

# IMPACTS

## EPI GLOBAL FIELD PROGRAMS

In 2019, EPI's field-based programs engaged 1,600 students and educators in authentic research. Together, we studied vulnerable species, eradicated invasive plants, engaged our communities, and made a difference in the world. We crossed cultural and geographical boundaries and empowered one another to protect the land, animals, and resources we all love.



FIELD PROGRAMS AT-A-GLANCE	715	LOCAL PARTICIPANTS
	842	VISITING PARTICIPANTS
	15,346	TOTAL FIELD DAYS

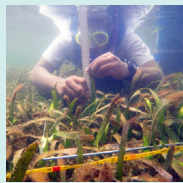
### PROGRAM IMPACTS

#### Sea Turtle Nest Protection in Costa Rica



EPI's Pacuare Reserve is documented as having the highest density of nesting leatherback sea turtles in Costa Rica. Prior to protection, more than 90% of sea turtle eggs were lost to illegal harvest and other threats. With EPI, participants engage in nightly turtle censuses, help collect biometric data, and relocate nests if necessary. For the third consecutive year, illegal harvest of sea turtle eggs at Pacuare Reserve was kept to less than 2%, providing critical protection for this endangered species.

#### Protecting Endangered Marine Mammals



Payne's Creek National Park (PCNP) is one of Belize's most significant marine protected areas, and EPI students observe, classify, and record manatee sightings and sea grass abundance to help determine baseline populations for the species, and help identify potential wake-free boat zones where human/manatee conflicts most likely occur.

#### Studying the Seeds of Island Change



The giant Galapagos tortoise plays a unique role in the ecosystem of the islands - that of seed disperser. To better understand the role tortoises play in distributing seeds of both native and invasive plant species as they move about the island, students assisted Dr. Stephen Blake in collecting tortoise dung and identifying the types of seeds found in samples. This field season, EPI participants identified and cataloged a total of 9,109 seeds.

#### Protecting a Yellowstone Icon



EPI Yellowstone participants contributed to two Yellowstone Bison Management Team studies designed to evaluate how bison affect the health of the ecosystem's grasslands and their relationships with other ungulates—elk, pronghorn, bighorn sheep, and mule deer.

The "Home on the Range" study seeks to understand how these species share the landscape as they search for food, water, and protection from predators. EPI participants contribute by tracking animals using radio telemetry, classifying ungulate herds, collecting fecal samples, and recording habitat information.

#### Developing Marine Research Techniques



Local and visiting EPI Mexico students worked on a study of benthic marine invertebrates in the Gulf of California with Dr. Adrián Munguía. The Gulf has over 5,000 species of invertebrates, and Dr. Munguía is working on developing an eDNA technique that would

allow a quick water sample to reveal which species are present. EPI students are verifying the accuracy of the eDNA technique by snorkeling to visually identify the marine invertebrates in an area, to be compared to eDNA results of a water sample from the same area. eDNA promises an incredibly efficient environmental monitoring technique, and EPI students are playing a key role in its development.

### PROGRAM OUTCOMES

427	SEA TURTLE HATCHLINGS RELEASED IN COSTA RICA
515	YELLOW-HEADED PARROTS COUNTED IN BELIZE
12,682	M <sup>2</sup> OF INVASIVE PLANTS REMOVED IN GALAPAGOS
84	BENTHIC MARINE SPECIES REGISTERED IN BAJA
2,794	HOURS OF UNGULATE RESEARCH IN YELLOWSTONE

IN 2019, EPI EVALUATIONS SHOWED THAT STUDENTS' KNOWLEDGE OF ENVIRONMENTAL ACTION STRATEGIES INCREASED BY

33%

# ALUMNI & OUTREACH

EPI provides unique opportunities for alumni and other members of the community to participate in local conservation efforts. Alumni take action and develop as conservation leaders as part of eco clubs, community workshops, internships, and other student-driven projects. These youth facilitate and lead community-based projects like citizen science programs, beach clean-ups, awareness campaigns, festivals, field trips, collaborations with local and international scientists, and more.

## ALUMNI ACTIVITIES AT-A-GLANCE

448 TOTAL COMMUNITY WORKSHOPS & EVENTS  
10,073 ALUMNI PARTICIPATING IN COMMUNITY EVENTS



BITTERROOT WILDLIFE INTERNS PARTNER WITH LOCAL SCIENTISTS FOR DEEP DIVES INTO RESEARCH THAT INVESTIGATE BATS TO BUTTERFLIES

## NOTABLE ALUMNI ACTIVITIES

### Costa Rica Community Event for Conservation



For the sixth consecutive year, EPI Costa Rica hosted “Manos Unidas por el Maria Aguilar,” a river basin clean-up effort at one of the most heavily polluted rivers in San Jose. EPI Costa Rica partnered with other NGOs, businesses, and local government agencies to organize this open event for the community. One

hundred and forty-eight community members lent a hand at four different locations along the river. More than 15 tons of garbage were collected!

