EdwarHe



2023 Yeat in Review

EdwarHerreno.com

EdwarHerreno.com

EdwarHerreno.com



About Us

Our Mission

To conduct research, promote conservation, and provide education for the protection of the marine ecosystem.

We believe in the preservation of our world's precious resources and that through the protection of the ocean's apex predators, marine ecosystem balance can be maintained for the benefit of all living things on Earth.

Fins Attached is a USA based 501(c)(3) nonprofit EIN: 27-3567356

What We Do

Research

It is important to not only understand shark migratory patterns, but to also identify nursery areas where sharks go to give birth. Marine protected areas (MPAs) must be established to protect these nursery areas so that the young sharks have a chance of surviving to adulthood.

Conservation

We must act now! Sharks are exploited for their meat, fins, cartilage, leather, oil, teeth, gill rakers and jaws. They are directly targeted in some commercial and recreational fisheries and are caught incidentally as bycatch in many other fisheries. Fisheries are a major factor affecting shark populations.

Education

Education is essential so that individuals can make informed decisions about the nature and value of sharks and other endangered marine animals.

A WORD FROM FOUNDER AND CEO - Alex Antoniou, Ph.D

Dear Shark and Ocean Lovers,

For my 66th birthday I decided to challenge myself and climb the Manitou Springs Incline. The Incline is steep. It gains over 2,000 feet of elevation in less than one mile. I completed the climb in 1.25 hours. As we get older we need to challenge ourselves. As I was climbing, my mind was all over the place, as I started to fatigue I was thinking about how this climb was a metaphor of life. Facing challenges, hitting a wall, the strong desire to give up, facing obstacles, taking risks, being in a battle, and on and on. If you want something badly, you will keep fighting, no matter the obstacles. So many times I wanted to stop climbing, but I kept fighting, moving forward, or in this case, upward. If you believe in something, driven by passion, you will keep fighting. Remember, nothing worth doing is ever easy, but the rewards are greater. This has been my life for 30 years now, fighting for the survival of sharks. I am still fighting.

As we look back on 2022 we can ask ourselves, did we do enough to make a change? What else could we have done? We always think we could have done more for positive change for the cause. What about these words? Do they sound familiar? Passion, perseverance, endurance, fighting, struggles, and opposition. We look forward to what challenges 2024 will have. Will you continue to fight with us?

Wishing everyone a Happy and prosperous 2024.

Alex Antoniou, Ph.D. Founder and CEO.

PARTNERS

In August 2022, four non-profit Non-Governmental Organizations joined forces to strengthen their capacity for action in the face of the growing effects of human activity on the environment, and the threat on the ocean's health.:

- For the Oceans Foundation
- Fins Attached Marine Research and Conservation
- Rob Stewart Sharkwater Foundation
- United Conservationists, Inc.,



The Coalition was named ONE OCEAN WORLDWIDE COALITION (OOWC) to include initiatives and activities to combat illegal fishing, species protection, scientific research for data-driven conservation, the effects of climate change, and environmental education programs.

Under this framework, for the OOWC, together with the Ministry of Foreign Affairs of Costa Rica, it is imperative to declare Peace for the Ocean, understanding the term Peace as "the intention to cease aggression". For the Oceans Foundation signed in 2021 a collaboration agreement with the Ministry of Environment and Energy of Costa Rica for the surveillance and protection of migratory wildlife in the MPA's of Guanacaste Conservation Area (ACG), Osa Conservation Area (ACOSA) and Coco's Island (ACMIC).









Year in Review 2023

EdwarHerreno.com

Fins Attached Marine Research and Conservation - 2022-2023

2022 ended with a flurry of activities, with two notable successful outcomes. The first was CITES (Conservation on International Trade in Endangered Species of Wild Fauna and Flora) CoP19, and the second being the passing of the US Shark Fin Sales Elimination.

- In this report:
 - 1.CITES 2022
 - 2. USA Shark Fin Sales Elimination Act
 - **3.**CNN Impact Story
 - **4. Fins Attached Publications**
 - **5. Isla Damas Turtle Project**
 - 6. Management measures of drifting-FADs
 - 7. Fly Without Fins Campaign
 - 8. National Seafood Month Campaign
 - 9. Tabatha "Baby Shark" Ricci
- 10. Research Projects for 2024

EdwarHerreno.com

In Panama for CITES CoP19 with young Cade and Lauren, part of the youth movement to save sharks.



CITES in Panama, November 2022

Fins Attached was in attendance as an observer nonprofit. With the belief that the youth must become engaged in what is happening with our oceans and specifically sharks, two youths representing Fins Attached were present.

