



toronto
ZOO



FEEDING TIME AT THE TORONTO ZOO

Feeding Time at the Toronto Zoo

Number of Vertebrate Animals: Approximately 6,000

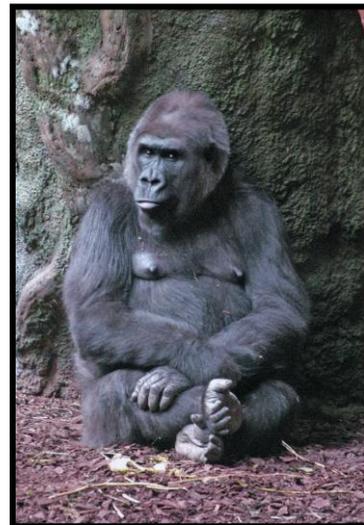
Food Costs: Approximately \$900, 000 per year

Weight of Food: Approximately 1000 to 1500 kg per day

Wildlife Nutrition Centre Staff: 7

May 1 - Oct 31 Public Feedings:

- African Penguin
- Cheetah
- Giraffe
- Grizzly Bear
- Indian Rhinoceros
- Lake Malawi Aquarium
- Lion
- North American River Otter
- Orangutan
- Polar Bear
- River Hippopotamus



Nov 1 - Apr 30 Public Feedings:

- African Penguin
- Cheetah
- Lake Malawi Aquarium
- Lion
- North American River Otter
- Orangutan
- Polar Bear

FORMULATING A DIET:

Proper nutrition is vital to keeping animals healthy. The Toronto Zoo employs a full time Nutritionist, as well as six additional nutrition staff, whose responsibility it is to not only prepare food for over 5000 animals daily, but also to determine exactly what each animal needs to eat and how much of it.

When formulating a diet for an animal at the Zoo, it is important to know what that animal would eat in the wild so that its nutritional requirements can be met. Through years of research studies and collaboration with other zoos, the Toronto Zoo has fine-tuned the roughly 500 different diets it prepares to match the wild diets of animals as closely as possible using locally-available food.

For example, in Africa, lions prey upon many different species of herbivores, including zebras. At the Zoo, the lions are fed a special feline (cat) carnivore diet that consists of horse meat, vitamins, and minerals, as well as bones and whole animals, such as rabbits. As carnivores do not always eat daily in the wild, carnivores at the Zoo often have one or two ‘fast’ days, where they are given a bone to chew on, instead of meat. Many hoofstock species at the Zoo, such as zebras and Przewalski’s horses, receive specially-prepared pellets, in addition to their daily ration of alfalfa and timothy hay, fruit, and vegetables. These compacted pellets, known as herbivore cubes, are composed of hay, grains, vitamins, and minerals.

Many herbivores at the Zoo, including giraffes and gorillas, receive large quantities of “browse” on a daily basis. Browse is a type of grazing feed and refers to edible leaves, bark, buds, and flowers from trees and shrubs. In recent years, the main source of browse that the animals seem to love is from apple, willow, and poplar trees growing on a nearby Zoo-owned orchard. Results from recent studies led to the implementation of a year-round browse program, where browse are preserved during Summer and Fall and fed to animals in the Winter and Spring when the Ontario climate doesn’t allow for fresh browse.

PREPARING THE FOOD:

At the Toronto Zoo, all food is prepared centrally in the Wildlife Nutrition Centre, which is essentially a very large kitchen. Working from detailed menus for each species, staff assemble specific diets for the animals by weighing and measuring each type of food in the diet. Over 500 different menus have been created. Separate meals are prepared for each individual animal or for each group, depending on how the animals are fed. This allows for a particular animal's diet to be adjusted. For instance, extra nutrients can be provided for a pregnant or nursing mother or medicine for a sick animal.

