

The Zoo To You Van

Conservation Education on the Road for 26 years

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“In the end, we will conserve only what we love, will love only what we understand, and will understand only what we are taught.” Baba Dioum 1968

Overview

For twenty six consecutive years, the Rio Grande Zoo’s Zoo To You Van has traveled across the state of New Mexico and taught 850,000 people outside the Albuquerque metropolitan area. With programs staffed completely by zoo docents, the Zoo To You Van travels to every corner of the state, offering conservation education programs featuring live animals, slide programs, and biofacts. Sponsored by Phelps Dodge Mining Company, the Zoo To You program is a valuable resource offered for free to community organizations that request visits. Our paper will describe the Zoo To You Van program in detail, touching on docent roles, administration, logistics, challenges and rewards. We hope that by sharing our experience other docents may be inspired to identify opportunities for expanding docent staffed conservation programs at their facilities.

About Us

The Rio Grande Zoo (RGZ) is part of the Albuquerque Biological Park, which consists of the RGZ, the Albuquerque Aquarium, the Rio Grande Botanic Garden, and Tingley Beach. The mission of the Biopark is to enrich the quality of life for all through education, recreation, conservation and research.

The mission of the Albuquerque Biological Park Education Department is to promote conservation. We strive to teach about the diversity and interdependence of life and inspire a sense of stewardship for the earth. The Zoo To You van program takes this message all over the state of New Mexico.

New Mexico demographics create unique challenges in spreading the message of conservation. At 121,000 square miles, NM is ranked 5th largest in area. The population of NM is 1,928,384, which places us 45th in population density, at 15 people per square mile. In comparison, the average population density in the United States is 80.7 people per square mile. (The St Louis metro area, the site of this year’s conference, has a population 2,796,368, almost one third greater than our entire state’s population.) In addition, 40% of the New Mexican population is classified as low income. While Albuquerque is located centrally in the state, it can be a 6 hour drive from remote areas. Many of our state’s residents are not able to visit our zoo and the conservation programs associated with it.

History of the Zoo To You Van Program

The story of the Zoo to You Van program started in 1980 when Phelps Dodge Mining Company, then the largest private employer in the state of New Mexico, approached the Rio Grande Zoo and offered to sponsor a statewide program (outside the city of Albuquerque). The RGZ agreed and a full time paid employee was hired.

Catherine Hubbard was hired and she set to work designing a vehicle which would carry and house the animals overnight. She also had to select and train the first animals for the program. During the early years, Catherine spent four days of each week on the road and one in the office. On the road she presented conservation programs to the school children in the state of New Mexico. During her day in the office she would schedule future trips, take care of paper work, and handle any and all administrative details that came along. As she did her work in the office she began to meet and make friends with the docents who were volunteering through the Zoological Society. They got excited about what she was doing and asked if they could come along. Arrangements were made from time to time for a docent to accompany Catherine on a trip. Soon the volunteers were helping with the presentations and the animal husbandry during the trips. Then the big day came when docents went out on a trip together without Catherine. It worked! The docents proved that they could present the conservation information and take on the responsibility for the proper care of the animals on the road. Slowly the docents took on more and more responsibility for staffing the programs. At that time, Catherine

became the Education Coordinator, and the Education Department was created at the Rio Grande Zoo. The program staffed by docents became a successful part of the conservation mission of the zoo and the animals trained for the van programs were also available for use by docents as they taught on the zoo grounds.

Our Sponsorship

Phelps Dodge Mining Company provides a fully equipped van and the operating funds that cover fuel for the van, as well as food and lodging for the docents while traveling. The RGZ sets the travel policy, and travel expenses generally run about \$25,000 per year.

Phelps Dodge receives positive publicity through media coverage of the Zoo To You visits in communities throughout New Mexico. The van has been painted to display the Phelps Dodge partnership, and flyers promoting the program prominently display the Phelps Dodge logo. In addition, at the beginning of each program the docents acknowledge the Phelps Dodge sponsorship that allows us to bring the Zoo To You to the community. Letters and drawings generated by the students after the van's visit are forwarded to Phelps Dodge. Some of these are displayed at their corporate headquarters.

