Mediterranews

CONSERVING THE NATURAL BEAUTY OF BAJA CALIFORNIA

No.11 • Ensenada, Baja California • April 2018

SECOND ANNIVERSARY

The San Quintín *Kangaroo Rat:* *Rediscovery and Conservation*

Contents

Terra Peninsular


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Message from the Executive Director

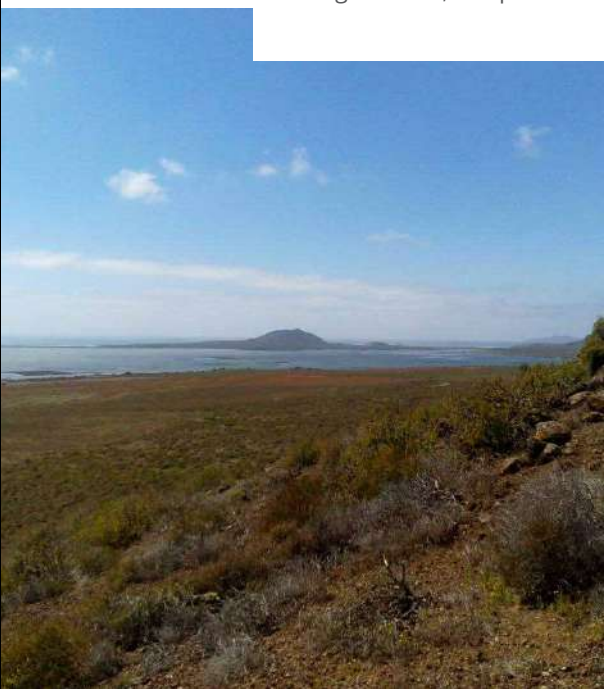
Our 11th issue of Mediterranews represents one more achievement in the trajectory of Terra Peninsular, because with this publication we celebrate the second anniversary of this newsletter that we launched on April 20, 2016, the date on which we also celebrated the 15th anniversary of the organization.

Since then, every two months we have shared with our readers information about our projects and activities, achievements, articles of flora and fauna of Baja California. In addition, with this edition we also commemorate 17 years dedicated to the conservation and protection of the peninsula of Baja California.

In the last year we have made great achievements, such as the certification of the Monte Ceniza Nature Reserve in San Quintín, a natural area that you can visit and enjoy and that this year celebrates its first anniversary. In addition, within these achievements I would like to highlight the rediscovery of the kangaroo rat, a species that was thought to be extinct and that we now know is found in the nature reserves of Valle Tranquilo and Monte Ceniza.

I would like to invite you to be part of our conservation efforts by joining the San Quintín kangaroo rat fundraising campaign, with your contribution we will continue working so that this species has a safe habitat in the reserves, this way you can too be part of this conservation project that is so important. ■

César Guerrero
Executive Director of Terra Peninsular



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Terra Peninsular

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Mediterranews

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First Anniversary *of the Monte Ceniza* Nature Reserve

By *Veronica Meza / Land Protection Coordinator at Terra Peninsular*

Photo: Antonieta Valenzuela.

One year has passed fast and the Monte Ceniza Nature Reserve celebrated its first anniversary as a certified area by the National Commission of Natural Protected Areas in Mexico.

On **April 18, 2017**, the National Commissioner for Natural Protected Areas, Alejandro del Mazo Maza, handed the certificate in a special ceremony. This certificate recognizes the reserve as a natural protected area in the category of Area Voluntarily Destined to Conservation, the 407th in Mexico.

Photo: Dilia Meza.

We have a beautiful framed certificate that adorns the wall of the meeting room that we see in each planning and work meeting, in each celebration of goals achieved, but... what does it mean?

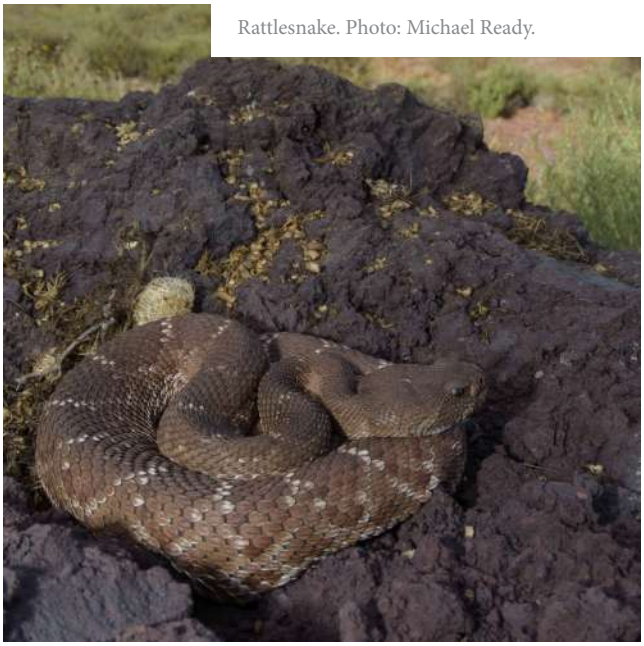
Well, that certificate means that a family of coyotes seen by Claudia near the coast will have opportunities to survive, that a rattlesnake that made Mercedes tremble with excitement during the ascent to the volcanic cone will also survive, that we have the perfect landscape for the photographs taken by Dilia and Jorge, that there is a habitat for the golden eagle that I saw rising from the west side of the volcano and that appears in so many stories of biologists and non biologists, that the migratory birds that Jonathan watches every season will have a place to rest, that we have and there will be a bench on the volcanic cone to sit down to rest and a path that inspired Bertha. It also means that the habitat where Scott and Sula rediscovered wild species will remain, that the reserve will continue being Enrique's favorite place for the first coffee of the day, and that experiences such as the garbage bag that Stephany and Karen carried for hours during the beach clean up we had a few months ago will continue and every time with more people.

The certificate is not an inert document, that's what I want to make clear. It represents hours and hours of work in the field and in office every day, the efforts of many people from different areas and meticulously shaped strategies; all of this is required to keep this area ecologically functioning.

The certificate states that we have 98 more years of Monte Ceniza as a certified area, surely nobody who read this will live to see the way in which the commitment concludes or extends, but we are comforted to know that we are contributing to a permanent project together with a large number of people. This project will keep San Quintín Bay protected so that families who depend on these natural resources can continue to have them in the future.

If you like nature and you are respectful, you are welcome to the Monte Ceniza Nature Reserve: one of the 11 cones of the San Quintín Volcanic Field and one of the last well-preserved important wetlands in Baja California are waiting for you. The bay is a Ramsar site and offers a migration show every year with the arrival of the black brant, oyster farmers are waiting for you on the coast with oysters grown in the bay, a neighboring community that is friendly and proud of their work and their lifestyle, a spectacular sunset and a story to be told awaits you.

Cedros Island Horned Lizard (*Phrynosoma cerroense*). Photo: Verónica Meza.



