Environmental Enrichment for Brown Bears

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We have three European brown bears (2:1) in our collection that were donated to us by Stichting Pantera, a Dutch Rescue Centre. The bears are all around 6 years old. As cubs they were in a German circus, but before they could be trained, the circus trainer died. The circus owner kept the cubs for a couple of years while he searched for another trainer. Finding none, he gave the animals away to Stichting Pantera. This Rescue Centre could not interest any European zoo in proving a permanent home for the bears, as most European zoos already have this species. The bears lived in the Rescue Centre for nearly two years until they came to us last year as young adults. The males had been castrated to prevent breeding and these 3 bears primarily have only a display and educative value.

Before the bears arrived we built a simulated natural habitat enclosure for them, on a hill side with a fair number of trees. The enclosure is rectangular in shape, about 40 meters long and 10 meters wide. A water pond with a waterfall, "fallen" trees, natural substrate and rocks strewn all over the enclosure form the main design features. Electric fencing prevents the bears damaging the trees and trying to climb out of the enclosure.

For the bears, having lived all their lives in cramped quarters, first in the circus and then in the Rescue Centre, our enclosure has proved to be a welcome change. They are generally quite active and have not developed any stereotypic behaviour. Only one of the males displays a set behaviour pattern just before feeding time. He comes upto the slide gate through which the bears come into the night quarters and standing on his hind legs, he paws the slide gate continuously with his front paws. This action lasts for only a brief period of 5 minutes or so before we let the bears in, but still we are thinking of a way to discourage this behaviour.

As the bears are generally active and walking around all the time, one has to devise many different and novel environmental enrichment schemes. During the hot summer we provided the bears with ice blocks with fruits frozen in them. Scatter feeding is done all the time, with the feed items spread out in the morning before the bears are let out.

Our experience has shown that scatter feeding is a very good enrichment idea for bears but there is one drawback. The bears find and eat all the items scattered within a very short time. To prolong this activity we have tried different ideas, with a fair amount of success.

First we have our garden staff collect mixed fallen leaves from all over the park in several 50 kg empty grain/potato sacks. These sacks are them emptied out all over the ground surface of the bears enclosure. Then feed materials like peanuts (unshelled), apples cut into 4 pieces, small sized guavas, carrots cut up into small pieces and other seasonal fruits and vegetables similarly cut up are distributed all over amongst the previously scattered leaves. This method ensures a much longer feeding cycle, as firstly the bears have to rake through the leaves to find the feed items and secondly because the feed items are cut up into small pieces and are not whole, the search takes longer.

Another successful idea we have tried is to dig several holes in the enclosure, about half a meter deep and about 10 cms wide. In some of these holes we drop a handful of feed items like peanuts and then cover the holes with small stones. In other holes we leave no feed items but fill these up with stones and squeeze the juice of an orange over the stones into the hole, as a false trail. The bears spend a lot of time digging the stones out to reach the feed items. Of course they find the feed items in some holes and in others their search is in vain. Thus the element of expectancy is maintained.

Honey poured into holes and crevices of the logs used as cage furniture is another enrichment idea we have used. It is amazing to see the ease with which the bears will tilt, pick up and roll the logs, each weighing 50 kgs or more, to get at the honey.

A few things must be said about all these enrichment activities. First is that the activities should be continuously varied and should not become repetitive. New ideas must be thought of constantly. Second is that the idea or scatter feeding should be done throughout the enclosure. This not only increases space usage but also prevents fighting amongst the bears, which results if two or all three of them are searching in the same spot or fairly near to each other. Third and perhaps most important is the fact that this sort of enrichment demands a lot of time and dedication. For example the many sacks of leaves scattered must be replenished after every few days. The holes in the ground need to be re-dug in new locations again after every few days and so on. However if the staff are willing to put in the effort on a regular basis, as our staff does, then the reward is worth it. our bears are healthy and active most of the time. Their foraging behaviour is a great treat for the visitors to watch.

Asia, as well as Europe has a problem placing bears which have been confiscated from circuses and mendicant performers.

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