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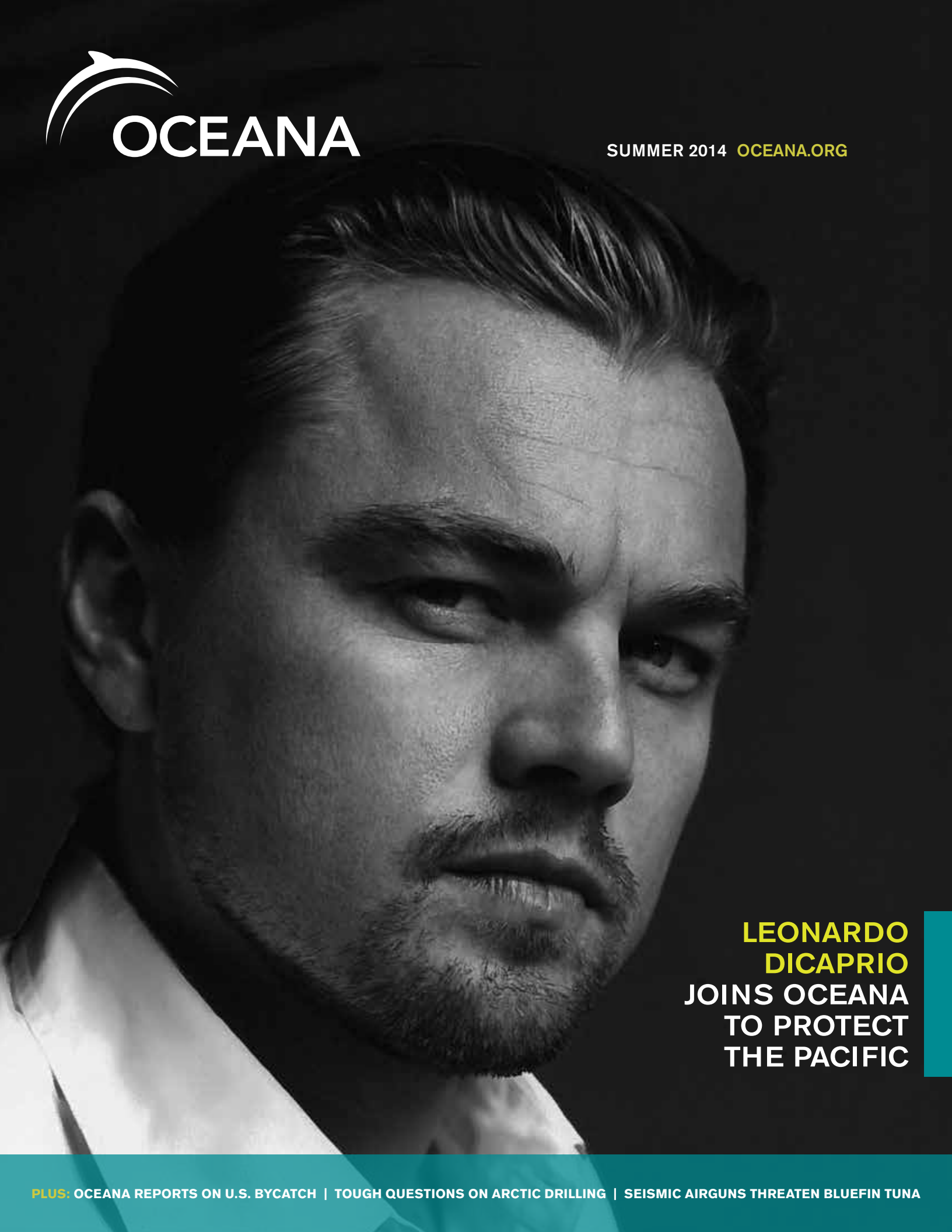

LEONARDO DICAPRIO JOINS OCEANA TO PROTECT THE PACIFIC

PLUS: OCEANA REPORTS ON U.S. BYCATCH | TOUGH QUESTIONS ON ARCTIC DRILLING | SEISMIC AIRGUNS THREATEN BLUEFIN TUNA

OCEANA | Protecting the World's Oceans

Oceana is the largest international advocacy group working solely to protect the world's oceans. Oceana wins policy victories for the oceans using science-based campaigns. Since 2001, we have protected over 1.2 million square miles of ocean and innumerable sea turtles, sharks, dolphins and other sea creatures. More than 600,000 members and e-activists support Oceana. Global in scope, Oceana has offices in North, South and Central America, Europe, and Asia. To learn more, please visit www.oceana.org.

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On the Cover

Leonardo DiCaprio

Oceana is published by Oceana Inc. For questions or comments about *Oceana*, or to subscribe to *Oceana*, please call Oceana's membership department at +1.202.833.3900, e-mail membership@oceana.org or write Oceana, Member Services, 1350 Connecticut Ave. NW, 5th Floor, Washington, D.C. 20036, USA.

FEATURES

DEPARTMENTS

Give Today

Oceana's accomplishments wouldn't be possible without the support of its members. You can help Oceana campaign to restore our oceans with your financial contribution.

Call us today at 1.877.7.OCEANA, visit www.oceana.org/give or use the envelope provided in this magazine to make a donation. Please contact us if you are interested in planned giving that could support Oceana's work and also provide you with income and potential tax benefits. Oceana is a 501(c)(3) organization and contributions are tax deductible.

OCEANA

Protecting the World's Oceans

OUR CONNECTION TO THE SEA

It's the end of summer, and many of us spent the past two months enjoying sun and sand at the beach.

One-quarter of everyone in the United States will visit the beach this summer. Counting multiple visits, Americans make 2 billion beach trips each year. And the love of a sandy vacation is shared around the world. Just go to the southern coast of Europe, or the endless tropical beaches of Southeast Asia.

Our attraction to the sea is a powerful statement. Give us a little time off from work, a little bit of pure freedom, and what do we do? We head to the ocean. And we make the journey despite monumental traffic jams on hot roads and beaches that are often packed from the water's edge all the way back to the dunes.

What explains this attraction? Beaches are hot, sandy, crowded, and often far away.

Something happens to us when we climb out of our work clothes into a bathing suit and walk, often hand in hand with our family and friends, over the dunes and down to the sandy shore. Whatever that something is, we crave it. And we return to it year after year.

Perhaps it's the encounter it gives us with the wild. For most of us, the ocean is the purest dose of nature we can experience.

Going to the ocean is like going to the world's largest and most untamed nature park. It is as wild as Yosemite or Yellowstone — wilder, really — and that wildness draws us to it. Swimming in the ocean's surf is the liquid equivalent of a hike to the edge of the Grand Canyon — you are at a border, where the astonishing power of nature is suddenly revealed.

Do you remember the first time you saw the ocean? The comprehensive sensory impact of the salty air, the screaming gulls, the scorching sand, the endlessly wide horizon, and the thumping crash of the surf? It's a memory we all cherish.

As a loyal backer of Oceana, you should take special pleasure this summer as you spend time at your favorite (and I hope familiar) salty destination. Your generosity and loyalty to Oceana helps win the policy changes that are producing a more abundant and healthier ocean. Reform of the Common Fishery Policy of Europe promises a 40 percent improvement in the abundance of European ocean fisheries by 2020. A tightening of the marine fishery laws in Chile means that the waters of the world's seventh most productive coastal nation will soon be filled with more fish. And in the United States, almost all fishery quotas are finally in line with scientific recommendations, and rebuilding of spawning populations is underway.

Thanks to your generosity and to a grant from former New York City Mayor Bloomberg, Oceana's proven campaigns for sensible ocean management will now be brought to Brazil and the Philippines.

As a result, Oceana's teams of ocean advocates will now be able to win the policies to protect and restore one-quarter of the world's ocean productivity.

That means that a hungry world will have more fish to eat. That means that the creatures that thrive in an abundant ocean — like the dolphins and orcas that, like us, love to eat fish — will benefit too.

And it means that as you stand on the beach and look out at the water, you can smile at the thought that you've helped make sure that the massive wilderness that is the ocean is healthier and full of wildlife. Congratulations, and thank you for your ongoing generosity and loyalty to Oceana and the cause of abundant oceans.

For the oceans,

Oceana wishes to thank all of its supporters, especially its founding funders as well as foundations that in 2013 awarded Oceana grants of $500,000 or more: Adessium Foundation, Arcadia Fund, Bloomberg Philanthropies, Leonardo DiCaprio Foundation, Oak Foundation, Oceans 5, Robertson Foundation, Rockefeller Foundation, Rockefeller Brothers Fund, and Sandler Foundation of the Jewish Community Endowment Fund.

