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TERRA PENINSULAR'S TRIANNUAL MAGAZINE

Vol.5 • No.18 • March 2020 • Ensenada, Baja California, México

TERRA NEWS

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Sierra de San Pedro Mártir

ARTICLE | CONSERVATION

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TERRA NEWS

A Festival to Celebrate Birds

by Claudia Guzmán and Mirna Borrego

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Mammals of Valle
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CRÓNICA TERRA

Stronger Than Ever

Areas Voluntarily Destined for Conservation

Text and photos by Verónica Diaz / Land Protection Coordinator Peninsula

This article was translated by Anaïs Márquez and Marcel Eduardo Mendez.

Mexico City, February 27 and 28, 2019. A meeting of experts, an ambitious work agenda and a celebration around the Areas Voluntarily Destined for Conservation (ADVC for its initials in Spanish). Created 10 years ago as federal Natural Protected Areas, ADVCs have become one of the most promising and favorite tools of the National Commission of Natural Protected Areas (CONANP in Spanish) for the protection of natural areas.

Currently a strategy is under development to promote and strengthen the ADVCs as a legal tool that allows the conservation of priority areas and species throughout the Mexican territory. And, why not? If within everything, the conservation of private lands has been promoted against all odds for at least the last 10 years, adding almost half a million hectares and involving more than 84,000 people in the actions of conservation of valuable spaces of natural wealth.

The ADVCs have been consolidated as a safe path for the conservation of the most beautiful and important areas, because they are created with conviction of the owners and managers of the land, demonstrating that governance is the base of radical changes in our country.

The ADVC strategy seems to be stronger and more serious than ever, and a commitment was made to protect 1 million hectares (2,471,633 acres) in the following years using this conservation tool.

Read the full article on our blog Terra Stories: <http://www.terrapeninsular.org/blog/>



Celebrating 10 years of the creation ADVCs in National Protected Areas in Mexico.



Clear meetings developed by a meeting of the Chamber of Representatives to discuss the needs and impact of the Natural Protected Areas.



At the lobby of San Juan was presented a certificate in honor on ADVCs in Mexico.



From left to right: César Guzmán, Executive Director of Terra Peninsular, Juan Carlos Caballero, President of the Commission on Environment, Sustainable for 19 years, Governor of Baja California, Rosalinda de la Cruz, Chair of Representatives, and José Luis Martínez, National Commission of Natural Protected Areas.

TERRA NEWS

18 Years of Conservation for Baja California

Text by Bárbara Romero / Development and Communication Leader at Terra Peninsular

The Baja California peninsula is an area of great ecological importance and a biodiversity hotspot that is rapidly disappearing due to the unconscious growth of cities. To counteract this loss of habitat, Terra Peninsular has focused on land protection in Baja California since 2001.



Photo: Mirra Borrero

MAY-JULY 2019 10

Read and download all the issues of Mediterranean here:
www.terrapeninsular.org/mediterranean/en/

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Photo: Laura Tamayo

Editorial

As always, it is a pleasure for us to share this magazine with our readers! Our issue number 18 contains a selection of articles on different topics.

First, in the article **“Contrasting Ecosystems and Enriching Communities”** Vitza Cabrera, talks about the lessons learned during her experience in Cordova, Alaska. This will help to start a project of recreational activities at the nature reserves.

Photo: Laura Tamayo



We also published the results of the 5th San Quintín Bay Bird Festival, the article **“A Festival to Celebrate Birds”** by Claudia Guzmán and Mirna Borrego; this is an event that brings together more people every year to learn about the importance of protecting birds. In the article **“Resilience Project: Sierra de San Pedro Mártir”** we talk about this project that we started in 2019 and through which adaptation measures to climate change will be carried out.

Our guest collaborator Luz Erandi Saldaña, tells us about her project with prickly sharks and chimaeras in Popotla, Baja California, in the article **“Fishing in the Deep Sea”**.

Also, in this edition you can see photographs of the monitoring of seagrass meadows in San Quintín and photos taken by the trap cameras of the Valle Tranquilo Nature Reserve, in El Rosario.

We will continue working to publish in this magazine the latest conservation projects in Baja California, both Terra Peninsular and guest contributors.

Until the next issue!

