

GORILLA GAZETTE

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While reading the articles contributed by current and former gorilla keepers, I was struck by the similar thread of affection and commitment that inspires and shapes us as people through our work with gorillas. With this thread comes heartache at leaving the daily contact that working with gorillas affords (Vanessa Phelan article) or the pain associated with the unexpected loss of an infant (Columbus Zoo staff) or the fulfillment that comes with doing the important work of integrating individuals into a troop (Franklin Park Zoo staff) . Without gorillas as the foundation to inspire us to a greater good, we would not know and applaud the remarkable work of two keepers (Ron Evans & Debi Mangrum) that now are actively involved in conservation of gorillas in the wild.

Another common theme both obvious and not so obvious runs through this issue, it illustrates the importance and power of keeper-based knowledge. Apenheul mentions their focus on keeper experience and knowledge in their announcement about hosting (with GaiaPark) the 2012 Gorilla Workshop. While editing the article about the attempted introduction of a 12 year old male to a troop over ten years ago at Franklin Park Zoo - now successfully introduced at age 22 - it struck me that this too addresses keeper experience and accumulated practical knowledge. Keepers know the animals under their care, they can read situations better than any upper level management can and they know what is and potentially will work and what will not. Through their daily observations and interactions with gorillas and their gut-feel for gorilla husbandry, keepers truly speak for the gorillas themselves. It is the smart institution that pays heed to their keeper staff knowledge.

Gorilla Gazette was started to give voice to the extraordinary passion, commitment and common-sense knowledge that keepers possess. An example is the article by Emily Clarke at Howletts. The one-page food chart listing items given to gorillas at Howletts can serve two purposes. 1.) copy, laminate and place in your ape house kitchen - both as a resource guide and a goal, 2.) use it as a tool to influence your administrators who may be reluctant to increase diet diversity. You can not argue with success, Howetts has being doing right by gorillas for decades now. Of course, running through this issue are the gorillas themselves, guiding us towards work that matters, that can make a difference, inspiring others to get involved. Many thanks to those keepers, past and present who have contributed to this issue.

Beth Armstrong
Editor/Publisher of Gorilla Gazette
10 May 2011

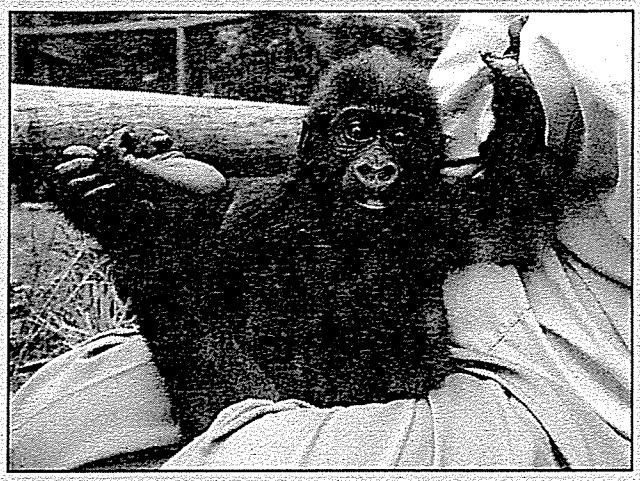


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MISHA'S STORY

When it was announced a baby gorilla was born at the Louisville Zoo on February 6, 2010, we didn't realize how soon she would become such a meaningful part of our lives at the Columbus Zoo.



Baby gorilla Misha
Photo by G. Jones, Columbus Zoo and Aquarium

This little female, named Misha, was being parent-reared by Mia Moja, her dam, and Mshindi, her sire. She was about two months old when there was an altercation in the group, and tragically Misha lost part of her left leg. Due to the severity of the injury, she was pulled for hand-rearing. After consulting with the Columbus Zoo, due to their expertise in surrogate rearing, the Gorilla Behavior Advisory Group (GBAG) and the Gorilla Species Survival Plan (SSP), the Louisville Zoo decided to transfer Misha to Columbus to be part of the Surrogacy Program.

The Columbus Zoo Gorilla Surrogacy Program is based on the premise that infants have early exposure to gorillas, and 24-hour, one-on-one dedicated care by the hand-rearing staff. This occurs from the time the infant is removed from her dam until she is introduced to a surrogate. Eight of the Columbus Zoo gorillas have been raised in the Surrogacy Program, and an additional six, including Misha, have been sent to us from other zoos. This is a holistic program, refined over the last 28 years, that provides an easy transition from human mother to surrogate gorilla mother.

Misha was relocated to the Columbus Zoo on May 24, 2010 to join a new family group. A few days after her arrival, a keeper and Misha spent their day near gorillas. This gave her the opportunity to experience olfactory, visual and auditory contact with them. The gorillas showed immediate interest. Mumbah, who is about 46 years old and an experienced surrogate silverback, was the first to greet her with soft vocalizations. Following were females Pongi and Lulu, who are also in their mid-forties and have both mother-reared offspring and have been surrogates. Dotty, a six-year-old female (Pongi is her surrogate) and Umande, a four-year-old male (Lulu is his surrogate) were very excited. As Mumbah's group welcomed the new baby, it was interesting to watch them focus on her partial leg. This was soon forgotten as Misha became mobile and was comfortable enough to interact with the group.



Misha and Pongi
Photo by G. Jones, Columbus Zoo and Aquarium

Her daily routine consisted of spending approximately an hour each morning in the outdoor habitat. There she could become familiar with her future environment, while getting fresh air and sunshine. This was followed by eight to ten hours next to her potential surrogate group. Concurrently, we encouraged developing motor skills that would build her upper body strength to compensate for the lack of her leg and foot.

All young gorillas in our Surrogacy Program must meet certain criteria for a successful introduction. Misha was no exception. She learned to obtain nourishment by going to the mesh to receive a bottle, gaiting from one area to another, becoming familiar with all facets of her new living space. During this time, a potential surrogate was identified. Due to certain circumstances, Lulu was chosen and the introduction day was set. It was obvious within the first 15 minutes that Lulu ignored Misha and did not want to be her mother. We proceeded with Plan B as dictated by our protocol. Lulu was removed and Pongi was placed with Misha. They immediately bonded. Misha was equally comfortable with both females, and was not affected by the change. Misha and Pongi had a wonderful five days together and then the unthinkable happened. While Misha was playing on the mesh, she got her leg stuck in a handle that is used to help gorillas climb. Pongi tried to free her, but the damage was done. Misha could not walk. It was decided to remove her from Pongi and get a closer look at her injury. Her hip was dislocated.



Pongi & Mishi

Surgery was performed at The Ohio State University Veterinary Hospital with the collaborated efforts of a Pediatric Orthopedic Surgeon from Nationwide Children's Hospital and an Orthopedic Veterinarian Surgeon from O.S.U. After Misha was placed in a black cast from her waist to her ankle, she returned to Hand Rearing for human care. In a few days, Misha and her keeper were again sitting next to the surrogacy group during her waking hours. This continued for six weeks until the cast was removed and Misha began to gain strength and mobility.

Once she was back with her surrogate Pongi, Mumbah was added eight days later. Dotty followed in another two weeks. A week and a half after that, Lulu and Umande began having daily visits and Misha was part of a family unit.

Even with our experience and knowledge about raising gorillas, Misha has taught us many things. Determination and overcoming adversity is what has made her such an integral part of her group. Her story is not over. She will need her hips checked through the years and we are unsure of her exact mobility as she matures. However, we're giving her the best we can and are hopeful Misha will have a long, comfortable life full of good health.

Sad note:
This article finished with such hope and anticipation for Misha's future. She adapted so well to her new mom and was fully integrated into her family group. Sadly, Misha became ill the end of February and passed away March 17, 2011. *(see CZ press release on following page)*
Misha's life ended much to soon. She had the loving and relentless care of our staff. She was such a special, beautiful little gorilla and we wanted her story to be told. She will live in our hearts forever.

In January of this year, Lulu, Umande's surrogate mom in Misha's group died of heart complications. We have been devastated with both losses.

Dusty, Barb and Maureen



Pongi & Mishi

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FOR IMMEDIATE RELEASE
March 17, 2011

YOUNG GORILLA WHO "WON HEARTS" DIES AT COLUMBUS ZOO

Powell, OH – One-year-old gorilla, Misha (MEE-sha), died early this morning after a team of experts from the Columbus Zoo and Aquarium, along with medical professionals from Nationwide Children's Hospital and MedVet Medical and Cancer Center for Pets, worked around the clock to try and save her.

On Mar. 3 animal care staff noticed Misha had flu-like symptoms. Despite treatment her condition worsened and she was in intensive care at the Zoo's Animal Health Center for the past week. On Mar. 16, based on information gained from diagnostic tests, the decision was made to perform emergency exploratory surgery. The team discovered she had a perforated bowel and it was surgically repaired; however due to the severity of her disease she died several hours after surgery. Although the results of a necropsy (animal autopsy) will take weeks, the perforations of the bowel are likely a result of an intestinal infection.

"Misha was a fighter supported by a team of animal care experts, health professionals, and zoo supporters who were all pulling for her to conquer all of the challenges life threw at her" said Columbus Zoo and Aquarium President and CEO Dale Schmidt. "She won the hearts of everyone who heard her story and our hearts are broken by her loss."

Misha's story

Misha was born at the Louisville Zoo on Feb. 6, 2010. When she was less than two months old an interaction within her family group resulted in Misha losing part of her left leg and breaking a bone near her left hip. Hand rearing Misha was necessary to aid and speed her recovery following her critical injury and the Louisville Zoo staff provided the care and expertise to help her regain her strength.

With the goal to get Misha back into a gorilla family, Louisville Zoo animal care staff consulted with the nation's leading gorilla experts and decided to relocate Misha to the Columbus Zoo since her mother didn't have surrogacy history or training that would provide the best possible care for her. The gorilla program at the Columbus Zoo and Aquarium is internationally recognized for caring for gorillas in social groups including the placement of young gorillas with surrogate mothers to become integral members of a family group. Surrogates are taught to not only care for their baby like their own but also to bring the baby over to staff when prompted for bottle feedings, medication and regular check-ups.

Misha came to the Columbus Zoo and Aquarium from the Louisville Zoo on May 24, 2010. She received 24/7 care from the Columbus Zoo animal care team who raised the infant next to other gorillas while identifying a surrogate mom to integrate her into a Columbus Zoo gorilla family.

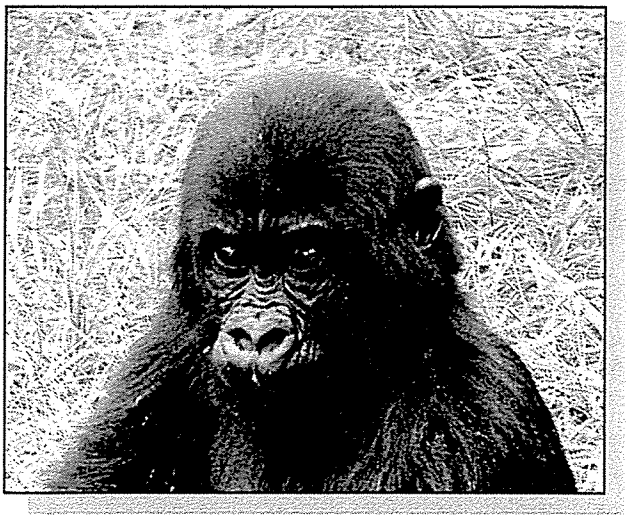
On Aug. 23, 2010 Misha was placed with Pongi (PON-jee), a 47-year-old non-reproductive female who had bonded with Misha and has been the surrogate mother to another gorilla infant. On Aug. 28, 2010 Misha was exploring the habitat when her uninjured leg became stuck in a climbing structure. Without the use of her other leg she was unable to easily remove herself from feeling caught and vocalized in distress. Pongi quickly responded and in removing her from the structure caused injury to Misha's hip. A cast was applied and Misha was once again provided with round-the-clock care from her human caregivers until she was fully healed.

On Oct. 13, 2010 Misha was returned to Pongi's care and was living in a social group of gorillas that included a silver-back male and youngsters. There are now 15 gorillas at the Columbus Zoo and Aquarium.

DISNEY'S COMMITMENT TO GORILLA CONSERVATION

Compared to most zoos, Disney's Animal Kingdom is relatively young, opening on Earth Day in 1998. Walt Disney was committed to wildlife and preserving the natural world and is credited with making nature documentaries popular with the public. With the addition of a park dedicated to animals, it was only natural for The Walt Disney Company to take a more active role in supporting in-situ conservation.

DISNEY WORLDWIDE CONSERVATION FUND

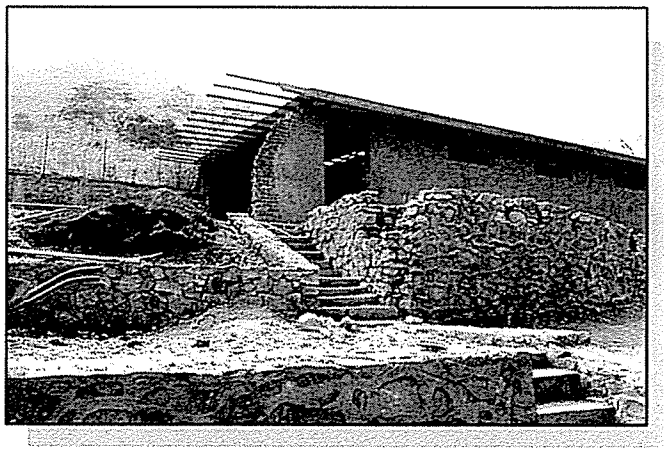


Ndjingala arrived at GRACE in January 2011

Disney's involvement with in-situ conservation has evolved over the past 12 years. As the park began to develop, our staff was focused on building exhibits, acclimating animals, and developing on-site education programs for guests. During this period, our conservation outreach efforts focused on providing Disney funding through grants to international organizations that conducted in-situ conservation tied closely to the species in our care. Disney exhibits two groups of western lowland gorillas – a bachelor group and a family group. So in addition to working with gorillas in a managed environment, we supported gorilla conservation in the wild through the Disney Worldwide Conservation Fund (DWCF).

Organizations such as Dian Fossey Gorilla Fund International, Morris Animal Foundation, Mountain Gorilla Veterinary Project, Wildlife Conservation Society, and Pan African Sanctuary Alliance (PASA) received funding from DWCF for a variety of projects ranging from gorilla monitoring, emergency assistance for guards and animals, veterinary aid, habitat acquisition and community education programs. To date, DWCF has provided $545,000 to more than 42 gorilla conservation projects in Africa.

Once Disney's Animal Kingdom Theme Park became established, there were more opportunities and increased interest from our staff to participate with in-situ conservation programs. To meet this need, the Cast Conservation Program was started, an in-house competitive grant process where employees can apply for funding to enable them to participate in field conservation. These dollars provided additional conservation funding, separate from the DWCF funds provided to outside organizations. Through the Cast Conservation Program, our staff have been involved with the Pan African Sanctuary Alliance educators for the past 8 years contributing over $100,000 to capacity building, workshop support, educational materials and program development.



GRACE nighthouse

Most recently we have made an even greater impact by combining funding from DWCF and our Cast Conservation Program with our staff expertise. The result is a holistic conservation program that allows staff from a variety of departments to provide their expertise toward a common conservation goal.

The Gorilla Rehabilitation and Conservation Education (GRACE) Center in the Democratic Republic of Congo is a great example of this collaborative model. In 2008, DWCF and Disney's Animal Programs joined with Dian Fossey Gorilla Fund International and the Pan African Sanctuary Alliance to design, build and operate a facility dedicated to rehabilitating orphan Grauer's Gorillas so they may one day be reintroduced to the wild. But GRACE is about more than just gorillas, it is also about people. We have implemented a conservation education program in the region, provided supplies and equipment to the local clinic and we work closely with the local women's group to help them produce rabbits as an alternative to bushmeat.



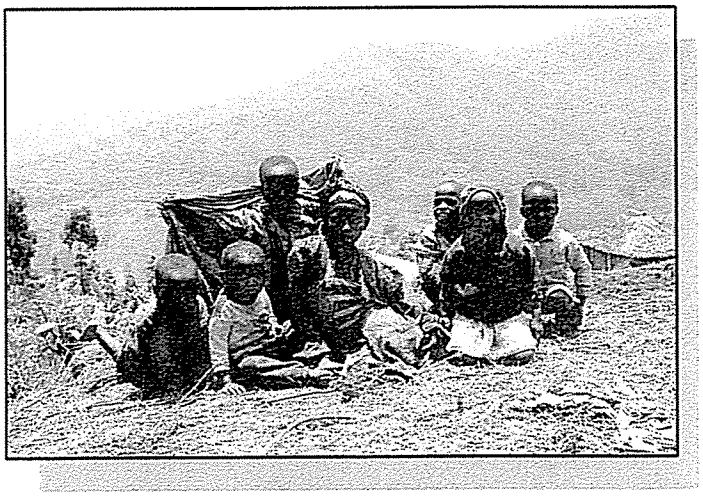
Madame Germaine, a teacher at the Muyisa Primary School near GRACE, using educational materials developed by Disney.

Our staff are very involved with the operation of the GRACE facility working in areas from animal care to education to exhibit design and construction. We are on the management team that oversees the operation of the facility. By combining resources from various funds, we have been able to maximize our financial contribution over the past 3 years to accelerate the construction of the GRACE facility while at the same time providing a wide range of opportunities for our staff to be involved using skills unique to zoo professionals. To accomplish this, we provide $50,000/year in financial support to GRACE as well as providing the expertise of our staff to work on the project. And, as part of the company's carbon offset responsibility, The Walt Disney Company has invested $3 million to protect the forests near GRACE through a partnership with Conservation International. These forest may well be the site the orphaned gorillas at GRACE will be reintroduced to in the future.



Members of the "Congolese Women's Cooperative for Conservation and Development"

Conservation work requires funding but it also requires labor and a variety of specialized skills. Zoo staff have many of the skills needed in today's conservation programs – animal care and capture, marketing, education, construction, veterinary care, fund raising.... the things we do everyday to keep our zoos going. No one can do a conservation program alone so great partnerships are the key to success. No matter how big or how small your zoo, you can be a critical piece of the conservation puzzle by joining with ongoing projects and contributing what you can to the survival of wild animals and wild places.



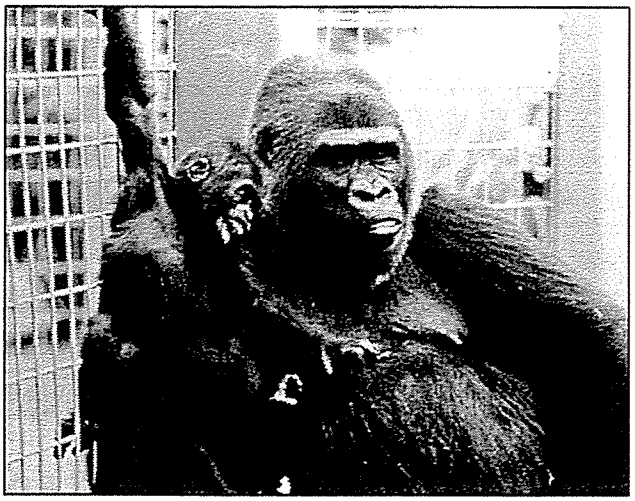
Kasugho kids

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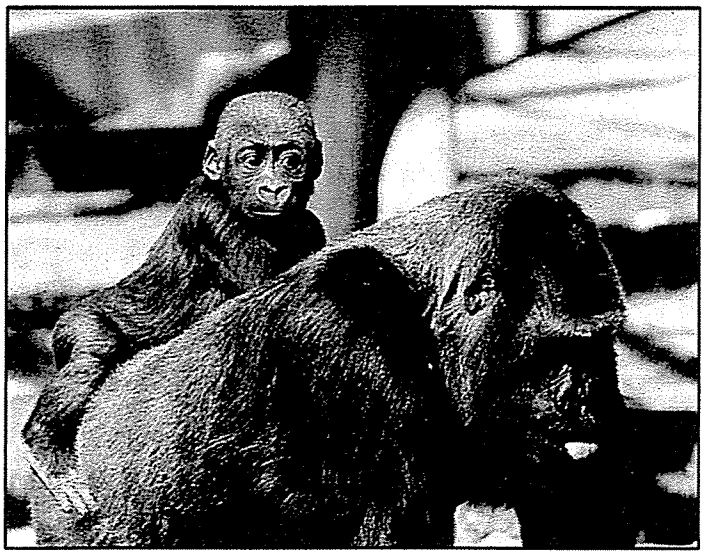
LULU'S LEGACY

Lulu was loved by everyone in Columbus. She showed a zest for life and experienced it in her silly, playful antics.

To those on the Columbus Zoo Surrogacy Team, Lulu was our mentor. When her fourth offspring, Kebi Moyo was born, we were hand-rearing two month old Jumoke (0.1). In our daily visits to gorillas, Lulu and Kebi were always the first to greet Jumoke and her keeper. Lulu was a great mom, so we observed, learned, and emulated her maternal behaviors. Jumoke became very comfortable with Lulu and Kebi.



Lulu's and her daughter Kebi



Umande and Lulu #3
Photo by G. Jones, Columbus Zoo and Aquarium

When she eventually was introduced to surrogate Sylvia and the rest of the group Jumoke often rode on Lulu's back with Kebi. Later, this had to have an influence, as Jumoke mother- reared her own offspring. Lulu was always surrounded by all the youngsters in her group and seemed to enjoy their company more than adult members.

Years passed, Kebi migrated to another group and became pregnant. With this pregnancy health issues emerged and led to the first gorilla caesarean birth at our zoo. She had a healthy female named Kambera. This name was created by using the initials of the surgeons and pediatric staff that assisted.

While Kebi recovered, Kambera was hand reared in the Surrogacy Program. As Kebi's health improved, it was decided her best chance to raise her own infant would be to return to her natal group. Since the projected time for an introduction was 5 months old, Kebi would have an opportunity to reconnect with Lulu. However, they were inseparable from the first day, and slept like "spoons" at night. Kambera and her keepers spent all their waking hours beside them.

