



THE KINO BAY CENTER NEWSLETTER

MARCH - MAY - 2024



KINO BAY, SONORA, MEXICO

AT THE CENTER - STUDENT EXPERIENCES - RAMSAR WORKSHOPS WITH COMCAAC NATION - COMMUNITY BASED CONSERVATION IN LAGUNA LA CRUZ - BECOMING ENVIRONMENTAL AMBASSADORS: CAPACITY BUILDING WORKSHOPS WITH TOURIST SERVICE PROVIDERS OF KINO - EXPLORING FURTHER: WHALES AND BIRDS DURING "EL NIÑO" EFFECTS - KINO BAY CENTER AT THE N-GEN SUMMIT - RESEARCHERS, ALUMNI AND ADVENTURERS



THE CENTER



GREETINGS FROM BAHÍA DE KINO, SONORA!
IT HAS BEEN A WILD FEW MONTHS OF ACTIVITIES IN
THIS AMAZING PLACE.

IN THIS ISSUE:

We are discovering more and more about the amazing Gulf of California as we expand our monitoring study areas.

Our impact continues to deepen as community members continue to grow in their work as environmental leaders.



A diverse crew from Center's staff and community leaders from Kino and Punta Chueca attended the N-Gen Summit in Álamos, Sonora, making connections and learning even more about conservation.

And naturally we keep providing quality placed based educational experiences with our visiting groups, as well as connecting external researchers and adventure seekers.

Thank you for joining us in our mission to protect the bio-cultural heritage of this wonderful region.





EDUCATIONAL EXPERIENCES

WATERSHED SCHOOL

THE CENTER recently hosted 19 wonderful 9th and 10th graders from the Watershed School in a biocultural field studies program exploring sense of place. They saw how seabirds connect the ocean to the islands, learned from Don Humberto that flowering cactus signal the arrival of sea turtles, and helped Grupo Tortuguero monitor in Laguna la Cruz.



They also practiced their expeditionary skills during a camping trip at Estero Santa Rosa. They left with a deep appreciation of the importance of place in shaping who we are.

NORTH POINT EXPEDITIONARY HIGHSCHOOL

TEN STUDENTS from Prescott, Arizona experienced a perfect balance of meaningful learning, adventure, exploration and community-based conservation during their week-long program at the Center. This dynamic group spent time in the region's stunning estuaries, islands and even sand dunes. They observed whales, hammerhead sharks and got really lucky to see a whale shark...But among all these amazing experiences, they were most impacted by their experiences with Kino's Grupo Tortuguero; the group's work, mission and dedication left the students longing for their next Kino Bay experience.

10TH YEAR OF DUKE UNIVERSITY COMMUNITY-BASED CONSERVATION CLASS IN KINO

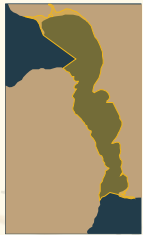
Renowned fisheries governance scholar Xavier Basurto, together with colleague Dana Grieco led a class of five Duke graduate students in experiential studies of fisheries systems in the region. Field trips and conversations with fishers and community members in Guaymas, Puerto Libertad and Comcaac territory shed light on different cultural perspectives and practices in fisheries.



COMMUNITY BASED

Community leadership and participation is fundamental to achieving biocultural conservation. Over time, the Center and community members have developed deep, synergistic, mutual and effective collaborations to address conservation goals in the Ramsar Sites of Laguna la Cruz and the Canal del Infiernillo.

CONSERVATION



RAMSAR WORKSHOPS WITH THE COMCAAC NATION INFIERNILLO CANAL

FOR THE PAST FIVE YEARS the Center has worked with the Comcaac community to update the Canal del Infiernillo (Xepe Cosoot) Ramsar Site. During April we facilitated six workshops with Comcaac youth, artisans, fishermen, tourist service providers, leaders and authorities.

With the facilitation of Rodrigo Trejo, Gabriela Suárez and the coordinators of the Indigenous Community Partnership Program Aarón Barnett and Luis Moreno, the communities discussed the biocultural wealth of the Canal that fulfill 8 of the 9 Ramsar Site criteria.

Through participatory methodologies, the groups identified the main socio-environmental threats to the ecological health of the Canal and envisioned strategies for promoting sustainable practices for the future, including trash and unsustainable fishing. They then worked together to envision strategies for promoting sustainable practices in the Canal, including trash management programs, best practices rules for tourism and fisheries and enforcement.





COMMUNITY-BASED CONSERVATION IN LAGUNA LA CRUZ: WATER QUALITY, TERRESTRIAL WILDLIFE AND SEA TURTLES

TO WITNESS local people putting effort and heart toward safeguarding their estuary for future generations is to be truly inspired. For decades, Laguna La Cruz estuary has been the home and livelihood for the Padrés and Becerra families. These families now collaborate in four community conservation projects that aim to safeguard the estuary for future generations.

