

WILDLIFE CONSERVATION ASSOCIATION (WCA)

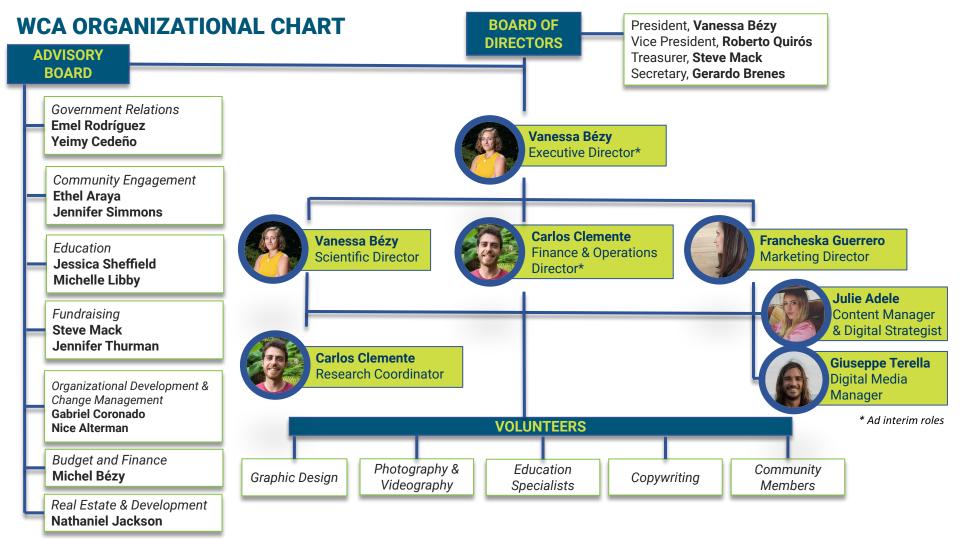
The Wildlife Conservation Association (WCA) is a non-profit organization in Nosara, Costa Rica, dedicated to promoting wildlife conservation through scientific research, community engagement, and immersive educational experiences that inspire sustainable living.

We believe that successful conservation is dependent on us making the change to a sustainable lifestyle, where a harmonious balance of social, environmental, and economic interests exists.

Our vision is to be a leading example locally and internationally in wildlife conservation through our research, sustainability, and educational programs. Our mission is a planet in balance.

WCA ORGANIZATIONAL TIMELINE

2017	2018	2019	2020+
INITIAL STEPS	ORGANIZATIONAL STRUCTURE	BUILDING SUPPORT	GROWING ORGANIZATION
Recruit key team members Develop case statement and executive summary Establish collaborations with local and regional organizations Develop operational plan and budget Identify fiscal sponsors	Create organization Establish partnerships Develop marketing materials Develop strategic plan and business plan	Develop and implement programs Develop marketing materials and strategy Refine budgets for programs Open bank accounts	Maintain all legal and financial aspects in order Finalize marketing strategy and branding Implement existing programs Continuously develop and implement new programs Continuously refine budgets for programs, fundraising, and building Begin operation of the Center





NEW WEBSITE COMING JANUARY 2021!



PROGRAMS I TOURS I BOOK A TOUR I THE CENTER I EDUCATION I ABOUT I CONTACT CONTACT







Research Program

WATER QUALITY MONITORING

TESTING FOR: Fecal coliform bacteria

standards

Water samples containing

> 240 colonies per 100 ml fail to meet water quality



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.

Q

2020 Results & Impact





PROJECT LAUNCH

WEEKS OF MONITORING

73
SAMPLES
ANALYZED

PALM TREE (GUIONES)



RIO NOSARA

RIVERMOUTH

JANUARY JUNE DECEMBER



100% OF FAILED TESTS SO FAR HAVE BEEN REGISTERED DURING RAINY SEASON

41% OF SAMPLES FROM THE RAINY SEASON HAVE FAILED TO MEET WATER QUALITY STANDARDS

BAKER'S BEACH (GUIONES)





2021 Goals

- · Complete a full-year of operation
- Strengthen collaborations with local institutions
- Launch ocean-friendly business and home campaign
- Work with local medical services to report and increase prevention of related health issues
- Study feasibility of adding Enterococcus to regular operations in 2022 (\$2,500 per year)

Annual Budget: \$12,000





YOUTUBE CHANNEL



VIRTUAL TOUR

WATER QUALITY MONITORING















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.





