

Environmental enrichment for zoo-housed Icelandic reindeer (*Rangifer tarandus*)

Author: Katarzyna Anna Kakol

Supervisor: Matthias Laska

1 Introduction

Reindeer are often kept in zoos. However, little is known about environmental enrichment for captive reindeer. Therefore, it was the aim of this study to assess the reindeers' response towards three types of enrichment (food, olfactory and tactile) and assess if it has a positive effect on their behaviour.

2 Methods

The reindeer were monitored for two weeks without enrichment (baseline period), and then for ~four months with enrichment (enrichment period). All behaviours were recorded and assigned to four categories: feeding behaviours, locomotory behaviours, passive behaviours, social interactions and enrichment interactions.



Hay and reindeer moss presented in banana boxes (Food enrichment)



Tree leaves and branches presented in a treat ball (Food enrichment)



Introducing Tindur to blueberries (Food enrichment)



Tindur using a pine tree to shed his velvet (Tactile enrichment)



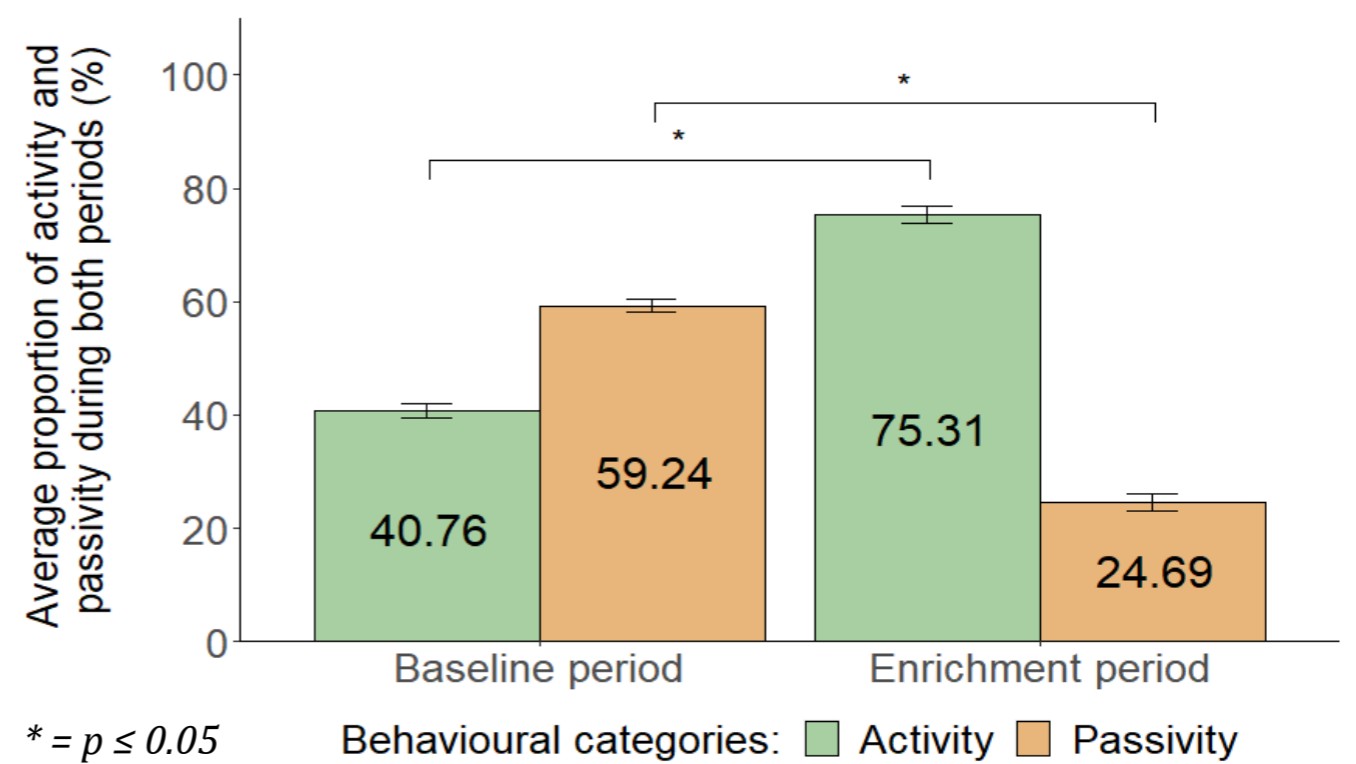
Broom heads used to help with shedding winter fur (Tactile enrichment)

4 Conclusion

Overall, the presentation of environmental enrichment had a positive effect on the reindeer. Their main activity pattern became similar to that of wild reindeer. They also showed multiple signs of neophobia, which may explain the lack of interest shown to some of the enrichment.