SEAFOOD FRAUD LEGISLATION PASSES CALIFORNIA SENATE

In May, the California State Senate unanimously passed Senate Bill 1138, authored by Alex Padilla (D-Pacoima), which will require that all fish and shellfish sold in California be accurately labeled by common name. Oceana recently conducted one of the largest seafood fraud investigations in the world, in which Oceana staff and supporters collected more than 1,200 seafood samples from grocery stores, restaurants, and sushi venues across 21 states to determine if they were accurately labeled. DNA testing revealed that 33 percent of the samples from around the country were mislabeled. California was among the worst states in the nation, with 38 percent of seafood tested in Northern California mislabeled and 52 percent of seafood tested in Southern California mislabeled. Combating seafood fraud will give seafood consumers more confidence in what they are buying and will allow them to choose sustainably fished species. The legislation will next be heard in the State Assembly before it can go to the governor's desk and be signed into law.

NEW QUOTAS GIVE EUROPEAN FISHERIES TIME TO RECOVER

Maximum sustainable yield, or MSY, is the maximum level of fish that fishermen can extract from a fish population over the long term. The European Union Fisheries Council adopted catch levels for 2014 that are consistent with Oceana's goal to have the majority of EU fish stocks managed at or above this optimal level. Now, more than 62 percent of stocks for which a MSY fishing rate is available will be managed consistent with this approach. These quotas will help curb overfishing, allowing European fish populations to rebuild.

ALASKAN COD AND GRENADIER PROTECTED

Giant grenadiers are large, long-lived fish found in the cold waters off of Alaska. They are killed by the millions in some Alaskan fisheries and are discarded, or thrown back overboard, because they are not valuable enough to sell. Despite these high bycatch rates – bycatch of grenadiers alone would be considered the fifth or sixth largest fishery in the Gulf of Alaska – giant grenadier catches were not subject to management at all. After campaigning by Oceana, the North Pacific Fishery Management Council voted to include grenadiers in a Fishery Management Plan and to protect them as an essential part of the Alaskan marine ecosystem. The protections prohibit direct fishing for grenadiers, require record keeping of grenadiers caught as bycatch, and limit the amount of grenadiers that can be retained as bycatch to 8 percent of a vessel's catch. This limitation closes a loophole for vessels that might have declared grenadiers as target species, while simultaneously topping off on more valuable species, like sablefish, and then discarding grenadiers.

OFFSHORE WIND TAX CREDITS ADVANCE

In April, the United States Senate Finance Committee voted to extend the critical investment tax credit (ITC) for domestic offshore wind energy. This credit, will apply to offshore wind projects that begin construction before the end of 2015. Extending the ITC will help energy companies plan successful projects that take advantage of the nation's vast offshore wind potential. Offshore wind will create hundreds of thousands of long-term jobs for American workers and will help mitigate the effects of global climate change and ocean acidification. The federal government is now holding multiple competitive lease sales along the Atlantic Coast, and projects on the West Coast are moving forward through the regulatory process. And recently, three additional wind projects in Virginia, New Jersey, and Oregon received nearly $50 million each from the Department of Energy.

CALIFORNIA COURT UPHOLDS STATE SHARK FIN BAN

In March, a United States district court upheld the California shark fin trade ban, a state law forbidding the possession, sale, trade or distribution of shark fins. This ruling was prompted by a group of shark fin dealers and retailers who challenged California's law in 2013, claiming that the ban was discriminatory and in violation of federal law. The district court ruled against all claims in the suit, including that the 2011 state ban was not pre-empted by federal fisheries law. The judge also noted that, in February 2014, the National Oceanic and Atmospheric Administration had already concluded – after extensive campaigning by Oceana to protect state shark fin trade bans in multiple states – that the California ban was consistent with federal law. Before the ban went into effect, California had the largest volume of shark fins imported in the country, and was one of the largest markets for shark fins outside of Asia.

LEATHERBACK SEA TURTLES AND SPERM WHALES PROTECTED FROM DRIFT GILLNETS

In March, the Pacific Fishery Management Council voted to halt consideration of proposals to expand the use of drift gillnets into the Pacific Leatherback Conservation Area, as well as other critical areas for these endangered sea turtles. Used to target swordfish and thresher sharks in waters off California, drift gillnets entangle and often drown a myriad of marine mammals, sea turtles, sharks, and recreationally important fish. Between May 2007 to January 2013, the drift gillnet fishery discarded 61 percent of all marine animals caught in this gear type. Now the Council is considering cleaning up the fishery by placing hard caps on the numbers of several protected species that can be injured or killed before operations are shut down. In June the Council also set a target to require 100 percent monitoring to account for all catch and bycatch. Although this is major progress, Oceana will continue to push for transitioning to cleaner fishing gears to catch swordfish.

1

March 24 marked the twenty-fifth anniversary of the Exxon Valdez oil spill, which dumped nearly 11 million gallons of crude oil into Alaska's Prince William Sound. **April 20** marked the fourth anniversary of the BP oil spill disaster, when an explosion on the Deepwater Horizon drilling rig sent an estimated 210,000 million gallons of oil into the Gulf of Mexico, killing seven rig workers and countless sea creatures.

EXXON VALDEZ OIL SPILL: affected wildlife

2

15

Number of coastal towns that have passed local resolutions opposing the use of seismic airguns off their coast. Additionally, more than 150 national, state, and local elected officials that have joined Oceana to oppose seismic airgun use along the East Coast.

3

Oceana's latest PSA features international surfing champion **Maya Gabeira**, encouraging everyone to help the oceans catch a break. Check back later this year for a second PSA featuring Canadian actress Cobie Smulders.

4

National Geographic and Oceana recently released ***"Desventuradas: The Wildest Chile,"*** a documentary about our joint expedition to Chile's remote Desventuradas Islands in 2013. *

5

In April, the U.S. Coast Guard released its investigative report on the 2012 grounding of an ocean drilling rig, the Kulluk, in Alaskan waters. The report details mismanagement and poor risk assessment on the part of oil industry operators and contractors, and ultimately concludes that They did not appreciate or appropriately plan for the Alaska's notoriously rough conditions.

* This work was funded by grants from the Waitt Foundation, The David and Lucile Packard Foundation, and the Lotex Foundation.

JUSTIN WINTERS

Executive Director, Leonardo DiCaprio Foundation

Q+A

Can you tell me about the foundation's vision for environmental work?
The Foundation is dedicated to protecting the Earth's last wild places and to implementing solutions that foster a more harmonious relationship between humanity and the natural world, both on land and at sea. We are moving quickly to identify environmental conservation and restoration projects that can be scaled and replicated across the globe, especially projects that engage and empower local communities to protect their natural resources, thereby improving the daily lives of people living in regions at risk from the impacts of environmental degradation and climate change. The other mission of the foundation is to rapidly scale up philanthropic dollars put into environmental work – currently less than 3 percent of the global total – and to inspire and engage the general public to take action on key environmental issues.

Why did the foundation choose to partner with Oceana?
Our grant to Oceana was the major second grant we have made from the proceeds of the 11th Hour Charity Auction held last year. We had already done a large-scale grant to support and scale up an incredible tiger conservation project in Nepal with World Wildlife Fund, so we wanted our next grant to focus on the oceans. The Leonardo DiCaprio Foundation has partnered with Oceana in the past and we have tracked Oceana's progress as its programs have grown. Oceana is very effective on oceans issues, and we felt that they were a trusted partner and someone we wanted to support to help scale their great work.

Can you tell us more about the grant's focus on the Pacific Ocean?
We made a strategic decision to put our funding into a marine project had not yet been sufficiently supported. We specifically chose the Pacific Ocean as our target region because this is an area of work where Oceana has good traction, has a plan, and needs support to make it happen.

Have you seen the oceans change in your lifetime?
I have seen the oceans change, especially from the perspective of the work that we do for the foundation. When you track facts and figures on a regular basis, you can see how fisheries are declining, pollution is growing, and large-scale shipping is increasing every day. It has made me more aware of how much we rely on the ocean's resources, and how much we are impacting the future wellbeing of the planet and the 1 billion people who rely upon fisheries as their primary source of nutrition. If we don't act now, there won't be much left for future generations.

Can you tell us about your personal connection to the oceans?
I am in constant awe of the natural world and love the oceans. Since childhood, I've been drawn to the oceans to find peace and a sense of connection with the seemingly limitless bounds of nature and with the incredibly intelligent species, like dolphins and whales, who call the ocean their home.

