XXVII Meeting of the Canada/Mexico/U.S.
Trilateral Committee for Wildlife and Ecosystem Conservation and Management
Virtual Meeting: June 13-16, 2022

Working Table: Species of Common Conservation Concern (SCCWT)

All Times Eastern Time Zone and Subject to Change

Co-chairs:

- **Craig Machtans,** Manager, Species at Risk Program, Northern Region, Canadian Wildlife Service, Environment and Climate Change Canada, Canada;
- **Maricela Constantino,** Biologist, Branch of Delisting and Foreign Species, Division of Conservation and Classification, Ecological Services, U.S. Fish and Wildlife Service, U.S
- **Eduardo Ponce Guevara,** Acting Director for Priority Species Conservation, National Commission for Natural Protected Areas (CONANP), Mexico;

Facilitators:

- Demetra Panos, Biologist, U.S. Fish and Wildlife Service, U.S., demetra_panos@fws.gov;
- Angelica Navarez, Specialist on Monitoring and Recovery of Endangered Species, CONANP, Mexico, angelica.narvaez1@undp.org

Agenda at a Glance:

EDT	Monday June 13	Tuesday June 14	Wednesday June 15	Thursday June 16
12:00		**Virtual Tour**		**Coffee & Conversation: U.S. State Agencies & Principal Deputy Director, USFWS**
12:20	**Welcome and Plenary (starts at 12:30)**		*Cactus Ferrunginous Pygmy-Owl Status Update and Conservation Actions*	
12:40			*Report on Monitoring of Golden Eagles with Satellite Technolog*	
1:00		*Reptiles of conservation concern and disease risk*	*U.S. – Mexico California Condor Recovery Program – Status Report*	*Diagnosis of the Use, and Illegal Trade of Jaguars in Mexico*
1:20		*Conservation of Rattlesnakes in US and MX*	*Facilitating information exchange and oordination on Chihuahua chub and other at risk aquatic fauna*	*Strengthening the local participation for Barbary Sheep control in protected areas*
1:40		*Trans-boundary collaboration through a joint biodiversity and CC assessment*	*Developing a plan to recover the Yaqui catfish*	*IUCN Red list reclasification and maanging genetic diversity of peninsular pronghorn*
2:00	*Break*	*Break*	*Break*	*Sonoran Pronghorn Recovery*
				Break (2:20 - 2:25)
2:15	*2:15 - 2:45: SCCCWT Welcome, Introdutions, Adoptions of the Agenda, 2021-2022 Action Item Report and Co-Chairs country reports*	*North American Bat Conservation Alliance*	*Roadmap to Recovery for IUCN critically endangered sunflower sea star*	*2:25 - 2:45: Mexican Wolf Recovery in US and MX*
2:35		*Black Footed Ferret: 1. Recovery Update for US, MX, CA; 2. The first clone of a North American endangered species and the future of institutionalizing bio-banking*	***Joint session with Migratory Bird Table hosted by Species Table- 1. Trilateral Island Initiative, 2. Translocation of Black-footed Albatrosses***	*2: 45 - 3:05: Ocelot Recovery Actions*
2:55	*2:45 - 3:25 TEK Session: 1.TEK and USFWS; 2. Indigenous Advisory Group*			*3:05 - 3:25: Transboundary Movements of Wildlfie*
3:15		*Break*	*Break*	*Break (3:25 - 3:30)*
3:30	*Break (3:25 - 3:40)*	***Monarch and Polllinator joint session hosted by Ecosystem Table***	*Conservation and management of last colony of prairie dogs in Sonora*	**ET & Co-chairs Session**
3:50	*3:40 - 4:00 Implementation of North American Rabies Management Plan*		*Grassland and Black-tialed Prairie Dog Conservation*	
4:10	*4:00 - 4:20 Assessing risk and identifying pathways in support of preventing the spread of Prussion Carp*		*Bison updates (IUCN, US, CA, & MX)*	
4:30	*4:20 - 5:00 Feral Swine management (US, MX, CA)*			

All times in Eastern Daylight time zone

XXVII Meeting of the Canada/Mexico/U.S.
Trilateral Committee for Wildlife and Ecosystem Conservation and Management
Virtual Meeting: June 13-16, 2022

Table of Contents

XXVII Meeting of the Canada/Mexico/U.S.
Trilateral Committee for Wildlife and Ecosystem Conservation and Management
Virtual Meeting: June 13-16, 2022

Monday, June 13, 2022

12:30 – 2:00pm Welcome and Plenary

2:00 – 2:15pm *Break*

2:15 – 2:45pm Species of Common Conservation Concern Working Table Welcome, Introductions, Adoptions of the Agenda, 2021-2022 Action Item Report, and Co-Chairs Country Reports

COLLABORATORS & CONTACTS: Craig Machtans (Canadian Wildlife Service), Maricela Constantino (US Fish and Wildlife Service), José Eduardo Ponce Guevara (CONANP; México)

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) (particularly those that are not on this year's agenda) and any outstanding actions from the previous meeting.

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.

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

2:45 – 3:25pm Traditional Ecological Knowledge and Co-Management of Conservation of Species with First Nations Session

2:45 – 3:00 pm Traditional Ecological Knowledge and the U.S. Fish & Wildlife Service

SUBMITTED BY: Sarah Rinkevich, Scott Aikin, DJ Monette, Crystal Leonetti, U.S. Fish & Wildlife Service

AGENDA ITEM PRESENTER(S): Sarah Rinkevich, U.S. Fish & Wildlife Service

COLLABORATORS & CONTACTS: Interagency ITEK Working Group

PRESENTATION DESCRIPTION: This presentation will focus on examples of how the Fish & Wildlife Service (FWS) views and uses TEK within the Southwest United States and in Alaska. From the published literature, one author reported on the oral traditions of the O'odham and Comcáac oral traditions in the southwestern United States containing over 20 interspecific relationships encoded in their biosystematic lexicon. The FWS incorporated Apache and Gila River Indian Community knowledge of bald eagles within Arizona. Currently, the FWS is undertaking an ambitious endeavor to incorporate TEK of northern gray wolves and Alexander Archipelago wolves (Alaska) into their respective status reviews and 12-month petition findings. Lastly, the FWS is represented on the Office of Science and Technology Policy and Council on Environmental Quality's

"Interagency Working Group on Indigenous Traditional Ecological Knowledge" which will be drafting guidance in incorporating Indigenous Traditional Ecological Knowledge into agency decisions. All of the above will be discussed.

BACKGROUND: Traditional Ecological Knowledge (TEK) is increasingly being applied in the field of wildlife conservation, yet conceptualization of what TEK is and views regarding whether TEK is science remain diverse. However, TEK offers ecological information and insights relevant to ecological management and research that cannot be obtained from other sources. The term has been used to describe the knowledge held by Indigenous cultures about their immediate environment and the cultural practices that build on that information. TEK parallels the scientific discipline of Ecology because both TEK and Western science share observation and description of the empirical world. TEK is conceptually holistic, however, in that Indigenous knowledge systems consider the biotic and abiotic as being connected, and not compartmentalized as it is in Western science.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS: One outcome would be to interact with representatives from Canada and how they collect and use TEK with regard to conservation of endangered species. Another would be to discuss with Canada and Mexico representatives how co-management with Indigenous peoples of endangered species is occurring or how together we can shape the future of stewarding protected species.

3:00 – 3:15pm Indigenous Advisory Group – International Joint Commission (IJC), St. Mary and Mile River Study (SMMR) Board

SUBMITTED BY: Sheree Watson, USGS

AGENDA ITEM PRESENTER(S): Sheree Watson, USGS

COLLABORATORS & CONTACTS: John Kilpatrick (jmkilpat@usgs.gov), Director, WY-MT Water Science Center, US Geological Survey and Accrediting Officer, International Joint Commission; Claudia Regan (cregan@usgs.gov), Director, Northern Rocky Mountain Science Center, US Geological Survey

PRESENTATION DESCRIPTION: The St. Mary & Milk River (SMMR) basin sustains a diverse ecosystem with multiple cultural, and economic interests. The basin currently faces issues of aging infrastructure and impacts from a changing climate including severe summer droughts. Indigenous groups in both countries have expressed concern about their native fisheries and agricultural resources as both depend upon a stable, dependable water source. A new study was initiated by the International Joint Commission (IJC) in 2021 that will investigate options for improving access to shared waters in the basin including measuring water, reviewing infrastructure, and adapting for a changing climate. A large part of the study will be engagement of Indigenous Nations that have historical lands and water rights in the basin including the Blackfeet, Blood, and Fort Belknap Indian Communities. I am working with members of the IJC to engage Indigenous Nations from both countries in the study, including soliciting participation in an Indigenous Advisory Group (IAG) that will counsel the study board and commissioners. I have drafted an Indigenous Engagement Plan as part of the study boards plans to make sure Indigenous voices and interests are represented as part of the SMMR study.

BACKGROUND: The St. Mary & Milk River watershed (basin) are shared between the U.S. and Canada and have been managed by the International Joint Commission (IJC) as outlined in the Boundary Waters Treaty since 1909. The St. Mary River originates in Glacier National Park, traditional lands of the Amskapi Piikuni (Blackfeet Tribal Nation), and then flows northward into the Kainai First Nation (Blood

Tribe) of Canada. The St. Mary River feeds the Milk River which begins in Canada and then flows easterly into Montana and bounds the Fort Belknap Indian Community (Aaniiih & Nakoda Tribal Nations). Water rights of Indigenous Nations were acknowledged in the past by the IJC, but they were never considered in negotiations over water allotment and management.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

- To keep Indigenous Nations in the St. Mary and Milk Rivers basin informed about the International St. Mary and Milk Rivers Study (ISMMRS, 'the Study'), and the role of the International Joint Commission and Accredited Officers in water apportionment.
- To identify and facilitate opportunities for Indigenous Peoples to participate and collaborate with all aspects of the Study -- in the Indigenous Advisory Group, but also technical advisory groups -- including developing the study's options and recommendations.
- Develop a list of key contacts (political, lands and environment, academic) within SMMR Indigenous Nations and partnering organizations, focusing on Peoples that have a direct connection to the scope of the study.
- Investigate key issues and/or projects that are facing individual SMMR Nations, particularly those that intersect with study objectives (water, natural resources, fisheries, climate change) and/or may affect the capacity and availability of tribal representatives to engage with the SMMR Study and IAG.

3:15 – 3:25pm TEK Session Discussion

3:25 – 3:40pm *Break*

3:40 – 4:00pm Implementation of North American Rabies Management Plan

SUBMITTED BY: David Bergman, USDA APHIS WS, Richard Chipman, USDA APHIS WS, Tore Buchanan, Ontario Ministry of Natural Resources, Marianne Gagnier, Ministere des Ressources naturelles et de la Faune due Quebec, Luis Lecuona, USDA APHIS

AGENDA ITEM PRESENTER(S): David Bergman, USDA APHIS Wildlife Services

COLLABORATORS & CONTACTS: North American Rabies Management Team: Association of Fish and Wildlife Agencies; Western Association of Fish and Wildlife Agencies; Canadian Rabies Committee; Canadian Food Inspection Service; Environment Canada; Cornell; Indian Health Services; University of Alaska – Fairbanks; Mexico Ministry of Agriculture, Livestock Husbandry, Rural Development, Fisheries and Food (SAGARPA), National Service for Health, Safety and Food Quality (SENASICA); Mexico Ministry of Health (SALUD), National Center for Epidemiology Surveillance and Disease Control (CENAVECE); Ministere des Ressources naturelles et de la Faune due Quebec; Ministry of Environment and Natural Resources of Mexico (SEMARNAT); Navajo Nation; New York State Department of Health; Ontario Ministry of Natural Resources; Provincial Health New Brunswick; Public Health Agency of Canada; Texas Department of Health Services; Thomas Jefferson University; United States Animal Health Association; United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services and International Services; United States Department of Health and Human Services, Centers for Disease Control and Prevention; Universidad Nacional Autónoma de México; Nova Scotia Department of

Natural Resources; Global Alliance for Rabies Control; Puerto Rico Department of Health; PAHO; Lyssa LLC, and Wistar Institute

PRESENTATION 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.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

- Continued support of the North American Rabies Management Plan
- 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.

4:00 – 4:20pm Assessing Risk and Identifying Pathways in Support of Preventing the Spread of Prussian Carp *Carassius gibelio* beyond Alberta

SUBMITTED BY: Patrick M. Kočovský, U.S. Geological Survey

AGENDA ITEM PRESENTER(S): Patrick M. Kočovský, U.S. Geological Survey

COLLABORATORS & CONTACTS: Kevin Johnson, USFWS, kevin_m_johnson@fws.gov, Grady, Joanne Grady, USFWS, joanne_grady@fws.gov

PRESENTATION DESCRIPTION: Prussian Carp (Cyprinidae: *Carassius gibelio*) is native to central Europe and Asia and is invasive in North America. It is listed as injurious wildlife in the United States. It is considered the most economically and ecologically damaging aquatic invasive species in Europe. It was first detected in Alberta around 2000 and had increased 10 times in abundance and 8 times in invaded area by 2014. Rapid expansion is continuing. Prussian Carp is currently not present in the United States or Mexico. If it were to enter the United States it would be at the headwaters of the Missouri River, the largest watershed by area in the United States. It would have no appreciable barriers to downstream dispersal. Most of the 48 conterminous States have suitable or highly suitable Prussian Carp habitat. All Mexican states bordering the United States have suitable or highly suitable habitat. Prussian Carp is considered one of the most injurious potential invaders by the US Fish and Wildlife Service. Preventing entry is a high priority for the United States. This is a new initiative.

