

Distillery, Apps and Turtle Research

The Past 2 Years with DomSeTCO

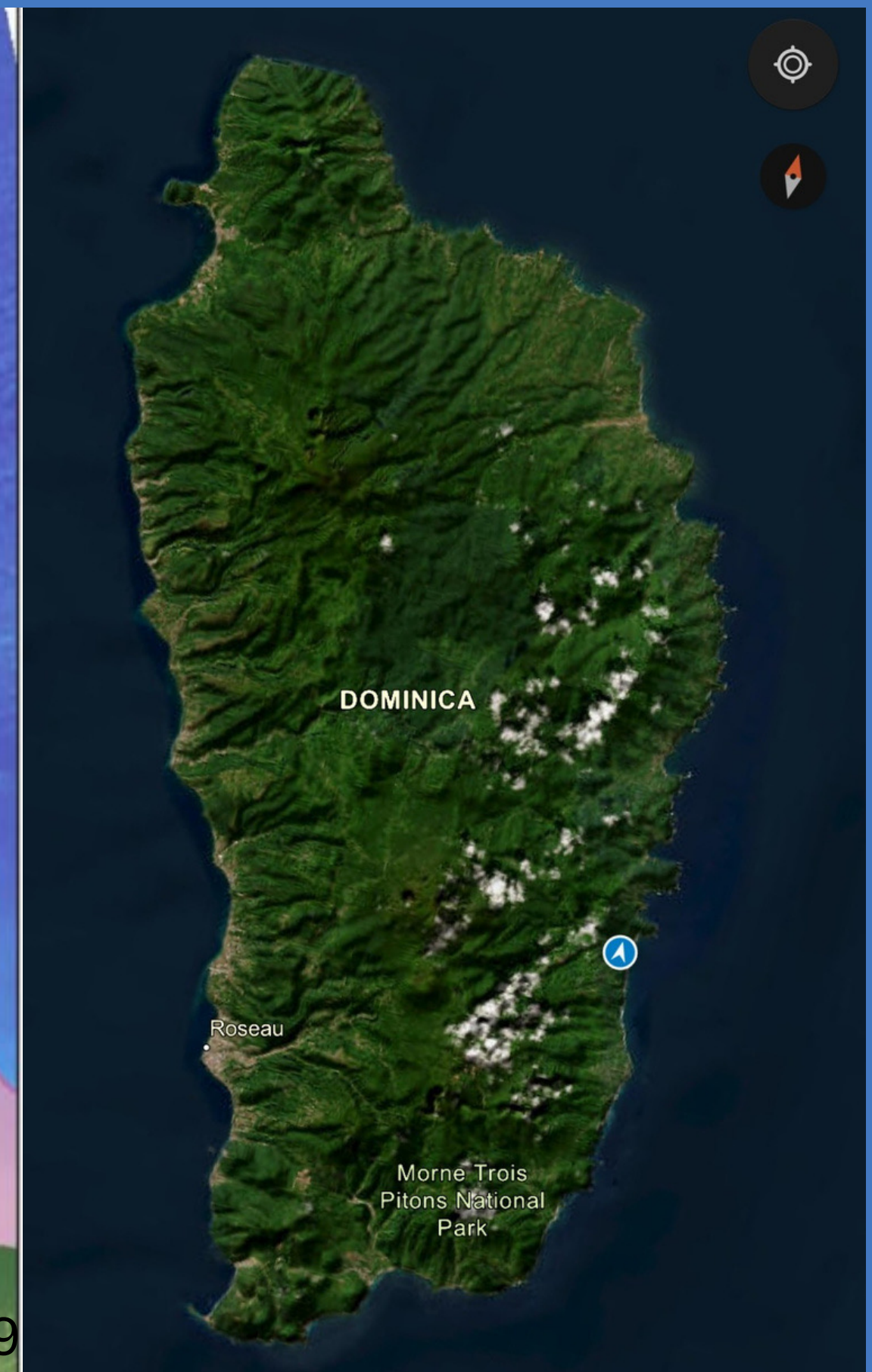
Kacey St John



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Welcome to Dominica





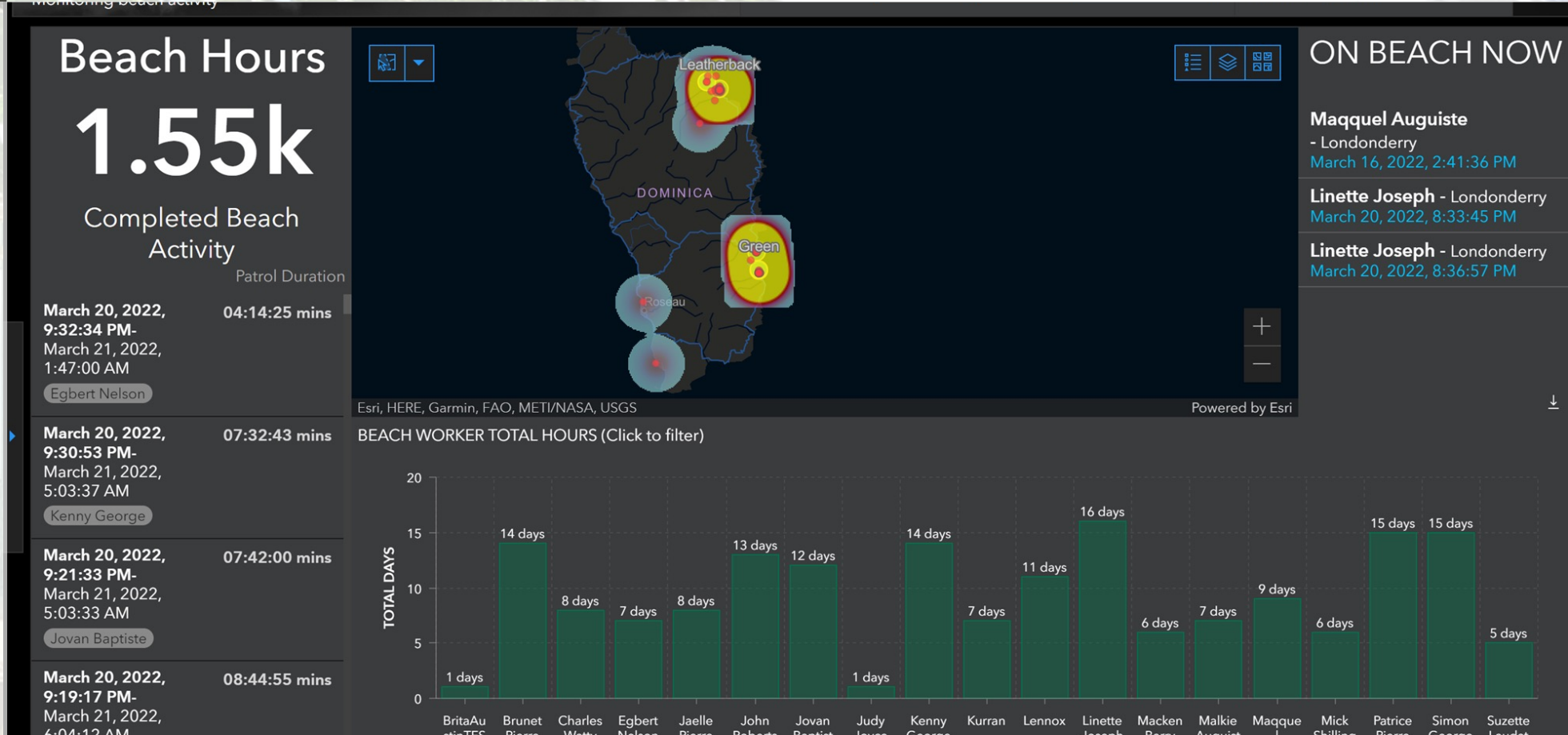
How Time Flies - Where We Were in 2022



Our distillery had taken shape and our first trials at distilling rum completed



We had just started using our custom-built ArcGIS app



A World's First - Rosalie Bay Rum



We aim to be selling in the USA market by the end of 2024.