COP 19 PANAMÁ

The key proposal came from the host nation, Panama. They proposed the entire family of Requiem sharks to be listed on Appendix II. In the end, 60 new species of sharks and rays were added to Appendix II, providing greater oversight for the conservation of these species.

US Shark Fins Sales Elimination Act



Fins Attached worked in partnership with the Humane Society of the USA to mobilize supporters to contact representatives to help push the bill through.

After years of working on this bill, it was finally signed into law December of 2022. This bill makes it illegal to possess, buy, sell, or transport shark fins or any product containing shark fins, except for certain dogfish fins. A person may possess a shark fin that was lawfully taken consistent with a license or permit under certain circumstances.

Penalties are imposed for violations under the Magnuson- Stevens Fishery Conservation and Management Act. The maximum civil penalty for each violation shall be \$100,000, or the fair market value of the shark fins involved, whichever is greater.

Fins Attached Featured in

CNN IMPACT YOUR WORLD

Title: Several shark species are facing extinction. Here's how you can help. By CNN Impact Your World. Published 3:54 PM EDT, Tue July 11, 2023 (Fins Attached video used in the online story!" <u>Read the full article</u>.

Exerts from the article:

"From gathering data to educating the public to advocating for underwater life, many conservation groups are on a mission to protect these prehistoric creatures before they are lost to history. Click <u>here</u> to support their work or keep reading to learn how they're taking action."

Shark research- CNN says about Fins Attached; one of five nonprofits selected by CNN:

<u>"Fins Attached</u> – While the Colorado-based non-profit aims to protect the health of the entire ocean, much of its research focuses on sharks since their position at the top of the marine food chain influences the health of the entire ecosystem. Fins Attached has <u>produced many publications</u> on shark research and allows donors to join some <u>research</u> <u>expeditions</u>, all with conservation and education in mind."

Scientific Publications

Conducting research is critical to be able to provide the valuable data needed for the protection and management of endangered species. Since our inception, Fins Attached has been focused on research. The reason is quite simple. The research and the data collected is what drives the conservation agenda. The data needs to be presented to government authorities and agencies as essential information to affect international conservation policies. International cooperation is critical to our mission of preventing the extinction of sharks. All publications can be found at, <u>https://finsattached.org/our-approach/research/</u>

Most recent Fins Attached co-authored publications:

- 2023: <u>A review of tonic immobility as an adaptive behavior in sharks</u>
- 2023: <u>The successful use of a submersible ultrasound to confirm pregnancy on free swimming bull sharks</u>, <u>Carcharhinus leucas, in a provisioned shark site</u>
- 2023: <u>Stress Biomarkers in the Giant Manta Mobula birostris Associated to Tourism in the Revillagigedo National</u> <u>Park, Mexico</u>
- 2023: <u>Do marine protected areas influence mercury exposure? Insights from a shark community in the tropical</u> <u>Northeast Pacific</u>
- 2023: <u>Connectivity between white shark populations off Central California, USA and Guadalupe Island, Mexico</u>

Saving Isla Damas Baby SeaTurtles

On a 4-mile, turtle nesting beach in Costa Rica, one man is on a mission to help save endangered sea turtles by protecting turtle eggs from predators and poachers. Francisco "Milo" lives on the nesting beach in Isla Damas, Costa Rica, with his wife and 3 young grandchildren. He has worked tirelessly for 9 years patrolling this beach at night searching for Green and Olive Ridley turtles that have come ashore to lay their eggs. Despite their protected status, approximately 75% of nests are destroyed. Turtle hatchlings already have the odds stacked against them with 1 in 1,000 reaching adulthood. When 75% of the eggs are decimated, the chance of a turtle egg hatching and surviving to adulthood is drastically reduced to 1 in 10,000. Fins Attached has engaged with poachers to deliver the eggs they collect to our hatchery. These are the numbers since Fins Attached started supporting the project, between May 26 – September 27:

- 203 Rescued nests = 20,915 turtle eggs
 - Milo (project manager) has 76 rescued nests = 5,112 eggs
 - 127 nests bought from poachers = 15,803 eggs
- An 80-90% hatch and release success
- \$3,000 USD had been paid to poachers, now referred to as egg collectors
- Fins Attached has contributed over \$5,000 to support the project so far



We have been working with former egg poachers, training them to become egg collectors for us. As a result, we have more than doubled the number of eggs saved over previous years, and the season has not ended yet. We could not have imagined that the project would have been as successful as it turned out to be. Thank you to all those that have supported the project.