BACKGROUND: Prussian Carp were established in Alberta around the year 2000 (Docherty et al. 2017, https://doi.org/10.3391/bir.2017.6.3.15). Growth in numbers and area occupied was rapid and facilitated by man-made connections among watersheds (Elgin et al. 2014, http://dx.doi.org/10.3391/bir.2014.3.4.09). Prussian Carp are gynogenetic; female-only populations are common. Prussian carp are invertivores, hence are interference competitors for native fishes. There were significant declines in Native Brook Stickleback and Fathead Minnow between 2004 and 2015 (Ruppert et al. 2017, https://doi.org/10.1098/rsos.170400). Abundances of Chironomidae and Simuliidae were higher and overall invertebrate diversity was where Prussian Carp were present and abundant (Ruppert et al. 2017). An analysis by the US Fish and Wildlife Service identified 67 potential transfer locations between Canada and the US for Prussian Carp, one of which was considered medium risk and another high risk. The need to prevent the expansion of Prussian carp into the US is underscored by the presence of numerous US Federal- and State-listed trust aquatic species in the Missouri and Mississippi River watersheds, including species with approved, active management plans. A recent analysis (http://dx.doi.org/10.1016/j.scitotenv.2022.153404) by Cuthbert et al. demonstrated prevention is the economically better alternative to managing post-invasion.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS: Confirm the identified water pathways and risk levels identified in the US Fish and Wildlife Service report along the Canada-US border begin the process along the US-Mexico border; pursue closure of high- and medium-risk connections. Increase awareness of the threat of Prussian Carp expanding across national boundaries in North America; generate tri-national interest in preventing Prussian Carp crossing the Canada-US border.

4:20 – 5:00pm Feral Swine Management (US, MX, CA)

North American Management of Feral Swine (US)

SUBMITTED BY: Dana Cole, USDA APHIS WS, David Bergman, USDA APHIS WS, John Tomecek Texas A&M University

AGENDA ITEM PRESENTER(S): David Bergman, USDA APHIS Wildlife Services

COLLABORATORS & CONTACTS: US Fish and Wildlife Services, USDA APHIS including Wildlife Services, Veterinary Services, and International Services, USDA NRCS, Association of Fish and Wildlife Agencies, US universities, Wild Pig Task Force, US State wildlife and agriculture agencies, SAGARPA, SEMARNAT, National Autonomous University of Mexico, Instituto

Politécnico Nacional, University of Saskatchewan, Government of Alberta, and Government of Saskatchewan.

PRESENTATION DESCRIPTION: In the US, a Feral Swine Damage Management Program (NFSP) was initiated in fiscalyear 2014 (FY14) as a way to implement control activities to reduce feral swine damageacross the United States and afflicted territories. Since its inception, participation hasexpanded to include Canada and Mexico. The program and its components includeongoing collaborative research, operational feral swine population reduction, andoutreach 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, and native ecosystems. They also represent a risk to domestic animals 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. African Swine Fever has been found in the Dominican Republic and Haiti and is a threat to wildlife and agriculture in North America.

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.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

- Further develop cooperative partnerships with other pertinent federal, state,provincial, tribal, and local agencies, and private organizations working to reducethe 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 diseaseecology, particularly at the feral swine, agriculture, and human interface.
- Develop and improve tools and methods to manage feral swine populations,including field tests to assess efficacy for reducing risks to agriculture, naturalresources, property, animal health, and human health.
- Develop outreach materials and activities to educate the public about feral swinedamage and related activities to prevent or reduce damage.
- Coordinate with Canada and Mexico to ensure awareness of feral swine initiativesand mitigation techniques and incorporate their activities into a trinational plan.
- Conduct outreach campaigns in Canada, Mexico, and the US.

Canada's Invasive Wild Pig Strategy

SUBMITTED BY: Michelle Thompson, Animal Health Canada

AGENDA ITEM PRESENTER(S): Michelle Thompson, Animal Health Canada

COLLABORATORS & CONTACTS:

Michelle Thompson (mthompson@animalhealthcanada.ca), Animal Health Canada

Rayna Gunvaldsen (rgunvaldsen@animalhealthcanada.ca), Animal Health Canada

PRESENTATION DESCRIPTION:

There is no single group at the national level that has jurisdiction over all aspects of the invasive wild pig issue in Canada. Differences in legislation, resources and the distribution of wild pigs in various regions have hampered the development of a pan-Canadian approach on the issue.

A working group under the African Swine Fever Executive Management Board, established to deliver on the goals and objectives of the Pan-Canadian Action Plan on African Swine Fever, has developed a Canadian Invasive Wild Pig Strategy. This strategy serves to document the recommended pan-Canadian plan and policy direction for managing invasive wild pigs.

The goal of this strategy is the eradication of invasive wild pigs from Canada. While this may not be feasible in all regions of Canada within the 10-year strategy timeline, measurable reductions in animal numbers in these regions are important successes and will move the nation closer to the overall goal. These reductions will be quantified and reported through this strategy.

BACKGROUND:

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS: Develop trinational coordination on the invasive wild pig issue.

Management of Feral Swine in Mexico

SUBMITTED BY: National Commission for Natural Protected Areas and Directorate General for Wildlife of the Ministry of the Environment and Natural Resources (SEMARNAT)

AGENDA ITEM PRESENTER(S): Jose Eduardo Ponce Guevara & Roberto Aviña Carlin

COLLABORATORS & CONTACTS: Eduardo Rendón Hernández, Sayra Rosio Espindola Barrientos, Jose Eduardo Ponce Guevara & Rodolfo Pineda Pérez. National Commission for Natural Protected Areas; Victor Manuel Campuzano Ocampo & Roberto Aviña Carlin, Directorate General for Wildlife, Ministry of the Environment and Natural Resources (SEMARNAT); Luis Armando Lecuona Olivares, USDA APHIS MEXICO.

PRESENTATION DESCRIPTION: Feral swine are a harmful and destructive invasive species. They lead negative impacts to growing crops, native plant communities, and wildlife; and can also serve as reservoirs for several bacterial, parasites and viral diseases that can infect wild animals, livestock, and humans. In Mexico the species was first introduced within extensive Wildlife Conservation Units, but some specimens managed to escape and to establish free-ranging populations. Thereby, at the present free-living feral swine populations can be found in Chihuahua, Coahuila, Nuevo León, Tamaulipas, Baja California Sur, Sinaloa, Durango, Chiapas, Campeche and Tabasco, and particularly in the next protected areas: Sierra La Laguna, Cañon de Santa Elena, La Michilia, CADNR 043, Laguna Madre y Delta del Río Bravo and Laguna de Terminos. Specific monitoring and control projects have been implemented in

some of these protected areas through three federal subsidies, the Conservation Program for Endangered Species (PROCER), The Program for the Protection and Restoration of Ecosystems (PROREST) and The Conservation Program for Sustainable Development (PROCODES), which have significantly involved local communities. Activities carried out include population monitoring using camera traps; control of specimens by trapping and hunting; and education, training, and awareness events. In accordance with the serious problem that the presence of the feral swine in protected areas represents, it is important to establish a collaboration program between the countries of North America to minimize the impact in the region.

BACKGROUND: Feral swine (Sus scrofa) cause major damage to property, agriculture (crops and livestock), native species and ecosystems, and cultural and historic resources. In fact, this invasive species costs the United States billions each year in damages and control costs. Since their introduction in the southeastern United States, wild pigs have expanded their range to many other regions of the country, particularly in the past few decades. The Southeastern Cooperative Wildlife Disease Study (SCWDS) has monitored wild pig populations since 1982 and has documented a steady advance into new regions; currently, pigs exist in at least 39 states as Texas, New Mexico, Oklahoma, Arkansas, Louisiana, Mississippi, Alabama, Georgia, North Carolina, South Carolina, Florida, Tennessee, Missouri, Kansas, Arizona, Utah, Nevada, California, Nevada, Oregon, Hawaii, and in a small proportion in Kentucky, West Virginia, Virginia, Ohio, Pennsylvania, Indiana, Michigan and North Dakota. Although many have presumed that pigs were a southern species and that harsh winters would limit their expansion northward, pig populations now exist in the northerly climates of Michigan and North Dakota. In Canada, feral swine have spread to British Columbia and Ontario; and in recent months, Parks Canada confirmed that they were first found in a national park, seen in Elk Island National Park east of Edmonton. In Mexico it is considered a "Very High Risk" species and is part of the List of Invasive Alien Species. The dispersion of this species throughout the country has not been fully evaluated, however, the occurrence records indicate important areas in the north of the country. Since the detection of feral swine populations, the National Office of Wildlife of the Ministry of the Environment and Natural Resources (SEMARNAT), the National Commission for the Knowledge and Use of Biodiversity (CONABIO) and the National Commission of Natural Protected Areas (CONANP) have promoted actions for their control, involving the participation of state governments.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

- Establish a trinational management plan for the control of feral swine in North America.
- Establish a strategy for technical and financial cooperation for the control of the feral swine.

Tuesday, June 14, 2022

12:00 – 1:00pm Virtual Tour

1:00 – 1:20pm Reptiles of Conservation Concern and Disease Risk

SUBMITTED BY: Camille Hopkins DOI/USGS

AGENDA ITEM PRESENTER(S):

- Camille Hopkins DOI/USGS
- Michelle Christman USFWS
- Jeff Lorch DOI/USGS National Wildlife Health Center
- Melissa Miller, University of Florida
- Kristina Drake USGS Western Ecological Science Center
- Sonia Hernandez University of Georgia Southeastern Cooperative Wildlife Disease Study
- Matt Allender, University of Illinois Urbana-Champaign College of Veterinary Medicine

COLLABORATORS & CONTACTS: Camille Hopkins, mchopkins@usgs.gov, US Geological Survey

PRESENTATION DESCRIPTION: This table will highlight activities related to snake and chelonian disease, including zoonoses, and health implications of reptile trafficking. Desired trinational collaborations are for strengthening snake and chelonian disease research, surveillance, and management efforts. This table provides a trinational opportunity to delve into these critical issues ahead of the first Global Amphibian and Reptile Disease Conference in August 2022 (GARD 2022 (eventsair.com)).

BACKGROUND: Snakes of conservation concern are being affected by snake fungal disease (Allender et al. 2018; Sutherland et al. 2014) and invasive parasites (Miller et al. 2020). Illegal collection of wildlife has been associated with population declines and reptiles, including freshwater turtles, are particularly vulnerable. In addition to population declines, there is also concern about disease transmission. Herptile management should include One Health considerations because there are some zoonoses associated with herptile species (e.g., tick-borne relapsing fever (Bechtel et al. 2021), bacterial zoonoses (Hernandez et al. 2021)). The role of climate change on brumation and snake fungal disease risk (Lorch et al. 2016) have not yet been fully elucidated.

Allender, M.C., Baker, S., Britton, M. and Kent, A.D., 2018. Snake fungal disease alters skin bacterial and fungal diversity in an endangered rattlesnake. *Scientific Reports*, *8*(1), pp.1-9.

Bechtel, M.J., Drake, K.K., Esque, T.C., Nieto, N.C., Foster, J.T. and Teglas, M.B., 2021. Borreliosis transmission from ticks associated with desert tortoise burrows: Examples of tick-borne relapsing fever in the Mojave Desert. *Vector-Borne and Zoonotic Diseases*, *21*(8), pp.635-637.

Hernandez, S.M., Maurer, J.J., Yabsley, M.J., Peters, V.E., Presotto, A., Murray, M.H., Curry, S., Sanchez, S., Gerner-Smidt, P., Hise, K. and Huang, J., 2021. Free-Living Aquatic Turtles as Sentinels of Salmonella spp. for Water Bodies. *Frontiers in Veterinary Science*, p.829.

Lorch, J.M., Knowles, S., Lankton, J.S., Michell, K., Edwards, J.L., Kapfer, J.M., Staffen, R.A., Wild, E.R., Schmidt, K.Z., Ballmann, A.E. and Blodgett, D., 2016. Snake fungal disease: an emerging threat to wild snakes. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *371*(1709), p.20150457.

Miller, M.A., Kinsella, J.M., Snow, R.W., Falk, B.G., Reed, R.N., Goetz, S.M., Mazzotti, F.J., Guyer, C. and Romagosa, C.M., 2020. Highly competent native snake hosts extend the range of an introduced parasite beyond its invasive Burmese python host. *Ecosphere*, *11*(6), p.e03153.