- **Over 50 local sugar cane farmers - boosting agricultural community**
- **More than 30 Dominican workers - encouraging employment**



Our sustainability journey so far:

- **11 kWh of solar power online, with another 50 kWh by the end of the year**
- **On track to be NET Zero by 2025**
- **Our biological wastewater treatment building; operational within the next couple of weeks**







ArcGIS

A Digital Dominica



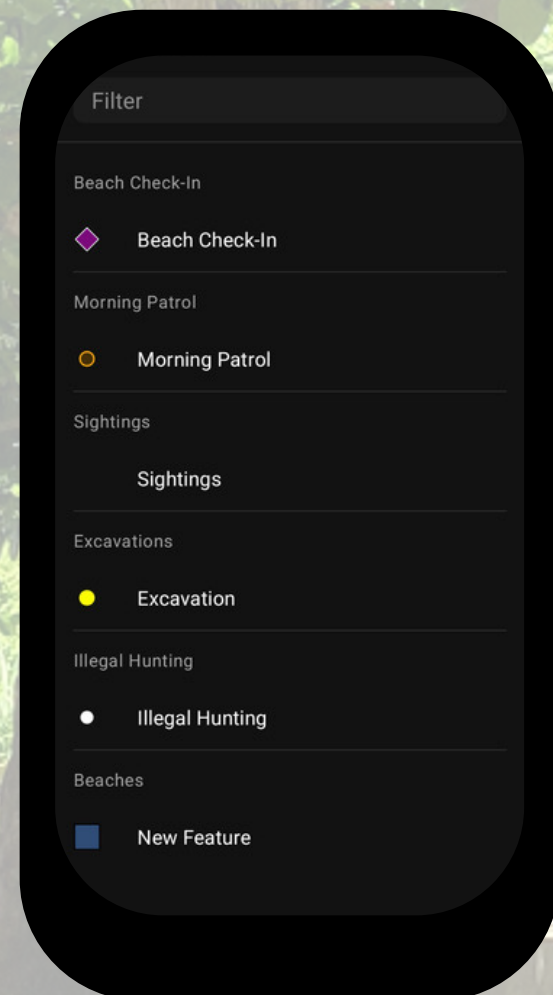
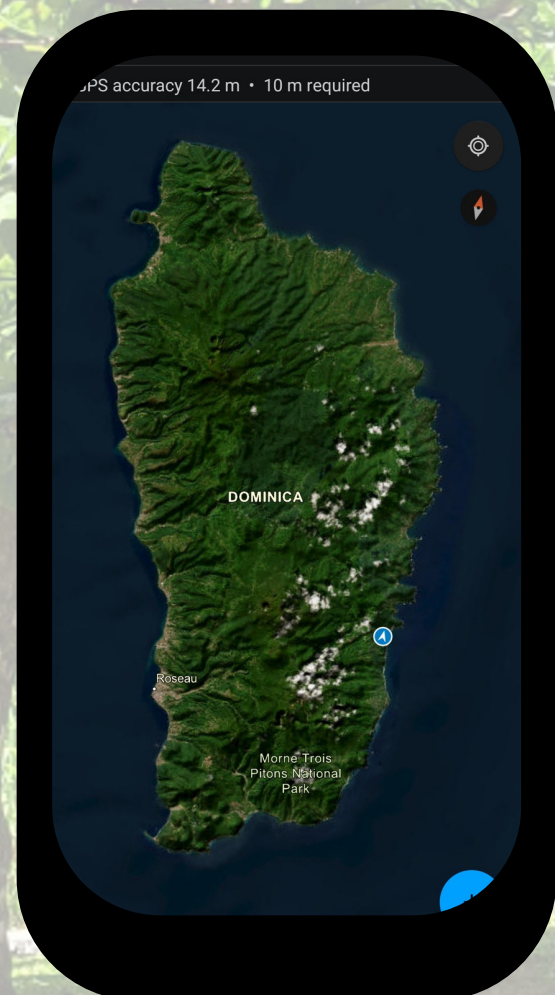
Field Maps



To date, we have logged over 4,500 man-hours and several hundred sightings. However, we have not been without our challenges.

It became clear that a 'cold turkey' switch to the app would not work for our team, so this season we are working hard to:

- Ensure all patrollers feel fully trained and supported in the use of the app
- Monitor the usage of the app daily, so issues can be caught and resolved quickly
- Offer a compromise - dedicated notebooks to act as a 'backup' for the app





