

THE SHAPE OF ENRICHMENT

A Quarterly Source of Ideas for Enrichment

A Change in Perspective: Providing Enrichment for Hamadryas Baboons

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At the National Zoo in South Africa, one of our aims is to create an ongoing program of safe and easy enrichment that can be added to the management plans for each species and form part of daily husbandry. For one of our species, a group of 1.3 Hamadryas baboons, we noticed that



Hamadryas baboon (*Papio hamadryas*)

they were not very active and the females were a bit obese. We had also noticed stereotypic behavior in the male, as well as aggression

between the females, which sometimes resulted in serious fights. To deal with that, we put the females on contraceptives to prevent them from fighting, which did reduce the aggression. But we wanted to do more for Screamer, Boesman, Jakkie, and Rambo.

To increase the well-being of our baboon group, we wanted to increase their foraging behavior, further decrease aggression, and reduce boredom and stereotypic behavior. We also wanted the animals to use all the space in the exhibit and we wanted to provide them with more privacy. We decided to use the African SPIDER

model to advise us on how to set goals, plan, implement, document, evaluate, and re-evaluate the process. We also looked at various items that need to be taken into consideration when planning and implementing the program for the baboons.

- Habitat: Species natural habitat, control over aspects of exhibit, enclosure barriers and areas for privacy, movement in the exhibit
- Behavior: Defensive, social, competitive, reproductive
- Feeding: Food habits, foraging needs, food presentation, feeding times, diets
- Individual histories and capabilities

We decided to add furniture to the exhibit to meet some of the enrichment goals. We added firehose hammocks, feeding tables, wood stumps with hiding places, and an area of woodchips to explore. We also determined new ways to provide food and encourage foraging: providing whole food instead of chopped; wrapping food in newspaper; putting food in pinecones; and placing or hiding food in new areas of the exhibit.

Baseline Observations

With the help of students from a local university, we observed the baboons for four full days in order to establish their daily routine. After that, we continued observations and baseline data collection each day for two weeks, eight minutes in the morning and eight minutes in the afternoon. Observation forms were turned in to the curator and kept for evaluation.



We found that the animals were active in the early morning, searching for food. But after feeding,



Top: Firehose hammock and foraging. Below: Placing wrapped packages with food inside.

But after feeding, they would just sit around or start chasing each other aggressively. The rest of the morning was spent sunning, grooming, and sleeping. The same pattern was observed in the afternoon.

We identified behaviors that we would like to enhance or change and created short-term and long-term goals. Enhancing foraging, encouraging usage of the whole exhibit, and increasing

the activity budget were our main goals for the Hamadryas baboons.

Enrichment Observations

We then began providing the different enrichment items, observing and recording the reactions of the group to the following: newspaper activity,

food-searching activity, providing whole foods, pinecone activity, and wood-chip activity. We also indicated which animal took the lead in each activity. We conducted the enrichment program and data collection



for three months. Each morning, remains of the enrichment from the day before were removed and new enrichment items were added to the exhibit.

Results

Food wrapped in newspaper

All the animals joined in this activity and handled the packages. We observed some suspicion in the beginning; the male in particular did not take to the packages immediately, but he did watch the females unwrap theirs first and then went to check the contents. The second time this activity was offered, he was first in line to handle the packages. As we continuing offering this activity, we saw a lot of food sniffing, carrying food around, and protecting food from one another. With this activity, all the animals in the group were more active.

Distributing food and placing it in new locations

Searching for food created a lot of excitement as well as competition, and the animals were more active for the rest of the day. They only relaxed during the hottest time of the day for a resting period. Grooming also became more intense after the activities, so the animals bonded more regularly. Less aggression was observed. We also noted that before the enrichment program started, the females searched for food the most, but after the program, the male now does more searching.

Providing whole food instead of chopped

The animals handled the food more, sniffed at it, and played with it before eating it. We observed a lot of food carrying and hiding food from other group members. The group also used most of the exhibit areas as they searched for more food. A definite increase in activity was seen in the whole group.

Pinecones

With food offered in pinecones, all the animals were more interactive and busier during the day. The male would rush to the pinecones and try to get to all of them first, as well as take some away



from the females. But the females stood their ground, and all got to partake in the activity.



Woodchips

This item was the most popular with the group and created the most activity and interactions. Even the day after or a few days after the item was used, the group continued to check the woodchip area to see if any food was left or put into the area, even though other items were being

introduced for that specific day. The woodchip activity brought out the most foraging behavior within the group.

We found that the animals quickly familiarized themselves with the items used in the program and when to expect which items. Each indi-

vidual definitely has his or her favorites, with the woodchip area as a general favorite.

Changes in Behavior

We have seen definite changes in the behavior of individual animals and in the group dynamics. The male became less possessive over the food items and had

to join the females in searching in order to get his share. He did not just walk over to a female and take her items away. The females also had more chance to sit and enjoy their food. Previously, they would have to eat fast and hide or protect food from the male. Less aggression was seen in the group, and all got their equal share of food



Conducting observations and recording data.

and activity. The whole exhibit is now being used for foraging, and the previous behavior pattern of sitting around sunning and resting for most of the day has been broken—the animals now have a much more balanced activity budget.

Conclusions

According to our Hamadryas team, we definitely reached our short-term goals concerning the baboon group. We created more activity within the group of animals and broke their usual resting, sunning, and “lazy” pattern. We were also able to identify the favorite activities of each animal and stop the aggression and stereotypic behaviors that we had seen previously. Creating this program also helped us determine the long-term goal of encouraging more natural behavior in the Hamadryas group and guided our perspective as to what we needed to focus on in order to create the best results.

This program was also used as a training program to introduce easy and non-time consuming enrichment for primates at our zoo. We wanted to show employees that enrichment should not always be hard work, and even the simplest item can create great results.

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