César Guerrero

Executive Director of Terra Peninsular

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“ According to the United Nations (UN), volunteering is so important that can help fulfil the goals of the 2030 Agenda for Sustainable Development, and it is also a means to promote social participation, commitment and selfless motivation.

” Continue reading on page 29...

Photo: Estefany Maya



Mediterranews is a triannual magazine, edited and published by Terra Peninsular, a Mexican nonprofit organization dedicated to land protection in Baja California since 2001.

The articles represent their author's opinions, and do not necessarily reflect the opinions of Terra Peninsular.

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Printed in certified paper and vegetable-based printing ink at Impresora del Noroeste, Calle Novena No. 718-1, Col. Bustamante, C.P. 22840, Ensenada, Baja California, México. Print run: 200 copies.

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ON THE COVER
 Look of a bird.
 Photo: Yolanda Ávila.



CONTRASTING ECOSYSTEMS and Enriching Communities

By Vitza Cabrera

Photos by James Ianni, Mirna Borrego and Vitza Cabrera

It seemed like a dream to be in Cordova, Alaska. It seemed surreal to have the possibility of walking down the streets of that place and marveling at its mountains and fog. It seemed unreal to think that for six months I would work with the US Forest Service and immerse myself in the daily life of this community.

I had the opportunity to fly over 2,000 miles and settle on this place. This dream became a reality thanks to the Forest Service International Program, and to the close alliance between the Forest Service and Terra Peninsular.

During the Mushroom Festival, going out to collect them is one of the main activities. Photo: Vitza Cabrera. ▼





▲ During the Mushroom Festival, going out to collect them is one of the main activities. Photo: Vitza Cabrera.

The experience and the challenge

I had a great adventure in front of me: to learn the way in which the Forest Service gets involved with its community, the way in which they promote and manage ecotourism, the different recreational opportunities they offer and how they manage to instill in the community the astonishment and appreciation for the place they live in.

The biggest challenge was to find the similarities in the differences. At the beginning of April, I was in an infinitely rich ecosystem, surrounded by lush mountains and endless marshes. Cordova is a fishing village in the south-central area of Alaska that is immersed in the Chugach National Forest - a rainforest - in the mouth of the Copper River Delta, overlooking Prince William Sound. Six months later, I would travel back to Baja California, to San Quintin, to an ecosystem with a unique biodiversity. An area where the desert meets the ocean and there are immense lagoons and dunes surrounded by volcanoes and mud flats. A town in Baja California, located south of the state, overlooking the immense Pacific Ocean.

My mind wandered and did not find those similarities, it took a few months to be able to see where they were, what made us similar, how we could collaborate and create something together. Gradually the fog lifted and so, step by step, the doubts were diluted.

My time in Cordova, Alaska

The first step was to adapt and immerse myself in this new life; as well as to understand and assimilate how everything worked and make it part of my daily life. In this way, for six months I got involved in different management and research activities within two departments of the Forest Service: the Department of Wildlife, headed by Erin Cooper, and the Department of Recreation, Lands, Minerals and Heritage, led by Dave Zastrow.

These two experiences were complementary and allowed me to understand the importance of security protocols, as well as to be aware of the climatic conditions and repercussions of living in a remote area and to learn about the ecology of the region and the different planning and management processes of different projects.

Throughout the months of the program, I understood the value of each stage and the experience of working in two different departments. In addition, getting involved in different activities and living with people allowed me to realize how our communities and ecosystems share much more in common than I could initially notice, and how the conservation and management strategies I was learning could be implemented in our nature reserves in Baja California.



▲ 05:00 am, we get up to go fishing. The fishing season has begun. Photo: Vitza Cabrera.





▲ Tour during the Copper River Delta Shorebird Festival. Photo: Vitza Cabrera.



▲ Field data collection: identifying the age of the Canadian goose eggs (part of the Wildlife program). Photo: James Ianni



▲ The Salmon Jam Festival offers different activities for children and adults. Photo: Vitza Cabrera.



▲ Landscape in Hartney Bay. Photo: Vitza Cabrera.

Participating in environmental education activities, hiking with members of the community, getting involved in different festivals and planning of recreational projects opened my mind, and I could see the importance of creating and offering a range of possibilities that cover the different expectations and needs. This allows us to create unique experiences that invite people to enjoy nature in different ways. Proper management and zoning of the lands facilitate their protection, and at the same time can generate this spectrum of opportunities, enabling all species to live in harmony and keeping conservation of these areas as the main goal.



