

Environmental and Behavioural Enrichment in Captive Animals

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A fundamental factor underlying the behaviour of man and animals has been their desire and need for food. Like human beings animals also have a variety of needs which must be fulfilled for their welfare.

When animals are confined in enclosures with little or no opportunities to express a normal range of behaviours, they tend to develop abnormal behaviours, which are indicative of distress and boredom. Examples of abnormal behaviours are apathy and stereotypic behaviour such as pacing up and down, head bobbing, foot-rocking, lip-smacking and circling. Some bored animals exhibit aggressive behaviour and try to inflict injury on self and on cage mates. Others show such deviant behaviour like eating their own faeces or earth. Primates, elephants, bears and carnivores show more abnormal behaviours in captivity than do antelopes and deer.

The life of these animals could be improved by adding complexity to the enclosures, thus providing opportunities for a range of normal activities. Improving the enclosure in this way has been termed as the environmental enrichment or behavioural engineering and has now become standard practice in good zoos.

In zoos most of the animals have limited space at their disposal with not much variation. Animals, it appears, prefer to work for their food and this natural instinct of the animals is not satisfied in zoos having a stipulated diet and time for the meals.

Enrichment maximizes natural behaviour of an animal during its active hours of the day. The easiest and by far the most effective technique is to utilize the animals feeding requirements. For example – providing live fish to otter in its pond serves three purposes: -

- i) The animal gets fresh food to eat.
- ii) In catching these fishes the otters get some exercise.
- iii) Their predatory instinct is satisfied by catching the fish themselves.

A few guidelines for enriching the behaviour of some common mammals exhibited in zoos are provided below: -

a) **Primates:** - Foods can be hidden away from the reach of apes and some tools like stick can be given to them, the use of which would enable them to get food. This gives mental exercise to the monkeys besides keeping them busy. Spread the food around in the enclosure. It encourages foraging behaviour; animal spends more time feeding, reduces boredom and promotes activity. Wherever possible, let the suitable vegetation grow in the enclosure. It gives a naturalistic look to the enclosure.

b) **Bears:** - An interesting way to give honey is to hang a sac containing honey on a tree or on a high platform and make a small hole in it through which the honey drips down.

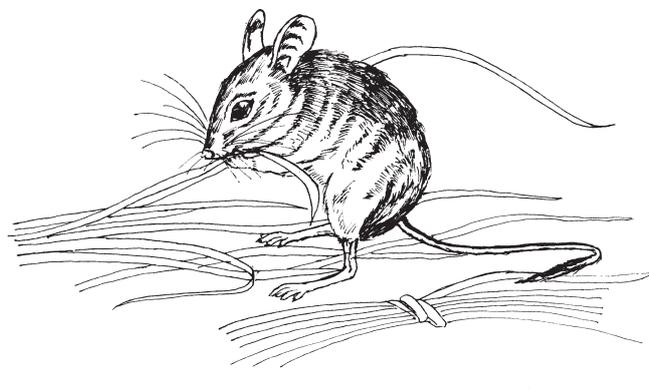
The bear really becomes enthusiastic to obtain the source and get it after some effort. Whenever termite infested rotten wood is offered, it takes out termite one by one and eats them.

c) **Small cats:** - Toys stuffed with raw feathers having scent of prey animals can be hidden some where in the enclosure to keep them active. The cat having smell the toy animal, moves around in search of the food. Multiple small feedings of food also help a lot in keeping these cats busy.

d) **Large cats:** - These cats remain inactive for most part of the day, even in the wild. The activity is seen when they are preying but in zoo it is not desirable to provide predatory opportunities. Nevertheless simulated predatory-prey relationship can be created e.g. small prey can be frozen inside an ice cube and the predator will try its level best to take out the prey, which will satisfy its natural instinct to an extent. The ice will melt after sometime and the prey so obtained will be the predators reward.

Similarly, some aspects of predatory sequence can also be provided by feeding whole animal carcass, joints & bones, meat etc. Multiple small feedings and hiding the food at different places and then encouraging the animal to find it can also prove useful in keeping the animal active. The big cat occasionally eats grass to keep digestion in order. So grass may be allowed to grow in their enclosures. Live food like poultry and fish can be provided once in while to reduce monotony of eating meat of dead animals.

Behavioural enrichment through feeding technique or other means not only offers a healthy environment for the animal to live in but also provides the visitors with a better understanding of the animal behaviour by letting them see the animal behaving naturally. This understanding leads to a better appreciation of wildlife and can substantiate involvement of masses in wildlife conservation.



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