

TACTICS FOR TRAINING APPREHENSIVE ANIMALS

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ABMA Conference, 2008

The Phoenix Zoo houses a group of Chacoan Peccaries (*Catagonus wagneri*) that require frequent immobilization for hoof trims, tooth care, and other husbandry procedures. This group is very wary of staff and requires a large investment of time and personnel to separate individuals before each medical procedure. This process results in excessive stress on the animals. We developed a training plan to restore trust between staff and peccaries so one keeper can easily and quickly separate the selected animal within a short amount of time. We began a similar program with a mixed exhibit of Bald Eagle (*Haliaeetus leucocephalus*), Turkey Vulture (*Corvus corax*), and Common Raven (*Cathartes aura*) who were similarly apprehensive of staff and had equal time and manpower requirements for medical procedures. This presentation will share our methods, successes and setbacks as we move towards our goal with the peccaries. We will also discuss different approaches, what has and has not worked, with our mixed bird exhibit.

INTRODUCTION

We have two exhibits containing very different animals: one with mammals and one with birds. They have all historically been caught for medical procedures with old-fashioned techniques, and are distrustful and wary of people.

The goals of both programs are the same: shift training, desensitizing animals to human presence, reducing stress and fear, and reducing time and manpower needed for shifting. The obstacles to these goals include apprehensive behavior towards humans and holding areas, changes of individuals in exhibits, frequent medical procedures that cause loss of trust between animals and staff, changes to routines, and lack of staff time and availability.

This presentation is about what worked, what didn't, when and how we had to backtrack, and where we are now with our programs.

DISCUSSION

TAGUA SHIFT TRAINING PROJECT

We'll start with the Chacoan Peccaries – a South American relative of our Collared Peccaries with the same impressive teeth but a shier and relatively more approachable temperament. We can go in alone with the whole herd with just a bit of protection as long as we're careful not to corner them.

When we started training in June 2007 there were five females in the exhibit, all in their mid to late teens. The exhibit has a large public area with a narrow chute leading to a separate area with one larger and three smaller pens - one of which is an enclosed building - that can all be shut off from each other. We need them in the small pens to dart them for frequent hoof trims and dental work, therefore they did not like to go into the back at all. Diet was divided with vegetables in the back and grain on exhibit.

Training with trainer in close proximity

The first tactic was to go into the exhibit with them, ring our keys, and throw pieces of vegetables towards them. As they ate we planned to slowly lead them into and through the chute. Within one week they would come near the chute but would not enter. They would leave and lie down on the far side of the exhibit if we persisted in asking them to come into the chute.

Training without trainer in close proximity

We changed strategies for the first time and started ringing the keys and dumping the veggies closer and closer to the chute and leaving immediately. One week later all the veggies and the grain had been gradually moved all the way into the back. They had started to come to the chute entrance when we took the cleaning tools away. At this time we had a couple hoof trims and we ended up scaring them away when we went back out to medicate these individuals, but right after medicating was over we found them waiting in the back on several mornings when we showed up to service them. We immediately rewarded this by feeding them and going back to clean later in the day.

Change of cleaning and feeding routine

This medicating period is also when we realized that, because they had always been fed in the morning, they were unused to either having staff in the exhibit or to eating in the afternoon when we needed to separate them for overnight fasting before an immobilization. We changed our routine and started providing a handful of veggies in the morning to check on them, and doing the rest of the servicing as late in the day as possible.

The routine they are used to is to clean first, then feed. Two attempts over this period to change this order led them to stop working with us. We might have been able to work through this with them, but the possible advantages were outweighed by the time it might have taken, so the idea was abandoned.

In early July, one month after we started the program, a sixth peccary who had been at the hospital healing from a broken leg came home. She was housed separately in the small pens for several days, and then was released into the herd with no problems. During, and for a few days after each stressful situation, the peccaries were always given free days with no training, but with food left as close to the usual positions as possible.