Do you feel hopeful about the future of the oceans?
I do feel hopeful. I think that the general population of the world has a very strong connection to the oceans and cares about them deeply. I've seen rapidly growing support amongst the public for oceans issues, and I also feel hopeful about the other organizations and philanthropists involved in ocean issues. They are all particularly effective and collaborate well together to accomplish real change. So I think that there is a lot of hope for the future.

Is there anything else you want to tell readers of *Oceana*?
Do not be dismayed by the onslaught of bad news about the many issues that are facing the planet and humanity. Because there are hundreds of thousands – if not millions – of individuals and organizations working on these issues day and night, and they are doing really incredible work on the ground to protect the planet. If you want to participate please follow Leonardo DiCaprio's Facebook and Twitter pages where we regularly post exciting opportunities for people to make a difference on critical environment issues.

WASTED CATCH

A NEW OCEANA REPORT REVEALS NINE OF THE DIRTIEST FISHERIES IN THE UNITED STATES

Just a few miles off the coast of Punta Abreojos, in Mexico's Baja California, Geoff Shester watched Mexican fishermen haul up dozens of gillnets. On board as a scientific observer, Shester watched the fisherman unload nets laden with commercial fish species, like California halibut, and hundreds of pounds of other unsellable marine life.

"It was appalling to see these amazing animals, many of which I had never even seen before, caught unnecessarily in these nets," says Shester. "I could see that almost everything was already dead, and then they started throwing the animals back into the ocean."

Now Oceana's California campaign director, Shester was researching bycatch in the gillnet fisheries while earning his Ph.D. in environment and resources at Stanford University. "My team and I spent the several months with these fishermen, writing down everything that they caught," he says. Shester eventually estimated that these fishermen discarded more than one-third of their catch by weight, tossing unwanted marine life back overboard, many dead or dying.

What Shester observed is typical of many fisheries around the world, including those in the United States. Fishermen often catch marine species that they are not targeting or are not allowed to bring back to port. Known as bycatch, this unintentionally caught marine life occurs in nearly all fisheries, but some catch far more bycatch than others. A new Oceana report reveals the immense scale of bycatch in the United States, finding that some U.S. fisheries discard more than 50 percent of everything they catch.

"Bycatch is anything that fishermen didn't intend to catch," says Dominique Cano-Stocco, Oceana campaign director for responsible fishing. "That includes whales, dolphins, seals, sea lions, sharks, and sea turtles," she says, "but also important species of commercial and recreational fish like swordfish, cod, salmon, and halibut."

An estimated 40 percent of the global catch is discarded overboard, according to a 2009 study in the journal Marine Policy. Data from the government and researchers indicate that U.S. fisheries throw away 17 to 22 percent of their catch before reaching port, which could amount to 2 billion pounds of unnecessarily wasted marine life every year. But some fisheries are far worse than others. Cano-Stocco and her team used government data to identify some of the worst U.S. fisheries for bycatch — those that discard the highest amounts of marine life or harm marine life at a very high rate.

© David Burdick | Marine Photobank

These fisheries discard as much as 66 percent of everything they catch. With such high bycatch rates, some of these fisheries catch, kill, and discard more marine life than they bring back to shore.

"The U.S. government is required to reduce bycatch, maintain healthy fish stocks, and manage threatened and endangered species," says Cano-Stocco. "But that is not happening successfully — we need to do better."

Cano-Stocco says that sea turtles are a prime example of how fisheries managers can reduce bycatch. Each of the five turtle species found in the Gulf of Mexico is listed as endangered or threatened and protected under the Endangered Species Act. Yet many of these species are regularly caught as bycatch by shrimp trawlers, which are authorized by law to catch and kill more than 50,000 sea turtles each year.

"A lot of money goes into protecting and conserving some of these turtle species, so turtle bycatch undermines those investments and makes it very difficult for these species to recover," says Amanda Keledjian, a marine scientist at Oceana.

Keledjian notes that bycatch is detrimental to fishermen, too. "Bycatch is a big problem for many fishing operations" she says. "If I was trying to run a business, I certainly wouldn't want half of my efforts going into the trash."

The good news, Keledjian and Cano-Stocco say, is that there are proven solutions to effectively reduce bycatch. "Oceana's approach is to count, cap, and control," explains Cano-Stocco.

We need to count bycatch much more accurately, so we know exactly how many and what kinds of species are being caught as bycatch. "The data in our report is the best publicly available information produced by the government," says Keledjian "but data quality for fisheries, in particular bycatch, is horrendous." Keledjian says that only 25 percent of the bycatch estimates produced by the government meet federally-established precision guidelines.

Next, Oceana's report recommends that we set and enforce strict limits, or caps, on the amount of bycatch allowed. Finally, we need to control and reduce bycatch by implementing better management and requiring more selective fishing gear. Both the type of marine life caught and how many are caught depends on what type of fishing gear fishermen are using. While there are a variety of fishing gears, three stand out as the most detrimental: longlines, trawls, and gillnets, like the ones Shester observed in Baja California. "All nine fisheries in our report use these three gear types," says Cano-Stocco, "and they're known around the world as the worst gear types for bycatch."

For sea turtles in the Gulf of Mexico, Cano-Stocco points out that some regulations to reduce turtle bycatch already exist. Federal law requires that shrimp trawlers use turtle excluder devices, known as TEDs. When installed in trawl nets, these devices provide an escape hatch for turtles caught in the trawl's path. But a 2011 Oceana report discovered that only 21 percent of fishermen were using TEDs correctly.

"The government needs to do a better job of enforcing their own regulations," she says, "ensuring that fishermen are using TEDs, and using them correctly." Oceana also notes that for some gear types, like large mesh-gillnets, the answer might be to transition to a different gear type entirely.

Even though years have passed since he spent his first day on a gillnet boat, Shester still remembers watching as the fishermen hauled aboard a sea lion entangled in one of the nets, thrashing violently to free itself. "It was a somber experience for me, and for the fishermen, too," he says. "You could tell they were ashamed by it."

The bigger problem, Shester says, is that we have no way of measuring just how harmful bycatch is to marine ecosystems. "We are removing species from the ecosystem in vast numbers, without even knowing how important they are," he says. "We are damaging things we don't even understand."

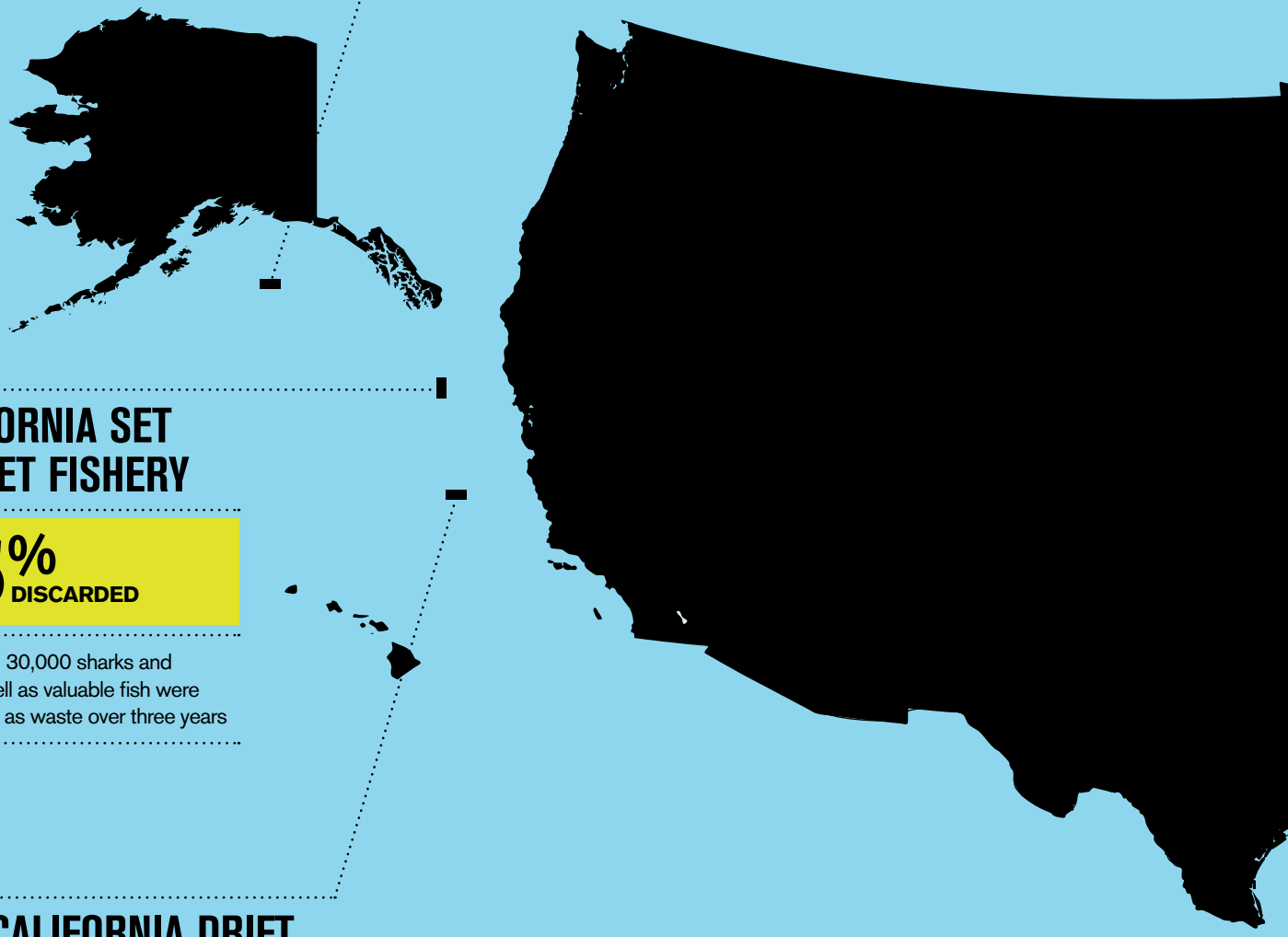
This work was funded by grants from the Robertson Foundation, the Roy A. Hunt Foundation, and the Paul M. Angell Family Foundation.

