

Interim Progress Report (FY2024) Wildlife Wonders at the Park

Project Objective

Wildlife Wonders at the Park is a series of six family-friendly education events at the Chihuahuan Desert Nature Park near Las Cruces. Hands-on, interactive activities will increase participants' knowledge of New Mexico wildlife, including species monitoring techniques, population data, and conservation of wildlife, especially Species of Greatest Conservation Need.

Progress through June 2024

In the first several months of the project, we made considerable progress planning, advertising, and delivering three Wildlife Wonders at the Park events. These events drew a total of 196 visitors to learn more about New Mexico wildlife. The project is on schedule with the timeline we outlined in the original proposal. Here are the accomplishments to date:

1. Planned the spring event series. The Asombro staff set dates and times for the spring events, to include Mammal Madness on March 16, Bird Bonanza Part 1 on April 20, and Radical Reptiles on May 18. All events run from 9 AM – noon and include at least five common stations: (1) Meet the Expert, (2) Tools of the Trade, (3) Dive into the Data, (4) Endless Forms Trading Cards, and (5) Conservation Station.
2. Advertised the event series and each individual event. We advertised Wildlife Wonders at the Park in Asombro's publications and outlets (e.g., quarterly newsletter, website, social media) as well as on local community calendars. We also submitted press releases before each event.
3. Hosted Wildlife Wonders at the Park: Mammal Madness – On March 16, we hosted the first Wildlife Wonders event at the Chihuahuan Desert Nature Park. Fifty-three visitors attended the event and participated in six hands-on stations run by 7 Asombro staff and 12 volunteers. These included:
 - **Meet the Expert** - Visitors met and learned from Hailey Jacobson, a graduate student in Dr. Frey's lab at New Mexico State University. Hailey spent three years studying the Organ Mountains Colorado chipmunk. She talked to visitors about a study they are just completing on the status and ecology of this fascinating species, which is a SGCN.
 - **Endless Forms Trading Cards** - Visitors collected wildlife trading cards featuring native species, including Species of Greatest Conservation Need in New Mexico, at selected booths. These cards feature a color photo of the species as well as an interesting fact about them. Not only are these cards collectible, but they can be played in a unique, biology-based strategy game created by an Asombro volunteer. The ready-to-play starter deck that is available for play and purchase at the event features 20 Chihuahuan Desert species (including birds, reptiles, mammals, and arthropods), 10 Chihuahuan Desert habitats (e.g., *Creosote Scrub* and *River Bosque*), 10 "event" cards (e.g. *Off-roading Degradation* and *Conservation Effort*), and 10 "effect" cards (e.g., *r-Strategist* and *Pathogen*). At the Trading Card Game station, visitors had the opportunity to learn the game rules and play the game with an Asombro volunteer and/or with a partner of their own.
 - **Tools of the Trade** - Visitors learned from biologist Conrad Nelson about some of the tools scientists use to monitor and study mammals in the Chihuahuan Desert. They saw several live kangaroo rats, skulls of desert mammals, and photos of mammals captured by trail cameras in the Chihuahuan Desert Nature Park.



- **Dive into the Data** - Visitors reviewed and interpreted data collected at the Chihuahuan Desert Nature Park over the last 11 years on the percent of total mammal iNaturalist observation for each of five selected species: Black-tailed Jackrabbit, Coyote, Desert Cottontail, Mule Deer, and Bobcat. Squares of paper scaled to the appropriate relative sizes were provided so visitors could fold their own origami version of the four mammals, whose final sizes correspond to their percentage of total mammal observations.
- **Conservation Heroes** - Visitors were introduced to the concept of keystone species by learning about black-tailed prairie dogs and the many species that depend on the habitat prairie dogs create. They learned that prairie dogs were once more abundant across New Mexico, and reintroductions of the species in suitable areas could help boost their populations and the ecosystems that rely on them. Visitors participated in a guided soil texturing activity to evaluate if local soils could potentially support prairie dog burrows.
- **Second Chance Wildlife Rescue** – Staff from this nonprofit wildlife rescue organization in El Paso, Texas ran a booth telling visitors about their work.