At the end of this time, the days became shorter, the field days became office days, and my mind began to process all the learning. The time to return was approaching, and finally - with the help of Dave Zastrow - I could glimpse a plan that would allow us to offer that range of possibilities in the nature reserves of Terra Peninsular.



▲ San Quintin Bay from the Southwest volcano. Photo: Mirna Borrego.



▲ An afternoon walk over the Sheridan glacier. Photo: Vitza Cabrera.

Time to fly south

Back in San Quintin, standing at the top of one of the volcanoes, I close my eyes and imagine that the tide is at its lowest level, I am standing in the marshes of the Copper River Delta, looking towards the mountains. I open my eyes and I can see the bay of San Quintin and observe the sand dunes that separate the wetland from the waves of the Pacific Ocean. Today, I see the similarities between these two very different ecosystems. Here I am aware of what unites us and how close we are.

There is still a long way to go, the result of this experience is not yet tangible, but it begins to draw something promising: enjoying our natural spaces in a sustainable way, without altering them, promoting their protection and conservation, and creating unique experiences that allow us to immerse ourselves into the beauty of **Baja California**.

This exchange of experiences left me an infinite number of lessons. One of them is that the world needs this type of alliances to move forward, we need to work as a team, forget the differences, remove prejudices and put our energy into building new ways to collaborate, protect and enjoy our home, **our beautiful planet Earth**.



▲ A view from the top of one of the mountains. Photo: Vitza Cabrera.

♦ **VITZA CABRERA** has a master's degree in International Ecology from ECOSUR and L'Université de Sherbrooke. At Terra Peninsular she works as the Tourist Projects Officer vitza@terrapeninsular.org



A Festival to Celebrate **Birds**

By Claudia Guzmán and Mirna Borrego

On November 8 and 9, 2019, we once again welcomed more than 25,000 traveling birds that annually visit San Quintin Bay on their journey along the Pacific Flyway.

San Quintin's natural features provide shelter and food to thousands of birds, it is a unique place in Baja California with wetlands, sandy beaches, marshes and extinct volcanoes.

On this edition of the festival, we carried out four low environmental impact recreational activities:

- Together with Los Volcanes Tourist Services, it was possible for more than 40 people to enjoy a free **birdwatching boat tour around the bay** where they observed aquatic, migratory and resident bird species. Participants were accompanied by a group of seven volunteer guides who helped to identify birds.
- The **botanical exploration hike** was an activity guided by Sula Vanderplank, PhD. Surrounded by a unique ecosystem, attendees were able to appreciate and learn about the transition between marshes, dunes and volcanic soil.
- At the same time, the **birdwatching tour** brought together a very interesting group, as visitors from Alaska who followed the migration arrived in the bay in search of resident species that they had never seen.
- The last group of attendees embarked on an **introspection session in nature** by Paula Pijoan. Through all five senses, visitors took the time to see the natural elements and disconnect from urban life to enjoy a state of absolute connection.



◀ Look of a bird.
Photo: Yolanda Ávila.



Journey

We inaugurated the collective exhibition “Journey: a look at the natural world of San Quintin” with more than 70 artworks that captured the essence of the bay’s surroundings. For that purpose, this year we called on artists and art enthusiasts; however, our challenge was to find them, because we know that it is inevitable to create art before the inspiration of the majestic landscapes of the bay. We knew there were painters, photographers, hidden artists and works worth admiring.

Casa de la Cultura of San Quintin responded to the invitation, presenting 13 oil paintings of landscapes inspired by deserts, dunes, scrub, wetlands, volcanoes, road landscapes and sunsets that fall over the bay. In addition, and to our surprise, new friends joined, **Espacio de Arte Celeste** surprised us with a sample of more than 35 bird paintings, made by local artists. All of these artworks reached the hearts of the audience.

Photography was present as a powerful tool for conservation, through an exhibition of the **Huellas Volcanicas Photography Club**, a documentary video about their training, and photographs of Mark Lee, a local photographer of San Quintin.

