



Enrichment Suggestions for Captive-born, Hand-reared Jackals Held in Captivity

March, 2010

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Enrichment

Animals in captivity have a lot of time on their hands. Whereas wild animals would fill their time with activities such as hunting, searching for water or shelter, protecting their territory or searching for a mate, captive animals very often are provided all of these. This could potentially create problems such as boredom, frustration, stereotypic behaviors and stress. Undesirable behaviours include self-injurious actions like excessive grooming; abnormal behaviours such as regurgitation and reingestion; aggressive behaviours; and stereotypic behaviours. Behaviour is an important indication of welfare and enrichment enhances welfare of animals in captivity.

Enrichment becomes a valuable and necessary practice by creating activities or providing stimulation that maximizes their quality of life and leads to inquisitive behavior. By enriching the animal's environment, you empower the animal to have control over its environment and you give the animal a choice. Ignoring something is still a choice.

Apart from the fact that enrichment provides methods of passing time, the added physical and mental stimulation might also cause better reproductive success and improve visitor's experiences since the image of healthy and well-adjusted animals are promoted.

Different forms of enrichment used for captive animals today include:

- Enclosure Design
- Feeding or foraging
- Visual and Auditory
- Olfactory
- Novel Objects and Toys
- Exercise
- Social Interaction/Tactile
- Behavioural Conditioning

Enrichment should be considered part of the daily husbandry routine at all responsible animal care facilities. An efficient enrichment programme can be more important than the size of the enclosures the animals are kept in. Environmental enrichment is not a luxury but a management tool.

When developing an enrichment programme at a captive facility, the habits, behaviours and nature of the species, and the personality of the specific individual need to be considered.

Enrichment suggestions for the jackals include the following:

Enclosure Design

Enclosures should be designed in order to address the needs for space, shade, shelter, privacy, stimulation, elevation and where appropriate, public viewing.

When designing enclosure layouts the following should be incorporated:

Shade

Structures providing shade are an essential element in every enclosure.



Shelter

Waterproof huts not only serve as sleeping quarters and as hideaway, but also provide a lookout post to the animal.



Water

Water should be provided in solid, non-toxic containers. Containers should be placed in an easily accessible and shaded area. All water containers should be disinfected on a regular basis.

❑ Logs

Big logs can be packed at angles to one another. Alternatively flat pieces of logs can be stacked loosely on top of and against one another. Logs provide areas to hide food in to encourage foraging as well as elevated areas to stand on.



❑ Platform

Platforms provide an elevated place to view surroundings, provide a spot for sunning themselves and allow jackals to get off the ground when wet or muddy.

When planning to build a platform the following should be considered:

- 1) Non-toxic, safe materials should be used.
- 2) The platform should be placed in such a position as not to allow any jumping or climbing over fences or other structures. The platforms are all erected on a flat, open section of grass, well away from any fences, huts or any other structure.
- 3) There should be no protruding or sharp objects. There should be no objects that could cut, injure or get the animal entangled.



❑ Space

Jackals are very active animals, normally moving at a trot and covering a lot of ground. They need adequate space for patrolling their territory and for exercise.



❑ Privacy

Jackals are wary animals, even when used to human activity, and are very adept at concealing their presence under adverse conditions. Concealed private areas should be provided in all jackal enclosures. Logs, areas of shade cloth, palm fronds and other tree branches, reeds or simple bamboo walls can be used to provide these.



❑ Security

Jackals are digging animals, often digging up insects and rodents. Jackal enclosures must be built to prevent digging out under fences. The jackal enclosure at Cheetah Outreach has fencing extended under the ground.

❑ Habitat Modifications

Habitat modification by moving and changing exhibits inside the enclosures might provide stimulation. Jackals are very curious animals and will spend time sniffing any new object they encounter.

Feeding

❑ Hiding Food

Jackals are foragers and hiding food in their enclosure encourages this natural feeding behaviour. At Cheetah Outreach meat is often placed in holes that have been drilled in logs or scattered around the enclosure. Food is sometimes placed inside toilet paper rolls or papier-mâché balls to encourage jackals to retrieve food by either grabbing with teeth or paws.



❑ Whole Rabbits, Rats and Mice

Whole carcass feeding provides much stimulation for jackals. Apart from roughage, whole rabbits and rats increase the length of feeding activity.



❑ Meat with Fur

Sections of horsemeat with fur can be given. Apart from providing roughage, it also changes the texture of the food and increases the length of feeding activity.

❑ Whole or Partial Birds with Feathers

In the wild, birds form part of a jackal's diet. Feeding with feathers encourages natural hunting behaviour as jackals carry prey around in their mouths, use threatening postures to guard it from each other and humans, and sometimes even pluck feathers from it. Birds with feathers also prolong feeding. Feeding should be supervised and remnants

from the carcass removed. The origin and health status of the animal offered should be known.



Day-old Chicks

Dead baby chicks can supplement normal diet and add enrichment. Chicks should be de-yolked prior to feeding.



Eggs

Jackals are omnivores and enjoy a varied diet. Eggs, both raw and hardboiled, provoke much curiosity as they try to break into them. The jackals at Cheetah Outreach carry them around in their mouths, and sometimes bury them.

Live Insects

Jackals are opportunistic hunters and scavengers, eating insects when other food is not available. Providing grubs or meal worms buried in dirt encourages them to sniff and probe for their food.

Bloodsicles

These are made by freezing blood and a few pieces of meat in small plastic containers and can be offered on warm days.



Visual and Auditory

Objects that provide visual and auditory stimulation include the following:

Outside Stimuli

Passing trains, motorbikes, running children, other animals, laborers, bicycles and wheelchairs. Having visual access to some of these not only provides mental stimulation but also increases activity as the jackals run back and forth in their enclosure to get a better look at outside activity or to hide from it.