Sutherland, W.J., Aveling, R., Brooks, T.M., Clout, M., Dicks, L.V., Fellman, L., Fleishman, E., Gibbons, D.W., Keim, B., Lickorish, F. and Monk, K.A., 2014. A horizon scan of global conservation issues for 2014. *Trends in ecology & evolution*, *29*(1), pp.15-22.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

Goals: Continue support for the goal of protecting the health and population viability of chelonians and snakes of conservation concern, specifically;

a) Support efforts to ensure heightened surveillance for diseases and parasites that may impact chelonians and snakes.

b) Increase understanding of how environmental changes impact risk for reptile diseases,

c) Increase understanding of how wildlife trafficking may impact risk for reptile diseases,

d) Continue support for environmental education in communities living adjacent to important habitat areas.

e) Support integration of best practices in reptile adaptive management

f) Promote coordination among key stakeholders for research and adaptive management approaches to support reptile conservation.

1:20 – 1:40 pm Conservation of Rattlesnakes in the US and Mexico

SUBMITTED BY: Aurora Romo Cervantes, National Commission for Natural Protected Areas

AGENDA ITEM PRESENTER(S): Aurora Romo Cervantes, National Commission for Natural Protected Areas

COLLABORATORS & CONTACTS:

- Thomas Jones (Arizona Game & Fish)
- Leland Pierce (New Mexico Department of Game & Fish
- Gustavo Jiménez (Vida Silvestre Coatl)

PRESENTATION DESCRIPTION:
Mexico and the United States together account for nearly 90% of the world's rattlesnake habitat. At least half of the species that occur in the Mexican territory are considered highly threatened. There are many factors that have put these species at risk, mainly the loss of their habitats, overexploitation on the market for its use as pets and for use in traditional medicine; in addition to the common practice of killing these individuals for unjustified fear both in Mexico and in the United States.

The objectives of the work plan are aimed at increasing the knowledge that currently exists about rattlesnakes (genera *Crotalus* and *Sistrurus*), through the study of their natural history, ecology and behavior, as well as their threats and interactions with human communities, to be able to make recommendations for the management of the species. The main objective is to collaborate in such way that results in mutual benefit for all Parties involved and for the recovery of the rattlesnake and their habitats.

As part of this collaboration we intend to identify the factors that threaten rattlesnake populations and their habitat, as well as the priorities that need to be addressed to establish conservation strategies and provide solutions to these, mainly but not exclusively, along the US-Mexico border. Among the strategies proposed to promote the conservation of this group and its habitat are: scientific research in terms of population monitoring and vulnerability to climate change, environmental education programs and, in general,

exchanging information that supports decision-making for conservation, and to the extent possible, capacity building and any other area of cooperation that the parties consider pertinent.

BACKGROUND: In 2021, under the legal framework of collaboration of the Trilateral Committee for Wildlife and Ecosystem Conservation and Managment (Trilateral Committee), the opportunity arose to initiate a collaboration between the New Mexico Department of Game and Fish, the Arizona Game and Fish Department, the National Commission of Natural Protected Areas and the civil association Vida Silvestre Coatl aimed to strengthen the populations of these species in Mexico and the United States, respectively. A work plan, involving all parties, has been drafted and currently under review of its participants.

1:40 – 2:00pm Trans-Boundary Collaboration Through a Joint Biodiversity and Climate Change Assessment Supporting Evidence-Based Decision-Making for All Three Countries

SUBMITTED BY: Douglas Beard, Stephen Jackson and Hien Ngo, USGS

AGENDA ITEM PRESENTER(S): Douglas Beard, Stephen Jackson and Hien Ngo, USGS

COLLABORATORS & CONTACTS:

T.Douglas Beard, Jr., Ph.D.
Chief, National Climate Adaptation Science Center
6006 Schroeder Road, Madison, WI 53711
dbeard@usgs.govStephen

T. Jackson
Director, Southwest and South Central Climate Adaptation Science Centers
1064 E. Lowell St., P.O. Box 210137, Tucson, AZ 85721-0137
stjackson@usgs.gov

Hien T. Ngo
Senior Science-Policy Lead – Assessments, Southeast Climate Adaptation Science Center
127 David Clark Labs, Campus Box 7617, Raleigh, NC 27695
hienthungo@gmail.com

PRESENTATION DESCRIPTION: The USGS has been contributing to the national climate assessments (NCAs) and their chapters on biodiversity, ecosystems and ecosystem services for over 10 years. This year, the USGS will lead the process for developing the first-ever proposed continental (North American) assessment of biodiversity and climate change. The resulting report from this assessment will aim to inform policies involving the conservation of nature and combatting climate change and promote comprehensive strategies and implementation of trilateral actions for the conservation of nature.

The presentation will have two main objectives: 1) to inform and raise awareness with the audience and members of the Trilateral Committee for Wildlife and Ecosystem Conservation and Management about this assessment and 2) to generate interest and explore opportunities about potential engagement with this assessment process.

XXVII Meeting of the Canada/Mexico/U.S.
Trilateral Committee for Wildlife and Ecosystem Conservation and Management
Virtual Meeting: June 13-16, 2022

BACKGROUND: Nature is required for the provision of ecosystem services for human life and wellbeing. Understanding the key linkages between climate and biodiversity, and how climate may impact future contributions to people will be critical to help mitigate and/or adapt to climate driven change.

The first national climate assessment (NCA), a product led by the United States Global Change Research Program (USGCRP) under the Global Change Research Act of 1990, was published in 2000. To date, there have been four national climate assessments with the fifth national climate assessment to be published in 2023. Independently, the U.S. Government working collaboratively with the Heinz Center produced two editions of *The State of the Nation's Ecosystems* (2002 and 2008 respectively), used to advance our understanding of key components of the United States environment. Decades later, the U.S. has not had a policy-relevant, government-initiated scientific assessment on the state of nature and its contributions to people that encompassed broader challenges (including those of climate change) that affect the entire continent and its shared resources. The USGS has proposed a national assessment of biodiversity and climate change in its FY'22 budget; however, we believe the assessment would be strengthen if conducted at the continental scale. The continental assessment of biodiversity and climate change is meant to build on previous efforts, synergize with existing assessment processes and to assess the most current evidence base regarding status and trends, drivers, effectiveness of responses and provide opportunities for actions for decisionmakers across many sectors and across all levels (local, national, regional and continental).

In order to be legitimate, credible and relevant, this assessment report will learn from previous assessment processes (such as conducted by IPCC, IPBES and the National Climate Assessment), models and principles in its development. In addition, the assessment will be innovative with its approach in some respects, for example, with the deliberate inclusion of different knowledge systems and key stakeholders (e.g., practitioners, indigenous peoples and local community representatives) etc. from the onset of the process to assure that we produce actionable knowledge-based assessments for use in policy, regulation and management of the environment.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

Requested Specific Outcome:

- To introduce the assessment plan and process to the Trilateral Committee
- 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.
- We seek cooperation with the Trilateral Committee during the assessment process such as: dissemination of the call for assessment experts, feedback during review phases, participation in governmental dialogues, government online consultations or public engagement events, and help in developing outreach and awareness material regarding the key findings from the assessment report, even in conducting national outreach campaigns in each country.
- Garner support for any project and/or outreach opportunities involving continental/international collaboration resulting from assessment report key findings.

Project Goals:

- To increase awareness of the assessment process and report
- To increase participation from all stakeholders of the assessment process and report
- To build a better assessment process than what currently exists (lessons learned)
- To enhance collaboration/partnership of the three countries into a regular continuing process (assessment reports)

- To benefit from the Trilateral Committee's network and projects with respect to information exchange and dialogue.

2:00 – 2:15pm *Break*

2:15 – 2:35pm North American Bat Conservation Alliance

SUBMITTED BY: Rodrigo A. Medellin, Mexico, UNAM, CONABIO

AGENDA ITEM PRESENTER(S): Rodrigo A. Medellin, Mexico, UNAM/CONABIO. Jeremy Coleman, U.S. Fish and Wildlife Service, and Charles Francis, Canadian Wildlife Service

COLLABORATORS & CONTACTS:

- Jeremy Coleman USFWS jeremy_coleman@fws.gov
- Charles Francis CWS charles.francis@canada.ca
- Julian Equihua CONABIO jequihua@conabio.gob.mx

PRESENTATION DESCRIPTION: We will continue reporting on the progress made by the three countries on

the main components:

1) White Nose Syndrome/ fungus surveillance and the new models created to understand how far south the fungus is likely to reach as well as how to match the overlapping programs the countries have.

2) Wind energy mortality mitigation across North America. We will report on the innovative technologies becoming available and how the three countries can join forces to secure a safe and rapid transit to bat-safe wind energy.

3) NaBat and SIMMA expansion and application. We will present the advancement reached on users' contributions and steps taken to have agencies from the three countries adopt these protocols as tools for their management plans and information exchange.

4) Expert conservation assessment of all bat species in North America. North America is rapidly becoming one of the first regions of the world to assess all its bat species. We will present the significant advances reached until today and why this is important..

5) Identification, designation, implementation of KBAs. We will present information on how this item, never before presented in trilaterals, has unfolded goals and how to work together across countries, and synergy with the agencies.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

Identify new funding source and assistance for bat surveys in Mexico. The pandemic and the economic climate in Mexico have prevented any progress in this front. Bat surveys continue to be conducted individually by specific groups.

Collaboration and continuity in the work and endorsement by the ET across the three countries is absolutely crucial to maintain the momentum that NABCA has achieved to this day. Over the past year we have had

very significant advances that will be very relevant and interesting to all in the SCC Table. Informing Trilateral participants about this pressing, concerning issues is paramount:

1) White Nose Syndrome/ fungus surveillance. The fungus that causes the White Nose Syndrome, Pseudogymnoascus destructans, continues its expansion. The U.S. Fish and Wildlife Service WNS Program provides grant support to States and Tribes to conduct bat monitoring, WNS surveillance, and to engage in management actions to mitigate the effects of WNS and improve survival of susceptible species. Several States are actively involved with adaptive management and/or field testing tools to combat the effects of WNS. With the support of a U.S. Fish and Wildlife Service, Mexico has made significant progress in the front of assessing hibernacula in Mexico and sampling hibernating bats across the territory for processing in the U.S. Fish and Wildlife Service Forensics Laboratory. To this effect, we visited 22 caves with evident presence of hibernating bats. Of these. 14 hibernacula were not previously known. The 22 sites were located in 6 states (Tlaxcala, Veracruz, Puebla, Zacatecas, Coahuila, Chihuahua). We obtained a total of 108 samples from bat, 5 samples from cave walls, and 87 samples of soil. We are expecting results from the U.S. F.W.S. Forensics lab in the coming months. Our objectives are to continue expanding the number of known hibernacula in Mexico, and monitoring these for presence of the fungus is crucial. The goal is to create an early warning system to detect, control, and mitigate the advancement of th pathogenous fungus.

2) Wind energy mortality mitigation across North America. NABat continues to grow and build a database to improve our understanding of the relationship between wind energy and bats in the U.S. and Canada. In 2021 NABat extended the 10x10 km North American sampling grid offshore to accommodate analyses of bat activity in marine environments that are increasingly being explored for possible wind energy development. The goal is find ways for the three countries to work hand in hand towards bat-friendly wind energy. The goal is find ways for the three countries to work hand in hand towards bat-friendly wind energy.

3) NaBat and SIMMA expansion and application. New technology is allowing the three countries to scale up acoustic monitoring of bats across the continent. NABat has nearly 900 registered users who have contributed over 100,000 colony survey records and over 60 million acoustic species detections in the U.S. and Canada. There are now eight regional bat hubs coordinating monitoring activities across the U.S. and Canada, and a ninth hub is coming online in the southeastern U.S. The SIMMA protocol is still unmoving at this time given the factors associated with the pandemics but we hope to retake activity in 2023. The goals are to have the agencies adopt these protocols for their own management plans and have the three countries share information on these.

4) Expert conservation assessment of all bat species in North America. A new initiative launched recently in which cooperation is essential is the on-going extinction risk assessments of ALL the bat species in North America. Canada, the U.S., and Mexico launched the conservation status assessment of most bat species in North America in early 2021 and over the next several months we conducted several training workshops for more than 100 participants from across the continent. This group assessed 17 bat species in Canada, 45 in the U.S., and 89 in Mexico.

Mexico limited its assessment only to those species warranting such an exercise, not assessing species that are obviously endangered or obviously not at risk. The results were very congruent and robust and the final analysis of expert elicitation and the results of the assessments will be ready and available by September 2022.

5) Identification, designation, implementation of Key Bat Conservation Areas. This is another new initiative. NABat is developing status and trend information that can be useful for the identification of areas of important conservation value for bat species in the US and Canada. Mexico prepared a book chapter for the RELCOM book on AICOMs and SICOMs that will be published in the summer of 2022 (Torres Knoop and Medellin 2022). The goal is to optimize the representativity of conservation-relevant bat species in a network of priority areas.