As the Surrogacy Program dictates, there is always a Plan B during every introduction. Lulu was our obvious choice. When Kebi and Kambera were put together, Kebi's exuberance with Kambera was more playful than maternal. Within 10 minutes Kambera became stressed and Kebi was replaced with Lulu. She immediately calmed Kambera with soft vocalizations and touches and there was an immediate bonding. Lulu's excellent mothering skills were back. In a short time Kebi joined them. This time her role was more as a sibling to Kambera. Lulu was definitely in charge.

More time passed and Lulu's babies grew up. She became more elusive and lost her happy demeanor. Then eight month old Umande from Cheyenne Mountain Zoo in Colorado arrived in Columbus to join the Surrogacy Program. Lulu laid claim to him at first sight.

She started passing food to him and built her nests beside him from the adjoining area. Umande was ready for a mother and Lulu wanted this baby. Her happy face returned. It was a quick, successful introduction. After five females, this was her first male. She adored him, spoiled him and made their lives a daily treat for both of them as well as zoo visitors. Even a few days before her death, Lulu and Umande were delighting everyone with their long play sessions.

She was such an asset to the Surrogacy Program. Observing her with infants, her own, as well as adopted ones, gave us new insights on how to improve hand rearing in a more natural way. Watching Lulu, Dusty Lombardi made the comment "constantly being with a mom is the most natural approach at raising a baby primate".

Thank you Lulu for your teaching, for your loving care to all young gorillas and for your fun loving personality. What will we ever do without you?



Umande and Lulu
Photo by G. Jones, Columbus Zoo and Aquarium

In memory of Lulu

Barbara Jones; Duty Lombardi;
Maureen Casale and the Surrogacy Team.
email: Dusty.Lombardi@columbuszoo.org

Editor's Note: January 25, 2011

I received word today that Lulu, a 46 year-old female had passed away at the Columbus Zoo. Lulu was a part of that fantastic emigration of gorillas to the Columbus Zoo both male and female that began back in the mid-1980's. She was wild-caught in what was then known as Equatorial Africa sometime around 1966 and was brought to the Central Park/Bronx Zoo in New York where she resided until her arrival at Columbus in 1984. While at the Bronx Zoo she gave birth to a female infant in 1972 named Patty Cake whom she raised. Just as not all male gorillas are truly handsome, not all females are beautiful but Lu truly was, with a cute petite figure, gorgeous face and an endearing habit of perpetually sticking her tongue out. We called her Boo-boo or Boo which she always answered back to when we softly called "Hey Boo" in greeting. She was not needy of keepers but was kind enough to let us into her world.

Several personality traits became apparent over the years to the keeper staff. Lulu under no circumstances would become subordinate to a male, - regardless of the fact that her life might have been easier if she had, but she simply would (or could) not. She did not look for confrontation with a male but would not back down or submit creating an often times stressful situation for her. She just wanted to be left in peace. Her other obvious attribute was a nurturing maternal quality. Lulu was the mother of the infamous Binti Jua*of Brookfield Zoo who gently cradled an unconscious young boy who had fallen into their moated exhibit back in the mid 1990's. Lu was also the first female that we integrated into Mumbah's surrogate troop while pregnant with another male's (Sunshine) offspring. She gave birth within Mumbah's troop and successfully raised her infant daughter, Kebi Moyo. Mumbah was a male who didn't seem to need to establish his dominance so her life in Mumbah's troop was both calm and peaceful. In addition to raising her daughter Kebi, Lu later became a surrogate mother to other infants. She was a pioneer, a groundbreaker in so many ways for gorilla husbandry but she was just Boo to us, a self-contained lovely animal. - Beth Armstrong

**Lu briefly mother-raised Binti Jua, but Binti was pulled due to lack of weight-gain - looping back to Lulu being very nervous and edgy while living with Binti's sire, Sunshine. Our mistake was not giving Lu access out of that troop when she wanted and needed it. Next pregnancy she was moved to Mumbah's troop where she successfully raised her daughter, Kebi.*

INTERNATIONAL GORILLA WORKSHOP
JUNE 11 - 15 2012

Apenheul Primate Park and GaiaPark Kerkrade Zoo proudly announce that they will host the International Gorilla Workshop in 2012. The Gorilla Workshops traditionally have had very high standards. Of course the organisation team for 2012 strives to offer a useful and inspiring meeting as well, that will be remembered for a long time!

In our opinion the Gorilla Workshop meeting is mainly targeted at gorilla keepers. Therefore we believe it is essential to provide enough time during the meeting to exchange experiences; not only during coffee breaks, but also in the lectures! Next to (inter)national scientific experts as lecturers on various gorilla-related topics we feel that keepers themselves should give the majority of the talks. This is why we would like to encourage you to actively participate: share your experience in and vision about several different issues, which will soon to be published on the Gorilla Workshop 2012 website (www.igw2012.nl)

We would love to have some good discussions about aspects of gorilla management we are dealing with at the moment. To encourage thinking about 'ethical questions concerning gorilla management' already before the meeting, we will soon put a questionnaire on the Gorilla Workshop 2012 website. During the conference, first results from your answers to this questionnaire will be presented. Other issues that will be covered will be improvement of husbandry techniques, diet and news from research in the wild. But we will also have a look on how to integrate gorillas into high-impact educational programs for a not-so-usual-zoo-target-group: managers.

The meeting will mainly take place in Apenheul's auditorium in the brand-new, CO2 neutral main building. But we will also have a one day excursion to GaiaPark Kerkrade Zoo the South of the Netherlands, where the youngest Dutch EAZA-zoo is located. Both institutions have had tremendous successes in gorilla husbandry and breeding in the past as well as at present.

The Details:

Dates: Monday the 11th of June until Friday the 15th of June 2012. Monday starts with registration and icebreaker at the end of the day. Friday the conference will close that night after a full day program of lectures and a farewell dinner in GaiaPark Kerkrade.It is also possible to register for single days but of course we hope everybody will stay for the whole conference.

Fee: Registration fees will be about 200 Euro per person for the entire Gorilla Workshop. Included in this price are all lunches and some dinners as well as the excursion to GaiaPark. Accommodation is not included. There will be low priced accommodation available in a hostel at walking distance from Apenheul, and there are various mid-priced hotels around.

Registration: Registration starts in June 2011, via the website. We hope to see you all in June 2012; so keep an eye on www.igw2012.nl



"VARIETY is the SPICE of LIFE"

Howletts Gorilla Diet

Howletts Wild Animal Park is currently home to 49 Western Lowland Gorillas (Gorilla gorilla gorilla). The health status, life stage and activity levels differ greatly between and within our 5 groups, with ages ranging from 4 months to 51 years old. All of these factors are paramount when formulating a captive diet that meets the nutritional requirements of each gorilla. At Howletts our diet is very diverse, and is constantly changing throughout the year.

Variety – We receive 4 food deliveries per week and in addition we grow some of our own produce with the aid of our garden section. The daily diets are comprised of a broad range of food items and drinks. We offer well over 100 different food items including a selection of 45 base food items, these are the basic fruit and vegetables, over 30 different types of exotic fruit, over 12 types of browse, over 20 other food items e.g. dried fruits, nuts and natural yoghurt, and very small quantities of leaf eater and primate pellets. Drinks offered include herbal teas, and sugar free fruit juices. All our feed items are fed in their natural state, to encourage natural feeding behaviours, as well as to maintain the nutritional values.

Seasonality – There are a variety of factors that influence the composition of our diets, seasonality being one of the major ones. Our food deliveries vary depending on the time of year. We adapt our diet to incorporate the fruits and vegetables that are in season, although the more exotic components that make up the diet are imported. This pattern of seasonal dietary adaptations is continued with regards to feeding browse, in summer when browse is plentiful the gorillas receive leafy browse on a daily basis, come winter the quantity is reduced, and the gorillas receive browse 3 times per week.

Browse – We consider browse to be an essential component of the diet. Providing browse throughout the year is important on so many levels, not only for its nutritional value but it encourages natural behaviours, such as, bark stripping, and provides opportunities for the gorillas to implement tool use within their captive environment.

Howletts produce – At Howletts we take advantage of the opportunity to grow some of our own produce, the table below shows the products we grow and the availability. We can not sustain our captive population of gorillas on our produce alone but what we do grow does add to the diversity of our frequently changing diet.

SEASONAL AVAILABILITY	PRODUCE
Summer Months	Herbs
All Year Round	Browse/Pruning (various types)
June	Blackcurrants & Redcurrants
June-October	Raspberries
October	Apples & Pears

Feeding regime/ Food presentation – To maintain all round diversity of our diet and the way by which it is presented, we have a semi flexible feeding routine. On a daily basis we do between 5 to 8 feeds. There is a daily guideline depending on the food items available. Keepers decide how and when to feed as appropriate. However for the first and last feed of everyday, to maintain a level of routine and structure (which we believe is necessary) the gorillas are encouraged to come into their bedrooms for a short period of time. This provides us with the opportunity to visually observe each individual; it also enables us to tailor the diets accordingly to meet their individual needs.

The daily feed items are offered using a wide range of methods. The 3 dimensional cage designs create the opportunity to utilise the space to its full potential. Keepers have access to both indoor and outdoor roofs of the cages. By offering food items in different sizes such as, whole or finely chopped, we can distribute the food so that some remains on top of the cage and some falls to the ground.

This prevents competition, whilst also encourages and allows natural foraging and climbing behaviours to be expressed. Our cage design is also very beneficial when it comes to activity levels, as all feeds regardless of the method used require the gorillas to be active in one way or another. The deep litter straw within the cages creates an excellent foraging substrate.

The two photos below demonstrate how feeding browse from the roof onto the top of the cages encourages the gorillas to climb up in order to consume it.



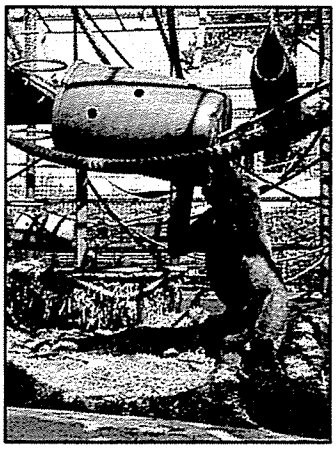


Photo Left: Placing food items into 'the tombolas' makes retrieving the food more challenging as not only does food have to be manipulated out of the small holes but the device also rotates.

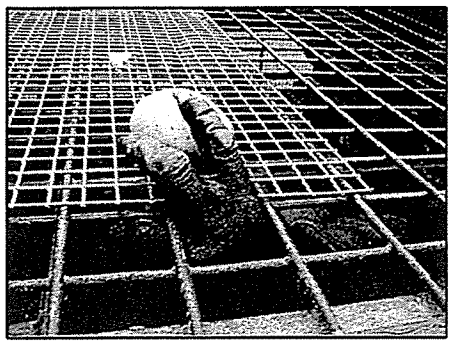
Photo Right: The barrel has a screw top so food can be placed within leaving the gorillas to unscrew the lid, alternatively some of our barrels have holes drilled through the sides in this case the lids are screwed on tightly so that in order to retrieve the food the barrel needs to be rolled around.



Food based enrichment – To maintain an environment that is both physically and mentally stimulating we provide lots of enrichment, some of which is food based. When creating environmental enrichment that incorporates food items, we take care to ensure that daily diets are monitored. Rather then give additional food we tend to use some of the daily feed items. Some examples of our food based enrichment ideas are as follows:



Photo Left: The boomer ball a simple ball with a small opening, works very well with smaller food items such as seeds.



Placing whole food items onto areas of smaller weld mesh (1") requires the gorillas to manipulate the food items in order to retrieve them.

Photo Right: The 'Honey pot' is a permanent fixture that is incorporated into cage design, it is a circular steel structure with multiple tubular openings, its designed in a way that requires tool use by the gorillas, encouraging them to use their cognitive abilities together with their coordination skills.



HOWLETTS
THE ASPINALL WILD ANIMAL PARK

OVER 100 DIFFERENT FOOD ITEMS INCLUDING

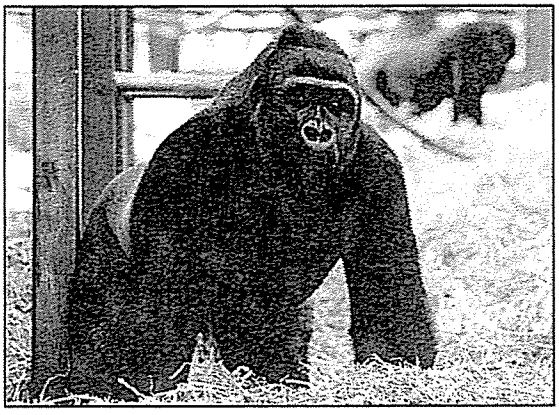
HOWLETTS
THE ASPINALL WILD ANIMAL PARK

Base Food Items

1. Apples
2. Asparagus
3. Aubergine
4. Banana
5. Beetroot
6. Broad beans
7. Broccoli
8. Butternut squash
9. Cabbage/white/red
10. Carrots
11. Cauliflower
12. Celeriac
13. Celery
14. Chicory
15. Chinese leaf
16. Courgette
17. Cucumber
18. Endive
19. Fennel
20. Grapes
21. Herbs
22. Kale
23. Kohlrabi
24. Leeks
25. Lettuce
26. Mange tout
27. Okra
28. Orange
29. Onions/ white/red
30. Pakchoi
31. Parsnip
32. Pears
33. Pepper
34. Potato/ sweet potato
35. Pumpkin
36. Radish (mooli)
37. Runner Beans
38. Spinach
39. Spring Onion
40. Sprouts
41. Swede
42. Sweet corn
43. Sugar snap peas
44. Tomatoes/cherry
45. Turnips

Exotic fruits

1. Apricots
2. Black currants
3. Blueberries
4. Cherries
5. Coconuts
6. Custard apples
7. Fejoa
8. Figs
9. Grenadillo
10. Gooseberries
11. Guava
12. Kiwi fruit
13. Lychee
14. Mango
15. Mangosteen
16. Melon galia
17. Melon honeydew
18. Nectarines
19. Papaya
20. Passion fruit
21. Peaches
22. Persimmon (Sharon fruit)
23. Physalis
24. Pineapple
25. Pithaya
26. Plums
27. Pomegranate
28. Rambotan
29. Raspberries
30. Red currants
31. Star fruit
32. Strawberries
33. Tamarillo
34. Tamarind Pods



Other food items

1. Bombay mix
2. Cereals e.g. muesli, bran
3. Cheese
4. Chutneys
5. Dried fruits e.g. dates, jumbo raisins, apricots, figs.
6. Eggs
7. Fruit bread
8. Honey
9. Jacket potatoes
10. Jam
11. Lemon curd
12. Maize
13. Marmite
14. Marmalade
15. Mushy peas
16. Natural yoghurt
17. Nuts e.g. monkey, walnut, brazil, hazel
18. Oats (crushed/porridge)
19. Peanut butter
20. Pellets (primate/leaf eating)
21. Sunflower seeds
22. Tahini
23. Tinned tomatoes
24. Wholemeal bread

N.B. Please note the food items listed above are only given in small amounts.

Browse

1. Alder
2. Ash
3. Bamboo
4. Beech
5. Birch
6. Fresh maize
7. Hazel
8. Hornbeam
9. Lime
10. Maple
11. Sweet chestnut
12. Sycamore
13. Willow
14. Various grasses
15. Various fruit trees e.g. apple/pear
16. Various vines e.g. grape/Russian

FEEDING CHART

	MON	TUES	WEDS	THUR	FRI	SAT	SUN
8am	MAIZE	SEEDS LIVE YOGHURT	OATS DRINKS (tea, honey, juice)	MAIZE LIVE YOGHURT	NUTS	SEEDS	PRIMATE PELLETS
Forage	C/FLOWER CALABRESSE	S/GREENS CELERIAC	ENDIVE SPRING ONION	ONIONS POTATOES	BEETROOT CELERY	CARROTS (2 bags)	SWEDE
11am (approx)	CELERY	GRAPES	NUTS	GRAPES	TURNIPS		
12am BROWSE FEED	DAILY DURING THE SUMMER, 3 X'S A WEEK DURING THE WINTER					*Special weekend feeds include:* *dried fruits* *nuts* *raisin bread*	
1pm (approx)	RADISH	SPINACH	BEANS CHICORY	CHINESE LEAF	SPINACH	*boiled eggs* *herbs* *summer fruits* *exotic fruits etc*	
2.30pm	**Selection from bucket feed as a scatter roof feed**						
4.30pm Bucket feed	RED ONION LETTUCE SWEET POTS TOMATOS CUCUMBER FRUIT	CARROTS LETTUCE BREAD PEPPER FRUIT	KOLHRABI LETTUCE CUCUMBER TOMATOS FRUIT	BROCCOLI LETTUCE SWEET POTS PEPPER FRUIT	FENNEL LETTUCE C/FLOWER TOMATOS CUCUMBER FRUIT	CALABRESSE LETTUCE PEPPER	AUBERGINE LETTUCE PEPER

Summer feeding schedule – items reduced from the bucket feed, chopped up and fed as additional scatter feeds during day to promote activity during longer daylight hours.

Browse – Daily in the summer, 3 times a week during winter.

Weekend – exotics fruits, herbs, fruitbread, etc. fed by Mr. Aspinall during the day.

Fruit – refer to separate list for individual fruit amounts for each gorilla.

FOOD ALLOCATED ON EACH DAY CAN BE FED OUT IN ANY ORDER TO PROMOTE VARIETY.
(e.g. Monday could have celery in the bucket feed and red onions as a roof feed)

NEW GORILLAS – FRUIT ♂Kijo's Group

NAME	BANANAS	FRUIT
Mushie		1
Shumba		1
Juma	1	2
Dihi		1
Bitty	6	4
Jah	3	3
Loulou		1
Popa	1	1
Joshi	½	1

Emily Clarke
Gorilla Keeper
Howletts Wild Animal Park
Canterbury, Kent
CT4 5EL
United Kingdom
email: weebeastieem@yahoo.co.uk

HOWLETTS
THE ASPINALL WILD ANIMAL PARK

All photos taken by author

TWO'S COMPANY and THREE'S a CROWD... KEEPING THREE SILVERBACKS SOCIALLY ENGAGED at FRANKLIN PARK ZOO.

Editor's Note: This introduction was completed in late 2010.

Abstract

In 1999, we removed our 12-year-old silverback from our group of two adult females and two juvenile males. This decision came after a year of injuries and failed introductions. Ten years later, after a high profile escape, two births, a $3 million exhibit renovation and off-exhibit holding expansion, as well as significant gorilla maturation, we decided to re-introduce a now 22-year old male back into our group of four females.

Our two juvenile males are now 17 years old and are still part of our mixed-sex group. To keep them in a dynamic social situation the decision was made to allow them to remain with the females, on an alternating basis, by moving the females between the two groups of males. This paper will describe the circumstances behind our original decision to separate our 12 year old from the group, his introduction back to the female group 10 years later, and the management of our current gorilla collection of three adult males and four females in two alternating mixed-sex groups.

Separation of Kitombe

From September 1998 until August 1999 attempts were made to introduce 12- year-old male Kitombe (Kit) to our group of two adult females (Gigi age 27 and Kiki age17) and two juvenile males (Little Joe age 5.5 and Okpara age 5). Many attempts were made throughout this 11-month period to keep Kit with the group despite his aggressive attacks to the other gorillas that resulted in multiple immobilizations. Various husbandry changes including operant conditioning training, drug therapy, changes to social groupings and locations were made during this time. Some of the aggression and stress to the group seemed to be alleviated to varying degrees over periods of time, but the occurrences would eventually escalate and lead again to an immobilization to repair the damage to the recipient.



Gorillas Kit and Kira, 2009
photo by Christina Demetrio

While Kit did impregnate the younger female Kiki, his behavior toward her near the end of her pregnancy included almost constant chasing. Kit's inappropriate behavior toward Kiki and the other troop members (and the resulting injuries and stress) finally necessitated his removal from the group after 11 months. The decision was made to keep Kiki with the other female and the young males. Since she was hand reared and this was her first offspring, we knew there was a lot of learning that needed to take place and that she would need an environment with less stress to raise her baby.

The plan was to attempt to return Kit to the group once he had matured. Kit spent his days rotating onto one of the exhibits and his nights adjacent to the gorillas through 2"x2" mesh. The plan to re-introduce Kit was further put on hold when in September of 2003 a then 10-year-old Little Joe (Joe) escaped from the indoor exhibit. While he was captured and returned unharmed to the Tropical Forest, we now needed to keep Joe and Okpara off exhibit until modifications to the exhibit could be made. This inability to put all of the gorillas on the exhibit space meant that we had very limited space in which to try and re-introduce Kit back to the current group of 2.3.

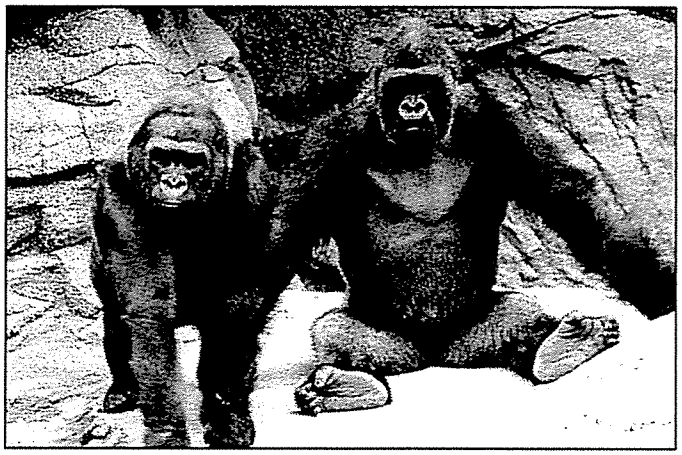
During this time we did re-introduce just Kiki back to Kit for a limited period of time so that they could produce another offspring. They did very well together since she was in estrus at the time. However, the decision was made to have Kiki raise the new baby with the group, which included her then 5-year-old daughter Kira. At this time renovations were in progress and there was still inadequate space to separate Little Joe and Okpara from the group so that Kit could rejoin the females.