As a result of the sponsorship, the Rio Grande Zoo is able to provide programs with our conservation message to communities and citizens who cannot visit our zoo. We are able to address sensitive issues such as the Mexican Gray Wolf reintroduction program in areas where wolves are being reintroduced. The programs are offered at no charge to schools and community centers, and we also participate at special events such as State and County fairs, the Bitter Lake National Wildlife Refuge Dragonfly Festival, and the Bosque Del Apache National Wildlife Refuge Festival of the Cranes, to name a few. We often focus on very small and very remote sites, as our sponsor understands that it is just as important to reach the most remote areas where there is limited exposure to our conservation message as it is to reach larger numbers in more populous areas. Some of our favorite sites are the Chapter Houses on the Navajo Reservation and schools with a total enrollment of less than 20 students in grades PK-8. The van visits also provide excellent publicity for the Rio Grande Zoo.

With programs staffed by docents, the Rio Grande Zoo is able to provide far more conservation education than would be available using only paid staff. While the docent-staffed programs could not exist without the support of the zoo's paid staff, the use of docents in these programs helps avoid burnout, keeps the message fresh, and provides variety for sites visited regularly.

Infrastructure

The infrastructure of the Van program is administered by the paid staff of the zoo. The accounting department at the zoo receives and disburses the funds from Phelps Dodge, our sponsor.

The Education Coordinator at the Rio Grande Zoo spends approximately 5% of her time on the Zoo to You Van program. She coordinates with Phelps Dodge personnel as needed. Her responsibilities also include the development of conservation programs and the creation of flyers and brochures, as well as the initial and ongoing training and support of the docents who participate in this program. She supervises the Education Clerk and the Education Animal Keepers who train and care for the education animals, and assists in handling any emergencies that occur while the van is away from the zoo.

The Education Clerk at the zoo works under the direction of the Education Coordinator and spends approximately 25% of her time on the Zoo to You Van program. She interfaces with the accounting department to request and disburse funds for each trip. She schedules site visits and sends packets to the sites to be visited, including pre and post visit extension material. She also makes arrangements for the docents traveling to those sites, handles the scheduling of maintenance on the van, and forwards to Phelps Dodge any thank you materials we receive after the visits. A table of roles and responsibilities appears in Table 1 at the end of this paper.

The education coordinator, education clerk, and the van docents communicate regularly to ensure the program runs smoothly and is continually updated to incorporate best practices and new issues or knowledge. It takes all of us fulfilling our roles to keep the van on the road and the conservation message fresh and timely.

Zoo To You Van Logistics

Zoo To You van docents typically travel from Monday through Thursday, although special events can result in weekend travel as well. Three times a year, the education clerk creates a schedule of locations and dates of van travel. The docents meet and use a lottery system to select trips. Docents reserve animals and biofacts for their trip. Details of the trips, including specific sites, recommended programs, contact people, and hotel information are finalized by the education clerk and mailed to the assigned docents at least two weeks prior to the trip.

The docents then contact sites to discuss the specific programs, review expectations and finalize details. Animal and biofact reservations are modified as needed. Docents also contact hotels to confirm ground floor rooms and refrigerator availability.

Zoo To You Programs

Conservation programs have been developed over the years to educate all ages from pre-K through senior citizens. These begin with a basic exposure to animals at pre-K levels to a more formal introduction to conservation, with emphasis on endangered species and environmental changes. Docents modify all of the presentations as needed to fit the age level of the audience.

Docents are also encouraged to develop programs that meet the special needs of some of our audiences. These programs are sometimes incorporated into our listed offerings. Current programs are listed below.

Program	Ages	Learning Objectives
Introduction to Animals	Preschool	<ul style="list-style-type: none"> ■ Compare and contrast animals
Slime, Scale, Feather and Fur	Grade 1	<ul style="list-style-type: none"> ■ Characteristics of the four classes of animals, including how animals are born and what covers their bodies
Reptiles and Amphibians	Grade 2	<ul style="list-style-type: none"> ■ Reptile characteristics ■ Reptile diversity ■ Amphibian characteristics ■ Amphibian diversity
Wings	Grade 3	<ul style="list-style-type: none"> ■ Bird characteristics ■ How bird feathers, wings, beaks, and feet are suited to each species' means of survival ■ Bird diversity
Secrets of Survival	Grade 4	<ul style="list-style-type: none"> ■ What a habitat is ■ Examples of six different habitats ■ What an adaptation is ■ How animals are adapted to their specific habitats ■ Examples of adaptations
Endangered Species	Grade 5	<ul style="list-style-type: none"> ■ What it means to be extinct, endangered or threatened ■ The importance of preserving wildlife ■ The basic reasons for the decline of animal populations ■ How humans can protect endangered species
Wildlife for Sale	Grade 6+	<ul style="list-style-type: none"> ■ What the Wildlife Trade is ■ How Wildlife Trade affects biodiversity ■ How students can make a difference in Wildlife Trade
The Mexican Gray Wolf	Grade 6+	<ul style="list-style-type: none"> ■ Wolves' role in the ecosystem ■ How wolves became endangered ■ Wolf Recovery Programs
The Realm of the Tiger	Grade 6+	<ul style="list-style-type: none"> ■ Describe the five species of tigers ■ Tiger Habitats ■ Tiger Conservation ■ Threats to Tiger Survival