Embroidery and weaving were the protagonists in the exhibition of the project **Birds by Hand**, for which Dotty Widmann, creator of the project, and Laura Slayton traveled from For four hours, attendees were able to learn about the characteristics of the habitat and how to protect it through the different educational modules on the environmental value of the San Quintin Bay, 7 Principles of Leave No Trace and birdwatching. Also, Los Volcanes Tourist Services participated with a module to talk about the hunting services they provide for the sustainable use of the black brant (*Branta bernicla nigricans*). And the module of Contacto Salvaje could not be left out, they surprised us with the release of a red-tailed hawk that had been rescued and rehabilitated.

As the festival program progressed, six teams that were participated with 350 handwoven birds. They worked for days to share with the community a token of love and talent for bird migration; in addition, thanks to the support of **Nu Haus**, pieces made by women from Baja California were included in this project.

Oceanfront party

La Chorera was decorated with white tents; children and young people were dressed like birds and animals to start the great celebration that reminds us that we are part of the Pacific migratory route.

Participating in the birdwatching marathon in the beginners category could be seen on the beach. This year we had local and foreign participants. The winning team observed 26 bird species and broke the record of 19 species from previous years.

The cultural program of the day included dance presentations from the students of Casa de la Cultura led by the teacher Marisela López. Thus, we were also fortunate to have the heart touching performance of singer Raúl Zerega who enlivened the festival with the famous song “Canto a San Quintín”.

During the festival we took a moment to recognize and thank Don Álvaro, a community member, for his support throughout the years. Since the first edition of the festival in 2015, he has provided the venue to host the San Quintin Bird Festival. We also recognized the community committee, which was responsible for giving flavor to the festival with a gastronomic offer.

At sunset, and with the Punta Mazo Nature Reserve as a backdrop, the children from the community sang “I have a dream, I hope it will come true”. With this message we said goodbye to the festival activities.



▼ Sula Vanderplank identifying plants. Photo: Yolanda Ávila.



▲ Photo: Estefany Maya.

A renovating break

We know that making the festival possible requires a great effort, that is why we have decided that it will be held every two years, this will allow us to have more time to guarantee a high quality event.

We continue with the solid commitment to work for the conservation of natural areas and to promote their sustainable use together with our allies and local communities.

See you in 2021! ●



▲ Oceanfront party at La Chorera. Photo: Bryan Gerardo

Photos

Find the photos of this festival on Flickr:

<https://www.flickr.com/photos/terrapeninsular/albums/72157711784487007>

<https://www.flickr.com/photos/terrapeninsular/albums/72157711796608326>

Contact us for more information festivaldelasaves@terrapeninsular.org



A The magic of migration. Photo: Estefany Maya.



A The dream of a new generation. Photo: Estefany Maya.



Photo: Lorena Velázquez.



Photo: Bryan Gerardo.



Photo: Lorena Velázquez.



Photo: Bryan Gerardo.

SEAGRASS MEADOWS

Since 2018, we carry out monitoring of seagrass meadows in San Quintin Bay to estimate its extension, determine their state of conservation, and observe the abundance of marine organisms.

The information obtained from monitoring will be helpful to know if there is a negative effect caused by desalination plants located within the bay. Seagrass meadows are important because they provide home to fish and crustaceans, they also bring shelter and food to thousands of migratory birds during the winter.



Photo: Bryan Gerardo.

"Getting into the wetlands is a hard and tiresome task, nevertheless, it is very rewarding to be able to coexist with wildlife and be captivated by its majestic beauty".

Resilience Project: Sierra de San Pedro Mártir

By Mariana Espinosa Blas and Aurora Torres Valle

The Sierra de San Pedro Mártir is located between 600 and 3098 meters above sea level in the central part of the Baja California state. It is characterized by different ascending scenarios, featuring coastal sage scrub, chaparral, grasslands, wetlands and mixed forests. It is noticeably the majesty of its relief, smooth to the west and very rugged to the east. The incredible mountains, valleys and canyons are a clear evidence of the geological processes that took place millions of years ago.

In addition to these multiple scenarios, the sierra is located in the southernmost portion of the California Floristic Province, an ideal place where great diversity of plants and animals coexist. Thus, it is recognized as a biological corridor, and a well-preserved place that harbors high biodiversity and endemism. This is a key site for species such as the California condor, puma, bura deer, San Pedro Martir squirrel, golden eagle, red-legged frog, among others.