The Becerra family is now nationally renowned for their turtle monitoring and educational projects focused on the estuary. Over the past five years the Center has been working with the family community conservation group Padres Unidos to develop three different projects.

The group started with trash clean-ups which quickly highlighted the problem of the thousands of plastic bags used in crab traps and thrown into the estuary. As crab fishers and local users of the estuary, the Padres Unidos are working to attack the plastic bait bag problem.



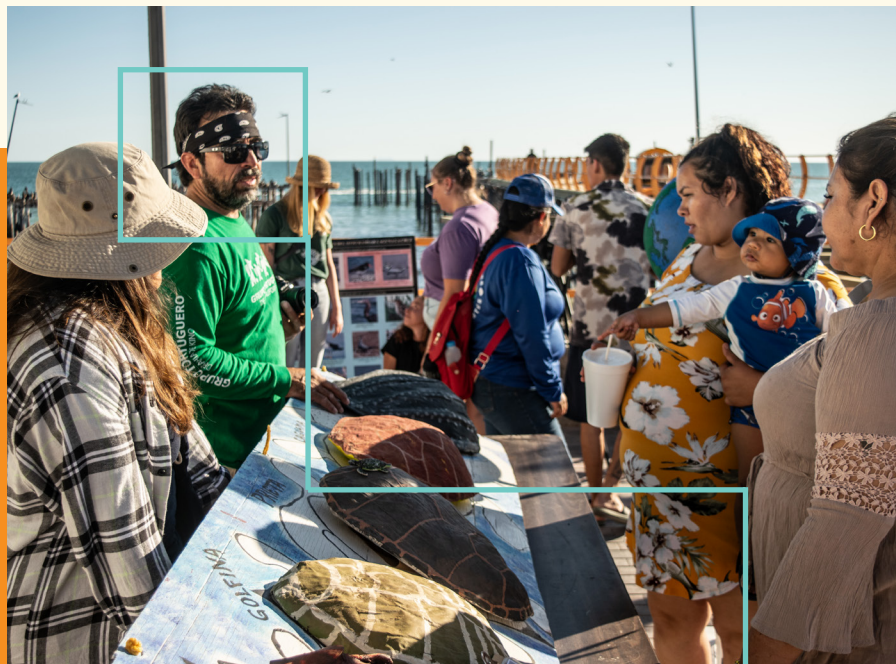
Padres Unidos also got involved in water quality testing. One of the most harmful impacts for Laguna la Cruz comes from shrimp farm effluent leading to harmful levels of sedimentation, nutrients, turbidity and microplastics.

Padres Unidos now collaborates with the University of Sonora and the Center to conduct monthly water quality monitoring in 5 strategic points, turning the panga into a mobile lab measuring temperature, salinity and oxygen levels. Back in the lab, samples are analyzed for nutrients, chlorophyll, plankton and microplastics.



The newest Padres Unidos – Prescott Collaboration will document terrestrial wildlife interacting in the estuary. The group was trained by the Center's WMP in the use of camera traps and have already recorded exciting sightings of Ridgeway's Rails and Coyotes.

The Center coordinates the interdisciplinary efforts of nine different community conservation projects all working toward the conservation of Laguna la Cruz.



EARTH DAY IN KINO

These groups are at the center of a growing community conservation movement in Bahia de Kino! This year they all came together to put on a dynamic educational EARTH DAY EVENT in the heart of Kino! The diverse audience learned about the incredible biodiversity of the region and conservation efforts being conducted to protect it.

Center staff members and community project leaders **Cosme Becerra** and **Ulises Becerra** interacting with the public during Earth Day



While community leadership and participation is fundamental to achieving biocultural conservation, legal protection and government participation is also needed. The projects described above all contribute to the effort to designate Laguna la Cruz as a Natural Protected Area, which would provide much-needed additional legal protection. ■



BECOMING ENVIRONMENTAL AMBASSADORS: CAPACITY BUILDING WORKSHOPS WITH TOURIST SERVICE PROVIDERS OF KINO

Knowledge is key in the effort to preserve the bio-cultural heritage of Bahía de Kino.

The Association of Tourist Service Providers and Merchants of Bahía de Kino approached the Center to support them in building a stronger conservation-oriented presence on Kino's beaches.



The Center provided a 3-hour workshop about sea turtle, bird and marine mammal natural history. The focus was on essential information that the service providers need to promote best practices and guide tourists who arrive in droves during the warmer months.

Participants learned about marine mammal strandings, local birds, and even about the amazing grunion run phenomenon known to occur on our beaches. Participants in this session are building a shared identity as “Environmental ambassadors” with badges that identify them as having training and knowledge to share with tourists to better appreciate and protect the region.



