

SHOW AND TAIL

Fernando & Cora: Climbing to New Heights

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The Wildlife Workshop at the San Diego Zoo Safari Park is a presentation area that houses more than 50 ambassador animals. We host behind-the-scenes tours and travel to other areas of the Safari Park and offsite with our ambassadors when we're not in the midst of a global pandemic. The Workshop has two tamanduas in our collection: Fernando, a 4-year-old male, and Cora, a 3-year-old female brought in from the Dallas Zoo in Fall of 2019 to support our very first Species Survival Plan® (SSP) Program.

In the past, ambassadors in our area have not participated in breeding programs. However, we've realized that being a part of these programs can be enriching for our animals and beneficial to welfare. In addition, adjusting our business model to support SSPs with our ambassadors gives us an opportunity to practice what we preach and work towards increasing populations rather than being a "consumer" of the population. Joining the Tamandua SSP has really enabled us to shift our

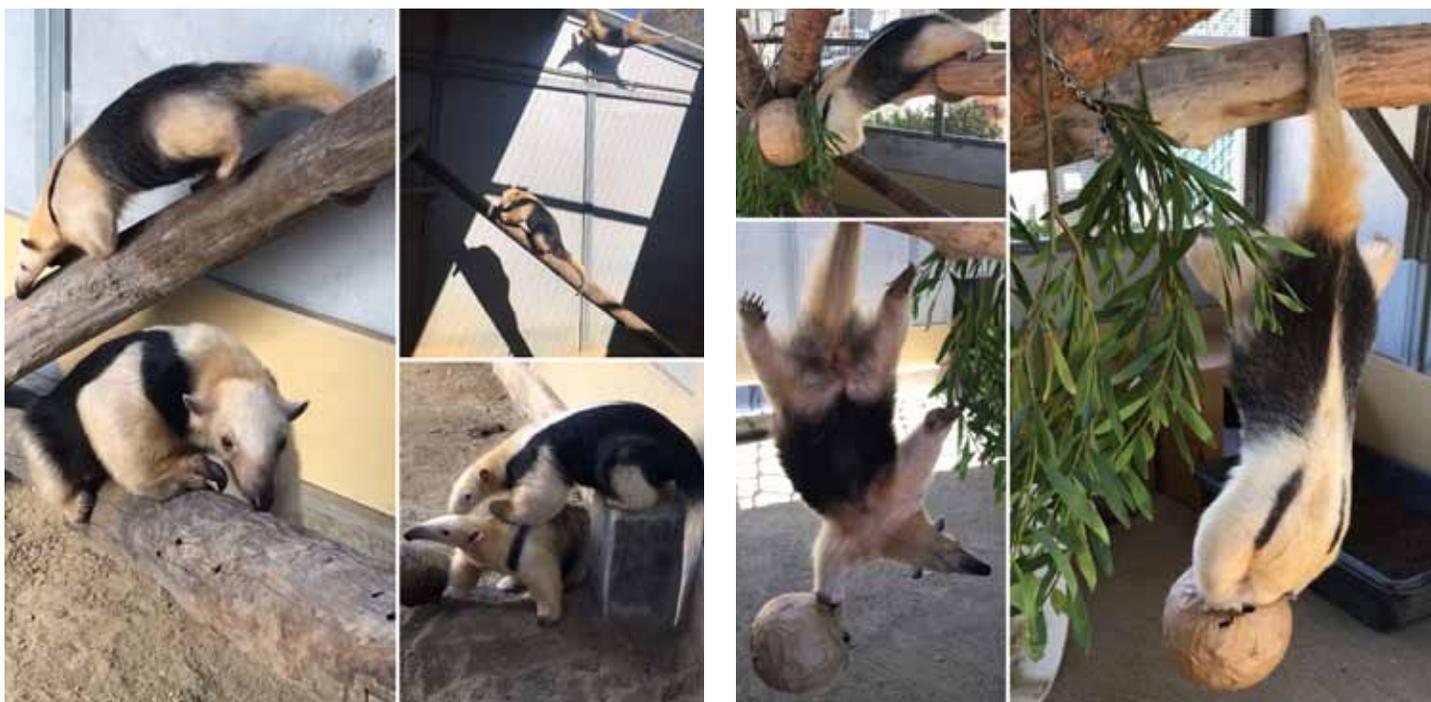
way of thinking and to overhaul our enrichment and training programs in an ongoing quest to offer our ambassadors the best welfare possible. Through the recent changes we've made to their enrichment and training, we have been successful in giving our tamanduas more choice and control and more opportunities to thrive. Consequently, we have also been able to improve the quality of our guest presentations and the impact we are making on our mission to end extinction.

Enrichment

In recent years, San Diego Zoo Global has evolved from using a traditional input-based enrichment model to an outcome-based husbandry and enriched experiences model. The change has been adopted at different paces, depending on the needs of each area. Joining the Tamandua SSP highlighted the need to speed up the transition at the Wildlife Workshop. Introductions between Cora and Fernando would be inherently enriching, yet they didn't fit neatly into the framework of a traditional enrichment calendar. Therefore, we have been slowly transitioning our program and our thinking towards encouraging various behaviors at a goal frequency (ex: daily climbing, weekly digging, monthly breeding). In order to accomplish this goal, we conduct specialized exercises known as "workflows" to allow us to dive deeper into the natural history and adaptations of a species and the context of a desired behavior. These

Left: Cora and Fernando introduction.