ArcGIS

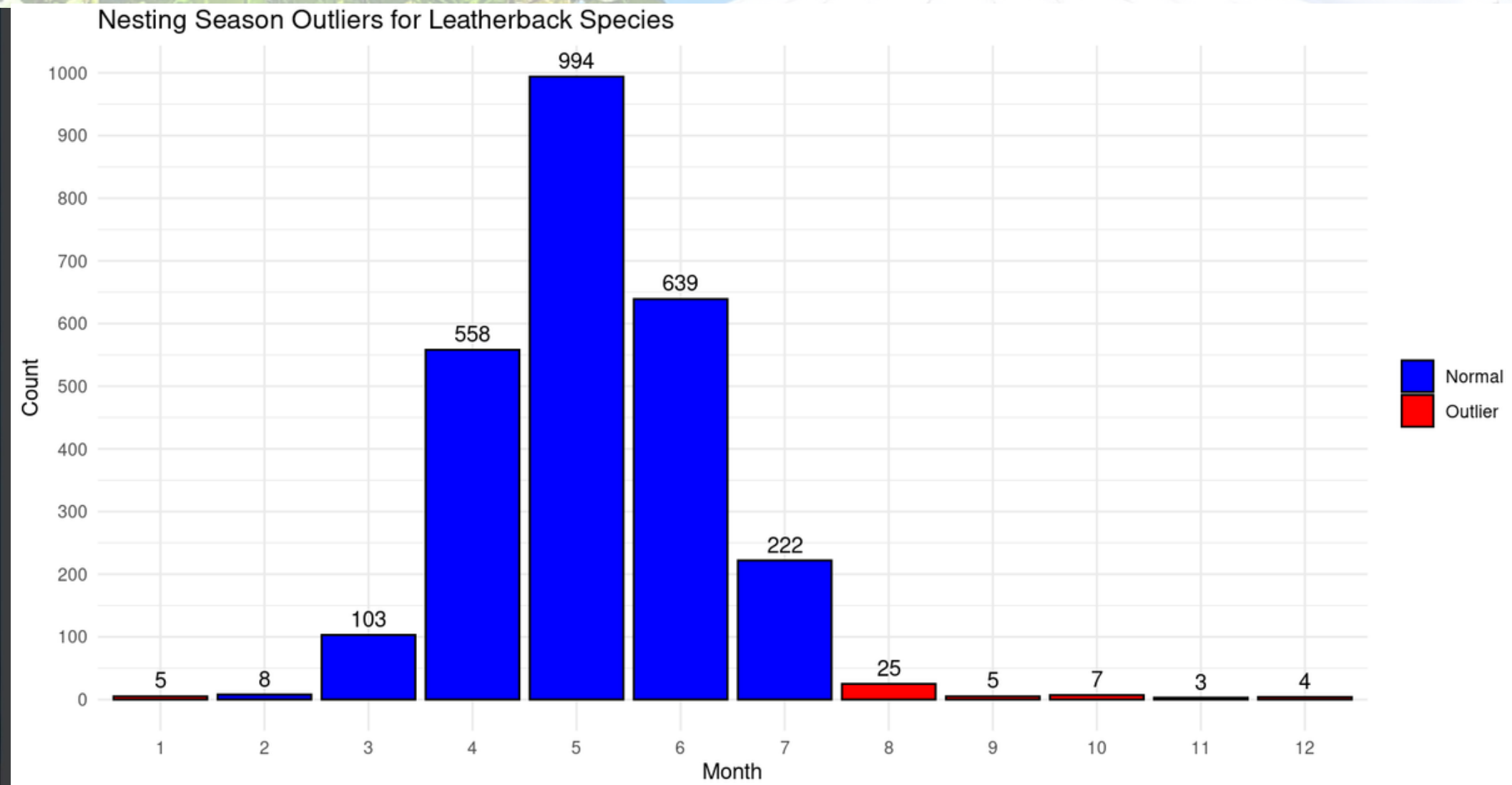