Other Animals

Walking different types of animals on their leads past the jackals enclosure provides much interest and stimulation. The jackals become excited and active when another animal is walked by their enclosure or up to the fence.

Olfactory

Jackals have an acute sense of smell and much time is spent sniffing, rolling in and rubbing against objects.

Animal Skins, Cow Hooves and Rawhide Objects

Horse or donkey skin encourages much sniffing and chewing. Cow hooves and rawhide objects provide hours of chewing enjoyment. All skins and rawhide should only be given within 30 minutes of feeding as they may stimulate gastric juices and should accompany food.



❑ Animal Feces

Animal feces, such as horse or elephant dung, results in much olfactory investigation. Our jackals sniff, roll, rub and urinate on the feces, returning to the dung over and over again. All feces must be sterilized before use.



❑ Moving Animals Between Enclosures

The jackals can be moved into a foreign or lesser-known enclosure. If the enclosure is jackal-proof (underground fencing to keep them from digging out), they may be let off their leads. At Cheetah Outreach, the jackals are let off their leads in the large exercise enclosure but must be supervised to keep from digging out. Constant running or trotting around enclosure, and intense sniffing, investigating and rolling may be observed.



❑ Moving Objects Between Enclosures

Some of the exhibits can be moved from one enclosure to another, such as a small dog house or piles of branches. The health status of all animals should always be known. Objects should never be moved from a sick or compromised animal to the enclosure of a healthy animal.

Novel Objects

Jackals are naturally curious animals so any novel objects that encourage them to search, sniff, probe with nose or paw, chew, bury or squabble over provides good enrichment. Novel objects are a good way of hiding food and encouraging foraging behaviours.

Never leave any toys unsupervised with the animals.

❑ Papier-mâché Balls

Balls with holes in them arouse the curiosity of jackals and encourage them to probe inside with noses or paws. Dry cat food in a papier-mâché ball makes a rattling noise and attracts their attention. Pieces of meat or fish inside encourages much sniffing. Once the jackals at Cheetah Outreach have eaten the treats inside, they spend time ripping apart the papier-mâché balls.



❑ Cardboard Boxes and Paper Towel Rolls

Our jackals love chewing and destroying objects such as cardboard boxes and paper towel rolls. Putting some pieces of meat inside the box and soaking it in blood provides olfactory enrichment and challenges their cognitive abilities as the jackals smell the meat and blood, and have to figure out how to get inside the box to get the treats. Our jackals rip the box to shreds after eating all the meat.

❑ Rubber Kong Toys

Jackals have very sharp teeth and tend to chew and rip up any object they are given. Only tough rubber toys, such as Kong toys, can stand up to a jackal's sharp teeth. The jackals at Cheetah Outreach will carry rubber Kong toys around in their mouths, chew on them, squabble over them and often bury them.



❑ Small Balls, Gourds or Apples

Throwing these objects will encourage jackals to chase after, carry around in their mouths and sometimes bury them. Only hard balls should be used as jackals are quick to destroy soft or rope toys, even with supervision.

Exercise

Exercise is essential and is a part of husbandry that cannot be compromised on. Not only does the activity help to maintain a healthy physical condition, but it also provides excellent mental stimulation. Exercise can be provided by the following means:

❑ Play

Play is an important part of social interaction and the jackals at Cheetah Outreach spend a lot of time chasing, sparring and playing with each other. Play promotes activity and provides good exercise.



❑ Whip with Novelty Item

A plastic bottle, soft toy or guinea fowl wing can be attached to a whip and used to encourage chasing by running up and down fence. The jackals at Cheetah Outreach respond best to feathers attached to a whip and try to grab or bite them through the fence. Because they are quick to destroy soft toys and feathers, it is best to run outside the enclosure with the whip.

❑ Walks

Walks can provide the handler with many opportunities to enrich a jackal's life. New and different environments can provide a variety of smells and sights to investigate. Not only do walks provide exercise to the jackals but they give them great opportunities to forage, and sniff, scent-mark and roll in new scents. The jackals at Cheetah Outreach may be let off their leads during walks in the big exercise enclosure, only under supervision, to give them the opportunity to run.



Social interaction/Tactile

Black-backed jackals are social animals with a monogamous relationship, so social interaction is essential to pair bonding and to individual well-being.

❑ Interaction with Staff/Volunteers

For animals kept in captivity and thus exposed to people, it is to their benefit to view humans positively. This greatly minimizes one of the main stresses in captivity. Both jackals at Cheetah Outreach have been hand-raised by humans so enjoy attention from people on a daily basis.



❑ Interaction with Other Jackals

Black-backed jackals are monogamous and are among the few mammalian species in which the male and female mate for life. They do everything together: hunt; patrol, mark and defend their territory; and raise their young. They have a complex social structure with a well-developed communication system of ritualized dominance and submissive displays. Social interaction, including dominant and submissive posturing, grooming and play, is essential for the well-being of jackals in captivity.



Interaction with Other Animals

Seeing, smelling and interacting with other animals through a fence or at a distance can greatly enrich a captive jackal's life. When encountering other animals, the jackals at Cheetah Outreach become very excited, crouching, wagging tails, rolling on the ground, rubbing against fences, and sticking muzzle or paws through the fence.

This should be a positive experience for the animals and not lead to anxiety. Care should be taken to assess the demeanor and behaviour of all animals carefully.



Behavioral Conditioning

Behavioral conditioning is very important since it provides mental and intellectual stimulation. The level of conditioning depends on the individual.

Lead Walking

Lead walking begins at an early age in order for young animals to get accustomed to the restricted feeling of harness or collar and lead. Lead walking is important for all

ambassador animals. With the jackals at Cheetah Outreach, it allows them to go on walks and explore different areas of the facility.