

XXVIII Meeting of the Canada/Mexico/U.S. Trilateral Committee for Wildlife  
and Ecosystem Conservation and Management  
Species of Common Conservation Concern  
April 29 – May 2, 2024



**SPECIES OF COMMON CONSERVATION  
CONCERN WORKING TABLE**

San Diego, California, USA  
April 29 – May 2, 2024

**Co-chairs**

Maricela Constantino  
U.S. Fish and Wildlife Service, U.S.

Craig Machtans  
Canadian Wildlife Service, Environment and Climate Change Canada

Eduardo Ponce Guevara  
National Commission for Natural Protected Areas, Mexico

**Facilitators**

Demetra Panos  
U.S. Fish and Wildlife Service, U.S.

Angelica Narváez  
National Commission for Natural Protected Areas, Mexico

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**Agenda at a Glance:**

Time	Tuesday April 30	Wednesday May 1	Thursday May 2
First Morning Session 9:00 - 10:15	9:00 - 9:45 Species of Common Conservation Concern Working Table Welcome, Introductions, Action Item Report, Adoption of the Agenda, and Co-Chair Country Reports  9:45 - 10:15 Traditional Ecological Knowledge (CA)	9:00 - 9:25 Implementation of North American Rabies Management Plan  9:25 - 9:50 Confronting the threat of expansion of Prussian Carp in North America  9:50 - 10:15 American Management of Feral Swine/ Wild Pigs	9:00 - 10:15 Monarch and Pollinators (Joint Session SCCCWT and ECT)
Morning Break 10:15 - 10:30			
Second Morning Session 10:30 - 12:30	10:30 - 11:00 North American Bat Conservatoin Alliance  11:00 - 11:40 Conservation of American Bison  11:40 - 12:00 IUCN Species Specialist Committee (SSC) Bison Specialist Group Update  12:00 - 12:30 Grassland and Black Tailed Prairie Dog Conservation US & MX: 1. Grassland and Black Tailed Prairie Dog Conservation 2. Large-scale conservation and recovery of the grassland ecosystem of the populations of prairie dog populations in Chihuahua, MX	10:30 - 10:55 Continuing spread of Invasive Tiger Salamanders in the Borderlands  10:55 - 11:20 Bi-national Effort to Re-Establish Populations of the California Red-legged frog  11:20 - 11:45 US ESA Listing of the Sunflower Sea Star  11:45 - 12:10 USMCA Project to reduce sea turtle bycatch and improve human well-being  12:10 - 12:35 Translocation of Black-footed Albatrosses	10:15 - 12:30 Monarch and Pollinators (Joint Session SCCCWT and ECT)
Lunch 12:30 - 2:00			
First Afternoon Session 2:00 - 3:15	2:00 - 2:25 Black-footed Ferret Recovery  2:25- 2:50 Transboundary Movements  2:50 - 3:15 Mexican Wolf Recovery in the US & MX	2:00 - 2:30 Trilateral Island Initiative: Conservation and Restoration of the Islands of CA, US, and MX  2:30 - 2:55 Biodiversity and Climate Change  2:55 - 3:15 Conservation of Reddish Egret in US & MX	2:00 - 2:20 Endangered Freshwater Fish of the Rio Sonoyta  2:20 - 2:40 Reproduction in captivity of the genomically certified stock of Yaqui catfish, Ictalurus pricei, for the benefit of ethnic groups in Sonora  2:40 - 3:15 Table Close Out and Action Item Plan
Afternoon Break 3:15 - 3:30			
Second Afternoon Session 3:30 - 5:00	3:30 - 3:55 Ocelot Recovery  3:55 - 4:15 Grizzly and Wolverine Connectivity (CA)  4:15- 4:35 Carnivore conservation in northeast Mexico with emphasis on jaguar and ocelot  4:35- 5:00 Co-existence (MX)	3:30 - 4:00 California Condor REcovery Program update  4:00 - 4:30 Wildlife Disease (Joint Session with Migratory Bird Table)  4:30 - 5:00 Establishment of Binational Lower CO River Marsh Bird Working Group (Joint Session with Migratory Bird Table)	3:30 - 4:00 Participant Open Discussion, and Co-chair prep for ET session  4:00 - 5:00 ET & Co-Chairs Joint Session (closed session)
Evening 5:00 and on	No Scheduled Events	5:30 - 6:30 US Co-chairs & Facilitators w/US ET Co-chair (closed session)  7:00 - 8:00 Meet & Greet with Executive Table Co-chairs	6:30 - 8:30 Closing Ceremony

\* All Times are Pacific Daylight Time

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**TUESDAY, APRIL 30, 2024**

**9:00 – 9:50 Species of Common Conservation Concern Working Table Welcome, Introductions, Adoptions of the Agenda, 2023-2024 Action Item Report, and Co-Chair Country Reports**

**COLLABORATORS & CONTACTS:** Craig Machtans (Canadian Wildlife Service), Maricela Constantino (US Fish and Wildlife Service), José Eduardo Ponce Guevara (Comisión Nacional de Áreas Naturales Protegidas).

**DESCRIPTION:** Welcome and introductions of new and returning participants to the working table. Approval and adoption of the agenda. Report on major accomplishments or challenges from the Action Item Report (AIR), and relevant updates on species conservation from each country.

**BACKGROUND:** Standard item to build consensus and ensure full participation. The AIR is used to record decisions and monitor progress on work. Working tables review the previous year's AIR at the beginning of each annual meeting.

**SPECIFIC OUTCOMES:** Approval of the agenda. Monitor progress on action items and agreements. Identify issues and challenges in accomplishing action items.

**9:50 – 10:15 Traditional Ecological Knowledge**

**10:15 – 10:30 Break**

**10:30 – 11:00 North American Bat Conservation Alliance**

**AGENDA ITEM PRESENTORS:**

Rodrigo A. Medellín, Mexico, UNAM, CONABIO (medellin@ieciologia.unam.mx);  
Jeremy T. H. Coleman, US Fish and Wildlife Service (jeremy\_coleman@fws.gov);  
Charles M. Francis, ECCC, Canadian Wildlife Service (charles.francis@ec.gc.ca)

**COLLABORATORS & CONTACTS:**

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**PROJECT DESCRIPTION:**

The three countries have been actively pursuing several collaborative projects related to bat

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conservation, with coordination through the North American Bat Conservation Alliance (NABCA).

1) State of North America's Bats Report

The 2023 public report summarizing the conservation status and major threats facing bats in all three countries was published based on an expert conservation assessment of all 154 bat species in North America. The results highlight that nearly half (47%) of species are at some level of risk in one or more countries and some species' populations have declined by 90%. Almost all (98%) in North America are losing habitat. This is the most robust assessment ever of the conservation status of all 153 species and a very significant contribution to guide new policy decisions regarding bats. A companion manuscript is in preparation for publication.

2) Tracking and Mitigating the Spread of White-nose Syndrome.

The fungus *Pseudogymnoascus destructans* (Pd) that causes the disease White-nose Syndrome in bats continued to spread in North America, leading to death of millions of bats. The USFWS - WNS Program provides grant support to States and Tribes to conduct bat monitoring, disease surveillance, and management actions to mitigate the effects of WNS and improve survival of susceptible species. Several States are involved with adaptive management and/or field-testing tools to combat the effects of WNS. The WNS Decontamination Protocol was updated in early 2024 to provide the latest guidance to minimize human-assisted spread of the causative fungus. Mexico participates in this program since 2017.

3) Wind energy mortality mitigation across North America.

As identified in the State of North America's Bats Report, mortality due to collisions with wind turbines is a pressing concern for North American bats, particularly as the number of turbines on the continent continues to increase in response to the need for renewable energy. As an example of several potential mitigation measures that were identified to reduce mortality of bats, in Canada, the Committee on the Status of Endangered Wildlife in Canada has recommended the hoary (*Lasiurus cinereus*), the silver-haired (*Lasionycteris noctivagans*), and the eastern red (*Lasiurus borealis*) bats, for federal listing as Endangered due largely to impacts from wind turbines. In the U.S., the USFWS has included the hoary bat on the listing workplan with a status assessment to be conducted in 2027.

4) Continental Coordination of Bat Population Monitoring

The North American Bat Monitoring program, NABat, has expanded rapidly recently, with over 1,600 registered users who have contributed well over 100,000 colony survey records and over 100 million acoustic species detections across 49 U.S. states and 8 Canadian provinces. The Mexican program, SIMMA has been on hold since the pandemic, but we would like to encourage bringing together data from the Mexican program into NABAT.

5) Identification, designation, and implementation of Key Biodiversity Areas for Bat Conservation

Information from bat monitoring programs such as NABat and other sources is being used

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to identify areas of important conservation value for bat species in North America, in the context of the Key Biodiversity Areas program. A book on Important Bat Areas (2022) identifies them across Latin America and the Caribbean. We will work with CONANP to secure recognition and protection for the 30 AICOMs and SICOMs identified in México.

6) Protection of long-nosed bats of the genus *Leptonycteris*.

Mexico will launch PROREST CC (Program for the Protection and Restoration Priority Species - Community Conservation, for its Spanish acronym) covering long-nosed bats of the genus (*L. yerbabuena* and *L. nivalis*). We will synergize with the U.S. given the existing *nivalis* conservation network and the updating process of the Post-Delisting Monitoring Plan for *L. yerbabuena*.

**BACKGROUND:** The North American Bat Conservation Alliance, involving representatives from the bat conservation community in all 3 countries, was formed under the umbrella of a Letter of Intent signed by the Executive Table of the Trilateral Committee in 2015. We have provided regular updates to the Trilateral on progress under this initiative, and continue to rely on endorsement by the Trilateral to advance the collaboration.

**SPECIFIC OUTCOMES AND PROJECT GOALS:**

Specific recommendations seeking endorsement:

1 – Encourage all three countries to review the species assessments in the State of North America's Bats report to identify bat species of conservation concern in each country that could be considered for additional protections under respective national legislation.

2 – Establish a trinational working group to develop a new standards document that outlines acceptable mitigation measures and standards to reduce the impacts of renewable energy, particularly wind energy, on bats, considering both terrestrial and offshore environments.

3 – Approach the NABat Coordinating Office, at the USGS Fort Collins Science Center, to develop approaches to bring Mexican bat monitoring data (including for species that do not occur in USA or Canada) into the NABat database, to streamline delivery of bat monitoring in North America.

**11:00 – 11:40 Conservation of American Bison**

**AGENDA ITEM PRESENTORS:** Brendan Moynahan, US NPS; Greg Wilson, Parks Canada; Eduardo Ponce Guevera, CONANP

**COLLABORATORS & CONTACTS:** Brendan Moynahan, US NPS; Greg Wilson, Parks Canada; Eduardo Ponce Guevera, CONANP

**PROJECT DESCRIPTION:** Presentation on progress toward the LOI expected to be signed at this 2024 Trilateral meeting; implementation progress under the US Secretary of the Interior's Order 3410 on Restoration of Bison and Prairie Grasslands; progress toward

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a CA bison conservation plan; and next focal action items under the anticipated bison LOI. The US will also provide updates on development of a metapopulation management strategy and initiation of a shared stewardship strategy.