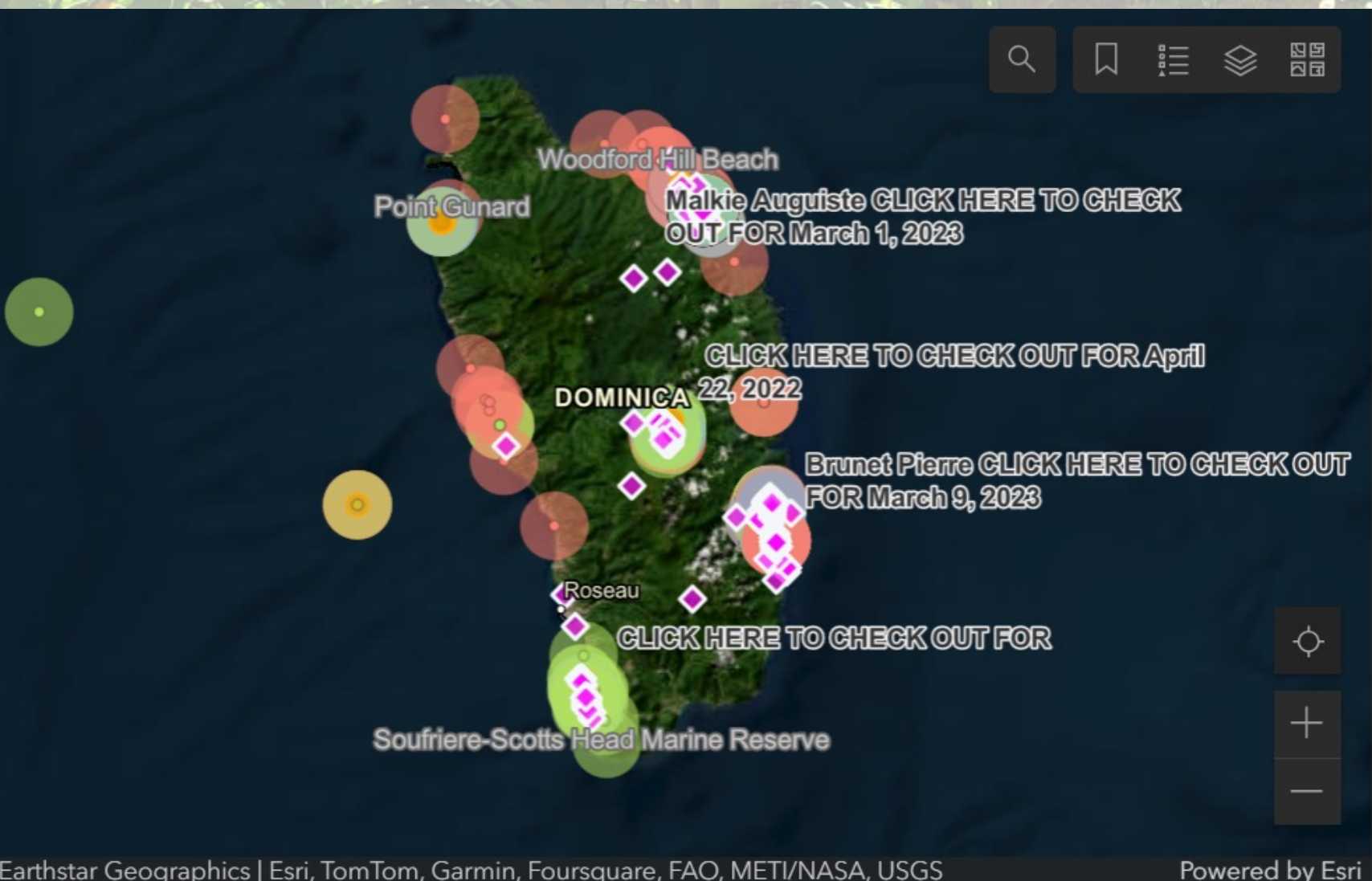
A Digital Dominica



