Building the **NEXT** **GENERATION** of ocean **LEADERS**

LOCATION

ABOUT

We firmly believe that the solutions to Galapagos lie with the current generation of emerging local and national leaders, both on the islands and on mainland Ecuador and Costa Rica. To this end, we have opened a chapter of Gills Club on the island, to promote STEM activities in young girls, who meet monthly with our team. In partnership with the Galapagos Conservation Trust, we have also produced the story **"Marti the Hammerhead Shark"** which we are using in classrooms across the island. We hold an annual Shark Day with the local community, and organize several family events throughout the year.

QUICK FACTS AND IMPACT

32

girls have participated in Gills Club so far.
Current cohort:
12 girls

1500

books printed

Over
1000 schoolchildren
engaged with Marti, mostly in Galapagos, around **150** in Quito, and **50** on coastal Ecuador. More planned for mainland and Costa Rica.

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PROJECT

Support our education experts in Galapagos, coastal Ecuador and Costa Rica. Expand our Gills Clubs chapters, and engage schoolchildren across the region. Our goal is to reach at least 500 kids a year with Marti and to engage at least 12 girls in Gills Club annually in each location.

DONATION GOAL:
US$ 45.000
a year

It would allow us to support an educational expert, cover travel expenses and materials at each of the following locations: **Galapagos, mainland Ecuador and Costa Rica.**

GAIAS EUROPA, BY UNIVERSIDAD SAN FRANCISCO DE QUITO

Non-profit organization created to achieve charitable, educational, and scientific impact, connecting Europe and Latin America in academic experiences and investigation projects.

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SWIMWAYS and CONNECTIVITY

LOCATION

GALAPAGOS ISLANDS:
COCOS ISLAND AND HERMANDAD MARINE RESERVE

ABOUT

We are characterizing the open-water behavior of key species, their seasonal abundance and movements, their hotspots, and their links with nearby Cocos Island through tracking studies, genetics, and midwater floating cameras. Our science forms the backbone of the "Galapagos-Cocos Swimway" and of the new Hermandad Marine Reserve.

