

# ANNUAL REPORT 2020



Fauna del  
Noroeste

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## Message from Our Director

### *Dear friends,*

2020 brought many obstacles and challenges, but also has made us unite in ways we might never have imagined, and helped us understand how we need each other, and how we are all connected through nature. During these disturbing and heartbreaking times, we want to make sure we express our gratitude to everyone in this beloved community. We feel extremely lucky that everyone at Fauno is healthy; we have been able to keep working, thanks to these incredibly giving and caring people.

2021 will bring new challenges, but also new opportunities to protect and restore our planet. We will continue working hard to reintroduce our native species, to hear them calling, jumping, running, so new generations can be amazed by their beauty and forms. Thank you for keeping us company on this long, bumpy road.

Thanks to you, our little non-profit is making a difference for California red-legged frogs... and there are many other species that need our help too. We will keep working to expand conservation actions to other species and building capacity in our next generation of conservationists. We can only accomplish this with your support.

Thank you for trusting in us, and for giving us the opportunity to keep working toward preservation of our amazing biodiversity.



**ANNY PERALTA**

Executive Director

# Our Team

**Dr. Anny Peralta García**

Executive Director

**M.C. Jorge H. Valdez Villavicencio**

Research Coordinator

**M.C. Andrea Navarro Tiznado**

Restoration and Conservation Coordinator

**M.C. Salvador González Guzmán**

Environmental Education and Bird Conservation Coordinator

**Zhenia Yahide Sainz Beltrán**

Biologist and Project Assistant

# Board Members

**Jeff Alvarez**

The Wildlife Project

**Bradford Hollingsworth**

San Diego Natural History Museum

**Sula Vanderplank**

Suva Research

**Richard Erickson**

LSA Associates, Inc.

**Oscar Flores Villela**

Universidad Nacional Autónoma de México

**Elia Benítez**

El Nido Taller

**Denis Navarro Tiznado**

Cracia Comunicaciones



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## Our Mission

To promote the proper management of natural resources through scientific research, restoration, education, and collaboration. To seek solutions to preserve the flora and fauna in northwestern Mexico through development of scientific information and community engagement.



## What Do We Do?

At Fauna del Noroeste we are concerned about the current state of our natural diversity, and seek to reduce threats that have led to the extinction of species. For this, we have developed three lines of work: **Research, Restoration and Education.**



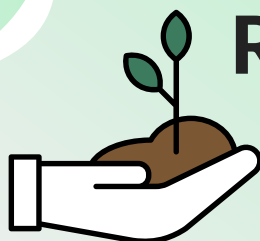
### Research



### Education



### Restoration

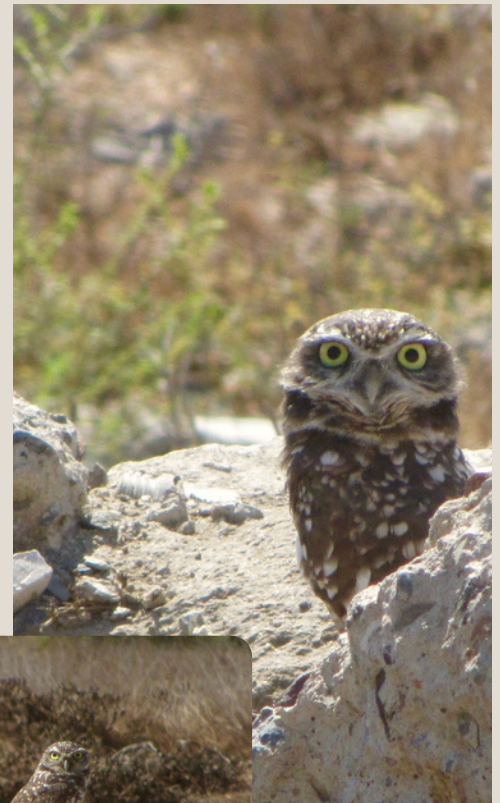




# Reproduction and Conservation of the Western Burrowing Owl

This project studies the Western Burrowing Owl (*Athene cunicularia hypugaea*) reproduction and species conservation issues in urban and suburban areas of Ensenada Bay. The aim is to gather scientific information on the nesting status of these little owls and provide environmental education to nearby schools about the importance of the species and its habitat. In this way, we hope to encourage young people to support future research and implement adequate conservation plans.