Desensitizing to people

Near the end of July the herd was comfortable eating in the back holding area, but would not eat if staff was around. We took a step back and tried an intensive desensitizing program to associate people with good things. We went into the exhibit with them, rang keys, and threw a few veggies a short distance in front of us. Individuals who came up were fed as much as they wanted (still shaking keys while throwing to cement their recognition of this signal). If they didn't come up they didn't get fed. We stood closer and closer to the chute. If they came into the chute, or all the way to the back, they would get all the food, otherwise lockup staff would put out the remainder a couple hours later. Staff were also encouraged to talk a lot around the herd for extra

desensitization. By the end of the month they were coming into the back and were comfortable enough to eat with staff in the area, but were still pretty defensive and wary.

Diet change

In August (month 3) the herd stopped working with us and one seemed to be getting sick. I was able to shut them into the back holding area by waiting up front till they went in, and then walking through the exhibit to shut the chute gate. After some medical treatments we adjusted our strategy. We had recently changed pellet diets and some expected changes in the amounts we were feeding allowed them to start working with us again. All food was put into the back holding area, except for the portion that could be thrown to them i.e. carrots and sweet potatoes. We would shake keys as a cue to announce dinner time, and walk to the front of the exhibit to wait for them to go back and eat. Then we walked through the exhibit and shut the chute as I had done earlier in the month. The gate remained closed for 30 to 60 minutes to show them nothing horrible would happen while they were locked up. Reserved veggies were thrown to them one at a time while standing in various places outside the back stalls. Individuals that stayed outside were temporarily shut away from food and companions.

Exhibit change

We also tried lowering the height of the plywood on the side of the chute next to the pens. Being able to see to the other side dramatically reduced the amount of time they spent working up the nerve to walk around the corner. By the end of September, four months after we started, the whole herd was coming in pretty reliably, we were able to walk around to the back and shut them in from outside the chute instead of walking through the exhibit, which was safer and faster, and we were able to have extra people work around them without affecting their performance.

Gaining trust

This continued through October, and when two of them grew bold enough to come into the back with me while a staff member was putting food out we decided to shut the inside chute gate until we were ready to leave – this also served as an extra dinnertime signal.

Introducing new objects

In November we introduced boomer balls with holes drilled in them for their pellet rations. It took weeks for them to get the idea, but once they caught on they were rolling them all over...even around several obstacles and out into the exhibit! When we introduced demand feeders in December they caught on very quickly, and now all pellets are fed from one or another on a rotating schedule. The lure of these feeders has proved helpful getting them into the small pens.

During this time, we were also able to shut two peccaries into the small pens for a hoof trim with only myself and one other staff member hiding and holding onto a rope attached to one open door. This was the only time the hidden keeper trick worked for us, but it gave us a huge morale boost for this project, and was the first time they had been

painlessly shut into the small pens. We followed this up by spending a week solid with no training, but put all food only in the three small pens and opened and shut different pen doors every day to get them used to these changes. By the end of the week the herd was ignoring the doors.

Over the next couple months we had several immobilizations. There were several small setbacks, including forgetting to unfasten a rope holding open a key door, but with each separation the herd was a little more calm, until we finally had two successful separations with one staff member and minimal stress to the animals.

Changes in animal numbers and individuals

Our program was proving successful, and then everything changed! Two of our females have been shipped to another zoo, and we are expecting a new male and female from other facilities with the prospect of future breeding. Also two older males that had been held in another area of the zoo were moved into a holding area adjacent to the back stalls, and are time-sharing the small pens with the females in an attempt to fit them into the training program for their future care. In spite of this, or because of the extra lure of the boys, the remaining females are training incredibly well – allowing me to stay in the back and wait for them to come in, and calmly walking into the small pens towards me for the first time. We are trying to encourage this progress, and take advantage of the renovations needed by our new arrivals, by lowering the height of the remaining plywood walls to make them even more comfortable with this area.

Being patient and flexible has helped us through the ups and downs of this training program. Within six month we gained the trust of our animals despite all medical procedures, changes in training, cleaning and feeding routines. The animals also forgive us faster, regroup faster after each change and are willing to cooperate faster after intimidating medical events.

