

# **Reorganization And Development Of The Nutrition Department At The Buenos Aires Zoo (1991 – 2001)**

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## **INTRODUCTION**

The objective of this presentation is to describe modifications of nutritional management at the Buenos Aires Zoo from 1991 to present (2001). As with other Latin American zoos, our resources are limited; however we have made strong efforts to overcome financial, technical and organizational difficulties. In 1991, the basic management was in the hands of the keeper, who decided what each animal should be fed (quality and quantity) with no real data recorded as to type or quantity of feedstuff, or frequency of feeding. Presently, we have instituted a more organized, planned and controlled management scheme, allowing the veterinary, biological, nutritional staff to work closely with the keepers with one common objective or goal: to improve the life and conditions of the zoo animals.

## **Development**

The evolution of these changes occurred in three stages over time, as outlined below:

Stage I : 1991 - 1993

- Compilation of the pre-existing diets from the keepers themselves (few written records were available)
- Scales were utilized in the formulation of the diets, to maintain consistency and to record the volume fed daily
- A dedicated nutrition staff was formed, whose sole purpose was to oversee diets and nutrition of the animals.
- Written diets for each animal or group of animals have been established.

Stage II: 1994 - 1997

- Specific diets were made for carnivores, herbivores, avian, reptiles, and primates; one member of the nutrition staff was made responsible for each of these diets.

- Each specific diet was prepared, labeled, and delivered directly to the keeper to avoid potential confusion
- Weekly dietary alterations were established for carnivore and primate diets, to add variety in feedstuffs.
- A dietary supplementation program was instigated in herbivore, primate, carnivore and avian nutrition programs.
- A Laboratory Animal's Place was built, where rat and mice production is made, to be used as food.
- Development of nutrition record procedures in each of the confines allowed the keepers to note detailed observations such as amount consumed, preferred feedstuff consumed, feedstuff refusals, etc. These records provided the first alimentary history of each animal or group, and allowed modification of the diets based on factual recorded information.
- A Pest Control Program is made in every place where food is stored.
- Environmental enrichment related to food items is made in some carnivorous and primates.

#### Stage III 1998 - 2001

- Nutrition Area works closely with biology, veterinary and keepers areas.
- Rabbits and insects are bred to be utilized in diet formulation.
- The Environmental Enrichment Area was developed as a subgroup from the Nutrition Area. This new subdivision initially worked exclusively on alimentary management.
- Computerized zoo nutrition programs are initiated in diet design process.
- Continuing education presentations are made to zoo personnel, local students, and the general public to inform them of the importance and necessity of a Nutrition Department in each zoo.

### **CONCLUSIONS**

The nutrition department in our zoo, has today a full-time staff, dedicated completely to this matter, from the food reception to the delivery of the previously designed diets to each animal or group of animals. Diets and consumption are regularly re-evaluated considering the feedstuffs available and the health and condition of the animals consuming this diet. Diets must be continually evaluated and adapted, as there is no one single diet which will sustain or support an animal throughout its life. The diet evaluation also leads to a decrease of budget, avoiding the wasting of food and money.

Unplanned and unsupervised feeding will very often result in social unrest and fighting in group-living animals. The management and movement of large or

potentially dangerous animals in captivity very often revolve around feeding. Having obtained a good organization, for the last three years we have made strong efforts in the design and analysis of diets and ingredients, in order to cover the requirements of the different species more suitably, considering not only the bibliography about zoo nutrition but also the normal situation in our country for acquiring ingredients, technology, elements, and the particular characteristics of our animals.

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