Rattlesnake. Photo: Michael Ready.

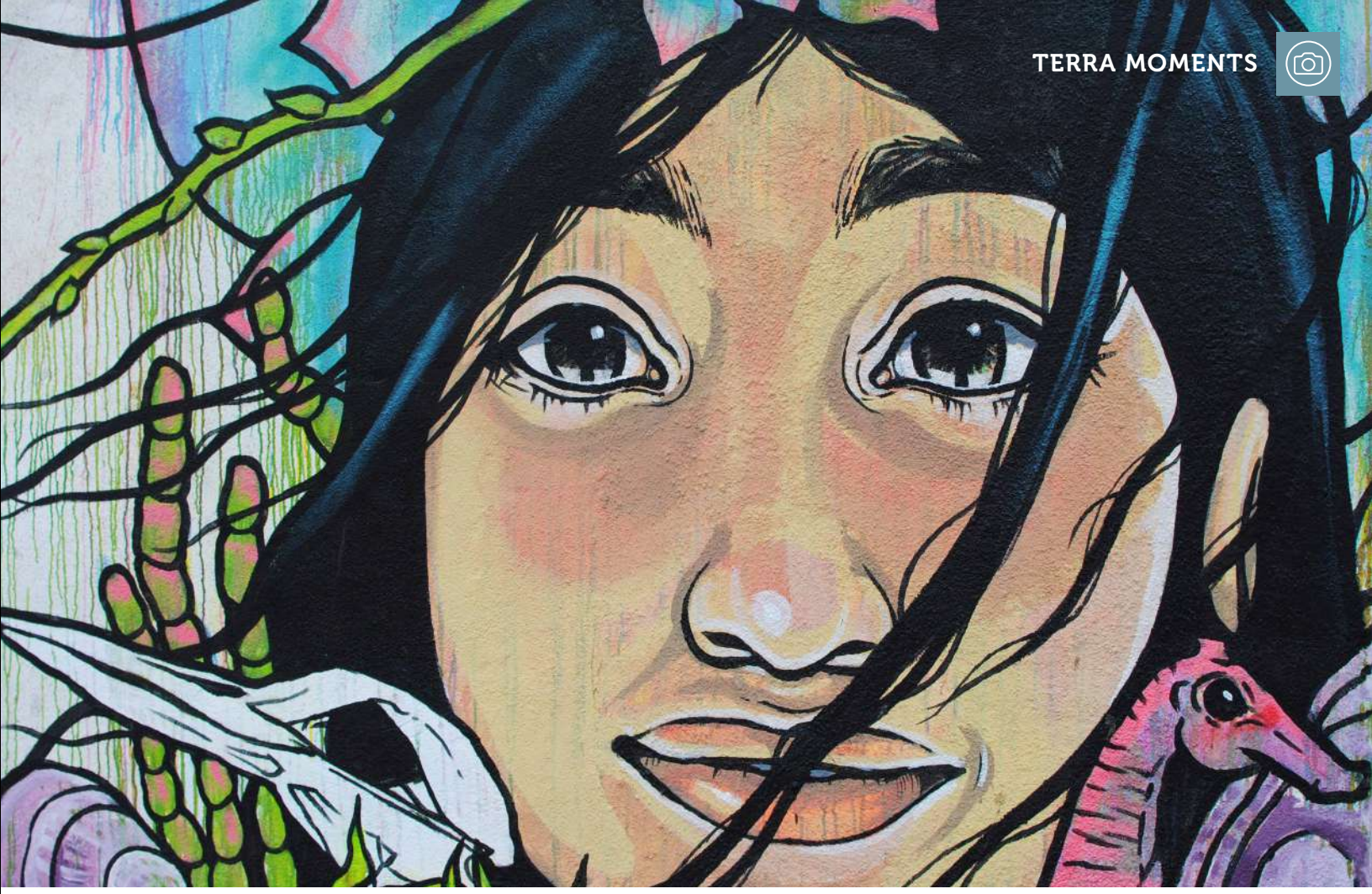
The National Commissioner for Natural Protected Areas, Alejandro del Mazo Maza, handed the certificate to the Executive Director of Terra Peninsular, César Guerrero. Photo: Antonieta Valenzuela

In September 2017, a clean-up was carried out in the reserve to commemorate the Coastal Cleanup Day. Photo: Jonathan Vargas.

Monte Ceniza and each of the nature reserves that exist in Mexico are considered as "productive areas dedicated to a function of public interest and are committed to giving rise to actions for the preservation of ecosystems and their biodiversity, as well as environmental education", this is established by the General Law of Ecological Equilibrium and Environmental Protection and the Internal Regulation of the Secretariat of Environment and Natural Resources, which are the legal basis for the certification of the area.

Remember that it is important to know, respect and get involved in some way in the conservation of the protected natural areas of Mexico. Find out what Terra Peninsular, other related organizations and owners of properties dedicated to conservation are doing to protect natural areas throughout the country. You will be surprised to find out the great effort that this represents and the satisfaction of being part of this project. ■

Photo: Bryan Gerardo.



The New Resident of La Chorera:

Marina

By *Claudia Guzmán / Community Engagement Coordinator at Terra Peninsular*
Photos by *Antonieta Valenzuela*

When I see Marina, I imagine that she speaks to me because that is what art does: speak to us and give us a unique message. I hear her say that she came to stay, with her amazing colors and surrounded by natural elements from the region she also says that we need to be good neighbors to the Punta Mazo Nature Reserve and to all the magnificent nature that surrounds us in San Quintin Bay. What does Marina say to you?

Marina, the mural, is a collaboration between Terra Peninsular, Colectivo Cardumen and Comunidad y Arte Público (Community and Public Art). In March, Esther Gámez, visual artist and member of this group, did her magic and created Marina. In her own words, she explains to us her creative process: "Marina is surrounded of elements that you can find in nature reserves: lichen, endemic succulents, salicornia, sages, birds, snails and plovers. For me it was a huge revelation to discover the richness of the nature reserve that is so close to where I live, all of these elements make me feel a little bit like I am on another planet."

Our intention with this collaboration is to perform a mural festival in San Quintín and Marina had the honor of being the ambassador. Wait for further news in our website and social media.

A special thanks to Christine and Lupita who helped the artist with the mural process as part of their internship in Terra Peninsular through the Environment for the Americas program, and our highest appreciation to the people of the community who helped with all the facilities necessary for creating the mural. ■

Archaeological discovery view. Photo: Enah Fonseca / INAH.

The Ancient Inhabitants of El Rosario, *Baja California*

By *Physic Archaeologist Israel David Lara, Archaeologist Enah Montserrat Fonseca, and Archaeologist Fiorella Fenoglio*

On August 2015, the discovery of a group of bones inside a hollow caused by soil erosion was reported in a zone near the community of El Rosario, Baja California.