2020 Results & Impact



PROJECT PAGE SET-UP

Results show increase to date vs before the set-up



2,477 †140%

813 †105%

185 †76% OBSERVERS



2 CAMERA TRAPS INSTALLED

In NCA Parklands to monitor terrestrial mammals





GRANT SUBMITTED

iNaturalist events (Total Budget of \$2,000)







TOP 3 SPECIES SEEN



HOWLER MONKEY (Allouatta paliatta)



BLACK IGUANA (Ctenosaura similis)



WHITE-NOSED COATI (Nasua Narica)

CLICK TO SEE OUR

PROJECT PAGE &



2021 Goals

- · Create the first version of the interactive web-based map
- · Increase the number of community members submitting observations through educational events and videos
- Educate residents on sustainable land-use practices through blog & social media posts
- Establish partnerships with hotels and businesses

Annual Budget: \$12,000



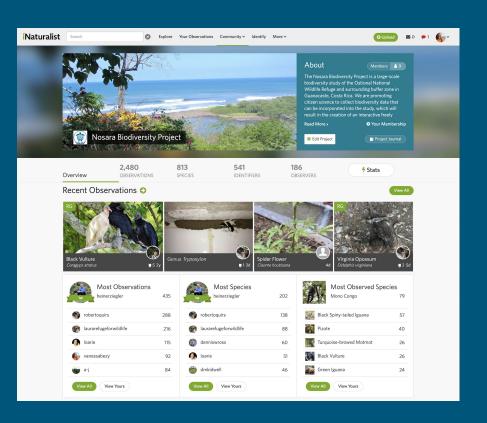


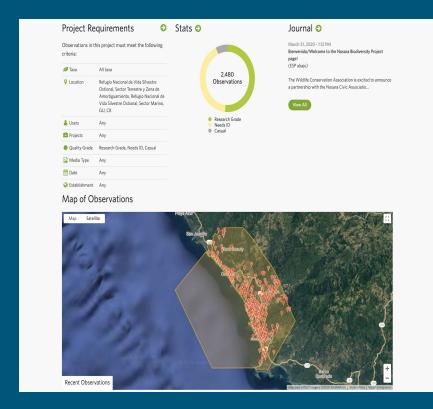




BIODIVERSITY MONITORING

Nosara Biodiversity Project Page on iNaturalist









SEA TURTLE CONSERVATION



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.

We are also collaborating on a study to train local fisherman to monitor hawkshill sea turtles.



2020 Results & Impact



OPERATION SUSPENDED TEMPORARILY





NEW RESEARCH COLLABORATION

Training local fisherman to monitor hawksbill turtles





Collaboration with CREMA (Total budget of \$25.000)

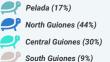






OBSERVATIONS

NESTS





MOST COMMON THREATS TO **SEA TURTLES**





domestic animals



Motorized Vehicles on the Beach

Annual Budget: \$9,000



2021 Goals

• Fix or replace the underwater drone

- Full-year of operation of underwater research
- Implementation of new research project: Training local fisherman to monitor hawksbill turtles in collaboration with CRFMA
- Increase community outreach and volunteer base for beach monitoring surveys





Research Program

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.

In collaboration with Allen Coral Atlas, we are mapping the seafloor at the Refuge. Additionally, 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

and international standards

We have developed methodology for conducting marine surveys in line with Costa Rican



We will conduct snorkel and dive surveys to photograph the seafloor and submit these data for mapping. Additionally, we will work with fishing communities to collect observations in addition to video footage of our expeditions.



