



## ANNUAL REPORT

20  
24



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## A MESSAGE FROM OUR **OUR BOARD**

Over the past year, Fauno has made significant strides in expanding its community by actively engaging with individuals and organizations that share its mission of conservation. Through participation in outreach events, educational programs, and collaborative initiatives, Fauno has strengthened its ties with like-minded groups dedicated to protecting the region's biodiversity.

Fauno has also grown its network by organizing and hosting specialized workshops. These workshops have provided valuable learning opportunities for both seasoned biologists and aspiring professionals, creating spaces for knowledge exchange, hands-on experience, and professional development. By fostering these connections, Fauno continues to build a strong foundation for conservation efforts in the region.

This organization is dedicated to investing in its team, understanding that a skilled workforce is vital for conservation goals. Over the past year, Fauno has provided training and opportunities for skill development and growth, ensuring effective and sustainable efforts to study and protect Baja California's flora and fauna.

**Lupita Solano**  
*Chair of board directors*





## A MESSAGE FROM OUR **EXECUTIVE DIRECTOR**

In our seventh year of activities—a year of growth and new challenges for Fauno—we expanded our team, gained more knowledge, and explored new funding opportunities, which led us to meet many new friends. We also launched our Adopt a Frog program, allowing 38 happy little frogs to find loving homes. Additionally, new board members joined with fresh ideas, we trained to continue improving, and we applied the best strategies to achieve our goals.

Of course, not everything was smooth sailing. We faced obstacles, such as the pause in our crayfish control project, the loss of some funding sources, and difficult decision-making. However, each challenge brought us valuable lessons.

If we've learned anything, it's that the future will always bring uncertainty—but also new lessons, friendships, and collaborations. As long as we continue working with passion, ethics, and commitment, we will be here.

Thank you to everyone who made 2024 a successful year. Without you, this report wouldn't exist.

A handwritten signature in black ink, reading "Anny Peralta".

Anny Peralta





## OUR WORK

Given the current biodiversity crisis, our mission at Fauna del Noroeste (Fauno) is to drive the recovery and conservation of natural resources through scientific research, restoration initiatives, and a strong commitment to education and collaboration.

We believe that science and community action go hand in hand. By generating knowledge and empowering people, we can protect our ecosystems and lay the foundation for sustainable and informed management plans.



Effective conservation starts with a passionate and well-equipped team, that's why we constantly work on strengthening our skills and knowledge, ensuring that each member can meaningfully contribute to biodiversity protection. In this spirit, we strive to inspire more people to join our cause. We believe in the power of collaboration and the importance of building support networks that amplify our impact.

Every effort counts, and at Fauno, we are committed to continuing to defend and restore our region's ecosystems—not just for the present, but for future generations as well.