The project is proving highly successful: To date, 12 burrows and 42 individual owls have been detected over the course of four field trips. We have also given three talks to high school students from nearby schools in the Maneadero Valley, and owners of some of the visited properties have graciously allowed us to install camera traps to document the behavior and reproduction of Burrowing Owls on their land. We will continue these activities in 2021.



## American Bullfrog Control and Eradication



In 2020 we achieved the first eradication of the invasive American Bullfrog (*Lithobates catesbeianus*) in the Mediterranean region.

Since 2018 we have monitored the distribution and natural history of the non-native American Bullfrog, a high-risk predator species in Mexico and a priority for eradication. In 2020, we completed eradication of this exotic species on a pilot site at which we documented changes in the native fauna after removal of the bullfrogs. Even though the last eradicated numbers were small, we observed a marked increase in native species after removal of this non-native predator.



We are currently in the final stage of post-eradication monitoring, in which we focus on confirming the absence of bullfrogs at the site. Thanks to the experience obtained and the results in the pilot site, we will continue with American Bullfrog eradication activities at other sites, and hope this project will help in the recovery of native species.

# California Red-legged Frog Recovery Plan



The **California Red-legged Frog** (*Rana draytonii*) has become a symbol of hope for other native species of Baja California that face the same environmental problems. Successful conservation efforts with this amphibian prove that it is still possible to avoid the extinction of species with direct action. Here are some of the initiatives we continued or started in 2020.



-Continued our long-term project to monitor for signs of reproductive success in California Red-legged Frogs in the region. Of the egg masses we encountered in 2020, fully 70% were discovered in ponds we had built and rehabilitated in 2018—an extraordinary measure of success! We also saw an increase of 10% in the number of frogs on those sites. With the help of 30 dedicated volunteers, we also rigorously maintained the ponds to prevent overgrowth of cattail and other aquatic plants, and the pools are now ready for the next breeding season.



-We started to collaborate with the San Diego Natural History Museum, the U.S. Geological Survey, the U.S. Fish and Wildlife Service, and The Nature Conservancy to reintroduce Red-legged Frogs to Southern California, in order to help recover the extirpated populations there and, in the future, historic habitats in Baja California. The first reintroduction event to Southern California occurred in Spring 2020, since which time more than 60 juvenile frogs have been observed.



-Started a California Red-legged Frog Working Group, which seeks to guide priority conservation efforts in Baja California to best serve recovery of the species.

With these actions, we hope to help the species' reproductive success, survival, and expansion in these habitats, and thus prevent the California Red-legged Frog from joining the list of extinct species.



# Monitoring and Conservation of the California Least Tern in Punta Banda

One of Baja's most captivating native birds is the California Least Tern (*Sternula antillarum browni*), a migratory bird that nests near the city of Ensenada and, alarmingly, is federally listed as endangered in the U.S. and as a special-protection species in Mexico.

In 2020, dismayed by this grim species outlook, we were invited to joined forces with Pro Esteros, Ryan Ecological Consulting, and Jonathan Vargas from the Coastal Solutions Fellows Program at Cornell University in a concerted effort to increase the survival rate of fledglings.



We cleaned and removed exotic vegetation among the dunes to help the colony nest safely above tidal incursion, and the area was delineated with temporary fences and posted. To lessen predation on the nests and chicks, we implemented non-invasive controls such as placement of a fladry system (fabric that flaps in the breeze), sound repellants, dispersion of chili powder around the perimeters, and building false (decoy) nests.

These actions resulted in the survival of all 18 California Least Tern fledglings during the 2020 season in the Estero de Punta Banda. Comparing these results with previous years, in which reproductive success was zero, we are motivated to continue helping this species nest on our shores.





We promote and support activities that provide the public a closer understanding of and personal investment in biodiversity, as well as contributing to scientific knowledge through citizen science. Although some of our activities were canceled due to COVID-19 in 2020, we were able to carry out several remotely.