The exhibit and new expanded holding area were finally completed in February 2007. Following physical examinations of all of the gorillas, it was decided that Kit needed to go on medication for the beginnings of a heart condition. In May 2009, we were ready to re-introduce a healthy Kit back to the female group. The decision was made to try to exhibit the gorillas in a fission/fusion type arrangement where the four females would go on exhibit with Kit one day and with Joe and Okpara the next.

Re-introduction

On May 19, 2009, Zoo New England (ZNE) staff decided to introduce Kiki to Kit. The introduction took place off exhibit in our holding area. The rest of the gorilla troop was out on exhibit. This first phase continued for most of the day time hours for three consecutive days. After that, we started to alternate Kiki between the two groups. At night, the four females stayed together and the three males were each in separate enclosures. On May 27, 0.1 Kira (age 10) and 0.1 Kimani (age 4) were given visual access through mesh to Kit and Kiki together in the holding area. On June 2, Kira and Kimani together were introduced to Kiki and Kit. There was minimal chasing and aggression with zero injuries reported. During this time, 0.1 Gigi was kept alone during the day rather than having her alone with the two other males without the other females for support. The decision was made to keep Gigi out of the group with Kit and the other females temporarily since she had a poor history with Kit and is a very excitable female. She went out on exhibit with the 2.4 group of Joe, Okpara, and the females every other day and slept in the holding area with the females at night. We did not want her behavior or Kit's potential negative behavior toward her to influence the two younger females' behavior before they had a chance to be comfortable with him.

On October 12, Gigi was given visual access to Kit and the other females in the holding area. The next day Gigi was introduced to Kit with all the females on exhibit. We decided, since Gigi has a tendency to be more reactive in smaller spaces that the exhibit, being much larger, would work out better. This introduction also went well. Kira and Kimani stood guard in front of Gigi which kept Kit from getting too close to her. The four females were a formidable group and united helped dictate Kit's behavior.



Kiki and Okie 2007
photo by Christina Demetrio

ZNE gorilla groups today

The transformation of our gorilla groups from one solitary male and a group of 2.4 gorillas to our current fission/fusion combination of gorilla groups is working well. We currently have three working combinations: 1.0 (Kit) and 2.4 (Joe, Okpara and females), or 1.4 (Kit and females) and 2.0 (Little Joe & Okpara), and the third group which occurs twice weekly where: 1.1 (Kit and Kiki) are in holding and 2.3 (Little Joe, Okpara, Gigi, Kira & Kimani) are on exhibit. This last grouping is to help minimize Kit's solitary time and increase his bond with Kiki since they were recommended for breeding again. Our fission /fusion group works on a three-day cycle. The first day our group is in its original form, prior to introductions, where we have 1.0 gorilla (Kit) in holding and our remaining 2.4 gorillas on our exhibit. These 2.0 gorillas (Joe and Okpara) still tolerate each other and can be in the same area together as long as they have plenty of space and options for visual barriers. The second day we rotate the 1.4 gorillas on exhibit while Joe and Okpara remain off exhibit together.

The third day of our cycle, 0.1 Kiki remains off exhibit with 1.0 Kit while the remaining 2.3 gorillas go on exhibit. At night all of the gorillas are moved off exhibit where the males are kept separate from the females. We shift the 3.0 gorillas to three separate spaces for the night while the 0.4 gorillas remain together.

Conclusion

Ideally, it may be better (and much easier) to manage the gorillas in one family group of one male and multiple females. But with the captive gorilla population at an almost even sex ratio, we need to do our part in housing males. We had a unique situation here that we thought could potentially give us the opportunity to keep all three males in a social situation.

At ZNE, we had two males that were still coexisting in a multi-sex group and one solitary male that had been living alongside this group with visual and tactile access for many years. Kit had matured and was used to observing the mixed-sex group. Our goal was for Kit to get back into a social situation and to be able to maintain the other two males in a multi-male, mixed-sex group for as long as we possibly could. It has been almost one year since we have been shifting the gorillas into flexible groups and it is still working very well. The keepers continue to be flexible and make changes daily if the gorillas fail to cooperate.

Update

On November 3, 2010, 29-year-old Kiki gave birth to a female baby. On November 4, the female group including the baby shifted onto the exhibit with the baby's father Kitombe. Later in the afternoon, the gorillas returned to their off-exhibit holding space and Kiki and the baby spent the night with the other females. The next day the female group shifted onto exhibit with Little Joe and Okpara without incident.At this writing it has been six weeks and the females are still shifting between the two male groups on an every other day basis.

ZOO NEW ENGLAND
Franklin Park Zoo ♦ Stone Zoo

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Call for Gorilla Gazette Articles - 2012

We are looking for articles on the following topics:

- Updates on your gorillas
- Exhibit design
- Enrichment
- Birth management
- Births/deaths
- Diets
- Innovative husbandry practices
- Your zoo's conservation commitment to gorillas in the wild
- Fundraising ideas for gorilla conservation
- Commentaries
- Stories about gorillas you have worked with
- Gorilla sanctuaries
- Volunteering at a sanctuary
- Other topics - your choose!

Please include the following:

⇨ Text should be 1 to 2 pages in length
⇨ 4 to 5 photos (with captions and photo credits)
⇨ Title for the article
⇨ Your zoo or sanctuary logo
⇨ Author's name, email address, your institution's mailing address (phone number optional)
⇨ Web site address (if applicable)

Please send to:
Beth Armstrong - elynn57@aol.com

INTERNATIONAL GORILLA WORKSHOP 2010
at the Oklahoma City Zoo



The Oklahoma City Zoo was proud to present the 2010 International Gorilla Workshop which took place in May. Brian Aucone, Assistant Zoo Director led the planning committee which consisted of director Dwight Scott and executive secretary Donna Mobbs, curators, Great Escape staff, marketing, food and beverage, maintenance, education, public relations, graphics and horticulture to plan an incredible workshop. It really did take a zoo to host this event! We also commandeered the advice of colleagues who had held successful workshops in the past. Thank you!

The workshop was held in beautiful downtown Oklahoma City in the Bricktown district. We welcomed and were awed by keynote speakers, David Morgan, Charlene Jendry, and Dr. Ilana Kutinsky. All presentations were exceptional. Topics included Gorilla status and program updates, Infant Husbandry, Bachelor Groups, Veterinary Husbandry, Nutrition, Training, Introductions and Conservation and Field Work. In addition the workshop also hosted two roundtable discussions, one on Cardiology Ultrasound Training and one on Wound Management. The staff of the Oklahoma City Zoo hosted an ice breaker at the Oklahoma City Museum as well as a wonderful Zoo Day and dinner at their home facility. Sedgwick County Zoo hosted a memorable post conference tour and luncheon. US and international institutions were well represented with over one hundred attendees.

Abstracts from the OKC Gorilla Workshop can be accessed at www.gorillagazette.com (User Name and Password: Bongo)



Jessica Austin

Photos of OKC staff provided by Amy Stephens



Dwight Scott, Director of OKC



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FROM KEEPER TO CONSERVATIONIST
Ron Evans, Cincinnati Zoo and Botanical Garden



Ron with cell phone interpretive gorilla cue stick.

Ron Evans has worked in the zoo field since 1983, having gotten his initial start through the Cincinnati Zoo and Botanical Garden's (CZBG) Zoo Academy program. As a zoo keeper at the age of seventeen he began his 25+ year career at CZBG, accumulating experience with over 35 species of primates as well as a long list of other taxa. At the core has always been a special focus on western lowland gorillas (Gorilla gorilla gorilla). Currently he is CZBG Primate Team Leader. In addition to gorilla husbandry management, Ron has helped develop zoo programs aimed to achieve visitor inspiration, education and conservation empowerment.

Ron is a member of the North American Gorilla Species Survival Plan Management Group and the Gorilla Behavior Advisory Group. Both are organizations under the American Zoos and Aquariums (AZA) designed to ensure the genetic, demographic and behavioral health of the North American gorilla population and to help facilitate research, education and in situ conservation of this high profile and important species to zoo missions. Ron is very active with in situ conservation in Central Africa, having worked on numerous projects related to the critically endangered gorilla. One signature effort has been support for the Wildlife Conservation Society's Nouabale Ndoki Project (NNP) in the Republic of Congo. The NNP includes the longest running research being done with wild western lowland gorillas, the Mbeli Bai Study. Recently, in collaboration with NNP education component, "Club Ebobo", Ron helped develop a new community outreach program for the local villages that share a vested interest in the future of the rainforest. Only a multifaceted approach with organizational collaboration and individual effort will help save this international flagship species for conservation.

Captive Gorillas Experience:

Beth: When did you know that you wanted to work with animals, most especially great apes?
Ron: I have always had a love for nature and animals. As many people in our field, I had lots of pets as a kid particularly fish so I knew I wanted to go into some occupation involving animals. I got my first zoo exposure through a high school program at the Cincinnati Zoo and Botanical Garden called the Zoo Academy. The program still exists today. I couldn't wait to work in the zoo's aquarium but before I got to that department as a student I volunteered to help out one of the ape keepers on one Saturday. The moment I saw a gorilla up close behind the scenes, I forgot what a fish was and I instantly knew what I wanted to work with gorillas. Although it sounds strange to have such and epiphany it certainly is not an uncommon story to hear in our field.

Beth: Who or what influenced you? If it was a book or movie, please list. If it was a person, please list how they influenced your commitment to animals.
Ron: Although it didn't fully recognize it back then, I had been greatly influenced by a gorilla when I was about 10 years old. My parents took me to see the 70's remake of King Kong. I remember thinking to myself, "What a stupid thing to do to that gorilla. They went to where he lived, captured him, brought him back here and then just killed him." It made no sense to me at all. I wound up with the poster for this movie hanging on the wall of my room as a kid. I realize now that King Kong influenced my very first gorilla protection/ conservationist thoughts. Later I was influenced by the usual pioneers of ape conservation like Jane Goodall and Diane Fossey. I have colleagues in the zoo world like Charlene Jendry with "Partners in Conservation" and your countless efforts in the field with ZACC among a myriad of others. You, Charlene and others came from the same roots I did and demonstrated that a regular person or even an average zoo keeper can make a difference in the field.

Beth: When did you become a gorilla keeper? What was your first day like?
Ron: Because I had been volunteering in the gorilla area since I was 16, I was hired in 1984 as a part time keeper at the age of 17 to work with gorillas, orangs, chimps and a number of other primates. It was a real zoo keeping job not just an assistant position. I was shifting, cleaning hand feeding gorillas when I was just a kid.

Today I would be fired for letting a 17 year old feed a gorilla but times where different then. I am sure glad I was born when I was and got the chance. My first day was surreal as I knew someday that I would be doing this for a career but had no idea that I would be given my first chance so early. It's hard to say the day was uneventful but nothing crazy happened. It all just felt right and that it was meant to be.

Beth: Please share some of your favorite moments working with gorillas?
Ron: I entered the world of zoo keeping during a great transitional period from some very old school stereotypic classic animal husbandry. Many zoo facilities were still very outdated, mental stimulation and enrichment was non-existent and animal care methodologies as we know them today were extremely different. My proudest accomplishment in my zoo keeping career is being an integral part of moving programs into the modern age. Over the years I incorporated comprehensive daily mental health enrichment protocols, modified diets and the frequency that the gorillas were fed and made the environments more conducive for the mother gorillas to raise their own babies rather than them having to be hand raised by people in a nursery. In the beginning of gorilla reproduction in zoos, hand rearing was a necessary tool as modern husbandry had not caught up yet but with their advent and implementation babies were then able to stay with their families to learn all of the important social skills that are so critical to their long term well being. Later I instituted an operant conditioning training program with the gorillas. This process utilizes positive reinforcement while shaping behaviors to train gorillas for valuable behaviors like body presentations for health inspections, hand injections with syringes, ultra sounding for pregnancy and cardiac exams, among many others.



Mbeli Bai Study researcher, Kelly Greenway
Photo © Ron Evans

Field Conservation Experience:

Beth: When did you shift from being a keeper to becoming an active conservationist? Was there a particular event that affected this shift?
Ron: Actually I have never made the full transition from being a hands-on zoo gorilla person to solely a conservationist. To this day I have continued with my involvement in daily zoo gorilla husbandry. It is something that I relish and plan to keep as a part of my life to one degree or another until I cannot physically do it anymore.



Ron with Ba'aka gorilla trackers in Mondika.
Photo © Ron Evans

Although I get a lot of satisfaction from growing our gorilla programs at the zoo and being with them everyday, I always had King Kong nagging in my head to do more. Once I had the zoo gorilla programs going well, I expanded my role to include more tangible conservation outreach and wild gorilla support.

Beth: Tell me about your conservation work – where does it take place? Are you an established not-for-profit or does your work come under your zoo's conservation umbrella? How did your in situ work get started? When was it started? And what kind of support do you offer?
Ron: The Cincinnati Zoo and Botanical Garden is a non profit organization and is involved with in situ conservation projects all around the world. Over the years we have supported quite a few projects that involve gorillas including, the Mountain Gorilla Veterinary Project, Pan African Sanctuary Alliance (PASA) operations like Ape Action Africa in Cameroon, the Bushmeat Crisis Taskforce, Mike Fay's Mega-transect through the Central African rainforests, the Gabon National Parks education programs, among others.

For over eight years we have focused most of our gorilla funds and staff expertise on the Wildlife Conservation Society's, Nouabale Ndoki Project (NNP) in the Republic of Congo. We have supported NNP's Mbeli Bai Study. This is the longest running research being done with wild western lowland gorillas. We have helped grow NNP's gorilla tracking research and eco tourism project in Mondika, recently helping to finance the habituation of a second group of gorillas critical to the long term success of this project. We also support Club Ebobo, the education component for NNP. In 2010 we helped them expand the Club Ebobo concept to not only include school age children in Congo but to also include the entire communities that surround the research areas.

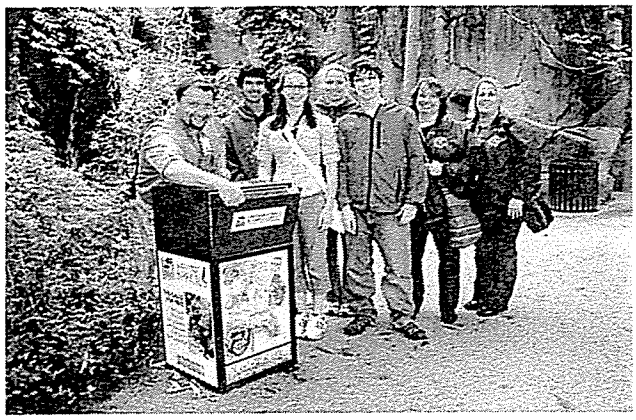


2010 Congo community outreach program. Photo © Ron Evans

This community outreach project intertwined conservation videos produced in Cincinnati with visiting Club Ebobo staff with fun interactive activities. An evaluation/ survey questionnaire was also developed to better understand current knowledge and attitudes local peoples have about gorillas and rainforest and to also help evaluate the effectiveness of the program. Audio/ video equipment was purchased to build a mobile multimedia unit that could be easily transported from village to village. Later I traveled to work with the staff there to implement the program. I find that focusing on efforts like this community outreach program that augments a well established project like NNP while continuing to support their research programs is a very effective use of my resources.

Beth: How does your work impact gorillas in the wild?

Ron: Nouabale Ndoki National park is considered one of the most vital areas on the planet for western lowland gorilla conservation due to the concentration of gorillas. Support of the research, eco-tourism, capacity building and protection going on there from concerned colleagues and institutions is critical. Community buy-in is a must to any successful in situ conservation program. Developing education outreach programs for local villages based on input form them, field workers and zoo education experience is an effective way to bring the big picture of international gorilla conservation efforts full circle.



Cincinnati area students contribute to over 10,000 cell phones collected in 2010. Photo © Dave Jenike

Beth: Describe how you get to and how long it takes to travel to your project

Ron: Nouabale Ndoki National Park (NNNP) is located in the remote northern rainforests of Congo. Getting there involves about 18 hours of flying from the US to Brazzaville, the capitol of Congo; then a 2 ½ hour flight to Ouesso a town in the north; then a 3 to 4 hours boat ride up the Sangha river NNNP camp; all through some very tenuous airports and a lot of red tape. To get to Mbeli Bai from there involves about a 1 hour truck ride deeper into the rainforest; a 1 hour pirogue (dugout canoe) ride through small channels of water; then a short hike to camp; then a three mile hike to the Mbeli Bai study site. To get to Mondika to track gorillas takes a 1 hour truck ride from NNNP camp; then a four hour hike partially through water up to your hips. This gets you to Mondika camp. From there you hike through incredibly thick rainforest through water, muddy banks, and tangled networks of vegetation for 4 plus hours first finding the gorillas and the following them.

Beth: What are some of the difficulties you have encountered?
Ron: There is a lot of red tape when going through airports and river port of entries. Keep your passport and any other official papers handy. Congo is also a Francophone country and although I speak a very tiny bit of French, communication can be tricky sometimes. Writing grants for funding is no fun either, a lot of work.



Center: Nouabale Ndoki Project Education Manager, Franck Barrel Mavinga. L to R Cincy Zoo gorilla staff, Ashley Niehoff, Ron, Stephanie Carr, Eric High. Photo © Ron Evans

Beth: What do you think is your greatest accomplishment?
Ron: Related to gorilla conservation I think it would growing the Cincinnati zoo's gorilla programs and field relationships to the point were we can now focus on projects more than just developing contacts and learning the ropes. I think tying stories about zoo gorilla management successes with in situ conservation efforts together into one big connected circle is significant and expansion of this concept is key. Also I think surviving malaria on one of my Africa trips to Cameroon was quite an accomplishment.

Beth: What are some of your goals for the future for your project?
Ron: I want to continue with the direction we are going. Continue the support of important gorilla research in Congo and figure out more and innovative ways to connect international conservation efforts.

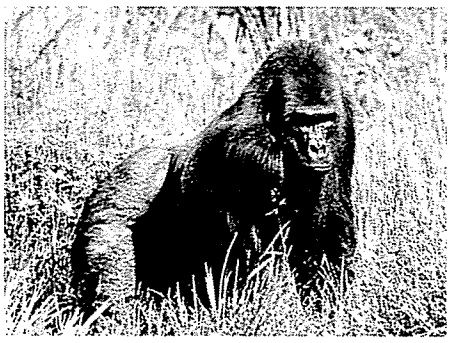
Beth: Please give some advice for others that might want to support and/or get actively involved in field conservation?

Ron: You can make a difference. If an average guy like Ron Evans can do it anyone can. Educate yourself. Read all you can about efforts going on in the field. It is very easy to do these days with the internet and websites. Talk to colleagues you have in your current field for advice and insight. Attend conferences like the Gorilla Workshop and ZACC. You do not have to do something gigantic to start or ever for that matter. Little grassroots efforts for fundraising can really help out many gorilla conservation efforts. $1000 to a sanctuary can really mean a lot and they really do appreciate it. It is tricky to do it all yourself so invite help from other groups like volunteers at your zoo if you work at one.

Beth: This is a bit unrelated but I am always curious about the books that inspire a person to work with gorillas or to work in the field. Could you list some that you would recommend?
Ron: Year of the Gorilla; Gorillas in the Mist; In the Kingdom of Gorillas. But my inspiration comes far more from my years working with gorillas in zoos and the desire to make gorilla lives better in Cincy or in Congo.



Gorilla at Mondika, Congo
Photo © Ron Evans



Gorilla at Mbeli Bai, Congo. Photo © Ron Evans

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CONNECTING CONSERVATION, CENTRAL AFRICA, AND CINCINNATI ZOO

The Cincinnati Zoo and Botanical Garden (CZBG) has a long and storied history with western lowland gorillas (Gorilla gorilla gorilla). They are an institutional signature species and an international flagship species for conservation. Considerable time, effort and resources are focused on their captive management as well as visitor inspiration, education and conservation empowerment. In situ conservation is a high priority with CZBG participating in numerous gorilla related conservation efforts over the years. These projects have been diverse in their approach and have included financial and/or expertise support for the Mountain Gorilla Veterinary Project (MGVP) , Ape Action Africa (formally the Cameroon Wildlife Aid Fund), the Bushmeat Crisis Taskforce, Mike Fay's Mega-transect and Gabon National Parks. Some of the work included a conservation education poster for the Gabon parks created by CZBG artists in collaboration with the Brevard Zoo; CZBG staff volunteering at Ape Action Africa's sanctuary in Cameroon and a CZBG veterinarian spending two years working with the MGVP.



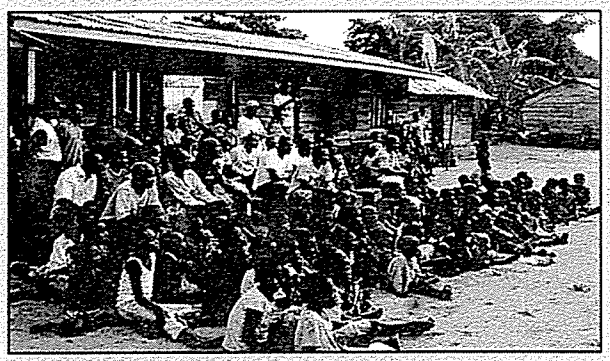
CZBG staff volunteering at Ape Action Africa, Cameroon
Photo © Ron Evans

For over eight years, one of CZBG's primary focuses has been assisting the Wildlife Conservation Society's Nouabale Ndoki Project (NNP). NNP is located in a vast largely unspoiled area of rainforest in northern Republic of Congo in the Nouabale Ndoki National Park (NNNP) one of the remaining strongholds for western lowland gorillas.

