

WILDLIFE CONSERVATION ASSOCIATION

ENVIRONMENT . SUSTAINABILITY . EDUCATION









CURRENT PROGRAMS











## **Research Program**

## WATER QUALITY MONITORING



## **About**

Reports of illness after swimming in foamy brown water at the beaches of Nosara have caused concern amongst residents and visitors. Currently, the Ecological Blue Flag program conducts water quality testing twice a year. This project aims to supplement the efforts of this important program to inform safe beach going year-round, increase awareness, and take action to improve water quality.



## Methodology

We collect samples at 3 locations weekly, Including two highly used areas of Playa Guiones and a nearby rivermouth representing the entire watershed.

Samples are analyzed in the water quality lab established at Playa Guiones, using EPA approved equipment and methods. Water quality results are posted on **Swim Guide** and all of our social media platforms.

# TESTING FOR: Fecal coliform bacteria Water samples containing > 240 colonies per 100 ml fail to meet water quality standards

## 02

## 2021 Results & Impact

- FIRST YEAR OF OPERATION COMPLETE
- REPORT PUBLISHED
- \$12,000 RAISED TO CONTINUE TESTING IN 2022
  Individual contributions
  Local business partners
  Matching grants
- EDUCATIONAL RESOURCES PUBLISHED
  Program Page
  Wastewater Guide
  Self-Evaluation Ouiz
- MEDIA COVERAGE
  Rich Burnam's Podcast (2)
  La Voz de Guanacaste
- COLLABORATION

  Ridge to Reefs, Biogarden Design

## **(**

### **2022 Goals**

- · Continue testing for Fecal Coliform bacteria
- · Begin testing for Enterococcus bacteria
- Continue to strengthen collaborations with local and international institutions
- Distribute Wastewater Guide in print and electronically
- · Consulting services for wastewater treatment options
- Host tours of the lab to raise funds and educate people
- Capacity training events for community ambassadors
- Installation of a Biogarden Exhibit

37
WEEKS OF



119 SAMPLES ANALYZED



RIO NOSARA RIVERMOUTH

97%

OF FAILED TESTS SO FAR HAVE BEEN REGISTERED DURING RAINY SEASON

OF SAMPLES FROM THE

**RAINY SEASON HAVE** 

FAILED TO MEET WATER QUALITY STANDARDS



BAKER'S BEACH (GUIONES)

2.7%

Annual Budget: \$12,000

#### **CLICK TO INTERACT!**





YOUTUBE CHANNEL





## **BIODIVERSITY MONITORING**



## **About**

This project is a biodiversity study of the Ostional National Wildlife Refuge and surrounding buffer zone in Guanacaste, Costa Rica.

Our goal is to create an interactive freely accessible map with biodiversity and development data to support policy and regulations for wildlife conservation and sustainable development. By engaging the community as citizen scientists, we hope to increase awareness about biodiversity and promote sustainable land-use practices.



## Methodology

Citizen scientists from the community collect georeferenced wildlife observations on the iNaturalist app, which generate validated data.

Additionally, we conduct weekly surveys on trails and check camera traps monthly for observations of wildlife. A live-updated biodiversity map of the area is available on our iNaturalist project page.





## 2021 Results & Impact



#### **INATURALIST PROJECT GROWTH** Results show increase to date vs before the set-up



5,019 <sub>†386%</sub>

**312** † 197% OBSERVERS



iNaturalist data and bird surveys in NCA Parklands



EDUCATIONAL RESOURCES PUBLISHED

Program Page Local Species ID Guide Coloring Book Pages & Animations Ocean-Friendly Home Guide



#### PARTNERSHIPS ESTABLISHED

Collaboration with Nosara Civic Association, Del Mar Academy, Lagarta Lodge, Ostional National Wildlife Refuge, and Harmony Hotel to install camera traps