On some occasions, docents will request translation services from the sites, as some of our sites have a high percentage of non-English speaking students. Also, docents are aware of cultural sensitivities, and accommodate those in scheduling programs and animals for visits. For instance, certain herps or birds are not welcomed on some Indian reservations and could cause great cultural/religious harm if presented.

Animal Husbandry

Animal husbandry is a big part of the job of the docents when they are on the road. The very first and overriding concern on any trip is that the animals are safe. To that end, the docents are constantly checking the temperature in the van as it travels, monitoring the suitability of and temperatures in the hotel and presentation rooms, making sure that the noise levels at the presentation sites are not excessive, taking care that the animals are not subjected to air pollution or any other factor which could cause them harm in any way. The docents have the authority and the responsibility to abandon a program if it in any way endangers the welfare of the animals.

The docents are responsible for preparing the diets for the animals on a daily basis using the food and diets provided by the education animal keepers. Care is taken to insure that the animals are given the proper food in the proper amounts. Animal behavior sheets are completed for education keeper review to track the animals' eating and behavior patterns while on the road.

During the trip all cages must be carefully cleaned and disinfected when appropriate. This sometimes involves both a carrying crate and a presentation enclosure for the animals. For instance the herps are carried in containers in a modified cooler but displayed in roomier aquariums. The prehensile tailed porcupine travels in a large animal crate but spends its non-travel time, i.e., the motel room and presentation sites, in a large, roomy cage with various levels for climbing.

Animal exercise is also important when animals are carried in enclosures and crates which limit their ability to stretch and run. The docents must provide for this in the motel rooms. Even though the docents bond with the animals and interact with them in the privacy of their motel rooms the animals are not treated as pets when presented to the public. The message is always a conservation message.

On the van, the crates and cages are secured with the liberal use of bungee cords. The birds' perches are aligned front to back in the van (in line with the direction of travel) so that the birds are not jolted by stops and starts. Care is taken so that the animals are not placed in areas of the van which are too warm or too cold. The van is equipped with an emergency veterinary kit. Again, the first job of the docents when they are on the road is to make sure that the animals are safe.

Cast of Characters

The Zoo to You Van program has featured many different species of animals over the years. Some proved to be easier to carry and present than others. We discovered that javelinas can be very messy and smelly. Prehensile tailed porcupines are show stoppers but high maintenance. The choice of animals for each trip is left to the discretion of the docents doing the trip and is usually dictated by the types and kinds of programs being presented on that trip. Docents also consider the environmental and site conditions (i.e., seasonal temperatures, whether the setting is indoor or out, etc.) in determining which animals to take. Usually we take three herps—a corn snake, a leopard gecko, and either an ornate box turtle or a marine toad. Two or three mammals are also included as well as two or three birds. The size of the van dictates how many and what kind of animals we can take. Our choice is limited to the animals in the education collection at the time. Sometimes an animal may not be allowed to travel if it is sick, injured, too old to withstand the rigors of extended travel, or needed for breeding. We also try to make sure that each animal gets to stay at home occasionally.

When new animals become available to the education department, they are first handled and trained by the education animal keepers. Next the docents are trained to handle and work with them. When it is deemed appropriate by the zoo staff, the animals are available to be taken out on grounds at the zoo. Next they are

allowed to go on local or one day van trips. If all goes well and as planned, the animals are then made available for four day trips and become a part of the full van program.

The following table lists the animals that have been included over the years with the current animals noted.