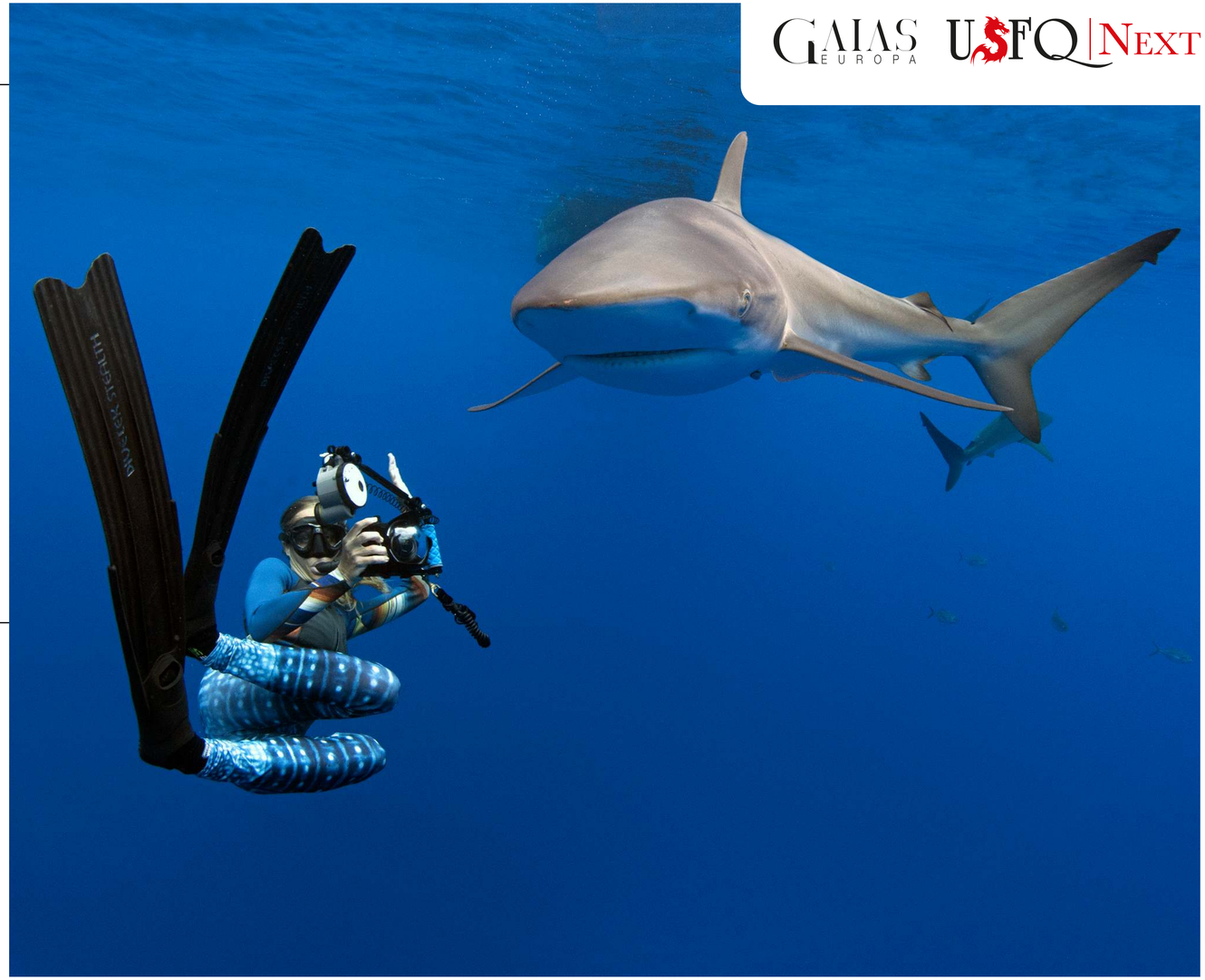
QUICK FACTS AND IMPACT

SPECIES: SILKY, HAMMERHEAD, TIGER, AND BLUE SHARKS.

Hammerhead sharks reside at Darwin and Wolf islands for most of the year, but some move away from March through June. We have tracked them to Cocos Island.

Our silky sharks can stay at one island for over **7 years**

Blue sharks leave the reserve and many are caught almost immediately by longliners.



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PROJECT

Mount an expedition to Hermandad or one of the Galapagos bioregions to track sharks, carry out midwater surveys and support a student. Each year, a student will do their Masters Project analyzing one component of tracking, depending on the species focus that year.

DONATION GOAL:
US$ 50,000
a year

BUDGET BREAKDOWN

- **10 K** Tags
- **25 K** Boat time
- **10 K** Student support
- **5 K** midwater survey equipment

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The ELUSIVE whale SHARK

LOCATION

ABOUT

This is the largest fish in the ocean, yet its biology remains a mystery. We have identified the only known global aggregation of large adult females. We are using cutting-edge underwater technology to establish their reproductive state and are tracking them from Galapagos out into the Pacific and back again to the coast of Ecuador and Peru, a perilous journey with a myriad of threats. We have just discovered a new aggregation in the south of the marine reserve.

QUICK FACTS AND IMPACT

SPECIES: WHALE SHARK

The population in Galapagos is made up almost entirely of large adult females. This makes it unique in the world.

We are the first researchers to do ultrasound and take blood from free swimming whales. They do not appear to be pregnant.

They migrate up to

1240 miles

west out into the ocean and then back through Galapagos to the shelf break of mainland Ecuador.

© Simon J. Pierce

PROJECT

Purchase 10 satellite tags and mount an expedition to the new aggregation using ultralight aircraft and speed boats to locate and tag the sharks, to close their migratory loop.