NINE OF THE DIRTIEST US FISHERIES

GULF OF ALASKA FLATFISH TRAWL FISHERY

35% DISCARDED

- More than 34 million pounds of fish are thrown overboard in one year, including 2 million pounds of halibut and 5 million pounds of cod



CALIFORNIA SET GILLNET FISHERY

65% DISCARDED

- More than 30,000 sharks and rays as well as valuable fish were discarded as waste over three years

CALIFORNIA DRIFT GILLNET FISHERY

63% DISCARDED

- Almost 550 marine mammals were entangled or killed over five years

SOUTHEAST SHRIMP TRAWL FISHERY

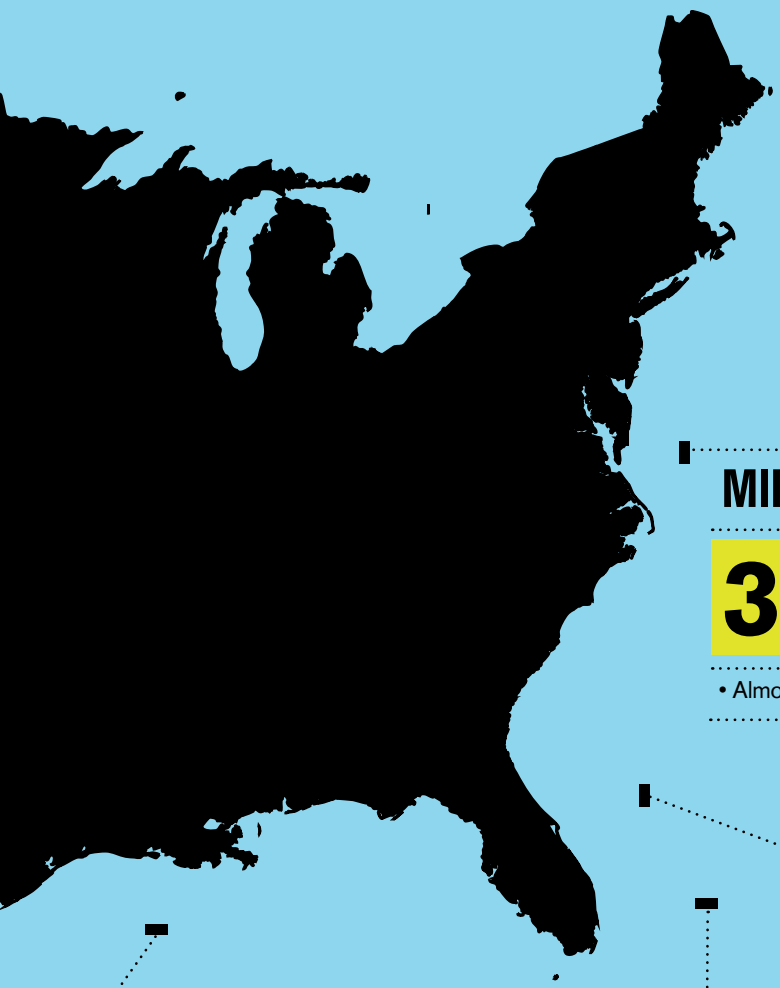
64% DISCARDED

- Thousands of turtles are killed annually
- For every pound of shrimp landed, 1 pound of billfish is discarded

NORTHEAST BOTTOM TRAWL FISHERY

35% DISCARDED

- More than 50 million pounds of fish are thrown overboard every year



NEW ENGLAND & MID-ATLANTIC GILLNET FISHERY

16% DISCARDED

- More than 1,200 endangered sturgeon were captured in one year
- More than 2,000 dolphins, porpoises and seals were captured in one year

MID-ATLANTIC BOTTOM TRAWL FISHERY

33% DISCARDED

- Almost 200 marine mammals and 350 sea turtles were captured or killed in one year

ATLANTIC HIGHLY MIGRATORY SPECIES LONGLINE FISHERY

23% DISCARDED

- More than 75 percent of the wasted fish are highly valuable tuna, swordfish and other billfish

SOUTHEAST SNAPPER-GROUPER LONGLINE FISHERY

66% DISCARDED

- More than 400,000 sharks were captured and discarded in one year

Numbers in yellow represent the percent of total catch discarded.

Data compiled from the 2014 NMFS National Bycatch Report unless otherwise noted. Bycatch estimates for the two Pacific fisheries were derived from recent observer data. See full report for complete citations.

TUNA IN TROUBLE

Picture an ocean super-predator. It's one of the largest and fastest fish in the entire ocean — growing up to 8.5 feet long and nearly 900 pounds, but still capable of charging through the water at more than 45 miles per hour in short bursts. This fish has glistening, silver-blue scales, sickle-like fins, a row of wicked-looking yellow spines along its back, and rows of sharp teeth. But this beautiful and formidable predator is not a shark — it's a tuna.

The Atlantic bluefin tuna is deceptively fearsome — most culinary fans of tuna don't realize that the fish on their plate, Thunnus thynnus, is a highly evolved ocean predator. But unfortunately for bluefin tuna, their size and muscle power make them a highly valuable commercial species. During the past three decades, the Atlantic bluefins population fell dramatically due to overfishing, but Oceana and our allies were successful in halting the decline. Now, just as the tuna are starting to recover, oil and gas exploration in the Mediterranean could jeopardize their recovery.

"If we allow oil and gas exploration in the Spanish Mediterranean, it could undo all of our hard work to help this species recover," says Xavier Pastor, Oceana senior vice president and executive director for Europe.

Atlantic bluefin tuna are loosely divided into eastern and western populations: the two stocks mingle in the open ocean, but they return to opposite ends of the compass to breed. Eastern bluefins breed in the Mediterranean Sea, while the westerns breed in the Gulf of Mexico.

Both populations collapsed by the early 1980s, after an explosion in the industrial fishing fleet and better gear allowed fishermen to travel farther into the ocean in search of tuna. In 1998 the International Commission for the Conservation of Atlantic Tunas (ICCAT) set quotas to attempt to halt the decline, but the numbers were still far higher than scientists advised. Scientists estimate that between 2005 and 2011, the actual bluefin tuna catch exceeded the total allowable quota by 44 percent, according to a 2013 study in PLOS ONE.

Then in October of 2012, an ICCAT assessment revealed the first signs of recovery for both eastern and western bluefin. The commercial fishing industry clamored to raise the quotas, says Pastor, but Oceana and our allies insisted that doing so would completely undermine further recovery. Since then, Oceana has campaigned to keep bluefin tuna quotas steady in the face of constant pressure from the fishing industry. Yet overfishing isn't the only thing threatening eastern bluefins.

Spain's Balearic Islands are known for their tourist-filled beaches and blue waters, but they are also the most critical breeding ground for eastern bluefin. Each summer, tens of thousands of tuna migrate to the area's warm waters to spawn. Yet these breeding grounds could soon be inundated with the deafening blasts of seismic airguns.