EAGLE/RAVEN/VULTURE DESENZITIZING AND SHIFT TRAINING

We have been utilizing the same tactics of desensitization in our second big training program, however, we have not seen as much progress.

Our Eagle Exhibit is very large, quite tall, and when we started training in June 2007 it contained one Bald Eagle, two Turkey Vultures, and two Common Ravens. These birds are extremely reluctant to approach people and, unlike the peccaries, they are able to make use of all three dimensions of their space and can and do stay far out of our reach.

Training has required different techniques and a lot more patience and discussion of techniques, but even here we have seen remarkable progress on our way towards achieving our goal of quietly closing birds into crates for medical procedures and future moves.

Creating the first holding devices

The first thing we did was build a vestibule on the back of the exhibit with a small guillotine door. We also put in a couple large crates. By July the birds were eating near or in these devices, but would not come down if staff were anywhere nearby.

Desensitizing

Since we didn't have time to stay in the exhibit and wait for them to eat for us we turned to the Behavioral Observation Team – a group of volunteers with extra training in observation skills. For two months these volunteers spent three hours a day inside the exhibit. Fresh food was put out when they arrived, and they constantly read or talked to the birds while standing in place or slowly moving around the exhibit, forcing the birds to get used to us and start working with us.

The results were astonishing. Within the first week most of the birds were coming down to eat. By the end of the two months everyone except the female raven was regularly eating, and sometimes even walking right up to the volunteers. The ravens were eating off the shelf just outside their vestibule, though not going inside. The vultures and eagles were going into the crates, but pulled food out to eat instead of staying inside.

Changes in animal numbers

Over the last month the team was in the exhibit we added a juvenile Turkey Vulture and a female eagle to the exhibit and twice caught up one of the older vultures for a medical problem that resulted in removal of one eye. This problem was caught early because she was coming down to eat and the volunteers were able to get a close look at her on a regular basis.

Diet and feeding routine change

So it was the beginning of December and we thought we were ready to start operant conditioning to try to get the birds into the crates and vestibule on command. First we made a major diet change. Each species had been on a different schedule of diet items, and birds tended to go to their favorite food, not to where their own food was. We moved them all to the same schedule, and varied the diets a little more. We also bought chicken giblets to use as training rewards for whistle training.

We also started putting food out later in the day because the colder weather had them delaying how soon they would become active.

Gaining trust

The first couple weeks the male raven, Turkey Vultures, and female eagle were pretty responsive – coming down and eating for staff members. The vultures and eagle showed great fondness for the giblets and the raven was a sucker for grapes. By the end of December they were becoming less responsive. We only had a short time three or four days a week to spend with them, and the diet changes had chased away most of the wild birds, leaving them a surplus of food. We reduced their diet to try and get their attention again and to find the correct target weights.

Losing trust

In mid-January the female eagle broke a couple of blood feathers and was much more wary of us after we caught her to take care of her problem. We stopped trying to get them to come closer for rewards and switched to just putting food in the crates and on the shelf. The birds stopped coming down at all except for the boldest vulture on her favorite food item days.

Changing feeding routine

At the end of January we changed strategies again. The food was only out for 1 – 1.5 hours a day, and then was pulled until the next day. We were comfortable with this since it fairly closely mimicked their natural feeding opportunities and they would be closely monitored. Staff puts food out when they first arrive in the area, services the surrounding exhibits, sometimes close by, sometimes not, then pulls the food before leaving the area. Within a week all the birds were seen eating within this time frame. We are now tying food into the crates and very slowly moving it into the vestibule to force the birds to spend time in these areas without bad things happening.

Changes in animal numbers again

Over the last three months we have added a fourth Turkey Vulture and a Black Vulture to the exhibit, and food was left out all day for several days to allow them to acclimate to the process. Currently the Turkey Vultures and the male raven all come close to staff as food is put out, and we are scheduling the BOT volunteers to come back and help us with the next step in the plan – access to food for one hour with someone in the exhibit all the time.

Two exhibits, two very different groups of species, the same general plan with lots of different twists and turns to try and make their lives, and ours, a little less stressful. We hope this discussion of our experiences proves useful to other people who may face similar problems.