The focus of this project is a multifaceted approach to conservation including scientific research, education, capacity building, eco tourism and protection, among others. Some highlights include the longest running research of wild western lowland gorillas with the Mbeli Bai Study; Eco tourism/ research done with habituated gorillas at Mondika; and NNP's education component, Club Ebobo.

In 2010 with direction and encouragement from Dr. Thomas Breuer, Director of the Nouabale Ndoki Project, CZBG continued this support by developing a new community outreach program to enhance Club Ebobo. The goals being to:

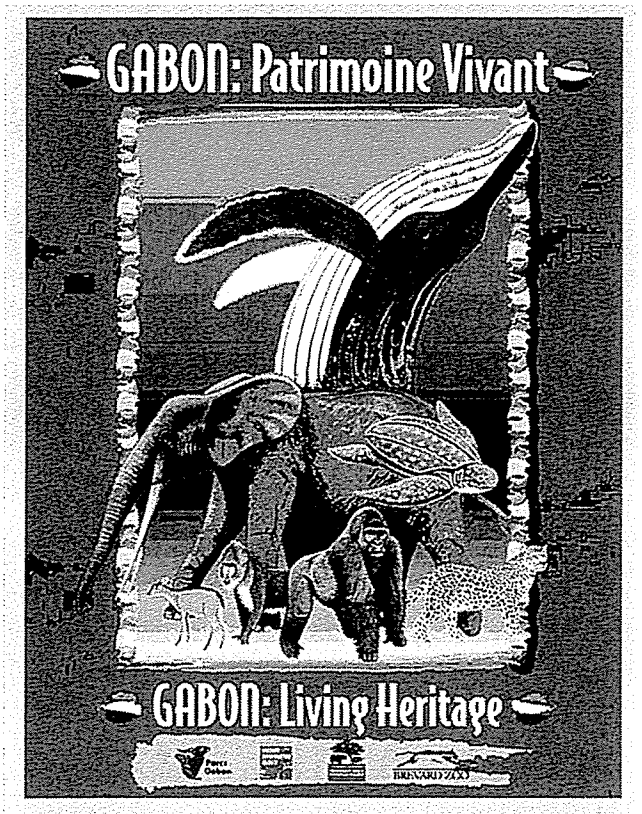
- Expand Club Ebobo's target demographic to include adults as well as the children living in nearby villages, including Bon Coin and Bomassa.
- Create an entertaining, educational and inspirational event experience through interpretive video and fun interactive activities.
- Demonstrate the connections between gorillas and people in Congo and the US.
- Supply infrastructure and equipment for ongoing programs.
- Pre and post evaluation.



2010 Congo community outreach program.
Photo © Ron Evans

In the summer of 2010, Franck Barrel Mavinga, Chief Education Officer for NNP, Club Ebobo, traveled to Cincinnati for one month to work closely with the CZBG staff in production of the program.

A pre and post program questionnaire survey to assess the knowledge and attitudes villagers have about gorilla related subjects and to evaluate the program's effectiveness was developed in collaboration with Dr. Kristen Lukas, Curator of Conservation and Science at the Cleveland Metroparks Zoo and the North American Gorilla Species Survival Plan Coordinator. Video segments were created that related to the survey subject matter using gorilla footage from Congo, CZBG and Cleveland Metroparks Zoo. Each video was recorded with various zoo gorilla personnel narrating in English together with Franck on camera who narrated in Lingala and French. This method would eliminate language barriers and better demonstrate an international gorilla connection. Fun interactive activities were incorporated between video segments in the program. They included a gorilla vocalization imitation activity where villagers heard gorilla sounds and were given the chance to mimic them on microphone; a gorilla size and strength demonstration using a gorilla sized shirt that numerous children got to wear at once; followed by a tug-o-war between those children and one adult representing a man; and a conservation comic drawn by Franck and given to the villagers summarizing the event.



Gabon conservation education poster ©CZBG

In the fall of 2010, CZBG Primate Team Leader, Ron Evans, and videographer, Pat Story, traveled to the NNP in Congo for one month to conduct research site visits and to implement the community outreach program with Thomas, Franck and his team. Conducting the surveys prior to the actual program allowed for some great cultural exchanges as well as promotion of the upcoming presentations. The programs were attended by approx 90% of the communities and were very well received with excellent participation. The events, along with cross section interviews, and additional wild gorilla footage were video recorded for future interpretive opportunities in Cincinnati and Congo. The infrastructure equipment supplied by CZBG for this project, including a portable projector and screen, amplifier speaker, laptops, etc. will remain with Club Ebobo providing the chance for NNP researchers, educators and visiting supporting institutions to create other programs to share.

Anecdotal observation clearly showed that there is a great opportunity and interest for more programs like this that connect with local people who have a critical interest in the Central African rainforest and are tied to its future. A formal and more detailed paper is planned to be published following post evaluation and analysis.

Over the years CZBG has allocated resources for these endeavors in multiple ways like selling fun and informative gorilla ID posters of our group; cell phone recycling (over 10,000 phones collected in 2010), internal and external grant support, institutional budget support and just hard work from many dedicated staff members and volunteers who want to make a difference.

CINCINNATI ZOO & BOTANICAL GARDEN

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Bomassa Village Library and Ndoki Education Center Goualougo Triangle Ape Project, Republic of Congo

From the Editor:

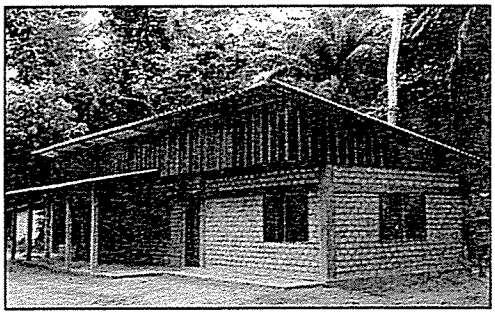
In December 2008 Dr. David Morgan visited Brevard Zoo to present a public lecture about his work with chimpanzees (Goualougo Triangle Ape Project- GTAP) in the Republic of Congo. Brevard Zoo had been a consistent supporter of Dave's work since 2001 but we began exploring other ways that BZ could be of assistance. Thus began our discussion about a community library in northern Congo. Being a voracious reader I loved the idea of getting zoos involved in supporting libraries. Dave went back to Congo and began discussing with community leaders their thoughts and input for a community center/library. Brevard Zoo was given a donation of $1400 which they then partially matched with an additional $700 and we had $2100 to work with towards the building costs. In the meantime the same BZ donor bought books and library supplies which were sent to Congo. I also submitted a grant application to the Columbus Zoo asking for an additional $1800 to support the building costs. Meanwhile Dave worked on additional funding from a variety of sources and as you will see in the update below, what began as a discussion in late 2008 came to be a reality by December 2010.

Project Progress Report December 2010

PROJECT SUMMARY

The Nouabalé-Ndoki National Park represents one of the last pristine examples of the Congo Basin forests and wildlife that make this region nationally and internationally unique. Bomassa and Bon Coin villages are relatively small and located in a remote region of northern Republic of Congo. The lives of these villagers are closely tied to the National Park. These two villages are home to nearly 90% of the workforce of the Park. They are also home to the majority of the human population living in closest proximity to the Nouabalé-Ndoki National Park boundary. The success of any conservation initiatives in this region are thus closely tied to willingness and capacity of these local populations to support local conservation efforts. Currently, the closest library to these villages is more than 100 kilometers away in a logging town which Bomassa residents infrequently visit, particularly for academic or leisure activities.

The Bomassa Village Library and Ndoki Education Center located at the headquarters of the the Nouabalé-Ndoki National Park in Bomassa will provide residents of all ages and socioeconomic statuses a place to learn and explore topics, people and places that they are rarely exposed to in their daily lives. Emphasis will be placed on providing a broad spectrum of materials which will appeal to the diverse population of these villages. Textbooks and novels will be available in both English and French. Emphasis will also placed on providing materials for improving basic literacy in French, and learning English as a second language. Recognizing that a high proportion of the adult population in these villages is not literate, we will also strive to acquire a stock of current nature periodicals, picture books, audio resources, educational board games, and artistic materials. Every verified member of the community will be welcome in this public library, and it is our goal to provide an environment and resources that speaks their interests and inspires them to learn.



MISSION

The mission of the GTAP library is to provide educational opportunities using innovative learning tools in a friendly atmosphere for the residents of Bomassa and Bon Coin villages.

PROGRESS UPDATE

In January 2010, Rodriguez + Architecture firm located in Tampa, Florida generously donated architectural designs for the GTAP's library project and offered continued guidance on construction throughout the building process.

Mr. Steve Morgan was recruited to provide his expertise as a foreman on the construction project. In February 2010, he traveled to Bomassa, Republic of Congo with Dr. David Morgan.

Site selection and preparation for the building was conducted in March 2010 in consultation with the NNNP staff. At the same time, GTAP's Project Manager Jean Robert Onononga worked with Steve Morgan to hire five residents from Bomassa village to assist with construction. Purchasing of materials was also conducted at this time. Nearly 5,000 bricks were used in the construction of the building. Bricks were made and purchased locally in the town of Pokola. In addition, wood and corrugated metal roofing was purchased from the CIB logging company. Transport of these materials to Bomassa was made possible by renting CIB logging vehicles.

The construction of the building occurred in four phases (Figure 1). The first phase involved laying the cement foundation and was completed in the first week of April. The second phase involved pouring the structural supports for the walls, windows and roof. During this phase, the brick walls were finished. The third phase involved building and placement of the roof scaffolding, as well as securing of the corrugated metal roofing. The fourth phase featured placement of windows, installation of doors, and enclosing the outdoor sitting area.

Construction of furnishings such as shelves, desks and chairs was initiated in August 2010 and is ongoing. A projected time frame for completion of the furnishings and other aspects of the building is provided below in the project timetable.

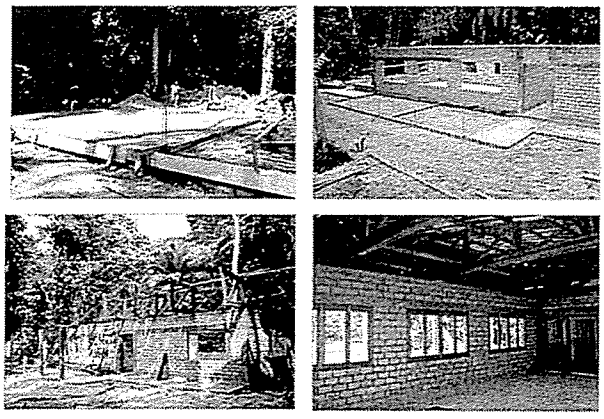


Figure 1. Four main phases of constructing the Bomassa Library. During the first (upper left) and second (upper right) phases, the cement foundation was set and walls were constructed. Special emphasis was placed on providing sufficient structural support for the roof scaffolding yet still allowing for natural lighting from large windows. The third phase (lower right) involved building and placement of the roof scaffolding, as well as securing of the corrugated metal roofing. During the fourth phase (lower left), window frames and doors were completed.

SIGNIFICANCE

Bomassa and Bon Coin are culturally diverse villages with populations from neighboring Cameroon, Central African Republic and Republic of Congo converging. This region is significant because of the large population of indigenous people, often referred to as semi-nomads, "Pygmies" or Ba'Aka. The two main tribes in Bomassa and Bon Coin are the Bangombe and Mbendjele. The other predominant ethnic group is Bantu villagers, who have historically had greater access to educational and skilled professional work opportunities than the semi-nomad peoples.

These diverse cultural groups are highly dependent on wildlife and forest resources. The success or failure of conservation efforts in this region are highly dependent upon local populations willingness to accept and participate in initiatives that protect wildlife and biodiversity in the region. In fact, many of the identified direct and indirect threats to conservation in this area are related to lack of capacity and education level of the local population. Improving their education levels and understanding of the reasons why conservation of wildlife in the Ndoki forests is important will no doubt be of benefit to the long-term success of the park. Encouragingly, Bomassa and Bon Coin residents have demonstrated a strong commitment to the Wildlife Conservation Society's conservation and research initiatives in the region.

Access to educational materials will provide village residents with opportunities to learn more about the global importance of local conservation efforts. It may also serve as an incentive to encourage children to attend and actively participate in the local public school where attrition rates are high (Breuer and Mavinga 2010). The Bomassa library will also complement the educational efforts of the local nature group "Club Ebobo" and advanced training opportunities offered by the Nouabalé-Ndoki National Park scientists and staff. Further, contact has already been established with the Pokola Library in an effort to develop a partnership that would include training and book exchanges. The library will also be registered nationally and listed under the Department of Culture in the Government of Congo.

A covered outdoor sitting area will provide a pleasant area for reading or studying, and a forum for public presentations and lectures. The library will have electricity which will facilitate the use of audiovisual aids, computers and Kindle book readers.

Exposure and participation in this type of educational setting will help us to identify and educate the current and future generations of conservation and civic leaders in this community and beyond.

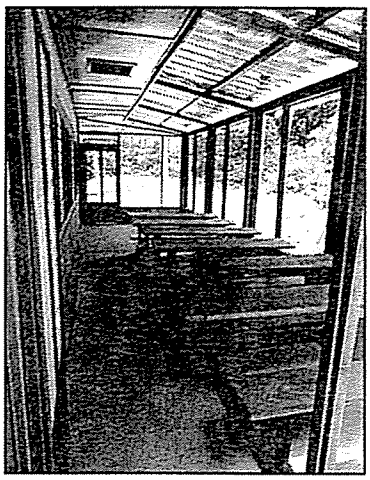
INVOLVEMENT OF LOCAL RESIDENTS

The Bomassa Library and Education Center will provide new opportunities for employment of local people. Most employment opportunities associated with the Nouabalé-Ndoki National Park require long forays into the protected area to work at research camps or eco-guard posts.

The library will provide work opportunities for local women, retired park staff, or aspiring students. Librarian and assistant librarian positions provide training in administrative skills which are currently not commonly available in the region. The building and maintenance of the Bomassa library is a demonstration of the Goualougo Triangle Ape Project's long-term commitment to improving the lives of people living in close proximity to the Nouabalé-Ndoki National Park (NNNP). It is also an investment of time and resources into the education of the local people in a place where such resources are scarce and could not be more appreciated.

MEASURES OF SUCCESS

Recognizing that simple access to educational materials and programs does not ensure success (Kuhar et al., 2010), we plan to systematically evaluate the effectiveness of this program. This will be accomplished by administering written and oral questionnaires to local villages before the library's opening, during the first year, and after full year of educational programming. These assessments will allow a measure of the library's impact on the local community. Because residents of Bomassa and Bon Coin have had little exposure to educational resources, a unique opportunity exists to document how these diverse cultures use such materials and what strategies are most effective in teaching. Video interviews of residents will allow us to capture what visitors find most interesting and informative and how their attitudes change with time and increased exposure to these resources. QR Codes for internet marketing will eventually be established to inform interested people around the world of this initiative.



PROJECT TIMETABLE

Objective/Activities	Jan 2011	Feb 2011	Mar 2011	Apr 2011	May 2011	Jun 2011	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011
Complete construction and preparation for library opening												
Apply sealant to bricks and cement	X											
Construction of furniture and shelves	X	X	X	X	X	X	X					
Establish electricity connection and solar panel	X			X								
Develop a friendly learning atmosphere for the residents of Bomassa and Bon Coin												
Identify and train local librarian		X	X	X	X	X	X	X	X	X	X	X
Establish schedule of library and educational programs		X	X	X	X	X	X	X	X	X	X	X
Provide educational opportunities using innovative learning tools												
Purchase books and educational materials	X				X				X			
Consult with Club Ebobo educators		X		X								
Educational outreach presentations							X		X		X	
Develop research presentation schedule		X				X						
Purchase first audio visual and multi-media materials						X						

WILDLIFE CONSERVATION SOCIETY

BREVARD ZOO

COLUMBUS ZOO AND AQUARIUM

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David Morgan
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Jean Robert Onononga

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Index of Gorilla Gazette Articles
1987 - 2000: Published by Columbus Zoo
2009: Published by Beth Armstrong

All of these articles can be accessed at : www.gorillagazette.com - User name and Password: bongo

Captive Management by Topic

Bachelor Groups

- An Overview of the St. Louis Zoo Bachelor Group(s) – 12/99
- Update on Bachelor Group at Jacksonville – 12/99
- Forming Bachelor Groups at Port Lympne – 12/99
- Formation of a Bachelor Group: Gorillas at Loro Parque – 12/2000

Births



- Bottle-feeding a Mother-reared Infant – 7/87
- Nursery-rearing Gorillas – 11/87
- Mother-rearing at Apenheul – 7/87
- A Road to Mother-rearing – 12/88
- Research on Mother-rearing vs Hand-rearing – 12/88
- Family Groups & Infant-rearing at Columbus Zoo – 12/88
- 72 Hour Birth Protocol at Lincoln Park Zoo – 4/89
- Training Program to Enhance Maternal Behavior* – 4/89
- North Carolina Zoo Announces 1st Gorilla Birth – 8/89
- Gestation Length & Birth Weight – 12/89
- Edinburgh Welcomes Scotland's 1st Gorilla Birth – 12/89
- Apenheul's 13th Gorilla Birth* - 4/90
- Gorilla Birth at Smithsonian National Zoo – 6/91
- Gorilla Born at the Philadelphia Zoo – 9/91
- Parent/Infant Play in Captive Gorillas – 12/91
- Reduction of Environmentally Caused Injury & Mortality to Infant Gorillas -5/94
- A Gorilla Cesaerean Section at the Columbus Zoo – 12/99
- Birth at Calgary Zoo – 12/2000

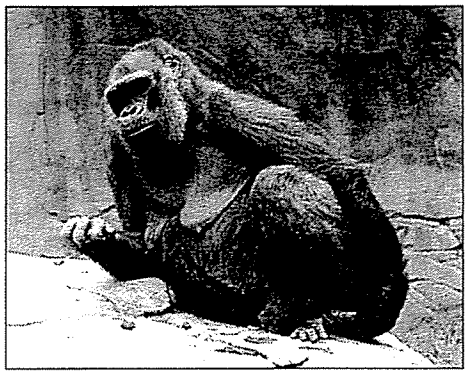
Captive Management/Behavior

- Dispelling the Myth of the Older Gorilla – 12/89
- Improving Captive Management – 9/90
- The Importance of the Older Captive Gorilla – 12/90
- Preliminary Study Results: The Effect of Environment on Gorilla Behavior in Zoos – 3/92
- Comparative Study of Three Captive Groups – 9/91
- How to Collect Urine from a Gorilla – 9/91
- How Long Does it Take a Gorilla to Adapt To New Surroundings – 3/92

Diets

- From the Gorilla Kitchen – 11/87
- From the Gorilla Kitchen – 12/88
- Apenheul Gorilla Diet – 8 /89
- Wild Gorilla Diet – 12/89
- Offering Meat vs Alternative Source of Protein – 4/90
- A Sampling of Gorilla Diets from around the Country – 12/94
- Myombe Reserve: An Update from Busch Gardens – 12/99
- Browse for Primates – 12/99
- Plant List for Loro Parque Gorilla Terraces – 12/2000
- North Carolina Zoo Gorilla Chow Free Diet: A Keeper's Perspective – 12/2010

Facility Design - Enclosures

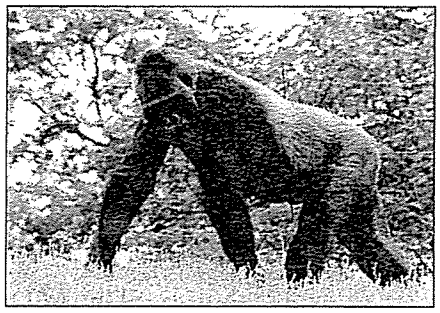


- New Facility Opens at Zoo Atlanta – 4/89
- Gorilla Foundation Opens New Outdoor Exhibit – 8/89
- Dallas Gorillas Settle into New Home – 9/91
- Pittsburgh Zoo Opens Tropical Forest Complex – 6/91
- Gorillas at Port Lympne* – 12/91
- Mixed Species Exhibit at St. Matin LaPlaine Zoo – 3/92
- New Primate Facility at Ft. Worth Zoo – 3/92
- A Naturalistic Exhibit Succession – 12/95
- Milwaukee's New Primate Facility – 3/92
- Introducing Gorillas to a Naturalistic Environment – 2/2000
- Assessing a Gorilla's Welfare Through the Evaluation of Behavior Repertoire & the Use of the Enclosure – 12/2000

Health Issues

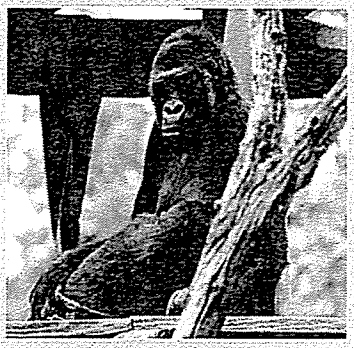
- Corneal Ulcer Treatment – 11/87
- Diagnosis & Treatment of Rectal Impaction – 11/87
- A Gift of Sight – 12/90
- Reduction of Regurgitation & Reingestion in Lowland Gorilla at the Oklahoma City Zoo – 12/92
- Eclampsia in a Lowland Gorilla – 9/93
- An Explanation for Tebe's Scars -9/93
- Possible Seasonal Effective Disorder in a Captive Male Westen Lowland Gorilla – 12/97
- Columbus Zoo Saddened by Loss of Infant Gorilla – 12/97
- Cheyenne Mt Zoo's Rafiki (Mastoid Infection) – 12/2000
- Voluntary Cardiac Ultrasound of a Captive Geriatric Western Lowland Gorilla* – 12/2000