**BACKGROUND:** Bison conservation activities have been presented annually in recent years. Bison conservation is exceptionally active, positive, and collaborative in recent years, and members wish to highlight both actions and next steps toward further integrated support for bison and grassland system restoration through linking ecological and cultural objectives.<sup>21</sup>

**SPECIFIC OUTCOMES AND PROJECT GOALS:**

- Realize final signing of the Bison LOI
- Establish a mechanism for specific, demonstrable collaboration on a conservation genetics database in support of continental-scale metapopulation management.
- Foster critical discussions on institutionalizing a framework for ecocultural restoration approaches across complex landscapes and jurisdictions.
- Garner support for and awareness of active opportunities for international collaboration.

**11:40– 12:00 IUCN Species Specialist Committee Bison Specialist Group Update**

**AGENDA ITEM PRESENTORS:** Dustin Ranglack Vice Chair, IUCN SSC Bison Specialist Group, [dustin.ranglack@usda.gov](mailto:dustin.ranglack@usda.gov); Greg Wilson, Red-List Co-ordinator, Parks Canada, [Greg.Wilson@pc.gc.ca](mailto:Greg.Wilson@pc.gc.ca)

**COLLABORATORS & CONTACTS:** Glenn Plumb, Chair, IUCN Bison Specialist Group, [iucn.bsg.plumb@gmail.com](mailto:iucn.bsg.plumb@gmail.com)

**PROJECT DESCRIPTION:** We will present an update describing relevant Bison Specialist Group (BSG) activities focusing on a new and innovative approach for identifying those bison herds that should be included in updating the 2017 American Bison Red List Assessment. The BSG is adopting a new “scalar” approach to identifying which herds are to be deemed “wild” in a IUCN Red List Assessment. We are proposing a 2-step process: 1) determining if a herd should be considered wild, and 2) determining if a herd meets a minimum viable population (MVP) size, as calculated through a population viability assessment (PVA). The new approach is more inclusive, transparent and aspirational than the previous approach, which can be seen by comparing which herds are considered wild in both scenarios.

**BACKGROUND:** The International Union for Conservation of Nature (IUCN) is the world’s oldest and largest global environmental organization, and the IUCN Bison Specialist Group (chartered in the 1990s) is now the world’s leading body of scientific and practical management expertise on the status and conservation of bison as wildlife, inclusive of the North American bison (*Bison bison*) and the European bison (*Bison bonasus*).



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**SPECIFIC OUTCOMES AND PROJECT GOALS:** To share the outcomes of specific BSG activities that are intended to benefit trinational cooperative bison conservation management.

**12:00 – 12:30 Grassland and Black-Tailed Prairie Dog Conservation in the US and Mexico**

12:00 – 12:15 Prioritization of Grassland and Black-Tailed Prairie Dog Conservation

**AGENDA ITEM PRESENTORS:** Bill Van Pelt, Arizona Game and Fish Department

**COLLABORATORS & CONTACTS:** Francisco Abarca [fabarca@azgfd.gov](mailto:fabarca@azgfd.gov), Jennifer Presler [jpresler@azgfd.gov](mailto:jpresler@azgfd.gov) and Holly Hicks [hhicks@azgfd.gov](mailto:hhicks@azgfd.gov), Arizona Game and Fish Department

**PROJECT DESCRIPTION:** The presentation will incorporate information specific to the black-tailed prairie dog (BTPD) re-establishment effort which was initiated in 2008. Furthermore, it will expand upon the contribution this project has to the national effort to conserve BTPD in the United States and the grassland habitats the species depend upon.

**BACKGROUND:** In 2023, the Arizona Game and Fish Department (AGFD) continued with the re-establishment of BTPD to southeastern Arizona, which began in 2008. There are currently four established colonies at Las Cienegas National Conservation Area (LCNCA), one on Pima County land at Sands Ranch, and one on a private ranch in Cochise County. Additional monitoring efforts included visual counts and colony perimeter mapping by AGFD employees and volunteers. After facing population declines in 2018 related to natural rain cycles and a very dry spring, 2019 and 2020 was a year of intra-colony growth and restoration. In 2021, expansion levels allowed for translocation of animals into a third county in AZ.

In addition to the six re-established colonies, the BTPD have dispersed to create 2 known small colonies on private land. These colonies were first discovered in 2017 and have grown each year. In 2021 and 2023 these dispersal colonies were the source population for translocations to new colonies in Arizona. They will continue to be passively managed and used as a source for future translocations.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** In 2024, AGFD will continue to monitor the 6 re-established colonies, and aid their success with supplemental feeding and vegetation manipulation as needed. If individuals are available, AGFD will work towards creating additional re-establishment colonies in their former range. AGFD will also coordinate with Mexico to allow for translocation of animals, if desired.

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12:15 – 12:30 LARGE-SCALE CONSERVATION AND RECOVERY OF THE GRASSLAND ECOSYSTEM OF  
THE POPULATIONS OF PRAIRIE DOGS (*Cynomys ludovicianus*) IN THE JANOS BIOSPHERE RESERVE,  
CHIHUAHUA, MEXICO

**AGENDA ITEM PRESENTORS:**

M. Sc. Jesús Pacheco Rodríguez

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Laboratorio de Ecología y Conservación de Fauna Silvestre,  
Instituto de Ecología, Universidad Nacional Autónoma de  
México.

**COLLABORATORS & CONTACTS:**

Dr. Gerardo Ceballos González

Laboratorio de Ecología y Conservación de Fauna Silvestre,  
Instituto de Ecología, Universidad Nacional Autónoma de  
México.

**PROJECT DESCRIPTION:**

The grasslands of northern Mexico are among the most threatened ecosystems in Mexico and North America. The Janos Biosphere Reserve, in Chihuahua, is characterized by its grasslands, which are the largest in Mexico, and its colonies of prairie dogs (*Cynomys ludovicianus*), which are among the largest on the continent. It also maintains a great biological diversity, making it a priority region for conservation in Mexico. Until the end of the 20th century, the region was biologically very well preserved, due to its isolation due to the lack of infrastructure such as roads and electricity.

The conservation of the region changed suddenly with the development of road infrastructure and the introduction of electricity in 1997, which caused rapid agricultural and livestock expansion with little technical capacity. This, combined with a prolonged drought, triggered rapid and profound environmental degradation. The loss of grassland has led to the loss of biological diversity, loss of large expanses of grasslands inhabited by colonies of prairie dogs and desertification, on the one hand, and of environmental goods and services – which are the benefits to humans derived from the proper functioning of the ecosystems and are essential to maintain the well-being of the region's population, on the other.

Therefore, the objective of our work carried out since 1988 in the region has been the conservation of grassland, biodiversity, and prairie dogs. For this, we first established a biological station on land donated by the Ejido San Pedro of the Municipality of Janos. The biological station has been the base for the development of our research and conservation activities. Our research first focused on determining the biological diversity and distribution of prairie dogs. The results led us to successfully propose an area of more than half a million hectares to be considered the Janos Biosphere Reserve, decreed in 2009. We then identified the role of prairie dogs in the function of the grasslands, the possible competition with livestock for forage and the provision of environmental services. At the same time, we evaluate the negative impacts of livestock farming and agriculture in the region, to determine actions for the better management of these productive activities, to make them

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more compatible with conservation. Our work has managed to maintain considerable extensions of grassland and thousands of hectares of prairie dog colonies, with the management of natural grassland and the improvement of livestock management on thousands of hectares. We have developed this by collaborating with other academic institutions, with state and local authorities, in addition to the residents "ejidatarios" and with ranchers in the region.

In this phase of the project, the results that we hope to achieve in the year following the approval of the proposal are the increase of the area covered by colonies of prairie dogs to at least 3,000 hectares, the determination of the range indexes in the reserve to determine the carrying capacity for livestock and increase the surface area under better livestock practices to 60,000 hectares.

Geographic location

The project will be carried out in the Janos Biosphere Reserve, in the following ranches and ejidos: Rancho El Uno-La Báscula, Rancho Los Gabilondo, La Palma, Monte Verde. In the sites where the project will be developed, the vegetation is represented by grasslands. The average annual precipitation in the area is 306 mm and the rains occur during the summer; The temperature ranges between 15°C during winter and reaches up to 50°C in summer, with an average annual temperature of 15.7°C. Each of the selected sites are under different livestock management schemes, but they all have in common colonies of prairie dogs and grasslands with different degrees of deterioration.

**BACKGROUND:**

The activities of our conservation project for the prairie dogs and the Janos Biosphere Reserve in the Janos grasslands, in last 30 years include research activities to evaluate the situation, threats and relevance of the prairie dogs in the grassland, conservation actions with local residents to improve livestock and agriculture, and public policy actions to consolidate the conservation of the region. In a very synthetic way, some of the most relevant achievements of our work have been the following:

- Determine that the prairie dog is a keystone species.
- Establishment of the La Pradera Biological Station
- Proposal and decree of the Janos Biosphere Reserve.
- Consolidate the purchase of Rancho El Uno.
- Determine the importance of prairie dogs in maintaining the grassland, avoiding desertification and maintaining environmental services.
- Agreement to restore 1,000 hectares of pasture in the Ejido Casa de Janos
- Monitoring and restoration of 1,500 hectares of plains dog colonies.
- Raise the status of the Prairie Dog from Vulnerable to Endangered of Extinction within the Official Mexican Standard.
- Propose and support the reintroduction of the only genetically pure herd of bison in Mexico.
- Carry out workshops to improve livestock practices in the reserve.
- Collaboration Agreements to promote sustainable livestock farming and grassland restoration actions with ranches and ejidos that cover 30,000 hectares.

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- Removal of 100 hectares of mesquite as a model of the technique for grassland restoration.
- Sowing of 100 hectares of native grassland as a model of the technique for restoration and subsequent collection of seeds for grassland restoration.
- Instrumentation in 300 hectares of Kyle Line lines and mesquite removal for grassland restoration.
- Construction of 500 m<sup>3</sup> gabions for soil retention and recovery.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** The fundamental objective of the project is to conserve the grassland and the prairie dogs. We hope to increase the area with prairie dog colonies and grassland area under better livestock management techniques. In relation to the area with colonies of prairie dogs, we hope to reach 3,000 hectares. To do this, we will first define the current distribution and size of the prairie dog colonies, and then identify the biological corridors and priority areas for conservation. In the ejidos and livestock ranches that we identify as priorities for conservation, we will work to improve their livestock practices and encourage the owners of the properties with the development of projects. In this sense, a first action will be to establish, if possible, a conservation agreement with the Casa de Janos ejido (La Palma sector), which is the area with the largest colony of plains dogs. In relation to improvements in livestock practices, we will continue with the improvement of livestock management in the ranches and ejidos with which we already have collaboration. On the other hand, our objective is to incorporate another 5 ranches and ejidos with a total area of 30,000 new hectares into our project to improve livestock practices. We will carry out two regional workshops to improve livestock practices and we will support the properties with which we have collaboration with actions of good livestock practices such as: a) Determination of range indexes; b) removal of mesquite; c) recovery of gullies using the fitted stone technique; d) planting of native grasses; e) application of the Keyline technique, which improves and stores rainwater, retaining soil moisture for longer and improving the productivity of grasslands without the need to use fertilizers. Finally, we will carry out the certification process of six properties as Areas Voluntarily Destined for Conservation (ADVC).