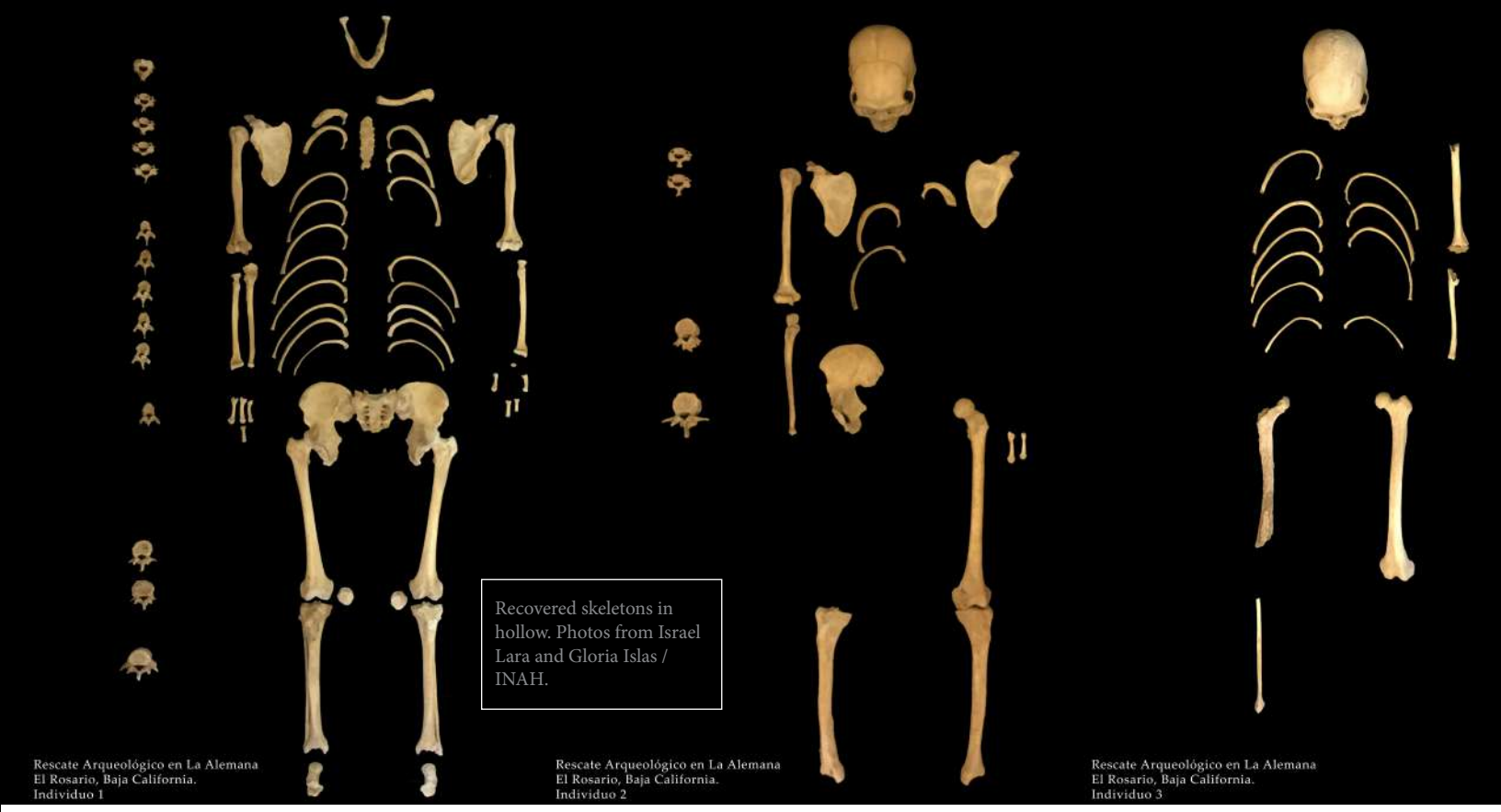
Specialists from the National Institute of Anthropology and History (INAH) Center in Baja California collected human and animal bones, as well as botanical rests that were probably part of the grave goods. Thanks to the collaboration with the INAH Center in Queretaro, nowadays we can tell their story.

The bones belonged to three individuals that lived in the region one thousand years ago. They were between 35 and 45 years old when they died, so they were probably considered old because those human groups lived less than we do now. There are two male individuals and one female. The first individual, we will call him Ibó, was 5'6" in height, which made him the tallest and sturdiest of the three; the other individual, Jerónimo, was 5'1" in height; and the woman, we will call her Rosario, she was the smallest, with 4'9" in height. According to the metric analysis conducted, the three individuals belonged to the indigenous groups that inhabited the peninsula before the Europeans arrival.

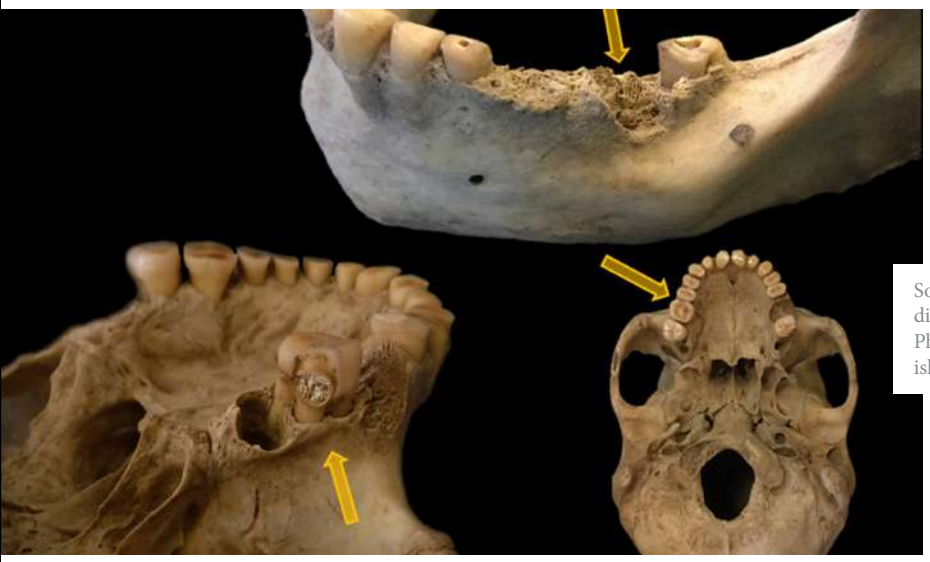
HEALTH STATUS

Although their health status can be evaluated as good, they had some nutritional deficiencies as a result of their diet habits or some infectious processes. The historic sources mention that these human groups were hunters, fishers and gatherers, nomads and seminomads, that benefited from the natural resources in the area to survive throughout the year, changing from place of establishment in search of food.