## STAFF



**JORGE VALDEZ**  
Research coordinator



**DIEGO MALDONADO**  
Restoration coordinator



**CINTHIA HARO**  
Administrator



**FERNANDA MANRIQUEZ**  
Field biologist



**DAVID MORA**  
Community manager



**ANGELA TAMAYO**  
Project assistant



**DAVID PÉREZ**  
Grant writer



**BRAYAN LEÓN**  
Warehouse supervisor

## BOARD OF DIRECTORS

**ANDREA ADAMS**

Earth Research Institute, UC Santa Bárbara

**ANDREW FORDE**

Forde Biological Consultants

**JEFF ALVAREZ**

The Wildlife Project

**BRADFORD HOLLINGSWORTH**

San Diego Natural History Museum

**LUPITA SOLANO**

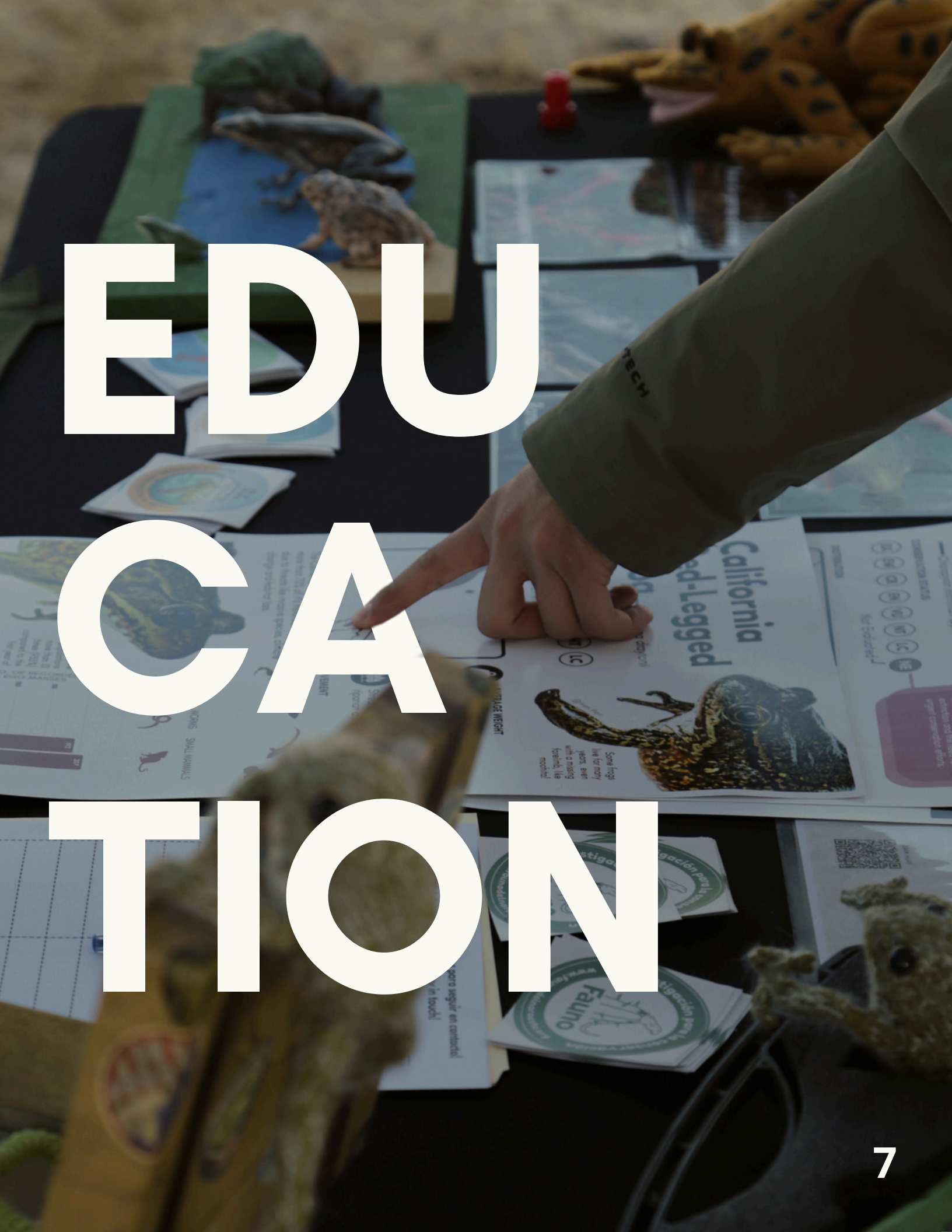
Calyx Environmental

**OSCAR A. FLORES-VILLELA**

Universidad Nacional Autónoma de México

**SAMUEL GURLEY**

Calyx Environmental



# EDUCATION



A stylized map of the border region between the United States and Mexico. The U.S.A. is shown in grey at the top. Mexico is shown in olive green, with the state of Sonora highlighted in brown on the right. Three location markers, each featuring a circular icon of a lizard and a mountain, are placed along the border: Jacumé (top), Playa Saldamando (middle-left), and Rancho Ruiz (bottom-left).

U.S.A

Sonora

# BORDER BIOBLITZ

This event is a collaborative effort to record as many species of plants, animals, and fungi as possible along the United States-Mexico border within a set time frame. It is an experience of discovery and citizen science that anyone can be a part of.

Learn more

**BIOBLITZ 2024**



# OUR CONTRIBUTION

This year, we participated in the Border Bioblitz, organized by *Nueva Generación de Investigadores del Desierto Sonorense (N-Gen)*. Together with Suva Research and Expediciones Botánicas, we promoted citizen science in our region.

We organized three Bioblitz events focused on documenting the shared biodiversity between the United States and Mexico, with a large number of participants from various institutions, including UABC, COCUI, Bandera Mexicana Elementary School, and Telesecundaria 38 "Ramón López Velarde".

We had the opportunity to explore the shrublands of the Jacumé border area in Tecate, the coastal scrub of Playa Saldamando, and the riparian and chaparral zones of Rancho Ruiz, south of Ensenada. Together, we recorded over 4,000 observations, contributing to a better understanding of the biodiversity in these areas.

3  
events

~170  
involved people

4,000<sup>+</sup>  
observations







# TO LEARN, TO KNOW, TO CONSERVE.

Workshops are a key part of Fauno's strategy, as they promote environmental education, encourage active participation in conservation, and strengthen the connection between the community and nature. Through dynamic activities and field experiences, participants gain practical knowledge that helps them understand the importance of local ecosystems and the role they can play in their protection.