**12:30 – 2:00 Lunch**

**2:00 – 2:25 Black-footed Ferret Recovery Update for Mexico, Canada, and the United States**

**AGENDA ITEM PRESENTORS:** Tina Jackson and Justin Chuyen, USFWS

**COLLABORATORS & CONTACTS:**

Laura Gardiner Wildlife Ecologist, Grasslands National Park ([laura.gardiner@pc.gc.ca](mailto:laura.gardiner@pc.gc.ca))

Jesus Pacheco Rodriguez, Laboratorio de Ecologia y Conservacion de Fauna Silivestre Instituto de Ecologia Protegidas ([jpacheco@ecologia.unam.mx](mailto:jpacheco@ecologia.unam.mx))

Tina Jackson, U.S. Fish and Wildlife Service Black-footed Ferret Recovery Coordinator

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(tina\_jackson@fws.gov)

Justin Chuven, U.S. Fish and Wildlife Service Acting Black-footed Ferret Recovery  
Coordinator (justin\_chuven@fws.gov)

**PROJECT DESCRIPTION:** The presentation will report continuing Black-footed Ferret  
Conservations in the US, CA, and MX. All three countries continue recovery efforts with  
plague being the biggest challenge. CA has ongoing experimental distribution of orally-  
administered insecticide (Fip-bit) to help advance sylvatic plague management. US  
continues working with State, Federal, Tribal, and NGO partners in developing plague  
management techniques and distribution. CA and MX have not recently released any black-  
footed ferrets (BFFs) due to low numbers of prairie dogs on colonies and the challenges of  
mitigating plague. Last year, FWS reintroduced BFFs on a new site in Colorado bringing  
the total number of BFF reintroduction sites to 34. The USFWS continues to work with  
cloning partners in the ongoing development of cloning the BFF.

**BACKGROUND:** BFFs were thought extinct in 1979 and rediscovered in 1981. A captive  
breeding

program (1987) was started by Wyoming Game and Fish and the FWS. The first BFF  
reintroduction in the wild was at Shirley Basin, WY, 1991. Mexico reintroduced BFFs at  
Janos, MX in 2001 and Parks Canada at Grasslands National Park, SK, CN in 2009. BFF  
sites in CN and MX have had challenges with plague and currently there are no BFFs on  
those sites. The US sites continue to see BFFs on most reintroduction sites,

but plague management continues at most sites. The US, CN, and MX continue plague  
research, prairie dog translocation efforts and monitoring BFF reintroduction sites.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** The Black-footed Ferret Recovery  
Program continues efforts to meet challenges with plague and working with partners to  
mitigate plague at reintroduction sites. Continued coordination with the Black-footed Ferret  
Recovery Implementation Team partners in recovery efforts.

## 2:25– 2:50 Transboundary Movements of Wildlife

**AGENDA ITEM PRESENTORS:** Jim Devos, jdevos@azgfd.gov, Arizona Game and  
Fish Department, and Angelica Narvaez, angelica.narvaez1@undp.org, CONANP

**COLLABORATORS & CONTACTS:** Jim Devos, Arizona Game and Fish Department;  
Stewart Lyle, New Mexico Department of Game and Fish; Mitch Sternberg, U.S. Fish and  
Wildlife Service; Carlos Lopez, Autonomous University of Queretaro Martha Chavez,  
USDA/APHIS; Luis Lecuona, USDA/APHIS; Demetra Panos, USFWS; Angelica Narvaez,  
CONANP.

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**PROJECT DESCRIPTION:** Frequent changes of officials involved in the permits process, the number of federal and state agencies that hold responsibilities for it, and overall changes within each administration can often create confusion in established processes and regulations that can result in long and cumbersome requirements that delay and/or impede conservation actions of highly endangered species across the border. These can affect both terrestrial and aquatic species.

Sanitary requirements, timelines, last minute changes that can occur (i.e. sudden outbreaks), and miscommunication, can result in failed cross-border movements of specimens that can, at a certain point, be detrimental to local populations of species and their recovery.

In another intent to facilitate and expedite the process of key permits that are needed for these transboundary movements of individuals, the group would like to explore specific options, such as “annual umbrella agreements” and/or “multi-year permits” that may, under the formal framework of the Trilateral Agreement for Management and Conservation of Wildlife and Ecosystems, open informal channels of communication to clarify questions/concerns related to each project, as well as an expeditious process for required approvals.

**BACKGROUND:** Aimed to facilitate the translocation of endangered transboundary species between Mexico and the United States, in 2022 representatives from various institutions on both sides of the border proposed the creation of a binational group that could begin a dialogue among participants of the Trilateral to identify obstacles that needed to be addressed with pertinent authorities in both countries and, in a timely fashion, try to negotiate at required levels, expedited procedures that could facilitate the translocation of species at risk, in compliance with national and international laws and regulations.

The above dialogue would intend to identify roadblocks that cause a negative impact on the successful translocation of species and would develop strategies that could lead to more effective regulations for transboundary movements of species at risk and its recovery.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** Begin a dialogue with key-agencies from the Mexican government to seek the possibility of obtaining expedited clearance for transboundary species projects implemented under the formal framework of the Trilateral Committee Meeting. Consider the options of umbrella agreements, multi-year approvals, or similar strategies, that could facilitate the movements of wildlife among pertinent institutions in both countries.

The group requests endorsement from the Executive Working Group to continue with its dialogue with pertinent authorities that lead to a broader and more expeditious clearance process for projects implemented under the specific framework of the Trilateral Agreement.

**2:50 – 3:15 Mexican Wolf Recovery in the United States and México**

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**AGENDA ITEM PRESENTORS:** Brady McGee, brady\_mcgee@fws.gov, United States Fish and Wildlife Service (USFWS) and Carlos Lopez Gonzalez, carlos.lopez@uaq.mx, Universidad Autonoma de Queretaro (UAQ)

**COLLABORATORS & CONTACTS:** Brady McGee, brady\_mcgee@fws.gov, U.S. Fish and Wildlife Service (USFWS); Eduardo Ponce Guevara, jponce@conanp.gob.mx, National Commission for Natural Protected Areas (CONANP); Carlos Lopez Gonzalez, carlos.lopez@uaq.mx, University of Queretaro (UAQ); Enrique Martínez Meyer, Universidad Nacional Autonoma de Mexico (UNAM), Enrique Martínez Meyer, emm@ib.unam.mx; Jim Devos, jdevos@agfd.gov, Arizona Game and Fish Department (AZGFD); Stewart Liley, Stewart.Liley@state.nm.us, (NMDGF); and Dave Bergman, david.l.bergman@usda.gov, USDA APHIS Wildlife Services (WS).

**PROJECT DESCRIPTION:** We propose to continue to work with our governmental and non-governmental partners at local, state, and federal levels in México and the U.S. on the conservation and recovery of the Mexican wolf along the U.S./Mexico border and throughout its historical distribution and on the implementation of the Mexican Wolf Recovery Plan and agreed to in the multi-agency Letter of Intent.

We also intend to continue working with Mexican partners on the development and implementation of its Compensation Strategy for presence of wolves in Mexico.

**BACKGROUND:** In November 2017, the USFWS completed the bi-national Mexican Wolf Recovery Plan, First Revision, with the assistance of CONANP, SEMARNAT, AGFD, NMDGF, and other agencies and scientists from both countries. The recovery plan was later revised in 2022 to include additional actions. The recovery plan provides guidance that will lead to the delisting of the Mexican wolf under the U.S. Endangered Species Act. Focused bi-national efforts on continuing to grow the U.S. population, conducting releases, and supplementing the population in México, completing a 5-year recovery plan evaluation to determine what strategies are working, and reorientation of the México program to meet the established goals as needed.

**SPECIFIC OUTCOMES AND PROJECT GOALS:**

We propose to:

- 1) Continue working among agencies involved for binational collaboration in the development and implementation of Mexican wolf recovery actions as outlined in Mexico's Action Program for the Conservation of Mexican Wolf, the Mexican Wolf Recovery Plan and agreed to in the multi-agency Letter of Intent.
- 2) Continue to seek additional funding to develop and implement recovery actions for release and management of Mexican wolves in México and for depredation compensation and payments for presence in both countries.
- 3) Continue México/U.S. collaboration to manage the binational Mexican wolf Saving Animals From Extinction (SAFE) captive breeding program to provide Mexican wolves

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for release in both countries.

- 4) Continue collaboration among pertinent parties on the release of wolves in the U.S. and México.
- 5) Continue collaboration among government and academic institutions on the identification of additional release sites in Mexico.
- 6) Coordinate among involved agencies and institutions, including USDA APHIS Wildlife Services should wolves disperse from México into the U.S.

We request endorsement to:

- 1) Continue collaborating on implementing the Mexican Wolf Conservation Program, the Recovery Plan and as agreed to in the multi-agency Letter of Intent.
- 2) Continue México/U.S. collaboration to manage the binational Mexican wolf Saving Animals From Extinction (SAFE) captive breeding program to provide Mexican wolves for release in both countries.
- 3) Continue managing the current wild population in Chihuahua, México with multiple reintroductions and recapturing wolves for putting and replacing radio-collars. Continue with the evaluation of additional recovery sites in historical range in Mexico.
- 4) Continue working with Mexican partners in the implementation of its Reorientation Strategy of the Program.

**3:15 – 3:30 Break**

**3:30 – 3:55 Ocelot Recovery**

**AGENDA ITEM PRESENTORS:** Janess Vartanian & Laura de la Garza, U.S. Fish and Wildlife Service

**COLLABORATORS & CONTACTS:**

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Ashley Reeves, areeves@eastfoundation.net, East Foundation  
Bill Swanson, bill.swanson@cincinnati.org, Cincinnati Zoo

**PROJECT DESCRIPTION:** The endangered ocelot (*Leopardus pardalis*) will benefit from continued binational conservation. Genetic augmentation of existing wild populations and establishment of a new population in the U.S are primary objectives in the USFWS 2016 ocelot recovery plan. Representatives from the USFWS and CONANP re-established communication in 2023, to begin discussions about establishment of a captive breeding population in the U.S. and the incorporation of genetic material (individuals and gametes) from Mexico. We will provide an update on the wild ocelot populations in the U.S., progress on the captive breeding and release program, and summarize this programs contributions to ocelot recovery.