	Currently available	Used in the Past
Amphibians and Reptiles	Ornate Box Turtle, Corn Snake, Leopard Gecko, Marine Toad,	Boa Constrictor, Mud Turtle, Musk Turtle, Python, Snapping Turtle
Birds	Galah Cockatoo, Greater Hill Mynah Bird, Princess of Wales Parakeet, Rainbow Lorikeet, Sun Conure	Blue and Gold Macaw, Green Winged Macaw, American Kestrel, Mousebird, Peach Fronted Conure, Scarlet Macaw, Senegal Parrot, Sulfur Crested Cockatoo, Turtledove
Mammals	Three-banded Armadillo, Chinchilla, African White Bellied Hedgehog, Prehensile-tailed Porcupine, Sugar Glider, Ferret	Bush Baby, Capybara, Javelina, Kangaroo Rat, Opossum, Prairie Dog, Rabbit, Raccoon, Serval, Skunk, Tenrec

Biofacts

Biofacts are an important part of presentations/exhibits to send our conservation message. Our animals are non-contact animals. Touching the biofacts helps build a personal connection; that connection builds a much stronger conservation message. Many of our evaluations and thank you letters specifically talk about the biofacts that the visitors have touched.

The use of biofacts also enhances the specifics of our programs. For instance when we are talking about adaptations for eating, the adaptations of teeth, the eye placement of prey and predators, or other characteristics, we use biofacts to clearly illustrate our points.

Biofacts used vary based on docent choice and the programs presented. A few examples of the many biofacts from which we can choose are listed in the table below.

Hides/Pelts	Polar bear, Black bear, Zebra, Lion, Mountain Lion, Beaver
Skulls	Pronghorn Antelope, Mountain Lion, Black Bear, Porcupine, Bald Eagle, Komodo Dragon, Snake, Terrapin
Teeth	Elephant, Snake Fangs, Crocodile
Beaks	Flamingo, Owl, Hummingbird, Ibis
Feathers	Owl, Hummingbird, Ostrich, Macaw, Emu, Peacock
Eggs	Ostrich, Roadrunner, Hummingbird, Snakeneck Turtle, Dwarf Caiman, Gecko
Other	Giraffe vertebrae, Sea Turtle shell, Snake sheds, Snake rattles, Porcupine quills, Gorilla foot (model), Owl pellets, Rhino horn (replica), Polar Bear footprint, Elk and Deer antlers

When appropriate, we also use games or interactive resources (some of which are docent developed) to help spread the conservation message. These can help engage the students in very lively discussions. Games include Animal Concentration, Environmental Impact (using Jenga-like building blocks), Risky Critters (environmental jeopardy), Build a Wolf, and animal limericks. We also have puppets available to use in our programs, a few of which include Tadpole-to-Frog, Armadillo, Lion, Hippo, Naked Mole Rat, and Giraffe.

Training

The docents at the Rio Grande Zoo get extensive training to be a part of the Zoo to You Van program. First, the volunteers must finish a six month training class that all docents must complete to become a part of the education department. This includes formal lectures, homework assignments, field work, study team projects, a final exam, and extensive shadowing of experienced docents.

After this initial training any docent may take the one day Zoo To You Van Training Class. This day includes an overview of the program, its sponsor, and mission. The docents are given a tour of the van and learn about a typical four day road trip from start to finish. Animal husbandry is covered. True and usually funny stories of van experiences are shared by experienced docents during the training and informally at lunch on the day of the training. Nuts and bolts and paperwork are covered as is what to do if and when emergencies occur. Even vehicle operation and maintenance are dealt with.

After this day, another six hour class on defensive driving is required by the city of Albuquerque in order to drive the van, which is classified as a city vehicle. After completing the class the docents are issued city vehicle permits.

When all the class room training is completed, it is time to hit the road. The new docents are then paired up to shadow the experienced volunteers and go out on the road for a full four day trip to learn the ropes and help out as they become comfortable with the requirements. The shadowing docents have to take their own vehicles because the van only seats two, however their expenses for room and food and gas are covered by the Zoo to You van program. The shadowing trip is considered by the staff and by the volunteers to be crucial to the training program.

On the Road with the Van Docents

Twenty six years on the road have taught us that a sense of humor and flexibility are key to our success on van trips. Despite our best planning and coordination, surprises will occur. We've learned to make the best of any situation as long as animal safety is not jeopardized.