They fed on clams, snails, fish, occasionally from oysters, and sometimes they benefited from some marine mammals that were stranded on the beach. Their diet was seasonal, in the coldest seasons of the year, they went down the shore to exploit the marine resources; and in the warmest seasons, they moved to higher grounds and fed from pine nuts, acorns, rabbits and other hunting animals. Feeding on hard food was common; therefore, the use of stone tools was required for their



Recovered skeletons in hollow. Photos from Israel Lara and Gloria Islas / INAH.



Some of the pathologic diseases and teeth abrasion. Photo: Israel Lara and Gloria islas / INAH.

preparation, which released some particles that caused the severe abrasion observed on their teeth.

> *"The bones belonged to three individuals that lived in the region one thousand years ago."*

Some pathologic alterations from Ibó (individual number 1) in superior limbs and cervical vertebrae. Photo: Israel Lara / INAH.

Ibó suffered of a sickness very similar to rheumatoid arthritis that made his joints and tendons ossify. His condition undoubtedly deteriorated his quality of life. Because of the environment hostility, the individuals had accidents that caused them some bone fractures. Depressed fractures and marks were observed in the skulls caused by blows of different intensity that may correspond to a ritual described in some historic sources. During this ritual, they would hit their skulls with rocks indicating duel intentions; these impacts were so powerful that blood would be seen dripping down their ears.

Although this practice was related directly to Baja California Sur groups, the presence of these marks in the skulls, also indicates the possibility that these rituals were conducted in this region.

Jéronimo (individual number 2) and Rosario (individual number 3) skulls.

Jerónimo's skull traumatism (individual number 2). Photo: Israel Lara / INAH.

Some pathologic alterations from Ibó (individual number 1) in superior limbs and cervical vertebrae. Photo: Israel Lara / INAH.

DAILY LIFE

Ibó was a man that started his daily activities at a very young age: he performed an extreme physical effort to carry heavy loads on the back and walked long distances –maybe using regularly baskets for the transportation of diverse objects or products, derived from fishing and gathering activities. This makes us think that this individual was a very active component within the group.

There were some alterations founded in the auditory canals of Jerónimo and Rosario, signs of possible aquatic activities, related maybe to diving in the sea floor for food collection. Although, it was probably not a frequent activity practiced by these individuals.

ABOUT THE DISPOSAL OF THE DEAD

By the findings features, there is a possibility that this space was intended for the disposal of the dead, which was reused over time depending of factors such as: the necessity of a space for the disposal of the dead, the importance of deceased, the social role they played, or the existence of a family lineage.

Regardless of the case and based on the state of conservation of the skeletal remains, and on the quantity of the bone elements in each skeleton, we can believe that this wasn't a simultaneous disposal, which would indicate an ancestors worship, because they preserved the skeletal remains of past burials maybe to involve them in the ritual or because they considered them active members of the community. ■

Femur and scapula muscular insert, and Schmorll limp in lumbar vertebra. Photo: Israel lara / INAH.

Mural of a sanderling (*Calidris alba*). Photo: Bryan Gerardo

Bird Murals in Ensenada

By *Antonieta Valenzuela/ Communications Coordinator at Terra Peninsular*

Two murals named "Vuelo" were inaugurated in the **second Bahía de Todos Santos Bird Festival** on March 10, 2018. They were painted by the visual artist Esther Gámez along with other artists that participated in the practical mural workshop. These murals can be found in Playa Hermosa on permanent exhibition and they are an effort to enhance the beauty of public spaces and raise awareness about the importance of migratory birds. ■

Photo: Bryan Gerardo

The mural represents a red knot (*Calidris canutus roselaari*). Photo: Antonieta Valenzuela

17th Anniversary of Terra Peninsular

By *Laura Tamayo, Bárbara Ramírez and Antonieta Valenzuela*

Terra Peninsular is a Mexican organization founded on April 20, 2001.

OUR ACHIEVEMENTS

Land Protection

4 nature reserves in Baja California certified as **Areas Voluntarily Destined for Conservation** by Conanp (14391 acres)

2 bird reserves of the **Western Hemisphere Shorebird Reserve Network** in San Quintín and Bahía de Todos Santos (98950 acres)

Adaptive Management

More than 10 research projects of lichens, birds, bats, reptiles, geodiversity and archaeological sites in the last **2 years** in the nature reserves managed by Terra Peninsular

Rehabilitation of the field station **El Refugio** in the Punta Mazo Nature Reserve

6 signs installed in the **Bahía de Todos Santos**, in Ensenada

89 signs installed in the Bahía de Todos Santos bird reserve, in Ensenada

Community Engagement

5 Bird Festivals since 2015 in San Quintín and Ensenada

8 exchange of experiences with national and international institutions

We participated in the first First Environmental Protection Conference in Baja California

More than **1800** bottles of the Branta Negra Beer sold, a cause-marketing product of Terra Peninsular

4 interpretive stations in San Quintín: La Ola, Mirador Valle Volcanico, Monte Ceniza and Chapala

Protection of **5** coastal areas certified as **concessions** (79 acres)

1 Wetland of International Importance in San Quintín designated by the **Ramsar Convention** (13437 acres)

Protection of **13** coastal areas certified as **destination agreements** (3919 acres)

We performed the **first cleaning with Waterkeeper Alliance** in the Monte Ceniza Nature Reserve, we collected **1.7 tons** of garbage in 18 miles

Researchers and students from more than **15 academic institutions** have visited the nature reserves

8 consecutive **years** of **migratory birds monitoring** in Baja California

44 tons of garbage collected in the **Temporary Employment Programs** (PET) on Semarnat

2 park rangers in the nature reserves of San Quintín

2 Temporary Employment Programs (PET) of Semarnat in San Quintín and 130 residents that have benefited from these programs

We are members of the Baja California Wetlands Committee

76 awareness events

2 participatory environmental monitoring committees: La Chorera and Chapala

More than **100 volunteers** have helped in the different programs of Terra Peninsular