**BACKGROUND:** The USFWS is working with a variety of partners to make progress toward ocelot recovery through the establishment of a new ocelot population in Texas and increase genetic diversity of existing populations through a captive breeding and release program. Establishment of a new population inland from coastal areas will buffer against catastrophic events that may impact existing populations and release of individuals with genetics from Mexico will restore genetic connectivity between the U.S. and Mexico and increase genetic diversity of isolated U.S. populations. This approach ensures that any ocelots or their genetic material imported from Mexico would be widely incorporated. A single individual may contribute to the production of multiple offspring and provide genetic contributions to 1 or more wild populations. The USFWS us excited to continue communication with Mexico to support this recovery work through development of a collaborative and mutually beneficial strategy.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** The establishment of project goals and outcomes to support ocelot recovery in collaboration with Mexico will require continued discussion between high-level government officials within Mexico and the United States. During and following the 2024 Trilateral we hope to: 1. Agree to a meeting between the U.S and Mexican governments within the next few months to establish binational goals and desired outcomes to support ocelot recovery in the U.S and Mexico. 2. Re-establish/reconvene the US - MX binational ocelot recovery team, 3. Extend an invitation to Mexico's Direccion General de Vida Silvestre to become a partner in this project, 4. Identify points of contact for participating agencies, 5. Request endorsement of the Species of Common Concern and Executive Tables to chart a path for binational collaboration via the signing of a letter of intent between USFWS and CONANP.

### 3:55 – 4:15 Grizzly and Wolverine Connectivity

### 4:15 – 4:35 Carnivore conservation in northeast Mexico with emphasis on jaguar and ocelot

**AGENDA ITEM PRESENTORS:**

Carlos Barriga Vallejo, Pronatura Noreste, (PNE)  
Adrián Varela Echavarría, (PNE)

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**COLLABORATORS & CONTACTS:**

Carlos Barriga Vallejo, Pronatura Noreste, (PNE)  
Adrián Varela Echavarría, (PNE)  
Leroy Soria Díaz, Universidad Autonoma de Tamaulipas, (UAT),  
Zavdiel Alfonso Manuel de la Rosa (UAT)  
Gabriela Rubí Mendoza Gutiérrez (UAT)  
Eduardo Ponce Guevara (CONANP)  
Amanda Gonzales (USFWS)

**PROJECT DESCRIPTION:** In the northern area of the Sierra Madre Oriental (Mexico) there are significant populations of carnivores that act as umbrella species and indicators of ecosystem health. However, changes in land use, extreme droughts, and forest fires, have increased the frequency of human-carnivore conflict (HCC), threatening the populations of jaguar and ocelot. Therefore, there is a need to develop a comprehensive strategy that includes a thorough diagnosis of the HCC and pilot actions that allow for its mitigation. This also emphasizes the importance of understanding the size and composition of species populations and the availability of scientific data to make sound conservation decisions. This project is part of PNE's conservation strategy for carnivores, which is funded by the Mexico Program of the USFWS. The intent is to conserve jaguars and ocelots by addressing the impacts of habitat loss, poaching, and the lack of capacities of the communities to report predation events and apply to the Mexican Livestock compensation program. Activities also include: formulating a HCC geographical risk; developing a database of livestock predation incidents; establishing a Working Group, implementing deterrent methods, delivering training workshops, and developing a Carnivore Conservation Plan.

**BACKGROUND:** The importance of the Sierra Madre Oriental (SMO) between the states of Nuevo Leon and Tamaulipas lies in that it is likely home to the last northernmost population of jaguars located along the slope of the Gulf of Mexico (Carrera-Treviño et al., in press). To preserve this population, the El Cielo-Sierra de Tamalave biological corridor is of vital importance. It serves as a corridor that connects and allows the genetic flow with the jaguar and ocelot populations of the states of San Luis Potosí and Veracruz. However, these species are seriously threatened by changes in land use, extensive cattle ranching, hunting and fragmentation, habitat loss, and road construction (Seymour, 1989). In Mexico, the jaguar is the carnivore that most impact domestic animals due to predation in tropical areas (Zimmerman et al., 2005); it is very likely that for this reason, it has disappeared in more than 60% of its original distribution in the country (Hoogesteijn & Hoogesteijn, 2001; Ceballos et al., 2006).

**SPECIFIC OUTCOMES AND PROJECT GOALS:**

- Project Goal: By 2030, human-jaguar and ocelot conflict incidents have decreased by 30% in the El Cielo-Sierra de Tamalave biological corridor, Tamaulipas.
- Project Objectives:
  - Generation of the geographic distribution model for the risk of human-carnivore conflict

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- By 2024, the baseline of jaguar and ocelot populations will have been established for decision-making in the El Cielo-Sierra de Tamalave biological corridor in Tamaulipas.
- By 2024, the Action Plan for the Conservation of Carnivores in the El Cielo-Sierra de Tamalave Biological Corridor will be generated.
- Implementation of deterrent methods to avoid conflict with jaguar and ocelot in the El Cielo-Sierra de Tamalave biological corridor, Tamaulipas

**4:35 – 5:00 Carnivore Conservation Strategy: Co-existence**

**WEDNESDAY, May 1, 2024**

**9:00 – 9:25 Implementation of the North American Rabies Management Plan**

**AGENDA ITEM PRESENTORS:** David Bergman, david.l.bergman@usda.gov, USDA APHIS Wildlife Services

**COLLABORATORS & CONTACTS:**

David Bergman, david.l.bergman@usda.gov, USDA APHIS Wildlife Services  
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Luis Lecuona, luis.lecuona@usda.gov, USDA APHIS International Services

**PROJECT DESCRIPTION:** Despite remarkable precedents and achievements in the rabies management field, greater accomplishments are possible through trilateral cooperation. The establishment of a North American Rabies Management Plan (Plan) represented a key step in facilitating planning processes by which mutual border rabies control and prevention goals and objectives can be identified and better met among Canada, Mexico, the Navajo Nation, and the United States. Plan architecture has been formed and will continue to be shaped with input from each country through representatives in the fields of wildlife management, public health, and agriculture. Rabies management creates the interface that requires integration of these areas of responsibility. This Plan establishes a mechanism for rabies management in North America by assessing and defining the needs, priorities, and strategies required to control and eventually eliminate terrestrial rabies and to determine methods for managing bat rabies virus variants.

**BACKGROUND:** Implementation of the North American Rabies Management Plan has been presented to the Trilateral since 2005. Key to the implementation of the plan has been the approval by the Trilateral and the cooperation that the Trilateral brings to the table.

**SPECIFIC OUTCOMES AND PROJECT GOALS:**

- Continued support of the North American Rabies Management Plan

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- Increased border surveillance between Mexico and the US.
- Participation by the US and Canada in the impacts of climate change on rabies spread associated with Arctic foxes.
- Cross border participation in bat surveillance for rabies titers and impacts of climate change on bats especially vampire bats.
- Continued support for data, samples, and technological exchanges across borders, especially genetic tissue and serology samples.
- Continued support to evaluate rabies vaccines in wildlife species
- Provide a workshop on skunk rabies management along the US-Mexico border (at the request of SALUD) in collaboration WS AZ, NM, and TX.
- Continued support of technological training programs to address human-wildlife conflict, especially through diagnostics and wildlife handling
- Continued support to implement the outcomes of the Blue-Ribbon Panel on Vampire Bats (September 2020) moving into the US from Mexico with impacts of climate change and increased human-wildlife conflict.

**9:25 – 9:50 Confronting the threat of expansion of Prussian Carp *Carassius gibelio* in North America**

**AGENDA ITEM PRESENTORS:** Patrick M. Kocovsky, US Geological Survey

**COLLABORATORS & CONTACTS:** Craig Martin, [craig\\_martin@fws.gov](mailto:craig_martin@fws.gov), US Fish and Wildlife Service

**PROJECT DESCRIPTION:** Update on this ongoing project. I will present on a new USGS effort on eDNA studies to determine if Prussian Carp are in the US and on structured decision making to assess management options at locations of potential border crossings.

**BACKGROUND:** The potential threats of Prussian Carp were presented at the Trilateral in 2022 and updated in 2023.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** 1) conduct structured decision making to identify management options for preventing border crossing of Prussian Carp, 2) initiate an eDNA study to assess whether there are existing Prussian Carp populations in the US.

**9:50 – 10:15 American Management of Feral Swine/Wild Pigs**

**AGENDA ITEM PRESENTORS:** David Bergman, [david.l.bergman@usda.gov](mailto:david.l.bergman@usda.gov), USDA APHIS Wildlife Services

**COLLABORATORS & CONTACTS:**

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Texas Program

Angelica Lydia Narvaez Casillas, angelica.narvaez@conanp.gob.mx, Semarnat, CONANP

Erica Charlton, echarlton@animalhealthcanada.ca, Animal Health Canada

Dana Cole, dana.j.cole@usda.gov, USDA APHIS WS National Feral Swine Damage Management Program

Jose Eduardo Ponce Guevara, jponce@conanp.gob.mx, Semarnat, CONANP

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Michael Marlow, michael.c.marlow@usda.gov, USDA APHIS WS National Feral Swine Damage Management Program

Gabby Nichols, programs@canadainvasives.ca, Canadian Invasive Species Council

**PROJECT DESCRIPTION:** In the US, a Feral Swine Damage Management Program (NFSP) was initiated in fiscal year 2014 (FY14) as a way to implement control activities to reduce feral swine damage across the United States and afflicted territories. Since its inception, participation has expanded to include Canada and Mexico. The program and its components include ongoing collaborative research, operational feral swine population reduction, and outreach and communication campaigns.

Feral swine are a harmful and destructive invasive species and their geographic range is rapidly expanding with populations increasing across Canada, Mexico and the United States. Feral swine inflict significant damage to property, agricultural crops, natural resources, native ecosystems, and animal and human health. Approximations of the total aggregate cost of damage caused by feral swine in the United States are estimated to be \$1.5 billion annually. These costs would be expected to increase in the absence of control efforts as feral swine populations continue to expand across North America and losses are considerably greater if one were to factor in damages for Canada and Mexico. Currently one of biggest threats from feral swine is the potential to catch and transmit African Swine Fever.

**BACKGROUND:** North American Management of Feral Swine has been presented to the Trilateral since 2021. Key to the implementation of the plan is the approval by the Trilateral and the cooperation that the Trilateral brings to the table. The three countries have joined forces to address feral swine/wild pigs.

**SPECIFIC OUTCOMES AND PROJECT GOALS:**

- Further develop cooperative partnerships with other pertinent federal, state, provincial, tribal, local agencies, and private organizations working to reduce the impacts of feral swine to agriculture, natural resources, property, animal health, and human health.
- Expand feral swine management programs internationally to protect agriculture, natural resources, property, animal health, and human health.
- Expand disease monitoring in feral swine to improve understanding of disease ecology, particularly at the feral swine, agriculture, and human interface. Of particular interest is African swine fever and potential spillover of vampire bat rabies into feral swine.

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- Develop and improve tools and methods to manage feral swine populations, including field tests to assess efficacy for reducing risks to agriculture, natural resources, property, animal health, and human health.
- Develop outreach materials and activities to educate the public about feral swine damage and related activities to prevent or reduce damage.
- Coordinate with Canada and Mexico to ensure awareness of feral swine initiatives and mitigation techniques and incorporate their activities into a trinational plan.
- Conduct outreach campaigns in Canada, Mexico, and the US.