2020 Results & Impact



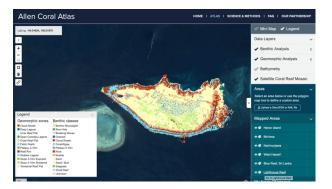
NEW RESEARCH COLLABORATION

Seafloor mapping of the Ostional National Wildlife Refuge marine protected area



FUNDING SECURED

Our partner will provide equipment and cover expenses for seafloor mapping



ALLEN CORAL ATLAS



2021 Goals

- Conduct research boat expeditions and dive surveys to get data from reefs and seafloor in the marine protected area
- Work with Allen Coral Atlas to generate a coral reef and seafloor map database
- Establish baseline marine biodiversity data with video and citizen science observations

Annual Budget: \$12,000

CLICK TO EXPLORE REEFS AROUND THE WORLD!









VIRTUAL LEARNING **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.



2020 Results & Impact



VIRTUAL FIELD SCHOOL LAUNCH

CLICK TO WATCH!

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



FREE ONLINE **EDUCATIONAL TOOLS**

30-minute to 1-hour long educational activities about science and techology



Sea Turtle Science Series













LIVE STREAM **EVENTS**

CLICK TO INTERACT!

STUDENTS

COURSES



GRANT SUBMITTED

Collaboration with Virtual Field School Partners (Total Budget of \$25,000)











2021 Goals

- · Six courses and 80+ students
- Eighteen live stream events
- All content available in English & Spanish

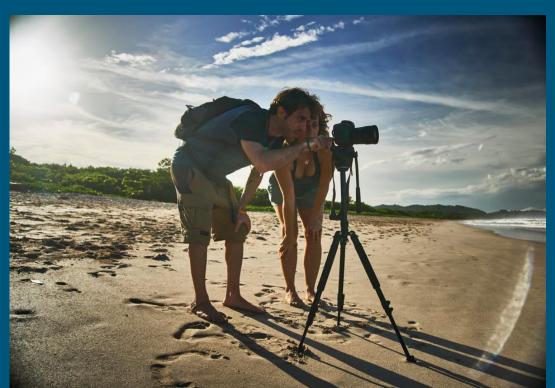
Annual Budget: \$20,000



VIDEO STORYMAP CONTENT

VIRTUAL LEARNING EXPERIENCES

Collection Of Photography, Videography, and 360° Content





VIRTUAL LEARNING EXPERIENCES

CERTIFICATE COURSE

SUSTAINABLE COMMUNITIES AND ENVIRONMENTAL CHANGE IN LATIN AMERICA



Interactive seminars and virtual field trips led by experts whose work was funded by National Geographic Society

Ashli Akins, Edoardo Antúnez, Daniel Arauz Naranjo, Vanessa Bézy, and Rebecca Smith

Get virtual work experience with partnering NGOs from across Latin America

Bay Islands Conservation Association (Honduras), Fundación Para La Tierra (Paraguay), Mosqoy (Peru), Rescue Center for Endangered Marine Species (Costa Rica), and Wildlife Conservation Association (Costa Rica) UNIVERSITY OF MEMPHIS, FALL 2020

Conservation, Culture, and Environmental Change

A Virtual Field School across Latin America supporting local communities



Course Details

Semester: FALL 2020 (3 credits)

Dates: August 24 - December 10, 2020 (15 weeks)

Taught through the University of Memphis (UM Global). Crosslisted as upper-level undergraduate (4000-level) and graduate (6000-level) course.

Possibility to receive transfer credit for other universities.

ENROLL NOW AT MEMPHIS.EDU/ABROAD!

VIRTUAL LEARNING EXPERIENCES







VIRTUAL LEARNING **RESOURCES**

Sea Turtle Science Series of six freely-accessible lesson plans, activities, and worksheets and live stream O&A events in **English & Spanish**

COLLECTION

Sea Turtle Science **Series**

Join National Geographic Explorer Dr. Vanessa Bézy to learn all about sea turtles in this educational series!

Get started







Meet Dr. Vanessa Bézv

A Sea Turtle's Life

The Sea Turtle Arribada







Sea Turtle Research



6 Threats to Sea Turtles

Serie sobre la ciencia de las tortugas marinas

¡Los invitamos a participar en esta serie educativa de la Dra. Vanessa Bézy, exploradora de National Geographic, para aprender todo sobre las tortugas marinas!