#### 2022 Goals



- Install and monitor camera traps
- Host community BioBlitz events
- Continue to increase project growth, especially the number of community members submitting observations
- Distribute the Ocean-Friendly Guide in print and electronically
- Establish more partnerships with hotels and businesses
- Host wildlife monitoring tours to raise funds for the program and educate people



**TOP 3 SPECIES SEEN** 

HOWLER MONKEY (Allouatta paliatta)



**BLACK IGUANA** (Ctenosaura similis)



WHITE-NOSED COATI

(Nasua Narica)

**CLICK TO SEE OUR** 

**PROJECT PAGE &** 













## SEA TURTLE CONSERVATION



## About

Sea turtles nest at Playa Guiones and Pelada throughout the year. However, the Refuge has limited resources for monitoring outside Playa Ostional. This project aims to provide support to monitor sea turtles and mitigate threats at these other beaches.

Additional research is also required to increase our understanding of sea turtle behavior so we can apply this knowledge to increase awareness and improve conservation management.



## Methodology

We conduct weekly monitoring surveys for sea turtle activity at Playa Guiones and Pelada and study sea turtle behavior using TurtleCams and underwater drones.



## 2021 Results & Impact



#### **OPERATION SUSPENDED TEMPORARILY**

Due to continued impact of COVID and lack of funding



**UNDERWATER DRONE REPLACED** 



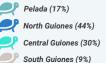
#### **UPDATED REPORT FORM**

Available at www.bit.ly/SeaTurtleReport

Results (2015-2019)

242
OBSERVATIONS

91 NESTS





#### MOST COMMON THREATS TO SEA TURTLES





Depredation by domestic animals



Motorized Vehicles

## **(**

#### **2022 Goals**

- · Full-year of operation of underwater research
- Increase community outreach and volunteer base for beach monitoring surveys
- · Increase the number of reports submitted

Annual Budget: \$9,000

SUBIT A REPORT OF SEA TURTLES IN NOSARA









## MARINE BIODIVERSITY MONITORING



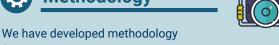
## **About**

Our marine protected area contains many ecologically and economically important species. However, rising temperatures and water pollution are destroying these important ecosystem engineers.

We are conducting surveys to monitor marine biodiversity and work with local fishing communities to learn more about this important natural resource and how we can protect it.



### Methodology



We have developed methodology for conducting marine surveys in line with Costa Rican and international standards.



Additionally, we will host events to teach tour operators, fishing communities, and tourists to submit observations.



## 2021 Results & Impact

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#### **COMPLETED SEAFLOOR MAPPING**

#### ALLEN CORAL ATLAS

Submitted ground-truthing data from the marine protected area at the Ostional National Wildlife Refuge



SEAFLOOR MAP PUBLISHED



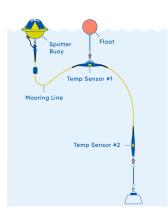
#### INITIAL ANALYSIS OF MARINE SPECIES

Analyzed photo and video footage to evaluate marine biodiversity



#### DONATION OF MARINE BUOY

Sofar Ocean donated a Spotter Smart Mooring to be installed in the marine protected area





#### **2022 Goals**

- Install the marine buoy
- Conduct research boat expeditions and dive surveys to monitor in the marine protected area
- Create educational materials with photo and video content
- Increase iNaturalist observations in the marine protected area

Annual Budget: \$12,000

CLICK TO EXPLORE LOCAL REEFS!









## **Education Program**

## **EDUCATIONAL EXPERIENCES**



## **About**

In light of demand for virtual learning and digital accessibility, we are creating interactive and engaging materials available for everyone to experience from their homes.

We use innovative methods and cutting-edge technology to share our research and day-to-day activities and inspire others to get involved in conservation and sustainable initiatives.



## Methodology

In collaboration with five other National Geographic Explorers and non-profit organizations in Latin America, we founded the Virtual Field School and offer courses in English and Spanish for life-learners and university students.

