

EXPLORE EMPOWER INSPIRE



OCEAN BLUE TREE

2024 IMPACT REPORT

www.alexlindbloom.com

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Montse Amores

Photography

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©Felix Barra

©Tom Sparke

©Edwar Herreno

©Marcus Blake

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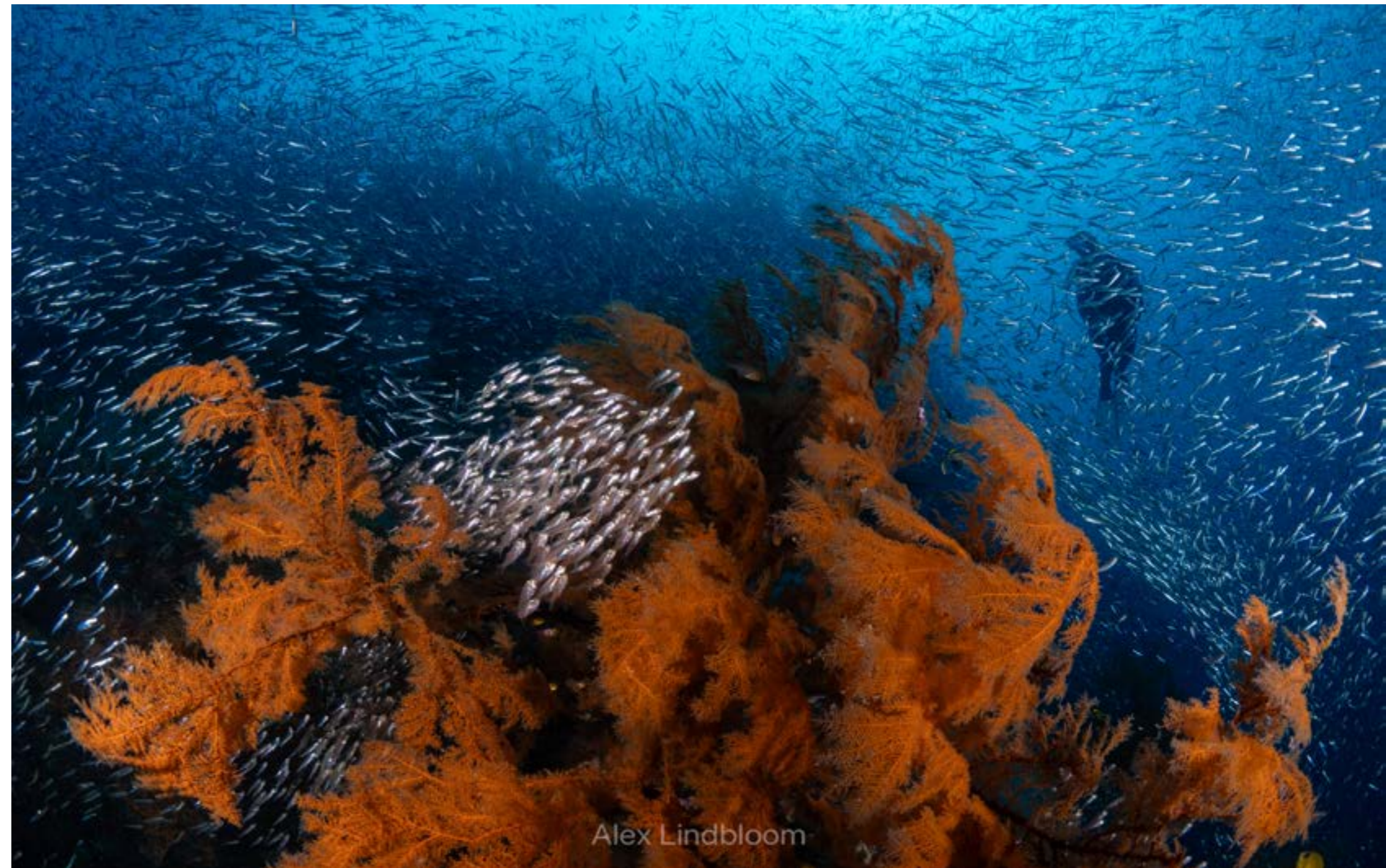


OUR MISSION

Ocean Blue Tree's mission is to provide solutions to the challenges of ocean conservation by supporting marine exploration, scientific research, and communicating this information to the public to unlock positive behavioral change.