Community conservation leader:
Luis Landaverde

WILDLIFE AND ECOLOGY

This season, the Center programs expanded their exploration horizons...gaining new insights into the complex ecological dynamics in the Midriff Islands Region. The science programs have had fascinating results stemming from the potential impacts of a particular phenomenon on marine wildlife: El Niño.

El Niño is a periodic climate pattern that describes the warming of surface waters in the eastern tropical Pacific Ocean that results in a slow-down of upwelling and ocean currents that fuel the base of the food chain.



Gabriela Salazar and Héctor Pérez from the MMP with Alexandra Edwards (WMP) and Prescott College student Margaret Dye.

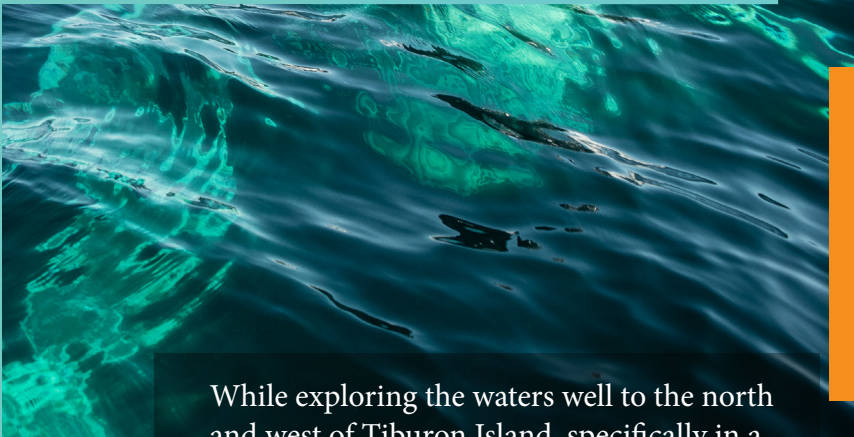
The general impact of El Niño in our region seems to be an increase in whale sightings and a decrease in bird nesting productivity. This year migration timing seemed late compared to most years; migratory birds arrived late and left late, annual sea grass populations floated to the shore later than usual, and cetacean feeding behavior was seen later in the season than usual.

Unusual Pink-footed Shearwater sighting



Megaptera novaeangliae

In a unique event, a curious humpback whale (top and lower right) interacts with the team. This specimen was probably one of the last ones in the Gulf of California before heading north.



MARINE MAMMAL SIGHTINGS SO FAR THIS YEAR ARE MORE THAN DOUBLE THE NUMBER FROM ALL LAST SEASON!

This could be due the productive oceanographic conditions of the Midriff Islands region, where even during this el Niño year the water still has the nutrients to sustain the primary ecological productivity, krill, plankton, etc. which could make it a refuge for certain resident and migratory species.

So, while food sources for whales (e.g. krill) may be present due to upwelling, small pelagics like sardines . . . the food for some nesting birds . . . are known to be severely impacted by el Niño events.

In other marine mammal news, the Marine Mammal Program's expansion into study sites in the northern Midriff Island Region has led to some interesting observations. April surprised the MMP with an uptick in the number of Mysticete sightings.

While exploring the waters well to the north and west of Tiburon Island, specifically in a place called Cuenca Delfín, the team found not only residents like fin whales, but also the migratory species like blue and humpback whales.

By this time of the year, migratory species should be already out of the Gulf on their way north looking for other food sources. . . instead, the team found clear evidence of Mysticetes engaged in feeding behaviors.



LITTLE BY LITTLE: A RELATIVELY SILENT DECREASE IN THE WATERBIRD PRODUCTIVITY ON ALCATRAZ ISLAND

SEABIRDS are known to react to or even predict El Niño years with decreased productivity (number of surviving chicks).

The logic is simple: nesting and breeding demands a huge investment of energy and without enough food resources to ensure or at least raise the probability of survival, birds won't take the risk.

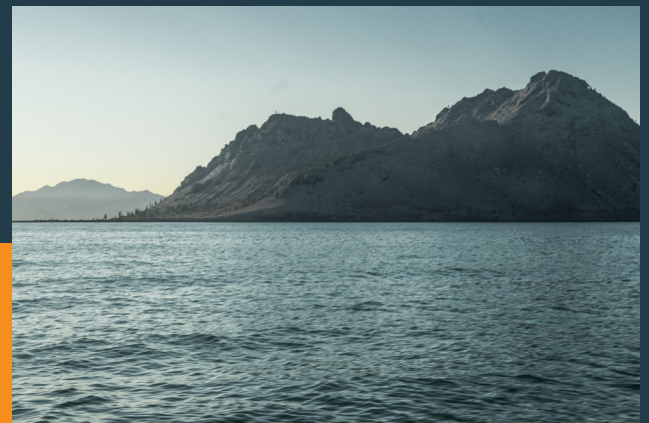


Seabird survey on the way to San Pedro Martir

On Alcatraz Island this phenomenon is compounded by our data that show decreasing productivity for several species. For example this year there was a huge Brown Pelican nest abandonment, falling abruptly from 420 to 32 nests in only a month, resulting in very few chicks. Oystercatchers and double crested cormorants are in similar conditions.