We also develop and implement live stream and online educational content for children, families, and educators through our social platforms.



## 2021 Results & Impact



#### VIRTUAL FIELD SCHOOL COURSE

CLICK TO WATCH!

16-week certificate course on conservation, development and its interaction





#### **EDUCATIONAL MATERIALS**

Development of guides and other educational resources associated with each of our research programs



#### **EDUCATIONAL TALKS**

Live stream and in-person presentations



## **2022 Goals**

- · Launch of rolling-course for Virtual Field School
- · All content available in English & Spanish



**STUDENTS** 



**COURSES** 



LIVE STREAM **EVENTS & IN-PERSON TALKS** 

Annual Budget: \$20,000



CONTENT





## **Education Program**

## FIELD EXPERIENCES



### **About**

We provide immersive educational experiences to inspire change makers within our community and visitors. We offer hands-on field activities for the general public to engage in our research activities and learn about their natural surroundings.

We also provide customized packages through memberships and community partnerships and subsidize the cost of programs to make these accessible to local and underpriveledged communities.



## Methodology

We have developed a curriculum for the Nosara Explorer Academy, an immersive field course for people of all ages and backgrounds to engage in our day to day activities.

Community members and partners can choose a project to sponsor and participate in one or several hands-on activities with us.



## 2021 Results & Impact



#### **LIFE-SIZE SEA TURTLE MODEL**

Created an interactive, life-size model of a sea turtle for use in educational activities



#### **NOSARA EXPLORER ACADEMY PILOT**

Tested materials with a small group of homeschool students



PLASTIC POLLUTION









WATER QUALITY



NEW COURSE OFFERING

## 5 LESSON PLANS



VARIOUS
OPTIONS FOR
PROGRAM
DURATION



## **2021 Goals**

- · All content available in Spanish and English
- Launch Nosara Explorer Academy
- One 4-week course (10 students)
- Six field experiences (60 students)
- Establish two Community Partnerships

**Costs covered by operation** 

**CLICK TO INTERACT!** 



VIDEO CONTENT





## THOUSANDS OF TURTLES TOURS



## **About**

Born from our desire to bring the arribada experience to everyone in a sustainable manner, this initiative is a collaboration with the Ostional National Wildlife Refuge and local guides.

Our goal is to improve the visitor experience and minimize the impact of tourism on sea turtles, all the while ensuring revenue generated is reinvested in conservation and the community.



## Methodology

We regularly hold meetings and workshops with the Refuge and local guides to discuss sea turtle tourism.

We have developed a high-value tourism package for tourists staying in Nosara that includes transportation, a talk with an expert, and guided tour to see the sea turtle arribada. We offer logistical support for the management of tourism.



## 2021 Results & Impact

PROJECT RE-LAUNCH POST-COVID

**REVENUE** \$4,562

\$2,120

7
TOURS

47

MONTHS OF OPERATION

\$2,442
INCOME
GENERATED
FOR OUR
ORGANIZATION

\$100

CONTRIBUTION TO REFUGE



#### **2022 Goals**

Continuously re-evaluate business model based on evolving COVID measures

- · Continue providing logistical support to the Refuge
- Continue developing virtual and in-person tour content

Costs covered by operation

**CLICK TO INTERACT!** 







## OSTIONAL-NOSARA CAMPUS



The initiative to establish the Ostional-Nosara Sustainability Campus is the result of a collaboration between the WCA, the Nosara Civic Association and the Ostional National Wildlife Refuge.

Our goal is to create an integrated system of spaces that help to make the refuge's natural capital profitable to promote the construction of a resilient community in balance with nature.



## 2021 Results & Impact



#### **POLITICAL LEVERAGE**

Supported the #YODEFIENDOOSTIONAL movement Hosted two webinars about the importance of regulations



#### PROSPECTS FOR LAND

Established contact with several land-owners and investors interested in the Campus initiative



#### PROSPECTS FOR INVESTMENTS

Established contact with several prospects interested in investing in infrastructure and regenerative projects







## Methodology

We meet bi-monthly with the Nosara Civic Association and the Refuge Administration to continue developing the Master Concept and Business Plan.

