

Hawksbill Cove

From Ecological Catastrophe to Conservation Classroom



By Scott Eanes

On April 27, 1976, an aircraft crashed shortly after taking off from Harry S. Truman Airport in St. Thomas, U.S. Virgin Islands (USVI). The plane struck an antenna, plowed through a chain link fence, and ultimately came to rest in a gas station. The devastating accident killed 37 people and set off a chain of events that would eventually lead back to sea turtle conservation.

As an effort to prevent a repeat of the 1976 disaster, a massive infrastructure project was undertaken to lengthen the runway. The project buried a portion of the adjacent coral reef under tons of rubble, boulders, and dolosse (cast-concrete tetrapods designed to break waves and prevent coastal erosion). At the time of its completion, the new 2,100-meter (6,890-foot) runway (christened the Cyril E. King Airport, or STT, using official airport nomenclature) replaced a natural hawksbill habitat with roughly 6 hectares (15 acres) of fully artificial substrate, at depths ranging from 8 to 27 meters (26 to 89 feet). Today, STT is the busiest airport in USVI and one of the principal airports in the eastern Caribbean, serving more than 1.4 million people annually.

Thirty-three years later, the University of Virgin Islands Sea Turtle Research and Conservation program (UVISTRC), led by renowned sea turtle biologist Paul Jobsis, has documented an astounding transformation of the once-sterile construction site into a flourishing habitat for juvenile hawksbills. The change is due in large measure to the dolosse and large granite boulders that have created an extremely rugose habitat. The countless crevices, caverns, and tunnels have proven to be ideal habitat for juvenile hawksbills, allowing them maximum safety while resting, hiding, and sleeping.

When the study began in 2014, the UVISTRC team found some two dozen hawksbills using the runway habitat. And month after month, year after year, the numbers of new recruits to the resident population continued to increase. Through 2023, more than 70 hawksbills have been documented. These animals range from newly arrived oceanic hawksbills (carapace lengths of 19–25 centimeters, or 7–10 inches) to subadults of more than 60 centimeters (24 inches) that have been resident for more than a decade.

The past 10 years have revealed some intriguing observations. First, hawksbill turtles that only spend time near the runway are known as runway turtles, and they are distinct from the hawksbills found elsewhere in Brewer’s Bay, which are affectionately called Black Point turtles. Second, there is very little, if any, intermixing among the runway turtles and the Black Point turtles. Habitat partitioning and even spatial competition has been documented and published in a paper titled “Habitat Selection and 3D Space Use Partitioning of Resident Juvenile Hawksbill Sea Turtles in a Small Caribbean Bay,” research that included data from 10 turtles equipped with acoustic tags in 2017.

The timing of the acoustic tag study could not have been worse, as five weeks after the turtles’ release, the strongest Atlantic hurricane in history, Irma, raked across St. Thomas, leaving a wake of destruction. Two weeks later, the island was struck by Hurricane Maria, another category 5 maelstrom of



The extension of the Cyril E. King runway into Brewer’s Bay effectively split the bay in two. Twenty-five years later, the southern body of water was christened “Hawksbill Cove,” inspired by the flourishing hawksbill population discovered there. © Scott Eanes

mayhem. Despite those staggering catastrophes, the acoustic tags held on, and so did the turtles. Indeed, every one of the tagged turtles remained in the habitat before, during, and after the storms. Astonishingly, the tags revealed that they weathered the storm by staying submerged for longer-than-average periods and at greater-than-normal depths (27-plus meters, or 89-plus feet). That documentation led to the first published paper on the behavior of hawksbill turtles during hurricanes.

The tale of the Cyril E. King Airport runway initially caused people to lament the loss of a pristine habitat, but with time it became a case study for nature’s resilience. Humanmade sites like Brewer’s Bay can bounce back to become important ecosystems and essential habitats for critically endangered species. We then find ourselves marveling at and, more importantly, preserving an area that was once considered a conservation failure. •



A Personal Tale

In 2014, when I was doing my master’s research, I realized the “new” body of water south of the airport had been nameless for more than 25 years. That epiphany led me down a Google rabbit hole starting with “How do places get their name?” and my discovery of the Board on Geographic Names, the U.S. agency responsible for naming geographical locations. A phone call was made. An awkward voicemail was left.

This culminated in a friendly connection, and in 2015, after a lengthy process, my proposal to name the body of water was unanimously approved. It is now officially Hawksbill Cove, USVI.

AT LEFT: A hawksbill turtle swims above rubble that was dumped while extending an airport runway in St. Thomas, U.S. Virgin Islands. © Scott Eanes