DONATION GOAL:
US$ 40,000
a year

BUDGET BREAKDOWN

20 K
Tags

10 K
Boat time

10 K
Air time

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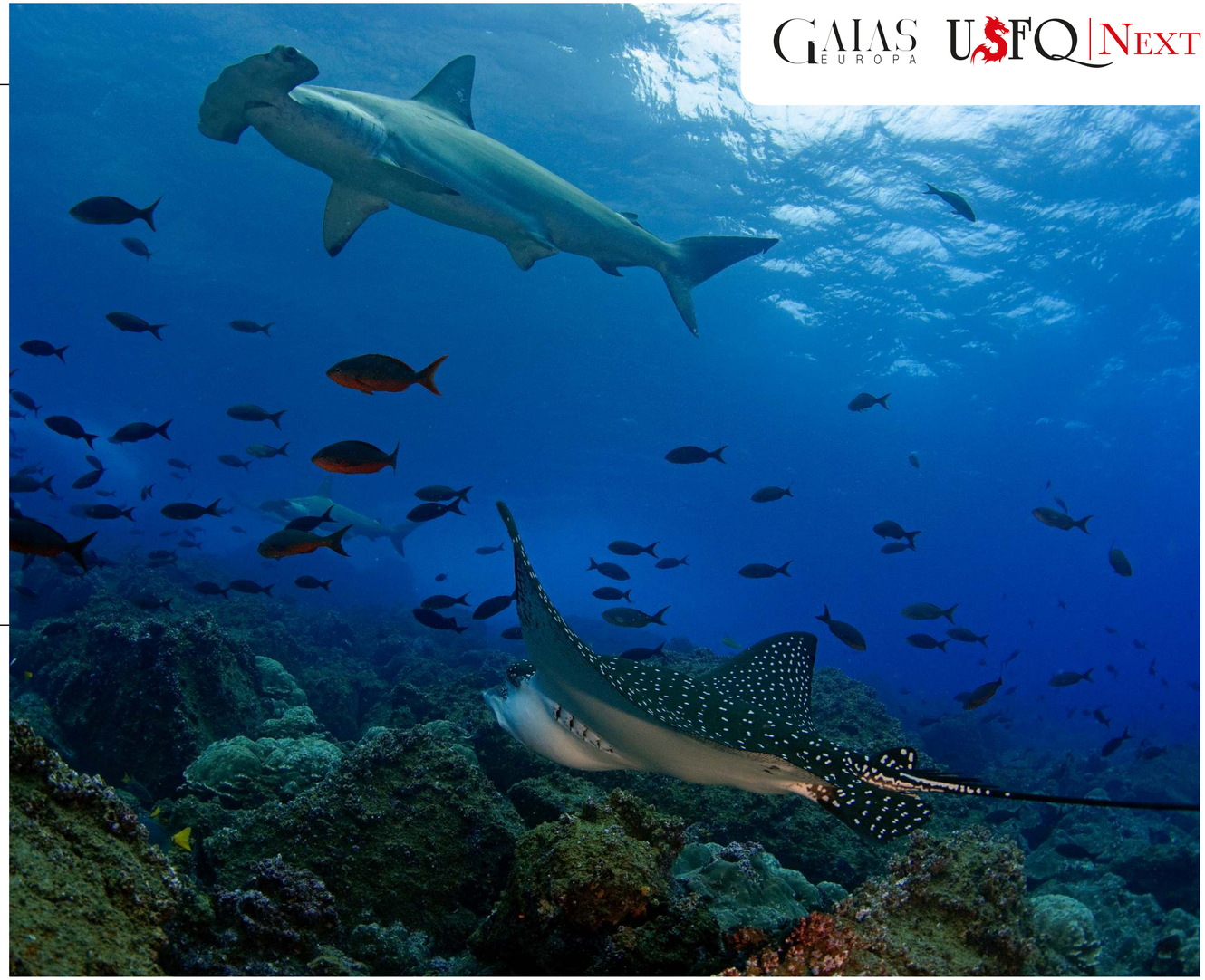
Critical **ELASMOBRANCH NURSERY** Grounds

LOCATION

GALAPAGOS ISLANDS:
SAN CRISTOBAL, ISABELA
AND SANTA CRUZ.

ABOUT

We use a combination of drone and net surveys, together with tagging and genetics to map out key nursery areas in the Galapagos Islands, explore potential risks from human activities, and provide conservation management recommendations to the National Park authorities.



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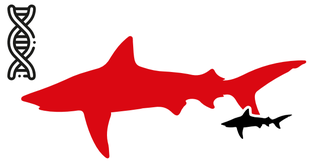
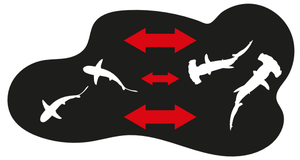
QUICK FACTS AND IMPACT

SPECIES: BLACKTIP AND SCALLOPED HAMMERHEAD SHARKS, PACIFIC EAGLE RAY AND GOLDEN COWNOSE RAYS

We identified the first hammerhead nursery for the islands (at San Cristobal), and are now working on evaluating another 2 sites in Santa Cruz and Isabela.



Kinship genetics studies show that female blacktips pup every two years.



Blacktip and Hammerhead pups can co-inhabit a lagoon, but seem to spatially segregate, perhaps to avoid competition.

PROJECT

Survey our key nursery sites, carry out population estimates, undertake key genetic kinship studies and address how two shark species share the same nursery grounds.

DONATION GOAL:
US$ 24,000
a year

BUDGET BREAKDOWN

5 K
Tags

12 K
Boat time

7 K
Student travel

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Paving the way to **RESPONSIBLE FISHING**

LOCATION

GALAPAGOS ISLANDS:
SAN CRISTOBAL

ABOUT

After two decades of failed fisheries management, there is still no common vision for fisheries in Galapagos, and many fishers believe that solutions lie in increasing their catches and using unsustainable fishing gear such as longlines. The fishing sector is still over-capitalized. However, there are encouraging signs. We are supporting responsible fishing using digital observers, initiatives that focus on high value, small volume, and our colleagues who have developed an online responsible fish consumer guide.