Field Maps

Digital data entry has many benefits including:

- easy access to all records, making checking much more efficient
- mass quality control using programmes such as Python and R
- quick analyses of data - making the scientific process much easier (including automatic GPS data from the app)



The Rosalie Conservation Centre in Action

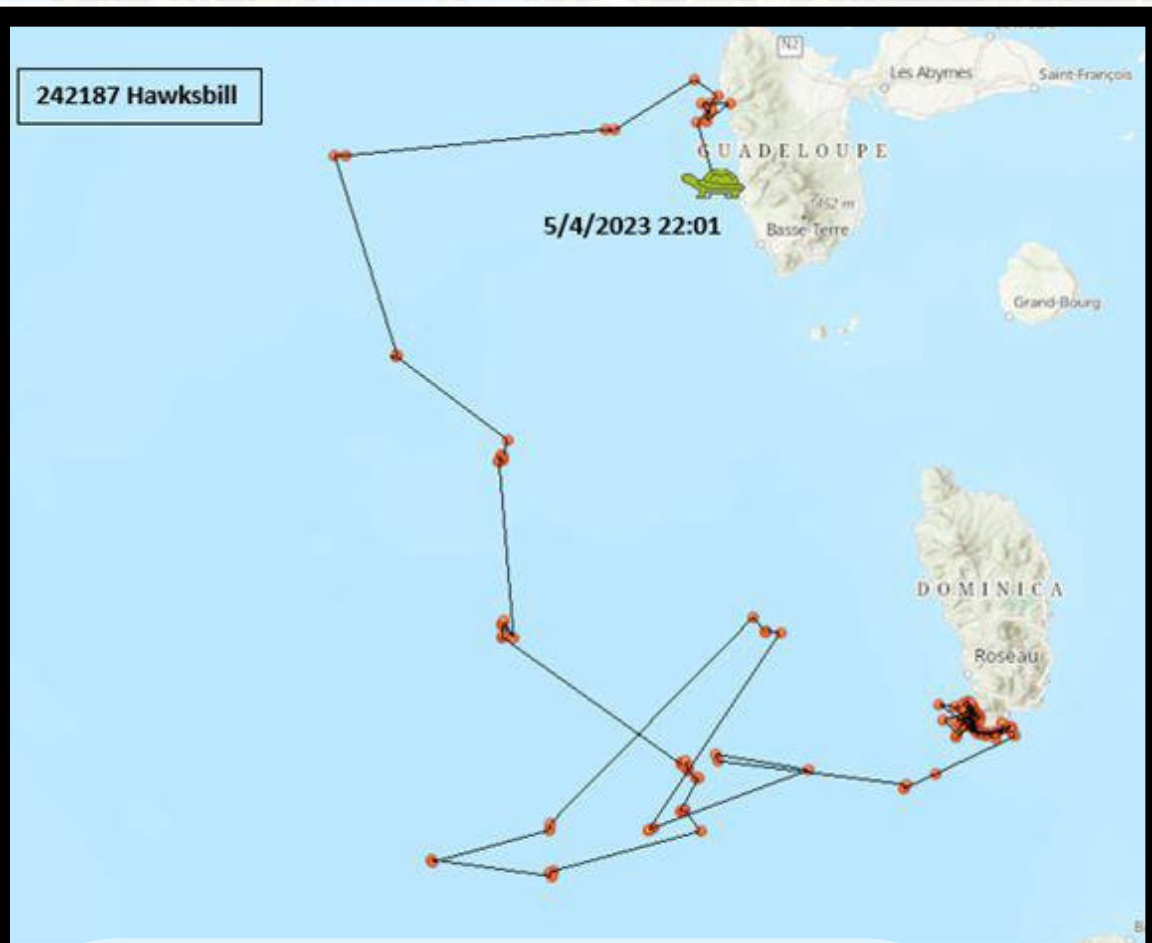
A New Hub for Scientific Research

Example: Turtle Hearing Study

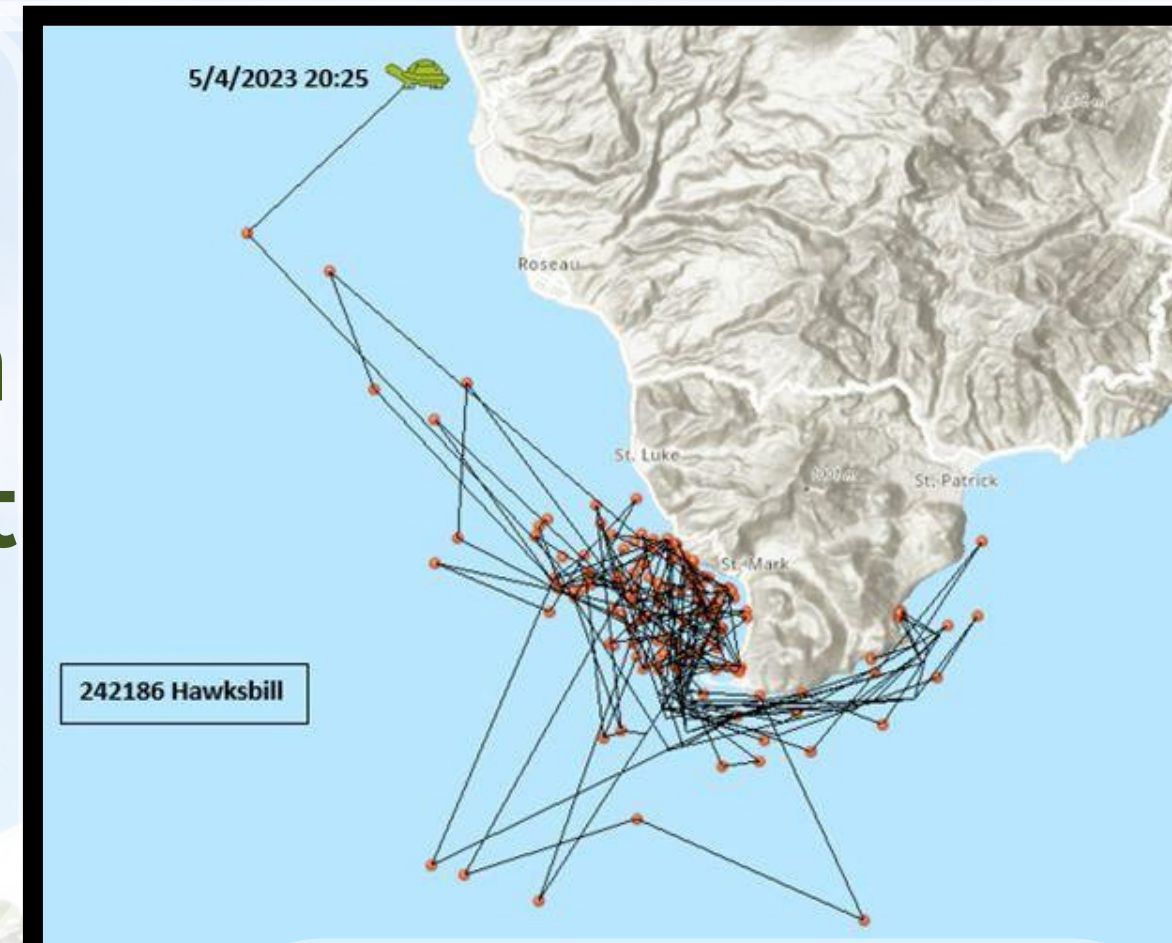
- **Auditory Evoked Potentials (AEPs) tests to understand sea turtle hearing in hawksbill sea turtles.**
- **Greens were released in the North of Dominica to study juvenile movements.**



Research: Past and Present



Complete: Tracking Nest-Rescued Green Sea Turtles In Oceanic Currents Sheds Light on Eastern Caribbean "Lost Years".



Deploying more satellite tags to understand sea turtle movement ecology in the Lesser Antilles



Social surveys to understand the perceptions of sea turtle conservation and legislative protection in Dominica.



What's Next?



Initiating a PIT Tagging Programme as Part of Patrols
We currently have 48 PIT Tags ready to deploy this upcoming season.

Installation of Beach Interpretation
We are in the final stage of manufacturing custom beach signage, informing the public on appropriate behaviour around sea turtles and their nests.

YOU CAN HELP PROTECT Sea Turtles

Sea turtles help maintain fish and plant populations, which people rely on for food and their livelihoods. Turtle Season is from Mid-February through October. Females lay 100 to 120 eggs per nest multiple times, about two weeks apart, over several months.

