Environmental Enrichment for Red Foxes in Zoos and Wildlife Parks a work in progress

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Red fox (Vulpes vulpes)

- widespread species and also lives in urban areas
- attractive in its appearance and behaviour
- interesting species for zoos and wildlife parks,
- problems in captivity because it develops stereotypies
- little knowledge about ideal housing conditions
- => The aim of this study is to investigate what kind of environmental enrichment can contribute to a speciesappropriate housing system of red foxes.







bottom left: cover structure bottom left: compartment structures top right: automatic feeder

Hypotheses

- Relocating compartment / cover structures leads to => altered use of space depending on the position of the structures.
- Eliminating compartment / cover structures leads to => lower activity level and to a less even use of the enclosure.
- Simulating natural features of food sources leads to a rise in => appetitive behaviour, consuming behaviour and hunting behaviour.

Outlook

The results of these experiments will be used to enrich the habitat and feeding conditions in existing fox housings.

Questions

- Habitat enrichment
 - Does it enhance
 - activity budget
 - behavioural diversity
 - spatiotemporal use of the enclosure?
- Feeding enrichment
 Does it enhance
 - feeding behavioural diversity
 - activitybudget
 - visibility
 - spatiotemporal use of the enclosure?

Material and Methods

From June 2004 until May 2005 a group of four foxes has been studied in the Wildpark Langenberg.

Using the approach of environmental enrichment (increasing the complexity of the enclosure) the following experiments were conducted:

Experiment on habitat enrichment

The compartment and cover structures were first relocated in the enclosure and then removed from the enclosure.

Experiment on feeding enrichment

Different enriched feeding techniques were compared with a conventional feeding regime:

conventional feeding regime: - once a day, always at the same time and place

enriched feeding regime:

- scattered and hidden
- in automatic feeders
- in automatic feeders and mechanic feeder
- in automatic feeders and automatic dispenser

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