





## WHERE WE WORK

### MOVING NORTHWARD



Following our successes in Nicaragua, Paso Pacífico has launched projects in El Salvador as part of our mission to restore habitat across the region.

With ecosystems ranging from cloud forest to lowland dry tropical forest and freshwater wetlands, El Salvador's northwest area of Metapán is a paradise for bird conservation. We successfully protected a yellow-naped Amazon parrot nest here this season in partnership with the Enrique Figueroa Foundation, FUNZEL, and the Loro Parque Foundation.

We have also started work in El Salvador's southeast region, which is closest to Nicaragua. Field work will soon turn toward farming oysters, protecting black-handed spider monkeys, and creating new private reserves in partnership with local landowners.

Front cover: Brown pelicans take flight at the edge of the ocean. Photo by Bismarck Picado.

Dear Friends.

After a rainy winter in southern California, I love seeing the budding plants and hearing the songs of nesting birds. The reward of new life is one that we get to celebrate frequently at Paso Pacífico. From baby parrots fledging their nests to Junior Rangers releasing their first baby turtles, we constantly see hope and a brighter future.

This April will mark one year since violent political repression began in Nicaragua's cities. This period of time has been dramatic and, for some at our organization, life-changing.

One might ask, "With so much turmoil in the region, why bother?" The answer is simple: Now is when wildlife and local communities need even more support, not less.

Your investment in our programs is an effective, pragmatic response to crisis. If we walk away now, species we have nurtured into recovery will likely slip back toward extinction. Your help will enable people to stay firmly rooted in their communities, sustainably managing their forests and fisheries as they weather these difficult times. When things get better, and I firmly believe they will, the local environmental leaders you have been supporting will be ready to sustain the investments we have made together.

We hope you enjoy this newsletter update. If you would like to connect with me more closely on these topics, please contact me at sarah@pasopacifico.org. Your support truly makes a difference.

Thank you,

Sand

Sarah M. Otterstrom, Ph.D. Founder & Executive Director







Liza González
Regional Director
Paso Pacífico

Liza has been with Paso Pacífico since the beginning. She has a masters in ecology and natural resources from the Universidad de Centroamérica.

## FROM THE FIELD

I will never forget the year when Hurricane Joan hit my hometown of Bluefields on the Caribbean coast of Nicaragua. In 1988, I was a married college student and the mother of a three-month-old baby, living away from home. My husband, Henning, left me and our baby safe in Managua, the capital city, and returned to Bluefields to help our families prepare for the Category 4 storm.

Bluefields was a colonial city full of sturdy wooden buildings, many of them on stilts. It was and still is only accessible by boat and plane. Hurricane Joan's incredible force leveled almost every structure, including my beautiful century-old childhood home and all but two walls of our family's hardware store. Hundreds of people were killed, and I was very anxious for my family. I saw Bluefield's devastation immediately on the news, but it was an entire week before I heard whether anyone in my family was still alive. That was without question the longest week of my life.

At the time, Hurricane Joan was the strongest storm to hit that far south in the Caribbean. However, that record and many other hurricane records have been surpassed in the last several years. Because of climate change, my traumatic experience is being lived again by millions of

people throughout the tropics, and with greater and greater frequency.

At Paso Pacífico, we have seen first-hand the increasing pace of extreme weather events. Just in the last four years, the Paso del Istmo Biological Corridor, which normally is outside the hurricane zone, has been impacted by Hurricane Otto and Hurricane Nate. Two of our employees lost their homes, and more community members lost their lives. We also experienced a drought that was so intense that hundreds of howler monkeys and other wild-life died before our eyes, falling from trees along the roadsides.

These experiences reaffirm the importance of Paso Pacífico's work. My country is consistently ranked among the top ten countries at highest risk from climate change. Rather than wait for the next disaster, our organization is rebuilding nature's infrastructure of forests and reefs. These can protect us and enable us to recover more quickly.

The architecture of tropical ecosystems helps safeguard coastal communities from storms. Sturdy reefs absorb part of the force of large waves offshore. Robust mangroves capture sediments and reduce storm surges and wind speed. Intact forests protect watersheds and limit



Through oyster aquaculture, we are helping restore the reefs that shield coastal communities from hurricane waves.



Junior Rangers visit coastal mangroves to learn about forest ecosystems and the ways wetlands protect their community.

erosion. By planting tens of thousands of trees along rivers and forming private reserves such as our own Reserva Mono Bayo, Paso Pacífico is stabilizing the land we live on. Through working with fishers and other community members to better manage these ecosystems, we are rebuilding coastal defenses and reducing the damage that disasters can cause.

Our work also hastens recovery after extreme weather events. In my work at Paso Pacífico, I have seen that healthy forests rebound more quickly. For example, outer trees in these forests take the brunt of wind force, protecting interior forest during storms and preserving strongholds of life that will help the ecosystem recover.

When I look back on my experience with Hurricane Joan three decades ago, I see how much I have learned about dealing with natural disasters. I also think of the many ways our current work at Paso Pacífico safeguards the communities where we work. While storms and droughts are likely inevitable, I feel confident that we are in a better position to handle them.