2:35 – 2:55pm Black Footed Ferret Recovery Updates for US, MX, CA

SUBMITTED BY: Pete Gober, U.S. Fish and Wildlife Service Black-footed Ferret Recovery Coordinator pete_gober@fws.gov

AGENDA ITEM PRESENTER(S): Pete Gober (USFWS), Stefano Liccioli (Parks Canada), Jesus Pacheco Rodriguez (Laboratoria de Ecologia y Conservacion de Fauna Slilvestre Instituto de Ecologia)

COLLABORATORS & CONTACTS:

Stefano Liccioli, Wildlife Ecologist, Grasslands National Park (stefano.liccioli@canada.ca)

Jesus Pacheco Rodriguez, Laboratoria de Ecologia y Conservacion de Fauna Slilvestre Instituto de Ecologia Protegidas (jpacheco@ecologia.unam.mx)

Pete Gober, U.S. Fish and Wildlife Service Black-footed Ferret Recovery Coordinator (pete_gober@fws.gov)

PRESENTATION DESCRIPTION:

2022 Trilateral Species Working Table
Black-footed ferret recovery in Mexico
We are implementing a regional strategy for the conservation of black-tailed prairie dogs and recovery of native grasslands within the Janos Biosphere Reserve (JBR), Mexico. This strategy consists in the first place of recovering the BTPD populations, through a program of reintroduction, relocation, reinforcement and repopulation and monitoring of BTPD. The strategy involves biological corridors, and studies on the biodiversity within the JBR. Second, a series of activities to improve and recover native grasslands. Third, the strategy includes a commitment to develop, in coordination with ranchers and farmers, and other stakeholders and provincial jurisdictions, a conflict mitigation plan to prevent/mitigate conflicts between BTPD and farming operations inside and outside the JBR thereby conserving BTPD populations and thus continue with the program to reintroduce and recover black-footed ferrets in the JBR.

2022 Trilateral Species Working Table Black-tailed prairie dog and Black-footed ferret in Canada
Parks Canada Agency (PCA) continues to conserve prairie dog prey base for potential BFF Reintroductions. Since first reintroduced in 2009 at Grasslands National Park, SK, the BFF reintroduction sites have been impacted by a combination of factors, including plague and drought. In 2021, PCA approved a recovery strategy and action plan to help ensure the persistence of the Canadian BTPD population. This plan includes the commitment to develop, in coordination with ranchers, stakeholders and provincial jurisdictions, a conflict mitigation plan to prevent/mitigate conflict between BTPD and agricultural operations outside Grasslands N.P., thus supporting both BTPD and BFF recovery.

2022 Trilateral Species Working Table Black-footed ferret recovery in the United States The Black-footed Ferret Recovery Program (Program) is still dealing with the threat of Covid-19 pandemic taking

precautions to ensure the safety of the staff and animals by heightened protocols. Challenges continue with plague and working with partners to mitigate plague at reintroduction sites. Continued coordination with the Black-footed Ferret Recovery Implementation Team partners and the Association of Zoos and Aquariums for a BFF Recovery Program Review, due spring 2022.

2:55 – 3:15pm The First Clone of a North American Endangered Species and the Future of Institutionalizing Bio-Banking Species

SUBMITTED BY: Pete Gober, U.S. Fish and Wildlife Service Black-footed Ferret Recovery Coordinator pete_gober@fws.gov

AGENDA ITEM PRESENTER(S): Oliver Ryder (San Diego Zoo Wildlife Alliance)

COLLABORATORS & CONTACTS: Oliver Ryder, San Diego Zoo Wildlife Alliance, Kleberg Endowed Director of Conservation Genetics (oryder@sdzwa.org)

PRESENTATION DESCRIPTION:

2022 Trilateral Species Working Table The First Clone of An Native North American Endangered Species and the Future of Institutionalizing Bio-banking Species: The story of Elizabeth Ann has important implications for all endangered species, added Ryder. “We should be banking cells now from all sorts of endangered animals because we are losing biodiversity, and gene pools of wild animals are shrinking. At least, if we have the cells, we could, in future, do for other species what we are hoping to do for the black-footed ferret with Elizabeth Ann.”

3:15 – 3:30 pm *Break*

3:30 – 4:35pm Monarch and Pollinators Joint Session hosted by the Ecosystem Table

Wednesday, June 15, 2022

12:20 – 12:40pm *Cactus Ferrunginous* Pygmy-Owl Status Update and Conservation Actions

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

AGENDA ITEM PRESENTER(S): Richardson, U.S. Fish and Wildlife Service

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

PRESENTATION DESCRIPTION: I will present an update 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). I will discuss the factors included in our analysis of the status of the species in both the United States and Mexico, and outline the process we undertook to complete the analysis and the determination we made under the ESA. I will also provide 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. I will discuss areas of potential binational coordination and cooperation for future cactus ferruginous pygmy-owl conservation activities in the United States and Mexico.

BACKGROUND: Conservation activities related to the cactus ferruginous pygmy-owl 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. Now, we seek input to and support of continued implementation of conservation activities in both the United States and Mexico.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

With the proposed 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.

12:40 – 12:20pm Report on Monitoring of Golden Eagles with Satellite Technology. A Long-Term MX-US Collaboration and Potential New Projects

SUBMITTED BY: Lizardo Cruz, World Wildlife Fund

AGENDA ITEM PRESENTER(S): Lizardo Cruz / Brian Millsap USFWS/Bob Murphy Eagle Environment Inc.

COLLABORATORS & CONTACTS:

- Lizardo Cruz - lcruz@wwfmex.org
- Brian Millsap - USFWS
- Robert K. Murphy - Eagle Environment Inc.
- José Warman - ENDESU warman@endesu.org.mx
- Humberto Berlanga – Conabio
    - Eduardo Ponce - CONANP

PRESENTATION DESCRIPTION: The collaboration for satellite monitoring promoted by the Trilateral Committee has allowed obtaining very precise information on the regional movement of Golden Eagles, we will present a result of these results. This information will be essential to develop conservation strategies, which could

be supported by the Trilateral Committee and be a continental result in a common concern species on the continent and with resident and migratory populations.

BACKGROUND: In 2012, a collaboration began between CONANP and FWS for the monitoring of Golden Eagles with the use of satellite devices. This collaboration has allowed to know in greater detail the ecology of this species shared at the binational level. This part corresponds to the report of the movement of specimens between 2014 and the beginning of 2022 and opens the opportunity for greater international collaboration with civil organizations, academics, and government agencies.

The results of this collaboration have shown the importance of conserving the species on a much broader scale than originally proposed. In particular, it has been seen that the eagles that are born in Mexico frequently connect with specimens in the United States. But there are also continental movements, from Alaska and Canada to Mexico. Therefore, the conservation of the territories, concentration sites of young specimens, the study of genetics and shared threats are relevant issues for its conservation.

Recently ENDESU has explored a new model to support Golden Eagle conservation using relevant information of territories generated by the collaboration mentioned before.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

1. Report a project supported by the Trilateral Committee.

2. Explore for potential interest of Golden Eagle monitoring and efforts to support Golden Eagles conservation in the future.

1:00 – 1:20pm: U.S. – Mexico California Condor Recovery Program – Status Report

SUBMITTED BY: Ashleigh Blackford, Steve Kirkland, and Amanda Gonzales (USFWS); Jose Eduardo Ponce, Angelica Narvaez, Veronica Meza, and Catalina Porras (CONANP); and Ignacio Vilchis (San Diego Zoo Wildlife Alliance).

AGENDA ITEM PRESENTER(S): Ashleigh Blackford (USFWS), Catalina Porras (CONANP), and Ignacio Vilchis (San Diego Zoo Wildlife Alliance).

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 Conservation Strategies (j.ponce@conanp.gob.mx), Angelica Narvaez, Specialist for Transboundary Species Projects, (angelica.narvaez1@undp.org), Aurora Cervantes, Consultant for Transboundary Species Project, (aurora.cervantes@undp.org), Veronica Mesa, 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).

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

Espacios Naturales y Desarrollo Sustentable (ENDESU): Martha Caballero, Project Coordinator, (martha@endesu.org.mx).

PRESENTATION DESCRIPTION: This agenda item provides an update concerning both, the species status in the U.S. and the implementation of the MOU for the Recovery of the California Condor in Mexico. As of December 31, 2021, there is an estimated 334 condors in the wild, 40 of which are in the Sierra de San Pedro Martir National Park release site in Baja California, Mexico and two chicks born between 2017 and 2018 at the Chapultepec Zoo. Four chicks born in 2019 and 2021will very likely be joining the Mexican wild population this year.

BACKGROUND: The California Condor Recovery Program (Recovery Program) is an international multi-entity effort, led by the USFWS, to recover the endangered California condor. Partners in condor recovery include the Arizona Game and Fish Department, Bureau of Land Man-agement, California Department of Fish and Wildlife, Chapultepec Zoological Park, Espacios Naturales y Desarrollo Sustentable, A.C., Los Angeles Zoo, Mexican Commis-sion of Natural Protected Areas (CONANP), National Park Service, Oregon Zoo, Pere-grine Fund, San Diego Zoo, Santa Barbara Zoo, Secretary of the Environment and Natu-ral Resources of Mexico (SEMARNAT), U.S. Forest Service, Utah Division of Wildlife Resources, Ventana Wildlife Society, Yurok Tribe, and a host of other governmental and non-governmental organizations.

The downlisting goal identified in the California Condor Recovery Plan is to establish two wild, geographically distinct self-sustaining populations, each with 150 birds in the wild and at least 15 breeding pairs, with a third population of condors retained in captiv-ity. There are three active release sites in California, one in Arizona, and one in Baja Cal-ifornia, Mexico.

A fourth release site was established in 2022 with the release of four juveniles in Red-wood National and State Parks. The release site is managed by the Yurok Tribe in part-nership with the National Park. The Yurok Tribe is one of many indigenous cultures that considers condors sacred, and condors are featured prominently in the Tribe’s origin nar-rative. This collaborative recovery partnership showcases the importance of Tribes as species recovery partners. The population at this site was established as nonessential ex-perimental population under a final section 10(j) rule of the Endangered Species Act pub-lished in 2021. This provides needed flexibility in managing the reintroduced population and reduces the regulatory impact of reintroducing a federally listed species and facili-tates cooperative conservation. The Arizona/Utah population is also a nonessential exper-imental population under separate section 10(j) rule.

The USFWS and its partners are placing increased emphasis on captive-breeding to aug-ment the wild population of California condors while working with the hunting and ranching community to reduce the threat of lead poisoning caused by spent ammunition, which is the primary cause of death in the wild and the biggest hurdle to sustainable wild populations. In the upcoming year, the USFWS anticipates working with partners to es-tablish additional goals and strategies tiered from the Recovery Plan to continue to focus our efforts most efficiently.

The overall condor population in Mexico grew steadily until 2014 from a combination of new releases from captive-bred birds and natural productivity. However, cross-border regulations resulting from concerns related to the highly pathogenic avian influenza (HPAI) occurring in the United States have prevented

exporting birds to Baja California from captive breeding sites in the United States since 2015. Both parties have been trying

to identify new mechanisms to overcome these challenges since the Baja California flock will not grow as expected without new releases from captive-bred birds.

Alternative efforts to supplement the wild population include the establishment by CONANP of the first California condor captive breeding program centered at the Chapultepec Zoo in 2015. A total of eleven chicks have been successfully hatched as a result of this effort. Three chicks hatched in 2016 in Chapultepec Zoo were transferred to Sierra de San Pedro Martir National Park (SSPM) that same year. However, due to problems adapting to wildlife the three released chicks had to be taken back to the aviary at SSPM and are planned to become part of Aragon Zoo's permanent California condor exhibit. In 2017 and 2018, two more chicks were hatched in the Chapultepec Zoo and successfully released into the wild in 2018. There are currently four birds in Chapultepec, hatched in 2019 and 2021, waiting to be released in SSPM in the upcoming months, and two newborns in 2022. Plans for such translocation will be made as soon as budgets for both, SSPM and Chapultepec Zoo, are confirmed.

In 2016 a Transition Plan (Plan) of the California Condor Reintroduction Program in Baja California, Mexico was presented by USFWS and San Diego Zoo to CONANP. The Plan is a proposed strategy to transition the program and increase the leadership of the Mexican government and ensure the financial and operational sustainability of the program in the future. USFWS, CONANP, and San Diego Zoo are working together to implement and adaptively implement the Plan by developing short and medium-term goals, objectives, and proposed action plan targets.

In March 2020 members of all the agencies involved in the bilateral program held a working meeting in Mexico City where a work plan for the implementation of the MOU was discussed and signed by representatives from each agency. The plan includes the supplementation of birds bred in the United States to ensure the genetic diversity of this population, as well as collaborative research and data collection and sharing. As part of the results of the 2020 meeting, partners finalized a donation agreement facilitating the transferring of ownership of ATV/UTV and telemetry equipment to CONANP and the signing of a work plan on joint research and information exchange. During the meeting, CONANP also stated its desire to resume the annual transfer of juvenile birds from the U.S. to increase the wild population in Mexico.

