flour 5 ounces of corn flour 17 ounces of water 1.5 ounces of squid ink

DIRECTIONS

BAUNCO (CHILEAN ROCKFISH)

Prepare an ember on a grill using the Chilean hawthorn coal and take it to red-hot. Once it is cold, spill some olive oil drops over the coal and cover the fish for one minute in order to smoke it, and then cool the fish. Season with Cahuil salt. Before frying it, batter the baunco in wheat flour, put a brochette into it and plunge it in the shake. Fry in abundant oil at 350°F for 100 seconds.

SHAKE

Whip the ingredients slightly in a bowl until you get a consistent mix with a similar texture to mayonnaise (use more or less water as needed to achieve this texture), and keep it cool.

SEA PURÉE

Soak the lima beans in a generous amount of warm water for 12 hours and drain. Grill the pepper over the same ember of Chilean hawthorn, remove the burnt skin and set aside. Caramelize the onion on a low heat with a little olive oil and set aside. Cook the lima beans with three times their volume of boiling water until they are completely smooth and overcooked. Take off the skins of each one. While they are still warm, blend the lima beans, the pepper and the caramelized onion with the help of a little olive oil and the water left over from the boiling. Add the ink and cool the mixture. For the plate set up, use a spatula to cover each stone with approximately a half-inch layer of the purée. Heat in the oven at 350 °F for two minutes, slightly drying the surface so the skin cracks and has the appearance of a rock.

SEA ROOTS BROTH (KOLLOF)

Clean the roots thoroughly and cut into big pieces. Cook in a pot on medium heat for 12 hours, leave it to infuse for one day, strain it and remove any impurities through a thin cloth. Finally, reduce until you get a smooth broth with a similar thickness to soy sauce.

PLATE SET UP

Place the rock, covered with purée, in a 390 °F oven for 1-2 minutes until hot. At the same time, fry the baunco. Drain the baunco of excess oil using paper towels and season with salt. Serve both items in a Quimchamalí bowl accompanied by the hot kollof broth.

SETH MACFARLANE: SHOWSTOPPING SUPPORT

The list of Seth MacFarlane's accomplishments long ago ceased to look like a resume and started looking more like a novel. The youngest television showrunner in history, MacFarlane's Emmy-winning series Family Guy is still one of television's most popular animated comedies.

One award-winning show, however, wasn't enough. He's the co-creator, executive producer and one of the voices behind American Dad!, and he executive produced the well-received Cosmos: A Spacetime Odyssey with Neil deGrasse Tyson, which received multiple accolades including a Peabody Award and 13 Primetime Emmys. His most recent venture, Blunt Talk with Patrick Stewart, premiered this fall. He's been nominated for an Academy Award for Best Achievement in Music Written for Motion Pictures, for 2012's Ted, and two Grammys.

MacFarlane doesn't only use his voice, however, to give life to his characters or to release chart-climbing music. He uses

it to advocate for the world's oceans. We chatted with him in September after he hosted A Concert for Our Oceans, a musical fundraising event benefitting Oceana. MacFarlane told us why he cares about ocean

conservation and what it was like to perform with the 50-member Blue Oceans Orchestra.

What was it like singing with more than 50 musicians playing behind you at A Concert for Our Oceans?

It makes it a lot easier than if you're just out there with a piano and a jazz trio. You have strings, and it's like you're floating on this musical carpet. There's nothing like it. A full orchestra is a rare thing these days.

What ocean conservation issues are you are most concerned with?

It's acidification. It's climate change. It's the melting of all the ice everywhere in the world. The thing that freaks me out is when I think about how color absorbs light—how darker colors absorb more light and heat from the sun than lighter colors. And, so,

you've got ice that's melting-ice that had been very bright so it was reflecting that heat back into space so it doesn't kill us, but the less ice there is, the more dark ocean there is, the more of that heat is going to be absorbed by the planet, and then we're all kind of screwed. That's the one that keeps me up at night.

You get kind of torn between "Hey there's still hope" and "Well there's actually not a lot of it so let's hurry."

How did you get involved with Oceana?

I was brought to an Oceana event by a friend of mine who was a member of the organization. I was the date for that night. I knew nothing about it and saw the presentation and thought it was pretty impressive, so I got involved. Oceana is a major force for ocean conservation around the world, and the work they are doing is absolutely vital.

SEA PURÉE

10 ounces of dry lima beans from Pilunkura 1 red pepper 7 ounces of onion, julienned 3.5 ounces of squid ink Olive oil Cahuil salt 4 fist-sized beach rocks

SEA ROOTS BROTH (KOLLOF)

1 root of cochayuyo, 3.5 pounds 3 liters of water

1.6 Fish bought and sold on the beach in Camocin, a municipality in northern Brazil. ©Bento Viana

PARTING SHOT

1.0



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