The Spanish government is planning to open 45 percent of the Spanish Mediterranean to offshore oil development, putting the Balearic ecosystem at risk and jeopardizing the bluefin tuna's recovery. Two energy companies, Spectrum and Cairn, want to use seismic airguns to map 11.3 million marine hectares of ocean in Andalusia's Alboran Sea, Catalonia, Valencia, and the Balearic Islands.

Seismic airguns shoot deafening blasts of compressed air through the water, and the resulting sound waves create a map of oil and gas deposits deep beneath the ocean floor. The resulting underwater noise is immensely harmful to marine life. Pastor says that airguns can kill fish eggs and larvae, as well as disrupt fish hearing capacity, schooling structure, swimming behavior, and possibly migration.

Oceana estimates that the noise will actually extend far beyond the 11.3-million-hectare survey area, says Pastor, disturbing more than 17 million marine hectares of ocean, including 82 protected areas. Under the current plans, seismic blasting would occur a mere 40 kilometers away from the Balearic Islands and the tuna's spawning grounds.

"Energy exploration will undoubtedly hinder this fishery's recovery," *says Pastor.*

Seismic airguns will harm both the tuna, and the very fishermen that depend upon them and other commercial fish species in the Mediterranean. After seismic surveys in the North Atlantic, fishermen's catches of cod and haddock declined by 40 to 80 for at least five days over thousands of square miles, according to a 1996 study in the Canadian Journal of Fisheries and Aquatic Science. And some of these potential drilling projects are located near the boundary of Spain's Exclusive Economic Zone, where a future spill could seep into the waters of other countries.

"We must not forget that this work will simply be a precursor to other work with a more serious environmental impact, such as drilling and the transportation of crude oil," said Ricardo Aguilar, director of research of Oceana in Europe, in a press release. "It is only a question of time before there are accidents and spills."

Oceana raised the alarm about the dangers of offshore drilling more than five years ago. Since then, Pastor and his team have worked with the Balearic Islands and regional governments to oppose seismic surveys, and urged the Spanish government to halt offshore drilling.

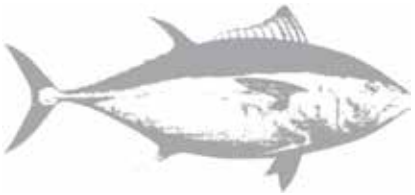
"We are mobilizing everyone — actors, politicians, local authorities, businesses, nonprofits, and citizens — in order to voice our opposition to seismic testing to the national authorities," says Pastor. "We have also developed scientific papers to publicize the ecological impacts of seismic testing, particularly stressing the damages to iconic protected species," he says "as well as the indirect socioeconomic consequences for fisheries and tourism."

Recently, more than 50 organizations from the Balearic Islands, including town halls, governments, and tourism groups formed a lobbying group to fight back, called the Mar Blava Alliance. Their petition against exploration and drilling have already exceeded 40,000 signatures. Meanwhile, residents of Ibiza and other Balearic islands have gathered in crowds of nearly 20,000 to protest the government's plans.

Pastor says that progress is being made on a new technology, called marine vibreoseis, which create sounds through vibrations, reducing harm to marine mammals and fish. "Such alternative should be encouraged and required by strong policy developments," he says.

Oceana is also pushing increased bluefin protections outside of the Balearic Islands, by advocating for the continued use of science-based fishing quotas to ensure that overfishing does not occur.

"The bluefin tuna fishery is a very important and historic fishery," says Pastor, "and we are going to make sure that the population is allowed to rebuild and recover."



POLE TO POLE

DICAPRIO FUNDS CONSERVATION ACROSS THE ENTIRE EASTERN PACIFIC

9,600 MILES. As the crow files, that's roughly the distance between Alaska's northern coastline and Tierra del Fuego, Chile. In between lie two massive coastal currents, vast shoals of commercial fish, and a multitude of marine ecosystems.

A three-year $3 million grant from the Leonardo DiCaprio Foundation will allow Oceana to expand our conservation efforts in the eastern Pacific Ocean – from the Arctic's cold seas to Chile's teeming Humboldt Current. This hemisphere-wide approach will protect Pacific apex predators by reducing bycatch of keystone species, setting conservative catch limits for important prey, and protecting critical breeding, feeding and nursing habitats from industrial fishing.

"Leonardo DiCaprio's grant will fund critical conservation work along the entire eastern Pacific coastline, protecting species, and restoring fisheries across a vast stretch of ocean," says Andrew Sharpless, chief executive officer of Oceana.

THE ARCTIC

The U.S. Arctic's cold, clear waters are one of the most productive ocean habitats on the planet. Vast plankton blooms fuel an ecosystem that is home to iconic species, including roaming polar bears, raucous walrus, and nimble beluga whales. Millions of seabirds migrate from all seven continents to feed here. And the Arctic is an important source of food for humans, too. Native subsistence cultures have fished these waters for thousands of years, and the Bering Sea produces the most commercially caught fish by weight in the United States, according to the U.S. National Marine Fisheries Service (NMFS). Even land-based ecosystems depend on the ocean's bounty – migrating salmon transport critical nutrients to inland streams, fertilizing the landscape and providing food for bears and other land animals.

Yet climate change is irreparably altering this ice-dominated ecosystem. Arctic sea ice coverage reached a record low in the summer of 2007, declining an estimated 42 percent compared to ice coverage in the 1980s, according to a 2007 study by scientists at the University of Colorado. "With the loss of sea ice, the Arctic is becoming more and more open to industrial activities," says Susan Murray, Oceana deputy vice president for the Pacific. In order to best protect these ecosystems, Oceana is identifying and mapping important ecological areas throughout the U.S. Arctic in a series of four atlases.

"We are melding science with local knowledge from people who live in the Arctic," says Murray, "to better understand how the ecosystem functions and identify areas that need protection." The resulting atlases are designed to help decision makers identify areas that are essential for both the health of the ecosystem and local communities that depend upon the oceans for food.

Murray says that these atlases will aid Oceana's efforts to protect the Arctic from increasing industrial pressures, including energy exploration, shipping, and fishing.

THE ALEUTIANS

Alaska's Aleutian Islands stretch for 1,100 miles across the Bering Sea, following a fissure along the northernmost edge of the Pacific tectonic plate. The westernmost island, Attu, is closer to Russia than it is to mainland Alaska. These remote, rocky islands are home to the western population of Steller sea lions. The boisterous, reddish-brown marine mammals can dive up to 400 meters below the ocean's surface in search of fish.

In the 1960s, there were more than 300,000 Steller sea lions in western Alaska, according to estimates from NMFS. "But when industrial fishing descended upon the Aleutians, fishermen shot the sea lions and took their food," says Murray. In 1997, the western population was declared endangered under the Endangered Species Act. By the year 2000, the population plummeted to fewer than 42,500 animals, less than 80 percent of historic levels, according to NMFS.

"Even though Steller sea lions were protected, industrial fishing continued to decimate their food source," says Murray, "and the sea lions weren't recovering." In 2010, Oceana and our allies were successful in protecting sea lion prey by closing 12,000 square miles of sea lion habitat to bottom trawling. Murray says that Oceana is now fighting to maintain and expand these closures and secure reductions in the catch of important prey species, including Pacific cod, Atka mackerel, and pollock.

"The Steller sea lion is still facing a slow road to recovery, and the Aleutian Islands are key to their survival," says Jon Warrenchuk, Oceana senior scientist and campaign manager, in a press release.

CANADA

As one of the world's major fishing nations, Canada catches 1.1 million metric tons of fish each year – 1.6 percent of the world's fish catches by weight. Sharing many of the same ecosystems and fisheries as the United States, Canada is a key player in restoring Pacific fisheries. The country controls an Exclusive Economic Zone (EEZ) of 2.76 million square kilometers and has the world's longest coastline – yet Canadian fisheries are not realizing their full potential.

"The scientists we've spoken to say that Canada's fisheries management system is not what it ought to be," says Michael Hirshfield, Oceana's chief scientist and strategy officer. "Catches are well below what they could be, presenting a great opportunity to sustainably raise fish catches."

Hirshfield attributes Canada's low catch rates to a vicious cycle called "sustainable overfishing" – where drastic declines no longer occur, but any time a fish population begins to grow, fishermen catch the excess and prevent overall population growth.

"Oceana Canada will work to change Canada's fisheries management system so that the Department of Fisheries and Oceans will have an obligation to rebuild their fish populations," says Hirshfield. He adds that Oceana will work with the Canadian government to restore the country's fisheries to their potential by setting science-based limits on fish catches, reducing the catch of unwanted species, and protecting key habitats.