You and I can be proactive in the face of climate change. We can make individual choices that preserve the environment. When we work together as friends and partners to support efforts like those of Paso Pacífico, we can rebuild ecosystems and help Central American communities adapt and thrive.

# Donor Spotlight



## ALAN SCHROEDER & SONIA ORTEGA

Sonia Ortega and her husband, Alan Schroeder, have dedicated their careers to strengthening humankind's relationship with the environment. When they learned about Paso Pacífico in 2007, they immediately caught our vision and have been loyal friends ever since.

Dr. Sonia Ortega, a Nicaraguan marine ecologist, helped found the Nicaraguan Academy of Sciences and has been a program director with the U.S. National Science Foundation for over 25 years. She has served on our board since 2015.

Dr. Alan Schroeder has worked for USAID and the USDA on global-scale agricultural programs. Currently, he works as an advisor to projects focused on agriculture and food security in vulnerable regions such as Afghanistan.

We are grateful to have Sonia's expertise as a Nicaraguan marine scientist and Alan's in-depth knowledge of sustainable agriculture. Their professional and financial contributions to Paso Pacífico are making a difference for current and future generations.

# THANK YOU, RECENT DONORS!

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supported us from November

2018 through February 2019.



# Who Funds Our Projects?

The U.S. Fish and Wildlife Service's international programs division, Wildlife Without Borders, has funded Paso Pacífico's efforts to protect critically endangered species such as the leatherback sea turtle, robber frog, and black-handed spider monkey. Last year, their Marine Turtle Conservation Fund supported our environmental education efforts and training for new sea turtle rangers from local communities.

The Fish and Wildlife Service also supports our migratory bird programs through the Neotropical Migratory Bird Conservation Act (NMBCA). Through their support, we have established two bird monitoring stations where we band migratory birds to track their survival. We also have long-term monitoring sites for the endangered southwest willow flycatcher (see left). Our efforts further scientific understanding about our feathered friends' migration routes and conservation needs.





# DID YOU KNOW?

- In the tropics, weather patterns come from the Inter-Tropical Convergence Zone (ITCZ), a band of rising warm air that follows the equator all around the Earth.
- The ITCZ can be as wide as 300 nautical miles, or approximately 550 kilometers.
- Earth's rotation causes the ITCZ to shift from season to season, causing the tropics' dry and rainy seasons.
- The zone has many storms (see right). Between the storms are many windless areas. These tricky conditions prompted sailors to name this region the doldrums.





## RECENT HIGHLIGHTS

- Over the past ten months, 50 children from the communities in the Paso del Istmo have worked their way through the Junior Ranger environmental curriculum. Most recently, these Junior Rangers led river and beach cleanups near their villages as part of the program's community service requirements. Now, they are gearing up for graduation!
- Seventy volunteers participated in our fifth annual Christmas Bird Count held at the beginning of January. They spotted 130 species, including the crowned woodnymph, a hummingbird we have not seen in previous bird counts.
- The InvestEGGator made headlines at the International Sea Turtle Symposium held in Charleston, South Carolina, in early February. Graduate student Helen Pheasey presented a paper with Drs. Williams-Guillén and Otterstrom as co-authors. The presentation highlighted lessons learned from deploying the artificial egg in 163 nests in Costa Rica.
- Our conservation partnerships with zoos and aquariums continues to grow. The Sacramento Zoo recently began supporting the InvestEGGator project and will soon share this unique turtle egg as part of their public outreach efforts. In January, we shared our programs at the Santa Barbara Zoo's crowd-pleasing "Improvology" night, where field conservation stories are brought to life through improv comedy. Also, Delaware's Brandywine Zoo is co-sponsoring our cyanoptera macaw program for the third year in a row.

- In the last weeks of the dry season, our rangers are working overtime to stop the many wildfires that ignite so easily during the current dry and windy conditions. Our forest and turtle rangers have helped fight at least eight fires so far.
- Now 16 years old, one of our very first Junior Ranger graduates recently asked to shadow our sea turtle rangers. He is currently learning techniques for marking and measuring turtles. One day, he hopes to work on the beaches protecting sea turtles too!
- The women fishers from the Pochote and Ostional fishing cooperatives are building their confidence and skills to improve their oyster farming business. Over the past three months, we have provided courses to nine women on topics ranging from boat driving and swimming lessons to first aid and accounting.
- More than 18 baby parrots are being protected by community members enrolled in our conservation incentive program. These babies will soon leave their nests. We cannot wait until they are safely flying with their flocks.
- Thousands of people recently learned about the cultural importance of yellow-naped Amazons and the need to protect them in the wild in El Salvador. Salvadoran media spread the message from Paso Pacífico, FUNZEL, the Enrique Figueroa Foundation, and the Loro Parque Foundation.



Making connections for conservation

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## FEATURED STAFF

This season, we feature the women of Central America on our team. Their dedication, knowledge, and gifts are a critical part of Paso Pacífico's work.

#### **Women Team Members**

Liza González Regional Director

Nohémi Velásquez Administrative Manager, Nicaragua

> Anabel Chévez Ostional Librarian

#### Sea Turtle Rangers

Elena Vargas

Karen Lacayo

Maura Martínez

Liessi Calero

Darlin Delgado

#### Office Assistants

Jazmina Flores Managua

Betzi Vílchez Ostional

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