▲ Aurora Torres, participated in the construction of dams for soil conservation. Photo: Bryan Gerardo



▲ The brigade working on the protection of forest soil. Photo: Sierra de San Pedro Mártir National Park.



▲ The brigade working on the arrangement of dead plant material. Photo: Sierra de San Pedro Mártir National Park.



▲ Rehabilitation of firewall gap. Photo: Sierra de San Pedro Mártir National Park.



▲ The brigade at the construction area of dams. Photo: Felipe León.

Another important aspect is its hydrology. During the rainy or snow seasons, the main creeks of the higher parts of the mountain range feed the water basins and underground aquifers of the southern zone of Baja California.

Also, the site is highly recognized for its scenic beauty and very dark and mostly clear night skies that allow astronomical observation.

This area is part of the priority water and land regions for conservation, and is the 104th place on the list of Areas of Importance for Bird Conservation, promoted by the National Commission for the Knowledge and Use of Biodiversity (CONABIO) in Mexico.

In 1947 a part of the most forested and high areas of the Sierra de San Pedro Mártir was declared a National Park, a category of Protected Natural Area (ANP) in Mexico.

In addition to these recognitions for the protection and preservation of the ecosystems of the Sierra de San Pedro Mártir National Park, it is vital to promote and implement efforts that contribute to this purpose, mainly those that support **adaptability to climate change**.

That is why the project “Strengthening the effectiveness of the management and resilience of protected natural areas to protect biodiversity threatened by climate change”, better known as the **Resilience Project**, is being carried out in Mexico **to reduce the adverse and indirect impacts of climate change on biodiversity and human communities**, by strengthening the management effectiveness of the space configuration of Natural Protected Areas in Mexico.

The Resilience Project is being developed nationwide in 17 Protected Natural Areas, including the Sierra de San Pedro Mártir National Park.

This project is implemented by the National Commission for Natural Protected Areas (Conanp), implemented by the United Nations Development Program (UNDP) in Mexico and financed by the Global Environment Facility (GEF).

Under this scheme, Terra Peninsular signed a collaboration agreement to be executed between 2019 and 2020, which includes different activities:

- Work is planned to conserve and protect soils with dead branches and trunks to reduce water erosion.
- Support measures in indirect actions against forest fires, such as the mechanical treatment of accumulated forest fuel.
- Rehabilitation of firebreaks, which function as a barrier to forest fires and help reduce their spread.
- Ecosystem restoration in order to contribute to the long-term capture of carbon dioxide in forest biomass.

▼ Brigades and park rangers rehabilitating firewall gaps. Photo: Sierra de San Pedro Mártir National Park.



▲ Construction of dams. Photo: Bryan Gerardo

Parallel to this, training on forest nursery management, germplasm collection and fuel management had been provided to staff and brigade members of the Sierra de San Pedro Mártir National Park. There have also been several actions of climate change adaptation that involve the participation of communities and ejidatarios of the national park's surrounding areas.

Finally, it is important to mention that the actions of this project are transversal in the different axes that the Resilience Project promotes in the protected areas of the country, as part of the ecosystem-based adaptation and the reduction of vulnerability to the effects of climate change of the region, its biodiversity and communities ●

▼ Mechanical treatment of accumulated fuel. Photo: Bryan Gerardo



“ is being carried out in Mexico to reduce the adverse and indirect impacts of climate change on biodiversity and human communities, by strengthening the management effectiveness of the space configuration of Natural Protected Areas in Mexico. ”



What We Learned From

“Voices of the Pacific Flyway”

By Omar Camargo Canales, Armando Soto, Adrián Padilla and Olivo Pedro Solano / Biology students from UABC

“Voices of the Pacific Flyway” is a short film produced by the Commission for Environmental Cooperation (CEC) in collaboration with the Cornell Lab of Ornithology, that features voices from three communities along the Pacific Flyway linked by a shared esteem for shorebirds.



Many birds are characterized by presenting migratory attitudes, and shorebirds are no exception. These birds play a very important cultural and ecological role in the northern region of the continent. Due to their migratory ability and their dependence on a network of coastal habitats, they are able to connect communities and countries throughout their long journey.

Birds are really vital for humans, and as an example, you can talk about the residents of Hooper Bay in Alaska, where birds play a cultural role for these people, since birds' eggs are part of their diet and have become a way of life for them. Surprisingly, this tradition has been preserved for many generations.