We collaborate with scientists, storytellers and educators to protect and restore our ocean, promote more sustainable livelihoods and inspire communities to conserve marine

#TakeItPersonal



Alex Lindbloom



MARINE PROTECTED AREAS

Marine Protected Areas (MPAs) are one of the most powerful tools we have to protect ocean life.

Think of them as safe havens in the sea—places where human activity is carefully managed so that marine ecosystems can recover, grow, and thrive.

By easing pressures like overfishing and pollution, MPAs help restore balance to the ocean. Over time, these protected spaces become vibrant hubs of biodiversity and resilience, giving the ocean a better chance to adapt to the growing challenges it faces.

At Ocean Blue Tree, we support the creation and strengthening of MPAs around the world. The projects featured in this report show the real impact of these protected areas—not only on marine life, but also on the coastal communities that rely on a healthy ocean for their food, livelihoods, and future.



**“We need to respect
the oceans and take care
of them as if our lives
depended on it...
Because they do”**

Sylvia Earle

PROJECT LOCATIONS

In 2023-2024, Ocean Blue Tree continued and amplify the support to non-profit organizations around the globe

Pelagios Kakunja, MigraMar, Mision Tiburon, CREMA, Fundacion Darwin & Wolf, REEF, Reshark, Thresher Shark Indonesia, Thrive Conservation, Reshark, Sugai Watch, Oceans for All, WeWhale, Research Lab at PSU and WildAid



MOVEMENTS PATTERNS, MIGRATIONS, AND REPRODUCTIVE BIOLOGY

Pelagios Kakunja

Oceanic manta rays are some of the ocean's most mysterious and graceful giants—but there's still a lot we don't know about them, especially in Mexico. With support from Ocean Blue Tree, this project is helping scientists learn more about where manta rays go, how they migrate, and how they reproduce, so we can better protect them.

This past year has been full of progress. Two scientific papers and a master's thesis were published, and The Mantaverse—a fun and creative science communication project that shares what we've learned—was recognized as an official project of the UN Ocean Decade.

La Reina, in the Gulf of California, was confirmed as a key nursery area for young manta rays. This discovery shows how important it is to protect the area. Other studies, using satellite tags and photo ID, also showed that manta rays travel between the Revillagigedo Archipelago and mainland Mexico—proof that these ocean spaces are connected and need to be protected together.





TECH IN CONSERVATION AI-POWERED GROUPEL CONSERVATION REEF

Reef Environmental Education Foundation (REEF) is using artificial intelligence (AI) to change the way we study fish—starting with groupers. The Grouper Spotter platform, developed with WildMe and Scripps Institution of Oceanography, allows divers to upload photos that are then analyzed by AI to help track and identify individual groupers.

In 2024, the platform grew to include new species like the Camouflage Grouper. Thousands of images were processed, giving scientists better data for tracking and protecting these fish. During our dive expedition in Fakarava, French Polynesia, we helped build a key dataset for this vulnerable species—an important step for its conservation.

By combining AI and citizen science, REEF is making marine conservation smarter and more inclusive. The use of AI technology is helping scientists gather better data, shape stronger policies, and protect ocean life around the world.

BULL SHARKS OF CABO PULMO

Pelagios Kakunja

Cabo Pulmo National Park is one of the most important safe havens for bull sharks in Mexico. To protect them better, we need to understand how they move and behave. That's where Pelagios Kakunjá comes in—they've been studying shark populations for years using underwater surveys, drone flights, and acoustic tracking.

In 2024, their work paid off. Researchers discovered a possible nursery area for scalloped hammerhead sharks and added new individuals to the bull shark photo-ID database. Using satellite and acoustic tagging was also found that bull sharks follow seasonal movement patterns, which is helping guide decisions about expanding the park's protected areas.

This research provides essential information that helps conservation planning, science is turning into real action—making sure that sharks in Cabo Pulmo stay protected for years to come.





SAFEGUARDING HIGHLY MIGRATORY ENDANGERED SPECIES

CREMA

In the Eastern Tropical Pacific, many endangered marine species depend on protected corridors to survive. CREMA has expanded its research on the movements of sharks and manta rays, helping to strengthen conservation policies across the region.

Tracking data revealed that Galapagos sharks don't travel in straight lines—they migrate through seamounts, which highlights the urgent need for stronger protection in the Cocos-Galápagos Swimway. At the same time, manta rays were tracked moving between different marine reserves, providing more support for no-take zones that fully protect marine life.

There was also a major legal win: sharks were officially declared wildlife, making it illegal to fish for species like hammerheads. But enforcement remains a big challenge.

