



ARIZONA-SONORA
DESERT
MUSEUM

NEWS

ASDM NEWS — SUMMER 2019
A newsletter for friends of the Arizona-Sonora Desert Museum

Animal Playtime at the Desert Museum:

It's not all just fun and games

Most Desert Museum supporters know how seriously we take the physical health of our animals, but did you know that psychological health is just as important?

Thanks to the dedicated animal care team, every single animal resident—from mountain lions and black bears to scorpions and spiders—receives environmental enrichment that allows them to express themselves and use their problem-solving skills as they would in the wild. Allowing animals to make decisions and flex their muscles—both physically and cognitively—prevents frustration and boredom and helps the animals have more control in their lives.

Practice Makes Perfect

The primary goal of enrichment is to create novel psychological experiences. Just like humans, each individual animal has a dif-

ferent skillset and proficiency level, and thus necessitates unique enrichment activities for each. As you can imagine, with more than 230 different species at the Desert Museum, a great deal of trial and error goes into finding effective ways to create engaging experiences. Zookeepers and volunteers are continuously thinking of new ideas, always with a consideration for an animal's natural history and safety. Zookeepers think about what the animal has evolved to do over time and then think of ways to evoke those same actions. For example, we know that wolves heavily depend on their advanced sense of smell for hunting. Our wolves do not "hunt" as they would in the wild, but we can replicate aspects of the experience for them by introducing deer scent into their habitats.

This encourages the wolves to sniff around for prey and is one of many ways to keep them stimulated in their environment.

There are multiple classifications of enrichment, each intended to illicit different behaviors, often targeting the different senses such as smell, sound, taste and touch. All enrichment sessions are recorded, reviewed, and rated by zookeepers and veterinarians. This allows us to not only keep track of what type of enrichment is done and when, but also allows us to note the animals' reactions. The ratings represent whether the reaction is positive, negative, or neutral. It should be noted that an adverse reaction isn't necessarily bad; the goal is for animals to experience the same emotional variations that they would in the wild. For instance, snake shed might be placed in the packrats' environment. Interactions with a predator's scent may not be pleasant for the packrats, but it is certainly something they would encounter in the wild. That said, not all enrichment activities are meant to replicate experiences animals would have in their natural environments.

New Twists on Old Behaviors

Javelina are, surprisingly, quite the "artists." If you can believe it, the animals enjoy pressing their noses against canvases covered in non-toxic paint to create their own artistic masterpieces! Painting enrichment is designed to mimic the act of rooting in the ground with their noses for food. This is just one example of enrichment that encourages inherit behavior from an animal in a method that is totally unique to anything they would experience in the wild.

Likewise, if you've ever spotted empty cardboard boxes in an exhibit, have no fear—we haven't lost track of the recycling! Our trash truly is like treasure to many of the small mammals, reptiles, and birds at the Desert Museum. Rattlesnakes love exploring boxes, slithering around until they find just the perfect napping spot, and it's not uncommon to see a parrot nibbling away at a phone book. The animals wouldn't encounter these objects in the wild, but add-

ing them to their habitats provides hours of enrichment.

Change of Scenery

While some animals benefit most from having different objects introduced into their habitats, others enjoy a little change of scenery. Parrots in our Interpretive Animal Collection get excited when they get to go on walks through the grounds with zookeepers and trained volunteers to get the opportunity to interact with different people. Even the more introverted species benefit from going out and about. Reptiles, for instance, are given access to their very own enrichment courtyard that's loaded with different textures, materials, and spots to hide. Some reptiles are content to explore the courtyard on their own, but others, such as tortoises and Gila monsters, sometimes prefer interacting with each other in their home away from home.

Mountain lions and bobcats, for instance, can be trained to follow "targets," which are long sticks with a small ball at the tip. The cats are taught to move according to where the stick is pointed, thus helping zookeepers transfer them from one area to another or into a crate if necessary. Anyone who has ever tried getting a housecat into a carrier will appreciate the time, energy, and frustration the zookeepers must save themselves—and the animals—with target training!

Many people are shocked to learn that fish are also target trained. This is especially helpful at feeding time in mixed-species habitats where slow feeders co-mingle with voracious eaters. In this case, certain fish are conditioned to move to a specific area in their habitat when a target is presented. The fish's behavior is reinforced with a food reward and, before you know it, the fish



Cats and other mammals are "crate" trained, parrots are "t-perch" trained, and birds of prey are "glove" trained. Teaching birds and mammals these behaviors is not only mentally stimulating for them, but it is extremely helpful when zookeepers or veterinarians need to examine an animal or move it from one habitat to another.