Conozca a la Dra. Vanessa



La vida de la tortuga marina





La arribada de las tortugas



 Mapa: lugares de la arriba de la tortuga lora



 Investigando a la tortuga marina



VIRTUAL LEARNING EVENTS

Science & Technology Series of seven live stream Q&A events

Invited speaker

- National Geographic Explorer Classroom
- Fundación Mar y Ciencia Podcast
- Tiny Desk Adventures with Oceanswell
- Florida Atlantic University
- Kimball Electronics







SCIENCE TECH SERIES with Dr. Vanessa Bezy

ALL EVENTS 12 PM CST / 2 PM EST



iNaturalist App	April 11
Submarine drone	April 18
Marine Debris Tracker App	April 25
TurtleCam	May 5
Water Quality Monitoring	May 7
Drone	May 12
eBird App	May 14



VIRTUAL LEARNING EVENTS



















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.



2020 Results & Impact



NOSARA EXPLORER ACADEMY
CURRICULUM & COURSE DEVELOPMENT



SCIENCE &
TECHNOLOGY



PLASTIC POLLUTION



SEA TURTLES



ECOSYSTEMS



WATER QUALITY



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!





FIELD EXPERIENCES

Development of tailor-made course curriculum, lesson plans, activities, worksheets, and presentations for **Nosara Explorer Academy**



Sea Turtle
Biology
and
Conservation

Day 1		
Торіс	Science and Technology	
Corresponding Slideshow	Science and Technology Presentation	
NGSS Focus Standard	2-PS1-2: Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. Influence of Engineering, Technology, and Science, on Society and the Natural Every human-made product is designed by applying some knowledge of the natural world and is built using materials derived from the natural world.	
Costa Rica Science Curriculum Related Theme	Class 3: Fourth Year of Basic General Education Sustainable use of energy and materials, for the preservation and protection of the planet's resources. Recognize some kinds of energy that are manifested in the natural environment and their application in daily life.	
Objective(s)	The students will be able to conduct research on a sea turtle species of their choosing by using technology and filling out a worksheet with the information they find.	
Vocabulary Terms	Science Technology Research Experiment Data Environmental Science	

Sea Turtle Biology and Conservation Conservation Poster Activity - Checklist		
a s	Student / group clearly:	
	☐ Picks a specific species of sea turtle OR	
	Completes project using "general sea turtle" information	
a 8	student / group includes at least 3 facts about sea turtles	
	□ Fact 1:	
	□ Fact 2:	
	□ Fact 3:	
a s	Student / group includes at least 3 threats / dangers to sea turtles	
	□ Danger 1:	
	□ Danger 2:	
	□ Danger 3:	
a 8	Student / group proposes a solution to each threat / danger listed	
	□ Solution 1:	
	□ Solution 2:	
	□ Solution 3:	
a 8	Student / group:	
	☐ Uses pictures (on computer - digital)	
	☐ Uses color (drawings - paper)	
	□ Includes name or group names	

3



Education Program

VOLUNTEER PROGRAM



Developed an ocean-friendly guide and certification program for homes and businesses in Nosara

2020 Results & Impact



280 HOURS





Developed a course curriculum and lesson plans



Researched and developed digital educational content



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 Goals

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





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.



2020 Results & Impact







\$2,273

Supplies (\$897; 39%)

Guides Fees (\$380; 17%)

Taxes (\$346; 15%)

Outsourced transportation (\$450; 20%)

Contribution to Refuge (\$200; 9%)





MONTHS OF OPERATION

RE-INVESTED IN THE PROGRAM

\$200

CONTRIBUTION TO REFUGE



2021 Goals

Merchandise (\$36; 1%)

- Re-evaluate business model after Covid-measures and implement new offering by June 1st
- Continue to provide logistical support to the Refuge
- Continue to develop virtual tour content

Costs covered by operation

CLICK TO INTERACT!





SUSTAINABLE TOURISM







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.



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.