Introductions



- Introduction of Two Adult Gorillas into a Group – 8/89
- Four Gorillas and an Introduction – 12/89
- Gorilla Introductions – 12/89
- Topeka Zoo's Gorillas: An Introduction – 4/90
- Introducing Killa-Killa – 4/90
- Successful Introduction at Denver – 4/90
- St Louis Reintroduces 3 Infants – 4/90
- Subordinate Female's Success Story – 3/91
- Creation of an Age-Diversified Group – 9/92
- How Four Strangers Became a Family & Mothers Swapped Babies – 5/94
- The Columbus Zoo Gorilla Husbandry Program – 12/96
- Introduction of Infants & Juveniles: A Cautionary Note – 12/96
- Creation of an Age-Diversified Gorilla Group through Alternative Means – 12/99
- A New Introduction at GaiaPark Zoo, the Netherlands – 12/2000

Keeper/Gorilla Relationship



- Lowland Gorilla Keeper Questionnaire – 7/87
- Gorilla Primer: Guide for New Employees – 11/87
- Lowland Gorilla Keeper Reference Questionnaire – 3/92
- Gorilla Keeper Relationships – 5/94
- Gorilla Keeping at the Philadelphia Zoo – 4/90
- Gorilla Keeper Manual: Many Roles of Gorilla Caregivers – 12/94
- Natural Approach to Gorilla Caregiver Relationships – 5 /95
- Passing on Knowledge & Experience: A Few Tips – 12/2009

Operant Conditioning

- Training Program to Enhance Maternal Behavior – 4/89
- Behavioral Modification of Lowland Gorillas at the Cologne Zoo - 6/91
- Developing & Implementing a Training Program – 12/92
- Use of Feeding Tubes in Passive Ultrasound Hypodermic Administration – 12/94
- Voluntary Cardiac Ultrasound of a Captive Geriatric Western Lowland Gorilla* – 12/2000

Relocating Gorillas

- The Successful Transportation of Ten Western Lowland Gorillas from Apenheul Primate Park, the Netherlands to Taronga Zoo Australia – 12/97
- Keepers Helping Animals to Adjust to Moves – 12/99

In situ Conservation

Republic of Congo

- Brazzaville Gorilla Orphanage – 9/90
- Surveying Chimpanzees:The Goualougo Triangle in Northern Congo 12/2000
- Gorillas of Mbeli Northern Congo – 12/94
- Mbeli Bai Gorilla Study, Project Nouabale Ndoki – 12/97
- Gorilla Conservation Education in Northern Congo – 12/2000
- From Keeper to Conservationist: An Interview with Dr. Dave Morgan – 12/1009

Democratic Republic of Congo/Zaire

- Gorilla Conservation in Eastern Zaire - 9/92
- Gorilla Conservation in Eastern Zaire – 9/93
- The Status of Grauer's Gorillas – 12/99
- DRC Park Emergency Relief – 12/2000
- Study of Bonobo Feeding Ecology in a Forest/ Savanna Habitat – 12/95

Rwanda/Uganda



- Notes from the Digit Fund – 12/89
- Turmoil ion Rwanda – 3/91
- Effects of the War on the Virunga Mt Gorilla Population – 3/92
- News from the Digit Fund – 9/92
- Karisoke Journal – 12/92
- Karisoke Journal – 9/93
- Death of Mrithi's Baby – 9/93
- Descendent of Popular Silverback, Mrithi is Born – 9/93
- Effie Found Dead – 12/94
- Kibale Chimpanzee Project- 12/95
- Mt Gorilla Census in Bwindi Impenetrable 12/97
- Partners in Conservation: 1999 Summary Report – 12/99
- Case Report on Surgical Management of Rectal Prolapse in a Mt Gorilla in Bwindi National Park, Uganda – 12/99
- The Ubumwe Community Center Opens in Rwanda – 12/2000
- The Columbus Zoo: In situ Support for Great Apes in Africa – 12/2000

Pan African Sanctuary Alliance

- Chimfunshi: A Haven for Confiscated Chimpanzees – 3/92
- Congo Project Update – 12/94
- HELP Congo – 12/97
- HELP: Habitat Ecologique des Liberties des Primates – 12/2000
- Bonobo Nursery- Sanctuary of the DRC – 12/2000
- Running for Primates: Raising Awareness about Ape Action Africa, Cameroon – 12/2009
- Gorilla Rehabilitation Center Story in DRC – 12/2009
- Using Football\(soccer) as a Conservation Tool: A Collaborative Effort – 12/2009
- PASA Announces New Fundraiser – 12/2009

Photos courtesy of Jan Parkes

A KEEPER'S REFLECTION
Vanessa (Nessa) Phelan

From the Editor:

I first met Vanessa (Nessa) Phelan in the early 1990's. She is truly one of the funniest people I have known but in addition she had an absolute passion for being a gorilla keeper. I am always curious as to how people find their way to their life's work and so asked Nessa to share her thoughts about her journey. Although I may now be one of the older generation of (former) gorilla keepers as is Vanessa - we grew up in the zoo world during a time of great change and I believe benefit to gorillas in captivity. It was a magical time because there was so much work to be done, so much to be improved upon. It is easy to maintain, less so to stand up and be heard. Due as much to the changing times as anything - there did emerge a group of keepers who had the guts to speak up, to voice their concerns, to stand up for what they believed was right for gorillas, I count Nessa as one of those.

When at 35, I suddenly and seemingly unexpectedly decided to get a job at Toronto Zoo after almost 15 years of advertising and television, my mother and many others had a number of things to say.

It appears that my first zoo visit was to London Zoo in 1943 – I am still astonished that it was open in the middle of WWII. I was 3, wearing a red over-coat and leggings. A giraffe ate my mother's hat which cheered everyone up and then we got to the hippos. One yawned, I screamed, ran off into the crowd and disappeared. A frantic search revealed that I had been gathered up by a group of young soldiers on leave who put me on the shoulders of the tallest and marched around the zoo looking for my mother.

My second zoo visit was to Mr. Hallstroms (sp?) Taronga Park, a magnificent location just hanging on to the edge of Sydney Harbour and famous for its enormous floral clock. I was 12. I remember parts of that day clearly. I hated the zoo, the tiny cages and cramped quarters housing the big cats and the gaudy pseudo Indian Temple at the entrance. I was so unsettled by that visit I did not go to another zoo until 1975. (I hasten to add that I have visited Taronga many times since the 80's, and each time find it a little more extraordinary. The exhibits are amazing and the staff equally so.)

In the mid 60's I became interested in wolf conservation and early in the 70's twice visited Dr. Erik Zimen in the Bavarian National Park, which backs onto Austria and the Czech border. I met all his wolves and spent glorious days walking thru what is one of the last remaining mixed forests in Europe. Evergreen and beech trees. On my second visit I met an American zoologist, John Sullivan on sabbatical from a small Oregon college. He was doing research under the guidance of Konrad Lorenz.



Sullivan Dogs

Living in Toronto and unemployed I was delighted when John asked me to go to Oregon to babysit his dogs and coyotes while he attended what he called "mammal meetings." I spent a month in Oregon, perched on the side a mountain. My only companions were 8 dogs and 2 coyotes. I had the time of my life.

John was a colleague of Dr. Phil Ogilvie who had just become the director of the new Metro Toronto Zoo. John insisted I apply for a job. So after a brief flirtation with wolf conservation and activism involving creeping thru wet Ontario forests and even more briefly contemplating a career collecting road kills for a carnivore sanctuary in California, I took John's advice and applied for a job at the zoo.

A year later, after what seemed an eternity doing temp work in banks and waiting for John's letter of recommendation to arrive on Ogilvies desk, I was hired. After my meeting with personnel I wandered around the zoo for a few hours, completely over-whelmed by the sheer size of it all. Such large groups of animals ... primates, big cats, hoofstock and elephants.

I started work in an off-site area with many different species of surplus mammals, birds and reptiles. On my first day, after being startled by the biggest lions I had ever seen, I met the lemurs. I had never been close to any primates and frankly did not know a lemur from a wombat. However, I connected almost immediately with the zoos large groups of ringtail, mayotte and black lemurs. The keeper who was training me, said, after seeing the mayotte lemurs sitting on my shoulders and peeing on my head, "Oh thank god, a primate Person."

I spent an extraordinary year in the old barn, working with lions, tapirs, birds, patas monkeys, slender loris, bush babies, the lemurs and an infant Chinese leopard.

After an l8 month stay on site where I met giraffe, zebras, gemsbock, south African fur seals and a huge bunch of lions, I was moved again into the Africa Pavilion and into the path of the 7 resident African born young gorillas. I was instantly in awe of the gorillas and the keepers who worked with them and happy to be told that I was to clean their exhibit and holding areas most days.

Before I was allowed into the old holding area, I had to pass an "Amanda test." No one was allowed in if Amanda did not like them. I stood silently, not sure how I could convince Amanda in my favour. She sat, staring at me, hanging onto the bars with fingers like fat black sausages. After a cursory grumble, she moved back beside Julia, her friend, sidekick and support system. "Right" Rene said "she likes you, you can come in – the tools are over there!" It took a little while to realize I was being conned, but that was OK, I loved the smell of the gorillas and the vocalizations they made as Rene went about giving them their breakfast.

Over the course of the next couple of years I worked most days cleaning the gorilla exhibit and the holding area – adroitly avoiding busy gorilla fingers trying to trap my boots on the bars over their heads. Occasionally I got to spend time with the keepers and learn more about the gorillas.

Eventually, sometime in March 1980 both Samantha and Josephine, each around 8 to 9 years of age, became pregnant. The two babies (both girls) were born 2 days apart. Natasha born to Samantha on November 4 and Tabitha born to Josephine on November 6. Natasha sired by Charlie, was the first gorilla born in Canada. Little Tabitha was sired by Barney. DNA testing done years later proved that our guesses about the paternity of these two kids were correct.

Natasha, due to Sammi's indifference and apparent bad cold, was nursery raised. Tabitha, raised by her mother Josephine until she was 8 months old, needed surgery for a brain abscess in 1981. (Surgery was done at Toronto's prestigious Sick Kids Hospital). After her recovery in the zoo hospital, Tabitha wearing her little Coopers hockey helmet joined Natasha in the nursery. The two little girls went to Calgary in 1984.

I left the pavilion at the beginning of 1981, after a spell of working days in the paddocks and doing night shifts with baby Natasha. After working outside for a few years I moved into the zoo hospital where I worked with a variety of nursery animals including 2 more infant gorillas. These were Jo's, it was now established that sadly she was unable to lactate sufficiently to sustain her babies. Minkebe born in 1988 was successfully returned to Jo, but had a fall in 1989 which resulted in her death, a horrific event. Soon after Josephine was again pregnant with Jabari.

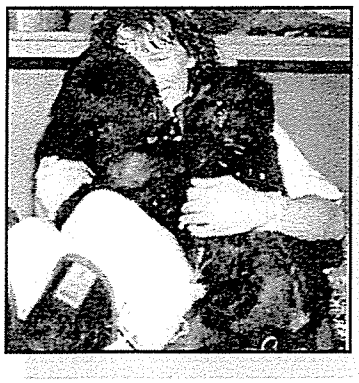
In 1990 my now confirmed lifelong love affair with gorillas finally got off the ground. I had turned down the offer to work with them full time in 1980. Toronto Zoo is zoogeographic and prefers its keepers to be "generalists". I knew I had much to learn and that if I attached myself to the gorilla group so early in my career, it would have broken my heart to leave them – being moved to another area was going to happen sooner or later. I was actually moved 8 times in under 30 years. In May 1990 Jabari came down to the Health Unit for nursery. After a couple of months he was returned to the pavilion and I went with him. Young Patrick (Paddy), son of our Barney (by then at the Bronx) and Pattycake, came to Toronto at around 8 months of age and joined Jabari in the nursery. They became the centre of our lives from then on.

There were 7 of us in the gorilla nursery. Marilyn Cole was our "den mother". After 11 years with the gorilla family, she was our source of information and inspiration. I found with her the more you wanted to learn the more she was eager to share. She had been an enormous help to me in the early 80's when I worked with the 28 hamadryas baboons. Between the 7 of us we did 24 hour shifts, working both the nursery and the family group. The old scary medieval fortress holding area was now empty and the family now lived in a brighter much more open holding area.

When Samantha gave birth on November 4, 1990, exactly 10 years to the day Natasha was born, Marilyn finally was able to do the best thing she could for Samantha and baby Sekani. After a quick call to the curator and seeing that the newborn was free of the cord, she opened the shift and let Sammi out with the group. It was a first big step forward for the gorillas. Mothers and new infants were no longer kept separate from the family.

As Josephine was again pregnant, this time with Jomo, Marilyn set up a protocol and we worked at training her to bottle feed her own infants. This training produced some of the funniest video on record. She is an amazingly gifted gorilla and working with her daily was exciting and great fun. She made us laugh, she astounded us with her intelligence and infuriated us with her ability to pretend we did not exist and just turned her back on us all .. further entertainment was had by involving both Paddy and Jabari in these training sessions.

With the birth of Jomo, his partial hand-raising and his successful early reintroduction to his mother, life in the gorilla holding area was magic. The exhibit daily had 4 little tornados racing about. However, sadly, as often happens in Toronto, Marilyn was moved from the gorillas, a devastating event for her, and a loss for us. She was not there for the first amazing moments of Jomo and Josephine together. Having seen this kind of thing happen 3 times at the gorilla section alone, I remain totally opposed to the zoo's generalist keeper policy.



Nessa and Jabari and Patrick, in nursery about 1992

At the end of 1994 Patrick and Jabari left for the Columbus Zoo for the their CDC quarantine prior to being shipped to the Dallas Zoo. I went with them and in those few days in Columbus with Beth Armstrong and Charlene Jendry a whole new world for our gorillas opened up. I took back with me to Toronto the determination to do as they did in Columbus. It was time the gorillas lived together day and night. 20 years of being separated at night from each other had to stop. It took a year to accomplish.

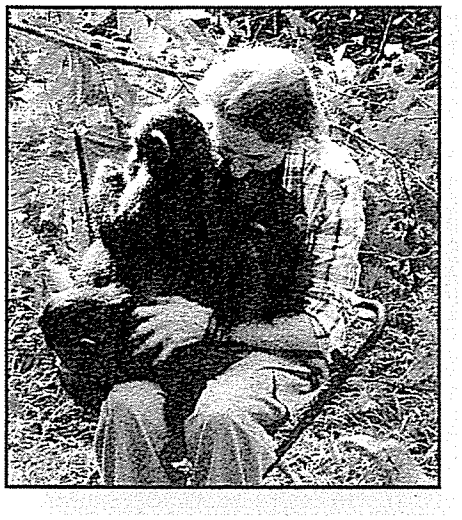
As I had successfully managed to have Samantha, (sometimes known as "woman on the edge") Sekani and Charles sleep together at night, Sammi got pregnant a third time in just on 5 years. Subira was born on December 1, 1995. On December 24, I opened the door and put them out for the night, they have been together ever since, only separated for breakfast and supper.

I often felt that I did not fit in properly ... I was not the sort of kid that trailed around with a stuffed chimp or gorilla, or in fact any kind of stuffed animal. Many of my fellow keepers had spent their lives waiting to be old enough to work in a zoo or tramp about Africa, anything just to be around animals. I felt a bit of a fraud because my interests had been so different. In puberty, boys were at the top of the list, then at 20 I wanted to convert to Judaism and live on a kibbutz, at 21 I was studying theatre and hanging out in jazz clubs with musicians. Nothing I ever did pointed to what would eventually become the most important time of my life.

Working in the zoo and especially with the gorillas, gave me a sense of belonging I had long missed. New friends, amazing people I would never have met under other circumstances. I had a sense of kinship with those I now spent my days with. I was finally a part of something important.

The years passed quickly and suddenly I was faced with the realization that my life with the gorilla family, now my family, was coming an end. The mandatory retirement age in Ontario was 65. The law changed in 2005, if I had been born in December and not March I would still be working.

In the past few years with the gorillas Josephine had another baby girl Johari in May 2001, Samantha had Shalia in 2002. Sammi of course needed no help from us, little Johari went into the nursery and then was reintroduced to Josephine. As a retirement gift to me Samantha had her 5th baby in February 2005, little Sediki. I felt incredibly privileged that I had been there for the birth of all 5 of her youngsters, and had been there for 5 of Josephine's.



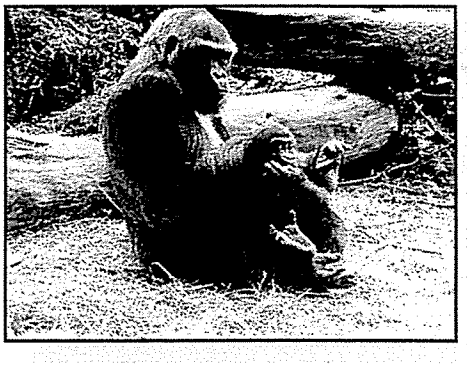
Nessa, lap full of chimps, bush meat babies Mefou, AAA Cameroon 2009

It has been almost 6 years since I had to leave. Yes, I now have had the time to go to Cameroon twice, to volunteer at Ape Action Africa and see for myself the horrors of the bush-meat trade. I am returning to Cameroon in April this year (2011) but there is not a day that goes by without my thinking about the gorillas, missing them and wishing I was still working with them.

I have never really regarded myself as wispy or overly sentimental, but losing first our Jabari in March 2004 to a policeman's bullet in Dallas and then the gorillas as companions a year later took the heart out of me. Samantha's death in 2010 was a terrible loss. The vet and keepers now working with the group kept me up to date from the time she had her first stroke. However, not seeing her for the last time is very painful. I was forced to come to terms finally with the knowledge that they were no longer a part of my life, and I feel the poorer for it. The gorilla family became over the years the only family I had. They taught me a great deal, and I never really came to terms with the fact that they were taken from their forests and shipped in crates to Canada. I cannot imagine how my life would have been without their presence. Something my mother wrote sticks in my mind "As you get older, strange things happen to time; often the present rushes on at a great rate and the past stands still. It is like being sucked backwards into a long tunnel but still able to see the light you have left. You move on but the light remains fixed and you feel that if you could get back to it you would find everything as it was." Now I truly understand what she meant, the light is still there, but there is no way back thru that tunnel.



Vanessa with Mori and Rocky, socialized wolvers 1969



**Sidenote: I think its important to stress that if it had not been for Beth Armstrong and Charlene Jendry and what you shared with me way back in 1994, Toronto's gorilla family would have faced a very different future. Eventually things would have improved, but those few days with you two changed their lives completely. I thank you both for making those changes possible.*

Vanessa



Nessa and Jabari, 1993, Toronto Zoo, prior to Jabari and Patrick leaving for Dallas



Toronto Zoo, Nessa and Zef, Siberian tiger cub, nursery 1987



Toronto Zoo, Nessa with Cyrano, rescued moose calf, around 1986

Vanessa Phelan

Former Gorilla Keeper - Toronto Zoo
Ape Action Africa Volunteer
email: vanessaplelan@rogers.com

GORILLA CONSERVATION COMMITMENT
Woodland Park Zoo



Silverback Coriander during chest-beating display to a rival in Mbeli Bai. Photo courtesy of Kelly Greenway, WCS/Woodland Park Zoo

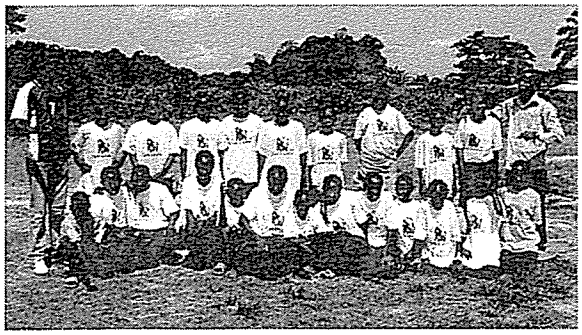


Silverback Sangha walking bipedally through a stream in the Mbeli Bai clearing, Northern Congo. Photo courtesy of Thomas Breuer, WCS/Woodland Park Zoo

Mbeli Bai Study

Supported since 2001,Long-term goals include:

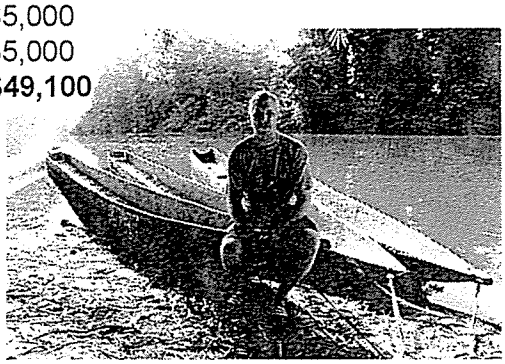
* Scientific research: Long-term monitoring of gorillas and other large mammals to recommend conservation strategies and other measures that help to promote the conservation of western gorillas and other forest mammals in general and the Ndoki forest in particular.
* Capacity building: Continue and expand the training of national research staff and conservation educators.
* Conservation education: Continue and expand education activities on a local scale (Club Ebobo) with the aim to reduce the illegal killing of protected species and to build up a Congolese environmental education curriculum; continue and expand awareness raising on an international level (communication, press releases and support of Ecotourism project)
* Wildlife protection: Continue and expand activities related to gorilla and large mammal protection through researchers presence and early alarm system.