## iNaturalist workshops

We continue to collaborate with CONABIO in promoting the use of the iNaturalist citizen science platform. In 2020 we held seven virtual workshops

in which **175 people from different states of Mexico were trained**

These workshops have introduced new users to iNaturalist, increasing the numbers of citizen scientists who will support science projects and learn more about the world's biodiversity through their observations.

## Cuatro Milpas BioBlitz

The 2020 Bioblitz, organized by students and teachers from the Tipai Adolescent Program and Fundación Aportemos, took place on February 29th in Cuatro Milpas Canyon. The event was aimed at teachers, students, and local residents of this locality, for the purpose of bringing the community closer to nature and recording the biodiversity of the area.



For this Bioblitz, Fauno's staff participated by giving a workshop on the use of the iNaturalist App, as well as on the protocol for registering species of flora and fauna. In total, around **50 people participated** and **468 observations** of **167 species of flora and fauna** were recorded.



# City Nature Challenge 2020



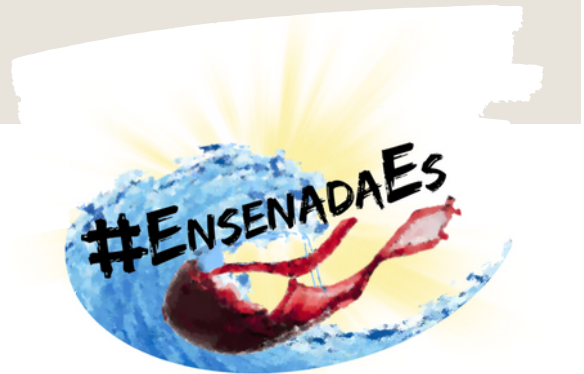
This was the second year in which we participated in this worldwide event, which seeks to record global urban biodiversity over a period of four days. Because of COVID-19, in 2020 the event was adapted from a competition between cities around the world to an event that sought to connect people with nature from their homes, or wherever it was safely available to them.

The event was held from April 24 to 27, with a global total of 246 participant cities from 40 countries. For Ensenada, on this occasion **98 people participated**, and **7,559 observations** of **1,123 species of flora and fauna** were recorded.



## #EnsenadaEs Virtual Fest

In a year in which many of us had to adapt to the use of digital media to communicate, the first virtual #EnsenadaEs festival was held in August. The event was organized by the Student Society of the Center for Nanosciences and Nanotechnology from the National Autonomous University of Mexico (UNAM), Ensenada campus. Fauno was invited, along with many other institutions, NGOs and social groups.



Among other activities, we gave an iNaturalist workshop followed by a Bioblitz event called "stay at home." Over the course of one week, 45 participants took part and a total of 945 observations of 403 species were recorded.



We also gave a talk in conjunction with Contacto Salvaje about snakes of the region. We presented a puppet show for children entitled, "**Story of a California Red-legged Frog**" and for the first time we shared a mini-documentary about Fauno's recovery plan for the California Red-legged Frog in Baja California.

# Participation in outreach events

We believe in the importance of outreach events to share what Fauno does. In 2020, we participated in an in-person event at the beginning of the year, and in virtual presentations after the start of the COVID-19 pandemic.

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- Amphibian Populations Task Force Meeting, San Diego, California: “Conservation actions to protect the California Red-legged Frog”;
- Caracol Science Museum, Ensenada: Interview about Fauno’s activities;
- San Diego Museum of Natural History: Nat Talks presentation, “The Return of the California Red-legged Frog”;
- University of Florida Ecology of Reptile and Amphibian Invasions Course: Presentation about “American Bullfrog Control Plan in Baja California”; and
- Cuatro Milpas Community Garden: Native amphibians talk.