Looking ahead, CREMA will keep pushing for stronger protections in important migration routes, advocate for better policies, and improve monitoring of endangered species.

LICENSE TO CLEAN KEEPING PHUKET'S WATERS PLASTIC FREE

Oceans for All

Floating plastic waste is a serious threat to marine life and coastal ecosystems. In Phuket, License to Clean 002 is part of a fleet of eco-friendly catamarans working every day to remove trash from the ocean.

These innovative boats are built from 100% recyclable plastic, offering a smart, sustainable solution to the growing problem of marine debris.

In 2024, LTC 002 collected more than 26.000 liters of trash. All the collected trash is separated on the boat by types of waste and at the end of the day, the sorted trash is sent to the recycling plant.





PROTECTING STRIPED MARLIN IN THE MEXICAN PACIFIC

Pelagios Kakunjá

The striped marlin is a powerful predator that plays an important role in the open ocean, but it's facing growing threats from overfishing and habitat loss. Pelagios Kakunjá is working tracking marlin movements to find out where they go and which areas need protection.

In 2024, was tagged a striped marlin near Magdalena Bay, collecting important data about its migration. By studying earlier tracking results, was confirmed that marlins often return to the same offshore areas—making it clear that these zones are key habitats and should be protected.

Looking ahead, the team plans to expand research and work toward creating a protected area off Baja California Sur. The results will also be shared through a scientific paper and a documentary, helping more people understand why it's important to protect these amazing ocean predators.

TRACKING JUVENILE HAMMERHEADS IN GALAPAGOS

Fundación Darwin & Wolf

Scalloped hammerhead sharks are one of the most important species in the Galápagos, but we still know very little about their early life. Fundación Darwin & Wolf is leading an exciting new project to change that.

Together with a tech company, they've developed the world's first satellite tags made just for baby and young hammerheads—an innovation that could transform how we protect these amazing animals.

These new satellite tags will be ready to be used in 2025, with them we will be able to track where the young sharks go and what habitats they use as they grow. This will give researchers valuable new insights that were never possible before.

In the meantime, scientists went on 38 expeditions across the Galápagos NP, using acoustic tags to track juvenile sharks and found out more about their movements, this data shows how important it is to keep nurseries protected.

The project is also helping local communities. Students got involved in shark conservation activities, and teams worked together to remove plastic waste from the ocean.





MPA PUERTO CABUYAL - PTA SAN CLEMENTE

Migramar

The Puerto Cabuyal–Punta San Clemente Marine Reserve is a safe haven for endangered marine species like scalloped hammerhead sharks and sea turtles. Migramar, conservation efforts in the reserve are growing stronger through a mix of science and community involvement.

In 2024, researchers recorded 137 hammerhead sharks in the area—proof that this reserve is a vital habitat. They also completed the first-ever satellite tagging of a hammerhead shark in the reserve. Although technical issues meant no data was received, it marked an important step for future research.

The project also focused on community impact. Local education programs and beach clean-ups helped raise awareness and protect marine life. One major success was the protection of 43 sea turtle nests, leading to the safe release of 1,487 hatchlings back into the ocean.

As monitoring continues, Migramar aims to deepen understanding of species migration and promote long-term sustainability, positioning the reserve as a model for marine conservation in Ecuador.

PROTECTING THRESHER SHARKS IN INDONESIA

Thresher Shark Indonesia

In Alor, East Nusa Tenggara, many small-scale fishers once depended on catching pelagic thresher sharks to make a living. But thanks to the efforts of Thresher Shark Indonesia, that story has changed.

The project helped create a regional policy that bans thresher shark fishing in marine conservation areas. Even more importantly, it offered new ways for former shark fishers to earn a living—many of them are now making more income than before. Local women's groups also got involved, creating and selling certified food products to support their families and communities.

Without this project, more than 500 thresher sharks would have been lost to fishing. The team also reached 4,776 people through education programs and policy work, helping build long-term awareness about ocean conservation.

This is a great example of how protecting marine life and supporting local communities can go hand in hand—creating a more sustainable future for both people and the planet.





ORCA FIRST MANAGEMENT PLAN

Pelagios Kakunja

As orca tourism gains popularity in La Ventana, Mexico, unregulated encounters are becoming a growing concern—for both people and marine life. To address this, Pelagios Kakunja is leading Mexico's first management plan for sustainable orca tourism. The goal is to protect orcas, support responsible ecotourism, and involve local communities in conservation.