### Building Community Leaders in Mexico

Members of EPI Mexico's Californios Verdes Eco Club were invited to support biodiversity education for the Secretary of Tourism, Economy, and Sustainability of Baja California Sur's inaugural event, “Environmental Week: First Environmental Rally.” Students worked closely with 40 key community members to create awareness of and appreciation for the richness of the local environment.



### Galapagos' Mola Mola Club

For the second year, EPI alumni are collaborating with Litter Scientists, a group of researchers from Chile who lead a citizen science program educating and empowering Latin American youth to take action on litter problems. EPI alumni have participated in two phases of this program and are inspired to provide solutions to the public to reduce single-use plastic products. EPI alumna Elvia Lopez won the “Plastic-free July” award from Keiko Conservation Ecuador.

*“EPI's Mola Mola Eco Club has given me three things: extraordinary experiences, personal growth, and lifelong friends.”*

- Micaela, Local Galapagos Participant

## LOOKING AHEAD

We look forward to building on the momentum created and keeping participants engaged through additional workshops, mentoring, and local community eco-club creations. We will continue to strengthen our partnerships with local NGOs and researchers to expand opportunities for alumni to stay engaged in conservation and become leaders in their communities.

### MAJOR FUNDERS

Edward L. Anderson Jr.  
Foundation  
Paul M. Angell Family  
Foundation  
The Builders Initiative  
Helmsley Charitable Trust  
Walton Family  
Foundation  
Houston Zoo  
Fundación Carlos Slim  
Gurinas Trust  
Anonymous  
Alumbra Innovations  
Foundation  
M.J. Murdock Charitable  
Trust  
Michael & Rocio Haas  
Catena Foundation  
International Galapagos Tour  
Operators Association

Christy & Donaldson Miele  
The Brock Foundation  
Atherton Family  
Foundation  
Dalio Foundation  
Dalio Ocean Initiative  
Ecoventura  
Cross Charitable Foundation  
William & Mattie Wattis Harris  
Foundation  
State of Montana -  
GEAR UP  
Newman's Own  
Foundation  
The Miracle Ticket Fund  
Galapagos Conservancy  
Galapagos Biodiversity  
and Education Sustainability  
Fund of Ecoventura  
and Charles Darwin  
Foundation

### PROGRAM PARTNERS

**Belize**  
Toledo Institute for  
Development and  
Environment  
Belize Audubon  
Society  
Shipstern Nature Reserve  
Friends for Conservation and  
Development  
Southern Environmental  
Alliance  
Wildlife Conservation  
Society  
Ya'axche Conservation Trust

**Costa Rica**  
Pacuare Reserve  
Veragua Rainforest  
Tirimbina Rainforest  
Coastal Jaguar Conservation

Latin American Sea Turtles  
(LAST)  
Estación Las Tortugas  
Panthera Costa Rica

**Galapagos**  
Dirección del Parque  
Nacional Galápagos  
Dirección Distrital de  
Educación Consejo de  
Gobierno de Galápagos  
Galapagos Conservation Trust  
Galapagos Tortoise  
Movement Ecology Program  
Houston Zoo  
Charles Darwin Foundation  
Litter Scientists  
Intercultural Outreach  
Initiative  
Casa de Cultura

**Mexico**  
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CONANP  
Enseña por México  
FANLAP A.C.  
Grupo Tortuguero de las  
Californias A.C.  
PANGAS  
Prescott College A.C.  
Ponguinguila A.C.  
ProJuventudes  
Red de Turismo Sustentable A.C.  
San Diego Natural  
History Museum  
SerVers MX  
Sociedad de Historia  
Natural Niparajá  
Tiburón Ballena México

**Yellowstone**  
B Bar Ranch  
MPG Ranch  
Custer-Gallatin National  
Forest (Gardiner Ranger  
District)  
National Parks  
Conservation Association  
Yellowstone Bear  
Management Team  
Yellowstone Bison  
Management Team  
Yellowstone Botany Team  
Yellowstone Wolf Project



ECOLOGY PROJECT  
INTERNATIONAL