## Publications in 2020

- How will climate change impact fossorial lizard species? Two examples in the Baja California Peninsula. (*Journal of Thermal Biology*)
- *Rana draytonii* (California Red-legged Frog) and *Anaxyrus boreas* (Western Toad). Interspecific Amplexus. (*Herpetological Review*)
- Distribution and ecology of the northernmost Mexican West Coast Boa Constrictor (*Boa sigma*). (*Herpetological Review*)
- Bifurcation in the tail of the Black-tailed Brush Lizard (*Urosaurus nigricaudus*) in northern Baja California, Mexico. (*Sonoran Herpetologist*)
- Reproduction in *Sceloporus licki* (Reptilia: Phrynosomatidae) in the Cape Region, Baja California Sur. (*Acta Zoologica*)
- Current distribution of the California Vole (*Microtus californicus*) in Baja California, Mexico. (*Western North American Naturalist*)
- *Sonora mosaueri* (Squamata: Colubridae) Distribución. (*Revista Latinoamericana de Herpetología*)
- First record of necrophilia in the Baja California Spiny Lizard *Sceloporus zosteromus* (Phrynosomatidae). (*Revista Latinoamericana de Herpetología*)
- Incidental effects of fishing nets on *Masticophis fuliginosus* (Colubridae) in a marshland area of Baja California. (*Revista Latinoamericana de Herpetología*)
- Race to save rare California frog beats coronavirus lockdown. (*Los Angeles Times*)

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**VISIT OUR WEB PAGE TO DOWNLOAD OUR PUBLICATIONS**

[www.fauodelnoroeste.org/publicaciones/](http://www.fauodelnoroeste.org/publicaciones/)



# Human resources

## Mentoring

**In 2020 we worked with a number of Bachelor's and Master's students from universities across Baja California peninsula to direct their theses and/or be part of their tutorial committees.**

- Alexia Encinas Moreno – Facultad de Ciencias, UABC
- Christian Valdez Ibarra – Facultad de Ciencias, UABC
- Judith T. Pampa Ramírez – Posgrado, Facultad de Ciencias, UABC
- Gloria F. Sayas Miranda – CICESE, Ensenada
- Miranda C. Villa Muñoz – CIBNOR, La Paz, BCS

## Social service

### Students from Communication Sciences , UABC

Yanytzye Yunuen Lizárraga Valenzuela

María Cruz Rodríguez Valles

Reyna de los Ángeles Moroyoqui Luque

Andrea Jiménez Moriel

### Biology students , UABC

Víctor Daniel Navarro Camacho

Ángel G. Meza López

### Independent study

Sally House - Master student at Miami University

# Volunteers

Santiago Valdez

Norma Selene González

Rocío Álamo Herrera

Liliana Ortiz Serrato

Melba Álvarez

Fernanda J. Manríquez

Camilo A. Cruz Arroyave

Roberto Searcy

Patricia M. López Medina

Camila Cruz López

Melina Cruz López

Victoria S. Suárez Tamayo

Diana G. Suárez Tamayo

Ana Karina Hernández Álvarez

Rodrigo Pérez Luján

Hiram Moreno Higareda

Cynthia Cuevas

Meliza Le Alvarado

Alesa Flores

Salvador Figueroa

Samuel Cruz Cortes

Jonathan A. Villareal

Nicodemo González

# Volunteers

## Students and teachers of San Quintin

Rubí Aguilar Zaragoza

Guadalupe Sanchez Quiroz

Miriam Anaid Santana Duarte

Abisaí Mendoza García

Luis Enrique Cruz Cruz

Esmeralda Araceli García Ruiz

Anabel González Martínez

Juan Andres Martínez Lopez

Andrea Anahi Jauregui Ríos

Guadalupe Lizbeth Jimenez Aguayo

Monica Martínez Rodríguez

William Salazar Ruano

Linda Marlen Mendez Santiago

Suri Sarahi Barrientos Castro

Francisco Muñoz Martinez

Zuguey Anahi Borja Ríos

Salma Yessenia Bautista López

Teacher Teresita Alcaraz García

Teacher Abel Geraldo Montoya Arrendo



# Collaborators

- Uri O. García Vázquez
- Norberto González Leal
- Joel Estrada
- Juana A. Ramírez
- David Ceseña Gallegos
- Martha A. Alfaro German
- Daniel Rodríguez Gómez
- Jorge E. Díaz García
- Irma Cruz Morales
- Marco A. Zavala
- Ricardo Espinoza
- Humberto García Velazco
- Francisco Ramírez
- Ámbar Ramírez
- Omar García Lara
- Gilberto Madrigal
- Paula Ricardo
- Julieta Navarro
- Manuel Mancilla




The Wildlife Project, San Diego Natural History Museum, USFWS, USGS, The Nature Conservancy, Comisión Nacional para el Conocimiento y Uso de la Biodiversidad, Pro Esteros, Pronatura Noroeste, Club de Herpetología UABC, Sonoma Mountain Preservation Foundation, Tipai Adolescent Program, Fundación Aportemos, Contacto Salvaje, Cracia comunicaciones, y la Subsecretaria de Desarrollo Sustentable de Baja California.