Eye on the Target

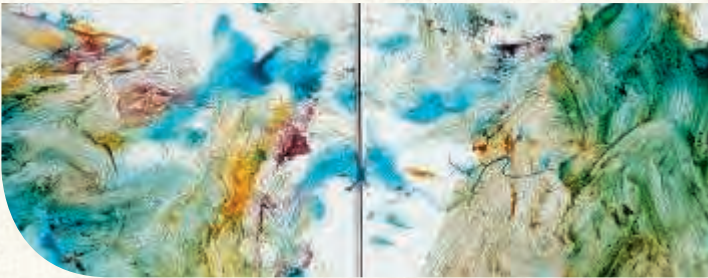
Some enrichment is better classified as behavioral rather than environmental. Many activities are designed to help zookeepers and veterinarians better and more easily care for the animals. Target training is a perfect example of this type of enrichment.

have been trained to feed in a specific location so that everyone is guaranteed a full belly at the end of mealtime.

Meal Time

Many other food related activities can be used as enrichment. In the wild, animals

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are not presented with perfectly prepared meals and that's not necessarily best when in human care either. It's both physically and mentally stimulating for an animal to have the opportunity to make an effort to get their meal. Food puzzles similar to those available for domestic dogs and cats are a great tool. Food is sometimes hidden around the animals' habitats so they have the opportunity to forage. Zookeepers and volunteers can also make paper mache items with food inside giving the animals the chance to tear it open. It is often observed that when in human care, if an animal is given the choice between needing to use their skills to access food, such as with a food puzzle, and that same food item is readily available, they will choose the option that requires an effort.

Helping Us Help Them

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prey are “glove” trained. Teaching birds and mammals these behaviors is not only mentally stimulating for them, but it is extremely helpful when zookeepers or veterinarians need to examine an animal or move it from one habitat to another. Luca, one of our military macaws has even been trained to spread his wings on command. While this display is certainly beautiful and elicits plenty of oohs and ahhs, the behavior actually serves a practical purpose as it allows us to see the condition of his feathers. Along the same line, Strawberry the black bear is learning how to present her forearm for a blood draw, and the mountain lion, Cruz, has learned to navigate to a specific spot in his night holding area to present his tail for the same purpose. The goal of this type of training is twofold: the animals benefit from mental stimulation and treatment is far less invasive than if veterinarians needed to use anesthesia to perform these checkups. ■

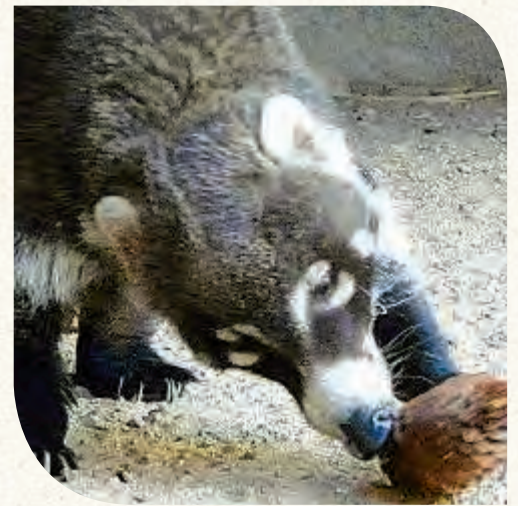
Interested in helping enrich the animals at the desert museum?

DESERT MUSEUM MEMBERS CAN ENTER A CONTEST TO WIN A ONE-OF-A-KIND ENRICHMENT EXPERIENCE



Get the chance to hang out with our zookeepers and the animals we have the honor of taking care of, participate in making an enrichment item, and get to see the animals enjoy it firsthand! To enter, visit the member page at desertmuseum.org and enter the code ENRICHMENT19. *The winner will be chosen and notified by September 15th.*

If you'd like to directly contribute to the psychological health of the Desert Museum's animals, please consider making a donation online at desertmuseum.org/support. Be sure to select “Animal Care & Enrichment” under the designation and your donation will be used to help create experiences to keep animals happy!



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