We are also continuously networking to identify and establish sources of funding.



#### **2022 Goals**

Project Budget: \$10M approx.

- Continue developing and re-evaluate the proposal and business model
- Continue developing relationships with prospects for land and investments





## **Education Program**

## VOLUNTEER PROGRAM



### **About**

We offer a training program for volunteers to participate in and learn from our day-to-day activities. We accept remote and in-person volunteers for a minimum time commitment of one month.



## Methodology

We have developed an orientation and training program to ensure we align volunteer skills with our organization's needs.

Volunteers are assigned a specific project in addition to assisting with other day-to-day tasks of the organization. Final deliverables are submitted at the end of the agreed upon time commitment.



## 2021 Results & Impact



Conducted a two-month study of birds in NCA parklands



Authored a series of educational blog posts



Produced promotional videos for our organization



Contributed photo and video content for educational materials



Developed fundraising and outreach for our programs



Analyzed video footage for fish species diversity



Contributed captions for social media



## 2022 Goals

- Increase number of volunteers (15+)
- Increase number of volunteer hours (500+)

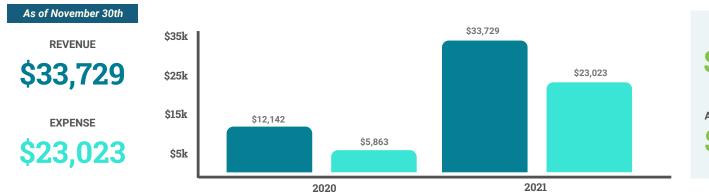
9 VOLUNTEERS

> 360 HOURS



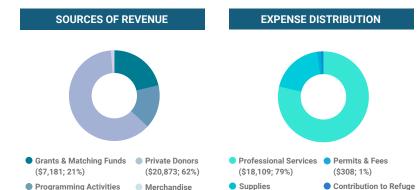
(\$5,257; 16%)

## **2021 Financial Summary**



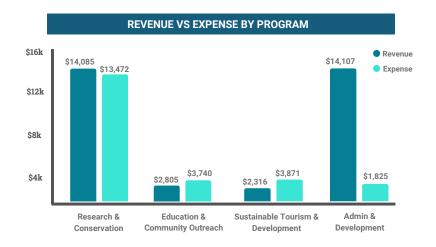
(\$200; 1%)





(\$415; 1%)

(\$4,406; 19%)

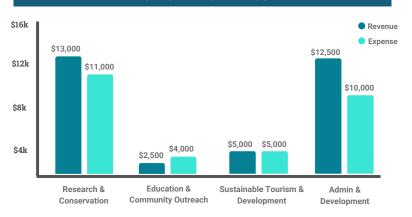




Our goal for this coming year is to resume the implementation of all of our programs by dividing available funding equally to our water quality, biodiversity, and marine programs.

In response to our growth, we will also include stipends and salaries for research, accounting, social media, media content production associated with these programs.

#### REVENUE VS EXPENSE BY PROGRAM





#### **OPERATIONAL COST**

- Professional Services (\$23,000; 75%)
   Stipends for scientific research and media content production, plus legal, accounting and marketing advisory services
- Supplies (\$6,000; 20%)
   Research and office supplies and online marketing tools
- Permits, Taxes & Fees (\$1,000; 5%)



#### PROJECTED REVENUE

- Grants (\$7,000; 21%)
  Grants with GCF and Harmony Fund
- Programming Activities (\$10,000; 30%)
   Income from our programming and partnerships with local businesses and organizations
- Private Donors (\$15,000; 46%)
  Contributions from private individuals and organizations
- Merchandise (\$1,000; 3%)