4. Hosted Wildlife Wonders at the Park: Bird Bonanza Part 1 - On April 20, we hosted the second Wildlife Wonders event at the Chihuahuan Desert Nature Park. Thirty-eight visitors attended the event and participated in seven hands-on stations run by 7 Asombro staff and 10 volunteers. These included:

- **Meet the Experts** - Visitors met and learned from members of the Mesilla Valley Audubon, a conservation and natural history nonprofit organization with a mission of promoting the appreciation and conservation of birds and other wildlife in Doña Ana County, Otero County, and Sierra County, New Mexico. At 10 AM, expert birder and MVAS member Jonathan Brooks led a bird walk on the trails at the Chihuahuan Desert Nature Park.
- **Tools of the Trade** - Visitors practiced using a birder's most common tool, binoculars. They looked through binoculars to examine cardboard birds scattered throughout the park to identify different species and practiced looking at bird markings, colors, and size through binoculars.
- **Dive into the Data** - Visitors reviewed and interpreted bird banding data collected by MAPS (the Monitoring Avian Productivity and Survivorship program, operated by the Institute for Bird Populations), with special attention paid to the Gray vireo, a Species of Greatest Conservation Need in New Mexico. They then modeled bird banding techniques such as untangling (stuffed animal) birds from a mist net, identifying, measuring, and weighing them, and finally, looking up where their bird has been previously recorded and adding this new record of incidence to their bird band "profile."
- **Conservation Heroes** - Visitors learned how to properly and safely prepare hummingbird food (sugar water). They practiced the recipe, mixing a small container of hummingbird food, and then took home a hummingbird button feeder to fill and use at home. Visitors learned about the importance of hummingbird natural food sources (such as native plants and insects) in addition to the importance of correct hummingbird food ingredients and hummingbird food safety in high outdoor temperatures.
- **Second Chance Wildlife Rescue** – See the description above.
- **Endless Forms Trading Cards** – See the description above.



- **Meet the Artist** - Visitors met and learned from Kay Gross, a Las Cruces artist whose watercolor paintings are inspired by her love of color, light, shadow, and nature. She showed visitors how to create a whimsical roadrunner using a unique watercolor technique.

5. **Hosted Wildlife Wonders at the Park: Radical Reptiles** – On May 18, we hosted the third Wildlife Wonders event at the Chihuahuan Desert Nature Park. One hundred and five visitors attended the event and participated in five hands-on stations run by 5 Asombro staff and 9 volunteers. These included:

- **Meet the Expert** - Visitors were introduced to live, native snake species with herpetologist Jeremy Lane.
- **Tools of the Trade** - Visitors were introduced to tools and field methods used to study reptiles, including dichotomous keys, noosing, and pitfall trapping. Guests had the chance to practice noosing a plastic lizard and identifying it using a dichotomous key. They got to keep the lizard toy they caught.
- **Dive into the Data** - Visitors learned how the population of blanchard lizards at White Sands has changed over time by observing trays with beads as a model of population sizes. Then they played the role of a roadrunner and preyed on lizards to demonstrate the process of natural selection.
- **Conservation Heroes** - Visitors were told the story of the horned lizard’s specialized diet on ants and how their population has decreased over time. Guests had the chance to match reptile scat to the animals that leave them, and observed a sample of horned lizard scat under a magnifying lens.
- **Endless Forms Trading Cards** – See the description above.



6. **Planned summer and fall events** – Dates and times are set for the next three Wildlife Wonders at the Park events on July 27 (Going Batty), September 28 (Bird Bonanza Part 2), and October 19 (Dive into the Playa). We are also advertising another public event (Butterfly Flutterby on August 24) as part of the series, taking advantage of the advertising and interest we are already generating.

Education Standards Addressed

While Wildlife Wonders in the Park is a public education event series, the hands-on activities at many stations address standards from the NM STEM Ready, including (a) K-ESS3-3 Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment, (b) 2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats, and (c) 5-ESS-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment. In addition, activity stations allow visitors to practice with four Science and Engineering Practices from the standards, including (a) developing and using models, (b) analyzing and interpreting data, (c) constructing explanations and designing solutions, and (d) obtaining, evaluating, and communicating data.

Next Steps

Between July and December 2024, we will accomplish the following tasks:

1. Plan and advertise the remaining three Wildlife Wonders at the Park events.
2. Host events on July 27 (Going Batty), September 28 (Bird Bonanza Part 2), and October 19 (Dive into the Playa).
3. Write reports on the event series and plan for project continuation in 2025.

For More Information, Please Contact:

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