1 in 1000 reach adulthood

Do not leave toys, trash, or beach furniture on the beach overnight

Fill in holes and remove sand castles made while playing in the sand

Turtle egg shells eventually break down and act as fertilizer for plants on the beach.

Keep Plastics from entering the ocean

WHAT TO DO if you see a sea turtle

CALL or WhatsApp (767) 265-0908

- Do not touch
- No white light (only red)
- Observe, but don't disturb habitat

Dominica law prohibits the disturbance of sea turtle nests. Violators subject to fines and imprisonment. Schedule 3 of the Forestry and Wildlife Act.

Want to Help Researchers?

- Snap a picture
- Use QR to upload and fill in form

Leatherbacks eat approximately 73% of their body weight in jellyfish per day - several hundred kilos. Leatherbacks are the largest sea turtle in the world, measuring up to 6 feet (1.83 meters) and weighing half a ton (454 kilograms). They swim the furthest distance of any turtle and dive to nearly 4000 ft (1,220 meters).

Greens help maintain 10km² of seagrass meadows in Dominica — an area twice the size of Roseau (the capital city of Dominica). Eating seagrass and algae gives their cartilage and fat that distinctive green color.

Hawksbills have a distinctive beak they use to reach into the coral reef to find their favorite food—sponges. Too many sponges can overcome a reef, too few and the reef doesn't succeed. The Hawksbill keeps them in balance.

Dominica Turtles Tracked by Satellite

Atlantic Ocean

- LEATHERBACK
- GREEN
- HAWKSBILL

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Any Questions?



SCAN ME



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