Progress has also been made progress toward integrating human dimensions of conservation as part of the efforts to secure the long-term survival of California condors in Mexico. San Diego Zoo, with funding from USFWS, has raised non-lead ammunition awareness among hunting ranches' managers, users, and guides. In Mexico, all ammunition is made by a government company that does not provide non-lead alternatives, thus hunting with non-lead ammunition is inherently difficult for U.S hunters in Baja California. We have made some headway using non-lead hunting workshops demonstrating how the use of lead ammunition can be toxic not just to condors and other scavengers, but also to humans. We plan to have more of these workshops in the future. In addition, the program is also working on human-wildlife conflict avoidance. At the SSPM where the release is, the field team also conducts

workshops highlighting the importance of avoiding condors, better observation practices, as well as how important these birds are to the ecosystem and communities in the area.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

- Update on species conservation research and non-lead hunting education programs in Baja California;
- Update on the status of the captive-breeding program in Mexico;
- Update on the transfer of California condors to Mexico from the US and Chapultepec Zoo in 2022;
- Discuss options for improved and continuous implementation of the MOU throughout the continued collaboration between CONANP, USFWS, and San Diego Zoo on the management of the wild California condor population in Sierra de San Pedro Martir National Park, the breeding in captivity program in Mexico, as well as monitoring and research actions of the species in the wild.
- Identify a second captive site for the three chicks hatched in 2016 that will strengthen the current outreach and environmental education program;
- Continue meeting and reporting under the shelter of the Species Table of the Trilateral Committee Meeting.

1:20 – 1:40pm: Facilitating Information Exchange and Fostering Binational Coordination across the US and Mexico Border to Benefit the Chihuahua Chub (*Gila nigrescens*) and Other At-Risk Aquatic Fauna

SUBMITTED BY: Chad Baumler, Serena Kucera, and Gary Pandolfi, U.S. Fish and Wildlife Service. Southwest Region

AGENDA ITEM PRESENTER(S): Chad Baumler USFWS, chad_baumler@fws.gov New Mexico Ecological Services Field Office

COLLABORATORS & CONTACTS: Serena Kucera USFWS, serena_kucera@fws.gov New Mexico Fish & Wildlife Conservation Office; Gary Pandolfi USFWS, gary_pandolfi@fws.gov Southwest Regional Office

PRESENTATION DESCRIPTION: Multiple species of listed and at-risk fishes occur in river basins across the southwestern US and northern Mexico. The U.S. Fish and Wildlife Service (USFWS) is responsible for completing a status review of all federally listed species under the Endangered Species Act (ESA) at least once every 5 years. The USFWS is seeking any additional research and survey information pertaining to the Chihuahua chub *(Gila nigrescens*) and other at-risk aquatic species. Data provided to the USFWS will improve the conservation and management of these species and help inform upcoming status reviews.

BACKGROUND: The USFWS proposed listing Chihuahua chub *(Gila nigrescens)* as endangered (45 FR 82474) under the Endangered Species Act (ESA) in 1980. However, the 1983 final listing rule stated that the proposed endangered status was changed to threatened because of the species' status in Mexico and the highly successful captive propagation efforts in the US (48 FR 46054). The USFWS completed a status review in 2010 that indicated the species may warrant up-listing from threatened to endangered. However, we lack distributional information from the species in Mexico.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS: The goal is to create a binational coordination team to establish and collaborate on range-wide species status assessments and conservation efforts for listed aquatic species that span the US-Mexico border. The main species of concern at this time will be Chihuahua chub. However, the team may focus on other listed or at-risk species and taxa (e.g. freshwater mussels, snails, and crayfishes) as deemed appropriate going forward. The team would collaborate, compile, and summarize the best available information about the species and provide scientific analyses on the species' current status, genetic assessments, stressors, and conservation efforts.

1:40 – 2:00pm: Developing a Plan to Recover the Yaqui Catfish

SUBMITTED BY: David Stewart (US Fish and Wildlife Service)

AGENDA ITEM PRESENTER(S): David Stewart (US Fish and Wildlife Service)

COLLABORATORS & CONTACTS: Grant Harris, grant_harris@fws.gov, US Fish and Wildlife Service; Matthew Butler, matthew_butler@fws.gov, US Fish and Wildlife Service; Manuel Ulibarri, manuel_ulibarri@fws.gov, US Fish and Wildlife Service; Dean Hendrickson, deanhend@austin.utexas.edu, University of Texas – Austin; James Hopkins, hopkinsj@arizona.edu, University of Arizona; Alejandro Varela-Romero alejandro.varela@unison.mx, Universidad de Sonora

PRESENTATION DESCRIPTION: Populations of Yaqui Catfish (*Ictalurus pricei*) no longer exist in the United States. The only extant populations occur in Sonora and Chihuahua, Mexico, and these populations are endangered from wide-spread hybridization with Channel catfish, a mass-produced, non-native *Ictalurid* species released by aquaculture facilities. Recently, we sought to describe the current distribution of Yaqui catfish and how it relates to the distribution of Channel Catfish in the Yaqui River basin in the states of Chihuahua and Sonora, Mexico. Our results show that non-native Channel Catfish were detected in all but five locations where Yaqui Catfish were detected, suggesting a high likelihood for interaction, including hybridization. The hybridization between Channel and Yaqui Catfish in locations where Yaqui Catfish remain genetically pure continues to increase, highlighting the need to secure the remaining Yaqui Catfish, in the wild and in captivity, to produce more genetically pure individuals for population re-establishment elsewhere within its native range.

Here, we seek collaborations with agency and university scientists from Mexico to identify the remaining Yaqui Catfish population strongholds in Mexico. We would like to help develop hatchery-based supplemental stocking programs in Mexico and in the US. As part of this strategy, we seek to help with the capture and transport of live, pure, Yaqui catfish to establish captive populations in Mexico, determine how the US can support the hatchery program in Mexico, and work toward re-establishing them in the US based captive breeding program to re-populate waters in both Mexico and US with this important species.

BACKGROUND: The recent extirpation of the Yaqui Catfish *Ictalurus pricei* in the United States makes finding remaining population segments in Mexico critical to conservation planning aimed at preventing extinction. Hybridization with invasive species like the Channel Catfish (*I. punctatus*) is a serious threat to the species existence. Until 2021, very little was known about the current distribution of Yaqui Catfish, primarily because no randomized survey of their population in Mexico had ever been conducted, though historical and genetic evidence suggested non-native Channel Catfish may co-occur with Yaqui Catfish creating a risk of hybridization with the non-native species. Additional information regarding how the distributions of Channel and Yaqui Catfish overlapped was needed to better evaluate hybridization risks.

To estimate the current distribution of Yaqui Catfish, especially in relation to non-native Channel Catfish, we collected new data in a robust statistical framework, where observations stem from a random sample. The remoteness and rugged terrain of the desert environment in the Yaqui River basin plus other logistical constraints made access difficult, especially for standard fish sampling gears, such as electrofishing and netting equipment. Therefore, species-specific environmental DNA (eDNA) markers were developed to rapidly survey the Río Yaqui basin in Mexico, making positive species ID more accurate. Non-native

Channel Catfish were detected in all but five locations where Yaqui Catfish were detected, suggesting a high likelihood for interaction, including hybridization.

Based on recent surveys in Mexico, Yaqui Catfish could be approaching extinction, as the threat of hybridization is widespread, and recently documented in Mexico. The need to secure remaining populations is critical for the long-term survival of the species. Currently, scientists in Mexico are working to capture pure Yaqui Catfish. Twenty pure Yaqui Catfish are housed in a Mexican hatchery and have been for two years. Though the fish reside in Mexico, the methods to house and spawn them from past attempts were developed in the US. Therefore, discussions are needed to determine how the US can support efforts in Mexico to capture fish to transport to a Mexican hatchery. More importantly, objectives and methods to spawn captured fish in Mexico need to be discussed and defined, as well as discuss how the US can support those efforts. Additionally, and given the production that could occur in the US with our National Fish Hatcheries, how can the US work with scientists in Mexico to bring fish to the US to create a captive population to help preserve and propagate the species. In doing so, efforts are replicated and redundant populations of pure Yaqui Catfish are created.

Scientists play a critical role in working to inform conservation planning, but a cooperative multinational effort including governments and nongovernmental organizations would be necessary to develop and implement a joint US-Mexico Yaqui Catfish conservation plan to secure the species for the long term.

Our objectives are to prevent global extinction of a species that was once mass produced by US National Fish Hatcheries. We also seek to assist Mexico in developing a supplemental stocking program to support populations in Mexico, while working to re-establish a supplemental stocking program to support recently extirpated populations from habitats at San Bernardino and Leslie Canyon NWRs. This work would also promote the creation of captive populations in Zoos and Aquariums throughout the US, supporting hatchery and stocking efforts in Mexico, and establish Yaqui Catfish on lands administered by the Pasqua Yaqui Tribe.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS: Our goals are to highlight a growing concern that Yaqui Catfish are endangered in Mexico, and stress the need to reinvigorate collaborations between US and Mexico to enhance opportunities for collaborations, where captive propagation programs both commercial and agency-based are developed and supported in Mexico and in the US to accelerate the conservation of Yaqui Catfish. We want to enter an agreement with Mexico to assist with their capture and hatchery efforts, while also working toward an agreement to transport Yaqui Catfish to the US for mass production by US National Fish Hatcheries, similar to what was successfully accomplished in the 1990s.

2:00 – 2:15pm: *Break*

2:15 – 2:35pm: Roadmap to Recovery for IUCN Critically Endangered Sunflower Sea Star for Canada, the United States, and Mexico

SUBMITTED BY: Walter Heady, The Nature Conservancy

AGENDA ITEM PRESENTER(S): Walter Heady, The Nature Conservancy

XXVII Meeting of the Canada/Mexico/U.S.
Trilateral Committee for Wildlife and Ecosystem Conservation and Management
Virtual Meeting: June 13-16, 2022

COLLABORATORS & CONTACTS: Walter Heady (TNC), Vienna Saccomanno (TNC), Norah Eddy (TNC), Mary Gleason (TNC), Tom Dempsey (TNC), Alexis Jackson (TNC), Kristin Aquilino (Bodega Marine Labs), Sarah Gravem (Oregon State University), Sarah Hamilton (UCDavis), Drew Harvell (Cornell University), Alyssa Gehman (University British Columbia), Jason Hodin (Friday Harbor Laboratories), Lauren Schiebelhut (UC Merced), Michael Dawson (UC Merced), Dayv Lowrey (NMFS), Rodrigo Beas (Universidad Autonoma de Baja California), Julio Lorda (Universidad Autonoma de Baja California), Lynn Lee (Parks Canada) , Fiona Francis (Canada Department of Fisheries and Oceans), Lucie Hannah (Canada Department of Fisheries and Oceans).

PRESENTATION DESCRIPTION: The goal and purpose of the Roadmap to Recovery for Populations of the Sunflower Sea Star *(Pycnopodia helianthoides)* is to identify a vision and articulate a Roadmap to Recovery for populations of *P. helianthoides* along the west coast of North America which have recently declined dramatically due to sea star wasting disease. **The vision is to return populations of *P. helianthoides* to levels observed prior to their mass mortality event beginning in 2013 and facilitate recovery of sunflower sea stars to the extent that they may once again contribute as key members of ecological communities in marine habitats.** The Roadmap to Recovery provides an overview of key steps necessary to achieve the ambitious vision for the recovery of sunflower sea stars, and outlines the essential actions needed to foster partnerships, catalyze action, and secure funding to achieve recovery goals. This Roadmap is not meant to be in place of federal or state recovery plans, but rather a quick plan to guide important and urgent actions that can be taken now to advance the science and feasibility of recovery efforts into the future and also to provide a framework to connect federal and state efforts throughout the species range. Building from the IUCN red-list assessment, important aspects of the life history and ecology of *P. helianthoides*, the threats leading to the recent and abrupt crash of their populations, and continued threats to diminished populations this Roadmap highlights critical information gaps and outlines essential actions and their sequencing necessary to facilitate and accelerate recovery of this iconic species across the three countries.

BACKGROUND: Beginning in 2013 and in association with warming waters and marine heatwaves approximately 20 species of sea stars along the Pacific coast of North America succumbed to and died from Sea Star Wasting Disease (SSWD). None were as hard hit as the sunflower sea star (*Pycnopodia helianthoides*). The Nature Conservancy and partners acted quickly on several fronts. We convened a panel of experts (the Pycnopodia Recovery Working Group) consisting of academics, practitioners, NGOs, and agency and tribal representatives from throughout the species range from Mexico to Alaska to brainstorm key knowledge gaps and important actions, facilitate collaboration, and catalyze action. We led a global population assessment and submitted to the International Union for Conservation of Nature (IUCN) for a listing of Critically Endangered. We also led on actions important to the recovery of the species including establishing a captive rearing program and epidemiology investigations. There arose a clear need for some structure to track and guide all the important work towards recovering this critically endangered species. The Nature Conservancy is leading the development of a Roadmap to Recovery for Populations of the Sunflower Sea Star *(Pycnopodia helianthoides)*. This Roadmap is not intended to be in place of a formal Recovery Plan should this species be eventually listed, but rather a guide to important actions needed over the next couple of years consistent with state or federal agency actions to recover Pycnopodia. TNC is developing this product in close association with the Working Group members and relevant agencies in the species range including NMFS, CDFW, ODFW, WDFW, ADFW, Fisheries and Oceans Canada, First Nations, and Mexico. Federal agencies recognize the importance of this trinational document to link each of their endangered species assessments and recovery plans and to guide action in an international setting. We are positioned to lead on this Roadmap in an international setting and have capacity to try to accelerate recovery actions for this important species in the near-term.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS: We seek endorsement by the Trilateral Committee of the Roadmap to Recovery for Populations of the Sunflower Sea Star (Pycnopodia helianthoides)

along the West Coast of North America (Roadmap). The goal of the Roadmap is to facilitate trinational collaboration, catalyze action, and accelerate the recovery of this IUCN Critically Endangered species.