The bird migration from coast to coast has become a strong cultural event for many communities, such as La Chorera in Baja California, that holds a festival at the end of autumn to celebrate the arrival of birds that come to spend the winter in the northern part of Mexico.

La Chorera is a community located in the Pacific migratory corridor where shorebirds that nest in the Arctic and Subarctic come to winter, and mainly, to find food on the coasts in response to the decrease of food availability at those times of the year in the northern part of the American continent.

For shorebirds there are no borders and their home is not only La Chorera, Grays Harbor or Hooper Bay, they need the entire corridor. Therefore, it is important to conduct studies to know where these birds are migrating, as well as the factors and threats they face along their journey, and thus obtain information to help in the conservation of migratory bird populations ●

Watch the short film here <http://bit.ly/voices-pacific-flyway>



28.92 inHg - 14C 08/11/2019 08:19AM UDLAP02

▼ Coyote ▲ Bobcat



28.80 inHg - 21C 08/16/2019 06:07PM UDLAP01

▲ Deer



12 DEC 2019 02:10 pm



28.84 inHg - 32C 08/31/2019 12:13PM UDLAP02

▲ Fox

MAMMALS OF VALLE TRANQUILO NATURE RESERVE

Photos: Terra Peninsular A.C.

In 2019 we performed monitoring of mammals in the Valle Tranquilo Nature Reserve, located in El Rosario, in southern Ensenada.

We have documented the variety of mammals that live in the reserve through the use of camera traps. Some of the species we have seen are pumas, bobcats, coyote and deers, among others.

The reserve has an extension of over 9,000 acres, in 2013 it was certified as an Area Voluntarily Destined for Conservacion by the National Commission of Natural Protected Areas in Mexico.



29.17 inHg - 11C 04/05/2019 11:20PM UDLAP01

▲ Puma



28.79 inHg - 15C 09/04/2019 01:44AM UDLAP02

▲ Deer



MOULTRIECAM 01 DEC 2019 09:16 pm

▲ Coyotes





Fishing in the Deep Sea

A description of prickly sharks and chimaeras fishing in Popotla, Baja California

By Luz Erandi Saldaña Ruiz

P is a fishing field located in Rosarito, Baja California, where small boats arrive at the beach with fish and shellfish, but occasionally they arrive with surprises from the depths of the sea: **sharks, rays and chimaeras.**

You may be wondering what chimaeras are. **Chimaeras are closely related to sharks and rays.** In Mexico there is a great diversity of fish, and one of the most interesting groups is the chondrichthyans or cartilaginous fishes, whose main characteristic is that they have cartilage skeletons, a similar material to that of our nose and ears. Within this group we find sharks, rays and chimaeras.

It is likely that you have not heard about chimaeras, since they usually live at depths from 300 to 1,000 feet, and it is a challenge to observe and study them in their natural habitat. Therefore, chimaeras have little diffusion and media coverage compared to other shark species. In these depths we also find the **prickly shark (*Echinorhinus cookei*)**, another species little known and studied.

In Mexico, cartilaginous fishing is a very important economic activity, source of food, income and jobs. **The Mexican Pacific Northwest is the main fishing region for this type of fish** nationwide, since more than half (62%) of the national fisheries come from this region. Despite the importance of this activity, there is a lack of basic data such as captured species, biological information and how many individuals are caught. Due to this, it is not possible to assess the health status of most species, including deep-sea species that are occasionally caught, such as chimaeras and prickly sharks.

As a biologist I work on many projects related to cartilaginous fishes in the areas of biology, ecology, fisheries, historical reconstruction of catches and conservation. However, I have focused on studying deep-sea cartilaginous fishes and their interaction with fisheries mainly because we know very little about these species, such as the **prickly shark** and chimaeras, including the impact of fishing. In addition to that, there is a lack of knowledge about these species by the general public.



▲ Popotla fishing field. Photo: Luz Erandi Saldaña Ruiz.



▲ Fresh fish and seafood market in Popotla.
Photo: Luz Erandi Saldaña Ruiz.



▲ Popotla fishing field. Photo: Luz Erandi Saldaña Ruiz.



▶ School shark (*Galeorhinus galeus*)
captured in Popotla. Photo: Luz Erandi
Saldaña Ruiz.