Overall, our team conducted eight workshops aimed at training both professionals and conservation enthusiasts, covering topics related to sampling techniques and species management, including some classified as at-risk. In the fourth edition of the Amphibians and Reptiles Workshop at Rancho Meling—held in collaboration with Jeff Alvarez and Luc Myers—30 participants explored the natural habitat of more than 30 species from this group of animals.

During our wings workshops, we studied species such as the California Gnatcatcher (*Polioptila californica*), Least Bell's Vireo (*Vireo bellii pusillus*), and the Western Burrowing Owl (*Athene cunicularia hypugaea*). With the support of Forde Biological Consultants, 48 attendees learned about the natural history and conservation challenges of these birds.

Finally, the specialized workshop on the Arroyo Toad (*Anaxyrus californicus*) in Sierra de Juárez—organized alongside experts such as Brad Hollingsworth, Jeff Alvarez, Lupita Solano, Samuel Gurley, and Ryan Anderson—welcomed 13 participants and provided an intensive learning experience on the species' biology and habitat.

These workshops not only strengthened the participants' knowledge but also reinforced the organization's commitment to biodiversity conservation.

***“I left feeling better equipped with practical tools to aid in their conservation and inspired by the dedication by everyone involved.”***

**- Mahmood Mokhayesh**  
participant in the Amphibian &  
Reptile and Burrowing Owl workshops



# OUTREACH EVENTS

Throughout the year, collaborating with different organizations and institutions to share our conservation work, we attended 10 events covering topics such as wetland protection, the conservation of the California Red-Legged Frog (*Rana draytonii*), regional biodiversity, the importance of snakes, just energy transition, and citizen science.

Through talks, workshops, informational booths, and interactive activities, we promoted environmental awareness and collaborative efforts at both regional and international levels.

## EVENTS AND COLLABORATORS

### **Latino Conservation Week (LCW)**

*San Diego Bird Alliance*

### **Love Your Wetlands Day**

*San Diego Bird Alliance*

### **San Diego Natural History**

#### **Museum 150° Anniversary**

*San Diego Natural History Museum (SDNHM)*

### **Ocean's Day**

*ASIPONA and Subdirección de Ecología y Medio Ambiente de Ensenada*

### **Conservation Pavillion**

*Congreso de Conectividad del Paisaje, UABC*

### **Noche de las Ciencias**

*UABC, CICESE, UNAM and Planeteando*

### **Snake's Day**

*Caracol Museo de Ciencias*

### **iNaturalist Workshop**

*iNaturalistMX y Sonoran Institute*

### **Odolympics**

*INPACVI A.C., Dragonfly Society of the Americas and CICESE*

### **¿What is Fauna del Noroeste and what are some obstacles of being an NGO?**

*Facultad de Ciencias, UABC*





These events serve as an important platform for knowledge exchange with our community, encouraging more people to get involved in biodiversity conservation. They promote actions that contribute to the protection of our ecosystems and native species.





# TEAM TRAINING

At Fauna del Noroeste, we believe in the importance of continuous training to improve our work and strengthen our organization. During 2024, our team attended various training sessions that allowed us to acquire new knowledge and tools in key areas such as resource mobilization, organizational resilience, and scientific outreach.

## **Online Course “Resource Mobilization” – FHI360 and USAID**

Training in Planning and Fundraising Strategies.

It allowed us to participate in the 4th Bootcamp for NGOs.

## **4th Bootcamp for NGOs – FHI360 and Social Impact**

Event in Mexico City on funding strategies and organizational resilience for NGOs in Mexico.

## **2nd TierraCamp Encounter – Estudios Planeteando**

Event in Puerto Vallarta, Jalisco, that created a space for science communicators to exchange experiences. Topics such as just energy transition and conservation in different regions were discussed.

## **RESPONSA Workshop – FONNOR A.C.**

Course on nature-based solutions, funding, and organizational management. It helped us build connections with other NGOs from northwestern Mexico.