In 2024, the project reached several key milestones, including risk assessment meetings, community engagement, and collaborations with federal authorities. Scientists and risk management experts developed guidelines on safe interactions, while discussions with government and local agencies helped advance regulatory frameworks.

The next phase will focus on finalizing safety recommendations, creating protocols to monitor orca encounters, and making sure tour operators follow professional standards.

This initiative marks an important step toward protecting orcas and building a tourism model that is safe, sustainable, and beneficial for both the ocean and the people who depend on it.

UNDERSTANDING ORCA AND WHITE SHARKS INTERACTIONS

Pelagios Kakunjá

For the first time in Mexico, scientists have documented interactions between orcas and juvenile white sharks. These rare observations are helping researchers understand how orcas hunt and how they interact with other top predators in the Gulf of California. With support from Ocean Blue Tree, Pelagios Kakunjá is leading the research to explore these predator-prey dynamics and guide future conservation strategies.

In 2024, the team carried out nine field expeditions and tracked two orca pods. They identified key individuals and mapped their movement patterns. A scientific paper based on these findings is on the way, and the country's first orca management plan is nearly complete.

Looking ahead, the project will finalize the Orcas PACE conservation document, host workshops with key stakeholders, and continue field research in La Paz Bay. These next steps will provide critical data to help protect orcas and support healthy marine ecosystems where top predators can thrive together.





PAIN IN SHARKS

University of Auckland

Do sharks feel pain the same way other animals do?

It's a big question in marine science—and one that could have major impacts on conservation and policy. With support from Ocean Blue Tree, Carolina Navarro is leading cutting-edge research at the University of Auckland to better understand how sharks process pain.

In 2024, the study made an important discovery: a unique cellular structure in the *Pallium dorsalis*—a part of the shark brain similar to the mammalian cortex. Researchers ran tests to find pain-related neurotransmitters, but the results were unclear. This led to a shift in focus toward a new method called neural tracing, which has never been used in sharks before. The team is now working on protocols to trace how sensory signals travel from the body to the brain.

These findings could change the way we think about shark sentience—and may lead to more ethical approaches in fishing, conservation, and marine protection policies.

PLAN B

MigraMar

Leatherback turtles in the Eastern Pacific are in serious trouble, with populations rapidly declining. To help bring them back from the brink of extinction, conservationists are exploring an innovative approach to restoring this critically endangered species. With support from Ocean Blue Tree, MigraMar, Upwell, and the Smithsonian Tropical Research Institute are leading efforts to create science-based strategies that boost hatchling survival and support long-term recovery.

In 2024, the team held key planning meetings to prepare for the upcoming Leatherback Rewilding Workshop in Panama. Experts focused on critical areas like egg translocation, hatchling survival, navigation, and genetic diversity. The project also secured top facilitators from the IUCN Species Survival Commission to guide the process.

The workshop, scheduled for May 2025, will bring together leading scientists to design bold, innovative conservation solutions. By combining the latest research with international collaboration, this project aims to give leatherback turtles a real chance at recovery in the Eastern Pacific.





PROTECTING SHARKS BY EXPOSING THE PET SNACK TRADE

WildAid

Shark cartilage and dried shark products are being sold more and more as pet treats—but this growing trend poses a serious threat to vulnerable shark populations. WildAid conducted a groundbreaking study to better understand what's really in these products.

In 2024, researchers analyzed 210 pet snack samples using DNA testing. The results were alarming: 67.6% contained shark species listed under CITES (the international agreement to protect endangered wildlife). This raises serious concerns about unsustainable and illegal trade.

The project also looked into health risks. Heavy metal testing revealed dangerously high levels of arsenic in half of the whole dried shark products tested—posing potential risks to pets. On top of that, the research found no scientific support for vendor claims that these treats offer special nutritional benefits.

To spread the word, WildAid is preparing a public awareness campaign and conducting a market analysis to understand the scale of this trade.

SAVING THE IBERIAN ORCA

WeWhale

The critically endangered Iberian orca is facing more than just environmental threats—misinformation is also putting these incredible animals at risk. Save the Iberian Orca campaign is working to shift public perception, reduce conflict, and strengthen protections for this unique population.

In 2024, the team advised 45 sailboats on how to navigate safely around orcas, helping to prevent negative interactions. Surveillance efforts also stopped incidents of violence against the animals, and researchers identified 20 individual orcas in the region.

To change the narrative, the campaign partnered with international journalists to challenge the way orcas are portrayed in the media—focusing on their intelligence and curiosity instead of labeling them as aggressive.