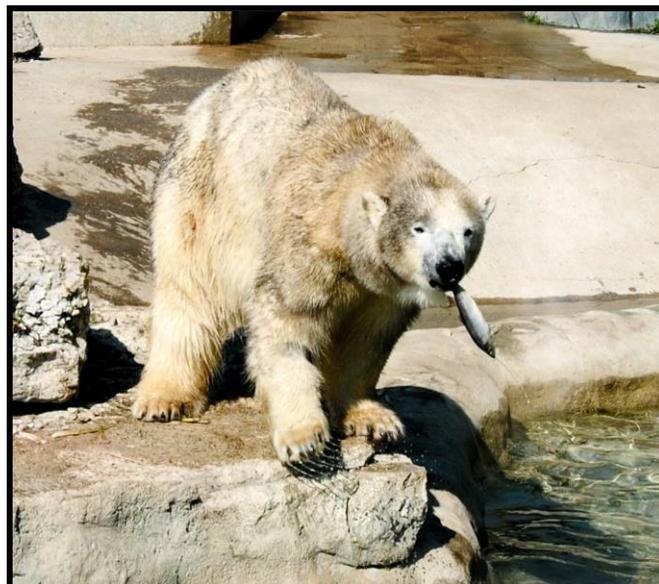


Food provided to the animals is of the highest quality, and many food items are actually suitable for human consumption. With so many different species at the Zoo, the types of food provided to the animals are varied and includes:

- Fruits
- Vegetables
- Browse
- Seeds and nuts
- Grains (e.g. alfalfa and timothy hay)
- Herbivore pellets
- Crickets
- Mealworms
- Bean Beetles
- Brine shrimp
- Fish
- Whole animals (e.g. mice, rats, rabbits, chicks, quail)
- Various carnivore diets (horse meat + specific vitamins and minerals)
- Bones



Chopped fruits quickly dry out and spoil if not consumed right away, which poses a problem for the fruit-eating birds at the Toronto Zoo. Nutrition staff have developed a unique method of keeping the fruit fresh for longer periods of time- a special mixture of gelatin, chopped fruit, vitamins, and minerals. In addition to keeping the fruit fresh and tasty, this gelatin mixture ensures that the birds receive the proper amount of the vitamins and minerals to keep them healthy. Similar food methods have also been devised for various turtles, reptiles, amphibians, fish, and bats.



FEEDING:

Once the diets are prepared, they are packaged into bins for each separate area of the Zoo and nutrition staff deliver them every morning (at 6:00 am!). Responsibility is then passed over to the Wildlife Care staff ('the keepers'), who must ensure that each animal gets its full share of allotted food. An important part of their daily tasks is to observe whether an animal does not seem to be eating with its usual appetite. Just like humans, this is often one of the first signs of illness.

Feeding may take place at any time of day, although many animals are given the main parts of their diet first thing in the morning and/or in the evening. Additionally, many animals, including the large carnivores, gorillas, and orangutans are fed individually in separate areas to avoid fights over food.

Toronto Zoo staff have worked hard to develop enrichment programs for every animal at the Zoo, with the aim of having the animals work for their food, while mimicking their natural hunting and gathering methods, rather than simply providing the food in one place. Enrichment includes scattering food on the ground, hanging it up high, or hiding it in something or in several locations in the exhibit. Providing the animals with new or unique foods, such as pumpkins at Halloween, or different scents (e.g. cinnamon, various herbs) are other forms of enrichment.

ZOO MENUS

Tiger (female):

- 6 kg Toronto Zoo feline meat diet- every day, except Tuesday
- 1 shank bone- Thursday
- 1 rabbit- Tuesday

Giraffe (each, daily):

- Unlimited browse
- 4 kg herbivore pellets
- 2.5 kg alfalfa hay
- 2.5 kg timothy hay
- 90 g apples
- 120 g onions
- 30 g bananas
- 100 g yams
- 60 g parsnips
- 40 g red beets
- Vitamin E

Royal Python:

- 25 g mice- Wednesday
- Vitamin E

American Alligator: (each)

- 225 g herring- Saturday
- 1 (490 g) large rat - Saturday
- Thiamine tablets in each fish
- Vitamin E capsules in each fish

Northern Bald Eagle:

- 700 g horse meat- Monday
- 300 g Toronto Zoo plain carnivore meat diet- Tuesday and Friday
- 300 g 6" neck bone- Tuesday
- 5 (100 g) mice- Wednesday
- 4 (140 g) chicks- Thursday
- 1 (200 g) herring- Thursday
- 1 (750 g) small rabbit- Saturday
- 1 (300 g) large rat- Friday