**10:15 – 10:30 Break**

**10:30 – 10:55 Continuing spread of invasive Tiger Salamanders (*Ambystoma mavortium*) in the Borderlands**

**AGENDA ITEM PRESENTORS:**

Robert Fisher, rfisher@usgs.gov, U.S. Geological Survey

Blake Hossack, blake\_hossack@usgs.gov, U.S. Geological Survey

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Anny Peralta Garcia, anny.peralta@faunadelnoroeste.org, Fauna del Noroeste A.C.

**PROJECT DESCRIPTION:** The Western Tiger Salamander (*Ambystoma mavortium*) is native to much of the central North America and the western USA. There are several subspecies within *A. mavortium*, some of which are a high conservation priority and some, especially the Barred Tiger Salamander (*Ambystoma m. mavortium*), have been spread outside of their native range through the bait and pet industry. Although non-native Barred Tiger Salamanders have been prohibited in California for several decades and were banned as fishing bait in Arizona in 2006, they have been present in the region for over 70 years and continue to expand their distribution in several areas. Once established, the non-native Barred Tiger Salamanders have caused widespread conservation issues via predation, competition, and hybridization with endemics such as federally protected California Tiger Salamanders (*A. californiense*) and Sonoran Tiger Salamanders (*A. m. stebbinsi*). We provide an update on recently documented expansions of the invasion front of non-native Barred Tiger Salamanders in San Diego County (CA), adjacent to Baja California Norte, and from a genomics study focused on hybridization between invasive tiger salamanders and the federally endangered Sonoran Tiger Salamander along the Arizona–Sonora border.

Initiation of bination

**BACKGROUND:** Temporary ponds are critical habitats for many species in aridland environments along the US-Mexico Borderlands. Invasive species spread into these habitats can create critical issues for native species, especially ones already listed as threatened or

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endangered. Since this tiger salamander can be the dominant vertebrate carnivore in these systems it can easily disrupt the food webs and structure of the animal communities dependent on these resources. Additionally this species can be carriers of various zoonotic diseases such as Ranavirus and the amphibian chytrid fungus.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** In 2024 a further assessment of the distribution and risk to native species communities could be assessed on the California-Baja California and Arizona-Sonora Border areas. Based on the outcomes of the assessment, management goals for control of spread and/or eradication of populations could be developed for this species as a joint binational program.

**10:55– 11:20 A Bi-national Effort to Re-establish Populations of the California Red-Legged Frog (*Rana draytonii*) in Extirpated Parts of the Range in Southern California**

**AGENDA ITEM PRESENTORS:**

Jonathan Richmond, jrichmond@usgs.gov, U.S. Geological Survey

Anny Peralta Garcia, anny.peralta@faunadelnoroeste.org, Fauna del Noroeste A.C.

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Clark Winchell, clark\_winchell@fws.gov, U.S. Fish and Wildlife Service

Brad Hollingsworth, bhollingsworth@sdnhm.org, San Diego Natural History Museum

Susan North, susan.north@tnc.orgm, The Nature Conservancy

Robert Fisher, rfisher@usgs.gov, U.S. Geological Survey

**PROJECT DESCRIPTION:** Translocations are a technique for mitigating declines or augmenting genetic diversity in protected species. However, protocols for species distributed across broad latitudinal ranges may require regionally specific considerations to increase success, given that environmental heterogeneity can impose different constraints on population re-establishment in different parts of the range. We describe the process of implementing genetically informed translocations of a threatened amphibian, the California red-legged frog (*Rana draytonii*), from Baja California, México, to areas where it was extirpated in southern California. Urban sprawl, invasive species, and other contemporary stressors add to the natural environmental challenges already present for amphibians in this warm, dry part of the southwest. We also describe the binational collaboration that initiated and maintains the project, the fine-tuning of the entire translocation process, and the results

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of our efforts to date. While we have achieved considerable success in numerous aspects of the process, other key outcomes have yet to play out before we can declare the binational recovery a success that we, and the frogs, aspire!

**BACKGROUND:** In 1999 this project was presented to the Trilateral to work towards permits to conduct the genetics analysis that led to the eventual reintroduction strategy. This work was first implemented on the cusp of covid in 2020 and this will be the first opportunity to present the outcomes of this long process and successful binational collaboration.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** In 2024 we hope to show evidence of 36-48 months of successful repatriation of the California red-legged frogs back into southern California from the population sources in northern Baja California.

**11:20 – 11:45 U.S. Endangered Species Act listing of the sunflower sea star: process update and anticipated next steps for trilateral management**

**AGENDA ITEM PRESENTORS:**

Dayv Lowry, david.lowry@noaa.gov, NOAA Fisheries  
Norah Eddy, norah.eddy@tnc.org, The Nature Conservancy

**COLLABORATORS & CONTACTS:**

Dayv Lowry, david.lowry@noaa.gov, NOAA Fisheries  
Norah Eddy, norah.eddy@tnc.org, The Nature Conservancy

**PROJECT DESCRIPTION:** After a comprehensive status review process, in March of 2023 NOAA Fisheries proposed listing the sunflower sea star (*Pycnopodia helianthoides*) as a threatened species under the U.S. Endangered Species Act. Though the species ranges from Alaska to Mexico, from 2013-17 sea star wasting syndrome resulted in the loss of over 90% of the global population. In southern portions of the range, the projected loss was over 98%, and the species is now rarely encountered south of central Washington. Building on The Nature Conservancy's Roadmap to Recovery, in coming months NOAA Fisheries, and partners, will formalize an ESA recovery strategy to coordinate actions to promote research, maximize conservation efforts, and implement a framework for recovery. In Canada, a status review is currently underway for the species and, whether it is ultimately listed under the Canadian Species At Risk Act or not, transboundary coordination will be key to effective management. In Mexico, the southern extent of the range of the species is poorly defined and additional data are needed. NOAA Fisheries is providing this update on the listing process and anticipated next steps to maximize awareness and solidify continued Species Table endorsement of trilateral management for the sunflower sea star.

**BACKGROUND:** The sunflower sea star occurs in marine waters shallower than ~435 m from the Aleutian Islands, AK, USA, along the coast of North America to at least northern



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Baja California Sur, MX. From 2013-17 a pandemic of wasting syndrome killed billions of individuals, resulting in local extirpations and the loss of greater than 90% of the global population. Coordinated reporting of diseased animal is occurring through a volunteer science network, but the cause of the syndrome remains unknown. Animals have been bred and cultivated in a laboratory environment, but genetic variation, disease resistance, and several fundamental aspects of species biology remain poorly understood. NOAA fisheries has proposed listing the species as threatened throughout its range and will require trilateral engagement on recovery efforts to be successful. Evidence suggests that water temperature changes exacerbate wasting syndrome outbreaks, fueling concerns that global warming could result in another pandemic.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** In June of 2022, staff from The Nature Conservancy secured Species Table endorsement of the non-federal Roadmap to Recovery. Here, we seek raise awareness and promote cooperation from all three nations for planning and recovery implementation efforts.

**11:45 – 12:10 Mares Comunidad: A United States-Mexico-Canada Agreement (USMCA) project working with local communities in Pacific Mexico to reduce sea turtle bycatch and improve human well-being**

**AGENDA ITEM PRESENTORS:**

Jeffrey Seminoff, jeffrey.seminoff@noaa.gov, NOAA Fisheries-Southwest Fisheries Science Center

**COLLABORATORS & CONTACTS:**

Jeffrey Seminoff, jeffrey.seminoff@noaa.gov, NOAA Fisheries-Southwest Fisheries Science Center  
Ann Marie Lauritsen, AnnMarie\_Lauritsen@fws.gov, International Affairs, U.S. Fish & Wildlife Service

**PROJECT DESCRIPTION:** Fisheries bycatch mortality is one of the largest impediments to recovery for sea turtle populations across the globe. While there are many paths to solve the bycatch issue, such efforts are most successful, and have the greatest chance of long-term adoption, when fishers and communities are engaged in a meaningful way from the start when developing bycatch reduction strategies. Moreover, when bycatch reduction is part of a holistic effort that also fosters alternative livelihoods, fishers face less pressure to fish long hours at sea, which benefits fishers, their families, and human well-being in general. This presentation summarizes a holistic sea turtle bycatch reduction initiative supported under the USMCA Trade Agreement. *MarEs Comunidad* involves numerous government, academic, and NGO stakeholders, as well as fishers and fishing communities that directly interact with turtles. Activities include rapid bycatch assessments in coastal communities, fisher engagement in high-bycatch areas to learn their ideas on how best to reduce bycatch, at-sea gear trials to identify new turtle-friendly gears, and promotion of alternative livelihoods to reduce heavy fishing pressure. A framework is proposed for community-based sea turtle bycatch reduction efforts that can be applied elsewhere.

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**BACKGROUND:** This *MarEs Comunidad* program is supported by the U.S. Trade Representative, Office of the President of the United States. It is designed to help achieve goals set forth under the USMCA: USMCA 24.18 (Promote sustainable fisheries) and USMCA 24.19 (Promote long-term conservation of endangered species).

**SPECIFIC OUTCOMES AND PROJECT GOALS:** Promote sustainable fisheries and long-term conservation of sea turtles through community-led solutions.

**12:10 – 12:35 Translocation of Black-footed Albatrosses from Midway Atoll National Wildlife Refuge, USA to Create a Breeding Colony on Guadalupe Island Biosphere Reserve, Mexico**

**AGENDA ITEM PRESENTORS:** Federico Alfonso Méndez Sánchez (Grupo de Ecología y Conservación de Islas - GECEI) and Eric VanderWerf (Pacific Rim Conservation - PRC)

**COLLABORATORS & CONTACTS:** Eduardo Ponce Guevara (CONANP), Humberto Berlanga García (CONABIO), Eric VanderWerf (Pacific Rim Conservation), Robby Kohley (Pacific Rim Conservation), Federico Alfonso Méndez Sánchez (Grupo de Ecología y Conservación de Islas), Julio Hernández Montoya (Grupo de Ecología y Conservación de Islas), Israel Popoca Arellano (CONANP), Annie Little (National Park Service), Jared Underwood (USFWS, Papahānaumokuākea Marine National Monument), Jonathan Plissner (USFWS).

**PROJECT DESCRIPTION:** In collaboration with many partner agencies in the USA and Mexico, under the CAN/USA/MEX Trilateral Island Initiative (TII), during 2020 we developed a 4-year program (2021-2024) to translocate Black-footed Albatross (*Phoebastria nigripes*) from Midway Atoll to Guadalupe Island, Mexico to create a new breeding colony. Up to mid-January 2024, we have conducted four years of translocations as follows; 2021: 21 eggs and 12 chicks, with a total of 27 fledged chicks; 2022: 36 eggs, with 34 fledged chicks; 2023: 36 eggs, with 32 fledged chicks; 2024: 36 eggs currently being incubated by foster Laysan Albatross parents. With this, we expect a total of ca. 125 chicks will have fledged from Guadalupe Island by mid-July 2024.