Next, WeWhale will expand its efforts to Portugal and Morocco, build stronger relationships with sailors and fishers, and begin new, non-invasive studies of orca behavior.

By promoting understanding and coexistence, this campaign is creating a safer, more respectful future for Iberian orcas in their shared marine home.





SCIENCE TO ACTION

Pelagios Kakunjá

Scientific research is essential—but turning knowledge into action is what truly drives conservation..

Along the year the team developed key policy tools, including a proposal for a new Marine Protected Area (MPA) in the Gulf of California and risk assessments for critically endangered hammerhead sharks. These efforts lay the groundwork for stronger protections where they're most needed.

On the education front, the project reached young audiences through creative tools like a children's book, shark ID guides, and training materials for teachers—sparking awareness and curiosity about ocean life from an early age. They also introduced new codes of conduct for shark diving in key marine reserves, helping to balance tourism with conservation.

With a new government showing strong interest in environmental action, the next big goal is to push for adoption of these policies—ensuring that research leads to lasting, legal protections for Mexico's marine wildlife.

SILKY SHARKS PROJECT

Pelagios Kakunja

Silky sharks are important predators in the open ocean, but they're becoming increasingly vulnerable to overfishing—especially once they leave protected areas. Pelagios Kakunjá is leading Mexico's first satellite-tagging study on Silky sharks in Revillagigedo NP, to track these sharks and identify key habitats for conservation.

During their expedition, the team collected valuable biological data, including ultrasounds and genetic samples, and tagged 12 silky sharks near the Revillagigedo Archipelago.

The findings were concerning: several pregnant females were caught shortly after leaving the reserve, highlighting the high risks these sharks face outside protected waters.

Looking ahead to 2025, the project will expand tagging efforts, especially off the coast of Baja California Sur, to refine migration routes and support stronger fishing regulations. By identifying critical habitats and pushing for better protection, this work is an essential step in securing a future for silky sharks.





Alex Lindbloom

STAR PROJECT INDONESIA

Thrive Conservation - Reshark

The StAR Project in Raja Ampat is setting new standards in leopard shark conservation! Between July 2023 and end of 2024, the team scaled up egg shipments and achieved an impressive 87% hatching success rate. Even more exciting, the pups are thriving—reaching release size in just 2–3 months, thanks to local communities who help sustainably harvest food for them.

So far, 22 leopard shark pups have been released, and their movements are being tracked, with some swimming up to 4 kilometers in just 30 minutes—a promising sign of adaptation and health.

But the project's impact goes far beyond science. Schools, NGOs, and women's groups have joined release events, building a strong local sense of pride and ownership.

The team is also pushing for national protections, advocating for leopard sharks to be officially listed as a protected species in Indonesia—a major step forward.

STAR PROJECT THAILAND

WildAid

Once a common sight in Thailand's Andaman Sea, leopard sharks are now rarely seen due to overfishing and habitat loss.

The StAR Project Thailand is working to bring this species back through breeding, translocation, and strong community involvement.

In 2024, a major milestone was achieved when WildAid signed an MOU with Thailand's Department of Marine and Coastal Resources—securing essential government support for the project.

Outreach efforts also gained momentum with the Spot the Leopard Shark citizen program back. Collaborations with local dive schools and PADI Thailand led to 175 leopard shark photo submissions from divers, helping researchers identify and track individual sharks.





STRENGTHENING PROTECTION FOR SHARK CRITICAL HABITATS

Misión Tiburón

Misión Tiburón is working to protect key shark habitats while empowering local communities to be part of the solution.

Science Stats:

42 shark tagging expeditions helped track movements and identify critical habitats. 40 hectares of mangroves were restored, boosting coastal resilience and biodiversity. Blue carbon assessments in Golfo Dulce advanced efforts to link ocean health with climate solutions.

The Journey of the Hammerhead Shark expedition collected vital data on migration patterns.

Community engagement has also been a cornerstone. Over 1,000 students joined education and ocean literacy programs. Meanwhile, the Mujeres Martillo (Hammerhead Women) initiative supported 25 women in building sustainable businesses—helping fund education for 150 girls at social risk.

COMBATING PLASTIC POLLUTION

Sungai Watch

Indonesia's rivers are a major pathway for plastic pollution to reach the ocean, putting marine ecosystems at risk. Sungai Watch is taking bold action—installing trash barriers, conducting large-scale cleanups, and educating communities on waste reduction.