2:35 – 2:55pm: Trilateral Island Initiative: Conservation and Restoration of the Islands of Canada, the United States, and Mexico (Joint Session with Migratory Birds)

SUBMITTED BY: Annie Little, NPS (Channel Islands National Park; formerly with FWS)

AGENDA ITEM PRESENTER(S): Annie Little (NPS) and representatives from Canada, U.S., and Mexico

COLLABORATORS & CONTACTS: Annie Little (NPS), Gilles Seutin (Parks Canada), Federico Méndez Sánchez (Conservación de Islas), Gregg Howald (Advanced Conservation Strategies), Patty Baiao (Island Conservation), Humberto Berlanga (CONABIO), John Randall (The Nature Conservancy), Nick Holmes (The Nature Conservancy), Eduardo Ponce (CONANP), Eric VanderWerf (Pacific Rim Conservation), Robby Kohley (Pacific Rim Conservation)

PRESENTATION 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 SCCCWT on the status of current collaborative efforts, including ongoing projects, priorities, and efforts to promote the LOI. We will highlight island conservation efforts that in particular relate to the 2022 SCCWT priorities, including technological innovation, connectivity, climate change, invasive species, and habitat restoration.

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.

REQUESTED 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. The goal of the Trilateral Island Initiative is for the three countries to engage in cooperative bilateral and trilateral activities to promote sustainable environmental policies and practices in support of island conservation.

2:55 – 3:15pm: Translocation of Black-Footed Albatrosses from Midway Atoll National Wildlife Refuge, USA to Create a Breeding Colony on Guadalupe Island Biosphere Reserve, Mexico (Joint Session with Migratory Birds)

SUBMITTED BY: Eduardo Ponce Guevara (CONANP)

AGENDA ITEM PRESENTER(S): Federico Méndez Sánchez (Grupo de Ecología y Conservación de Islas) and EricVanderWerf (Pacific Rim Conservation)

XXVII Meeting of the Canada/Mexico/U.S.
Trilateral Committee for Wildlife and Ecosystem Conservation and Management
Virtual Meeting: June 13-16, 2022

COLLABORATORS & CONTACTS: Eduardo Ponce Guevara (CONANP), Humberto Berlanga García (CONABIO), Eric VanderWerf (Pacific Rim Conservation), Robby Kohley (Pacific Rim Conservation), Federico Méndez Sánchez (Grupo de Ecología y Conservación de Islas), Julio Hernández Montoya (Grupo de Ecología y Conservación de Islas), Annie Little (National Parks Service), Steve Barclay (USFWS, Midway Atoll), Jared Underwood (USFWS, Papahanaumokuakea Marine National Monument).

PRESENTATION DESCRIPTION: In collaboration with many partner agencies in the USA and Mexico, under the CAN/USA/MEX Trilateral Island Initiative (TII), in 2021 we translocated Black-footed Albatross (*Phoebastria nigripes*) eggs and chicks from Midway Atoll to Guadalupe Island, Mexico to create a new breeding colony. We moved 21 eggs in January 2021 and placed them in Laysan Albatross foster nests. We moved 12 chicks in February 2021 that we raised by hand. Eighteen of the 21 eggs hatched, and all 18 of those chicks fledged. Nine of the 12 translocated chicks fledged, for a total of 27 chicks fledged from Guadalupe in 2021. In January 2022, we moved 36 more eggs to Guadalupe. All but one of the 36 eggs hatched and are being fostered by Laysan Albatross. We expect that the 35 chicks will successfully fledge by June 2022. We plan to continue moving up to 42 eggs for two more years, 2023 and 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 the species and enhance its resiliency to climate change.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS: To report on the progress of two years (2021 and 2022) of Black-footed Albatross translocations from Midway Atoll to Guadalupe Island. Also, we seek continued support and endorsement by the SCCCWT for this translocation project, that will continue for two more years at least.

2023 Measures of success:

- Indicator 1: Successful translocation of 36 eggs from MANWR to GIBR.
    - Goals: 100% survival of eggs during transport.
- Indicator 2: Fledging of healthy BFAL chicks from Guadalupe.
    - Goals: Hatching rate of foster eggs similar to the hatching rate of natural Laysan Albatross (LAAL) eggs (85%; Hernández-Montoya 2019). Fledging rate of foster and hand raised chicks ≥ fledging rate of wild LAAL chicks on Guadalupe (85%; Hernández-Montoya 2019), and similar to that in BFAL translocations on Oahu (94%; Vander Werf et al. 2019).
- Indicator 3: Attraction of wild BFAL to the release site on Guadalupe.
    - Goal: Attraction of at least one wild adult BFAL to the release site in the first year and increasing numbers in each subsequent year. A social attraction system for LAAL was deployed on Guadalupe Island from 2016-2019 and attracted 22 pairs to an area safe from predators.

3:15 – 3:30pm: *Break*

3:30 – 3:40pm: Conservation and Management of Last Colony of Prairie Dogs (*Cynomys ludovicianus*) in Sonora

SUBMITTED BY: Gerardo Carreón Arroyo, NATURALIA, AC.

AGENDA ITEM PRESENTER(S): Dr. Eduardo Ponce, CONANP - Gerardo Carreón A, NATURALIA, AC.

COLLABORATORS & CONTACTS:

- Dr. Alfonso A. Gardea Bejar, Centro de Investigación en Alimentación y Desarro-llo (CIAD). gardea@ciad.mx
- Dr. Gerardo Suzán Aspiri, Laboratorio de Ecología de Enfermedades y Una Salud Facultad de Medicina Veterinaria y Zootecnia de la UNAM. gerar-dosuz@gmail.com
- Dr. Andrés M. López Perez. Department of Medicine and Epidiemiology, Univer-sity of California. cadatrava@hotmail.com

BACKGROUND/DESCRIPTION: The black-tailed prairie dog (Cynomys ludovicianus) is a keystone species that preserve the ecological balance in the grasslands of Sonora. In the region is the one last colony left and it´s endangered list due to threats such as forest fires, habitat loss, epidemiological events, predation and prolonged droughts.

In 2021, strategic activities were implemented such as estimating population size, extension of the surface area occupied by the colony; identification of associated species, prospecting sites for translocation of individuals, developing protocols for demographic survey, health and habitat quality; meeting of experts to exchange succefull experience in their management and conservation, diffusion and communication of the importance of the prairie dogs through social networks.

The results of 2021, we estimate densities among 3.97 to 5.94 ind/ha and a maximum population of 511 (± 37) individuals, perimeter of the colony was 86.11 hectares. We recorded mainly predators such as coyote, badger, bobcat, raptors as hen harried, red-tailed hawk, Swanson hawk, and golden eagle. To enhanced the physical and nutritional condition of praire dogs, we provided improve pellets supplements. The virtual meeting “Successfull experiences in the conservation and reintroduction of the Mexican praire dog” was held with expert research from organization no governmental, academics, agency of federal government of Sonora and Arizona.

The review and survey of properties for translocation, the Voluntary Conservation Area “Los Fresnos” of TNC, presented the best qualities for the survival for the population of praire dogs, the availability of habita, food, soil type, and by status of protection offered by natural area certified by CONANP. Other two properties, as well as Los Fresnos, have ggod conditions to establish a new colony, however, the landowners must be agreeing to this activity. In any translocation site, it is necessary to have a multi-year follow-up and financing to guarantee the recovery of the species.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

1. Systematic monitoring by method of line transect of the last colony in Sonora.
2. Donation and collaboration agreement with the owner of the “Las Palmitas” property.

3. Agreement of reception and translocation of prairie dogs with the landowner in the new colony.
4. Enable a site for prairie dogs translocation in the San Pedro River watershed.
5. Multi-year monitoring and follow-up in source and destination colonies.

3:40 – 4:10pm: Grassland and Black-Tailed Prairie Dog Conservation

SUBMITTED BY: Bill Van Pelt, Francisco Abarca, Jennifer Presler, and Holly Hicks, Arizona Game and Fish Department

AGENDA ITEM PRESENTER(S): Bill Van Pelt, Francisco Abarca, Jennifer Presler, and Holly Hicks, Arizona Game and Fish Department

COLLABORATORS & CONTACTS: Bill Van Pelt bvapelt@azgfd.gov, Francisco Abarca fabarca@azgfd.gov, Jennifer Presler jpresler@azgfd.gov and Holly Hicks hhicks@azgfd.gov, Arizona Game and Fish Department

BACKGROUND/DESCRIPTION: In December 2019, AGFD conducted a site visit to Cienega Ranch, a private property south of Wilcox, AZ to determine suitability for a BTPD re-establishment site. The willing landowner has recently acquired additional property such that the potential release sites are in compliance with the two-mile buffer from neighboring unsupportive landowners.

In 2021, the Arizona Game and Fish Department (AGFD) continued with the re-establishment of black-tailed prairie dogs (BTPD) to southeastern Arizona, which began in 2008. Despite travel restrictions due to Covid-19 pandemic, efforts were continued to assess the population demographics and individual health at four re-established colonies. There are currently three established colonies at Las Cienegas National Conservation Area (LCNCA) and one on Pima County land at Sands Ranch. 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 four re-established colonies, the BTPD have dispersed to create 3 known small colonies on private land. Two of the colonies were first discovered in 2017 and have grown to 13 and 32 individuals. The third colony was discovered in 2019 and has 2 individuals. These small colonies have landowner support and will continue to be passively monitored. Monitoring was challenging during the pandemic. However, in 2021 colony levels increased to as many as 100 individuals.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS: In 2021, AGFD hopes to continue to monitor the 4 re-established colonies, and aidtheir success with supplemental feeding and vegetation manipulation as needed.AGFD also plans to move forward with the re-establishment site at Cienega Ranch.

4:10 – 5:00pm: Bison Updates (IUCN, US, CA, MX)

IUCN SSC Bison Specialist Group Update

SUBMITTED BY: Glenn Plumb, PhD, Chair IUCN SSC Bison Specialist Group

AGENDA ITEM PRESENTER(S): Drs. Glenn Plumb and Dusting Ranglack, Vice-Chair, IUCN SSC BSG

PRESENTATION DESCRIPTION: We request to present an update (~10 min) in PowerPoint format describing relevant BSG activities, including updating the 2017 American bison Red List Assessment, completion of the first American bison Green Status Assessment, completion of a review of bison extent of occurrence circa 1500 CE, and completion of a continental survey of the American bison abundance, distribution and ecological functionality across jurisdictional sectors, with short Q&A to follow.

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 (cartered 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).*

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

Bison Conservation Activities in the United States under the Department of the Interior (DOI)

SUBMITTED BY: Dr. Brendan Moynahan, National Park Service.

AGENDA ITEM PRESENTER(S): Dr. Brendan Moynahan, National Park Service. Science Advisor; Chair, DOI Bison Working Group

COLLABORATORS & CONTACTS: US DOI Bison Working Group; US National Park Service; US Fish and Wildlife Service; US Geological Survey; US Bureau of Land Management; US Bureau of Indian Affairs.

PRESENTATION DESCRIPTION: We wish to present updates on the 4 actions specified in the 2020 DOI Bison Conservation Initiative. The Bison Conservation Initiative provides a framework for continuation of conservation genetics and expands integration of that work with ecocultural restoration of bison to landscapes and people. We will provide updates on development of a metapopulation management strategy; initiation of a shared stewardship strategy; strengthening commitments to deliver bison to tribes; and institutionalizing low stress handling practices. We wish further discussions for trinational professional collaboration, information sharing, and skill transfer among bison conservation professionals. With Canada and Mexico, we will also discuss an updated Letter of Intent to collaborate on bison conservation, which will be co-presented to the Executive Table.

BACKGROUND: Bison conservation activities have been presented annually in recent years. Bison conservation is exceptionally active, positive, and collaborative in recent years, and the DOI Bison Conservation Initiative has emerged as an effective fundamental framework for the organization of federal commitments to conservation genetics and linking ecological and cultural restoration of the national mammal.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

Our goals are:

- to capitalize on a few recent major accomplishments to highlight on-going work for national and international bison conservation through science, partnership, and ecocultural restoration.
- Engage the Work Table with opportunities to support complementary models and data inquiries across all three nations.
- 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.