**BACKGROUND:** The Black-footed Albatross (*Phoebastria nigripes*) has a total breeding population of about 57,500 pairs, 95% of which nest on low atolls in the Northwestern Hawaiian Islands. Inundation of breeding colonies from sea level rise and storm surge associated with climate change is its most serious long-term threat. Protection of suitable nesting habitat and creation of new colonies on higher islands are among the highest priority conservation actions. Guadalupe is a large, high island that is protected as a Biosphere Reserve and already supports a thriving colony of Laysan Albatrosses. Black-footed Albatrosses already forage in the cold waters of the California Current around Guadalupe, which are less likely to be affected by climate change than most other regions of the Pacific. Creation of a breeding colony in the eastern Pacific would increase the breeding range of

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the species and enhance its resiliency to climate change.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** To report on the progress of four years (2021-2024) of Black-footed Albatrosses translocations from Midway Atoll to Guadalupe Island. In mid-January we transported 36 fertile eggs to Guadalupe Island; we expect that between 32-34 chicks will fledge and leave the island by mid-July 2024. This year marks the end of this conservation translocation. Based on the return rate of translocated chicks of projects in Hawaii by PRC, we expect that chicks from the first cohort that fledged from Guadalupe in 2021 might be returning to the island during the breeding season 2024-2025.

**12:35 – 2:00 Lunch**

**2:00 – 2:30 Trilateral Island Initiative: Conservation and Restoration of the Islands of Canada, the United States, and Mexico**

**AGENDA ITEM PRESENTORS:** Anni Little (NPS) and representatives from Can

**COLLABORATORS & CONTACTS:** Annie Little (NPS), Gilles Seutin (Parks Canada), Federico Méndez Sánchez (Conservación de Islas), Gregg Howald (Advanced Conservation Strategies), Patty Baiaio (Island Conservation), Humberto Berlanga (CONABIO), Nick Holmes (TNC), Eric VanderWerf (Pacific Rim Conservation), Lindsay Young (Pacific Rim Conservation)

**PROJECT DESCRIPTION:** This agenda item focuses on a collaborative trilateral effort to conserve and restore marine island ecosystems, including seabird populations. Following the signing of the Letter of Intent (LOI) at the 2014 Trilateral Committee meeting, the three countries have been collaborating on multiple issues of shared interest related to island conservation. The Trilateral Island Working Group will update the SCCCW on the status of current collaborative efforts, including ongoing projects, new priorities, and efforts to further the LOI. We will highlight island conservation efforts that in particular relate to the 2024 SCCCW priorities, including climate change, technological innovation, and integrating human dimensions.

**BACKGROUND:** Over the last decade, multiple bilateral and trilateral island restoration projects have been initiated. In order to further encourage coordination and collaboration on island projects, a Trilateral Island Working Group was created in 2012. This group developed the LOI that was signed by the three countries at the 2014 Trilateral Meeting in Querétaro, Mexico. The LOI documents that the three countries intend to engage in cooperative bilateral and trilateral activities to promote sustainable environmental policies and practices in support of island conservation. The Working Group will discuss achievements, priorities, and updates of recent collaborative efforts related to island conservation. This meeting marks the 10-year anniversary of the Trilateral Island Initiative since the signing of the LOI.

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**SPECIFIC OUTCOMES AND PROJECT GOALS:** We seek continued endorsement by the Trilateral Committee of collaborative conservation efforts on islands in Canada, United States, and Mexico.

**2:30 – 2:55 Biodiversity and Climate Change: A continental assessment of scientific knowledge and policy options (2023 - 2025)**

**AGENDA ITEM PRESENTORS:**

Hesiquio Benítez Díaz  
Director de Cooperación e Implementación en Biodiversidad  
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**PROJECT DESCRIPTION:** The United States Geological Survey (USGS) is leading the process to develop the first-ever continental (North American) assessment of biodiversity and climate change. The assessment will be conducted by scientists, knowledge holders, practitioners, and policy experts from governments (federal, Native and Indigenous Nations, state/ province/ territory, local), universities, nonprofit organizations, the private sector, and Indigenous Peoples and Local Communities (IPLCs) from Canada, the United States and Mexico. It will characterize the state of understanding of key linkages between climate change and biodiversity, identify critical knowledge gaps, and summarize implications for biodiversity and climate-change policy.

Since the Trilateral Committee meeting last year authors have started work on writing content for the Assessment report itself.

**BACKGROUND:** Biodiversity underlies nature's contributions to people (also known as ecosystem services), including food, food and water security, hazard protection, and cultural values. Understanding the interplay between climate change and biodiversity is critical for the implementation of effective and lasting solutions to climate change and for maintaining biodiversity and nature's contributions to people. The USGS proposed a national assessment of biodiversity and climate change in its FY'22 budget; it was subsequently decided that conducting the assessment at a continental scale was necessary to strengthen it and make the outcomes more effective and more broadly applicable.

This assessment compliments and builds on previous efforts and synergizes with existing processes to assess the most current evidence base regarding status and trends, drivers, and effectiveness of responses.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** We seek the engagement of the Trilateral Committee to work with governmental and non-governmental partners at local, state, and Federal levels in México, Canada and the U.S. through the following: We seek cooperation with the Trilateral Committee during the assessment process specifically for 2024 - responding to the public review phase (draft chapter review mid-2024)

### **2:55 – 3:15 Conservation of Reddish Egret (*Egretta rufescens*) in the U.S. and Mexico**

**AGENDA ITEM PRESENTORS:** Jesús Franco, Rio Grande Joint Venture, American Bird Conservancy.

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**COLLABORATORS & CONTACTS:** Clay Green (claygreen@txstate.edu, Texas State University), Dean Demarest (dean\_demarest@fws.gov, U.S. Fish and Wildlife Service), Salvador Narváez Torres (snarvaez@pronaturane.org, Pronatura Noreste), Kelli Stone (kelli\_stone@fws.gov, U.S. Fish and Wildlife Service), Bill Vermillion (william\_vermillion@fws.gov, Gulf Coast Joint Venture), Andrew Cox (William.Cox@MyFWC.com, Florida Fish and Wildlife Conservation Commission), Jesús Franco (jfranco@abcbirds.org, Rio Grande Joint Venture, American Bird Conservancy).

**PROJECT DESCRIPTION:** The 2014 Reddish Egret (REEG) Conservation Action Plan served as the foundation for the development of the REEG Conservation Business Plan for Mexico. The plan articulates a portfolio of strategies and actions to advance REEG conservation in Mexico. The REEG Working Group has recently completed the development of a Business Plan for the U.S., as well as an update to the 2014 range-wide REEG Conservation Action Plan. The updated plan includes new biological, demographic, genetic, migratory connectivity, and other pertinent planning information that has become available since the original publication. Whereas the Conservation Action Plan establishes the context, objectives, and expectations related to conserving sustainable populations of REEG range-wide, the two Business plans help identify and define the necessary resources needed to accomplish key supporting actions in Mexico and the U.S. Active support from interested stakeholders is needed for the implementation of both the Mexico and U.S. conservation business plans, which will require the integration of a strong human dimensions, and increased coordination and information sharing.

**BACKGROUND:** The Reddish Egret International Working Group (REEG WG), led by the U.S. Fish and Wildlife Service, includes partners from the U.S., Mexico and a number of nations in the Caribbean and Central America, where REEG is listed as an endangered species (Mexico), identified as a Bird of Conservation Concern (U.S), or near threatened (IUCN). REEG is an international resource, with Mexico and the U.S. appearing to support about equally the bulk of the global breeding population.

**SPECIFIC OUTCOMES AND PROJECT GOALS:**

Goals:

- Implement the US and Mexico conservation action plans and business plans
- Improve working group to be more efficient and productive.
- Maintain and improve the reddish egret population by increasing the population from the current estimated population of 4,200 breeding pairs to 7,500 breeding pairs over the next 10 years.

**3:15 – 3:30 Break**

**3:30 – 4:00 California Condor Recovery Program update - U.S. and Mexico collaboration**

**AGENDA ITEM PRESENTORS:** Ashleigh Blackford, USFWS California Condor Coordinator (Ashleigh\_blackford@fws.gov); María Catalina Porras Peña, California Condor Conservation Program Coordinator at the SSPM National Park,

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(maria.porras@undp.org); Ignacio Vilchis, Associate Director of Recovery \ Ecology San Diego Zoo Wildlife Alliance, (ivilchis@sdzwa.org)

**COLLABORATORS & CONTACTS:** USFWS: Ashleigh Blackford, California Condor Coordinator (Ashleigh\_blackford@fws.gov); Steve Kirkland, California Condor Field Coordinator (steve\_kirkland@fws.gov); and Amanda Gonzales, Program Officer for Mexico (amanda\_gonzales@fws.gov). CONANP: Jose Eduardo Ponce, Director for Priority Species Conservation (jponce@conanp.gob.mx); Angelica Narvaez, Specialist on Transboundary Species Projects (angelica.narvaez1@undp.org); Veronica Meza, Director SSPM National Park, (veronica.meza@conanp.gob.mx); and María Catalina Porras Peña, California Condor Conservation Program Coordinator at the SSPM National Park, (maria.porras@undp.org). Mexico City Zoos and Wildlife: Fernando Gual, Director General for Mexico City Zoos and Wildlife (fernando.gual.sedema@gmail.com). State of Mexico Commission for Natural Parks and Wildlife (CEPANAF): Juliana Leal, Chief, Veterinarian Services, (smvzacango@gmail.com). San Diego Zoo Wildlife Alliance: Ignacio Vilchis, Associate Director of Recovery \ Ecology, (ivilchis@sdzwa.org).

**PROJECT DESCRIPTION:** The condor recovery program in Mexico began (1999) under collaboration agreements reached by the governments of the United States (U.S. Fish and Wildlife Service; USFWS) and Mexico (National Institute of Ecology and Climate Change INECC) with the participation of the San Diego Zoo Wildlife Alliance (SDZWA). Releases began in Sierra de San Pedro Mártir National Park (SSPMNP) occurred in 2002. The 2014 MOU between USFWS and CONANP identifies actions to support condor recovery in SSPMNP. The Mexican population is integrated into the overall recovery strategy range-wide, and in 2023, the USFWS clarified the listed range of the condor under the Endangered Species Act to “Wherever found”, clearly incorporating the Baja population. The 5-year review for the species published in 2023, and recommended the species remain endangered.

We provide an update on the species status across the range and implementation of the MOU. As of December 31, 2023, an estimated 344 condors are in the wild, with 48 in the SSPMNP. Two birds are awaiting release at the SSPMNP field site. Four condors are identified for transfer from the U.S. in 2024. The Baja population provides unique opportunities for population expansion but also challenges including funding and cross-border logistics.

In 2023, HPAI was identified in condors (Arizona) and is responsible for killing 21 condors. We will highlight HPAI vaccine trials initiated in the U.S. in coordination with U.S. Department of Agriculture and efforts to address HPAI through vaccinations in captivity managed and free-flying condors. Currently, condors transferred to Mexico will not be vaccinated.

**BACKGROUND:** The California Condor Recovery Program is an international multi-entity effort, led by the USFWS, to recover the endangered California condor. The Recovery Plan’s down-listing goal is to establish two wild, geographically distinct self-sustaining populations (150 birds each and at least 15 breeding pairs) and a third population

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in captivity. Captive breeding and release of condors continues to be the primary source of population increase range-wide, as recruitment and survival in the wild are lower than mortality. There are four active release sites in California, and one each in Arizona and Baja California.