In 2024, the project achieved a record-breaking milestone: 287,119 kg of waste removed from rivers and waterways.

Through the support of Ocean Blue Tree, we have been able to operate two river points, collectively removing more than 10,000 kg of waste. Additionally, this sponsorship has enabled us to employ 16 local staff, support our day-to-day operational needs.

One of the year's biggest highlights was the Kedonganan Beach cleanup, where 2,000 volunteers removed 70 tons of plastic in just 10 days—a powerful example of collective action.





WHITE SHARKS

Pelagios Kakunjá

White sharks are critical to marine ecosystems, yet little is known about their reproductive biology and movement patterns in the Gulf of California. With Ocean Blue Tree's support, Pelagios Kakunjá is working to fill these knowledge gaps while reducing human-shark conflicts.

The project conducted a scientific expedition to Isla San Jorge, a key site for white shark activity. Additionally, three community workshops were held in Puerto Peñasco, Paredon Colorado, and Yavaros, educating fishermen on white shark behavior and safety measures. Over 40 shark deterrents were distributed to local fishers, enhancing coexistence efforts.

By combining scientific research with community engagement, this initiative is shaping conservation policies while fostering a safer, more sustainable relationship between fishermen and sharks.

OBT SUMMIT AT REVILLAGIGEDO

Ocean Blue Tree & Pelagios Kakunjá

The Ocean Blue Tree Summit brought together top marine scientists from around the world to tackle important ocean conservation issues in the Eastern Tropical Pacific.

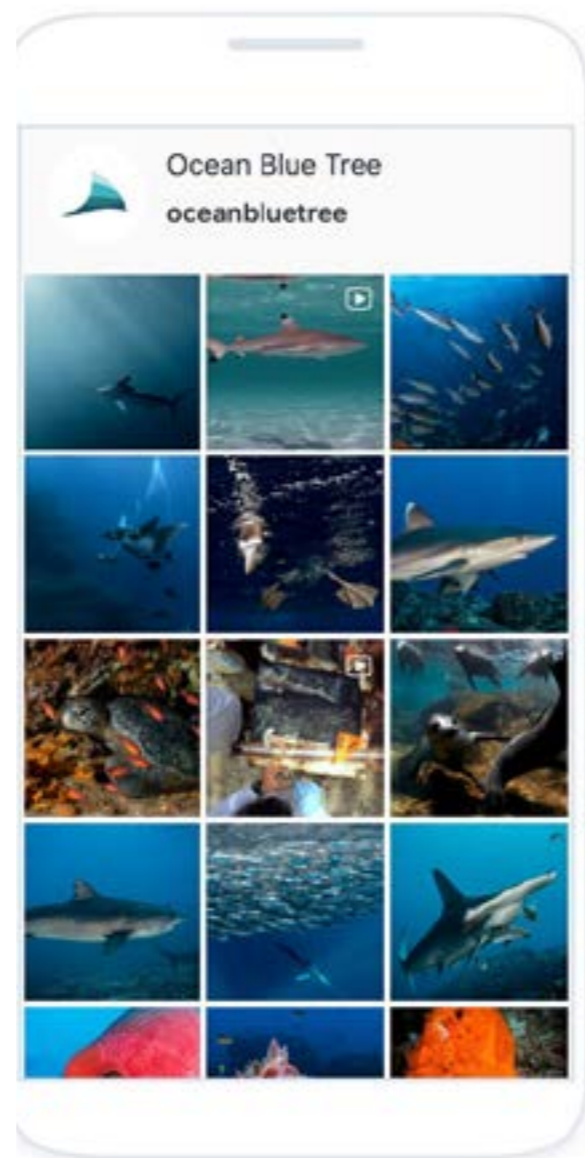
Held in the beautiful Revillagigedo Archipelago, the summit focused on two main goals: protecting Marine Protected Areas (MPAs) and collaborative work between researchers of different countries.

During the expedition, the team tagged 16 sharks and manta rays using satellite and acoustic tags. For the first time ever, an oceanic manta ray was fitted with a special I-PILOT biologging tag—a big step forward in marine research. We also performed ultrasounds and collected 34 tissue samples for genetic testing and change 3 acoustic receivers. These tools will help us understand how these animals move, live, and reproduce in the region.

The summit wasn't just about science. In group workshops, our experts talked about what's missing in current ocean protection efforts and came up with ideas to make MPAs work better. Everyone agreed to work together on a scientific paper that will review the current state of MPAs and the challenges they face.



ONLINE PRESENCE





OCEAN BLUE TREE