

# Video Documentation of the Natural History of the Island of San Salvador, Bahamas

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## Abstract

The objectives of this research project were to create an educational video for use by the Gerace Research Centre and to expand the inadequate archive of visual documentation of the natural history of the island of San Salvador, Bahamas. The Director of the Gerace Research Centre, an educational and research institution located on San Salvador, articulated a need for video presentations about San Salvador's natural history for 1) on-island education in local schools, 2) arriving U.S. students at Gerace Research Centre, and 3) advocacy for the establishment of a national park to protect five critical habitats on the island. Two weeks were spent on San Salvador collecting motion and still image documentation of the ecosystems and species found on this remote island in the Bahamas. Video footage and still photography documentation were collected from mangrove and other coastal ecosystems, karst habitats throughout the island, pine forests, inland hyper-saline lakes which cover a significant portion of San Salvador, and its extensive coastal cave systems. Additional documentation was collected on off-shore cays, including ones with significant populations of the endangered San Salvador Rock Iguana and nesting sea birds. This project will expand the archive of information about San Salvador subspecies and habitats, as well as advance the efforts of the Bahamas National Trust to establish a national park dedicated to protecting the island's most sensitive and biologically diverse ecosystems.

## Introduction

The small, remote island of San Salvador is rich in ecological and biological diversity, including a number of endemic and endangered species, and the greatest density of nesting sea birds in the Bahamas. Approximately 1000 Bahamians live there. The Gerace Research Centre (GRC), an educational and research institution at the north end of the island, hosts nearly 1000 students and scientists from dozens of universities each year. The Director of GRC articulated a need for video presentations about San Salvador's natural history for 1) on-island education in local schools, 2) arriving U.S. students at GRC and, 3) advocacy for the establishment of a national park to protect five critical habitats on the island.

Research for this project started long before the team's arrival on San Salvador. In the weeks prior to departure, it was imperative to determine potential subjects needed to create a documentary that adequately represents the significant ecosystems and biodiversity of San Salvador. Further examination was needed to determine the feasibility of filming the selected subjects as well as to identify alternatives as back-up options. The next step was to thoroughly research animal behavior, life cycles, and how to access wildlife without disturbing it, paying mind to the highest standards of ethical behavior while in the field. In addition, it was necessary to anticipate equipment needs and prepare for working in a remote location under specialized and often harsh climactic conditions (salt water, underwater, caves) [1]



**Figure 1:** Robert Rattner can be seen capturing documentary images while sitting among sharp and jagged limestone rocks at the edge of Green Cay.

## Materials and Methods

Recognizing that it is impossible to document every aspect of the island's natural history, the first stage of the production was research and preparation for filming. To accurately portray the island's diversity, specific sites and subjects needed to be carefully chosen. Next, the feasibility of covering the topics on the list, collecting necessary equipment, and logistical needs had to be evaluated. The tools used for data collection included a professional grade, high definition Sony camcorder [2] as well as various Nikon digital single lens reflex cameras and assorted lenses.



**Figure 2:** Joe Adams operating the Sony EX3 High Definition camcorder equipped with a Nikon lens and Rode shotgun microphone.



**Figure 3:** Sony EX3 HD camcorder equipped with Nikon 400mm super telephoto lens and 2x teleconverter.

The array of lenses used ranged from very wide (16mm focal length) to super telephoto [3] (800mm focal length equivalent). A dedicated audio recorder and high quality microphone were used to capture clean audio. Several LED lights were used for primary and supplemental illumination, as needed. For gathering footage of fish and other underwater subjects, the Nikon cameras were fitted into lightweight protective housings allowing for full control of their functions and enabling their usage in shallow water scenarios.

On-island filming schedules were determined by weather, sun position, animal behavior, and accessibility. Filming typically started early in the morning and continued on until the dayn untit light. Every evening, the footage captured that day was reviewed, stored, and backed-up. Then equipment was cleaned and the next day's schedule was set. Schedules, as well as subjects covered, often were amended based on new information gathered from other researchers visiting the Gerace Research Centre. A hurdle that had to be overcome was gaining access to certain sites on or around the island. Luckily, ample planning allowed the use of small boats to gain access to off-shore cays and trucks to aid in the coverage of more key areas in the two week timeframe.

Post filming, hundreds of clips were reviewed and catalogued. Clips needed to be placed into a timeline,

trimmed and synced with external audio files. Numerous alternate edits have been created and evaluated for items such as quality, consistency and accuracy of information presented. Final stages of post-production will include revisions of the edits and scripts, recording of narration and its integration with background audio, final color correction, creation of titles and credits, and rendition of the complete film. Essentially, hours of time have been spent editing this project.

## **Results and Discussions**

There has been minimal visual documentation of the species and their habitats on the island of San Salvador. This project will greatly expand the archive of visual documentation, as well as provide teaching tools for those at the Gerace Research Centre, which has a long-standing association with the University of New Haven. It will be used to educate the thousands of students who arrive at the research station from all over the world. The film will also be shown in the schools on San Salvador so that younger generations can learn about their island about their islandlandstation from all overappreciation of the islandhools on San Salva. Finally, this film will be used to aid the Bahamas National Trust and the Gerace Research Centre to advocate for the development of a national park to protect select vulnerable habitats of the island.

## **Conclusion**

Two weeks may seem like a sufficient amount of time to collect all the necessary documentation on a small island like San Salvador, but in the grand scheme of things there is much more to be done. This documentary project will be an ongoing process that may require an additional trip to San Salvador to expand upon what has already been collected as well as capture new, never-before-seen footage.

Below are additional photographs detailing the activities and species from the two week trip to San Salvador.



Joe Adams filming a tropic bird nest inside a limestone cave formation on the southern coast of the island of San Salvador.



An endangered San Salvador Rock Iguana on Green Cay, a small island off the coast of San Salvador.



Robert Rattner surrounded by sea birds on Catto Cay, off the north coast of San Salvador. This area is home to the largest population of nesting sea birds in the Bahamas.

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## Biography

Joe Adams is an aspiring filmmaker and photographer. His passion of documenting outdoor lifestyle through both mediums has grown throughout his undergraduate career at the University of New Haven. While at the university, Joe earned a bachelor's degree in Communication and a minor in Photography. He looks forward to the many adventures that the documentation of outdoor lifestyle has in store for him throughout his future career.