At the end of 2018, I developed a research project to study deep-sea fish. **The objective of the project is to describe cartilaginous fishing in Popotla**, with emphasis on prickly sharks (*Echinorhinus cookei*) and chimaeras, to gather information and establish a baseline of the interaction of these two species with fisheries for future management and conservation actions.

It was thanks to the **Save our Seas Foundation** that my project was funded, and as of March 2019 the project started, and therefore, one of the most exciting stages in my life as a biologist, researcher and as a person.

The Save Our Seas Foundation aims to protect life in the oceans, they focus on cartilaginous fishes. This foundation supports research, conservation and education projects around the world, and my project was one of those selected for the March 2019-March 2020 cycle.

In this project we have the scientific advice of **Oscar Sosa Nishizaki, Ph.D.** from the Laboratory of Fisheries Ecology of the Center for Scientific Research and Higher Education of Ensenada (CICESE), who allows his students to support sampling and gives us access to laboratory facilities for sample analysis.



▲ Registry of measures of a chimaera in Popotla.
Photo: Emiliano García Rodríguez.

Why Popotla?

In previous years, **prickly shark** and chimaeras have been registered in Popotla, even on some occasions, the CICESE Fisheries Ecology Laboratory collected specimens of this type of fish. In addition, the proximity of Popotla to the city where I live, Ensenada, allows us to easily sample. Finally, Popotla provided an excellent opportunity to obtain information on cartilaginous fishes, as well as other caught species.

How is the project carried out?

To achieve the objective of this project, a group of volunteers and I are visiting Popotla and **recording the catches in search of cartilaginous fishes**, with emphasis on the prickly shark and chimaeras.

Armed with our measuring tape, scale and record sheets, we obtain information related to the biology of the species, size, weight and identify whether it is female or male. We also collect information on what species are being captured, how many individuals are caught, where and how they are caught.

The good relationship and communication with fishers has been very useful to achieve data collection. When we explain and involve them in the project they are very friendly and helpful.

The project is still in process, we are conducting the last field sampling. And during these sampling we have learned a lot about the fishing dynamics of Popotla and its relationship with the catch of cartilaginous species. We are about to start with the final stage of the project in which we will carry out the analysis of all the information collected. I am already eager to tell you the full story of this project soon.

Learn more about this project at

<https://saveourseas.com/project/catch-up-mexicos-shark-fisheries/>

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Pacific electric ray
(*Tetronarce californica*)
captured in Popotla.
Photo: Luz Erandi
Saldaña Ruiz. ▼



◀
Chimaera, *Hydrolagus collicii* species .
Photo: Luz Erandi Saldaña Ruiz.

Specimen of prickly shark ▶
(*Echinorhinus cookei*).
Photo: Luz Erandi Saldaña Ruiz.



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> Best of 2019

The San Quintin Bay Bird Festival was a success!

Over 300 people enjoyed two days of activities to celebrate bird migration in San Quintin.



Photo: Bryan Gerardo.

Training in Alaska

One of the staff members, Vitzta Cabrera, took part in an exchange of experiences in Cordova, Alaska. This training will help to plan and develop recreational activities in San Quintin. This experience was possible thanks to a collaboration with the US Forest Service.



Photo: US Forest Service.

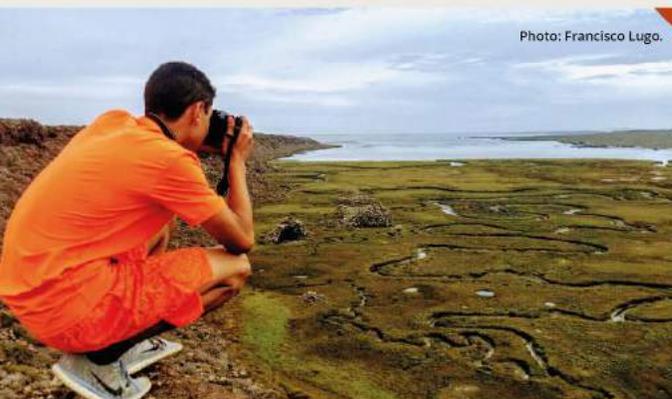


Photo: Francisco Lugo.

Snowy plover monitoring and protection in Ensenada

Between April and August of 2019, we protected over 45 nests of snowy plover through seasonal protection fences, awareness activities and monitoring.