PERU

If you want to save the oceans to feed the world, you should go to Peru. Just offshore flows the Humboldt Current, another staggeringly productive ocean-current ecosystem. Cold water from the deepest parts of the Antarctic Ocean streams northward along the South American coastline – a process called upwelling bringing nutrients like nitrate and phosphate to the surface.

"The Humboldt Current is the most productive fishing region in the world because of the large amount of nutrients it contains," says Alex Munoz, Oceana vice president for Chile. "Sixteen percent of fishing at the global level takes place in these waters, particularly off the coast of Chile and Peru, so the area is of vital importance for both fishing and the lives of many species that feed on fish species, including anchovy, mackerel and sardines."

The Humboldt Current creates an ecosystem teaming with marine life, and at the base of this food chain is the anchoveta. These small, silvery fish comprise the world's largest fishery. Twice as many pounds of anchoveta are caught every year in Peru as any other kind of fish is caught anywhere in the world, according to Oceana research. "The anchoveta fishery is so large that it can fluctuate dramatically," says Hirshfield. "When and if it collapses, it means that all of the animals and people that depend upon it face a serious problem." The health of the Humboldt ecosystem depends on the responsible management of Peruvian fisheries.

Peru is an ideal location for restoring fisheries with science-based management, and Oceana is currently conducting feasibility studies in the hopes of establishing a Peruvian office. Munoz says that Oceana would work with the Peruvian government to better manage both the anchoveta fishery and the jack mackerel fishery, another overfished species. Oceana would also campaign to allocate more of the anchoveta catch for human consumption. Currently, Oceana estimates that 98 percent of the anchoveta catch is used to create fish meal products, including food pellets for chicken, pigs, and farmed salmon. "If Peru converted a mere 10 percent of the anchoveta fishery to human consumption, it would equal the entire catch of some countries, like South Africa," says Hirshfield.

CHILE

Before reaching the Peruvian coast, the Humboldt Current flows along the long coastline of Chile. These two countries share many of the same fisheries – jack mackerel, anchoveta, common hake, and sardines – and together they account for more than 15 percent of the world's wild fish catch by weight.

DiCaprio's grant will help Oceana achieve its goal of protecting a full 20 percent of Chilean waters by 2020 by working with the Chilean government and different local communities to create a set of marine protected areas around oceanic islands including the Desventuradas and the Juan Fernández Islands, the fjords of Patagonia, and the town of La Higuera in northern Chile. These protected areas would safeguard the rights and livelihoods of artisanal fishermen, benefit unique species like the Humboldt penguin, and protect sensitive habitat from destructive fishing practices, salmon farming, and potential energy and mining projects. Oceana is also working with the Rapa Nui to expand the existing Salas y Gómez Island Marine Reserve by closing Easter Island's waters to industrial fishing.

Oceana is also campaigning to reduce shark bycatch in Chile's swordfish fishery, which catches more shark as bycatch than they do swordfish. The fishery uses longlines – vast lines of baited hooks that float in the water – often composed of steel wire that sharks are unable to bite through. Oceana' goal is to reduce shark bycatch by 30 percent by transitioning to different gear materials, like nylon, that allow sharks to free themselves by biting through the line.

"Sharks play an essential role in the functioning of marine ecosystems," says Munoz, "and as top predators, their decline can destabilize the food chain and cause many negative ecological impacts." Unfortunately, Munoz says that sharks are highly vulnerable to exploitation and require many decades to recover, because they grow slowly, have a long life, reach sexual maturity late, have long gestation periods, and have generally low reproductive rates.

THE CALIFORNIA CURRENT

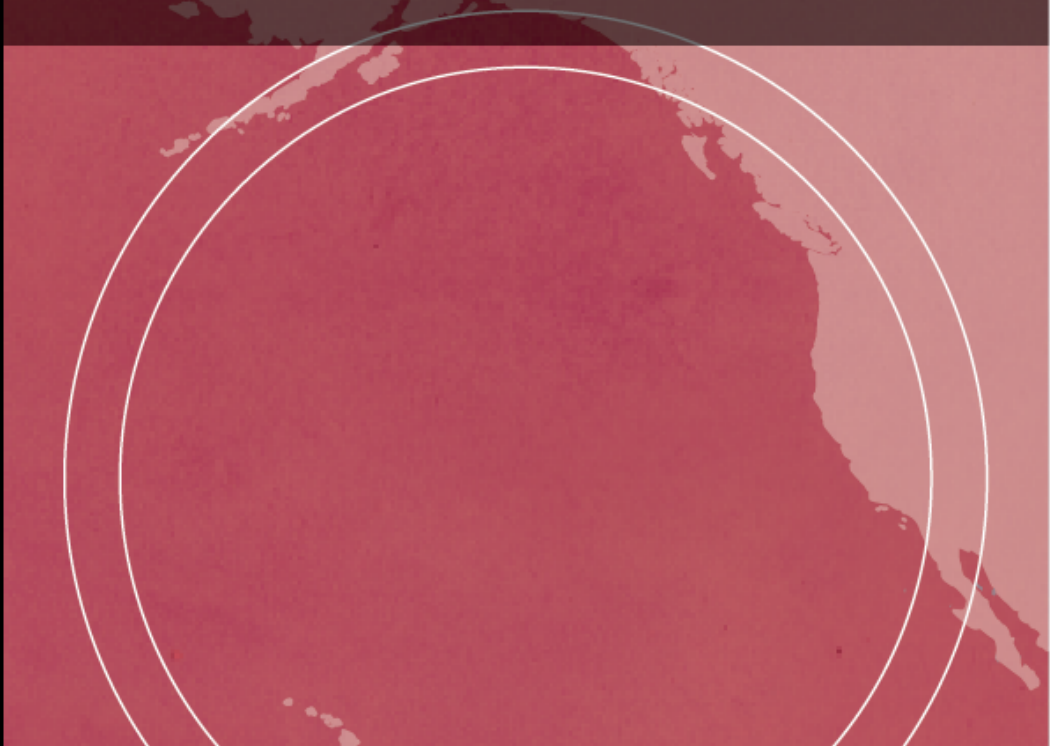
The California Current is the predominant ocean current along the western coast of North America, flowing south from British Columbia to Baja California. This ecosystem is renowned for its productivity and vast migrations of ocean life, including powerful swordfish and vast shoals of sardines.

Oceana is working to safeguard this ecosystem by protecting habitat from destructive fishing practices and protecting keystone species, including sharks, sea turtles, dolphins, whales, and sea lions.

Just a few miles off the Oregon coast, the deep-ocean floor is blanketed with vast fields of sponges and colorful coral gardens. These deep-water habitats are essential to many species of commercial and recreational fish, providing areas for them to breed, spawn, feed, and grow to adulthood. Federal fisheries managers are required by law to minimize the impacts of fishing on these areas, known as Essential Fish Habitat. "Protecting these areas is essential to maintain both biodiverse ecosystems and healthy fisheries," says Murray.

In 2005, Oceana was instrumental in protecting more than 135,000 square miles of sensitive seafloor habitat on the U.S. West Coast from destructive bottom trawling. Using data gathered on multiple scientific expeditions, last summer Oceana and our partners created and submitted a comprehensive conservation proposal to protect an additional 66 areas off the West Coast, including roughly 20,000 square miles of key habitats on the continental shelf and slope and an additional 120,000 square miles of deep-sea habitat. If adopted, the proposal would nearly double the total amount of seafloor protections in the Pacific off the coasts of Washington, Oregon, and California.

Oceana is also campaigning to phase out wasteful drift gillnet fishing gear in Pacific waters, which will reduce the bycatch of protected species like whales, dolphins, and sea lions. Mile-long drift gillnets are used to catch swordfish in waters off of California, but they also catch and kill thousands of other open-ocean creatures. In 2011, for every swordfish that the drift gillnets fishery landed, one marine mammal and six fish – including sharks and tunas – were tossed overboard dead or dying. Oceana is campaigning to eliminate drift gillnets and replace them with more sustainable, cleaner fishing gears.



"The Pacific coast hosts an amazing variety of different fisheries and marine life, from rich Arctic waters to Chile's vibrant seamounts," says Sharpless. "But the one thing all of these places have in common is the need for better protections and good management." Sharpless adds that DiCaprio's grant is unique, because it acknowledges the interconnectedness of ocean ecosystems.