11 published issues of the **Mediterranews** newsletter

SOME ACTIVE PROJECTS

Rocky intertidal in San Quintín Bay

Administration of the platform Festiavesplayeras http://shorebirdsfestivals.com/

Removal of exotic plants in San Quintín

Monitoring of mammals in the nature reserves of San Quintín

This Terra Story was published on Terra Peninsular's blog.
You can read the online version in **www.terrapeninsular.org**
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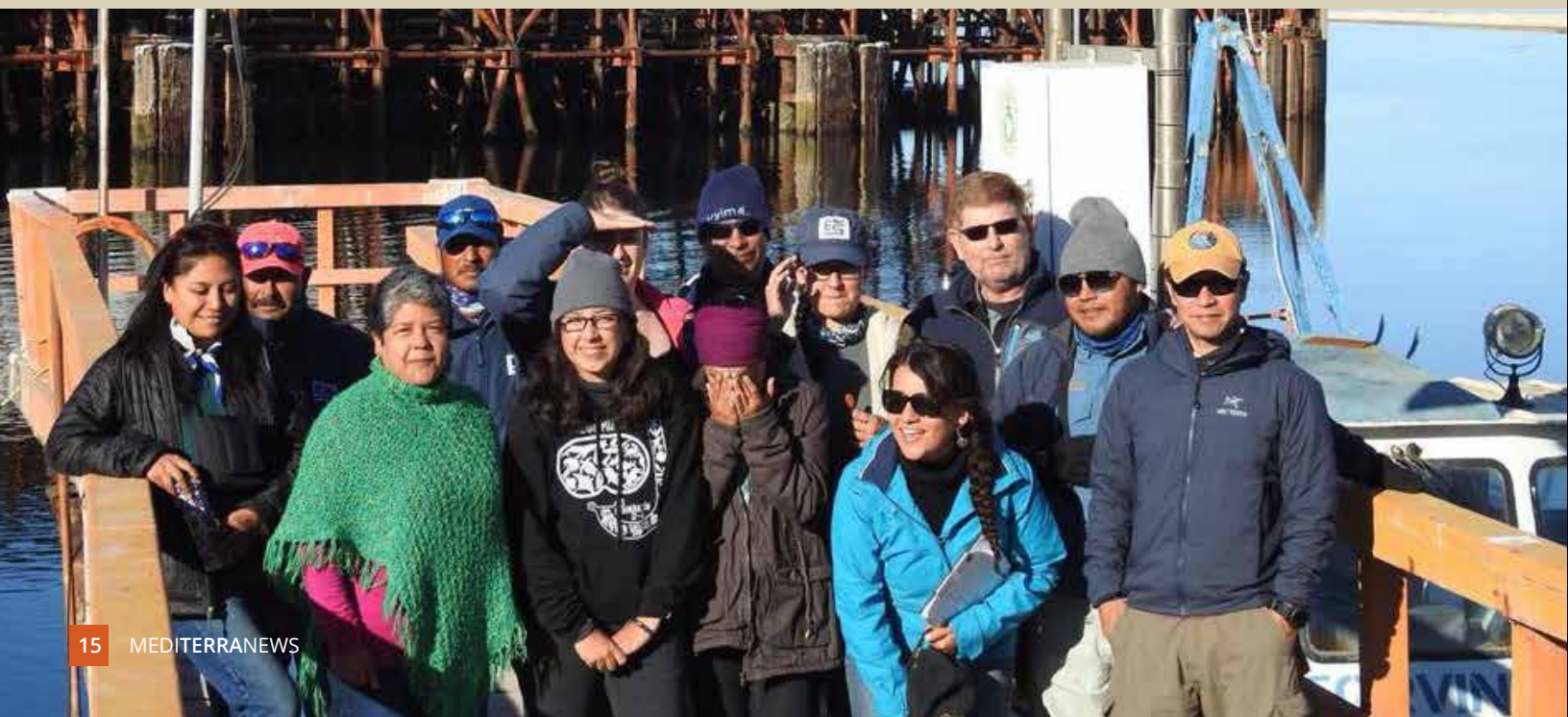
My experience conducting bird surveys

By Lupita Solano / Environment for the Americas
Photos by Lupita Solano

Before this internship my experience with birds included curation (taxidermy) of bird specimens for the Natural History Museum of UC Santa Cruz, and occasional birding with the Natural History Club at school. Some of the birds I have curated for the museum include a black oystercatcher (*Haematopus bachmani*), a Cassin's auklet (*Ptychoramphus aleuticus*), an Allen's hummingbird (*Selasphorus sasin*), and a black cormorant. Most of my bird experience prior to the internship had been with birds that were immobile, and easily identifiable. When I was told I would be conducting bird surveys during this internship, I was a little intimidated but ready to learn.

On the first day of the surveying trip, one professor from UABC La Paz asked me to count black brant's (*Branta bernicla nigricans*) in the San Ignacio Lagoon in Baja California Sur, while on a small boat. Counting black brant's in the middle of the day with a beaming sun, reflecting bright shimmery light from the water's waves, made for an embarrassing first surveying experience. With shaking binoculars, I counted for a while and finally gave him my count, 100 black brants. He responded with a chuckle and said there were probably more like 400.

This internship has been a challenge with a steep learning curve, but after the first three or four days of the trip I was able to better help with bird surveys by offering my counts which contributed to accurate data intake. During this time I also practiced my bird identification, particularly of larger and more distinct species. For example, I became familiar with long-billed curlews (*Numenius americanus*) because they are large and have a very distinctively long and curved bill. Black brants were also good as a beginner bird to survey because they have distinctive white bands on their necks and a white undertail coverts which my supervisor liked to call its pañal which means diaper in Spanish.



Something unique to the internship in Mexico that I had was being able to learn shorebird names in Spanish. It has helped me greatly in identifying them. For example, a sanderling (*Calidris alba*) is called *playero blanco* which has helped me figure out what those white shorebirds on the beach are. Some names are also just more fun in Spanish, my favorite is pihuihui, which is a willet (*Tringa semipalmata*).

Towards the end of the trip I had a lot of fun looking out for snowy plovers (*Charadrius nivosus*), and became proficient in identifying their sex (if they have a darker semi band mark around their necks they are male, if it is lighter they are female). We also looked for colorful bands around their legs. These anklets are used as markers to be better track the success of snowy plovers during their lifetime. I was able to find one with bands, and helped determine the color of some my fellow surveyors spotted.

As the bird surveys progressed, not only did I become better at identifying shorebirds, but I also bonded with people from different learning institutions and who had a lot of incredible stories and knowledge they wanted to share. Eduardo Palacios and his wife, Lucia Alfaro have worked on migratory birds and habitat conservation since the 80's and used to conduct surveys on rough terrain without the technology they use today. Daniel Galindo, a professor at UABC La Paz shared with us his research and work with snowy plovers and I got to see the bigger picture in the surveillance and observations of snowy plovers along the west coast. I also got to meet students working on their thesis and PhD papers and learn about the projects they are involved in, including their research, and how they got where they are. Most of them got their undergrad in Marine Biology, and one person was an Oceanographer and all of them had a passion for birds. ■

The San Quintín Kangaroo Rat: Rediscovery and Conservation

By *Scott Tremor, Sula Vanderplank, Jorge Andrade and Enrique Alfaro*

Being a field biologist is full of romanticisms and hypothetical ideal scenarios that many long for, such as discovering a new species and name it after your surname, documenting the first record of a rare species or the rediscovery of an extinct species.

When you are in the field all these incentives motivate your search and boost your work to the maximum. A huge expectation and excitement surrounds you when you check the SD memory of a camera trap that you left placed for days or when you open a Sherman trap to see what animal is inside of it. The best way to exemplify this emotion is by comparing it with an impatient and impressed child who discovers the world around him and is amazed by its wonders, which are totally new to him. Can you imagine this huge emotion or do you remember it? Let us express to you with total certainty that this euphoria multiplies exponentially when you complete one of the dreams that we have just described.

