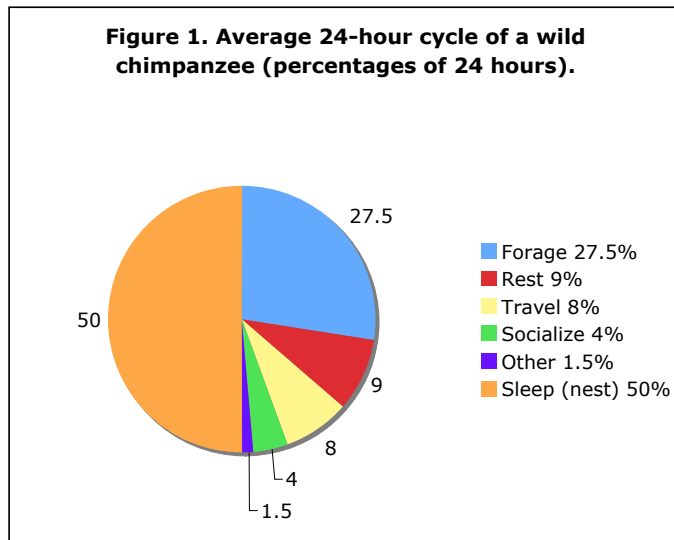


What chimpanzees do?



Linda Brent: the care and management of captive chimpanzees

FORAGING and diet for captive chimpanzees

What is foraging? Foraging doesn't equal eating!!!!!!!

Foraging is one of the most frequently found species-typical and time-consuming behaviors. Is a time consuming event (27.5% overall) involving:

- **Searching for**
- **Retrieving or acquiring**
- **Processing food**



In the wild chimps are mainly fruit eaters, plus leaves, pith, seeds, flowers, insects and meat. The chimps at Gombe kill and eat as much as one-third of the colobus population in the park each year. This alone was a major scientific find which challenged previous conceptions of chimp diet and behavior.

In captivity

What should be in the diet?

Diet usually contains less carbohydrates and fiber in captivity.

- Fruit (apples, oranges, melons, bananas, mangos, berries, etc.)
- Vegetables (cabbages, lettuces, cucumbers, carrots, yams, sweet potatoes, celery, etc.)

- Browse (mulberry, willow, bamboo, tipu, sugar cane, carob, elm, pine, acacia, mesquite, sissoo, salt seeder, palm fronds, etc.)
- Commercial primate diet (monkey chow)
- Herbs (basil, catmint, lavender, rosemary, etc.)
- Seeds (milo, rice, popcorn, parrot mix, sunflower, nuts, etc.)
- Insects (mealworms, wax worms, super worms, grasshoppers, crickets, etc.) and invertebrates

Mealworms



http://www.drsfostersmith.com/product/prod_display.cfm?pcatid=6463&cmpid=07csegb&ref=3312&subref=AA&ci_src=14110944&ci_sku=082041600000

Super worms



http://www.wormman.com/cat_superworms.cfm

Earth worms



<http://en.wikipedia.org/wiki/Earthworm>

Snails



<http://en.wikipedia.org/wiki/Snail>

- Eggs (chicken, quail, duck, etc.)
- Milk products (milk, powdered milk, yogurt, etc.)
- Fruit juice
- Vitamins and minerals
- Grains (bread, cereals, etc.)

How to make chimpanzees forage for the longest time?



No..... not like this! But, by teaching them to “work for their food” (**contra freeloading**).

To promote psychological well being it is not sufficient to merely provide a nutritionally adequate diet.

Diet distribution is one the most important part of foraging. Chimpanzees spend the largest proportion of their waking day with foraging (Gombe 47-60%; Thai 54%; Mahale 30%)

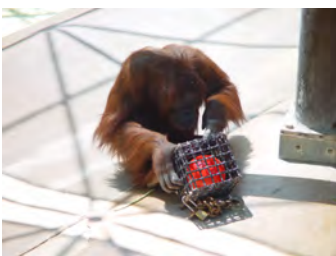
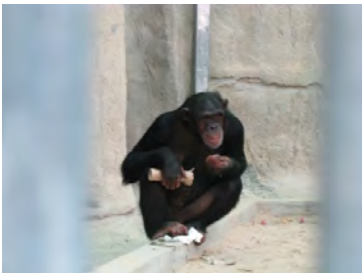
- Increased feeding times (4-5 times per day).
- Chopped up diet scattered in floor, but not diced as small that the chimps would not bother gathering them
- Substrate use for hiding diet



- <http://www.youtube.com/watch?v=t13KD3Uf9QM&feature=related>
- Browse is one of the most important elements of foraging. It extends foraging time to hours, provides fiber and practically has no calories. It is also the best element for nest building.



- Foraging devices are range from feeder boxes, acrylic food puzzles feeders, to various shaker boxes, toys and peg boards placed outside enclosures where food has to be manipulated with “tools” to pull it through the peg maze. Foraging devices can be made more complex by suspending them. Different species, age groups, and individuals may prefer different types of foraging devices (C. Wattson 1997). Not all foraging devices are effective in a given situation (Lutz and Farrow 1996), and facilities may need to try several methods. Sometimes devices could be as simple as cardboard/cereal boxes, etc., paper towel tubes, plastic barrels, boomer ball feeders, bucket feeders, home made puzzle feeders such as mesh feeders or purchased plastic and metal feeders.



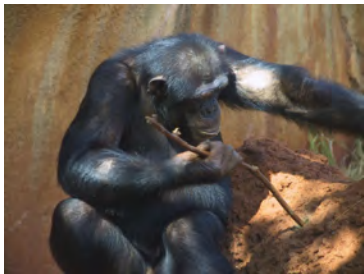
- Tool use

Chimpanzees have incredible motor skills and learning abilities. They can use tools and even make tools.

Simple vs. complicated

Instead of trying to create fancy looking foraging devices, staff should consider the chimpanzees' natural behaviors and enrich them in simple, logical ways.

Stick + Plastic container= Free cognitive enrichment that even an infant can use!



- Varied the feeding schedules. Feeding times should be unpredictable to reduce inactivity.
- Varied the locations (food on the grounds, on the trees, behind furniture's, in substrate, etc.)
- Hunting. Chimpanzees are active hunters.
<http://notexactlyrocketscience.wordpress.com/2007/03/01/chimpanzees-make-spears-to-hunt-bushbabies/>
<http://arkive.org/chimpanzee/pan-troglodytes/video-sc08d.html>



They need animal protein which is usually provided by monkey chow and eggs. Besides these items they can be given small carcasses such as chickens, ducks, pigeons, quails, etc. **Anything that moves in a fast speed is excellent for eliciting hunting behaviors!!!!!!!!!!!!!!!!!!!!!!**

Crickets/locus, etc.



[http://en.wikipedia.org/wiki/Cricket_\(insect\)](http://en.wikipedia.org/wiki/Cricket_(insect))