# RESTO RATION & CONSER VATION





# CALIFORNIA RED-LEGGED FROG

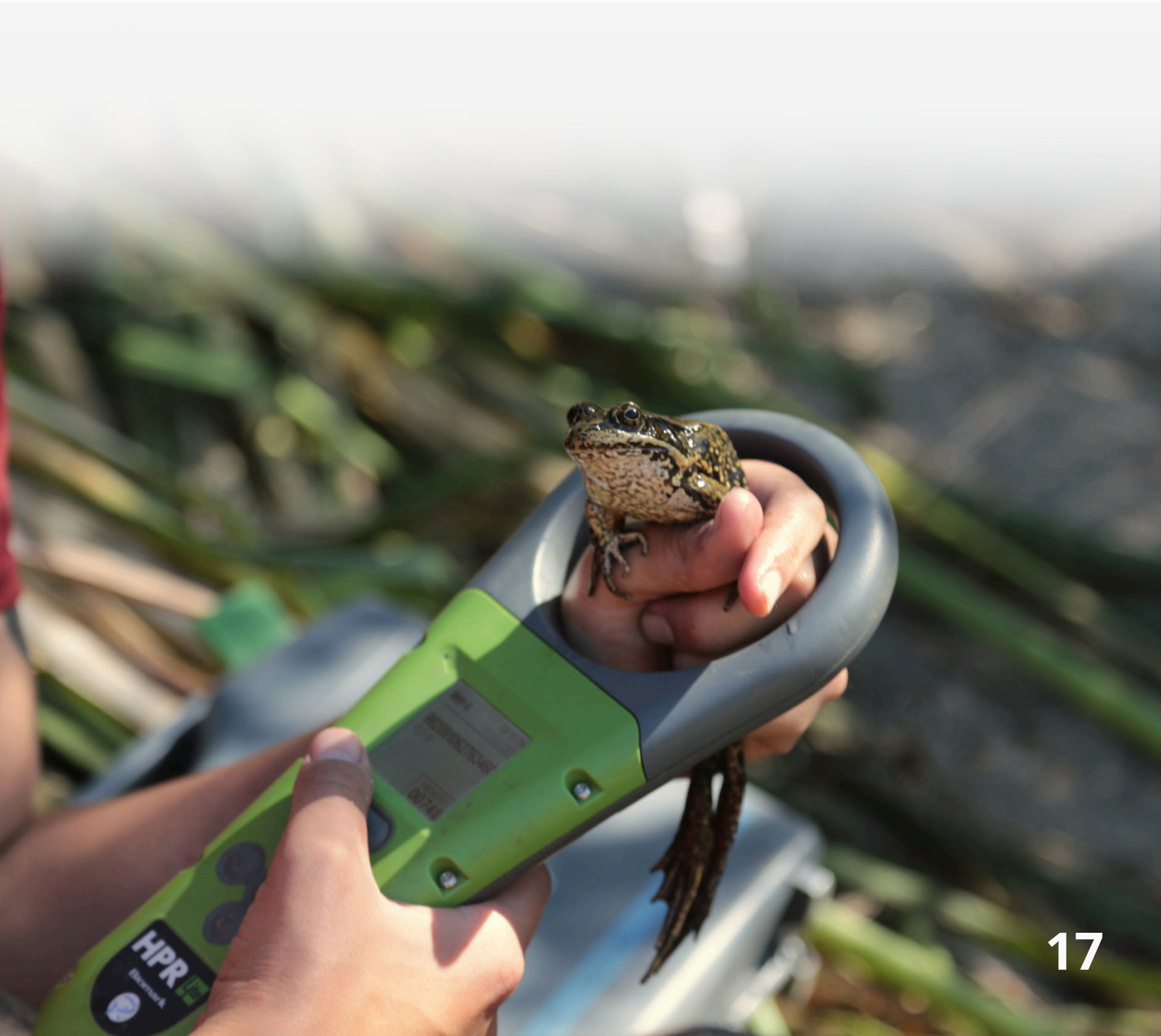
The California Red-Legged Frog recovery project is a task we work on all throughout the year! The search for egg masses begins in January. This year, we found a total of 206 egg masses at Rancho Meling. In collaboration with the San Diego Natural History Museum, we translocated 30 half egg masses across the border to enhance the remaining populations of this species south of California.

Between April and November, we conducted nocturnal visits to our ponds at Rancho Meling and Rancho El Potrero to observe and count frogs in their habitat. On each visit, our team, equipped with flashlights, carefully explored the water, vegetation, and surrounding areas of the ponds to find these amphibians.

When we found frogs, we carefully captured them to take important data, such as their size, weight, and location. The largest ones were tagged with a small special tag (PITtag) under their skin, which allows us to recognize them in future visits and learn more about their lives in the wild. Once recorded, all frogs were safely returned to their original location.

After the summer, the ponds where the red-legged frogs live get filled with tule (*Typha domingensis*)! This aquatic plant is important for the ecosystem, but if not controlled, it can absorb a large amount of water, which can pose a risk to the frogs' breeding season. Fortunately, at Fauna del Noroeste, we have an amazing network of volunteers willing to work on improving the condition of these ponds, ensuring a pleasant space for the species that inhabit them. This year, around 35 people participated in our pond maintenance events.