Support Effective Management Measures on Fish Aggregating Devices (FADs)

1 February 2023 Urgent Call on the European Union to Support Effective Management Measures on Fish Aggregating Devices (FADs) at the Special Session of the Indian Ocean Tuna Commission (IOTC), Mombasa (Kenya). Fins Attached was part of a 115 coalition of organization To the European Commission, To the Directorate-General for Maritime Affairs and Fisheries (MARE), To the Heads of State and Government of the European Union, To the Committee on Fisheries (PECH), and To the EU Delegation at the IOTC. We call on the EU delegation to apply the precautionary approach and urgently support the adoption of the following management measures to ensure that drifting-FADs are managed more effectively.

- Reduce the maximum number of FADs that can be deployed per vessel from the current limit of 350 to a maximum of 150 per vessel.
- Agree to the implementation of a FAD closure for a period of 3 months in the year during which no fishing on drifting FADs will be allowed.
- Implement a DFAD Monitoring System(DFADMS) that transparently shares information with the IOTC Secretariat in realtime.
- Implement an IOTC FAD Register that contains comprehensive information on FAD ownership which is accessible to all IOTC members.
- Completely phase out supply vessels that support purse seine vessels to deploy and service FADs by the end of 2023.
- Completely phase out any FADs that are constructed from entangling and non-biodegradable materials.
- Ensure that comprehensive FAD data is shared with all IOTC scientists so that informed management decisions can be made based on further scientific analysis.

oneworld

......

Fly Without Fins Campaign

Fins Attached Marine Research and Conservation is proud to be a part of this campaign. Since this is such a great news, all the active stakeholders deserve to be in the spotlight. Look before you book to make sure you <u>#FlyWithoutFins</u>!





National Seafood Month Campaign

October was National Seafood Month, and we must take this time to share that if you eat seafood, you could potentially be eating shark meat without knowing it. Shark meat is increasingly being sold across the world, and consumers don't even know they are eating shark meat as it is sold under misleading names. Nor are they aware that shark meat has become increasingly toxic due to the bioaccumulation of methylmercury and other toxins in the ocean. Sharks are apex predators. They play a crucial role in the ocean ecosystem. Their loss would devastate the marine food chain and, ultimately, the entire ecosystem. Additionally, many shark species are already endangered due to overfishing and their slow reproductive rate, so limiting the demand for shark meat is important to protect their populations. Shark meat mislabeling has negative consequences for both consumers and ecosystems. Join us in the global campaign and help raise awareness about the misleading names under which shark meat is sold. Let's inform people about the true nature of their food choices and the impact it has on the environment and our health.



Tabatha "Baby Shark" Ricci

There's a new shark in town!

Fins Attached proudly announce that Tabatha "Baby Shark" Ricci has become their ambassador in the fight to save sharks. Tabatha Ricci is a Brazilian mixed martial artist, currently competing in the Strawweight division in the Ultimate Fighting Championship. As of June 27, 2023, and with a record of 9-1, she is #14 in the UFC women's strawweight rankings. Tabatha is passionate about ocean conservation and especially sharks, which are becoming more and more endangered.

"I am proud to become the Ambassador for Fins Attached and what they stand for. I am passionate about two things in my life, my UFC career and protecting sharks. Supporting Fins Attached is natural for me. We all need to think about our oceans and what they mean to all our lives. Join me in our effort to make a difference for good." Tabatha "Baby Shark" Ricci



2024 Research Project One

Solving the Mysteries of Shark Reproduction: The Holy Grail of Shark Conservation

Dr. Mauricio Hoyos, Dr. James Ketchum, Dr. James Sulikowski, Dr. Omar Santana, Dr. Alex Antoniou Pelagios Kakunja, La Paz, Mexico; Fins Attached, Colorado Springs, USA; Arizona State University, Arizona, USA; Ecocimati, Ensenada, Mexico

Circulating concentrations of plasma steroid hormones, progesterone, and testosterone, have been used in combination with an examination of gross morphological changes to evaluate events associated with reproductive cycles and sexual maturity in several sharks. While the results from these studies indicate that morphological changes in reproductive tracts and gonadal steroid hormone biosynthesis are intimately linked in shark reproduction, this technique requires laboratory analysis before results are known. Ultrasonography represents a non-lethal technique that is quick and provides immediate results on maturity status and gestation state of the shark. Research has found that coupling the use of ultrasound with steroid hormone analysis can provide a means to biochemically and visually assess reproductive biology, leading to a more accurate, and truly noninvasive, determination of reproductive status. Using a revolutionary new satellite tag, developed, we will be able to document the exact location and time that birth takes place for White sharks. Working with Lotek Inc., we have developed the Birth-Tag that is inserted into the uterus of a pregnant female shark where it will remain (inactive) until birth when it is shed along with the pups. Given the small size and shape of the tag, it will remain essentially hidden between growing embryos until parturition takes place.