On the day of departure, docents are responsible for preparing the animals for travel, completing all necessary paperwork, and loading the van. Depending on the distance to the destination, there may be presentations scheduled en route or on arrival. Subsequent days start and end with diet preparation and cage cleaning. We sometimes have significant distances to travel to each day's sites, and often have several sites a day. Upon return to the zoo, we settle the animals for the night, complete paperwork, clean and disinfect the travel cages, and leave the van fully stocked and ready to go on the next week's trip.

A typical trip is described in more detail in Table 2 at the end of the paper.

Impact of ZTU Van

In our 26 years, we have presented the conservation message to 850,000 people (remember our total state population is 1.9 million, of which 900,000 live in the Albuquerque area). We are now presenting to the next generation of students in New Mexico schools. The vans (we're now on our fourth van!) have traveled over 500,000 miles, docents have delivered over 10,000 presentations and/or exhibits, and have spent 4000 days on the road.

In these 26 years, the Zoo To You van has visited 250 different communities outside the Albuquerque metropolitan area. Some of these communities are visited regularly, and some less frequently. The remoteness of some of these communities has resulted in docents spending the night with the school principal in one community, and going to dinner in Mexico (the closest restaurant) in another.

In addition to the satisfaction of knowing that we have spread the conservation message, we have experienced the pleasure of visiting numerous communities, established friendships, and touched lives across our state. We're fond of saying that this is the hardest job you'll ever love.

We hope our experiences demonstrate that docent-staffed programs can be a very valuable tool in expanding outreach conservation programs. Our docents have gained the trust of the education staff and keepers in caring for the animals and presenting the conservation message. You can do it too! It's Possible!

**Table 1
Roles of Education Staff in the Zoo To You Van Program**

Docents	<ul style="list-style-type: none"> ■ Participate in van meetings and training ■ Coordinate final details with sites ■ Load and unload van ■ Drive to presentation cities and sites with the animals ■ Teach at the sites ■ Responsible for animal safety and husbandry while away from the zoo ■ Complete required forms ■ Clean, restock and help maintain van
Education Coordinator	<ul style="list-style-type: none"> ■ Submit required reports and interface with sponsor staff ■ Develop conservation education programs ■ Create and provide docent and Zoo To You van training programs ■ Acquire education department animals ■ Arrange purchase, painting and equipping of van
Education Clerk	<ul style="list-style-type: none"> ■ Reserve motel rooms for the docents making sure that our education animals are welcome. ■ Send presentation packets to the sites with pre and post visit extension material ■ Maintain forms for trip evaluations, expenses, maintenance and advertising. ■ Submit quarterly reports to the sponsor ■ Forward thank you letters and drawings from the sites to our sponsor. ■ Schedule maintenance on the van. ■ Communicate with Keepers regarding animal schedules
Education Zoo Keepers	<ul style="list-style-type: none"> ■ Initial and ongoing training of animals for participation in education programs ■ Train docents to handle education animals ■ Provide daily care and maintenance of education animals ■ Review animals scheduled each week and adjust as needed based on animal status ■ Assemble animal diet ingredients for van trips ■ Available for consultation with docents when issues or questions arise during trips ■ Review animal behavior sheets upon return of the animals

Table 2
On the Road with the Van Docents

Day One (Departure)	<ul style="list-style-type: none"> ■ Complete required Travel Authorization Forms ■ Receive Funds ■ Prepare crates, including animal enrichment items ■ Pack animal diets and diet instruction cards ■ Sign out animals ■ Pack and sign out biofacts ■ Crate animals and load van ■ Complete USDA Animal Removal forms ■ Travel to site ■ Present scheduled programs ■ Settle animals in motel room ■ Prepare diets ■ Make sure animals get proper exercise and enrichment
Days Two, Three, and Four	<ul style="list-style-type: none"> ■ Clean and disinfect cages ■ Prepare diets and feed animals ■ Load animals and travel to presentation site(s) ■ Set up at site(s) ■ Teach ■ Distribute sponsor acknowledgement cards ■ Track and record audience totals ■ Make sure animals get proper exercise and enrichment
Day Four (Return to Zoo)	<ul style="list-style-type: none"> ■ Return animals to their enclosures, provide with food and water ■ Return biofacts to designated places ■ Sign in animals and biofacts ■ Complete Trip and Expense Reports ■ Restock van (water, newspapers, shavings, handwash, forms, etc) ■ Clean, disinfect cages and return to shed ■ Leave completed animal behavior forms for the animal keepers