In 2023, seven condors were released in Baja. Unfortunately, two additional birds awaiting release were killed when a puma breeched the release enclosure. Enclosure improvements (screen for predators and a new aviary netting to address tears) are planned for 2024 and will need to be completed prior to the transfer of additional birds from the U.S.

In spring 2023, an outbreak of the HPAI Eurasian strain H5N1 clade 2.3.4.4b was responsible for the death of 21 condors in Arizona. In response to this threat the USFWS requested emergency use authorization for an HPAI vaccine from the U.S. Department of Agriculture's Animal and Plant Health Inspection Service, which was granted for condors and a small number of North American vultures to support safety trials. Black vultures were used as a surrogate prior to proceeding with captive condors to assess vaccine safety and degree of immune response. Immune response was evaluated using a hemagglutination inhibition assay (an antibody detection test). Two different vaccination administration approaches were tested, (1) a prime and boost (0.5 ml ea), and (2) a single injection (1 ml). No adverse effects were observed during trials. Titers in condors from the prime and boost administration indicated the vaccine may provide some level of protection against mortality caused by the current circulating strain. USFWS approved the Recovery Program to administer vaccinations to the captively managed and free-flying flock; and efforts are underway to implement under site-specific vaccination plans. Birds identified for transfer to Mexico are not being vaccinated for HPAI until logistics can be coordinated on additional needs for cross-border transfers.

The USFWS has invited our Zoological Partners from Mexico to the U.S. to visit the facilities of our various condor captive breeding partners to learn more about the techniques and strategies developed to maximize success in producing birds that will be successful in the wild. In addition, in the upcoming year the USFWS anticipates working with all recovery partners to establish additional goals and strategies tiered from the Recovery Plan to continue to focus our efforts most efficiently.

**SPECIFIC OUTCOMES AND PROJECT GOALS:**

- Transfer of California condors for release in Sierra de San Pedro Martir from the US and Chapultepec Zoo in 2024
- Continue species conservation research and non-lead hunting education programs in Baja California.
- Continue captive-breeding program in Mexico and work with Zacango Zoo to implement its current outreach and environmental education program;
- Continue to explore and discuss options for improved and continuous implementation of the MOU throughout the continued collaboration between CONANP, USFWS, and San Diego Zoo Wildlife Alliance on the management of the wild California condor population in Sierra de San Pedro Martir National Park,



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the breeding in captivity program in Mexico, as well as monitoring and research actions of the species in the wild.

- Identify priority goals for Baja program in context of the Recovery Program Priorities (2024-2025)
- Update Programa de Acción para la Conservación de la Especie (PACE) for the condor
- Identify additional sources of funding to allow an improved operation of the reintroduction program in Baja, California Mexico
- Continue meeting and reporting under the shelter of the Species Table of the Trilateral Committee Meeting.

**4:00 – 4:30 Wildlife Health: Joint Session with Migratory Bird Working Table**

**4:30 – 4:55 Establishment of a Binational Lower Colorado River Marsh Bird Working Group: Joint Session with Migratory Bird Working Table**

**AGENDA ITEM PRESENTORS:** Chris Dodge (Bureau of Reclamation), Eduardo Soto (Pronatura Noroeste), Rebecca Chester (USFWS)

**COLLABORATORS & CONTACTS:** Chris Dodge, CDodge@usbr.gov (Bureau of Reclamation), and Eduardo Soto, esoto@pronatura-noroeste.org (Pronatura Noroeste), Rebecca Chester, rebecca\_chester@fws.gov (USFWS-NWRS), Nichole Engelmann, nichole\_engelmann@fws.gov (USFWS-ES), Jennifer Pitt, jennifer.pitt@audubon.org (National Audubon Society), Jennie Duberstein, jennie\_duberstein@fws.gov (USFWS-SJV)

**PROJECT DESCRIPTION:** A renewed and more pressing need for collaboration exists for work on the endangered Yuma Ridgway's rail (*Rallus obsoletus yumanensis*) and other marsh birds along the Colorado River in Mexico and the United States. Continuing multi-decadal drought in the southwest US has reduced water inputs into the Colorado River watershed, resulting in lower water levels and a reduction in suitable emergent marsh habitat.

We aim to establish an inclusive, multi-partner international Lower Colorado River (LCR) Marsh Bird Working Group to facilitate seamless communication and regular meetings for information sharing and partnering on projects. Increased capacity for conservation work will be realized as various entities become aware of the LCR Marsh Bird Working Group and can easily participate from either country. The U. S. Fish and Wildlife Service has begun the Species Status Assessment (SSA) for the Yuma Ridgway's rail. Thorough information coordinated from both countries will be essential to produce a comprehensive SSA of this secretive migratory species. It will include current and predicted future needs, inferring what conservation efforts are most critical and will have the most impact. Cross-border research and con

**BACKGROUND:** The species exists in marshes along the lower Colorado River and its

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major tributaries in the southwest US, and primarily in the Colorado River delta and marshes along the Golfo de California in Mexico. Some birds are migratory within and between countries, although specifics are not well understood. Migration and habitat use studies are underway. A comprehensive, long-term project to maintain quality marsh habitat on 4 LCR National Wildlife Refuges using prescribed fire has begun in conjunction with water infrastructure adjustments to supply marshes. Marsh habitat is created and managed partly through the LCR Multi-Species Conservation Program (MSCP), administered by Bureau of Reclamation (BOR) and involves 52 other entities. In Mexico, conservation work in the delta includes long-term monitoring and restoration within the critical habitat of the Cienega de Santa Clara, Rio Hardy, etc. Multiple agencies in both countries conduct marsh bird monitoring and submit data to the AKN.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** Establishment of an officially recognized binational Lower Colorado River Marsh Bird Working Group for collaborative work on the Yuma Ridgway's rail and other marsh birds' conservation and habitat requirements.

**7:00 – 8:30 Meet & Greet with Executive Table Co-Chairs**

**THURSDAY, May 2, 2024**

**9:00 – 10:15 Trinational Monarch Butterfly Updates and Opportunities for Collaboration:  
A Joint Session with the Ecosystems Working Table**

**AGENDA ITEM PRESENTORS:** Ryan Drum - US Fish and Wildlife Service (USFWS), ryan\_drum@fws.gov; Gloria Tavera Alonso, National Commission for Natural Protected Areas (CONANP), gtavera@conanp.gob.mx; Greg Mitchell, Environment Canada and Climate Change (ECCC), Gregory.Mitchell@ec.gc.ca

**COLLABORATORS & CONTACTS:** Ryan Drum - US Fish and Wildlife Service (USFWS), ryan\_drum@fws.gov; Gloria Tavera Alonso, National Commission for Natural Protected Areas (CONANP), gtavera@conanp.gob.mx; Greg Mitchell, Environment Canada and Climate Change (ECCC), Gregory.Mitchell@ec.gc.ca

**PROJECT DESCRIPTION:** The reestablishment of the Trilateral Scientific Group for Monarch Butterfly conservation allowed all participants to present and learn of updates on the species efforts in each country, including updates on regulatory processes and listing status, new scientific developments, conservation efforts, plans and strategies, recommendations and/or opportunities for collaboration.

For the United States, this will include a brief update on listing Status under the Endangered Species Act and an overview of ongoing conservation plan implementation and updates on the California overwintering population. For Canada, this will include updates on the federal listing status and conservation targets, and for Mexico it will include updates on 2023-2024 overwintering population numbers and related habitat management and

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protection activities.

The group will provide an update from the February 2024 Trilateral Monarch Conservation Science Partnership meeting and discuss shared priorities and strategic actions and/or targets.

**BACKGROUND:** During the 2023 Trilateral meeting, the Monarch Butterfly conservation issue was transferred from the Ecosystems Conservation to the Species Conservation work table allowing the group an opportunity to address these efforts on a single-species approach to identify new specific challenges and developments.

As a result, representatives from the three lead agencies (USFWS, CEC and CONANP) agreed to meet in Mexico on February 6, to re-establish the trilateral scientific group, giving all parties a chance to resume discussions held in 2015 on issues, such as: Conservation economy, habitat restoration and conservation, research and monitoring, law enforcement, social participation and environmental education, coordination and funding strategies.

**SPECIFIC OUTCOMES AND PROJECT GOALS:**

- Convene senior executive government leadership to re-evaluate, coordinate, and re-energize trilateral monarch commitments and shared priorities.
- Conduct a scientific evaluation to prioritize a connected trans-national network of climate-resilient protected areas, public lands, and other conservation areas throughout the migration corridor from the Mexican overwintering area to the core breeding range. Focus our work in these priority areas.
- Work with CEC to identify and pursue potential \$ resources to support re-convening the Trilateral Monarch Conservation Science Partnership – annually, if possible.
- Produce a 5-Year science-based Monarch Conservation Action Plan that aligns and unifies conservation efforts, recovery plans and targets across the 3 countries – ensure that we are seeing the full picture and doing enough collectively to successfully conserve the migration phenomenon.

**10:15 – 10:30 Break**

**10:30 – 12:30 Pollinators: A Joint Session with the Ecosystems Working Table**

Joint Session with Ecosystems Table. Presentations to include: (1) Domestic Pollinator Conservation Updates and Tri-national Coordination; (2) CEC project Summary: Geospatial Workshops, the Bee Tool; (3) NAPPC Overview and Task Force Updates; (4) Pollinators LOI Discussion

**12:30 – 2:00 Lunch**

**2:00 – 2:20 Endangered Freshwater Fish of the Rio Sonoyta: Conservation and Education in the Southwest-US and Northwest-Mexico Borderlands**

**AGENDA ITEM PRESENTORS:** Debbie Colodner, the Sonora Arizona Desert Museum

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& Nélide Barajas Acosta, CEDO, Intercultural.

**COLLABORATORS & CONTACTS:** CEDO coordinates communication activities among the diverse members of the working group. Presently, the working group comprises the following individuals and institutions: Dennis Caldwell, freshwater fish specialist; Peter Holm from the National Park Service, Scott Richardson and Mathew Wilcox from the U.S. Fish and Wildlife Service; Martín Sau, the Director of The Pinacate and Gran Desierto del Altar Biosphere Reserve at the National Commission of Protected Natural Areas in Mexico; Samantha Lydick, Debbie Colodner, and Stephane Poulin from the Sonora Arizona Desert Museum, University of Arizona; Francisco "Paco" Abarca from the Arizona Game and Fish Department; Dr. Norma Cruz from the Commission of Ecology and Sustainable Development of the State of Sonora, Mexico; Traditional Tohono O'odham Leaders in Sonora, Mexico; Miguel Ángel Grageda García, Ph.D. from The University of Arizona, School of Natural Resources and the Environment; and Dr. Alejandro Varela-Romero from DICTUS Universidad de Sonora, Organ Pipe National Monument; Freshwater Conservation Committee, International Union for Conservation Nature (IUCN), Gland, Switzerland; Colegio de Bachilleres, Sonora Mexico, Centro de Estudios del Mar No. 14, CETMAR, México. Through this collaboration, CEDO facilitates effective communication and synergy among the members, fostering a dynamic exchange of ideas and expertise in the realm of ecology and conservation.