Right: Cora "beehive" enrichment opportunity.



workflows lead to the development of enriched experiences that unfold over the course of several days and incorporate meaningful environmental cues with the aim of strengthening the relationship between the animal and its surroundings.

For our first tamandua workflow, we focused on the behavior of “foraging” and broke that behavior into the contexts of insect nests on the ground, insect nests in trees, beehives/honey, and fruit. From that initial workflow, we have been able to successfully implement two separate multiday enriched experiences that are coupled with environmental cues. For the first experience, we hang browse and spray a beeswax scent on a high perch in the enclosure. The following day, we spray the beeswax scent again and offer a small amount of a high-value food item in that location. On the final day, we hang a paper mâché “beehive” full of mealworms where the scent had been sprayed the previous two days. The goal is to mimic a beehive foraging experience and for the cues to develop meaning to the tamanduas over time, allowing them to anticipate the appearance of a high value resource in the coming days. The second multiday enriched experience we have implemented takes advantage of the natural world. The day after a natural rain event, we add a dirt pile to the tamandua’s enclosure and sprinkle a few meal worms on top. The following day, we insert tubes filled with mealworms

into the dirt pile. The goal is to mimic insect nests coming to the surface after rain. We hope that eventually, natural rain events begin to take on more meaning to our tamanduas.

Participating in the SSP presented us with another opportunity for an enriched experience. While the introductions themselves are enriching, we wanted the days leading up to them to be meaningful as well – allowing anticipation of upcoming breeding opportunities. We introduce them based on the timing of Cora’s cycle, so the interactions are cued to her based on her natural hormonal fluctuations. Since the pair live apart, we cue Fernando by presenting him with female-scented plush anteaters to “practice” with in the days prior to interacting with Cora.

An additional aim of our enriched experiences program is to encourage natural behavioral diversity as an interpretive tool that can be showcased in our animal presentations. We have experimented with different ways of facilitating natural behaviors; our initial attempts focused on demonstrating foraging behaviors - feeding insects from long clear tubes or from a paper mâché termite mound.

Left: “Perch” and “Heel” behaviors.
Right: “Rope” and “Tail Hang” behaviors.



Training

Training a variety of behaviors to support the SSP has led us to developing a stronger relationship with our tamanduas and to providing a more educational experience for our guests. Not only did we need to train for nail trims and ultrasounds, but we also needed to use our training sessions to set Fernando up for success – teaching him to be a more adept climber and building his confidence so that he would have a better chance of keeping up with Cora.

Fernando has always been gentle and calm, allowing staff to easily pick him up and carry him out to presentations. Traditionally, he would be placed with reinforcement on a seat where guests had the opportunity to interact with him. With the new SSP breeding recommendation, we wanted to begin a training approach that would allow him to problem solve and exhibit more choice. We wanted to train behaviors that would allow him to use his natural adaptations in front of guests, but also help increase successful introductions with Cora since she was a much better climber. In addition, teaching him to follow us and recognize his name gave us confidence that we could separate the tamanduas during their first meeting if problems were to arise.

The first step was to teach Fernando to target. Using a hand target, a clicker, and primary reinforcement (waxworms and mealworms) we were able to see if he wanted to participate in training sessions. This slowly transitioned into teaching him a “heel” so that a trainer could either walk him out for some exercise or ask him to crate. Through his training, it was observed that his eyesight wasn’t great. Though tamanduas have relatively poor eyesight, his seemed poorer, which led to a more challenging but rewarding training experience. Getting him to follow a trainer to the presentation area eventually became a breeze through the use of verbal and visual cues.

Because he was good about staying with the trainer and targeting, we started to teach him to climb poles, climb upside down on ropes, and hang down from beams with his semi-prehensile tail. We taught him a set path to take and hoped that because of his poor eyesight, he would begin to understand in context where to go. After about a month and a half of training sessions, he picked up on it, and we also noticed increased use of enclosure space and climbing ability. His newly acquired skills became even more apparent during his first introduction with Cora.

Fernando is even more confident than he was before and we are presently working on him climbing a traveling

Left: “Tube feed” and “Ultrasound” behaviors.
Right: Termite mound.



perch, learning a chain behavior, and a duration hold to a target. We wanted to create a behavior that all educators and trainers could ask for just by giving the verbal SD "Go on." The chain behavior will show him climbing a pole, going upside down across two ropes, climbing down a different pole and onto a beam, and hanging down with his tail to finally end on a designated seat.

Cora heels and crates very well, but because of the opportunity to participate in the SSP, we also wanted to demonstrate husbandry behaviors to guests with both of our tamanduas. When Cora comes out, we ask her to stand up tall, feed her with a clear tube of worms, and simulate an ultrasound by touching her abdomen. We can talk to guests about how we check for signs of cycling and how we trim their nails before introductions.

To take this a step further, we are working on eliminating baiting by having them hold their nose to a target for an unspecified amount of time.

We are constantly learning and thinking of ways to take the welfare of our tamanduas (as well as all the ambassadors at the Wildlife Workshop) to new heights. We are hoping for the opportunity to apply everything we have learned from our experiences with Cora and Fernando to working with a new baby tamandua ambassador in the future, should our endeavors with the Tamandua SSP be successful. We are excited for future opportunities to join other SSPs, now that we have seen how they can be such a big catalyst for positive changes in our ambassadors' welfare.