In our fifth year working on this project, we are filled with excitement and pride to see how these creatures respond positively to our conservation efforts. We can only continue to express our gratitude to everyone who has been part of this - thank you!





# PUNTA BANDA ESTUARY

Since June 2023, Fauna del Noroeste has embarked on a unique project in our history: the restoration of the Sand Spit of the Punta Banda Estuary. This was made possible through funding from the San Diego Foundation and our collaboration with the San Diego Bird Alliance. Our first goal was to train an individual in coastal habitat restoration techniques to take on the role of restoration coordinator and develop a plan for the area.

In 2024, we successfully achieved this goal and published the Restoration Plan for the Sand Spit, Punta Banda Estuary, Ensenada. In this document, we outline the necessary steps to improve the environment, taking into account the coexistence with human activities. The plan is available on our website for anyone interested in learning more or getting involved in the restoration of the Estuary.

As part of our actions, we removed around 16,052 m<sup>2</sup> of invasive vegetation, including ice plants (*Carpobrotus* spp.), exotic sea lavenders (*Limonium* sp.), and salt cedar (*Tamarix* sp.). We now monitor this area every month to evaluate the effectiveness of our measures and observe how native species are growing back in areas that were previously invaded. Although it's still too early to draw conclusions, we are excited to see plants like the dune sunflower (*Helianthus niveus niveus*) and the dune lamb's ear (*Nemacaulis denudata denudata*) reappearing.





We love sharing our restoration work, so we have invited different groups to visit the Punta Banda Estuary and learn about its importance for biodiversity. This year, we received support from members of Baja California's indigenous communities, thanks to our collaboration with Tipey Joa, as well as from students from CETYS High School and the University of California in San Diego (UCSD), just to mention a few of the groups that represent some of the important alliances that allow us to continue with this project.

In 2025, thanks to funding from Jiji Foundation, we will continue removing invasive vegetation and carrying out environmental education activities. We will also collaborate with SageVinje Biological on a project to eradicate *Limonium* in the Estero marshes using a method that has been successful in the United States. We are excited about everything that lies ahead in 2025!



[LEARN MORE](#)



# INVASIVE SPECIES CONTROL

As part of our conservation work, we face various invasive species that threaten the biodiversity of our region. This year, we continued to control two species in different locations. The first is the red swamp crayfish (*Procambarus clarkii*) in the Arroyo San Rafael, where we began control efforts in 2023. This year, we successfully eradicated 1,629 crayfish in a key section of the creek vital for the reproduction of at-risk species such as the California Red-Legged Frog, the Southwestern Pond Turtle and the Arroyo Toad. With this, the total number of crayfish removed exceeds 5,000. Unfortunately, this project is now on pause due to unforeseen circumstances.

The second species is an old acquaintance: the bullfrog (*Lithobates catesbeianus*) at El Salto. Although we had eradicated it in 2022, new individuals migrated from other bodies of water upstream after the last rainy seasons and began to recolonize the area. So far, we have removed 175 bullfrogs and will continue this work in 2025, advancing in our mission to protect local ecosystems.





# 1,629

Red Swap Crayfish



# 175

Bullfrogs



# RE SE AR CH







## AMPHIBIAN AND REPTILE MONITORING IN THE CUENCA DE LOS PLANES.

In 2022, we began collaborating with the San Diego Natural History Museum and Pronatura Noroeste to explore the diversity of amphibians and reptiles in the Los Planes watershed, Baja California Sur. This project is part of a larger initiative aimed at understanding the ecosystem's resilience to water management, erosion, and overgrazing.

This year, six amphibian and reptile surveys were conducted, leading to a better understanding of the herpetofaunal diversity in this region. To date, 24 species have been detected (3 amphibians and 21 reptiles). In parallel, environmental education talks were held with local communities in the Los Planes region to raise awareness about the importance of conserving these often misunderstood and less charismatic animals.

## COLORADO RIVER TOAD

This year, we launched a new project aimed at learning more about the current status of the Sonoran Toad (*Incilius alvarius*) in Baja California. This project is being carried out in collaboration with Dr. Bradford Hollingsworth from the San Diego Natural History Museum and is funded by the Tucson Herpetological Society. The project started in June, during which we visited several historical sites where this toad had last been recorded, but it has not been documented there since. We also set up sound recorders to increase the chances of detecting the calls of this toad species. In 2025, we will return to these locations, hoping that the rains will favor our encounter with this unique toad.