This is a project that began in 2018 with the campaign "The beach belongs to everyone" and it has been funded by the Coastal Solutions program of the Cornell Lab of Ornithology.



Photo: Jonathan Vargas.



Photo: Antonieta Valenzuela.

Project in Sierra San Pedro Martir

As part of the Resilience Project, we are carrying out climate change adaptation measures in the Sierra de San Pedro Martir National Park. This project is funded by the United Nations Development Program in Mexico and the Fund for the World Environment.

First exhibition of Photography Club

The Huellas Volcanicas Photography Club presented 15 photos that show landscapes and the natural richness of San Quintin; this exhibition was held in California, USA.

These young photographers have received training and have learned to use photography as a tool to promote and value the natural and cultural heritage of San Quintin.



Photo: Bárbara Ramírez.

Learning from a Bird Festival in Alaska

César Guerrero and Bárbara Ramírez traveled to Alaska to attend the Copper River Delta Shorebird Festival in Cordova. These exchanges of experiences have helped to learn about festivals held in other parts of the world and, as a result enrich the Bird Festival we offer in San Quintin.

Mammals in the Valle Tranquilo Nature Reserve



Photo: Terra Peninsular

We use camera traps to document wildlife in the Valle Tranquilo Nature Reserve, and so far we have captured images of different mammals such as coyotes, pumas, bobcats, deers and foxes, among others.



Photo: Bryan Gerardo

Seagrass monitoring

We carry out monitoring of seagrass beds in the San Quintin lagoon complex to identify the negative effects caused by the discharge of desalination plants. Ricardo Domínguez wrote an article about the importance of marine conservation that we published on the issue number 17 of the *Mediterranews* magazine.

Petroglyphs were found near the Valle Tranquilo Nature Reserve



Photo: INAH.

A total of 16 petroglyphs were identified in El Rosario, in the area of influence of the Valle Tranquilo Nature Reserve, as part of a collaboration with the National Institute of Anthropology and History (INAH) in Mexico.



Photo: Bryan Gerardo.

We won an underwater drone!

Last year we won an underwater drone. We have used it to capture underwater images of San Quintin Bay, we will share the photos soon!



Photo: archivo Terra Peninsular A.C.

Beach clean up in Ensenada and San Quintin

As every year, in September we participated in the International Coastal Cleanup convened by Ocean Conservancy. We had the support of more than 400 volunteers who helped collect as much trash as possible from the beaches.

- In San Quintin we collected 761 pounds of trash.
- In Ensenada we collected 759 pounds of trash.



Photo: Bryan Gerardo.



Photo: Héctor Sánchez.

Arthropod monitoring in the Punta Mazo Nature Reserve

This year, monitoring was carried out in the dunes of El Socorro and the Punta Mazo Nature Reserve as part of the project "Entomological study of the coastal dunes of the Baja California peninsula as a baseline for ecosystem management", which is coordinated by Natalia A. Rodríguez Revelo, PhD, and Michael Wall, PhD, of the San Diego Natural History Museum.

Students of UDLAP and UABC did an internship at Terra Peninsular

Biology students of UDLAP and UABC made an internship at Terra Peninsular during the summer, and helped in different monitoring activities at the nature reserves.

Read about the experience of one of the students, Carolina Rivera, on an article published in the issue number 17 of the *Mediterranews* magazine.



▲ Photo: Estefany Maya.

OUR VOLUNTEERS

By Claudia Guzmán and Mirna Borrego

According to the United Nations (UN), volunteering is so important that it can help fulfil the goals of the 2030 Agenda for Sustainable Development, and it is also a means to promote social participation, commitment and selfless motivation.



▲ Photo: Estefany Maya.



▲ Photo: Estefany Maya.



▲ Photo: Carolina Rivera.

With that in mind, for the first time in 2019 we launched an open call to seek volunteers and offer the opportunity of living the experience at the fifth edition of the San Quintin Bay Bird Festival.

As a result, volunteers from Puebla, Veracruz, Tijuana, San Diego and Ensenada participated at the festival: seven of them were selected as bird guides, and two of them as photographers.

We would like to thank Mariana, José, Daniel, Juan, Álvaro, Elia, Tavio, Carolina and Estefany for contributing with their time and talent, and for making a positive difference! ●

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