Parks Canada Projects to Recover Wood and Plains Bison

SUBMITTED BY: Greg Wilson, Parks Canada Agency

AGENDA ITEM PRESENTER(S): Greg Wilson, Parks Canada Agency and Todd Shury, Parks Canada Agency

PRESENTATION DESCRIPTION: Bison currently occur at 10 Parks Canada administered places, where they range from small, fenced herds to large, free-ranging herds that are free to move in and out of Parks Canada administered land. The continued success of bison recovery in Canada is impacted by two factors: 1) the lack of gene flow among most bison herds, which can reduce genetic diversity, and 2) the presence of bovine brucellosis and tuberculosis in and around Wood Buffalo National Park. These threats are also related, as the presence of the diseases precludes the movement of animals from Wood Buffalo National Park to other disease-free herds. Parks Canada is undertaking projects that will begin to address both of these threats. Inspired by work performed by the US Department of the Interior, a population viability analysis is being performed to determine the likelihood of population persistence for each conservation herd in Canada, and the rate of loss of genetic diversity through time based on a number of potential management scenarios. As a first step in this project, microsatellite genotypes for these conservation herds are being generated. In order to ensure the existence of healthy, genetically diverse bison, we are also undertaking projects to: 1) develop more sensitive and specific diagnostic assays for tuberculosis in bison; 2) develop a combined Brucella/bTB vaccine for use in bison; 3) refine and validate genomic tools to identify genetic composition of existing bison herds, and 4) rescue and transfer of healthy germplasm between wild and genetically depauperate herds.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS: Develop trinational cooperation and coordination of continent-scale projects to examine the impact and possibility of movement of genetic diversity among herds in all three countries.

Bison Mexico

SUBMITTED BY: Jose Eduardo Ponce Guevara, Office of Conservation Strategies, CONANP

AGENDA ITEM PRESENTER(S): Jose Eduardo Ponce Guevara, Office of Conservation Strategies, CONANP

COLLABORATORS & CONTACTS: Ana Laura Barillas Gómez, Fondo Mexicano para la Conservación de la Naturaleza, (ana.barillas@fmcn.org); Alejandro Espinosa Treviño, CEMEX, (alejandro.espinosa@cemex.com)

PRESENTATION DESCRIPTION: Because the bison recovery is associated to the restoration and maintenance of grasslands, carbon sequestration and the recovery of grassland species, Mexico continues working to identify local and continental strategies that may strengthen the countries' efforts directed towards the recovery of the American Bison at a continental scale.

As part of these efforts, following the establishment of the second conservation herd in Mexico in 2019, CONANP, CEMEX and the Mexican Fund for Nature Conservation (FMCN), translocated an additional group of 20 individuals from Chihuahua to Coahuila in order to strengthen the numbers of the existing herd. The translocation took place in October 2021, and the current population is 56 individuals.

The conservation group established at El Rancho el Uno in the state of Chihuahua, holds now an estimate of 300 individuals, in a close to sex ratio 1:1 which exceeds the carrying capacity of this facility. Therefore, we are currently trying to relocate approximately 20-30 in other locations, considering the translocation of some or all individuals to the U.S. or Canada to increase the species' genetic diversity.

On a continental scale, following up previous discussions, we would like to present to our counterparts in the United States and Canada the possibility of reconsidering the importance of signing a Letter of Intent for Bison Conservation at a continental scale among the three countries, as well as the creation of a group of experts to discuss the importance of this initiative and how this could proceed with the auspices of the three countries.

BACKGROUND: After their near extinction, bison numbers today continue to be approximately half a million. Most of these are usually managed as livestock and not to keep the ecological role they should play. In an effort to contribute to their recovery, in 2012 CONANP developed its Action Program for Bison Conservation (PACE: Bisonte) as the first, of many ongoing efforts to recover the role of bison across its range distribution across North America.

Since 2007, PROCER (Species at Risk Conservation Program) has been working as the main strategy of the Mexican Federal Government, coordinated by CONANP, to conserve species at risk in coordination with other stakeholders. Since then, CONANP has implemented a variety of actions to advance in the recovery of the American bison through its distribution range within the country.

The first action for the restoration of genetically pure bison herds in Mexico, implemented through a collaboration among the National Park Service, CONANP, The Nature Conservancy (TNC) and Mexican partners, was the translocation of 23 genetically pure bison from Wind Cave National Park in South Dakota to the Janos Biosphere Reserve in the state of Chihuahua in 2009. The donation of these individuals became Mexico's first bison conservation herd, aimed to contribute to Mexico's national grassland restoration efforts.

During the Trilateral Meeting held in Ottawa in 2016, the three agencies agreed to develop a Letter of Intent aimed to develop and implement shared bison science, stewardship, education and outreach activities that built upon local bison conservation actions towards comprehensive and sustainable conservation of the North American Bison. As a result, parties worked on a draft LOI among Canada, the U.S. and Mexico and presented this to the Executive Working Group for its endorsement. However, due to a number of constraints the Letter of Intent was not concluded.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

- Increase the population numbers of bison in Mexico
- Continue with the dissemination of herds throughout its historical distribution

- Improve grassland and herd management.
- Initiate a dialogue considering the possible exchange of individuals with the U.S. and/or Canada, to increase the species' genetic diversity.
- Continue negotiations for the signing of a Trilateral LOI in Bison conservation at a continental scale

Thursday, June 16, 2022

12:00 – 1:00pm: Coffee & Conversation: U.S. State Agencies & Directors, USFWS

1:00 – 1:20pm: Diagnosis of the Use, and Illegal Trade of Jaguars in Mexico

SUBMITTED BY: Lizardo Cruz & Sandra Petrone -WWF, Javier Enrique Sosa Escalante -AMMAC

AGENDA ITEM PRESENTER(S): Lizardo Cruz WWF/ Javier Enrique Sosa Escalante AMMAC

COLLABORATORS & CONTACTS:

- Lizardo Cruz -WWF lcruz@wwfmex.org
- Javier Enrique Sosa Escalante - AMMAC javiersosae@hotmail.com
- Eduardo Ponce - CONANP

PRESENTATION DESCRIPTION: As of 2020, AMMAC and WWF Mexico began a diagnosis of jaguar trafficking in the Yucatan Peninsula. The method used allowed to identify areas of opportunity to reduce poaching and illegal trade of the species. In addition, in 2021 the diagnosis began at the national level. The results obtained in the Yucatan Peninsula and the progress made up to the date of the meeting in the national study will be maintained. It will be necessary to seek to promote collaboration with other actors in the region to contribute to the conservation of this species. The project has the collaboration and participation of key Mexican institutions such as DGVS-SEMARNAT, CONABIO, CONANP, PROFEPA, FGR, FAG-CNG, State Environmental Authorities, among others. The results obtained to date show the need to establish multilateral international and regional synergies.

BACKGROUND: Species trafficking is one of the main causes of loss of specimens worldwide. It is an activity linked to organized crime that involves a large amount of resources and permanent damage to wild populations. However, there is little information on the ways in which wildlife trafficking and trade operate. In 2020 AMMAC and WWF Mexico, within the framework of the project Saving the Jaguar: Ambassador of America, began a collaboration to assess the situation of jaguar trafficking in the Yucatan Peninsula, in this effort a methodology was designed to identify forms of extraction, risk sites and trading mechanisms for specimens, parts and derivatives.

As part of the results, it was possible to identify the way in which jaguars are poached and put up for sale in places of tourist interest and electronic commerce media.

Additionally, collaboration began to carry out a diagnosis of the situation at the national level. For this effort, AMMAC researchers from all over the country coordinate activities to retrieve the most accurate information possible. The results will be in late 2022 or early 2023, however preliminary results will be presented during the trilateral meeting.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

1. Inform the trilateral committee about this Project and its progress.
2. Have the support of the trilateral committee to make the results obtained available to governments and interested groups in order to contribute to the conservation of the jaguar.

1:20 – 1:40pm: Strengthening the Local Participation for Barbary Sheep Control in Maderas del Carmen and Ocampo Protected Areas

SUBMITTED BY: Javier Ochoa Espinoza, Subdirector de ANP, APFF Maderas del Carmen

AGENDA ITEM PRESENTER(S): Javier Ochoa Espinoza, Deputy Director, Maderas del Carmen Wildlife Protection Area, CONANP; javier.ochoa@conanp.gob.mx

COLLABORATORS & CONTACTS:

- Julio Alberto Carrera Treviño, director de APFF Maderas del Carmen
- Alejandro Espinosa Treviño, gerente de conservación Reserva Natural El Carmen
- Thomas Athens, biologo de vida silvestre, Parque Nacional del Big Bend
- FROYLÁN HERNÁNDEZ, Desert Bighorn Sheep Program Leader . Texas Parks and Wildlife Department. froylan.hernandez@tpwd.texas.gov

PRESENTATION DESCRIPTION: : During 2021, and 2022 we continued implementing control actions on Barbary Sheep in territories identified with a high rate activity for the target species. The implementation of four land control campaigns, gave us a learning chance to improve short future actions. In addition to the increase of local participants, institutional and local, there was a notable increase in resources that will be projected throughout actions in next year's control. There are two new monitoring groups that will focus on the "Sierra del Jardín", and "Sierra de San Vicente" territories. Both groups will be trained in basic topics, such as the use of monitoring devices like gps, and camera traps, the same as use of wildlife capture equipment and techniques; moreover we are waiting for another potential financial support that would provide the resources needed for possible helicopter surveys; the use of collar transmitters to track Barbary Sheep groups in the short and medium term inside their current geographic distribution; and the most participation of hunter clubs to keep track of the invasive sheep more often. At this point the control effort is still basic, but all the participants are showing a high level of engagement, and the communication will be a key issue to ensure success at any time frame.

BACKGROUND: The Bighorn Sheep recovery project could not exist without the Barbary Sheep control. A multi-party with key players such as the National Park Service (Big Bend National Park), Texas Parks and Wildlife, El Carmen Reserve and CONANP, through its protected areas Maderas del Carmen and Ocampo will be working jointly for the recovery of species and its habitat.The Barbary Sheep invasion in the U.S.-Mexico region was identified as a critical problem that needed to be addressed. The coordination of this effort is now becoming effective and many actors are adding actions that go beyond the lethal control. This is a high priority issue given the significant impact on natural habitats.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

1) Achieve the implementation of campaigns in as many territories as possible. Currently two out of five have been intervened in the ANP, the goal would be to intervene one more (3/5).

2) Involve the participation of academic institutions that may generate scientific information needed for the management of the species.

1:40 – 2:00pm: IUCN Red List Reclassification and Managing Genetic Diversity of Peninsular Pronghorn (*Antilocapra americana peninsularis*) Populations in the United States for Potential Establishment of a Future Experimental Wilde Population

SUBMITTED BY: Kerry L. Holcomb, Carlsbad-Palm Springs U.S. Fish and Wildlife Service

AGENDA ITEM PRESENTER(S): Victor Sánchez, El Programa de Recuperación del Berrendo Peninsular (PRBP); Melodi Tayles, MTayles@sdzwa.org, San Diego Zoo Safari Park; and Kerry Holcomb, Carlsbad-Palm Springs U.S. Fish and Wildlife Service

COLLABORATORS & CONTACTS:

- Victor Sánchez, amogoquio@gmail.com, *El Programa de Recuperación del Berrendo Peninsular*(PRBP);
- Aidee Snachez, berrendopeninsular@gmail.com, *El Programa de Recuperación del Berrendo Peninsular*(PRBP)
- Melodi Tayles, MTayles@sdzwa.org, San Diego Zoo Safari Park;
- Beth Schaefer, beth.schaefer@lacity.org, Los Angeles Zoo;
- Jake Owens, jake.owens@lacity.org, Los Angeles Zoo;
- James Danoff-Burg, jdanoffburg@livingdesert.org, The Living Desert Zoo and Gardens;
- Felipe Ramirez, feliperamirezmx@yahoo.com.mx, PRBP;•Kevin Clark, kclark@sdnhm.org>, San Diego Natural History Museum;
- Jeff Holland, jeffhollandcctu@gmail.com, Center for the Conservation of Tropical Ungulates; and
- Kerry L. Holomb, kerry_holcomb@fws.gov, Carlsbad-Palm Springs Fish and Wildlife Office, U.S. DOIFish and Wildlife Service.

PRESENTATION DESCRIPTION: Informed by the Binational Peninsular Pronghorn Team's 2021 Species Action Plan (SAP), the International Union for Conservation of Nature (IUCN) Red List Authorities completed a subspecies assessment for the peninsular pronghorn (Antilocapra americana peninsularis) taxon. Due to habitat fragmentation, resource competition with cattle, predation of young by coyotes, continued illegal hunting, and other threats to the peninsular pronghorn, this subspecies was reclassified as endangered. This change form least concern at the species level (Antilocapra americana), to endangered at the subspecies level requires that we increase the urgency and resolve of efforts to cooperate across international borders to recover and preserve this subspecies' unique genetic diversity within the North American endemic, monophyletic Antilocapridea Family.

To best conserve the genetic diversity of peninsular pronghorn in U.S. populations, Asako Navarro of the San Diego Zoo Wildlife Alliance has designed a range of genetic diversity management scenarios and predicted gene diversity retention expectations. It is our intent to present this range of scenarios to the Species Table to begin discussions regarding the feasibility of implementing the most ambitious approach as well as the limitation of the current approach. Finally, each scenario, including the status quo, would be compared with AZA's standard goal for genetic diversity of 90% gene diversity retention expected during 100 years.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS: Next steps for establishing the necessary permits and agreements to achieve the selected genetic diversity management scenario

2:00 – 2:20pm: Sonoran Pronghorn Recovery

SUBMITTED BY: Clay Crowder, John Hervert, Jill Bright, Francisco Abarca, and Cynthia Soria, AGFD; Stephanie Doerries, Cabeza Prieta National Wildlife Refuge; Erin Fernandez, Arizona Ecological Services Office, USFWS; Elaine Johnson, Southwest Arizona National Wildlife Refuge Complex Manager; Jesus Armando Barajas Torres, Norma Cruz, CEDES; and, Eduardo Ponce, Angelica Narvaez, Ana Luisa Figueroa, Martin Sau, CONANP.