2020 Results & Impact



POLITICAL LEVERAGE

Established contact with Costa Rican Ministry of Environment and Municipality of Nicoya and Santa Cruz



FUNDING OPPORTUNITIES

Established contact with Blue Finance and other potential investors



SUSTAINABLE TOURISM DESTINATION CERTIFICATION

Feasibility analysis being conducted by Grupo RBA



SUSTAINABLE TINY MODEL HOME

Crowdfunding campaign for a converted, off-the-grid bus to be launched in collaboration with MicroMacro Costa Rica



GRANT SUBMITTED

Collaboration with VroomMate to produce a documentary film



PROSPECTS FOR A LAND DONATION

Proposals submitted to land-owners



















2021 Goals

- · Refine business plan
- · Establish capital investments
- · Grow donor base
- · Develop initiative for a Land Trust

Project Budget: \$10M approx.





Logical

Master Concept



Refined Business Plan



SUSTAINABLE DEVELOPMENT

Letter to the Municipality of Nicoya in support of Construction Regulations

1 Octubre 2020

ATT:

esta regu Refugio y

Carlos Armando Martinez, Alcalde de Nicoya Concejo Municipal Municipalidad de Nicoya

A guien le interese:

Como científicos y organizaciones preocupadas por la conservación de la vida silvestre, los espacios verdes y los hábitats naturales, escribimos para expresar **nuestro apoyo al** "Reglamento para la construcción en la zona de amortiguamiento del Refugio Nacional de Vida Silvestre Ostional".

Este reglamento es una herramienta esencial para proteger el Refugio Nacional de Vida Silvestre Ostional, un sitio importante a nivel mundial para la protección de la tortuga lora (Lepidochelys olivacea), una especie que figura en la Lista Roja de la UICN como vulnerable a la extinción. Ostional es un hábitat reproductivo importante para la tortuga lora (Valverde et al., 2012) y uno de los pocos lugares en el mundo donde ocurren eventos de anidación masiva de tortugas marinas (también conocidos como arribadas; Bernardo & Plotkin, 2017). Ostional es único debido a la alta densidad de tortugas y la frecuencia de arribadas que ocurren en este sitio (Valverde et al., 2012; Bézy, 2019). La tortuga baula (Dermochelys coriacea) y la tortuga negra (Chelonia mydas agassizii) en peligro de extinción también anidan en las playas del Refugio (Chacón, 2004), aunque estas poblaciones han experimentado una disminución en los últimos años. Además de las tortugas marinas, el Refugio Ostional protege 510 hectáreas de hábitat terrestre y 8.054 hectáreas de hábitat marino que contienen una diversidad de flora y fauna. El Refugio incluye importantes hábitats intermareales rocosos y manglares que cumplen funcione



Therefore, we, the undersigned 60 scientists and environmentalist leaders and 16 organizations, representing 16 countries in the 5 continents, express our support for the Municipality of Nicoya's efforts to regulate construction in the buffer zone of the Ostional National Wildlife Refuge as a critical action to protect sea turtles, wildlife, and the communities inhabiting the Refuge and surrounding area. We urge the Contentious Administrative Court and Judicial Power of Costa Rica to support this initiative to back the Municipality of Nicoya.



2020 Financial Summary

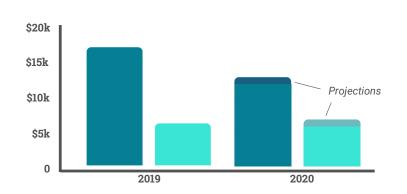
As of October 31st

GROSS INCOME

\$12,442

EXPENSE

\$5,863



Projected through December 31st

GROSS INCOME

GROSS PROFIT

\$13,442

\$6,569

EXPENSE

\$6,873

ACCOUNT BALANCE

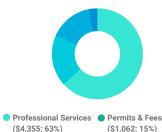
\$8,859

SOURCES OF INCOME



- Grants & Matching Funds
 Private Donors (\$6,000; 48%)
- Programming Activities (\$4,256; 34%)
- (\$2,093; 17%)
- Merchandise (\$94; 1%)

