

Squirt's Great Adventure!

Southern Ground Hornbills Ungrounded

Cari Clements
Avian Trainer
Natural Encounters, Inc.

Presented at the IAATE Conference
Toronto, Canada 2004

This year I was fortunate enough to be a part of two very exciting shows, both of which used Southern Ground Hornbills in a big way. At Natural Encounters, Inc. the goal of our shows is to connect humans with the natural world and to inspire people to support conservation. What better way to get an audiences attention then to let them experience up close these beautiful, unique looking birds in flight. Their impressive wingspan, gorgeous white wingtips, and butterfly-like flight pattern are breathtaking to encounter! Having one of these amazing creatures fly right over your audience's heads engages them and focuses their attention on your message. The birds' natural behaviors in the wild and their curious, social nature make Southern Ground Hornbills ideal candidates for training the kind of complex and energetic behaviors that can bring so much to a show. In this paper I would like to share my experience working with one of our Southern Ground Hornbills, Squirt. Using positive reinforcement training we were able to train Squirt to perform long flights, which left the audience ducking and squealing with excitement! We began with spring training at our ranch in Florida, building flight muscle and confidence. Then it was off to start our show season in Toledo, Ohio. There he was one of the stars of *Close Encounters of the Bird Kind*, a free flight outdoor bird show. We didn't stop there! Next we headed to Dallas, Texas, for our biggest free flight show, *Birds of the World*. Squirt was an inspiring addition to our show season. This paper will highlight the numerous benefits and challenges that were experienced flying this incredible bird in our shows.

When talking with guests at the end of our shows, I often asked them what their favorite part of the show was. More often than not they answered "the big black bird with the funny beak - he nearly touched my head while flying over!" They were referring to Squirt, our 3 year old Southern Ground Hornbill. This is a species of bird that most people have never even heard of yet, at several of our shows this year, they had an opportunity to experience one in full flight. While they might forget the name of the species or where they come from in the wild, they won't forget how they felt when the breeze from a 5 ft wingspan blew past them or a wingtip grazed the tops of their heads. This is the goal of our shows, because it is that feeling that will inspire our audience to support conservation projects. With Squirt's help, we were able to do that in a big way this summer. Here, I begin the story of how we prepared and incorporated this incredible bird into our shows.

How do you prepare a bird for flights across a giant amphitheater when in the wild it spends 70% of their time on the ground? Spring training of course! Squirt had minimal show experience at this point, so our first steps in training Squirt were to build flight muscle and confidence. Starting in April, we worked with him in the field at our ranch. We started with short flights, about 10 ft, from stumps or tops of crates between 2 people. As he progressed to greater distances, we moved on to taller objects at different places throughout the field. In these early stages, Squirt would quite often run most of the way between the two points, flying up to the person calling him at the last moment. While watching this natural behavior of running through the grass was exciting, we wanted to get him experience in the air. We solved this challenge by pointing him up to the top of a 10 ft high, 3'x3' platform, then calling him to another 10 ft high platform. He picked this up in a snap and was soon flying the entire length of our field.

By changing our position in the field, Squirt gained confidence dealing with wind in different directions, as well as with landing on various structures from all angles. During this time he was also building up valuable flight

muscles. These skills would prove essential to him when flying in an open amphitheater with swirling winds. With his confident, social nature, it was easy to get him to fly where ever he was called. We used food as the primary reinforcer, but praise and being with the trainers were important secondary reinforcers. This was probably due to the fact that in the wild, Southern Ground Hornbills have a strong social structure. Small family groups of 3 or 4 birds are often found foraging together throughout the day and roosting together at night. Squirt's workouts continued daily for the next few weeks. Pretty soon he was doing so well it was hard to find new challenges for him!

May came along and it was time to hit the road! We packed up and headed across country to Toledo, OH where we would be performing our show *Close Encounters of the Bird Kind* at the Toledo Zoo. The show was taking place in a band shell theater, normally used for concert events. We wanted our audience to experience as many birds flying over head as possible and we wanted to push the limit of what this Squirt could do. So we designed landing platforms for Squirt in two places. The first was midway up the huge 5,000 seat theater on stage right. The second was dead center, at the very top of the theater. Our goal was for him to fly an A-B-C-A pattern, from stage to the platform on the right side of the theater, to the top of the theater, then all they way back to stage. This way his routine would bring him over two thirds of the audience.

After arriving in Toledo, we had a short two weeks of training time before opening day. We began training backwards, having Squirt fly a short distance from the top of a crate in the bleachers to a stump on stage (point A). When we use crates in training, there is always a turf mat on top to ensure that the bird does not slip during take off. As he was ready to progress, we approximated the distance by backing the crate up the theater until reaching the top platform (C). This flight down the center of the theater was incredible, a very long glide with wingspan outstretched - breathtaking! But, the harder part was coming up next - the uphill flights from stage to the 2 platforms (B to C and A to B). This is where he would really get to use some muscle. We used the same technique of approximating the distance to the next platform by moving a crate and having him fly from the crate top to platform C then to stage. This process continued until Squirt was performing his entire behavior and this was completed with time to spare before opening day.

We opened the third season of *Close Encounters of the Bird Kind* Memorial Day weekend with maximum capacity crowds of over 2,000 people! As all of you who produce shows know, putting people in the seats for the first time can have a dramatic effect on a birds behavior. While opening day jitters did affect a few of the birds, Squirt was unphased. He performed flawlessly and was a crowd favorite!