Club Ebobo educators and children of the local school in Bomassa. Photo courtesy of Franck Barrel Mavinga, WCS/Woodland Park Zoo

Support is through the WPZ Field Conservation department and in later years was used to support continuing education opportunities for Mbeli Bai field staff. $$ breakdown is as follows:

- 2001 - $10,000
- 2002 - $2,000
- 2003 - $4,000
- 2004 - $3,800
- 2005 - $4,300
- 2006 - $5,000
- 2007 - $5,000
- 2008 - $5,000
- 2009 - $5,000
- 2010 - $5,000
- **Total: $49,100**

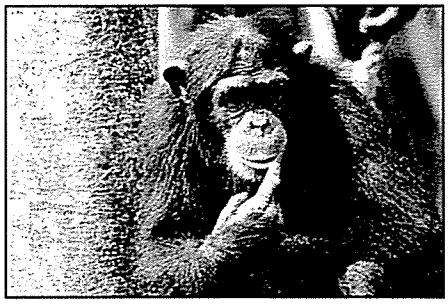


Thomas Breuer at the bank fo the Sangha River. Photos courtesy of Miroslav Bobek, WCS/Woodland Park Zoo

Bobbi Miller
Field Conservation Coordinator
Woodland Park Zoo
601 North 59th Street
Seattle, WA 98103
email: bobbi.miller@zoo.org
206-548-2621

GREAT APE CONSERVATION COMMITMENT
COLUMBUS ZOO





Above: Tacugama Chimpanzee Sanctuary, photo by Rebecca Rose

Left: Kinabatangan Orangutan Conservation Project, photo courtesy of Marc Ancrenaz

1993

Kibale Chimpancee Project	$1,000

1994

Gorilla Workshop Fund	$1,300
Mountain gorilla vet project	$3,636

1995

Mbeli Bai Gorilla Study	$4,400
Mountain Gorilla Vet Project in conjunction with Morris Animal Foundation	$5,000
PIC matched funding	$5,000
Kibale Chimpanzee Project	$3,300

1996

Chimpanzee PHVA Workshop	$1,500
Mbeli Bai Gorilla Project	$195
Kibale Chimpanzee Project	$10,396
Chimpanzee PHVA Workshop	$10,000

1997

Mountain Gorilla PHVA Workshop	$31,800
Mountain Gorilla PHVA Attendance	$3,474
Mbeli Bai Gorilla Study	$5,513
Mbeli Bai Gorilla Project	$1,000
Limbe Wildlife Centre	$1,300

1998

Mbeli Bai Gorilla Study	$2,217
Kibale Chimpanzee Project	$700

1999

Mbeli Bai Gorilla Study	$12,000
Goualougo Chimpanzee Study	$8,000
Kibale Chimpanzee Project	$7,460
Dian Fossey Gorilla Fund (dues)	$2,5000
Dian Fossey Gorilla Fund (matching funds)	$2,500
Limbe Wildlife Centre	$9,900

2000

CBSG – Chimp Sanctuary	$6,000
Mbeli Bai Gorillas	$9,000
Goualougo Chimpanzee Study	$9,000
Chimpanzee Workshop – Drs Kearns and Sleeman	$10,300
Dian Fossey Gorilla Fund (annual dues)	$2,500
Dian Fossey Gorilla Fund (matching funds)	$2,500
Limbe Wildlife Centre	$12,000

2001

Bushmeat Crisis Task Force (annual dues)	$5,000
Gorilla Sanctuary in Lesio-Louna Reserve	$5,955
Gorilla Sanctuary in Mpassa	$3,500
Lukuru Wildlife Research Project	$6,140
Chimfunshi Wildlife Sanctuary	$1,000
Wanariset Orangutan Rehabilitation and Reintroduction	$2,000
Dian Fossey Gorilla Fund(dues + matching)	$2,500
CBSG Workshop (Chimps)	$6,000
Goualougo Triangle Chimpanzee Research	$6,080

2002

Bushmeat Crisis Task Force	$5,000
An Initiative for the Conservation of Wild Chimpanzees and the African Forests Awareness Campaign	$4,000
General census of Orangutan throughout Sabah, Malaysia	$10,000

2002 continued

Wild Animal Rescue Foundation (gibbon facility)	$2,000
Conservation of Pan paniscus (Lukuru Wildlife Research)	$5,942
Post-release monitoring of orphan wild born chimpanzees in Conkouati-Douli National Park	$5,100
Mbeli-Bai Gorilla Study	$13,500
Goualougo Triangle Chimpanzee Conservation and Research Project	$7,008
Protection through Education: Lola ya Bonobo, the ABC's Bonobo Sanctuary	$25,000
Pan African Sanctuary Alliance Strategic Planning Workshop III	$1,500
Lukuru Wildlife Research Project	$1,440
Lola ya Bonobo Sanctuary	$1,000
Rebuilding the Karisoke Research Center; Enhancing Mountain Gorilla Research	$850
Taiping Four Gorillas Project	$2,270

2003

Dian Fossey Gorilla Fund (dues)	$2,500
Bushmeat Crisis Task Force (dues)	$5,000
Lukuru Wildlife Research Project	$7,000
Bonobo Sanctuary in Congo	$70,000.
Mbeli Bai Gorilla Study	$6,800
Conservation of Orangutans in Multiple Use Forests	$10,000
Pan African Sanctuaries Alliance	$1,000
Goualougo Triangle Chimpanzee Conservation and Research Project	$4,250
Limbe Wildlife Center	$2,000
Capacity Building and Educational Project for the Conservation of Wild Chimpanzees	$2,060

2004

Bushmeat Crisis Task Force (dues)	$6,000
Kavumu Chimpanzee Sanctuary	$3,000
Salonga bonobos	$5,271
Mbeli Bai WLowland Gorilla Study	$9,700
Capacity Building and Educational Project for the Conservation Of Wild Chimpanzees and the African Rain Forests	$5,000
Orangutan Health Project	$2,000
Third Annual Great Lakes Region Gorilla Workshop	$1,142
Kinabatangan Orangutan Conservation Project	$9,700
Goualougo Triangle Chimpanzee Project	$7,400
Lola ya Bonobo Sanctuary	$25,000
Katavi Conservation Project	$5,000
Eco-guard partrols and wildlife monitoring in the Conkouati- Douli National Park	$4,860
Lukuru Wildlife Research Project	$7,000
Orangutan Foundation International	$2,000
Publication of African primates - IUCN Journal	$1,500
Dian Fossey Gorilla Fund (annual dues)	$2,500

2005

Bushmeat Crisis Task Force (dues)	$6,000
Dian Fossey Gorilla Fund (dues)	$2,500
Cross River Gorilla Project	$4,000
Gorilla Conservation Surveys in Lowland Sector of Kahuzi-Biega National Park	$2,500
Pan African Sanctuaries Alliance 2005 Management Workshop	$3,000
Kinabatangan Orangutan Conservation Project	$8,180
Post-Release Monitoring of Released Female Chimpanzees	$5,000
Conservation Action Planning for Hoolock Gibbon with PHVA Workshop	$3,000
Goualougo Triangle Chimpanzee Conservation and Research	$7,670
Education for Protection: Lola ya Bonobo Sanctuary	$25,000
Lukuru Wildlife Research Project	$12,000
Capacity-Building and Educational Projects for the Conservation OF Wild Chimpanzees and the African Rainforests	$5,650
Mbeli Bai Study of Western Lowland Gorillas	$14,000.
Kalaweit Association Gibbon Sanctuary	$5,000

2006

Bushmeat Crisis Task Force (dues)	$6,000
Dian Fossey Gorilla Fund (dues)	$2,500
Lukuru Wildlife Research Project	$15,298
A Survey of Great Ape and Forest Elephant Populations in Eastern Democratic Republic of Congo	$2,500
Conservation Starts with Education: Lola ya Bonobo Sanctuary	$25,000

Communications for Bonobo Conservation	$10,000
Mbeli Bai Study of Western Lowland Gorillas	$14,000
Goualougo Triangle Chimpanzee Project	$8,390
Eastern Gorilla Interim Rehabilitation and Care Facility	$5,000
Construction of Ranger Post to Improve Levels of Protection 2006 cont'd For the Endangered Cross River Gorilla in Nigeria	$3,000
Kinabatangan Orangutan Conservation Project	$13,125
Kalaweit Association Gibbon and Siamang Rehabilitation Facility	$8,000
Post-Release Monitoring of Released Female Chimpanzees – Conkouati-Douli National Park	$5,000
Nyaru Menteng Orangutan Rescue, Rehabilitation and Reintroduction	$5,000
Lola ya Bonobo Sanctuary	$2,000

2007

Bushmeat Crisis Taskforce (dues)	$10,000
Pan African Sanctuaries Alliance (Three year commitment)	$5,000
Orangutans and gibbons compared: Implication of differences in feeding and behavioral ecology for conservation	$5,000
Welder-Generator for Chimpanzee Rescue Center in Cameroon	$9,000
Mbeli Bai Study of Western Lowland Gorillas	$10,000
Support to the Kinabatangan Orangutan Conservation Project (KOCP) Education and Awareness Unit	$10,700
Lola ya Bonobo Sanctuary in the DRC	$25,000
Goualougo Triangle Chimpanzee Conservation and Research Project	$7,890
Conservation of the Cross River Gorilla in Cameroon and Nigeria through Conservation Education Outreach	$5,000
PASA Coloring Book – "The Story of a Chimpanzee"	$2,500
Communications for Bonobo Conservation	$10,000



Left: Goualougo Triangle Ape Project, photo courtesy of David Morgan



Right: Mbeli Bai photo courtesy of Thomas Breuer



Wild Chimpanzee Foundation (Club Pan), photo courtesy of Hedwige Boesch

2008

Post-release monitoring of released female Chimpanzees in Congo	$7,000
Kalaweit gibbon and siamang conservation program	$9,000
Pan African Sanctuary Alliance	$10,000
Chimpanzee Census - Tacugama	$8,000
Limbe Wildlife Centre	$ *see below

2009

Club P.A.N.- A conservation education project of the WCF around the Tai National Park	$5,000
Emergency Grant for Chimpanzee Conservation Center	$1,500
Goualougo Triangle Ape Project	$9,340
The HEAP Mobile Program: Reaching out local communities for orangutan conservation in Sabah	$11,200
Mbeli Bai Study	$17,500
Conservation starts with Education: Lola ya Bonobo Sanctuary	$25,000
Pan African Sanctuary Alliance	$10,000

2010

Lukuru Wildlife Research Project	$20,000
Ape TAG conservation initiative	$10,000
Captive Gibbon Care Training in Indonesia, Myanmar and Thailand	$5,000
Limbe Wildlife Centre	$ *see below

2011

Pan African Sanctuary Alliance	$20,000

COLUMBUS ZOO AND AQUARIUM

$986,827

* In 2008 and 2010, Columbus Zoo supported the Limbe Wildlife Centre,Cameroon - dollar amount not currently available.

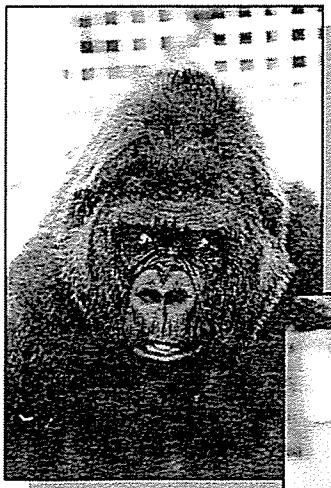
Conservation Contact
Rebecca Rose
Field Conservation Coordinator
email: Rebecca.Rose@columbuszoo.org

TWO EUROPEAN ZOOS and THEIR HUSBANDRY INFLUENCE

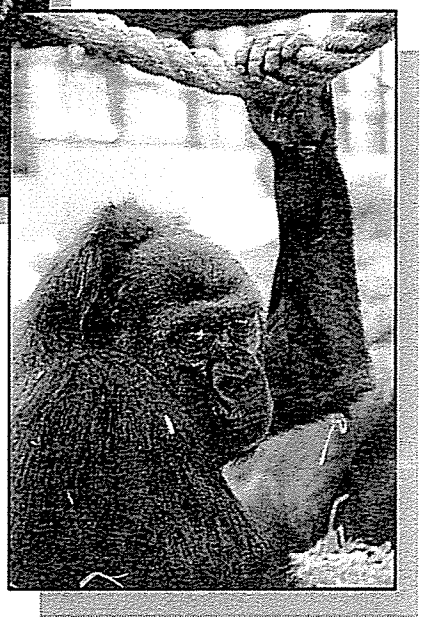
Two zoos that had a profound influence and helped shape the husbandry program at the Columbus Zoo in the 1980's and 1990's were Apenheul in the Netherlands and Howletts in the UK. Over the years both have contributed articles to Gorilla Gazette. In this issue we have an article by Emily Clarke of Howletts as well as an announcement by Apenheul that they will be co-hosting (with Gaia Park) the next Gorilla Workshop - June 11-15, 2012.

To the right is a listing of articles that both facilities have contributed to GG over the years and I think many are as pertinent today as they were when originally published.

These can be accessed at
www.gorillagazette.com
(User Name- Bongo; Password - Bongo).



Tebe, female, d.o.b Jan 1980



Kifta, female, d.o.b 26/04/00

Apenheul

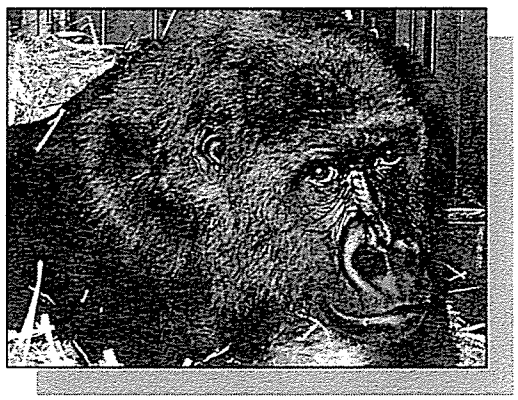
HOWLETTS
THE ASPINALL WILD ANIMAL PARK

Apenheul, the Netherlands

- Mother-rearing at Apenheul – 7/87
- Apenheul Gorilla Diet - 8/89
- Apenheul's 13th Gorilla Birth – 4/90
- Apenheul Gorilla Update – 3/92
- The Gorillas at Apenheul, the Netherlands – 12/2000
- Getting Reacquainted: Gorilla Introductions at Apenheul, the Netherlands – 12/2000

Howletts & Port Lympne, United Kingdom

- News from Howletts – 12/89
- Gorilla Harvest – 3/91
- Gorillas at Port Lympne – 12/91
- Howletts Gorillas: A Question Answered and Another Posted – 12/92
- Gorilla Report – 5/94
- Siren Voices – 5/94
- Howletts & Port Lympne: Captive Raised Females Under 7 Years of Age Translocations - 12/97
- From Howletts & Port Lympne – 12/99
- Forming Bachelor Groups at Port Lympne – 12/99
- Variety is the Spice of Life - 2011



Jah, male, d.o.b 02/07/02

All photos courtesy of Howletts

ASPINALL PARKS CELEBRATE 130th GORILLA BIRTH!

The Aspinall Foundation is celebrating the 130th gorilla birth at its Kent Parks. The infant, believed to be a female, was born on the 26th of April at Port Lympne Wild Animal Park. The Aspinall Foundation's Howletts and Port Lympne Wild Animal Parks were set up by the late John Aspinall to be centres of excellence for animal husbandry within which to protect and breed threatened species, with a view to returning them to the wild wherever possible.

The parks care for the largest group of Western lowland gorillas in human care outside of Africa, currently housing 73 gorillas. As well as safeguarding gorillas and other endangered species at Howletts and Port Lympne, The Aspinall Foundation actively returns animals born at the parks' incredibly successful captive breeding programs to protected areas of the wild. The charity protects over 1 million acres of wilderness across Congo and Gabon where it reintroduces both gorillas from Howletts and Port Lympne and orphan gorillas from the bush meat trade in Africa back into the wild. The Aspinall Foundation has reintroduced over 50 gorillas to date and these are now going on to breed, testament to the success of the scheme.





Above and top right photos
Affy, female, d.o.b 16/08/09
Photo by Emily Clarke



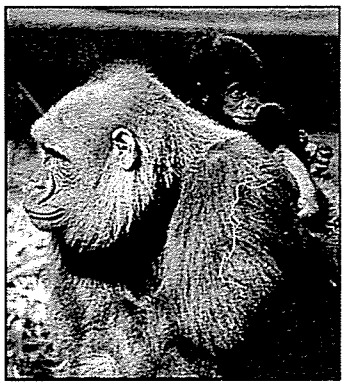
Jouki, female, d.o.b 31/01/11
Photo by Emily Clarke

The 130th infant for Howletts and Port Lympne, as yet unnamed, was born to mother Kishi and father Djala and is doing well. The family group of 13 gorillas is housed in the 'Palace of The Apes', specifically designed for the gorillas.

This landmark birth follows quickly after gorilla babies number 128 Jouki (male) born to mother Sanki and father Djanghou, and Bou (male) born to mother Jubi and father Kouillou, who were born in January and February of this year at Howletts.



Kishi's baby
Photo by Dave Rolfe



Sanki's baby
Photo by Dave Rolfe



Jubi's Baby
Photo by David Seaman

THE ASPINALL FOUNDATION

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KEEPER to CONSERVATIONIST
Debi Mangrum

Debi Mangrum's love for gorillas began at a very young age. As a result of weekly trips to the Oklahoma City Zoo and the encouragement of her family, Debi pursued her dreams to one day work with gorillas. Debi started her work at the Zoo in the mid-ninety's as a seasonal keeper in the "Island Life" area working with snakes, birds and Galapagos tortoises. She then continued to work part time as an education animal keeper and in Children's Zoo (CZ). It was in CZ that she had her first encounters with gorillas as part of the hand rearing team for an infant male, and a year later, 1.1 twin gorillas. It was 1999 when she joined the team of the Great Escape to work with the Zoo's great apes full time. Debi took her first trip to Africa as the 2001 BFR winner and completely lost her heart to the continent. Her life seemed to be headed in a new and exciting direction. Upon her return, Debi met Pierre Kakule, started Gorilla Golf (GG) and thus began her more intensive in-situ conservation work. In 2007, she took her first trip to the Democratic Republic of Congo (DRC) and knew this was where her heart had been placed. She began dedicating all her spare time and resources to helping the people and animals of the Kasugho region of DRC, and in 2009, she left the Zoo and became Co-Founder/Co-Director of "THE WELL." Her new job combines all her passions into one.



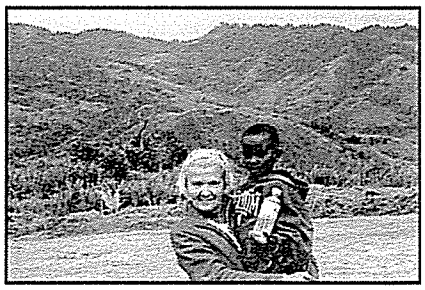
Debi at OKC Zoo with twin gorillas

Captive Gorillas Experience:

Beth: When did you know that you wanted to work with animals, most especially great apes?
Debi: As far back as my memories take me! I actually remember being in First grade and having a reoccurring dream about gorillas escaping from a zoo and everyone running and screaming, however I wasn't afraid - and in my dreams, no one ever got hurt (LOL). Strange I know, but I can't even think of a time in my life when I wasn't completely fascinated with great apes, gorillas in particular.

Beth: Who or what influenced you? If it was a book or movie, please list. If it was a person, please list how they influenced your commitment to animals.
Debi: Well...I'd have to say, maybe..."Planet of the Apes" and "Dr. Dolittle" were the first real influences, be that as it may, I would like to think I still turned out relatively normal (lol). However, it was actually Dian Fossey. I always read National Geographic as a child, and it was her commitment, passion and love for these animals that I admired. I always wanted to live in the "jungle" with the gorillas, not only learn about them, but also to help protect them. She showed me that anything was possible with perseverance.

Debi and Uzima



Beth: When did you become a gorilla keeper? What was your first day like?
Answer: I actually became an "official" gorilla keeper in 1999. But my first experience or encounter came a year earlier in 98 when I held a baby gorilla for the first time. We were hand raising Jumoke (little Joe) and that was the moment I knew that was it - there was no turning back - I was completely hooked! I remember crying as I held him and realizing my dreams were becoming a reality. Then, a year later, I was able to help hand raise the zoo's gorilla twins which was twice as amazing!

Beth: Please share some of your favorite moments working with gorillas?
Debi: I can't really think of specific moments. One of my favorite things was the bond I formed with certain animals. The bond I had with Gracie (our female twin) is one of my fondest memories; raising her from 17 days old, and watching her grow and become a normal (captive) gorilla and an amazing animal within her troop. I also loved the training - spending one on one time with the animals. I loved watching them "get it" during training sessions. It was exciting to see that light bulb go off in their heads.

Field Conservation Experience:

Beth: When did you shift from being a keeper to becoming an active conservationist? Was there a particular event that affected this shift?
Debi: I believe that shift happened in 2002. When I got back from my first trip to Africa and met Pierre Kakule. I began to get more involved in in-situ conservation, with a focus on the Tayna Gorilla Reserve in D. R. Congo.

Beth: Tell me about your conservation work – where does it take place? Are you an established not for profit or does your work come under your zoo's conservation umbrella?
Debi: My conservation work started 2002, under the local AAZK chapter and the OKC Zoo when I established Gorilla Golf (GG) to help support the work of the Tayna Gorilla Reserve (TGR) in DRC. I co-chaired this event for 7 years. In 2006, my GG co-chair and I began an additional partnership with Pierre Kakule - the local chief and founder of TGR - through Hearts and Hands International to help the war orphans in the Kasugho region, where TGR had established a small community. After visiting DRC in 2007 and confirming the legitimacy of the work we had been supporting, I began giving more and more of my personal time to help. I adopted a daughter from DRC that same year, and my concern for the people and animals in the area only continued to escalate. Despite my deep love for gorillas, I left the zoo in 2009, to start full time work helping the people of DRC, knowing that only through them will the conservation of gorillas succeed. My GG co-chair and I continued our partnership and created THE WELL - offering help, hope, and healing to the forgotten people of DRC.

Beth: How did your in situ work get started? When was it started? And what kind of support do you offer?
Debi: It got started after the last trip to DRC. We knew we had to do more and we could not just do it after work and on weekends. We actually started THE WELL in July 2009. We work with the local primary school, where students have a huge focus on conservation! We also work with the local clinic. We are trying to get funding for them as well as supplies. We are working on feeding programs and hospitals in the USA becoming "sister hospitals" to them. THE WELL also works with the women of the area (single mothers & victims' of rape), helping them to become more self sustaining through agricultural programs, sewing programs and protein access programs. Bottom line is when you help the people and educate them on the importance of conservation you are in turn helping the animals. This has been a focus of this area since its inception, and we are happy to invest in what is already being done.