EXPENSE DISTRIBUTION

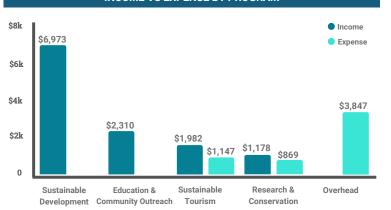


Supplies

(\$1,257; 18%)

- (\$1,062; 15%) Contribution to Refuge
 - (\$200; 3%)

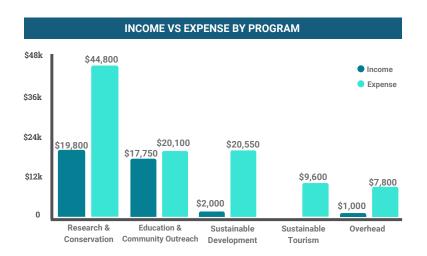
INCOME VS EXPENSE BY PROGRAM





Last year's operation was made possible thanks to our relentless team, most of whom donated their time to support the WCA's mission and vision.

As a non-profit organization, it is our responsibility to use our funding strategically to achieve the greatest impact while ensuring financial sustainability to achieve the greatest impact while ensuring financial sustainability. Therefore, salaries will be included in the operational cost for next year and the final implementation and reach of our programming will be prioritized according to available funding.





OPERATIONAL COST

- Staff (\$66,000; 65%) includes full-time salaries for: Scientific Director, Research Assisstant, Finance Director and Digital Marketing Strategist
- Professional Services ((\$16,500; 17%) includes legal, accounting, media production and fundraising advisory services
- Supplies (\$16,500; 17%) includes research and office supplies and online marketing tools
- Permits & Fees (\$1,000; 1%)



PROJECTED GROSS INCOME

- Grants (\$16,000; 41%) includes 3 proposals submitted with National Geographic Society and a partnership with Allen Coral Atlas
- Programming Activities ((\$15,500; 39%) includes income from our education program and research sponsorships with hotels
- Private Donors (\$7,000; 17%) includes small donations from individual contributors
- Merchandise (\$1,000; 3%)

THANK YOU

Our work would not have been possible without the support of the following people and organizations, who have contributed \$23,000+ in donations, grants, in-kind or logistical support to our programs to date.

Adam Weiss Alex Rose Alfred Rocha Alva Bolowich Amanda Huculak **Andrew Davies** Anna Fernandez Anne-Claire Herr Asha de Vos **Beverly Harner** Bill Thomas Blue Ring Inc. **Brad Nahill** Brian Sells **Broc Glendinning** Bruce Bornstein Carlina Picardo

Carlos Clemente Fernández

Caroline Alonzo

Carolyn Whitfield Cassie Yellin Catalina Velasco Cathy Wells Chris Chichirella **Christine Chang** Cinthya Berrocal Corri Ditch Corrie Safris Diana Bell Donna Providenti **Duncan Irschick** Earle Lawrence Flise Muffitt Eliza Hicks **Emel Rodriquez Emily Arnold Ernesto Ocampo**

Ethel Arava Francisco Jimenez Franny Suarez Gabriel Coronado **Gary Edwards** Gerardo Brenes Hannah Russin Hector Salazar Jake Bryan Jane Fryer Jeanette Wyneken Jennifer Beavis Jennifer Simmons Jennifer Thurman Jeremy Goldberg Jerry & Merry Cavanaugh Jessica Sheffield Joe Culbertson Julianne Koval Tieman

Katherine Terrell Keri Brondo Kirk Iversen Kristopher Van Stralen Lani Hummel Mackenzie Watten Maia Dery Margaret Johnson Maria Milagros Rodriguez Melissa Scheerer Michael Wolfe Michel Bézv Michel Viau Michelle Libby Moni López Nathan Jackson Nice Alterman Nicolas Arnao

Rebekah Smiley Rob Rosenthal Robert Edgeworth Roberto Quiros Sarah Cundill Sarah Hawkins Scott Huseby Scott Robinson Scott Saalman Shana Kesner Shervl Barnes Steve Mack Tiffany Williams Tina Brown Virginia Wheaton Vivek Patel Wes Light Yeimy Cedeno