Let us talk about the San Quintín kangaroo rat or *Dipodomys gravipes*: it is a rat of the family Heteromyidae and of the genus Dipodomys.This genus includes kangaroo rats that resemble a small kangaroo due to their bipedal mobility, as its name implies. It has a robust body compared to other kangaroo rats in the region, large hind legs and a long tail. It is an endemic species of the area of San Quintín and El Rosario, the range of distribution included the coastal plains from San Telmo to El Socorro and was also in the plains of El Rosario stream (Huey, 1925). The last record, at least until recently, was more than 30 years ago. It was considered extinct by institutions such as Mexico's National Commission for the Knowledge and Use of Biodiversity (CONABIO) and today it is a priority for conservation at international level, so it is enlisted as critically endangered by the International Union for the Conservation of Nature (IUCN) and in the Official Mexican Standard NOM-059-ECOL.

> *"When you are in the field all these incentives motivate your search and boost your work to the maximum."*

San Quintín kangaroo rat (*Dipodomys gravipes*). Photo: Sula Vanderplank

San Quintín kangaroo rat (*Dipodomys gravipes*). Photo: Sula Vanderplank

Recently the San Quintín kangaroo rat was rediscovered on an embankment surrounded by agriculture by some of us (Tremor et al., in press). Of course, this event was incredibly exciting. The rediscovery of the species gives hope to it, but where else will it be found? Are there viable populations in other places? Are the sites impacted? Are they in protected areas? How do we protect it? To address all our questions, since the great discovery and, we formalized our team, a team made up of members of the San Diego Natural History Museum and Terra Peninsular: the K-Rat team. From this moment on, we looked for the San Quintín kangaroo rat throughout the range of distribution described by Huey in order to know the state of conservation of the species and to create strategies to protect it.

Our search has consisted in the identification of suitable habitats for the species within the distribution range depicted and describing the species. It sounds simple, but if we consider that we do not really know much about the species and that the distribution range is relatively large, it is not as simple as it seems.

Each new sampling site has been exciting because in each of them there is the possibility of finding at least one specimen of the species. At dawn, when we approach the places where we think we might find it, there is a moment of preamble and expectation that translates into silence. The team's minds are occupied with the question: will we find it on this site? The apparent result is always positive or negative, and we are whether excited to find it or disappointed. The reality is that it does not matter if we find it or not, each new place gives us a lesson. We learn something new every time, and new questions and doubts arise.

Burrow of the kangaroo rat. Photo: Sula Vanderplank

Sula Vanderplank and Jorge Andrade celebrate the rediscovery of the species in one of Terra Peninsular's nature reserves. Photo: Alan Harper.

Photo Sula Vanderplank

San Quintín kangaroo rat . Photo: Jorge Andrade.

> *It was considered extinct by institutions such as Mexico's National Commission for the Knowledge and Use of Biodiversity (CONABIO) and today it is a priority for conservation at international level.*

Our work has given positive results, we have found the San Quintín kangaroo rat and we can say with certainty that it is not extinct and more importantly, we have found it in two nature reserves of Terra Peninsular, Valle Tranquilo and Monte Ceniza, where actions will be taken to protect it.

The importance of having rediscovered this species lies in the very importance of any species, however insignificant it may seem. The deep relationships between organisms and their abiotic environment are delicate and the extirpation of a species has severe ecological consequences. Without the San Quintín kangaroo rat we lack an important element of the ecological system and as a consequence we put at risk ecosystems important for all the beings of the world including humans. Imagine a scenario where the loss of the species modifies the landscape that you enjoy and depend on, imagine that if a species disappears the river course from which you acquire water is modified, imagine that if a rodent disappears, like the San Quintín kangaroo rat, the dispersion of seeds of important plants is finished. This rediscovery is very important for Terra Peninsular and for the San Diego Natural History Museum, but above all for humanity itself and especially for the people of the San Quintín and El Rosario area.

The K-Rat Team: Jorge Andrade, Scott Tremor, Sula Vanderplank and Enrique Alfaro. Photo: Alan Harper.

We have fulfilled one of those whims of the field biologist and in the process we have gone back to the most basic stages of our childhood, but the story of the rediscovery is not over, we have found a blank book in relation to this species, a book that is waiting to be written. We are motivated by what we can discover, but above all we are motivated to find the mechanisms to ensure the conservation of this important species for Baja California. ■

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Terra Peninsular

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How can you be part of this project?

Back From Extinction
The San Quintín Kangaroo Rat

Terra Peninsular is a non-profit organization, this means that all of our projects are possible thanks to the donations we receive from friends and supporters.

We need your support to continue protecting the nature reserves of Monte Ceniza and Valle Tranquilo. Please take action and join us!

Visit **www.terrapeninsular.org/en/** and find out how you can help protect the kangaroo rat.

www.terrapeninsular.org/en

#BackFromExtinction

Why Work in **Conservation with** Terra Peninsular?

By *Verónica Meza / Land Protection Coordinator of Terra Peninsular*

Throughout our life, some events set the steps for the course of our decisions. What we want to do, what we like doing, and what inspires us are always a consequence of the events that shapes us into the person who takes decisions today.

Conserving nature from the point of view of a non-profit organization is a most questioned topic in the academic field, misunderstood in the family environment, and unfortunately, most of the time, frustrating to influence those who decide the future of natural resources. As you can read it is not easy, but what in the universe has had both a light and transcendent existence at the same time? The answer is: nothing. Even if from afar everything looks so simple.

As we train ourselves in science, we biologists experience a painful rebirth in this world. We become aware of all the forms, processes, interconnections, and ambiguous fragility and strength of life. An experience that turns us susceptible and sharp in our way of acting. Everything we do is evaluated and self-evaluated in manner and consequence. We hold on to keep what we love alive. This was understood and shared by Jacques Cousteau, Carl Sagan, Jane Goodall, Richard Dawkins, Stephen Hawking and hundreds of other scientists, lovers of nature and disseminators of science.

Like that, it is simple and complex. We preserve what fascinates us, what amazes us, what embraces us, what we know matters; not as a selfish need, but as an obligation to give something back to the wonder of being alive, enjoying the surroundings, knowing a fragment of the infinite derivations of life. Everyday, Terra Peninsular offers me the opportunity to work on something that is as complex as it is stunning. It is amazing!

Even though at the beginning this looked like a very dark description –talking about pain, frustration and misunderstanding–, let us think a little about how painful it must have been to be born, learn to walk, grow, and to multiply the cells in our body. However, all of this is nothing compared to the satisfaction of being alive, knowing, doing, and sharing with the rest of the world.

I work in conservation because of an inherent necessity, an innate fondness, a need to leave something important to life itself. Not to the part of humanity that inexplicably is constituted by individuals that commit to destruction, but to the other part of humanity that builds and develops intelligently every minute.