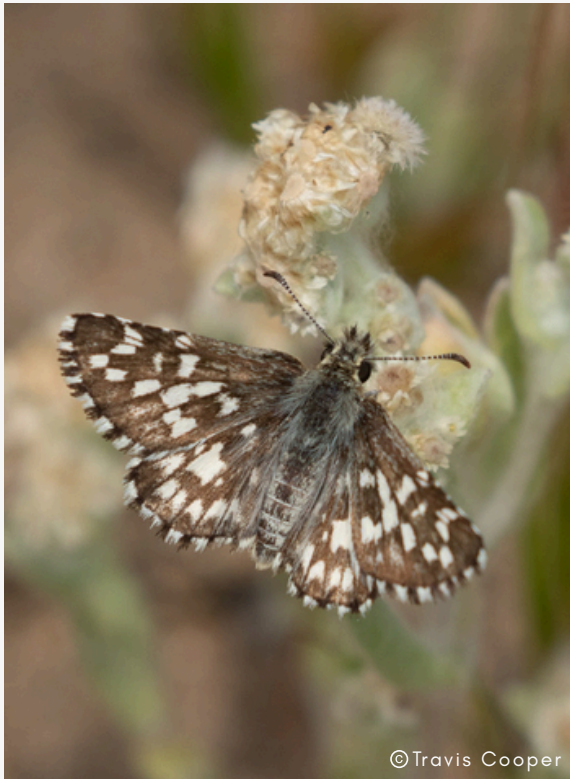
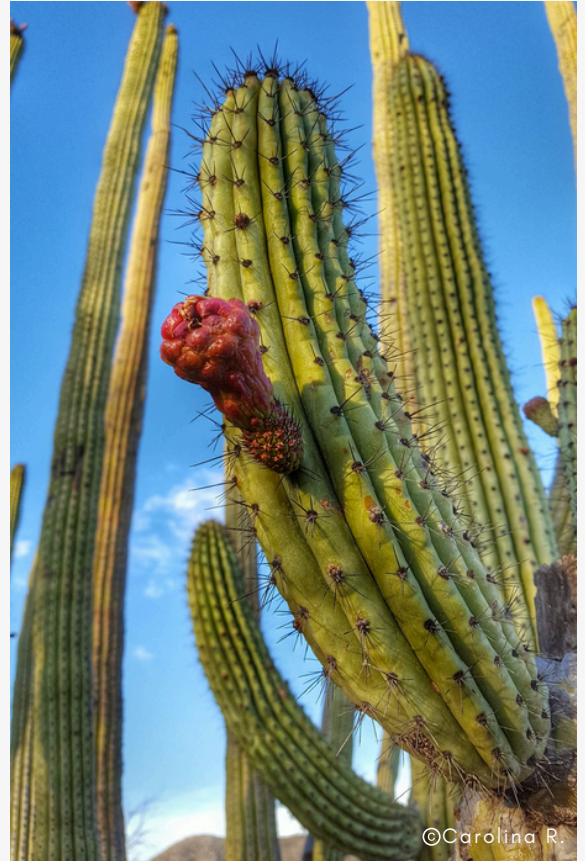


Pedro E. Nahuat-Cervera



## EL PITAYAL EXPEDITION

In November, two of our staff members participated in an expedition to an area proposed as a nature reserve known as El Pitayal. This area is located in the southeastern part of Sonora, in the municipalities of Huatabampo and Navojoa, near the border with Sinaloa, in a region recognized for its unique biodiversity and cultural significance to the Yoreme-Mayo people. The area faces significant threats due to agriculture, livestock farming, and unregulated development. The expedition was led by the organization Naturaleza y Cultura Internacional and N-Gen, with researchers and students from various organizations and universities participating. The goal of this expedition was to generate scientific information that highlights the importance of preserving one of the last fragments of coastal scrub in southern Sonora and to strengthen the proposal to designate this area as a Protected Natural Area.



## LAGUNA MOUNTAINS SKIPPER

The Laguna Mountains skipper butterfly (*Pyrgus ruralis lagunae*) is a native species of the southern California mountains that has a close relationship with *Horkelia clevelandii*, a plant where they lay their eggs and whose larvae feed on. Unfortunately, the loss of habitat of its host plant has caused this butterfly to become endangered. Due to the similarities between its historical distribution sites and the Sierra Juárez mountains in Ensenada, we undertook a search to find new records of this butterfly in the region. Although we were unable to find it, we documented multiple specimens of *H. clevelandii*, a promising discovery that motivates us to return next year with the hope of finally finding this fascinating butterfly.