QUICK FACTS AND IMPACT

Thanks to demand for research, one mothership has been kitted out with cabins, reducing fish storage capacity by 60%, and significantly reducing time spent fishing.

At the moment, we have funding to support one fisherman to use virtual observers as part of a responsible fishing practice. We are in the process of securing the equipment.

PROJECT

Set the groundwork for a common vision for fisheries at the islands. Support a switch for 2 of the 15 active mother vessels from fishing to providing services for science/film crews. Support a further 10 fishing skiffs to transition to digital observers and value-added markets, thus making a huge step towards a conservation economy.

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DONATION GOAL:
US$ 300,000
a year

BUDGET BREAKDOWN

15 K
for market feasibility study for alternative uses of fishing vessels

40 K
for vision-building workshop process

180 K
for vessel conversion (2 motherships)

25 K
for shellcatch digital observer platforms (5 vessels)

40 K
to set up an interest-fee loan scheme for private initiatives for responsible fishing or non-fishing vessel use.

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Seafood
RESPONSIBLE CONSUMPTION

LOCATION

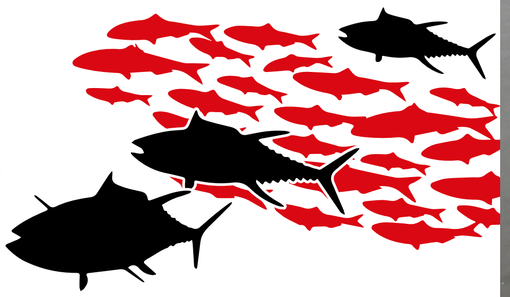
ECUADOR

ABOUT

We educate consumers in Ecuador about which seafood products are the best for their choices, based on the following criteria: **a)** the trophic level the species belongs to, **b)** the duration of its life cycle, **c)** the impact of the fishing practices on associated species (a.k.a. bycatch) or on the marine habitats it occurs, and **d)** amount of pollutants accumulated in its meat.

QUICK FACTS AND IMPACT

One of the greatest threats to the ocean is overfishing. It's estimated that 96% of extinctions in coastal environments are due to overfishing. However, these facts are not considered by consumers because of a lack of knowledge. To fill this gap, in May 2020, we launched the project "De la red Al plato" (https://www.delaredalplato.com).



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PROJECT

We extensively review the biological, ecological, and fishing aspects of the most common seafood items in our society. We then illustrate the recommendations in our website with a user-friendly approach.

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GALAPAGOS
ATMOSPHERIC EMISSION Model for EDUCATIONAL and SUSTAINABLE DECISION PURPOSES

LOCATION

GALAPAGOS ISLANDS:
SANTA CRUZ, SAN CRISTOBAL AND ISABELA

ABOUT

Emission inventory and spatial analysis to establish the project baseline. The inventory takes into account the main anthropogenic sources of emission of the three most populated islands in Galapagos (Santa Cruz, San Cristobal and Isabela). Estimates of anthropogenic emissions per activity are calculated using a methodology that uses disaggregated and specific information from the main sources of emissions to achieve good precision and performs an uncertainty analysis to reduce levels of uncertainty. Development and construction of a System Dynamics Model that can be used by policy-makers to achieve an enhanced understanding of the Galapagos Islands sources of emissions.

QUICK FACTS AND IMPACT

Aerial and maritime transportation generates the most significant emissions in the Galapagos Islands in terms of Primary Pollutants (PP) and Greenhouse Gases (GHGs) contributing to 36% and 41% of total CO_2 emissions for Galapagos, respectively.

In third place is the energy sector contributing to 15% of total CO_2 emissions for Galapagos, being the energy industry the principal emission source of this sector.

Results highlight the strong dependency of the islands on fossil fuels for transportation and electricity generation and thus the need to plan strategies for site-specific decarbonization. Improved technology for more sustainable mobility will not only help reduce emissions from this sector but also reduce environmental impact caused by spills, which is another big concern for this sector.

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PROJECT

Decarbonizing the Maritime Transport Sector in the Galapagos Islands. This is the first spatially mapped emissions inventory for the Galapagos Islands and represents a powerful tool to make informed decisions to contribute to the long-term sustainability of the archipelago and planning strategies for site-specific decarbonization.

DONATION GOAL:
US$ 100,000
a year

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