"The health of each region of the eastern Pacific influences the health and productivity of others around it," he says. "This grant allows us to restore ocean abundance on a hemispheric scale."

FOR MORE ON DICAPRIO'S GRANT, SEE OUR INTERVIEW WITH JUSTIN WINTERS, EXECUTIVE DIRECTOR OF THE LEONARDO DICAPRIO FOUNDATION, ON PAGE 5.

ARCTIC ASSETS

A new Oceana report helps shareholders assess Arctic drilling

These days, savvy energy investors need to brush up on their science. Royal Dutch Shell remains committed to risky oil and gas exploration in the U.S. Arctic Ocean, despite a series of setbacks. The company's well-documented failures to mitigate risk, oversee contractors, and comply with the law have contributed to growing skepticism among investors and shareholders about the operational and economic feasibility of offshore Arctic drilling. With high risks and uncertain returns, it's time for investors to examine whether trying to drill in the Arctic is in the shareholder's best interest.

To help ask the right questions, Oceana released "Frozen Future: Shell's Ongoing Gamble in the U.S. Arctic." This report details the company's investments, risks to the environment and company from Arctic drilling, and the history of Shell's failed efforts in the U.S. Arctic Ocean. It also contains a list of questions that investors can use to assess whether Shell has adequately weighed the various risks vs. returns of Arctic offshore drilling.

So, if your stock portfolio includes a few shares of RDS-A, you should ask Shell these 10 questions before placing another stock order.

This work was funded by a grant from the 444S Foundation.

Economic Risk

1 What is the company's anticipated total capital expenditure for the lifetime of the company's offshore U.S. Arctic projects?

2 When does Shell expect any of its offshore U.S. Arctic projects to begin extraction?

3 What is Shell's assumed break-even oil price for U.S. Arctic projects?

Litigation Risk

4 Did Shell anticipate the Ninth Court of Appeals ruling upholding a challenge to the supplemental environmental assessment? And who at a senior management level is overseeing potential legal threats to Shell's Arctic plans?

Spill Risk

5 Has the company carried out an analysis of the environmental and financial worst case spill scenario and, if so, will it be publicly available?

6 Given that in previous large spills, mechanical recovery has only resulted in removal of 3 to 8 percent of a spill, what is the basis for Shell's assumption that it would capture half of the oil at the surface in a worst case scenario?

7 Given the remoteness of the Chukchi Sea drilling sites – the lack of an airport with jet capacity and access to a major road system within a radius of several hundred miles, the distance of approximately 1,000 miles to the nearest U.S. Coast Guard station, and the lack of accommodation for responders to a spill – what are Shell's specific plans for managing the logistics of a response to a major spill?

Management Risk

8 Cost overruns are typical for Arctic oil and gas projects with long lead times. What is Shell doing to avoid this given Shell's experience with Sakhalin II, where costs more than doubled?

9 What steps or procedures has Shell adopted to ensure that similar problems to those that occurred with the towing of the Kulluk will not be repeated in the future?

Regulatory Risk

10 What impact would a reduction in subsidies and fiscal incentives currently available to the company have on its U.S. Arctic operations?

Visit **http://bit.ly/1IU8UeA** to read the full Frozen Future report, including the complete list of 35 investor questions.

Daniel Pauly is a Professor of Fisheries at the Fisheries Centre of the University of British Columbia, the Principal Investigator of the Sea Around Us Project, and a member of the Board of Oceana.

ASK DR. PAULY

How do we know how many fish there are in the sea?

Fishing is meant to remove fish from the sea, and so it is no wonder that there are fewer fish in the sea, given all that we do to catch them. However, we do not want to leave so few fish in the sea that they can't maintain their population, and this begs the question in the title: How do we know how many fish there are in the sea?

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However, we do not want to leave so few fish in the sea that they can't maintain their population, and this begs the question in the title: How do we know how many fish there are in the sea?

Fisheries scientists answer this question by performing stock assessments to estimate the biomass, or weight, of fish in the sea. These assessments can involve a wide array of methods, as determined by the data that are available. One method is to divide the catch of a fishery (the weight of the fish that are caught in a given year) by the effort needed to generate the catch (the number of fishing hours or days deployed to catch the fish in that year). The result of this calculation, called the catch per unit effort (CPUE), is going to be higher when the stock is abundant and lower when the stock is depleted. Thus, if CPUE estimates are available for a number of years, their trend will be roughly parallel to the trend of the (still unknown) biomass of a fish population.

Another technique is called the swept-area method, used for fish living on or near the sea floor that can be caught by bottom trawlers. Research trawlers drag a net of known width for say one hour at a known speed to cover an area of the sea floor that can be easily calculated. Thus, their catch during that hour can be multiplied by the number of times that area fits in the entire fishing ground, and voila! In reality, analyzing the results of bottom-trawl surveys is more complicated than that, but the basic idea remains simple.

Another technique is to use sound, which we already use to locate schooling fish (like dolphins and whales also do) to estimate the size of a school of fish. Thus, if a sound wave of known energy level is sent from a fishing boat, the fraction of this wave that is reflected as an echo by a fish school will tend to be proportional to the size of that school – so a small school will reflect less sound than a big school. Echosounding – or hydroacoustic methods in general – can then be calibrated using schools that have been caught and weighed, and the biomass in the water thus estimated. This method works best with small schooling fishes, including herring, sardine, and anchovies.

Still other methods involve tagging, where a certain number of fish are given a tag or mark and then released into the population. (Tags can range from a clipped fin to electronic devices that provide information on movements and information of the environments that the fish encounter.) Subsequent catches will contain both tagged and un-tagged fish, and using some simple arithmetic one can then calculate the size of the population, along with the exploitation rate. Finally, one can move from simple arithmetic to more serious mathematics, and integrate into computer models of exploited fish population all fishery-dependent and other information that is available on catches, effort, biomass estimates from hydroacoustics, and tagging data into one single analysis. These analyses are usually accurate and precise, but occasionally they can be very wrong. A good example of this is provided by the collapse, in the early 1990s, of the cod fishery off Newfoundland and Labrador, Canada, which was then being assessed using the best integrated models of the day, as operated by one of the then most respected fishery management agency in the world. Their model was essentially flawed because it did not correctly interpret spatial information, but at the time that was not visible because of the model's inherent complexity. This is one reason why the marine conservation community now insists on transparency, where the data and assumptions that go into fish stock assessments are made explicit and justified publicly.

In conclusion, whether using simple CPUE-based analyses, as commonly done in developing countries, or integrated models, as often done in developed countries, the abundance of fish can be estimated for the purposes of fisheries management, allowing fisheries managers to determine how much can be taken for a fishery to be sustained. And we must insist that it be done for all fisheries.

FISH TALE

Recovering fisheries and restoring abundance

This article is the first installment of a new column, Fish Tale. Each issue, we'll feature a recovering fishery from around the world, detailing why the fishery collapsed and what actions fisheries managers are taking to restore the fishery to its former abundance.

HISTORY

Fishermen have pursued vast shoals of anchovy in the Bay of Biscay for centuries, and the historic fishery is closely tied to the region's history and culture. Anchovy are at risk of overfishing more than other species because of their biology the anchovy population is more volatile than other species, experiencing natural swings in population from year to year. Most anchovies live about three to four years, but one-year-old fish make up a majority of the fishermen's catch. Thus, the health of the anchovy population depends significantly on the breeding success of the previous year, which in turn depends upon environmental and oceanic conditions.

These natural population fluctuations means that the anchovy fishery requires close monitoring and management, to ensure that anchovies are not overfished during a low-population year. Previously, fisheries managers did not take these fluctuations into account when setting quotas for the stock.

As the anchovy were overfished, catches fell throughout the early 2000s, from a hefty high of 90,000 tons of anchovy to less than 10,000 tons in 2003. In 2005, after campaigning by Oceana and our allies, European Union fisheries managers closed the fishery for four years to allow the fish time to breed and rebuild their population.

BAY OF BISCAY **ANCHOVY FISHERY**

SPECIES: Engraulis encrasicolus

LOCATION: Bay of Biscay, off the coast of northwestern Spain and southwestern France

GEAR TYPE: Spanish and French fishermen using purse seines and trawlers

REBUILDING ABUNDANCE

By 2009 the anchovy population had partially recovered, prompting fisheries managers to reopen the fishery.

Thankfully, by 2011 scientists reported that the anchovy population was at its highest levels since population monitoring began in 1987. Finally embracing the new scientific approach, EU fisheries managers began setting catch limits in line with scientific recommendations.

