# Lemon Aid Stand Ledger

Mangrove Moments and the Latest Project Lemon Aid Announcements with Sharks4Kids

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Students from Clement Howell High School in the field with Sharks4Kids.

# FOURTH YEAR AND FIFTH RESEARCH EXPEDITION

Our team had another successful field season for Project Lemon Aid - now in its fourth year and fifth research expedition. Project Lemon Aid is a community-driven research and education program based in Turks and Caicos, focused on studying the lemon shark (Negaprion brevirostris). As always, our partnership with Big Blue Collective (BBC) remains invaluable. Co-owner Phillip Shearer and staff captain Kaylam Pratt have been instrumental in all aspects of the project, from scouting new research sites to data collection and analysis. This season, we were thrilled to bring several BBC staff members into the field, teaching them not only how we conduct our research but why it matters. Their enthusiasm and support were exceptional, and this hands-on collaboration helps spread awareness throughout the community and beyond.

All research done under permit from DECR.

## ADVANCING THE SCIENCE

As our project grows, we continue to piece together a more complete picture of lemon shark life history. This year marked an exciting milestone: the introduction of acoustic tagging into our research. Acoustic tags are a widely used tool in shark science, enabling researchers to track movements, behavior, and habitat use either in real time or over extended periods. These tags emit unique ultrasonic signals, which are detected by underwater receivers placed strategically around the islands. For this project, the tags are surgically implanted into the sharks' abdominal cavities. The sharks cannot feel or hear the tag, and we periodically retrieve the receivers to download and analyze the data.

During this trip, we successfully deployed six acoustic tags. While previous years focused primarily on young-of-the-year and newborn lemon sharks, this season we shifted attention to larger, older individuals. These data will help us understand where sharks go once they leave the mangrove nursery areas and provide insight into their fine-scale movements around nearby channels.



A lemon shark is held in the sleep-like state of tonic immobility while an acoustic tag is inserted.



Jillian stitching the opening after an acoustic tag has been implanted.

# STUDENTS IN THE FIELD

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A student scans a lemon shark for a PIT tag during a work-up
Photo Credit: Arenthia Baker

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While the data we collect is critical, the heart of Project Lemon Aid is education, especially involving local students in the field: this year, 31 students and teachers from three high schools. We worked in familiar study sites but also explored a new channel, where we caught three blacktip sharks - a non-target species, but an exciting find that provided students with broader insight into the local shark population.

Students are involved in every step of the research process, including: taking measurements (total, fork, pre-caudal, and girth), collecting a DNA sample, determining the sex of the shark, recording umbilical scar status, and inserting a PIT tag.



#### **EDUCATION ACROSS THE ISLANDS =**

In addition to fieldwork, we spent several days visiting schools across Providenciales. Our local team also traveled to North Caicos to meet with students from both North and Middle Caicos. Our interactive programs brought sharks and ocean science into the classroom, covering general shark biology, local shark species, and the mission of Project Lemon Aid. Our goal is to inspire students to learn about - and care for - the incredible marine life found right in their backyard.

We spoke to nearly 1.400 students from 10 schools, ranging in age from 4 to 18 years old. Alongside our presentations, we distributed:

- 110 laminated shark posters
- 6 educational books
- 300 activity packets
- 200 coloring pages
- 100 3D shark models
- 100 4Ocean bracelets

"The trip I had the privilege of attending was truly incredible. I thought it was eye-opening, as even though I've never been afraid of sharks, seeing them as babies and realizing just how small they start changed how I viewed them. I learned a lot while we were out there, even though it was only a couple of hours. It was an amazing experience, and I would recommend it to anyone, whether you are or aren't afraid of sharks, because it shows you just how incredible these animals are." - Keegan James, Year 10 Student

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"Our Institution makes every effort to allow students to gain learning experiences that can serve to enhance their personal growth and development. Learning about sharks is essential as it helps to remove the myths and other misunderstandings that students may have. By exposing students to this, it fosters a deeper understanding of marine ecosystems and the interconnectedness of all living species. They also learn valuable lessons in the protection and conservation of marine life."- Sophia Garland, Principal, Enid Capron Primary











Students from British West Indies Collegiate in the field

Jillian teaching students about shark research. Each student received an activity packet about local shark species.

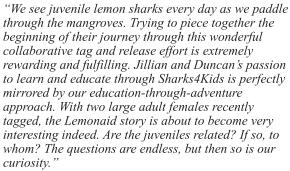
Students from ALGHS in the field



Adult lemon secured to the boat for a scientific workup Photo Credit: Kaylam Pratt

## RESEARCH HIGHLIGHT

One major highlight during this field session was tagging our first adult female, who received both a PIT tag and an acoustic tag. We also collected a DNA sample, which will help us determine if any of the pups we've tagged in past seasons are her offspring.



- Phillip Shearer, Co-owner, Big Blue Collective

### **DONUT SHARK!**

Our Advisory Board Member, Caiti Rose ("Sharktopia") was inspired by the juvenile shark showing off its flexibility. She created the 'donut shark' design - which has been made into stickers and

helped raise funds via Bonfire.





Duncan Brake briefly holds a juvenile lemon shark for a work-up - completed once the shark released it's tail. Photo Credit: Phillip Shearer

#### **GRATITUDE**

"I am incredibly proud of the program we have created. Far too often, researchers visit an area to collect data but fail to involve the local community. For conservation to be impactful and sustainable, all regional stakeholders, including kids, need to be part of the conversation. I am excited about the data and what we are learning, but I am even more excited about the opportunities we are creating for the local community and students. We are making an impact and empowering future ocean stewards for Turks and Caicos and beyond."

Jillian Morris - Founder & President



SPECIAL THANKS TO: Save Our Seas Foundation, Rock the Ocean Foundation, The Sandals Foundation, Big Blue Collective, DierenPark Amersfoort Wildlife Fund, Dept of Environment and Coastal Resources (DECR), Ministry of Education, Grace Bay Car Rentals, everyone who adopted a shark to support our research, plus the schools and educators who welcomed us and allowed students to join us in the field. You're helping shape the next generation of ocean advocates. generation of ocean advocates