Birth Tags

2024 Research Project Two

EdwarHerreno.com

The Cocos to Osa Peninsula Swim-Way

Oscar Brenes Arias, Dr. Alex Antoniou, Jorge Serendero, Dr. Peter Lee, Dr. Mauricio Hoyos Playa Reserva Torgula, Ojochal Costa Rica; Fins Attached, Colorado Springs, USA**;** For the Oceans Foundation; One Ocean Worldwide Coalition

Marine Protected Areas (MPAs) are a key conservation strategy for all countries in their marine territories and for areas beyond national jurisdiction. Scientific studies show that highly migratory species such as sharks, rays, sea turtles, tuna, swordfish, billfish, dorado, and whales are safe in existing MPAs. However, once they leave the MPAs they face significant threats from commercial fisheries. Up until now, the focus of research activities has been on the Cocos Island National Park to the Galapagos Marine Preserve corridor, which has documented the migration of sharks between the two MPAs. In the eastern Pacific the Cocos Ridge extends southwestward from the Central American isthmus to the Galapagos Islands.

One Ocean Worldwide Coalition (OOWC) is proposing a research project that extends the study area to include the Cocos-Osa Swim-Way. The goal of this project is to obtain scientific information to propose to decision makers the level of protection required to reduce fishery-related mortality and improved management schemes for the Cocos-Osa Swim-Way. It is expected that this information will help the Costa Rica Government with new management plans for this region by 2025.

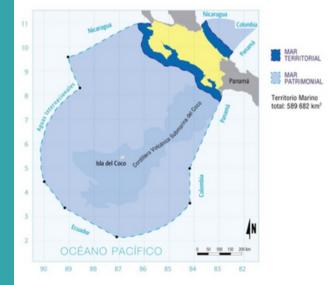


Figure 2: The Cocos-Osa Peninsular Swim-Way, along the Submerged Cocos Ridge, from Cocos Island to the Osa Peninsula, Costa Rica

2024 Research Project Three

Isla Damas Sea Turtle Nesting Beach in Partnership with Playa Reserva Tortuga

This is the story of Francisco Duran Parra from Quepos Costa Rica. Nine years ago, on the beach at Quepos Costa Rica, Francisco (Milo) was inspired to do something to help protect vulnerable sea turtles on his beach. He knew that conservation measures were necessary. Milo started his mission by building a hatchery in a protected area. He collected the newly laid turtle eggs, placing them in the protected hatchery area. After 45-65 days, the turtles started hatching and Milo began to release them on the beach. Milo estimates that he typically collected and saved an average of 10,000 turtles eggs each season, which runs from July to December. However, another 30,000 eggs are lost, primarily to poachers.

After nine years, the hatchery enclosure needed rebuilding with more durable materials. Additionally, the beach stretches over 6 kilometers or almost 4 miles. An ATV is needed to be able to respond more rapidly when the word goes out that turtles are crawling up the beach. A rapid response is critical to be able to beat the poachers to the turtles laying their eggs. Fins Attached provided the necessary funds to rebuild the hatchery fencing. Now we are working to secure the funds to purchase an ATV.

What Can be Done to Help Save The Sea Turtles?

- The turtles must be protected by enabling them to lay their eggs. This is accomplished by patrolling the beaches to defend against poachers, or by getting the poachers to agree to become egg collectors for us.
- Promoting eco-tourism as well as educating people about the beauty and importance of sea turtles.
- We must engage the local community to help with protection.

The first year of supporting this project has been much more successful than we could have predicted. We trained poachers to collecting eggs to bring to the nursery (see page 8 of this report).



Thank you to our Key Sponsors

$\frac{\text{PAUL M. ANGELL}}{\text{FAMILY FOUNDATION}}$







Decon Labs, Inc.



The Peterffy Foundation/Reweaving the Web Shirley Orman Family Foundation William H Nichols Foundation Chris Law Family



EDWARHERRENO.COM

EdwarHerreno.com

Fins Attached 5297 Palomino Ranh Point Colorado Springs, CO 80922 USA finsattached.org info@finsattached.org

501(c)(3) Nonprofit: EIN: 27-3567356



EdwarHerreno.com