Beth: How does your work impact gorillas in the wild?
Debi: By working with the local people. One of the goals of THE WELL is to join in education in cooperation with DFGFI. I can't say it enough - when you educate the people and show them that the conservation of the animals and land is very beneficial to them, listen to their needs and wants, and help offer alternatives in areas that are conflicting - then both people and animals will benefit.

Beth: Describe how you get to and how long it takes to travel to your project.
Debi: USA to London (day1), London to Nairobi, Kenya (day 2), Nairobi to Kigali, Rwanda (day 3), from Kigali we drive to the border and cross over into the border town of Goma, DRC (day 4), from there we fly to Butembo DRC, (once in DRC day 5 can easily turn into many days of issues) after we arrive in Butembo it is around a four to four and a half hour drive back down south to Kasugho. All in all with flight, road travel, rest periods, (being detained for one reason or another) - it can be up to a week to get to the destination.

Beth: What are some of the difficulties you have encountered?
Debi: Mostly the Congolese government. It's very frustrating when they don't even want to see their own country prosper, as it takes control away from "the few".

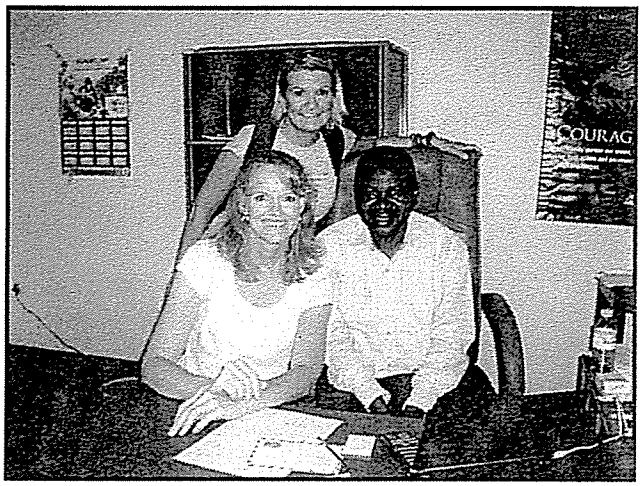
Not all, but so many of the leaders are working against their own people. You must negotiate for everything and you are constantly paying "motivational fees" - that is really the worst (or most aggravating) part.

Beth: What do you think is your greatest accomplishment?
Debi: Getting the job of my dreams, starting Gorilla Golf (which still continues), and helping the people of this region of DRC see their conservation initiatives become successful.

Beth: What are some of your goals for the future for your project?
Debi: Our goals include: to complete the Muyisa orphanage and its self sustaining programs, to support the conservation messages being taught in the local school, to develop feeding programs and medical (doctor, nurse) foreign exchange opportunities with US hospitals for the Tayna clinic, to create a Co-op with the women's association, to continue to develop ongoing relationships with the local chiefs and people of the Kasugho region and to help them initiate their programs and plans for this area. In the future, we would like to expand to other areas of DRC.

Beth: Please give some advice for others that might want to support and/or get actively involved in field conservation?
Debi: It's never too early or too late to get involved. If you want to do something, try it. You will never be successful, if you never try. In the end for me, it came down to passion, and I just had to do more with it. I had just visited Alecia Lilly at her home in Rwanda the month before she passed away. Her passing made me acutely aware of how limited "time" is and if I wasn't going to do it "now" when would I start. Be aware that once you embark on something, it may take on a life of its own and take you in a different direction than you had planned - however, that direction may also be better than you could have imagined!

Beth: This is a bit unrelated but I am always curious about the books that inspire a person to work with gorillas or to work in the field. Could you list some that you would recommend?
Debi: It was actually National Geographic and all their articles on African travel and exploration. In the recent years it has been Leopold's Ghost, Dark Romance, and Blood River.

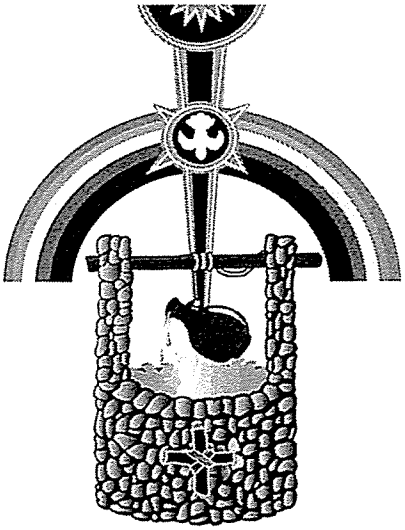


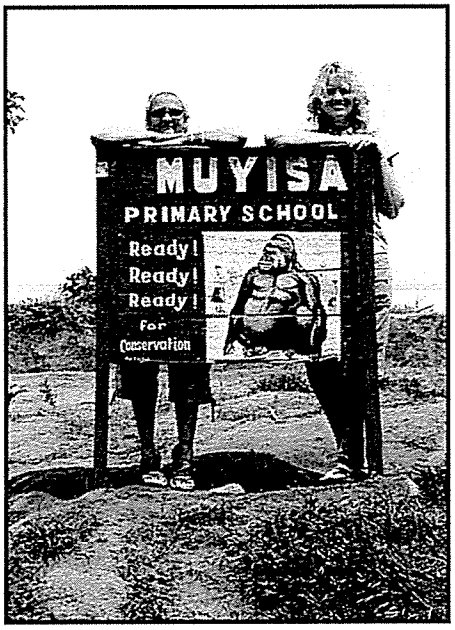
Debi, Mary and Pierre Kakule at the DFGFI offices in Goma, DRC

Debi Mangrum

Co-Founder / Co-Director of
"The Well"
A Division of "No Boundaries International"
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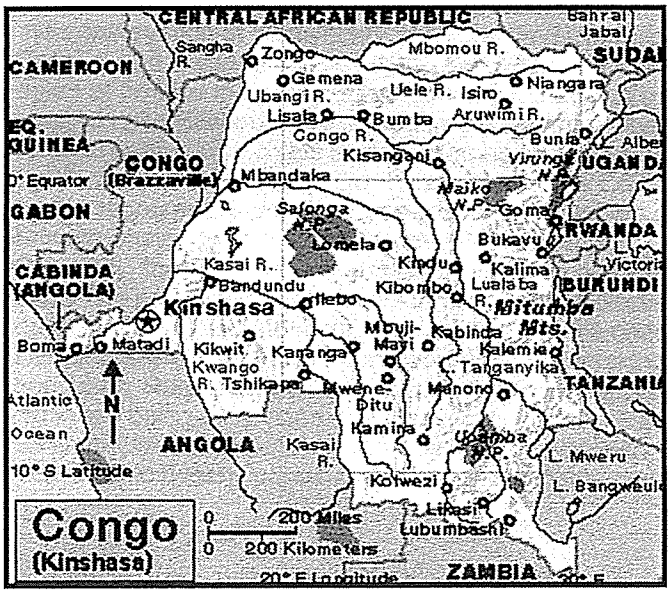
THE WELL... OFFERING HELP, HOPE AND HEALING IN THE DEMOCRATIC REPUBLIC OF CONGO





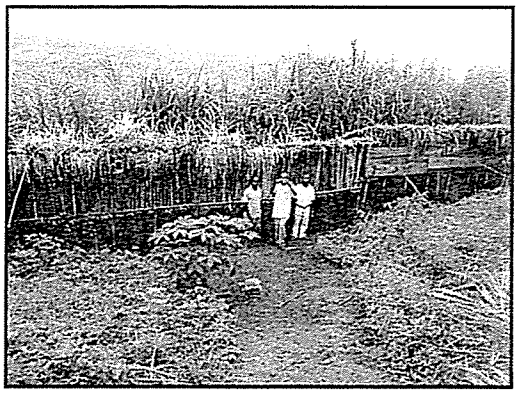
Debi and Mary McFarland, co-founder of THE WELL at Muyisa Primary School, Kasugho, DRC

It has always been my dream to visit Africa, to work with gorillas and to see them in their natural environment. These things all started to become a reality in 1999 when I began working at the "Great Escape" (the Oklahoma City Zoo's Great Ape Facility). I loved my job at the zoo, every aspect of it. It was my job as a keeper that started me on my journey down a new path, a path that seemed all too clear once I began to travel down it. As I got more into my job at the Great Escape, I learned more about In-Situ and Ex-Situ conservation, and how the two go hand in hand. I learned more about the projects we, as a Zoo, were involved in (PASA and Bushmeat Task Force).



In May of 2002, I met Pierre Kakule. Pierre was speaking at the Zoo along with Alecia Lilly and Dieter Steklis about the various projects that Dian Fossey Gorilla Fund International (DFGFI) was working on in Rwanda and Democratic Republic of Congo (DRC). Over the next few months Pierre and I began to communicate via e-mail and started working on a way I (via the zoo) could become involved in helping to save the gorillas of DRC. Pierre is truly a "Man with a Plan"! A local chief himself, Pierre met with the other chiefs in the area and got them to donate a portion of their lands to be used as the Tayna Gorilla Reserve (TGR), with the promise that their community would be helped in return. In 2001 DFGFI partnered with Pierre, and TGR became the flagship project for community conservation in the North Kivu area of DRC. Pierre knew the importance of educating and helping the local population and thereby, helping the animals within the reserve. Through the work of TGR, a university - The Tayna Center for Conservation and Biology (TCCB), the Muyisa primary school for war orphans, a clinic, and two wells for fresh water have been established.

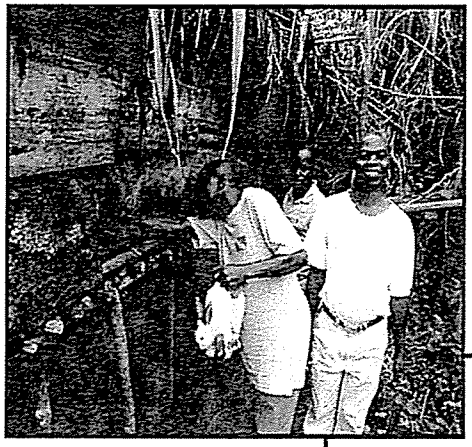
In 2003 with the support of the Zoo and our AAZK chapter , myself and co-chair Mary McFarland organized a fundraiser to aid the work of Tayna: "Gorilla Golf". Over the past 7 years, we have raised $43 thousand dollars to help with the conservation efforts at Tayna. I was able to visit Tayna in 2007 to see firsthand how the money we had sent was put to use.



Rabbit houses with Justin, Paluku, and one of the local chiefs who helps at the site

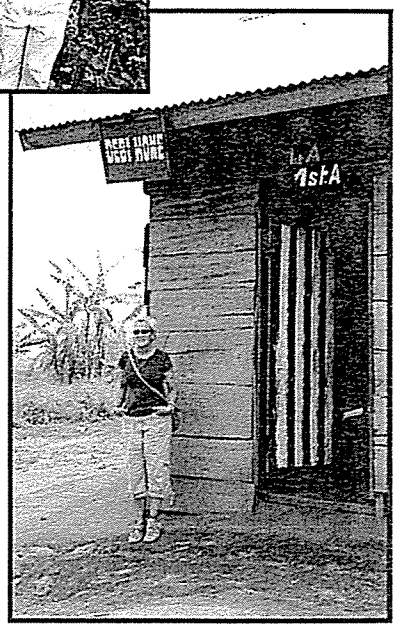


View at Tayna community

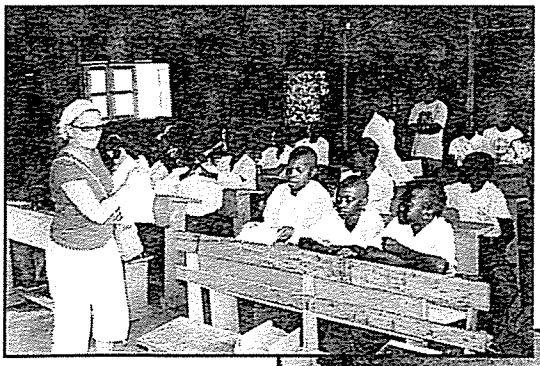


The men who started up the women's association (Justin and Paluku) Rabbits from their protein program. Kasugho, DRC

This trip to DRC changed the lives of both Mary and I - forever. While in DRC, we each adopted a child from The Muyisa school and each spent the next two years doing paper work as we continued to fundraise for The Reserve. In 2009, we were able to return (at the same time) to pick up the children, and when I returned home, just like many years before, I realized I had to do more. I loved the Zoo but could not continue helping this area only on nights and weekends.



Debi at Muysia Primary School, Kaugho, DRC





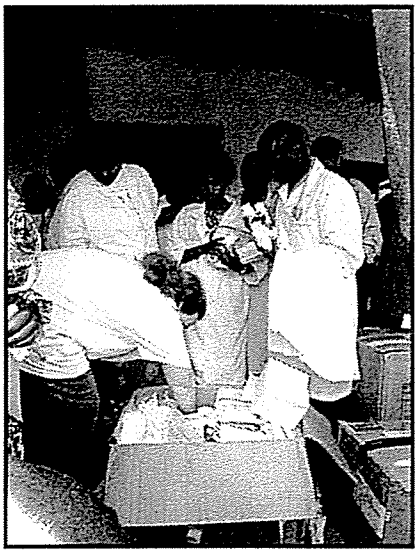
Debi at the Muyisa Primary School, Kasugho, DRC

In July of 2009, I left the Zoo (along with Mary) and joined No Boundaries International to create and spearhead their Congo division - "THE WELL." In October, we signed an MOU with DFGFI and began strategizing on how our organization could really help the people and animals of the area. Just as Pierre realized many years before, the two MUST go hand in hand. We work with the Muyisa Primary School, which has a strong emphasis on conservation in the classrooms starting with the earliest grades.

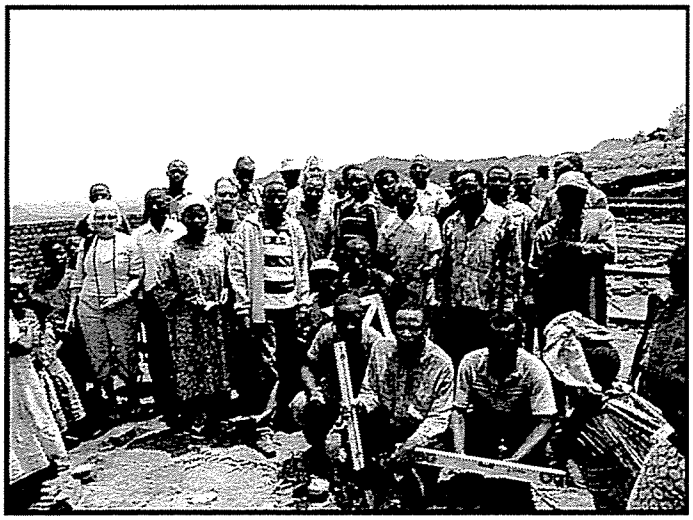
We also help the local clinic by getting support and supplies; on our last trip, we were able to take 7 boxes of supplies, as well as purchase medicine in country. THE WELL partners with a single mothers association in Kasugho. We have purchased sewing machines and material to aid the women of the area (single mothers and victims of sexual violence) through co-op sales in the U.S. They also use this equipment to make and sell items in country. We work with them on agricultural and protein access programs, so they can better feed their families. We have come to the same realization as Pierre, DFGFI and so many others - that community based conservation programs are critically important and that the "marriage" of community and conservation brings success for both. My love for gorillas and the people of DR Congo continues to push me forward, to do more.



Debi with THE WELL and freelance wildlife photographer Robert Garner Trecking Gorillas in Rwanda



Presenting medical supplies at the Tayna clinic (Pictured is Katheryn McCampbell THE WELL medical coordinator, Kasugho, DRC



Orphanage site, Kasugho, DRC

Debi Mangrum

Co-Founder / Co-Director of "The Well"
A Division of "No Boundaries International"
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Correction Box: Please note the correction to the article Assessing A Gorilla Through The Evaluation of Behavior Repertoire And Use Of The Enclosure on pages 41 and 42 of the 2009 Gorilla Gazette. I did not list the authors and their affiliations.

ASSESSING A GORILLA WELFARE THROUGH THE EVALUATION OF BEHAVIOR REPERTOIRE AND USE OF THE ENCLOSURE

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PASA Picks Conservation Veteran to Serve as Interim Director



The Pan African Sanctuary Alliance (PASA) today named Anne Warner, a conservation zoology specialist with over 20 years of experience at major U.S. zoos, to serve as interim executive director.

Warner replaces Doug Cress, who is leaving PASA to lead the United Nations' Great Apes Survival Partnership (GRASP). Cress had been PASA's executive director since 2002.

"I am thrilled by the opportunity to work so closely with the people and organizations on the frontlines of primate conservation in Africa," Warner said. "I have always admired PASA's commitment and I believe it is one of the organizations that truly makes a difference."

Warner was most recently the conservation manager for the Oregon Zoo. Prior to that, she worked as the director of Conservation and Education at the Oakland Zoo, and serves on the steering committee of Zoos and Aquariums Committed to Conservation (ZACC).

"PASA is pleased that Anne can help lead the organization during this period of transition," said Barrett President, president of the PASA Board of Directors. "Anne's experience -- both in the United State and abroad -- will allow PASA to maintain its focus on the rescue and rehabilitation of primates through its member sanctuaries in Africa, even as we grow the organization's base here in the U.S."

PASA will shortly begin a search for a permanent executive director. Warner may be considered for that position.

Warner has spent more than two decades working in zoo-related conservation programs. She is a member of the Association of Zoos & Aquariums (AZA) Field Conservation Committee and serves on the board of the Kasese Wildlife Conservation Awareness Organization in Uganda. Warner has traveled to field sites in Uganda, Malaysia, Papua New Guinea, Guatemala, Peru, Brazil, Kenya, and served two terms on the steering committee of the Bushmeat Crisis Task Force (BCTF).

In 2006, Warner helped organize the International Primatological Society (IPS) Congress in Uganda.

PASA is comprised of 20 member sanctuaries in 12 African countries, which rescue and rehabilitate chimpanzees, gorillas, bonobos, drills, and other endangered primates

PASA

PASA | P.O. Box 86645
Portland, Oregon, 97206-9998 USA

Study Indicates PASA Rehabilitation Strategy Works

Despite the massive emotional trauma they undergo when captured from the wild, orphaned apes at Pan African Sanctuary Alliance (PASA) facilities often make a complete psychological recovery, according to the results of a joint Harvard University and Duke University study released today.

The study is published in the PLoS One scientific journal, and is the surest sign to date that the PASA strategies for rehabilitation are working.

Researchers Virginia Wobber of Harvard and Brian Hare of Duke observed orphaned chimpanzees and bonobos at PASA member sanctuaries in central Africa and found little behavioral, psychological or cognitive abnormalities as a result of the early life stress they experienced.

"We found that orphans showed lower levels of aberrant behaviors, similar levels of basal cortisol, and highly similar performance on a broad battery of cognitive tests as individuals at the sanctuaries," the authors wrote.

They also suggest that the PASA member sanctuaries' rehabilitation program is a key reason that success rates are so high when apes are reintroduced back into the wild.

"This study bears out what we at PASA have believed for years -- that our member sanctuaries provide the best possible care to orphaned primates, despite incredible odds and obstacles," said Anne Warner, interim executive director of PASA. "The sanctuaries' ability to not only bring apes and monkeys back from the brink of death, but also restore social and behavioral instincts is a testament to their dedication."

Wobbin and Hare conducted their research at the Tchimpounga Chimpanzee Rehabilitation Centre in Congo and the Lola ya Bonobo sanctuary in the Democratic Republic of Congo. Apes at those sanctuaries actually exhibited a higher degree of normal behavior in tests than chimpanzees examined at the Leipzig Zoo in Germany.

Most orphans reach PASA member sanctuaries as a result of the illegal bushmeat trade, whereby adult apes are hunted for food and infants are sold as pets. A chimpanzee or bonobo that arrives at a sanctuary has often spent weeks or months living under extreme stress.



But PASA member sanctuaries offer rich social and physical environments – including ad-hoc family groups and forest enclosures that encompass hundreds of acres, in some cases – that help speed the recovery, according to the study.

In one experiment, apes were gauged by the levels of "aberrant" behavior exhibited during mealtimes, such as rocking back and forth or coprophagy, the eating of their own feces. Twelve of the 14 zoo chimpanzees exhibited coprophagy and seven exhibited rocking, while only one of the 25 chimpanzees at Tchimpounga displayed either.

In cognitive tests, orphaned apes performed at the same levels as apes reared by their own mothers, either at PASA member sanctuaries or at the zoo.

PASA is comprised of 20 member sanctuaries in 12 African countries, which rescue and rehabilitate chimpanzees, gorillas, bonobos, drills, and other endangered primates. PASA is a member of the Great Apes Survival Partnership (GRASP) and the Species Survival Network (SSN).