Evolution has lead to the development of our species at this time and place of the universe, and I can't stop being amazed and hoping for the preservation of such fantastic sites and of the plants and animals that have accomplished to shape this world, as well as I can't stop hoping for humanity to be able to register and share this extraordinary and complex nature that could end up becoming something astonishingly big. ■

Terra Peninsular's conservation team: Enrique, Jorge, César, Jonathan, and Verónica at the Sierra de San Pedro Mártir National Park. Photo: Bárbara Ramírez

Festive Dates

April

APRIL 18, 2017:
the Monte Ceniza Nature Reserve in San Quintín was certificated as an Area Voluntarily Destined for Conservation

APRIL 20, 2001:
Terra Peninsular was founded

22
International Mother Earth Day

APRIL 25, 2005:
Guadalupe Island was designated a Biosphere Reserve

APRIL 26, 1947:
Sierra de San Pedro Mártir National Park was created

APRIL 27, 1962:
Constitution 1857 National Park was created

27
World Design Day

28
Save The Frogs Day

APRIL 28, 2009:
The Mexican government granted to Terra Peninsular the concessions of the wetlands Arco Norte and Chapala in San Quintín

May

13
World Migratory Bird Day

14
Accounting Day

17
International Recycling Day

MAY 21, 2009:
The Mexican government granted to Terra Peninsular the concessions of the wetlands Arco Sur, Kenton Nore and Kenton Sur in San Quintín

22
International Day for Biological Diversity

Glossary of terms

Areas Voluntarily Destined for Conservation:
It is a conservation tool within the category of Natural Protected Area of federal jurisdiction. This certification is obtained through the Mexican Secretariat of Environment and Natural Resources (Semarnat in Spanish), through the National Commission of Natural Protected Areas (Conanp in Spanish), and consists of voluntarily allocating land for conservation actions.

Federal Terrestrial Maritime Zone:
The Federal Terrestrial Maritime Zone in Mexico (ZOFEMAT in Spanish) is the strip of land that extends 65 feet inland from the high tide line along all Mexican shores.

Skeleton remains:
Set of bones that make up the human skeleton.

Oxo-degradable:
Oxo-biodegradable technology is based on the introduction of a prodegradant agent in the manufacturing process of conventional plastic. The decomposition is executed through a multi-stage process using chemical additives to initiate the degradation. (1)

Embankment:
Solid piece of earth that is used to fill a concavity or that is raised to make a defense, a road or another similar work. Unevenness with certain slope. (2)

Sherman trap:
Sherman-type traps are live capturing traps built from perforated aluminum and galvanized lightweight steel in different sizes. They are foldable, which facilitates their transport. The pressure exerted by the animal when entering the trap releases the mechanism of action that was used to kept the door open. (3)

[1] Gretel Flores Montes de Oca (2011). ¿Qué es Oxo-degradable? Retrieved on April 10, 2018 from: http://www.reconoce.mx/que-es-oxo-degradable/

[2] Real Academia Española (2001). Diccionario de la lengua española (22.aed.). Retrieved from: http://dle.rae.es/?id=ZbS5vpb

[3] Método de éxito de trampeo (s.f.). Retrieved on April 10, 2018 from: http://www.panaftosa.org/roedores/index.php/protocolo-para-estimacion-de-infestaciones/metodo-de-exito-de-trampeo

Testimonial

Ilse Flores, *Translation student intern 2017-2018*

This organization did not arrive here in a day and there are many parties and people that helped to position it where it is today: designers, translators, geologists and many more. In the texts I translated I noticed people from different fields, each one with a different degree but all focused on science.

As a translator, I do not have a specialty in science and when I started my internship in this association, I did not know half of the things they were talking about. I noticed over time that a little interest in the subject and a fervent desire to participate in a common good is everything you need to help.

As translators, we are taught that we are means towards knowledge and understanding. Helping to understand the importance of the environment is what I can do with my degree to contribute to this beautiful and fragile peninsula in which I live, just like Terra Peninsular does.

I Don't Need a bag Thank You

By *Laura Paulina López Orozco / Master's degree student in Ecosystems Management in Arid Zones at UABC*

Talking about plastic bags is not uncommon. Each time we find more information about this item that has revolutionized our lives and continues to be part of our everyday life. Although, different findings about plastic bags have been found, being aware of this helps to be more practical when acquiring, using and discarding them, or better yet to look for new styles of bags to carry or store our things.

We all love plastic bags, who doesn't? They are light, compact, multi-colored, and of different sizes, they have a high load capacity and are easily acquired. However, not everyone knows the impacts they are causing on ecosystems.

It is estimated that we use a plastic bag for practically 15 minutes and then we discard it. But it's not the same to throw a plastic bag to the recycling or to the garbage dump, than to throw it away in the street or in some natural area. The hard truth is that it is estimated that a great amount of these bags never arrive at the garbage dump of the community, less than 10 percent of them are recycled, and many are left trapped in nature.

> "It's estimated that we use a plastic bag practically for 15 minutes and then we discard it."

And how does this affect us?

First, it is important to know that plastic bags have a great resistance and take about 500 years to degrade, depending on different environmental factors. Several bags are reaching the sea and when exposed to the sun, for chemical reasons, they disappear from our sight. However, they do not fall apart completely, they only break into small pieces of plastic (microplastics), which are not often seen, but are still there. Greenpeace points out that these pieces can absorb toxic chemicals and as they are floating through the water, fish, whales or other animals eat them and without realizing it, we could be eating fish or seafood fed by these plastics.

Therefore, many places in the world are taking actions to reduce or eliminate the problem of plastic bags, they are selling them and even prohibiting them.

Ensenada, like other places, wants to commit to this. At the beginning of 2017, a reform to Article 141 of the Environmental Protection Law for Baja California was endorsed. This regulation prohibits providing non-biodegradable bags in the city.

This is a good start, but research indicates that not all bags are biodegradable even if they are labelled as such, since many are still made from oil and only contain a chemical (these bags are oxo-degradable) that breaks them faster and fragments them into little plastics. For a bag to be truly biodegradable, it must be able to "decompose into natural chemical elements due to the action of the sun, water, bacteria, plants or animals", as indicated by the Secretariat of Environment and Natural Resources in Mexico.

The solution? Apply the 4 Rs: Reject, Reduce, Reuse and Recycle

A practical solution is to change our consumption habits. Let's start by decreasing the number of bags we use; take our cloth bag or basket to the market and say "*Today I do not need a bag, thank you*". Separate the garbage at home to use less bags. If you do, you will be surprised at the amount of bags that you accumulate and do not need.

Also avoid throwing the bags anywhere and make sure they reach the dumpster, or better yet, a recycling center. This will prevent any animal from eating the bag by mistake and dying because of it.