Craveri's Murrelets on the other hand had a successful season, with good hatching numbers. The chicks of this species leave the nest almost immediately (after ~72 hours), so their survival depends on sufficient food resources at sea. This species eats mainly larval fish.

It's not always easy to see, and even less to understand the dynamics of the ecosystems. We can't make a statement from one isolated aspect at a certain moment. Continuous monitoring over time helps us see trends. And that's what the Waterbird Monitoring Program is all about.



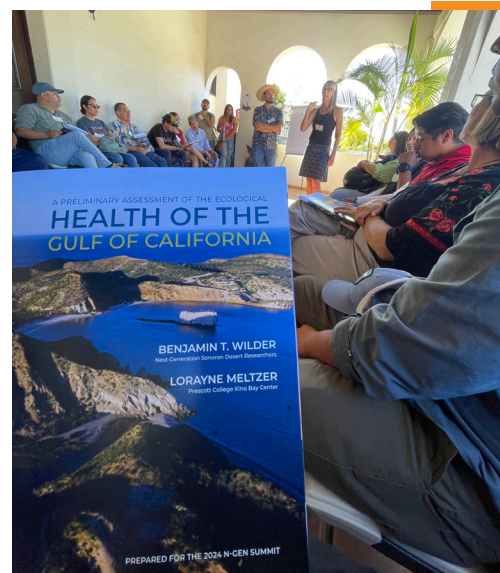
Further explorations will add more pieces to the Midriff Island puzzle. In the meantime, one thing that we know for sure is that this region is incredibly rich and important for the conservation of marine biodiversity.



KINO BAY CENTER IN THE THE N - GEN SUMMIT 2024

This April, the picturesque town of Álamos, Sonora hosted the N-Gen Summit, a binational “un-conference” that brought together Sonoran Desert researchers from the U.S. and Mexico to share perspectives and discuss innovative approaches for addressing social-ecological concerns.

The Kino Bay Center staff (15), together with community members from Kino (7) and Punta Chueca (9) had a powerful presence at the event. Through participation in 127 sessions, and leadership of 9 sessions, we shared our deep and effective experiences and models of authentic community-based conservation.



Staff and community members learned from others and renewed commitments to sharing and applying technical information to conservation projects (e.g. protected area designation, mangrove restoration and sustainable fisheries planning).



Through participation in the conference, community members from Kino and Punta Chueca formed stronger bonds and built trust for future collaborative work.



Humberto Morales (seen here with Center Director Lorayne Meltzer) receiving a lifetime achievement award

Highlights of our participation were the presentation of the report on the Health Status of the Gulf of California (Wilder and Meltzer), the combination of traditional indigenous and western modern knowledge (Moreno and Barnett), discussions around sustainable fisheries, and providing a model for emerging field stations. In a touching ceremony, Center collaborator and friend Humberto Morales was recognized for his life's work in ethnobotany and contributions to the field.



RESEARCHERS, ALUMNI AND ADVENTURERS

During March, THE UDALL FAMILY ADVENTURE TEAM visited the region, this time to circumnavigate (again) Tiburon Island. Expedition leader, Mark Udall, is truly an inspiration in the spirit of adventure education and exploration.



Fishing Bat researcher José Juan Martínez visited the region again, together with his colleague Alejandro Ruiz Castillo and students Dafne Murillo and Jorge Navarro. This trip was dedicated to the study of ctenophores, of which they found two species previously not registered in this area.



In May the Center hosted this season's second alumni trip! This special group of alumni from 2006-2011, was led by one of their own – Gregory Smart – as they relived memories on boats, in the estuary and with each other. This group together with the fall's alumni group supported the Center to outfit the new Tacj-Tonina panga.



Abram Fleishman, Celia Chatham, Meg Duhr, Greg Smart, Hanna McGowen, Liz Waggoner (Sotak) and Naomi Blinick (taking the picture as usual).

THANK YOU

FOR SUPPORTING

THE KINO BAY CENTER'S LEADERSHIP IN
COMMUNITY-BASED CONNECTION OF EDUCATION,
CONSERVATION, AND COMMUNITY DEVELOPMENT.



The Center has been a leader in positive change in the region for decades. Your donation to the Prescott College Kino Bay Center helps us train and support current and future agents of change.

EVERY DONATION
COUNTS AND HELPS.