PASA

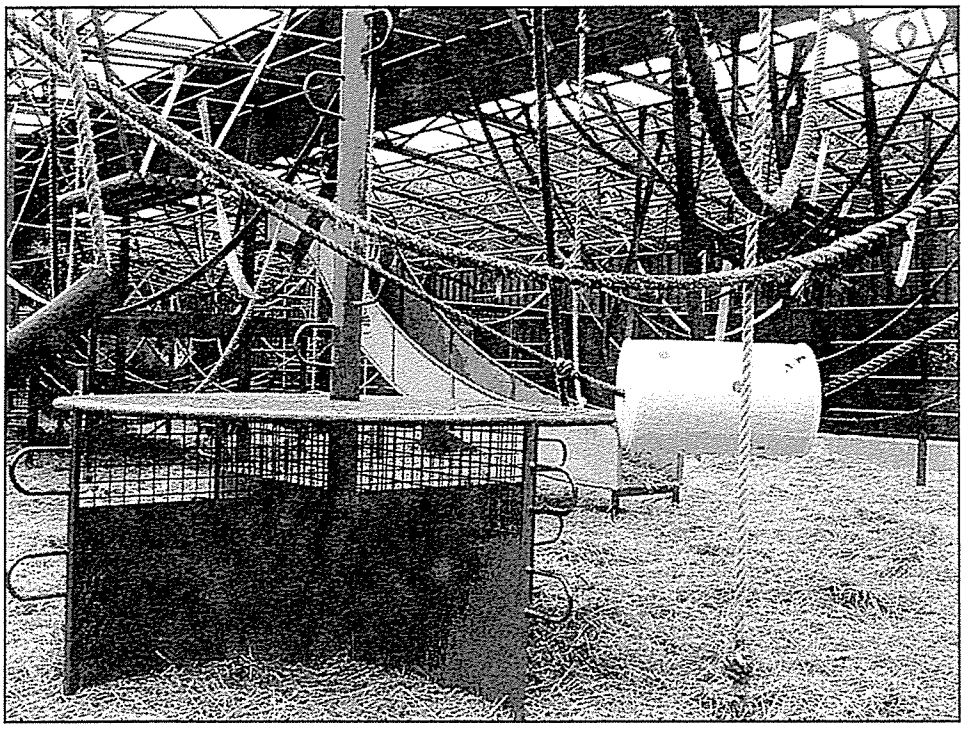
PASA | P.O. Box 86645
Portland, Oregon, 97206-9998 USA

Enclosure Design at Howletts Wild Animal Park

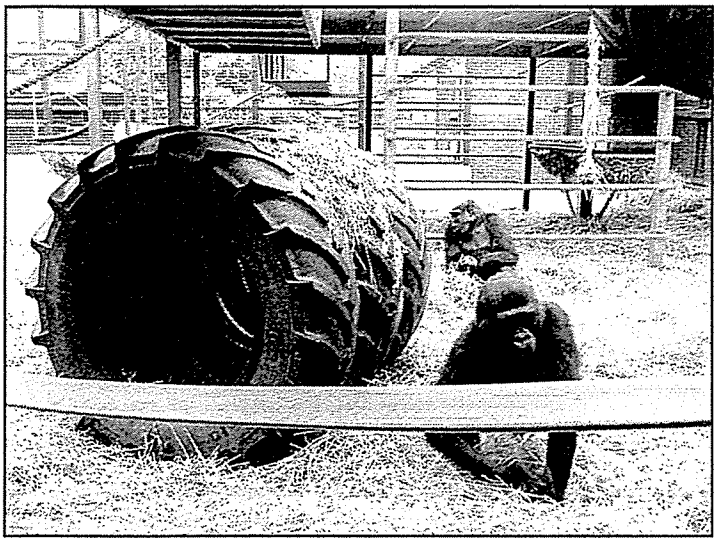
HOWLETTS
THE ASPINALL WILD ANIMAL PARK

The gorilla enclosures at Howletts are primarily designed to fulfil the requirements of our Gorillas (Gorilla gorilla gorilla) and although they are not particularly pleasing to the eye, we feel that the benefits these enclosures provide is well worth the sacrifice. With the exception of our oldest enclosure now over 40 years old all our facilities are based roughly on the same concept of a large outside cage and an inside yard which leads to individual bedrooms. Gorillas have access to these areas via multiple slides/exits. We also have the flexibility to isolate certain sections within each inside/outside area. The outside cages have some permanent furniture such as nest baskets, a network of platforms, visual barriers and honey pots. There is also a network of steel bars called the space frame, these are positioned about a metre away from the top of the cage and run across the entire outside area allowing the gorillas the access the whole roof. The space frame is also our main anchor point for ropes and fire hose and is strong enough to hang large enrichment items from, such as hammocks and swinging platforms. There are 4 main criteria we aim to fill with our enclosures - Social needs, climbing, foraging and nesting.

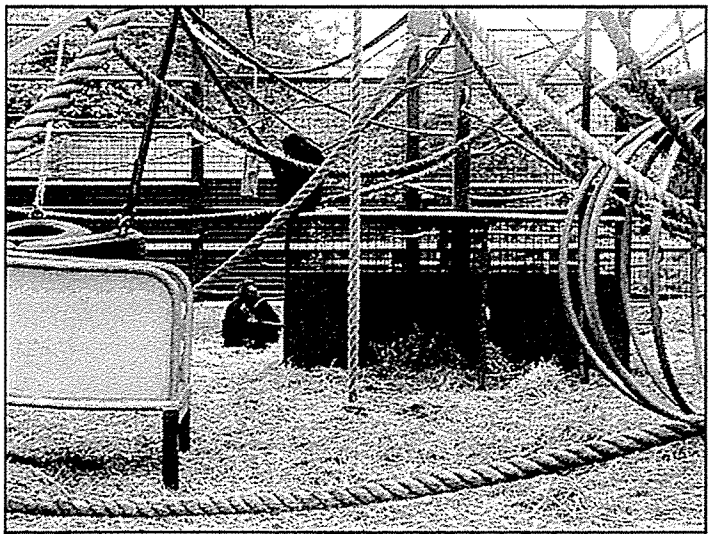
The facilities are designed to hold large social groups, so, features were added such as multiple slides leading from the outside areas to the inside. This allows subordinate animals to move around freely through other slides if a dominate animal is obstructing one slide, or has nested near by. Also if a fight breaks out with in the group there is no-where for an individual to be cornered. Certain areas of the enclosures can be isolated so if needed we can separate an individual or number of individuals with minimum stress. These areas are also invaluable during introductions or veterinary procedures. We try to provide the Gorilla's with as many visual barriers as possible, as we find these have a dramatic effect of relieving tension within a group during times of elevated stress or after a conflict. There are both permanent barriers made from sheet metal, and keeper made barriers made from different materials. For example, tractor tyres bolted together in various arrangements and left on the cage floor which the gorillas can move. Also tyre walls work well, as well as fire hose straps placed close together or hung between two fixed positions. These barriers not only relieve any tension within the group but are also regularly used in play.



Overview of outside cage

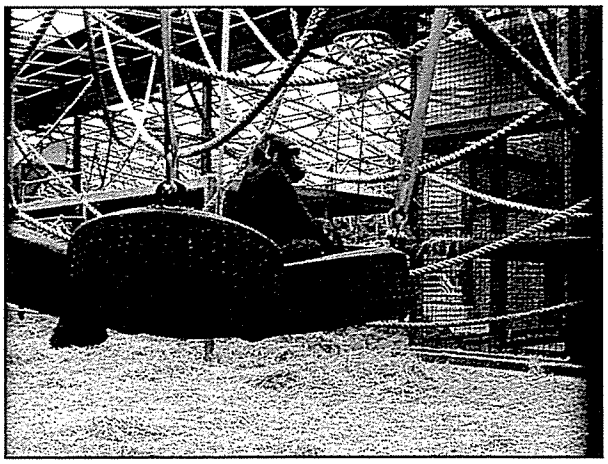


Visual barrier made from tractor tyres.

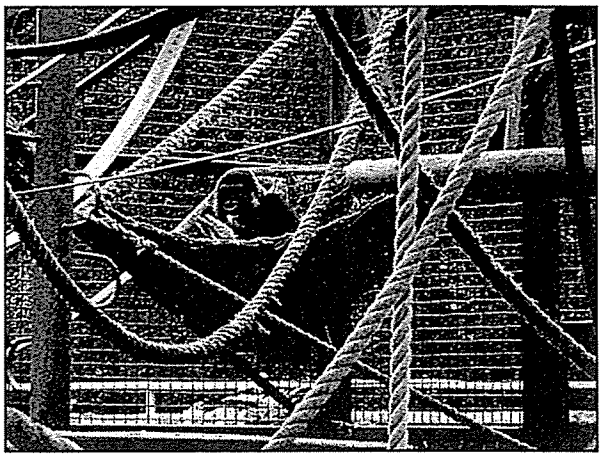


Visual barrier built into cage.

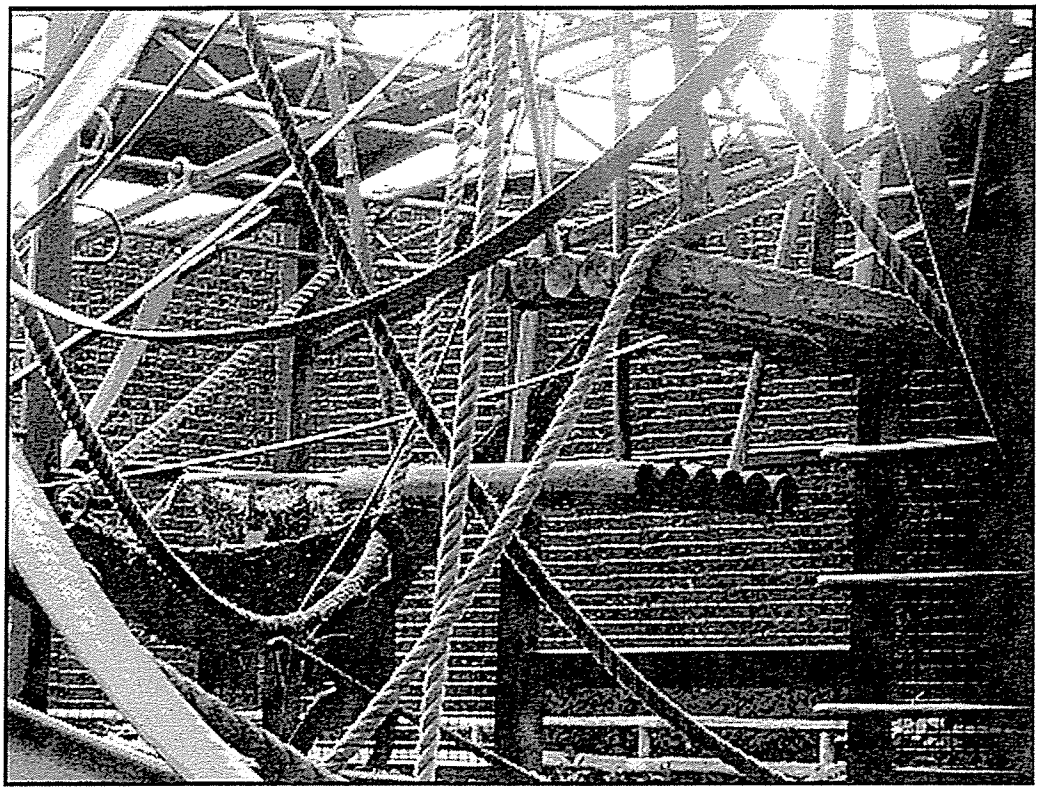
Providing the Gorillas with as many climbing opportunities as possible both static and moving is a high priority for us. As it not only encourages physical activities but also provides mental challenges and maximises the 3 dimensional spaces within the cage. We use a wide range of materials varying in size and textures to provide extra stimulus such as fire hose and rope. When acquiring new rope we will order a range of gages from 26mm to 60mm. Different materials act in different ways, for instance rope doesn't really stretch under the Gorillas weight, but fire hose will. Rope will also shrink massively when wet so its height and length is constantly changing which adds extra variety. We also suspend swinging platforms from the roof at varying heights made from an array of resources such as plywood, larch poles bolted together and large tyres hung horizontally with firehouse straps stretched across the inside.Hanging fire hose hammocks in random positions within the cages (usually undercover) allows ample nesting opportunities for each individual. As a result our gorillas can nest in privacy and just hang out away from the group from time to time, just like they would in the wild. This works well if there is tension in the group or after a fight. When we hang new fire hose, rope etc we try to provide multiple routes for the Gorillas to move between features within the cage, and also to provide escape routes encase a fight breaks out. The indoor bedrooms also give the gorillas another area of privacy away from the public. Permanent nest baskets are located outside at various positions, some are more popular then others but they are all generally used. Inside we provide them with fire hose hammocks and more platforms. After cleaning we provide fresh barley straw as a nesting material.



Platform made from old tyres.



Fire hose hammock.



Platforms made from larch poles.

We use deep litter straw as the substrate outside, this provides the gorillas with an endless supply of nesting material and promotes natural foraging behaviours. As part of our daily routine we will hide one of their a.m. feeds in the deep litter and spread some across the platforms. Also when we are feeding items such as celery from the roof we will cut half to a quarter of the feed small enough to fall through the roof mesh and get lost in the deep litter below. We also give them scatter feeds such as grapes, nuts, seeds, cereals etc, and as a result our Gorillas spend most of their day active and foraging. This has two major positives, one of which is keeping them active for the public and also burning off all those important calories. The other is giving them a natural behaviour to focus on, helping to relieve any tension within the group and also relieving boredom. Placing food on the platforms allows the gorillas to forage on different levels, we find that feeding in this way allows juveniles and subordinate animals to get an adequate amount of food away from more dominate individuals. Feeding from the roof means that the Gorillas have to climb to access the food making them use their upper body muscles.

All photos by the author

Although Howletts enclosures do not have a naturalistic look we feel they provide the gorillas with a good simulation of their natural habitat and promotes them to perform natural behaviours.



Female Tambabi in a very large straw nest.

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HOWLETTS
THE ASPINALL WILD ANIMAL PARK

Brevard Zoo's Ape Conservation

BREVARD ZOO

Pan African Sanctuary Alliance (PASA)

12/03	Puppet Suitcase /Limbe Wildlife Centre Cameroon	500
04/04	Puppet Suitcase for PASA Sanctuary	500
2005	3 Puppet Suitcases – 3 sanctuaries	2700
2005	3 Puppet Suitcases – Zambia, Congo, Uganda	2400
2006	Puppet Suitcase – Drill Ranch, Nigeria	800
2006	Drill Ranch Support	721
05/06	PASA Support	500
2006	Artist Fee for PASA Coloring Book	560
2007	Puppet Suitcase for Ngamba Island Uganda	900
2007	Graphic Designer Fee for Coloring Book	300
11/07	PASA Support	500
1/08	Sponsorship of PASA Rep, Jet James Fawoh to GW	500
2/08	Puppet Suitcase for Chimp Eden/JGI S. Africa	800
2008	PASA Support	600
10/08	Two Soccer Uniforms for CWAF & Lola	1200
11/08	16 Soccer Uniforms for PASA Sanctuaries	21,000
12/08	Small Puppet Suitcase for DRC Gorilla Centre	400
12/08	Small Puppet Suitcase for Rwanda School	400
04/09	GRACE Sanctuary -DRC	3600
03/09	LWC – Holiday Workshops & films	10.000
05/09	JACK Sanctuary, DRC - Puppet Suitcase	900
05/09	Sweetwaters Chimp Sanctuary, Kenya - Puppet Suitcase	900
TOTAL		**$50,181**



Club Pan, Ivory Coast,
Photo courtesy of Club Pan



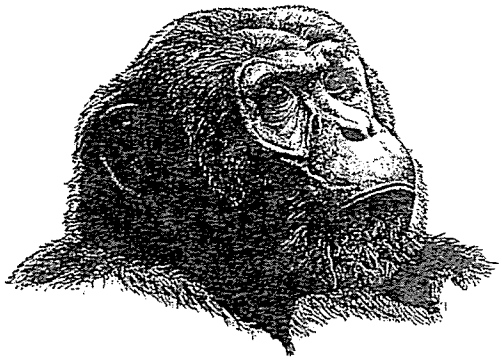
Male chimpanzee,
Photo courtesy Goualougo Triangle Ape Project



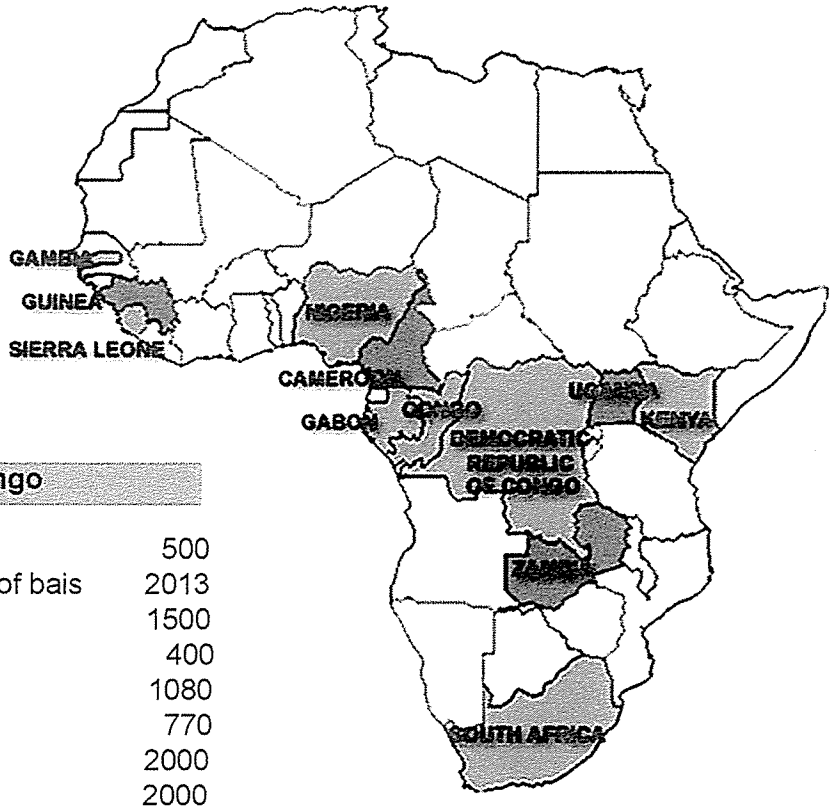
Kasiisi Education Project - Kids with puppets
Photo courtesy of Elizabeth Ross



Gorilla,
Photo courtesy Goualougo Triangle Ape Project



Male chimpanzee artwork used for Kasiisi soccor and netball teams, Uganda. Artwork by Chris Lutmerding, courtesy of Columbus Zoo



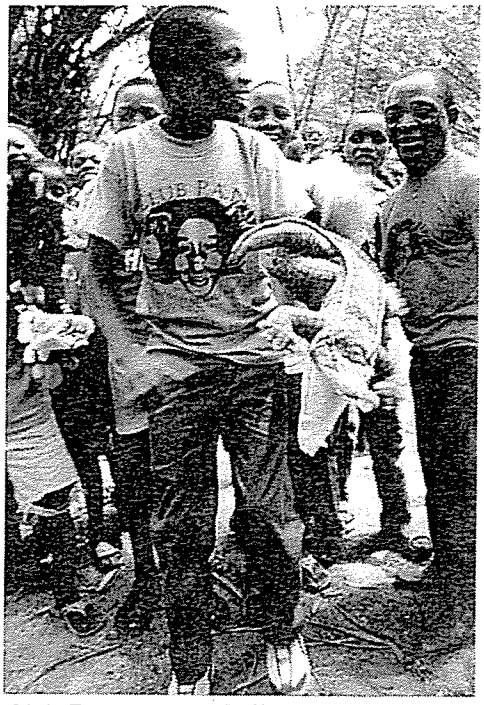
Countries highlighted where PASA Member Sanctuaries are located.

Gorillas/Club Ebobo – Republic of Congo

02/02	Puppet Suitcase – Club Ebobo	500
06/02	Mbeli Bai Gorilla Study – Research of bais	2013
08/03	Salary for Congolese Educator	1500
08/03	2nd Suitcase – Club Ebobo	400
2005	Club Ebobo Support	1080
2005	Club Ebobo Support	770
06/06	Club Ebobo Support	2000
02/08	Club Ebobo	2000
02/08	Club Ebobo	600
11/07	Soccer Uniforms /Bisate School - Rwanda	500
11/07	Soccer Uniforms/Rushubi School - Rwanda	500
11/07	Partners in Conservation – Rwanda, via JH	2000
12/07	Puppet Suitcase for Bisate Scool - Rwanda - DFGFI	800
12/07	Puppet Suitcase for Rushubi School - Rwanda - DFGFI	800
12/09	Club Ebobo	2400
TOTAL		**$17,863**

Goualougo Triangle Ape Project, Republic of Congo

03/01	GPS Unit, GPS Antenna, Computer	1000
08/03	Equipment & Infrastructure Support	3240
01/04	Equipment & Infrastructure Support	3200
2005	Grant awarded	1940
2005	Medical needs of Congolese staff	560
2005	2005 ZACC Registration	185
2005	Flight/Accommodations to 2005 ZACC	1293
06/06	Grant awarded	2000
12/06	Grant awarded	2020
12/07	Grant awarded	2300
12/08	Grant awarded	500
07/09	GTAP Infrastructure Support	2300
12/09	Bomassa Community Library Build	2100
06/10	GTAP support	300
TOTAL		**$22,938**



Club Pan, puppet Suitcase provided by Brevard Zoo, Photo courtesy of Club Pan



Kasiisi Education Project,
puppets provided by Brevard Zoo,
Photo provided by Elizabeth Ross



Goualougo Triangle Ape Project
researcher, Congo,
Photo courtesy of GTAP

Bonobo – Democratic Republic Congo

12/01 10 pair of Binoculars (Lukuru Research Project)	512
TOTAL	**$512**

BREVARD ZOO

Kasiisi Education Project, Uganda

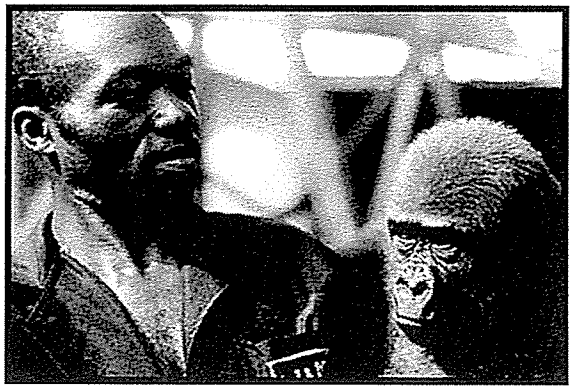
2009 3 chimpanzee puppet suitcases	2000
12/09 Netball & Soccer shirts for 5 school teams	1462
TOTAL	**$3,462**

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PASA

PASA Crisis Fund

Please see insert to help assist PASA in its efforts to save injured and orphaned primates in Africa!



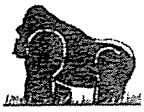


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