**PROJECT DESCRIPTION:** For more than 25 years “the Sonoran Desert Native Freshwater Fish Working Group” a binational group comprised by protected areas officials, professionals, researchers and civil society organizations have worked to protect the freshwater native fishes of the Sonoyta River, particularly Sonoyta pupfish (*Cyprinodon eremus*) and the Mexican Longfin dace (*Agosia chrysogaster*). In 2021, the working group re-started activities by monitoring fish populations (size and genetic diversity), enhancing the pond's design and infrastructure, and promoting educational programs that connect the ponds at a binational level, taking into consideration the traditional knowledge of the Tohono O'odham nation. For 2023, the overall objective was to enhance the protection of the native fish of the Sonoyta River, the Quitobaquito pupfish (*Cyprinodon eremus*), and the Sonoyta River Mexican Longfin dace (*Agosia chrysogaster*), through an ex-situ conservation refuge network in the Sonora-Arizona borderlands.

**SPECIFIC OUTCOMES AND PROJECT GOALS:**

The project outcomes include:

- 1) Collaboration of the working group for the protection and conservation of binational species and ecosystems.
- 2) The preservation of the Quitobaquito-Sonoyta pupfish and the Mexican longfin dace populations in the refuge network, maintain ex-situ populations in perpetuity.

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3) Raised awareness among the local population regarding Sonoyta native fish.

4) Demonstrate nexus between human and biodiversity

Request to secure binational participation from official representatives to enhance collaboration.

**2:20 – 2:40 Reproduction in captivity of the genomically certified stock of Yaqui catfish, *Ictalurus pricei*, for the benefit of ethnic groups in Sonora.**

**AGENDA ITEM PRESENTORS:** Dr. Alejandro Varela-Romero,  
alejandro.varela@unison.mx, DICTUS University of Sonora

**COLLABORATORS & CONTACTS:**

Can. Dr. Alexandre Gutiérrez-Barragán, alexandre.gutierrez@unison.mx, Graduate Ph.D. Biosciences Program University of Sonora.

Can. Dr. Ramón A. Nenninger Check-Cinco, ramon.nenninger@sonora.gob.mx, Institute of Aquaculture of the State of Sonora.

**PROJECT DESCRIPTION:** The genomic analyzes developed by DICTUS on Yaqui catfish collected from the Bavispe River subbasin, Yaqui River basin in Sonora allowed us to eliminate hybrid individuals with channel catfish and select pure individuals to establish the reproductive stock existing in the CAES. We are feeding and preparing individuals from the reproductive stock for spawning and farming this summer with limited funding from DICTUS and IAES, using National Fish Hatchery and Technology Center of the US Fish and Wildlife published information. Feeding will be used to promote reproductive maturity and hormone use (LHRHa) to induce spawning by pairs of Yaqui catfish in nests inside tanks in a controlled environment. The resulted spawn will be collected and incubated separately in incubators. The resulted fry will be provided with combined natural and artificial diet.

In addition, to increase the genetic variability and the feasibility of reproduction events of the Yaqui catfish reproductive stock at CAES, wild individuals of Yaqui catfish will be captured in the different sub-basins in Sonora and Chihuahua to be transported alive to CAES facilities and kept safe until their genetic nature is determined and their genomic purity is verified to integrate them into the current reproductive stock.

**SPECIFIC OUTCOMES AND PROJECT GOALS:**

1.- Controlled reproduction of genomically certified pure Yaqui catfish stock (*Ictalurus pricei*) involving indigenous peoples and small local producers as recipients of offspring for conservation purposes.

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2.- Promote binational collaboration for cooperation between USFWS Yaqui catfish management specialists and CAES reproductive stock managers in Sonora and the rest of the Mexican Recovery Team to increase the feasibility of inducing reproduction.

3.- Establish the collaboration between the Mexican Yaqui Catfish Recovery Team and the USFWS Recovery Team to design recovery management strategies for the species both sides of the border.

**2:40 – 3:15 Table Close Out and Action Item Plan**

**3:15 – 3:30 Break**

**3:30 – 4:00 Participant Open Discussion, and Co-chair prep for ET session**

**4:00 – 5:00 Executive Table and Co-Chairs Meeting Report Outs**

**6:30 – 8:30 Closing Ceremony**

**APPENDIX I: Project Updates without Agenda Item Presentation**

**Cactus Ferruginous Pygmy-Owl Status Update and Conservation Actions**

**SUBMITTED BY:** Scott Richardson, U.S. Fish and Wildlife Service

**COLLABORATORS & CONTACTS:**

- AGFD - (Shawn Lowery - [slowery@azgfd.gov](mailto:slowery@azgfd.gov); Michael Ingraldi - [mingraldi@frontiernet.net](mailto:mingraldi@frontiernet.net); Francisco Abarca - [fabarca@azgfd.gov](mailto:fabarca@azgfd.gov); Kenneth Jacobson - [kjacobson@azgfd.gov](mailto:kjacobson@azgfd.gov); Keith Knutson - [KKnutson@azgfd.gov](mailto:KKnutson@azgfd.gov))
- Departamento Conservación de la Biodiversidad, El Colegio de la Frontera Sur - Paula Lidia Enriquez - [penrique@ecosur.mx](mailto:penrique@ecosur.mx)
- CEDES - Martha J. Roman - [avoceta63@gmail.com](mailto:avoceta63@gmail.com)

**PROJECT DESCRIPTION:** Continuation of project presented to the Trilateral and the Species Table in 2022 that included continued updates on the current legal status of the cactus ferruginous pygmy-owl in the United States following a petition to list the pygmy-owl under the Endangered Species Act (ESA). The cactus ferruginous pygmy-owl was listed as threatened under the ESA in July 2023. This project continues to investigate the factors included in our analysis of the status of the species in both the United States and Mexico, and to outline the process we undertook to complete the analysis and the determination we made under the ESA. It also provides an update of conservation activities in both the United States and Mexico, including the continued evaluation of a captive breeding program, additional genetic analysis, and recent surveys and monitoring. We will continue to discuss areas of potential binational coordination and cooperation for future cactus ferruginous pygmy-owl conservation activities in the United States and Mexico.

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**BACKGROUND:** Conservation activities related to the cactus ferruginous pygmy-owl in both the United States and Mexico were undertaken primarily as a result of being listed as endangered under the ESA in Arizona from 1996 - 2006 when the species was delisted. Subsequent to delisting, some ongoing research and monitoring were conducted, but at a reduced level. The U.S. Fish and Wildlife Service was petitioned to relist the subspecies and litigation ensued which resulted in Fish and Wildlife proposing to list the cactus ferruginous pygmy-owl as threatened throughout its range in December 2021. More extensive survey and monitoring, as well as some additional genetic sampling was conducted in 2020 and 2021 to inform this listing proposal. The listing of the cactus ferruginous pygmy-owl was finalized in July of 2023. We seek input to and support of continued implementation of conservation activities in both the United States and Mexico.

**SPECIFIC OUTCOMES AND PROJECT GOALS:** With the finalization of the listing of the cactus ferruginous pygmy-owl as threatened throughout its range, it is important to support and coordinate conservation activities in both the United States and Mexico. Specific goals and outcomes are:

1. Identify key agencies and individuals in the United States and Mexico to initiate coordination and planning of key cactus ferruginous pygmy-owl conservation activities.
2. Determine current population status of both the eastern and western populations of the cactus ferruginous pygmy-owl
3. Assess the value of improving population and genetic health through cross-border translocations.

### **A binational Yaqui Catfish Collaborative Conservation Efforts**

**SUBMITTED BY:** David R. Stewart, US Fish and Wildlife Service

**COLLABORATORS & CONTACTS:** David R. Stewart, david\_stewart@fws.gov, US Fish and Wildlife Service; Cassondra Walker, cassondra\_walker@fws.gov, US Fish and Wildlife Service; Gary Pandolfi, gary\_pandolfi@fws.gov, US Fish and Wildlife Service; Janess Vartanian, janess\_vartanian@fws.gov, US Fish and Wildlife Service; Tasha Harden, tasha\_harden@fws.gov, US Fish and Wildlife Service; Grant Harris, grant\_harris@fws.gov, US Fish and Wildlife Service; Joe Barron, joseph\_barron@fws.gov, US Fish and Wildlife Service; Melanie Culver, mculver@usgs.gov, US Geological Survey - Arizona Cooperative Fish and Wildlife Research Unit

**PROJECT DESCRIPTION:** Over the past year, the US Fish and Wildlife Service has concentrated on saving the endangered Yaqui Catfish, located along the US-Mexico border. The agency's main objective is to bolster joint conservation efforts between the two countries, with a strong focus on advocating for captive breeding programs to accelerate the species' conservation. This includes forging agreements with Mexico for the catfish's capture, genetic study, and hatchery involvement, plus transporting them to the US for breeding in National Fish Hatcheries (NFH), a technique successfully used in the 1990s. A

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key development has been launching a Species Status Assessment (SSA) to update the Yaqui Catfish Recovery Plan. The 2022 & 2023 campaigns aimed at expanding partnerships and establishing a binational team for coordinated recovery efforts. This collaboration has led to progress in the SSA, a draft Recovery Plan, and funding for research in Mexico. Projects to improve habitats in the Rio Yaqui basin are also being implemented. The Uvalde NFH is ready to receive and spawn Yaqui Catfish from Mexico. Further success in achieving desired conservation outcomes have been hampered by inconsistent communication and delayed timelines. Renewed commitment from collaborators will accelerate the recovery of the species.

**SPECIFIC OUTCOMES AND PROJECT GOALS:**

Draft and finalize formal agreements between the US and Mexican governments that outline specific roles, responsibilities, and timelines for collaborative conservation efforts. Developing reasonable timelines and adhering to them, given that time is of the essence for this species. Improve the consistency and reliability of communication channels between the US and Mexican teams. Work on establishing a clear and efficient legal framework that allows for the safe and legal transport of Yaqui Catfish between the US and Mexico, ensuring compliance with both countries' regulations.

In our binational collaboration, we aim to clearly delineate specific roles and responsibilities, drawing upon the distinct expertise available in both the United States and Mexico. A central element of this partnership is setting and adhering to reasonable timelines for our joint conservation efforts, which are pivotal in guiding our decision-making processes. An immediate focus is to develop and maintain practical schedules for the genetic analysis and any other projects in Mexico, recognizing the critical nature of timing for the survival of this endangered species.

We also address the challenges faced by the Mexican hatchery currently responsible for housing the Yaqui Catfish, namely a lack of sufficient staff and funding to support effective propagation. To overcome these obstacles, we propose the relocation of these fish to the Uvalde National Fish Hatchery. This strategic move is essential, considering the pressing need for immediate conservation actions to protect the species. The Uvalde facility, with its enhanced resources and expertise, can replicate the breeding conditions for the Yaqui Catfish from the 1990s. This action is not just a response to an immediate need but a significant step towards the long-term survival and recovery of the species, ensuring that our conservation efforts are both effective and sustainable.