# SCIENTIFIC PUBLICATIONS 2024

- **Demography and movements of the Southwestern pond turtle (*Actinemys pallida*) in the Santo Domingo Watershed, Baja California, Mexico.** Northeastern Naturalist, 31(Special Issue 12):E151-164.
- **Predation of the southern California legless lizard (*Anniella stebbinsi*) by the San Diego ring-necked snake (*Diadophis punctatus*).** Sonoran Herpetologist, 37(4):173-174.
- **Two-striped Gartersnake (*Thamnophis hammondi*)\_Diet.** Herpetological Review, 55(1):124-125.
- **New prey item in the diet of the California red-legged frog (*Rana draytonii*) from Baja California, Mexico.** Revista Latinoamericana de Herpetología, 7(4):140-143.
- **Putative cannibalism in the Western Spadefoot (*Spea hammondi*) in Baja California, México.** Sonoran Herpetologist, 37(2):96-97.
- **Índice de erradicación de la rana toro (*Lithobates catesbeianus*) en la región Mediterránea de Baja California, México.** Acta Biológica Colombiana, 29(2):12-25.
- **First records of *Evania appendigaster* at Baja California, México.** Southwestern Entomologist, 49(1):315-318.
- **Composición alimentaria de la rana toro exótica (*Aquarana catesbeiana*) en un humedal de montaña cerca de la frontera México-Estados Unidos.** Revista Latinoamericana de Herpetología, 7(2):8-22.
- **Geographic expansion of the Common house gecko, *Hemidactylus frenatus* (Squamata, Gekkonidae), in Baja California Sur, Mexico.** Reptiles & Amphibians, 31(1):1-6.
- **Kyphosis in the southwestern pond turtle *Actinemys pallida* (Emydidae) from Baja California, Mexico.** Revista Latinoamericana de Herpetología, 7(1):33-36.





# JOINING FORCES

¡A million thanks to everyone who collaborated with us in 2024!

## INTERNS

- Alexia Guadalupe Mejía Licona
- Arturo Yoshizada Morales Zaya
- Victor Ulises López Martínez

## ALLIES

- De la Huerta, Peña Blanca, San José de la Zorra, San Antonio Necua, Janau and Santa Catarina Communities
- Centro de Restauración Familiar el Alfarero Community

## VOLUNTEERS

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- |                                   |                                     |                                   |
|-----------------------------------|-------------------------------------|-----------------------------------|
| • Adam Clause                     | • Janie Neftali Paz Palacios        | • Marlon Hiroshi De la Rosa Reyes |
| • Alejandra Rodríguez Méndez      | • Jessica Loya                      | • Martha Rodríguez                |
| • Angelina López                  | • Jimena Julissa López Gonzales     | • Marty Reed                      |
| • Annette Jwsany Jimenez Espinoza | • Joel Estrada Guerrero             | • Mayra Flores                    |
| • Christopher Nuñez Martinez      | • Johana Crespo                     | • Mira Falicki                    |
| • Christopher Sánchez Elenes      | • John Kinabrew                     | • Nancy Fernandez                 |
| • Daisy Chiu                      | • Jorge Leobara Zepeda              | • Rodrigo Ismael Gómez Núñez      |
| • Daniela Graef Vélez             | • Jorge Rodríguez                   | • Ryan Anderson                   |
| • Dylan Zubieta                   | • Juan Alberto Viramontes Salomon   | • William Anaya                   |
| • Eliana Rosas                    | • Juanita A. Ramírez Alba           |                                   |
| • Ellen Berryman                  | • Julie Noriega                     |                                   |
| • Eric Cerecedes                  | • Karina Ornelas Rojo               |                                   |
| • Gabriela López Clavel           | • Leslie R. Lewis                   |                                   |
| • Garrett Moss                    | • Luc Myers                         |                                   |
| • Guadalupe Chi                   | • Luis Gael Juárez Rosas            |                                   |
| • Gustavo Candia Jaramillo        | • Manuel Alejandro Fernández Moreno |                                   |

## COLLABORATORS

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- Café Petra
- Hollie Bollen
- Expediciones Botánicas
- Forde Biological Consultants
- N-Gen
- Pronatura del Noroeste
- Rancho Bonanza
- Rancho de la Abuela (Güelita)
- Rancho El Potrero
- Rancho Meling
- San Diego Bird Alliance
- San Diego Natural History Museum
- SUVA Research
- The Nature Conservancy
- The Wildlife Project
- USGS

## DONORS

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### MONTHLY

- Dean Levitt
- Lupita Solano
- Valeria Corona
- Samuel Gurley
- Sula Vanderplank

### SINGLE DONATION

- Andrew Forde
- Dale Powell
- Dalton Stanfield
- Frank Santana
- Jeff Alvarez
- Jeremy Tuler
- Kathy Musial
- Lord Forde
- Marshall Paymard
- Mary & Bill Clark
- Mahmood Mokhayesh
- Pamela Nelson
- Richard Spotts
- Sarah Schmid