Currently, bags of different materials are being invented, such as algae, banana peels, cassava and other inputs that are really biodegradable. And why don't we find them in stores? Because they still have a high cost. Therefore, while increasing social demand and lowering the price, we must commit ourselves as responsible citizens that seek to change our relationship with plastic bags.

Otherwise, it is estimated that by 2050 there will be more plastic than fish in the sea. Can you imagine that? It would be a big problem not only for the health of the seas, animals and humans but also for the economy, gastronomy and in general for the planet Earth.

And you, how many bags do you consume per week? Do you know the destination of these plastic bags?

For more information, go to the Facebook fan page **Ensenada Sin Bolsas de Plástico**.

INTERESTING FACTS

The plastic bag was introduced progressively into the world during the 70's

12 million barrels of oil are needed to produce 100 million bags

The World Counts estimates that in 2017, 5 billion plastic bags were manufactured in the world

Every second 160,000 plastic bags are used in the world

Less than 10% are recycled

With the oil used to produce 1 bag, a car could move 36 feet

The bags cause suffocation, entanglement, malnutrition in animals and have the ability to enter the human food chain ■

Azul de Oro

By *Diego Toscano*
Photos by *Diego Toscano*

Photography exhibition
"Azul de Oro" from
May 17, 2018 in Santos en el
Pacífico bar, Ensenada.
For more information, please
send an email to:
diego.toscano@uabc.edu.mx

Baja California is a contrasting multicolored land that astonishes the eyes of those who see it, it has spectacular views and biodiversity that has adapted through thousands of years to extreme conditions and geo-diverse sceneries that define greatly the different ecosystems where we can find an infinity of colors that have evolved in all the wildlife classifications with the sole objective of surviving.

Because of the surroundings diversity, there are many endemic and resident species. There also other migratory species that come seasonally from all around the continent in search of refuge and to fill its bellies with the abundant resources that only our peninsula can offer. A treasure that leaves us with an unforgettable spectacle of colorful species that demonstrate their unsurpassed skills and finesse to proliferate, while continuing to preserve the resources for future generations.

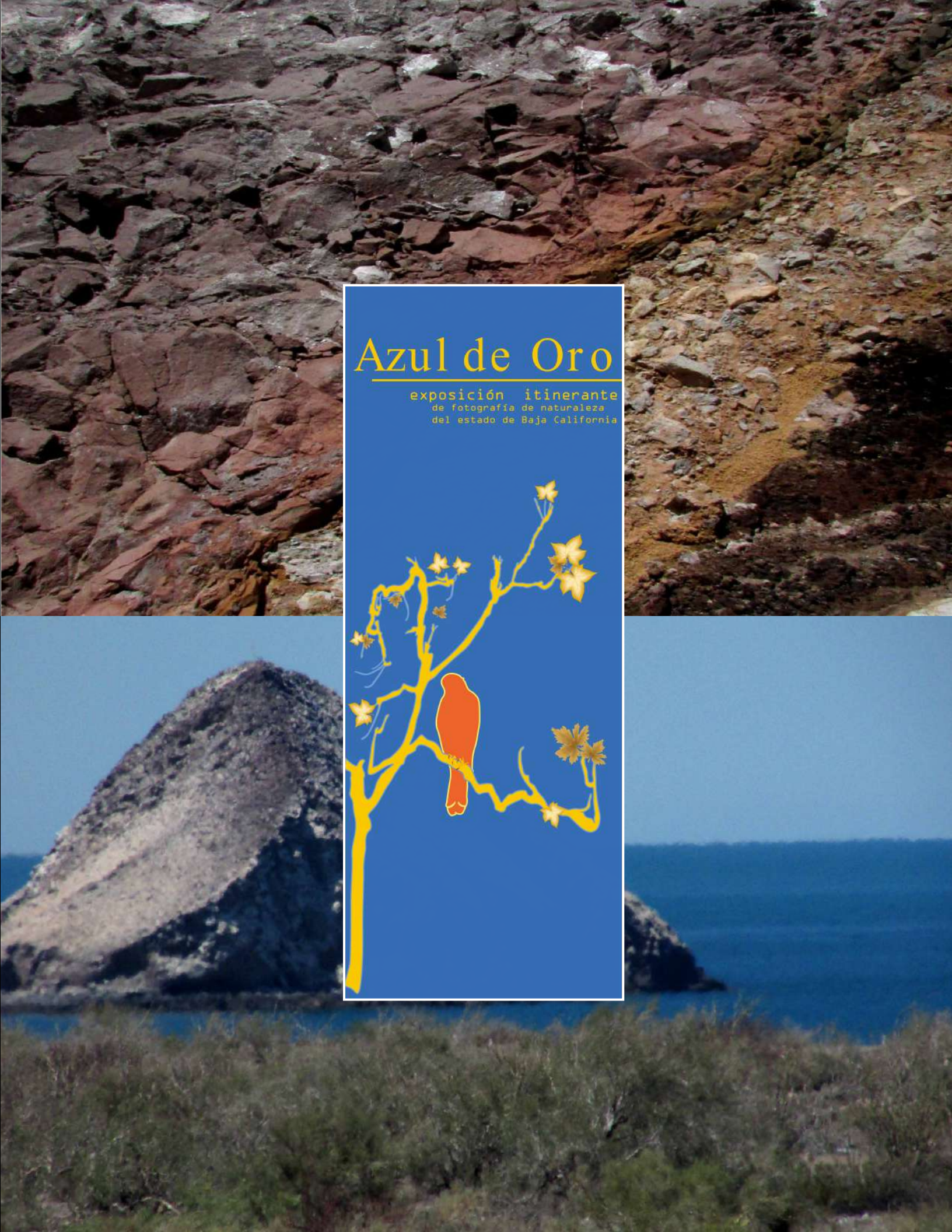
The diversity in colors of the land beneath our feet experience an encounter between the energy and our eyes, thanks to the combination of light that stands out as an effect of the games played by the sun and the sky. A spectrum that changes the tones at every hour of the day, resulting in a landscape that transforms itself and that fills us with that energy and joy at any time of the day and that allows us to pause, and contemplate the moment and everything that surrounds us.

Human beings are part of every instant and bring elements to the color of our Baja California with all the liberty to enhance the beauty of every corner of this land.

In this way, "Azul de Oro" presents a single perception of this complex environment, the intention, through the eyes that find awe in sharing a part of the infinite vision and value that this represents to the community and its absolute dependence on the diversity of bright colors that are the main feature of a healthy and sustainable environment.

Come with us through this journey of shades that expresses different feelings exalted by the urgency of balancing the development of personal and collective potential, the false limit that our imagination can present to us, with a wild delicacy of the environment that we share with other species and the process without which we wouldn't be able to dream and overcome a new sky and the colors that welcome us with, every day. ■

The opinions expressed in this section are those of the authors and do not necessarily reflect the official opinion or position of Terra Peninsular.



Azul de Oro

exposición itinerante
de fotografía de naturaleza
del estado de Baja California

Terra Peninsular

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