OCEANA'S APPROACH

Oceana believes anchovy stock could be improved even further. For this reason, Oceana is campaigning to link anchovy catch limits to the latest population data, requiring that fishermen be limited to catching a variable proportion of the stock biomass depending on the total biomass size in each year.

Top Left: Susan Rockefeller, Adrian Grenier, Mary Steenburgen, and Ted Danson **Top Right:** Michael Bloomberg **Bottom Right:** Ted Danson

OCEANA EVENT NYC

Oceana held its second annual New York fundraising event on April 8, at the Four Seasons Restaurant in New York City, where guests donated nearly $1 million for ocean conservation. Ted Danson, Mary Steenburgen, and Susan and David Rockefeller hosted the event, and longtime Oceana supporter Adrian Grenier also attended.

The evening honored philanthropist and former New York City mayor Michael R. Bloomberg. He recently made a five-year, $53 million commitment to restore and improve fishery productivity in Brazil, the Philippines and Chile. This unique approach will reform the management of industrial fishing and small-scale fishing simultaneously, coordinating two proven tools for the first time, while also designing ways private capital can help facilitate those reforms. Oceana is one of three organizations receiving this grant, chosen on the basis of our record of demonstrated achievements in obtaining national policy change to protect the oceans as a source of food and as a vibrant ecosystem.

"Oceana's impressive record is the reason that Bloomberg Philanthropies decided to partner with it when we set out to help solve one of the most critical threats to our oceans, and that is overfishing," said Bloomberg. "More than ever, the oceans are a source of income and food for people around the world — so when ocean life is threatened and human life is threatened, we can't let that happen."

Top Left: Ted Danson with Miranda Cosgrove

BEACH HOUSE EVENT

On May 16, more than 250 guests and celebrity supporters joined Oceana, Nautica, and LA Confidential in Santa Monica for the second-annual Nautica Oceana Beach House. The event highlighted Oceana's campaign successes and the program featured remarks from Oceana Board Members Ted Danson and Keith Addis and event co-hosts Miranda Cosgrove and Austin Nichols. Following the remarks, guests enjoyed musical performances from Drake Bell and DJ Connor Cruise, along with drinks from Chandon, Cloudy Bay Vineyards, Lagunitas Brewing Company, and Suja Juice. Additionally, celebrity guests like Angela Kinsey, Sam Trammell, Jenna Ushkowitz, Chloe Bennet and Perrey Reeves joined the program participants in signing a "Maya Gabeira" edition balsa wood surfboard donated by Yana Surf that was later auctioned off to benefit Oceana.

JUNIOR COUNCIL

On March 12, leaders from London's fashion, music, finance, culinary, and art worlds gathered in London to celebrate the launch of Oceana's Junior Council. Hosted by Junior Chairs Benjamin Goldsmith and Stephanie Bilet, the evening featured an acoustic performance from platinum selling artist Newton Faulkner, art created specifically for the event by artists from the eco-art house STITCH, and food and beverage from Jax Coco, Drinks Fusion, and Lagunitas Brewing Company. Bettina Alonso, Oceana's vice president for global development, and Alexandra Cousteau, Oceana senior advisor, spoke to the group about Oceana's important work and recent victories.

Junior Council Committee members from left to right: Henry Conway, Matt Langton, Ben Goldsmith, Stephanie Bilet, Marc-Phillipe Davies, Georgia Pownall

Left: Jean-Cristophe Vie in Kenya
Right: Vie in Indonesia's Nantu Forest

JEAN-CRISTOPHE VIE

Director of SOS – Save Our Species

Q+A

Why did your organization choose to partner with Oceana?

I have been familiar with Oceana's activities in conservation and education for some time. SOS is funding Oceana's work to protect the Vulnerable Shortfin Mako in Chilean waters, because Oceana's proposal was well articulated, convincing, and it was likely to have an impact. We select projects through a competitive process and we benefit from the technical advice of the 9,000 experts of IUCN's Species Survival Commission as well as the SOS Technical Advisory Group. We receive hundreds of proposals after each call and the Oceana proposal was one of 25 projects selected after our last call for proposals.

Save Our Species supports conservation of many threatened species. Why sharks?

SOS was designed to channel much-needed funding into conservation priorities as informed by the IUCN Red List of Threatened Species™, the world's most comprehensive "barometer" of life on earth. This allows us to act strategically when determining calls for proposals. All species of sharks and rays have been evaluated. Many are threatened and we know reasonably well what drives them to extinction. Sharks were also intensely discussed at the last meeting of the CITES with positive outcomes. We thought that it was important to build on this momentum. In addition, our donors expressed an interest in supporting more marine projects. We believe all wildlife has the power to inspire and amaze us, but sharks especially so.

Why did SOS choose to help Oceana protect shortfin mako sharks from being caught as bycatch?

Populations of this remarkable migratory fish are suffering because of the use of steel lines in swordfish fisheries, and Oceana has identified a simple solution to reduce the threat of bycatch: switching to nylon line. Proposed targeted actions are clearly tackling specific threats and we were convinced of Oceana's ability to implement it effectively.

Can you tell us about your personal connection to the oceans?

Like many in my generation, Cousteau has been an eye opener but I did not embrace ocean conservation immediately in life. I started my career as a wildlife veterinarian with a specialization in primates. I did not grow up nor did I live by the sea for a long time. About 20 years ago, my work led me to French Guiana, a fabulous area for marine turtles. I created a conservation NGO there and I started working on marine turtles. In parallel I also discovered scuba diving and have not stopped since.

Do you feel hopeful about the future of endangered and threatened ocean species?

Yes, of course! One must keep hopeful but also with good reason. Being hopeful does not mean that we do not recognize that the situation is globally quite serious today. After years of debate, some sharks species were listed by CITES! This was a significant step not only for them, but for the marine environment. Through my career I have seen what can be achieved even by just a few people working together. There were significant results in Europe regarding deep sea fishing. There have been many success stories on land – including the Arabian oryx, the black footed ferret, and the California condor but also for marine species: the situation of some cetaceans species like the humpback whale have improved. Of course, much remains to be done.

Is there anything else you want to tell readers of Oceana?

Thank you for their support to Oceana and the conservation community in general. Oceana is one organization in an ocean of dedicated NGOs working with the same passion and for the same cause. Conservation is probably the noblest battle we can find, benefiting all human beings. Nature is our life support system and without it we would not be here – so please keep up the support.

SAM TALBOT

Chef Sam Talbot's interest in seafood started early – he grew up fishing for blue crab and flounder along the North Carolina coast. Talbot is the former executive chef of the Surf Lodge in Montauk, NY, a nationally-acclaimed restaurant in the Hamptons. He then opened Imperial No. Nine, a sustainable seafood restaurant in New York City. In all of his restaurants, Talbot strives to serve sustainable, fresh seafood that is good for you, and for the oceans. This spicy, sweet and summery recipe for Thai coconut mussels was recently featured in The Perfect Protein.

SAM TALBOT'S THAI COCONUT MUSSELS

By Mario Batali, originally published by Clarkson Potter

Serves 4-6

- **3 tablespoons olive oil**
- **2 tablespoons smashed and finely chopped garlic**
- **3 tablespoons peeled, finely chopped gingerroot**
- **1 shallot, finely chopped**
- **2 tablespoons chopped lemongrass**
- **2 tablespoons ground unsweetned coconut**
- **1 to 1 1/2 pounds mussels, scrubbed, debearded, and washed clean**
- **1/3 cup dry white wine**
- **1 tablespoon coconut amino acid (low sodium soy alternative**
- **1 teaspoon fish sauce**
- **Juice and zest of 2 limes**
- **1/2 bunch cilantro, leaves hand torn, stems discarded**
- **1/2 bunch of mint, leaves handtorn, stems discarded**
- **Sea salt and fresh ground pepper**

Directions

In a large saucepan, heat the oil over medium heat.

Once the butter has melted, toss in the garlic, gingerroot, shallot, and lemongrass and cook for 2 to 3 minutes, then add coconut, stirring frequently, until the shallot is translucent and the garlic and gingerroot have softened.

Add the mussels to the pan, pour the wine over top, and cook for 1 minute.

Then add the coconut aminos, fish sauce, and chili garlic paste, simmer for 1 more minute, and stir in the coconut milk.

Cover the pan and steam the mussels for 2 minutes, until they are open. Discard any unopened shells. Season the broth to taste with salt and freshly ground black pepper, stir in the cilantro, lime juice and zest and serve immediately.

A school of ornate wrasses on a rocky seabed near the Canary islands

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An octopus in the Mediterranean Sea

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