## FUNDATIONS

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# FINANCIAL REPORT

BALANCE 2023 IN MX PESOS

\$316,402

REVENUE 2024

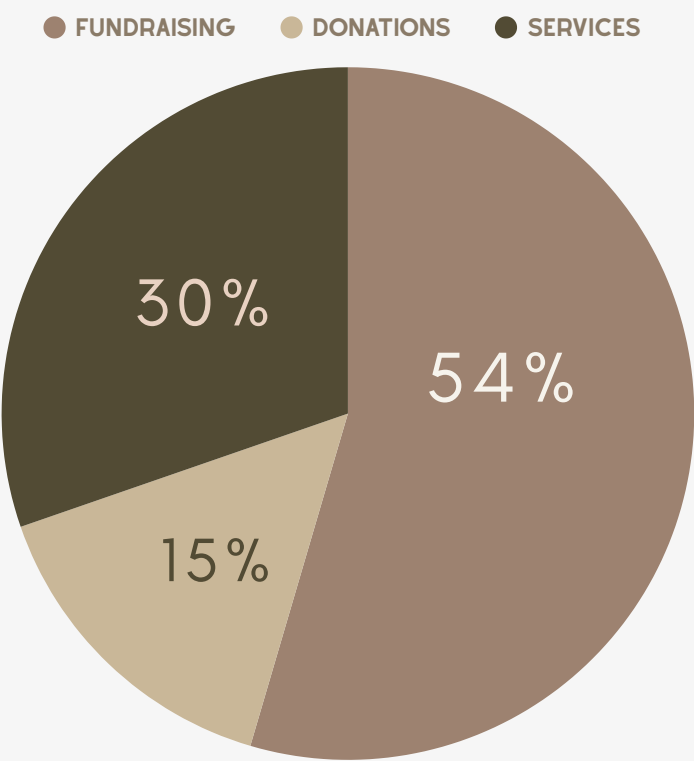
\$3,599,051

EXPENSES 2024

\$3,811,948

BALANCE 2024

\$100,194



CALIFORNIA  
RED-LEGGED FROG



PUNTA BANDA  
ESTUARY



HERPS SURVEYS



BIOBLITZ/OUTREACH



ERRADICATION/  
CONTROL



BUTTERFLIES



A close-up photograph of a California Red-Legged Frog. The frog has a light-colored, mottled pattern on its back and head, with large, dark, prominent eyes. It is perched on a light-colored wooden surface. The background is dark and out of focus, showing some indistinct shapes and colors.

# ADOPT A FROG

With its ecological history and positive response to conservation efforts, the California Red-Legged Frog symbolizes resilience in the face of growing environmental challenges. In recent years, our commitment to conserving this valuable amphibian has strengthened through focused efforts to restore its shrinking habitats, establish protected areas, and implement management and breeding plans.

New initiatives like Adopt a Frog, which allows anyone to participate, have turned symbolic adoptions into tangible contributions that support the protection and survival of the California Red-Legged Frog.



# OUR ADOPTERS

We are grateful to our 30+ adopters who have committed to the conservation of this species in 2024!

- Alec Yzaguirre
- Alistair Dobson
- Annalena Stenger
- Andrew Isner
- Asa Spade
- Ashley Alardi
- Ashley Lobos
- Brandon Pang
- Cynthia Martinson
- Daisy Chiu
- Dalton Stanfield
- Dean Leavitt
- Dylan Zubieta
- Frank Santana
- Heidi Isner
- Ivan Parr
- Jakob Woodall
- Jake Wotawa
- Jeffrey Alvarez
- Joseph Gamez
- Luc Myers
- Mahmood Mokhayesh
- Marshall Paymard
- Martin Reed
- Mira Falicki
- Richard Isakson
- Ryan Anderson
- Sage Bilyn
- Samuel Gurley
- Samuel Toth
- Sarah Schmid
- Stephanie Lobos
- Sula Vanderplank
- Timothy Gurley
- Vincent Spadone

LEARN MORE  
HERE



# LIZZY'S ADVENTURES

This year, we completed our short story about Lizzy, the side-blotched lizard—an adventure that takes us on a journey to discover the incredible biodiversity of the desert. Through her travels, Lizzy shows us the importance of every living being in this ecosystem and the need to protect it. This story is part of our effort to inspire new generations to appreciate and conserve nature, fostering a love for the landscapes and species that surround us.



This story is available for everyone!

**GET YOURS!**





# Fauna del Noroeste

Research for conservation