Squirt flew off only once this summer. It occurred before show opening and was due to trainer error. During an early session working on the flight from the top of the theater down to stage, we took too big of a step with our approximations. We underestimated the difficulty of the flight down from such a high point. Squirt wasn't quite prepared for the steepness of the flight and before he could land on stage, he was caught in an updraft and carried out of the theater. He landed in a tree not far from the amphitheater, right next door to the cheetah exhibit. From his position it was unlikely he could return on his own. So, we carried his crate out to him, placed it with a clear path and at a good angle for him to fly down to us, and gave him a few minutes to take in his surroundings. Once he looked ready to fly to us, we called him down and into his crate.

This event taught us two important lessons. First, when training it is important to move at the bird's pace, not the trainer's. While we were ready for Squirt to make a longer flight, we had not set him up to succeed. An animal is ready to move on to the next step in training when he completes the current step without hesitation. Squirt's hesitation was telling us that he was not ready for such a large jump in approximations. The second lesson was the importance of crate training. One thing we had taught Squirt was that his crate was a safe place. He ended every flight, in every training session, in his crate. This created a strong positive reinforcement history with the crate. Although he was in completely unfamiliar surroundings, he recognized his crate as a safe and positive place to be. This was essential to the quick and safe conclusion to his fly off.

While fly offs were not a major concern throughout the show season in Toledo, keeping Squirt interested in his behavior was. He performed in 3 shows a day, every day and after a few weeks showed signs of slowing down. Variable reinforcement was the key to working through this challenge. We got creative with the food items we used as reinforcement on the platforms and also varied the number of reinforcements. These birds have a varied diet in the wild, so we tried to recreate that for Squirt. Of the many different food items we supplemented his main diet with, his favorites were grapes, blueberries, soaked dog food pellets and pinkie mice. By varying these reinforcers, Squirt was always wondering what and how many goodies he would receive when he performed his behavior. This strategy worked extremely well for strengthening his behavior and keeping it consistent.

Another observation we made was the importance of the placement of Squirt's routine within the show. We found that where he appeared in the show was an integral part of his audience appeal. During the first few weeks, we played with the show order. We found that Squirt got the biggest reaction from the crowd when he was toward the end. Following one of our theories, start big and finish bigger, he was the last bird to fly over the audience before the big finish. From the moment he stepped onto the stage and took his first flight over people's heads, sounds of excitement rose from the audience. The final flight from the top of the theater left the audience ducking and squealing! They were on the edge of their seats, primed and ready to listen to our final conservation message.

After the big finish, the donations to our chosen conservation project, the Peregrine Fund, poured in! Squirt, along with the other 16 species of birds in our show, inspired zoo guests to donate over \$27,000 to this organization, all of which our African Collared Raven happily stuffed into a donation box! We had an incredible 3 months and then it was time to move on.

We packed up again and headed to the State Fair of Texas in Dallas to produce our annual *Birds of the World* show. In Dallas we merged with two other teams who had been producing NEI road shows the same summer. Of course not all the birds would make it into the Dallas show, but two that did make the cut were Squirt and his sister Sebastian. We had 10 days of training time before opening day and again had big plans for our Southern Ground Hornbills. They were released from the top of a lift, approximately 60 ft. high, flew over the audience down to stage, out over the audience again to a perch in the middle of the amphitheater, then back to stage. Each show, we had a volunteer from the audience with camera seated by the perch in the theater and on stage, poised to take pictures of these beautiful birds as they flew right at their faces!

Squirt made the transition to the Dallas show with ease and for the first week of shows things were going great. Then one day, as Squirt was making his way to stage from the lift, something startled him and he decided to take a detour and check out the fair. He looped up, out of the theater and disappeared. It just so happened that I was positioned at the top of the Texas Star ferris wheel, 212 ft in the air, when I heard on the radio that Squirt was headed for the hills. I looked up just in time to see the silhouette of a Southern Ground Hornbill flying high against the backdrop of the downtown Dallas skyline!! A truly awesome site! It turned out that his detour carried him almost a mile away from the amphitheater. Again, his crate training came in handy in this situation. He safely flew down to eager trainers who had brought him his crate. Unfortunately, what startled him the day before stuck with him this time and he flew off again the very next day. At this point we decided to reevaluate his routine. With only a week and a half left of shows, it made more sense to alter his routine rather than pull him from shows for retraining. So, we changed his portion of the show by eliminating the flight down from the lift. This revised routine was much like his routine in Toledo, therefore his history with that set-up helped us to fix this problem easily. He was successful for the rest of our run at the fair.

While our caravan of trainers, birds and belongings returned to Florida at the end of October, Squirt's adventure was not over yet! NEI's annual workshop, Bird Training and Show Production for Professionals, was just a few weeks away. People from all over the world attend this workshop to learn more about training birds and producing shows. They attend lectures, observe training demonstrations, and have the opportunity to work hands on with some of the birds in the NEI collection. One of our attendees chose to work with Squirt. We wanted to

do more with his behavior than just flying, so we built on his natural tendency to pick up and shake objects. In the wild, Southern Ground Hornbills use their beak to forage for food items and, when they catch live prey, will kill it by shaking or slamming it on a hard surface. In just 5 days he was trained to fly to the roof of Steve Martin's house, which for the purpose of our skit was 'on fire'. He then stuck his head into the 2nd story window to rescue the critters inside from the smokey inferno (a couple of stuffed animal toys). After grabbing the animals, he tossed them to safety and flew down to his crate! Another job well done, after which Squirt earned a well deserved vacation. Until the next season of shows, that is!

Squirt was such an amazing addition to our show season and it was such a pleasure to work with him. He helped to inspire tens of thousands of people about conservation and open their eyes to the other species that we share this planet with. He also inspired me to be more creative with training and I believe we have just begun to discover what this species is capable of. Squirt not only demonstrated intelligence, but also the potential for them to learn chained, complex behaviors for use in our show. Who knows, maybe he'll fly from the Texas Star ferris wheel in 2004? Whatever role he ends up playing, I know he will continue to be a tremendous ambassador for wildlife.