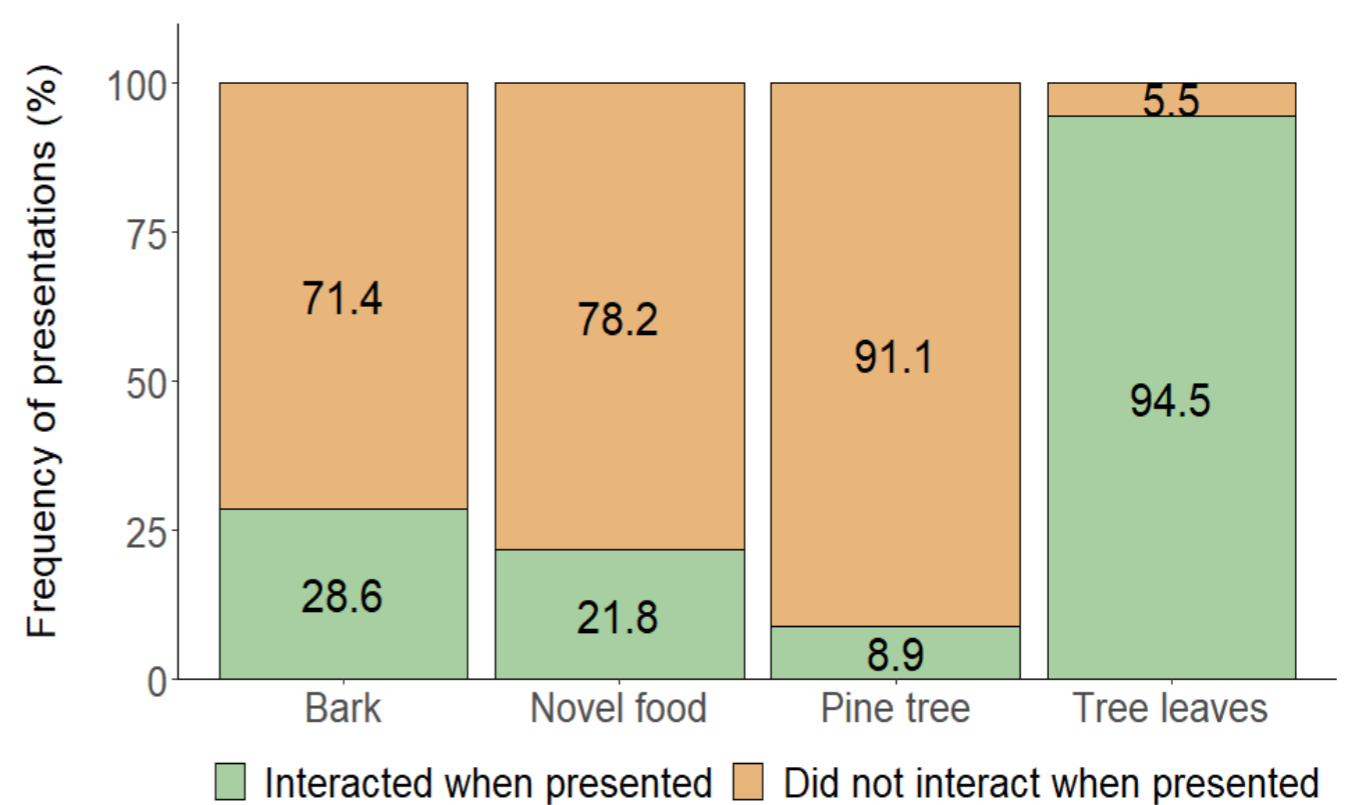
3 Results

Overall level of activity almost doubled between the baseline period and enrichment period while passivity decreased to less than half of the initial value.



Food enrichment

The reindeer interacted significantly more often with food enrichment than any other enrichment, and on average, spent significantly the most time with food enrichment.



Out of the four types of food enrichment presented, the reindeer spent significantly more time with tree leaves than any other type.

Olfactory enrichment

The reindeer showed little to no interest in odourized and non-odourized objects. There were no significant differences found for this type of enrichment.

Tactile enrichment

The reindeer showed continuous interest in tactile enrichment, however it was very low compared to food enrichment. There were no significant differences found for this type of enrichment.

Contact:

katka866@student.liu.se
kasiakakol95@gmail.com