AGENDA ITEM PRESENTER(S): John Hervert, Francisco Abarca, and Cynthia Soria, Arizona Game and Fish Department.

COLLABORATORS & CONTACTS: Sonoran Pronghorn Recovery Team, Arizona Game and Fish Department (AGFD), U.S, Fish and Wildlife Service (USFWS) – Arizona Ecological Services, Cabeza Prieta National Wildlife Refuge (CPNWR), Kofa National Wildlife Refuge (KNWR), Organ Pipe Cactus National Monument (ORPI), Arizona Antelope Foundation, University of Arizona, Arizona State University, US Border Patrol, Barry M. Goldwater Range (BMGR), Yuma Proving Ground (YPG), The Phoenix Zoo, Los Angeles Zoo, Sonora Commission of Ecology and Sustainable Development (CEDES), Dirección General de Vida Silvestre (DGVS)-SEMARNAT, Pinacate Biosphere Reserve (PBR)-CONANP, Northwest Regional Office-CONANP, and Endangered Species Office-CONANP.

PRESENTATION DESCRIPTION: A binational translocation effort from Arizona to Sonora was attempted in December of 2021, but due to administrative complications it had to be cancelled and postponed until December of 2022. On December 7-9, 2021, Sonoran pronghorn (SOPH) were captured and processed at the CPNWR pen, twenty-three (23) were transferred to a holding pen at the Sonoran Desert National Monument's Vekol Valley (VV) and five (5) were transferred to a holding pen at the BMGR Marine Range (MR). From the VV pen, twenty-two (22) were released on January 14th, 2022 and are once again roaming free in a landscape where they had not done so in nearly a century. From the MR pen, five (5) SOPH were released on February 2nd, 2022. The 2021 capture and release operation at KNWR took place on December 13th; fourteen (14) SOPH were transferred to a holding pen and were released within the boundaries of the YPG on the Palomas Plain on January 3rd, 2022.

The Sonora range-wide SOPH survey took place January 4-7, 2022. In the Quitovac subunit, 324 pronghorn were observed in 53 groups on transects. In the Pinacate subunit, 80 pronghorn were observed in 13 groups on transects. Applying the sighting probability model and associated correction factors, our estimates of the population in Quitovac, Pinacate and total overall were 449, 102, and 552 respectively. The Arizona range wide survey of the wild population was conducted on November 20-28, 2021. On transects, 161 pronghorn were observed. Our sighting rate model estimate resulted in an estimate of 232 pronghorn in the wild.

To work toward recovery of the Sonoran pronghorn range wide, the collaborators propose to continue binational monitoring efforts (including aerial surveys and telemetry), continue operating a captive breeding program within the CPNWR and KNWR with subsequent releases in the wild, and continue conducting training efforts in survey methodology and other important wildlife management practices for collaborators in Mexico. This agenda item is an update on progress made on binational conservation activities.

BACKGROUND: The USFWS finalized and approved the Sonoran Pronghorn Recovery Plan in 2016. The revised recovery plan lays out a strategy that includes protecting habitat; increasing and/or maintaining existing populations in the U.S. and in Mexico while managing for genetic diversity; removing, reducing, or managing threats to the species; and, identifying and addressing priority monitoring and research needs. Achieving the recovery criteria will ensure the long-term conservation and protection of the pronghorn and its habitat and could prompt removing it from the list of endangered species. The plan estimates that the delisting goals could be met by 2036.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

1. Continue working on binational Sonoran pronghorn recovery.
2. Conduct population surveys in Arizona and Sonora.
3. Implement a translocation for 6 Sonoran pronghorn from Arizona to the PBR.
4. Continue releasing Sonoran pronghorn into selected areas in the U.S.
5. Maintain water and forage enhancement projects, provide supplemental forage when necessary.
6. Continue discussions on restoring linkages between the populations in Mexico and between the populations in the U.S. and Mexico to benefit the pronghorn that are currently largely isolated.
7. Assess the genetic structure of the existing populations to determine the extent of genetic isolation.
8. Continue discussions on establishing a third population in Sonora.

2:20 – 2:25pm: *Break*

2:25 – 2:45pm: Mexican Wolf Recovery in the US and Mexico

SUBMITTED BY: Brady McGee (USFWS), Eduardo Ponce (CONANP), Jim deVos (AGFD), Stewart Liley (NMDGF), Dave Bergman (USDA APHIS Wildlife Services)

AGENDA ITEM PRESENTER(S): Brady McGee (USFWS), Eduardo Ponce (CONANP), Jim deVos (AGFD), Stewart Liley (NMDGF), Dave Bergman (USDA APHIS Wildlife Services)

COLLABORATORS & CONTACTS: USFWS Mexican Wolf Recovery Program; Dirección General de Vida Silvestre (SEMARNAT); Dirección de Estrategias de Seguimiento de Proyectos de Conservación (CONANP); Universidad Autonoma de Queretaro (UAQ); Arizona Game and Fish Department; New Mexico Department of Game and Fish; and USDA APHIS Wildlife Services

PRESENTATION 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, First Revision.

BACKGROUND: In November 2017, the USFWS completed the Mexican Wolf Recovery Plan, First Revision, with the assistance of CONANP, SEMARNAT, Arizona Game and Fish Department, New Mexico Department of Game and Fish, and other agencies and scientists from both countries. The recovery plan provides guidance that will lead to the delisting of the Mexican wolf under the U.S. Endangered Species Act. Key to Mexican wolf recovery is the establishment of an average annual population of 320 Mexican wolves in the U.S., and an average annual population of 200 Mexican wolves in México. Both populations are reliant on the Mexican Wolf Species Survival Plan Captive Breeding Program. México is in the early phase of establishing a population and thus relies on the breeding program to release paired adult wolves or paired adults with pups. Both the U.S. and México rely on the captive breeding program to improve the gene diversity of the wild populations. México and the U.S. collaborate to manage the approximately 61 captive breeding facilities in the United States and México, which house 350 to 400 wolves for potential release into the wild. All of these wolves are managed in accordance with the Mexican Wolf SSP. The USFWS, SEMARNAT, CONANP, AGFD, NMDGF, and UAQ collaborate on the implementation of recovery actions for the Mexican wolf in the United States and México. In 1998, the U.S. completed the first release of Mexican wolves into the Mexican Wolf Experimental Population Area; in 2020, the U.S. wild population had at least 186 Mexican wolves. In 2011, CONANP completed the first release of wolves in México, since their extirpation; in 2020, the México wild population had approximately 30-40 Mexican wolves.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS:

We propose to:

1. Continue working among USFWS, SEMARNAT, CONANP, Arizona Game and Fish Department, New Mexico Department of Game and Fish, UAQ, and USDA APHIS Wildlife Services for binational collaboration in the implementation of Mexican wolf recovery actions as outlined in the Mexican Wolf Recovery Plan, First Revision.
2. Continue to seek additional funding to 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 Species Survival Plan (SSP) Captive Breeding Program to provide Mexican wolves for release in both countries.
4. Continue collaboration among USFWS, SEMARNAT, CONANP, AGFD, NMDGF, and UAQ on the release of wolves in the U.S. and México.
5. Continue collaboration among USFWS, SEMARNAT, CONANP, AGFD, NMDGF,and UAQ on the identification of new release sites in Mexico.
6. Coordinate among USFWS, CONANP, state wildlife agencies in Arizona and New Mexico, UAQ, and USDA APHIS Wildlife Services should wolves disperse from México into the U.S.

2:45 – 3:05pm: Ocelot Recovery Actions

SUBMITTED BY: Mitch Sternberg (mitch_sternberg@fws.gov, U.S. Fish and Wildlife Service)

AGENDA ITEM PRESENTER(S): Mitch Sternberg (mitch_sternberg@fws.gov, U.S. Fish and Wildlife Service)

COLLABORATORS & CONTACTS: Martha López-Hernández (martha.lopez@conanp.gob.mx, Comisión Nacional de Áreas Naturales Protegidas), René Celis Gurría (rene.celis@tam.gob.mx, Comisión de Parques y Biodiversidad de Tamaulipas), Rogelio Carrera-Treviño (rogelio.carreratrv@uanl.edu.mx, Universidad Autónoma de Nuevo León), Carlos Lopez-Gonzalez, carlos.lopez@uaq.mx, Universidad Autónoma de Querétaro), Hilary Swarts (hilary_swarts@fws.gov, U.S. Fish and Wildlife Service), Erin Fernandez (erin_fernandez@fws.gov, U.S. Fish and Wildlife Service), Dana Karelus (dana.karelus@tpwd.texas.gov, Texas Parks and Wildlife Department), Francisco Abarca (fabarca@azgfd.gov, Arizona Game and Fish Department).

PRESENTATION DESCRIPTION: This project supports the Species of Common Concern Work Table's goal of management and conservation of small and isolated populations at-risk. The endangered ocelot (*Leopardus pardalis*) is in need of binational conservation efforts to ensure its continued existence in the wild in the USA and Mexico. Project collaborators will be instrumental in the recovery of the ocelot in Texas, Arizona, and Mexico.

Similar to conservation actions implemented for other transboundary species like Mexican wolf, Sonoran and American pronghorn, black-tailed prairie dog, and black-footed ferret, we propose that binational partners assist in the translocation of ocelots between the Texas populations, and between Mexico and the USA soon to help ensure the long-term survival of the ocelot populations close to the border.

BACKGROUND: The ocelot is listed as federally endangered by both Mexico and the USA, as well as many other Latin American countries. The USFWS approved the Recovery Plan for the Ocelot in 2016, and translocation for the sake of genetic augmentation of small populations of ocelots is a key component of the plan. The major limitations of ocelots recovery in Texas was collisions with vehicles and destruction of former habitat, and both factors have been significantly addressed in recent years. Translocation is needed to reduce the threat caused by inbreeding among these small and isolated populations in Texas.

Our presentation will describe recent scientific evidence on distribution of ocelots in Mexico and Texas, and a tentative plan for actions in support of translocation of wild ocelots between existing Texas populations, and from Mexico to Texas populations.

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS: In 2022, we intend to complete all documents necessary for the translocation of ocelots between Texas populations and translocate 2-4 ocelots between Texas populations in 2022-2023. We also intend to have established a Mexico-Texas Ocelot Translocation Working Group, and to have a series of documents in review by both countries at the federal and state levels in consideration of translocation of wild ocelots from Mexico into existing wild populations in Texas.

3:05 – 3:25pm: Transboundary Movements of Wildlife

SUBMITTED BY: Angelica Narvaez, CONANP / Jim Devos, AZGFD

AGENDA ITEM PRESENTER(S): Angelica Narvaez, CONANP / Jim Devos, AZGFD

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; Martha Chavez – Demetria Panos, USFWS; Luis Lecuona, APHIS; Carlos Lopez, Autonomous University of Queretaro; Angelica Narvaez – Aurora Romo, CONANP; Víctor Manuel Campuzano, DGVS.

PRESENTATION DESCRIPTION: The wild-to-wild cross-border movement of species can often inhibit binational efforts to recover transboundary wildlife species as translocations to reintroduce species often involves a great deal of restrictions and regulations that can be not only extremely bureaucratic and cumbersome, but frequently confusing and difficult to comply. Further, this uncertainty frequently impedes conservation actions that would, otherwise, strengthen the current populations of critically endangered species on both sides of the border.

The number of federal and state agencies involved, sanitary requirements, time lines, 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.

It is important that parties begin, under the framework of the Species Table, a dialogue to identify obstacles that may need to be addressed with pertinent authorities involved, at various levels, in an effort to try to expedite and, when possible, standardize regulations that, in compliance with national laws, can also facilitate the successful translocation of species at risk

BACKGROUND: In the recent years the cross-border collaboration for the recovery of shared species at risk has greatly increased and with this, the need for transboundary movements of wild individuals has become paramount to achieving effective species conservation.

However, conflicts with different issues such as permit guidelines for cross-border species collection and transportation, timelines, disease and restrictions on moving animals across the border, sudden outbreaks, physical barriers, lack of understanding, have resulted in failed efforts to strengthen a number of binational reintroduction programs (i.e. American Bison, California Condor, Mexican Wolf, Pronghorn, Ocelot, etc.)

REQUESTED SPECIFIC OUTCOMES AND PROJECT GOALS: Continue dialogue among participants and pertinent authorities to identify roadblocks that may cause a negative impact on the successful translocation of species at risk and identify strategies that could lead to more effective regulations that may facilitate the transboundary movements of the related species.

3:25 – 3:30pm: *Break*

3:30 – 4:30pm: Executive table and co-chairs session