Rancho Meling, Rancho El Potrero, Rancho Madrigal, Rancho Angélica, Rancho Chavalito Espinoza, Grupo 3Geo, S.C., Soporte Oceanográfico de Ensenada, JoJo Rústicos, Wheatley Ranch and Hollie Bollen.


Special thanks to Nicole Parizeau for editing the English version of this annual report.

*Thank you*

# Donors 2020



Aida Santos  
Alan Harper  
Álvaro San José  
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Frank Santana  
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Henry Hwang  
Ignacio Verdier  
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Richard Spotts  
Saira Sandoval  
Sandra Jiménez  
Sarah Foster  
Sula Vanderplank  
Zoe Butin

## Institutions that financed our projects

Jiji Foundation

International Community Foundation

The Nature Conservancy

Fondo de Acción Solidaria

American Wildlife Conservation Foundation

**“Thank you to all for your crucial contributions to our conservation efforts!”**

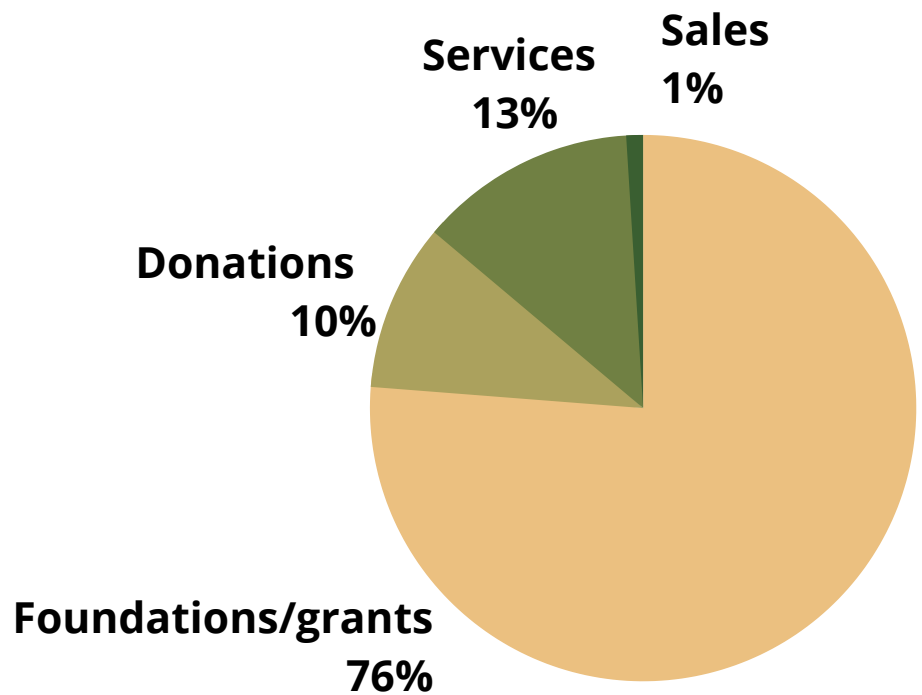
# FINANCIAL REPORT

From January to December 2020

Values in US dollars. Exchange rate of 20 pesos per dollar



<b>Balance 2019</b>	<b>\$ 2,505</b>
<b>Income</b>	<b>\$77,280</b>
<b>Expenses</b>	<b>\$53,210</b>
<b>Balance 2020</b>	<b>\$ 26,575</b>







*"Research for conservation"*



**Get to know us more and discover how you can contribute to the conservation of regional biodiversity.**

**Visit our website and follow us on social networks.**

[www.faunadelnoroeste.com](http://www.faunadelnoroeste.com)



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